

CHAPTER 13

Field-Replaceable Unit Guide

Revised: May 15, 2013, OL-21178-01

This chapter describes the steps you perform to replace the field-replaceable units (FRUs) for the Cisco TelePresence system and includes the following sections:

- [Complete List of Spares for the Cisco TelePresence System 3210](#), page 13-1
- [Replacing the Camera Cluster—Part Number CTS3K-CAM-CLST-G2=](#), page 13-4
- [Replacing a Plasma Display—Part Number CTS-DISP-65-GEN4=](#), page 13-6
- [Replacing a Speaker—Part Number CTS-LDSPKR=](#), page 13-12
- [Replacing a Codec Unit—Part Number CTS-CODEC-PRI-G2= \(Primary Codec\) or CTS-CODEC-SEC= \(Secondary Codec\)](#), page 13-14
- [Replacing a Microphone—Part Number CTS-MIC=](#), page 13-16
- [Replacing a Light Fixture](#), page 13-18
- [Replacing the Audio/Video Extension Unit—Part Number CTS-AV-EXP=](#), page 13-19
- [Replacing the Cisco IP Phone—Part Number CP-7975G-CTS=](#), page 13-20
- [Replacing a PDU—Part Number CTS-PWR-PDU=](#), page 13-21
- [Replacing the Auxiliary Control Unit—Part Number CTS-LIGHT-CTRL=](#), page 13-22
- [Replacing a Display Shelf](#), page 13-23
- [Replacing a First Row Tabletop Section](#), page 13-25

Complete List of Spares for the Cisco TelePresence System 3210

Table 13-1 shows the complete list of spares (field-replaceable units) for the Cisco TelePresence System 3210.

Table 13-1 List of Field-Replaceable Units for the Cisco TelePresence System

FRU Part Number	Description
CTS32-CAM-LENS=	Camera lens use to upgrade a Cisco TelePresence system 3000 or 3010 to a Cisco TelePresence system 3200 or 3210, respectively
CTS-3K-ACC-G2=	Accessory kit for the Cisco TelePresence System 3010
CTS3K-CAM-CLST-G2=	Camera for the Cisco TelePresence System 3200 and 3210

Table 13-1 List of Field-Replaceable Units for the Cisco TelePresence System (continued)

FRU Part Number	Description
CTS3K-CAM-CLUST=	Camera for the Cisco TelePresence System 3000 and 3010
CTS3K-MISC-HW-KIT=	Miscellaneous hardware kit for the Cisco TelePresence System 3000 series
CTS3K-RFT-CNR-KIT=	Light reflector corners for the Cisco TelePresence System 3000
CTS3K-SCREEN-G2=	Speaker cover/projector screen for the Cisco TelePresence System 3000
CTS3K-TBL-HW-KIT=	Table hardware kit for the Cisco TelePresence System 3000 series
CTS-AV-EXP=	Audio/video extension unit for Cisco TelePresence Systems 3000, 3010, 3200, and 3210
CTS-CAB-AV-EXP=	Cable from primary codec to audio/video extension unit
CTS-CAB-HDMI-DVID=	HDMI-to-DVI-D cable, 3.0 meters
CTS-CAB-HDMI-HDMI=	HDMI-to-HDMI cable, 6.0 meters
CTS-CABL-DVIA-VGA=	DVI-A-to-15VGA cable, 8.0 meters
CTS-CABL-RJ45-10=	RJ45-to-RJ45 cable, 10 meters
CTS-CABL-RJ45-3=	RJ45-to-RJ45 cable, 3 meters
CTS-CABL-RJ45-6=	RJ45-to-RJ45 cable, 6 meters
CTS-CAM-TOOL=	TelePresence Camera Calibration Tool—Includes large target, small target, ruler, and easel
CTS-CAM-TOOL-G2=	TelePresence Camera Calibration Tool—Includes large target, small target, and easel
CTS-CODEC-PRI-G2=	Primary codec for the following systems: <ul style="list-style-type: none"> • Cisco TelePresence System 500-47 (PID: CTS-500) • 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)
CTS-CODEC-SEC=	Secondary Codec, all countries except China
CTS-CODEC-SEC-CH=	Secondary codec used in China
CTS-DATA-DISP-40=	40-inch data display
CTS-DISP-37-GEN1=	Spare Display for Cisco TelePresence System 500-37 (PID: CTS-500)
CTS-DISP-65-GEN4=	65-inch plasma display
CTS-DISP-BKT-1K3K	Display bracket for the Cisco TelePresence System 1000 and 3000
CTS-JUMPER-CORD=	TelePresence Power Jumper Cord (cord between electrical components and the Power Distribution Unit (PDU))
CTS-LAPCONN-AP=	Laptop Connectivity modules for the table legs—Asia Pacific
CTS-LAPCONN-AR=	Power and Ethernet connectivity for table legs—Argentina
CTS-LAPCONN-AU=	Power and Ethernet connectivity for table legs—Australia

Table 13-1 List of Field-Replaceable Units for the Cisco TelePresence System (continued)

FRU Part Number	Description
CTS-LAPCONN-CE=	Power and Ethernet connectivity for table legs—Central Europe
CTS-LAPCONN-CN=	Power and Ethernet connectivity for table legs—China
CTS-LAPCONN-ID=	Power and Ethernet connectivity for table legs—India, UAE, S Africa
CTS-LAPCONN-ISR=	Power and Ethernet connectivity for table legs—Israel
CTS-LAPCONN-ITA=	Power and Ethernet connectivity for table legs—Italy
CTS-LAPCONN-JP=	Power and Ethernet connectivity for table legs—Japan
CTS-LAPCONN-NA=	Power and Ethernet connectivity for table legs—North America
CTS-LAPCONN-SWI=	Power and Ethernet connectivity for table legs—Switzerland
CTS-LAPCONN-UK=	Power and Ethernet connectivity for table legs—United Kingdom
CTS-LDSPKR=	Loudspeaker and speaker cable for the Cisco TelePresence Systems 500, 1100, 1300, 3010, and 3210. Note This speaker does not work for the Cisco TelePresence System 3000 or 3200.
CTS-LDSPKR-SM=	High Fidelity Loudspeaker—All Systems except the Cisco TelePresence System 3000 and 3200—No speaker cable
CTS-LIGHT-CTRL=	Auxiliary Control Unit for the Cisco TelePresence Systems 1000, 1100, 1300, 3000, 3010, 3200, and 3210
CTS-LIGHT-DIM=	TelePresence Light Dimming Unit
CTS-LT-FX-4FT-EU=	TelePresence Lighting Fixture, 4 feet—Europe
CTS-LT-FX-5FT-EU=	TelePresence Lighting Fixture, 5 feet—Europe
CTS-LT-FX-4FT-GN=	TelePresence Lighting Fixture, 4 feet—All areas except Europe and Japan
CTS-LT-FX-5FT-GN=	TelePresence Lighting Fixture, 5 feet—All areas except Europe and Japan
CTS-LT-FX-4FT-JP=	TelePresence Lighting Fixture, 4 feet—Japan
CTS-LT-FX-5FT-JP=	TelePresence Lighting Fixture, 5 feet—Japan
CTS-MIC=	Table Microphone
CTS-MIC-EXT=	Microphone Extension Cable, 9.5 meters
CTS-PRJTR-BL-GEN1=	Spare bulb for the projector for Cisco TelePresence 3000 and 3200 systems
CTS-PRJTR-BL-GEN2=	Spare bulb for the projector for Cisco TelePresence 3000 and 3200 systems
CTS-PRJTR-GEN1=	Projector for Cisco TelePresence 3000 and 3200 systems—all countries except China
CTS-PRJTR-GEN1-CH=	TelePresence projector option for China CTS-3000
CTS-PRJTR-GEN2-CH=	Projector for Cisco TelePresence 3000 and 3200 systems (China only)
CTS-PRJTR-JC-GEN1=	Jumper Cord From the projector
CTS-PWR-PDU=	Power Distribution Unit for the Cisco TelePresence Systems

Replacing the Camera Cluster—Part Number CTS3K-CAM-CLST-G2=

Required Information, Tools, and Equipment

To remove and replace the camera cluster for the Cisco TelePresence 3210, you need the following information, tools, and equipment:

- The *Cisco TelePresence System Administrator's Guide* for your software release
- The *Release Notes for Cisco TelePresence System* for your software release
- Power screwdriver with 2.5, 3, and 6 mm (standard or round) Allen bits, or standard 2.5, 3, and 6 mm Allen wrenches
- 0.9mm Allen wrench for camera lens adjustments (if the lens uses a thumbscrew, no tools are required)
- Manual screwdrivers, Phillips and flat head types
- Metric wrenches, 10 to 15 mm
- Masking tape
- Laptop computer attached to network

Powering Off the System

Power off the system by turning the power switches to the Off position on the two left PDUs, single right PDU and, if present, the PDU or auxiliary control unit behind the center display assembly.



Caution

Make sure all system power is turned off before beginning this disassembly.

Replacing the Camera Cluster



Note

When replacing the camera cluster, do not mix the camera processors (behind the cameras) and the camera imager unit (attached to the lens). The serial numbers of the camera and the imager must match, and you must replace them as a unit, or the camera will not work.



Note

Make sure to retain all screws, brackets, and other parts during the disassembly.



Caution

Take care not to scratch or mar the display screen during the replacement procedure.



Note

The directions *left* and *right* refer to the assembly as you face it.

-
- Step 1** Remove the top camera hood by removing the screws that secure it to the bracket.
- Step 2** Remove the lens hood by removing the two screws on the bottom of the hood.
- Step 3** At the back of the camera cluster, disconnect the six cables: one Ethernet and one signal cable from each of the three camera processors. As you remove each cable, attach a strip of temporary masking tape and mark as “left,” “right,” or “center” for identification.



Note Do not move or replace the processors. The camera imager (attached to the camera lens) and the processor are a set. If the imager and the processor do not have the same serial number, the camera will not work when it is connected.



Tip To enable easier access to the loose cables, temporarily attach them to the upper back of the display with masking tape.

- Step 4** Remove the camera assembly by removing the screws from the top and side flanges of the camera assembly support bracket. Retain the screws and set the assembly aside.
- Step 5** Attach the new camera assembly to the mounting bracket using the same M8 screws that were removed. See [Chapter 8, “Assembling the Cisco TelePresence Peripheral Electrical Components,”](#) for more information.
- Step 6** Reattach the Ethernet and signal cables according to your temporary markings. Do not attach the camera hoods at this time.
- Step 7** Open a browser on a computer connected to the network.
- Step 8** Type in the IP address of the center, primary codec unit. Enter the required information at the login screen.
- Step 9** The Cisco TelePresence Administrator window appears. Verify the status of the Cisco Unified Communication Manager (seen in the lower left portion of the window) is **Enabled/Up**.
- Step 10** Select **Hardware Setup** to verify the cameras, displays, speakers, and microphones are working properly.
- Step 11** Perform the camera adjustment procedure. See the [“Setting Up the Cameras” section on page 11-8](#) for more information.
- Step 12** Re-attach the camera hood and lens hood.



Caution Do not overtighten the screws, or use a power screwdriver to tighten the screws. In addition, make sure that you use screws of the correct length (20 mm). Overtightening the screws, or using a screw that is too long, can cause the plastic hoods to break.

- Step 13** Power on the system by turning the power switches to the On position on the two left PDUs, single right PDU, and (if present) auxiliary control unit or PDU on the rear center of the display assembly.
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Replacing a Plasma Display—Part Number CTS-DISP-65-GEN4=

Required Information, Tools, and Equipment

To disassemble and reassemble portions of the Cisco TelePresence 3210 to replace a display, you need the following information, tools, and equipment:

- *Release Notes for Cisco TelePresence System, Release 1.4*, OL-12074-05
- *Cisco TelePresence System Release 1.4 Administrator's Guide*, OL-13676-03

Uncrating and unpacking:

- Claw hammer or small pry bar
- Large Phillips screwdriver
- * Tin snips
- * Pallet jack or hand cart (for moving components)
- * Safety gloves
- * Safety glasses
- * Box cutters

Cisco TelePresence 3010 Structure, Accessory, and Adjustment Assembly:

- Power screwdriver with 2.5, 3, and 6 mm (standard or round) Allen bits, or standard 2.5, 3, and 6 mm Allen wrenches



Tip A round-head Allen bit allows the bit to work at an angle instead of only straight out, which is helpful in tight spots.

- Manual screwdrivers, Phillips and flat head types
- Metric wrenches, 10 to 15 mm
- 9/64-inch Allen wrench (supplied with speakers)
- 0.9mm Allen wrench for camera lens adjustments (if the lens uses a thumbscrew no tools are required)
- Level
- Masking tape
- * Tie wraps
- Laptop computer attached to network
- * Step ladder

* Recommended for best results

Powering Off the System

Power off the system by turning the power switches to the Off position on the two left PDUs, single right PDU and, if present, the PDU or auxiliary control unit behind the center display assembly.

**Caution**

Make sure all system power is turned off before beginning this disassembly.

Removing Audio Components

**Caution**

Take care not to mar or introduce smudges or dirt to the surface of the white speaker screen.

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- Step 1** Remove the white speaker screens.
See [Chapter 9, “Assembling and Mounting the Presentation Display, Speakers, Speaker Screens, and Table Door”](#) for more information.
- Step 2** Disconnect the Speaker cables from the Speaker terminals.
- Step 3** Loosen the half-turn bolts on either side of the left Speaker board. Slip the Speaker board over the half-turn bolts and remove it from the work area.
- Step 4** Remove the safety straps from the underside of the left tabletop section.
- Step 5** Unscrew one side of the hinges connecting the left tabletop door section to the left Table segment.
- Step 6** Remove the left tabletop door section and set it aside.
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Removing a Display Shelf

**Note**

Make sure to retain all screws, connectors, and other parts during the disassembly.

-
- Step 1** From the underside of the left Display shelf, unscrew one side of each metal plate connector.
- Step 2** Loosen each cam lock.
- Step 3** Unscrew the left Display shelf from the two Display Shelf support brackets.
- Step 4** Pull the left Display shelf away from the center Display shelf and set aside.
- Step 5** If you are replacing the left Plasma display, skip to the next section, [“Removing the Display Screen and Completing the Procedure”](#).
- Step 6** If you are replacing the center or right Plasma display, repeat [Step 1](#) through [Step 4](#) for the center display shelf section.
- Step 7** If you are replacing the center Plasma display, skip to the next section, [“Removing the Display Screen and Completing the Procedure”](#).

- Step 8** Unscrew the right Tabletop wing segment.
- Step 9** Unscrew the right Display shelf from the two Display Shelf support brackets. Set aside the Display shelf.
-

Removing the Display Screen and Completing the Procedure

- Step 1** Detach the display screen's signal cable from the correct codec unit.
See [Chapter 10, "Routing Power and Signal Cables"](#), for cable locations and reference.
- Step 2** Detach the display screen's power cable from the correct PDU.
See [Chapter 10, "Routing Power and Signal Cables"](#), for cable locations and reference.
- Step 3** Remove the black tape from the seam behind and between the display screens.
- Step 4** Remove the left and right Display tilt brackets from the Display shelf supports.
- Step 5** Using a minimum of two people, lift the Plasma display straight up to disengage the hooks on the back of the display from the horizontal mounting rod on the Display structure.
- Step 6** Remove the spools and spool studs from the rear of the display.
See [Figure 5-2](#) for information about the location of the spools.
- Step 7** Move the Plasma display out of the work area to a temporary location safe from potential damage.
- Step 8** Unpack the new display.



Note Take care to minimize damaging the packaging material so it may be reused to package the old display screen.

- Step 9** Attach the spool studs and spools to the rear of the new display.



Note Do not use power tools to attach the screws, you could overtighten the screws and damage the buttons. Tighten the screws by hand until they are hand tight.

- Step 10** Turn the power switch on the Plasma display to the On position.
- Step 11** The rear of the replacement display will have either two HDMI connectors (see [Figure 13-1](#)) or two DVI connectors (see [Figure 13-2](#)).

If the replacement display has two HDMI connectors, connect your existing signal cable to the codec and to the left-most HDMI connector on the rear of the display (as viewed from the rear of the display), as shown in [Figure 13-1](#).

If the replacement display has two DVI connectors, connect the signal cable supplied with the replacement display to the codec and to the left-most connector on the rear of the display (as viewed from the rear of the display), as shown in [Figure 13-2](#).

Figure 13-1 Power and Signal Connections for Displays with HDMI Connectors

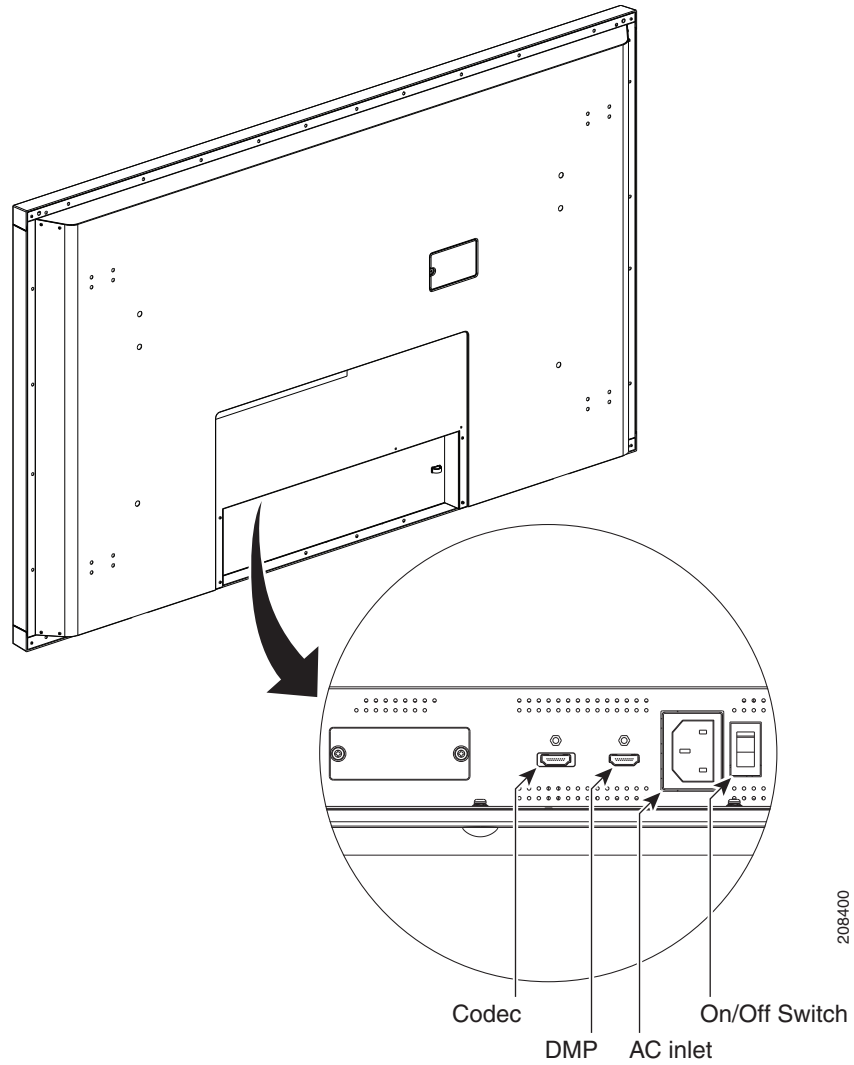
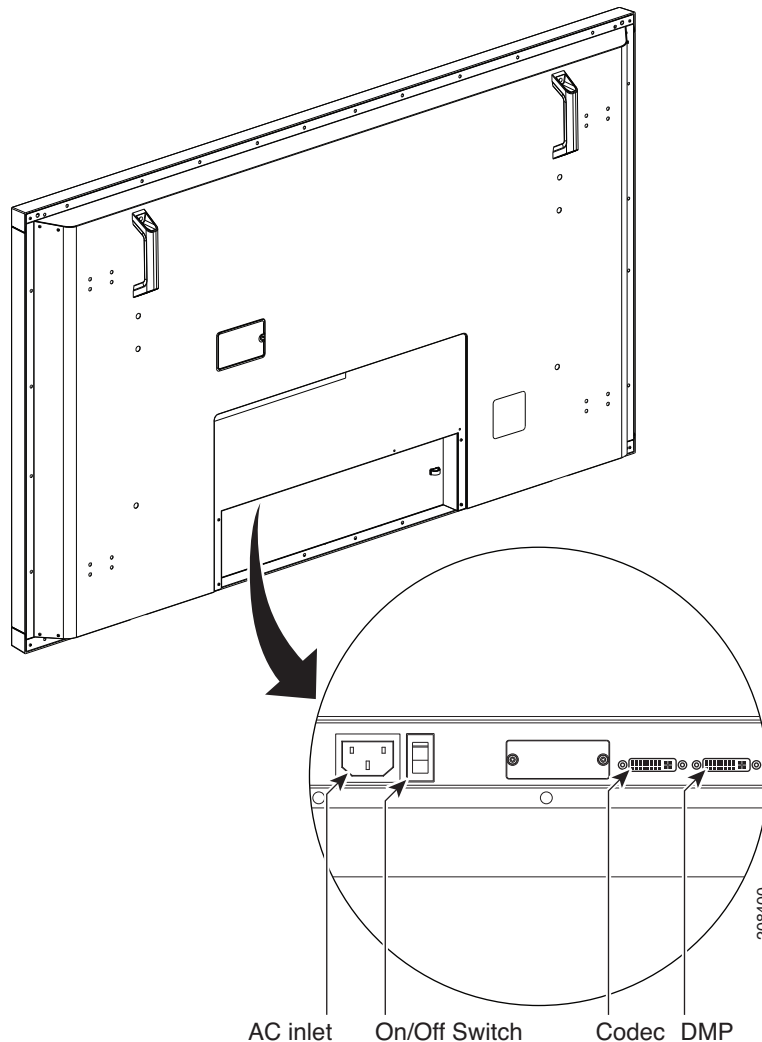


Figure 13-2 Power and Signal Connections for Displays with DVI Connectors



- Step 12** Hang the replacement Plasma display.
- Step 13** Plug in the signal cable to the correct codec.
See [Chapter 10, “Routing Power and Signal Cables”](#).
- Step 14** Plug in the power cable to the correct PDU.
See [Chapter 10, “Routing Power and Signal Cables”](#).
- Step 15** Align and level the display and add the black seam tape.
See [Chapter 5, “Mounting the Displays and Building the Display Shelf Assembly”](#).
- Step 16** If required, attach the camera cluster.
See [Chapter 8, “Assembling the Cisco TelePresence Peripheral Electrical Components”](#) and [Chapter 10, “Routing Power and Signal Cables”](#).
- Step 17** Reassemble the display shelf sections.
See [Chapter 5, “Mounting the Displays and Building the Display Shelf Assembly”](#).

- Step 18** Hang the speaker boards.
See [Chapter 8, “Assembling the Cisco TelePresence Peripheral Electrical Components”](#) for more information.
- Step 19** Power on the system by turning the power switches to the On position on the two left PDUs, single right PDU, and (if present) auxiliary control unit or PDU on the rear center of the display assembly.
- Step 20** Open a browser on a computer connected to the network.
- Step 21** Type in the IP address of the center Primary codec. Enter the required information at the login screen. The Cisco TelePresence Administrator window appears.
- Step 22** Verify the status of the Cisco Unified Communications Manager (seen in the lower left portion of the window) is **Enabled/Up**.
- Step 23** Select **Hardware Setup** to verify the cameras, displays, speakers, and microphones are working properly.
Refer to the [Cisco TelePresence System Administrator's Guide](#) for your software release for more information.
- Step 24** Reattach the white speaker screens and 40-inch LCD display.
- Step 25** Reassemble the left door tabletop section.
See [Chapter 5, “Mounting the Displays and Building the Display Shelf Assembly”](#) for more information.
- Step 26** Perform the camera adjustment procedure.
Refer to [Cisco TelePresence System Administrator's Guide](#) for your software release for more information.
- Step 27** Attach the camera hood and lens hood.
See [Chapter 8, “Assembling the Cisco TelePresence Peripheral Electrical Components”](#) for more information.
- Step 28** Perform the display first-time setup procedure.
See the [“Setting Up the Displays”](#) section on page 11-7 for more information.
- Step 29** If required, perform first-time camera setup procedures.
See the [“Setting Up the Cameras”](#) section on page 11-8 for more information.
- Step 30** Repackage the old display using the new display box and packing materials.
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Replacing a Speaker—Part Number CTS-LDSPKR=

Required Information, Tools, and Equipment

To remove and replace a speaker for the Cisco TelePresence 3210, you need the following information, tools, and equipment:

- The *Cisco TelePresence System Administrator's Guide* for your software release
- Power screwdriver with 2.5, 3, and 6 mm (standard or round) Allen bits, or standard 2.5, 3, and 6 mm Allen wrenches



Tip A round-head Allen bit allows the bit to work at an angle instead of only straight out, which is helpful in tight spots.

- Manual screwdrivers, Phillips and flat head types
- Metric wrenches, 10 to 15 mm
- 9/64-inch Allen wrench (supplied with speakers)
- Laptop computer attached to network (for troubleshooting or reference)

Powering Off the System

Power off the system by turning the power switches to the Off position on the two left PDUs, single right PDU and, if present, the PDU or auxiliary control unit behind the center display assembly.



Caution

Make sure all system power is turned off before beginning this disassembly.

Removing and Replacing a Speaker



Note

Make sure to retain all screws, connectors, and other parts during the disassembly.



Caution

Take care not to mar the surface nor introduce smudges or dirt to the surface of the white speaker screen.

Step 1

Remove the white speaker screens.

See [Chapter 9, “Assembling and Mounting the Presentation Display, Speakers, Speaker Screens, and Table Door”](#) for more information.



Note

Removal is the reverse order of installation. You lower the feet on the underside of the speaker screens and move the screen out through the table door.

- Step 2** Remove the presentation display by completing the following steps:
- a. Disconnect the cables from the presentation display.
 - a. Lift the presentation display so that it pivots on the support bar.
 - b. Flip up the two blue flippers on the display arms.
 - c. Lift the presentation display over the support bar and remove it from the system.



Note See [Chapter 9, “Assembling and Mounting the Presentation Display, Speakers, Speaker Screens, and Table Door”](#) for more information. Removal is the reverse order of installation.

- Step 3** Disconnect the Speaker cable clips from the Speaker terminals.
- Step 4** Remove the magnetically-held face plate cover from the speaker. You can pry the cover off by carefully inserting the tip of a small screwdriver blade under the edge.
- Step 5** Loosen the corner screws on the speaker with a 9/64-inch Allen wrench. The white fasteners on the rear side of the Speaker board should end up in a horizontal, releasing position.
- Step 6** Pull the speaker out and set it aside.
- Step 7** Insert the replacement speaker and secure it in place.
- Step 8** Power on the system by turning the power switches to the On position on the two left PDUs, single right PDU, and (if present) auxiliary control unit or PDU on the rear center of the display assembly.
- Step 9** Connect the Speaker cable clips from the Speaker terminals.
- Step 10** Open a browser on a computer connected to the network.
- Step 11** Type in the IP address of the Primary codec. Enter the required information at the login screen. The Cisco TelePresence Administrator window appears.
- Step 12** Verify the status of the Cisco Unified Communications Manager (seen in the lower left portion of the window) is **Enabled/Up**.
- Step 13** Select **Hardware Setup** to verify the cameras, displays, speakers, and microphones are working properly.
- Refer to the [Cisco TelePresence System Administrator's Guide](#) for your software release for more information.
- Step 14** Reattach the LCD presentation display.
- See [Chapter 9, “Assembling and Mounting the Presentation Display, Speakers, Speaker Screens, and Table Door”](#) for more information.
- Step 15** Reattach the white speaker screens.
- See [Chapter 9, “Assembling and Mounting the Presentation Display, Speakers, Speaker Screens, and Table Door”](#) for more information.
- Step 16** Perform the speaker test. See the [“Setting Up the Speakers”](#) section on page 11-20 for more information.
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Replacing a Codec Unit—Part Number CTS-CODEC-PRI-G2= (Primary Codec) or CTS-CODEC-SEC= (Secondary Codec)

Required Information, Tools, and Equipment

To remove and replace a codec unit for the Cisco TelePresence 3210, you need the following information, tools, and equipment:

- The *Cisco TelePresence System Administrator's Guide* for your software release
- Power screwdriver with 2.5, 3, and 6 mm (standard or round) Allen bits, or standard 2.5, 3, and 6 mm Allen wrenches



Tip A round-head Allen bit allows the bit to work at an angle instead of only straight out, which is helpful in tight spots.

- Manual screwdrivers, Phillips and flat head types
- Metric wrenches, 10 to 15 mm
- Masking tape
- Laptop computer attached to the network

Powering Off the System

Power off the system by turning the power switches to the Off position on the two left PDUs, single right PDU and, if present, the PDU or auxiliary control unit behind the center display assembly.



Caution

Make sure all system power is turned off before beginning this disassembly.

Removing and Replacing a Codec



Note

Make sure to retain all screws, connectors, and other parts during the disassembly.

- Step 1** From the back of the Cisco TelePresence 3210, access the codec to be removed. Turn the power switch on the codec to the Off position.
- Step 2** Remove the cables from the codec. Label each cable with masking tape for identification as it is removed.
See [Chapter 10, “Routing Power and Signal Cables”](#) for additional information.
- Step 3** Remove the codec from the rear of the display structure.
See [Chapter 4, “Installing the Lighting Assembly and Codecs”](#) for additional information.
- Step 4** Attach the codec to the display structure front feet using the screws that you removed in [Step 3](#).

Step 5 Turn the codec power switch to the On position.



Caution Make sure each PDU power switch is still in the Off position.

Step 6 Reattach the cables according to your temporary masking tape identification.

See [Chapter 10, “Routing Power and Signal Cables”](#), for additional information.

Step 7 If the replacement unit was the Primary codec, follow these steps to configure the new codec in Cisco Unified Communications Manager:

- a. Open a browser on a computer connected to the network.
- b. Access the Cisco Unified Communications Manager interface.
- c. Add the Room Email ID of the previous codec to the new codec.
- d. Make sure the new codec’s status is registered.
- e. Delete the MAC address of the previous codec from the Cisco Unified CM application user profile that is used in CTS-Manager.
- f. Add the new codec to the application user profile and click **Save**.

Step 8 Power on the system by turning the power switches to the On position on the two left PDUs, single right PDU, and (if present) auxiliary control unit or PDU on the rear center of the display assembly.

Step 9 Open a browser on a computer connected to the network.

Step 10 Type in the IP address of the primary codec unit into the browser address bar.

Step 11 Enter the required information at the login screen. The Cisco TelePresence Administrator window appears.

Step 12 Verify the status of the Cisco Unified Communications Manager (seen in the lower left portion of the window) is **Enabled/Up**.

Step 13 Select **Hardware Setup** to verify the cameras, displays, speakers, and microphones are working properly.

Step 14 Perform the **Auto Adjust** camera setup procedure. This sets the white balance to the correct levels. See the [“Setting Up the Cameras” section on page 11-8](#) for detailed instructions.

- Step 15** Configure the codec in CTS-Manager by completing the following steps:
- Log in to CTS-Manager as SysAdmin or Administrator.
 - Go to **Configure > Application Settings**.
 - Disable the Meeting Notification Email by selecting **No** for Enable Feature and clicking **Apply**.
 - Go to **Configure > Unified CM**.
 - Select the Unified CM that has the new codec.
 - Click **Discover Rooms**.

The new codec with the existing room name is added and the previous codec is removed from CTS-Manager.

**Note**

If you are replacing the primary codec, power it on and complete all steps before powering on the secondary codecs. This prevents the secondary codecs from being affected by any software and peripheral upgrades to the primary codec.

Replacing a Microphone—Part Number CTS-MIC=

Required Information, Tools, and Equipment

To remove and replace a microphone for the Cisco TelePresence 3210, you need the following information, tools, and equipment:

- The *Cisco TelePresence System Administrator's Guide* for your software release
- Power screwdriver with 2.5, 3, and 6 mm (standard or round) Allen bits, or standard 2.5, 3, and 6 mm Allen wrenches



Tip A round-head Allen bit allows the bit to work at an angle instead of only straight out, which is helpful in tight spots.

- Manual screwdrivers, Phillips and flat head types
- Metric wrenches, 10 to 15 mm
- Masking tape
- Laptop computer attached to the network

Powering Off the System

Power off the system by turning the power switches to the Off position on the two left PDUs, single right PDU and, if present, the PDU or auxiliary control unit behind the center display assembly.

**Caution**

Make sure all system power is turned off before beginning this disassembly.

Removing and Replacing a Microphone



Note Make sure to retain all screws, brackets, and other parts during the disassembly.

- Step 1** From the back of the Cisco TelePresence 3210, determine whether the microphone cables are coming from either the Primary (center) codec, or codec and audio/video extension unit.
- Step 2** Detach the specific microphone cable from either the Primary codec or the audio/video extension unit. Note the location of the cables for later reference.
- If all microphones are attached to the primary codec, choose the appropriate microphone icon according to the following conventions:
- A single dot on a green background indicates a center microphone.
 - Two dots on a white background indicate a left microphone.
 - Three dots on a red background indicate a right microphone.
- Step 3** Disconnect the microphone from the microphone extension cable.
- The microphone has a cable that is approximately three feet (1 meter) in length.
- Step 4** From the underside of the tabletop, remove the two screws and washers that secure the microphone.



Note Retain the screws and washers.

- Step 5** Pull the microphone cable through the hole in the table and set the microphone aside.
- Step 6** Route the cable for the replacement microphone through the hole in the tabletop.
- Step 7** From the underside of the tabletop, attach the microphone using the screws and washers.
- Step 8** Connect the microphone extension cable to the microphone.
- Step 9** Power on the system by turning the power switches to the On position on the two left PDUs, single right PDU, and (if present) auxiliary control unit or PDU on the rear center of the display assembly.
- Step 10** Open a browser on a computer connected to the network.
- Step 11** Type in the IP address of the Primary codec. Enter the required information at the login screen. The Cisco TelePresence Administrator window appears.
- Step 12** Verify the status of the Cisco Unified Communications Manager (seen in the lower left portion of the window) is **Enabled/Up**.
- Step 13** Select **Hardware Setup** to verify the cameras, displays, speakers, and microphones are working properly.
- Refer to the *Cisco TelePresence System Administrator's Guide* for your software release for more information.
- Step 14** Perform the microphone test to verify that the microphone is working properly.
- See the “[Setting Up the Microphones](#)” section on page 11-20 for more information.
-

Replacing a Light Fixture

The CTS-3010 uses three 5 foot light fixtures above plasma displays and two 4 foot light fixtures on the sides of the Plasmas. To replace the light fixtures, use the following part numbers:

- 4 feet, all areas except Europe and Japan: CTS-LT-FX-4FT-GN=
- 5 feet, all areas except Europe and Japan: CTS-LT-FX-5FT-GN=
- 4 feet, Europe: CTS-LT-FX-4FT-EU=
- 5 feet Europe: CTS-LT-FX-5FT-EU=
- 4 feet, Japan: CTS-LT-FX-4FT-JP=
- 5 feet, Japan: CTS-LT-FX-5FT-JP=

Required Information, Tools, and Equipment

To disassemble and reassemble portions of the Cisco TelePresence 3210, you need the following information, tools, and equipment:

- *Cisco TelePresence System Release 1.4 Administrator's Guide*, OL-13676-03
- Power screwdriver with 2.5, 3, and 6 mm (standard or round) Allen bits, or standard 2.5, 3, and 6 mm Allen wrenches

**Tip**

A round-head Allen bit allows the bit to work at an angle instead of only straight out, which is helpful in tight spots.

- Manual screwdrivers, Phillips and flat head types
- Metric wrenches, 10 to 15 mm
- Masking tape
- Step stool or small step ladder
- Laptop computer attached to network (for troubleshooting or reference)

Replacement Bulbs

A Field Replacement Unit consisting of three 5-foot and two 4-foot 4100 K bulbs is available from Cisco Customer Service. The part number is CTS-3010-BULBS.

If one or more bulbs need replacement, it is recommended that all five bulbs are replaced for lighting uniformity.

**Caution**

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

**Note**

The light fixtures installed during assembly have a 4100 K rating. If you set the Plasma display to another value you need to purchase and replace the light fixtures to match the new color temperature setting.

Replacing a Light Fixture

Step 1 Power off the lights by turning the power switch to the Off position to the power unit that controls your lights.



Note Depending on your installation, your lights could be controlled by either a PDU or an Auxiliary Control Unit. See the [Chapter 10, “Routing Power and Signal Cables”](#) for the for the location of he PDU. The Auxiliary Control Unit is located behind the center display structure.

Step 2 Unplug the light fixture from the PDU or Auxiliary Control Unit.

Step 3 For the right and left vertical light fixtures, follow these steps.

- a. Remove the screws from the light fixture holding bracket. The bracket is located in the middle of the fixture. Retain the screws.
- b. Lift the light fixture up and out of the lower cup bracket.

Step 4 For the horizontal light fixtures, follow these steps.

- a. Using the step stool or a small step ladder, reach over the display and remove the two screws from the light fixture holding bracket. The bracket is located in the middle of the fixture.
- b. Lift the light fixture up and out, being careful the cable does not mar the surface of the display.

Step 5 Place the replacement light fixture in the bracket and secure with the screws.

See [Chapter 4, “Installing the Lighting Assembly and Codecs”](#) for more information.

Step 6 Plug the light fixture into the PDU or Auxiliary Control Unit.

Step 7 Turn the power switch on the PDU or Auxiliary Control Unit to the On position.

Replacing the Audio/Video Extension Unit—Part Number CTS-AV-EXP=

To remove and replace the audio/video extension unit for the Cisco TelePresence 3210, you need the following tools and equipment:

- Medium Phillips head screwdriver (for attaching the unit to its bracket)
- Large Phillips head screwdriver (for attaching the unit and bracket to the display structure)
- Masking tape

Remove and replace the audio/video extension unit by performing the following procedure:

-
- Step 1** Power off the system by turning off the following units:
- The two left PDUs on the left screen.
 - The single right PDU on the right screen.
 - The auxiliary control unit on the center display structure



Caution Make sure all system power is turned off before beginning this disassembly.

- Step 2** Remove the cables from the audio/video extension unit. Label each cable with masking tape for identification as it is removed.
- See [Chapter 10, “Routing Power and Signal Cables”](#) for additional information.
- Step 3** Use the screwdriver to remove the two screws that attach the extension unit and remove the unit from the display structure.
- Step 4** Attach the new audio/video extension unit to its bracket, then attach the unit and bracket to the display structure. See [Chapter 8, “Assembling the Cisco TelePresence Peripheral Electrical Components”](#) for more information.
- Step 5** Attach the cables to the new extension unit using the masking tape labels as a guide.
- Step 6** Power on the system by turning the power switches to the On position on the two left PDUs, single right PDU, and (if present) auxiliary control unit or PDU on the rear center of the display assembly.
- Step 7** Test the microphone by performing the procedures in the [“Setting Up the Microphones”](#) section on [page 11-20](#).
-

Replacing the Cisco IP Phone—Part Number CP-7975G-CTS=

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- Step 1** Open a browser on a computer connected to the network.
- Step 2** Type in the IP address of the Cisco Unified Communications Manager. Enter the required information at the login screen.
- Step 3** Go to Device>Phone and find the phone you are replacing.
- Step 4** In the Cisco Unified Communications Manager interface, enter the new MAC address for the replacement IP phone and click **Save**.
- Step 5** Unplug the Ethernet cable from the back of the current Cisco IP phone and set the phone aside.
- Step 6** Plug the Ethernet cable into the new IP phone and place it in the same location on the tabletop as the old phone.

Cisco Unified Communications Manager may download a new version of the phone software.

When the phone has completed its booting and upgrade, perform a reset on the Cisco TelePresence System from the Cisco Unified Communications Manager device page.

- Step 7** If the new IP phone has not displayed a ready screen within five minutes, refer to the following documentation for more information:
- The *Cisco TelePresence System Administrator's Guide* for your software release
 - The *Cisco Unified Communications Manager Installation Guide for the Cisco TelePresence System* for your software release.
-

Replacing a PDU—Part Number CTS-PWR-PDU=

There are two PDUs attached to the left screen, one attached to the right screen, one PDU attached to the underside of the tabletop, and one attached to the center display structure.

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- Step 1** On the PDU to be replaced, turn the power switch to Off and remove the plug from the wall receptacle.
- Step 2** Remove any cables plugged into the PDU.
- Step 3** Remove the PDU from the screen or center Privacy panel by removing the mounting screws.
- Step 4** Attach the replacement PDU.
- Step 5** Plug in the jumper cords that were removed and turn the power switch to the On position.
- Step 6** Plug the PDU power cord into the wall receptacle.
- Step 7** Open a browser on a computer connected to the network.
- Step 8** Type in the IP address of the center, primary codec unit. Enter the required information at the login screen. The Cisco TelePresence Administrator window appears.
- Step 9** Verify the status of the Cisco Unified Communications Manager (seen in the lower left portion of the window) is **Enabled/Up**.
- Step 10** Choose **System Restart** to perform a software reset.
- Refer to the *Cisco TelePresence System Administrator's Guide* for your software release for more information.
-

Replacing the Auxiliary Control Unit—Part Number CTS-LIGHT-CTRL=

The auxiliary control unit is located in the center of the display assembly. For more information about the auxiliary control unit, refer to the “[Options for the Cisco TelePresence System 3000 and 3010](#)” chapter of the *Cisco TelePresence Hardware Options and Upgrade Guide*.

-
- Step 1** Turn the power switch on the auxiliary control unit to Off and remove the plug from the wall receptacle. See [Chapter 8, “Assembling the Cisco TelePresence Peripheral Electrical Components,”](#) for the location of the auxiliary control unit.
- Step 2** Mark each power, and (if present) video cable with its location on the auxiliary control unit.
- Step 3** Remove the auxiliary control unit from the rear of the display assembly.
- Step 4** Attach the replacement auxiliary control unit.
- Step 5** Plug in the cords and (if present) video cables that were removed and turn the power switch to the On position.



Note Connect port 1 of the “Video in” connection from the codec, and port 4 of the “Video out” connection to the 40-inch LCD presentation display.

- Step 6** Plug the power cord into the wall receptacle.
- Step 7** Open a browser on a computer connected to the network.
- Step 8** Type in the IP address of the center, primary codec unit. Enter the required information at the login screen. The Cisco TelePresence Administrator window appears.
- Step 9** Verify the status of the Cisco Unified Communications Manager (seen in the lower left portion of the window) is **Enabled/Up**.
- Step 10** Choose **System Restart** to perform a software reset.
- Refer to the *Cisco TelePresence System Administrator's Guide* for your software release for more information.
-

Replacing a Display Shelf

The display shelves are the table sections that sit directly below the display screens.

Required Information, Tools, and Equipment

To remove and replace a display shelf, you need the following tools:

- Medium and large Phillips screwdriver
- 10 mm wrench

**Tip**

A 10 mm open-ended ratcheting wrench is useful to loosen and tighten the draw bolts or cam locks.

**Note**

Make sure to retain all screws, connectors, and other parts during the disassembly.

Removing and Replacing a Display Shelf Row Table Section

- Step 1** Power off the system by turning off the following units:
- The two left PDUs on the left screen
 - The single right PDU on the right screen
 - The auxiliary control unit on the center display structure

**Caution**

Make sure all system power is turned off before beginning this disassembly.

- Step 2** Open the table door.
- Step 3** Remove the white speaker screens.

See [Chapter 9, “Assembling and Mounting the Presentation Display, Speakers, Speaker Screens, and Table Door”](#) for more information.

**Note**

Removal is the reverse order of installation. You lower the feet on the underside of the speaker screens and move the screen out through the table door.

- Step 4** Disconnect the speaker cables from the speaker terminals.
- Step 5** Loosen the half-turn bolts on either side of the speaker boards.
- Step 6** Slip the speaker boards over the half-turn bolts and remove them from the work area.
- Step 7** From the underside of the display structure, remove all the screws that attach the display shelves to the display assembly.

**Note**

The Display shelves are attached individually to the display structures as illustrated in [Figure 5-6](#), [Figure 5-7](#), and [Figure 5-8](#).

- Step 8** Loosen the draw bolts or cam locks and remove the connecting plates that attach the display shelf to be replaced to its adjoining shelf or shelves.



Note See [Figure 5-5](#) for the draw bolt and plate locations.

- Step 9** Slightly separate the shelf to be replaced from the other shelves.



Caution Make sure that all remaining shelves stay on the display structure and do not fall between the structure supports.



Tip Slide the shelves to the left; there is space on the left that is created by the open table door.

- Step 10** Remove the splines from the slot at both edges of the shelf to be replaced.
- Step 11** Place the new shelf on the display assembly.
- Step 12** Place the splines in the slots at the edges of the new shelf.
- Step 13** Press the shelves together.
- Step 14** Attach the new shelf to its adjoining shelf or shelves using the splines.
- Step 15** From the underside of the display structure, insert the draw bolts or cam locks and tighten them; then, attach the connecting plate between the new shelf and its adjoining shelf or shelves.
- Step 16** Attach the screws that connect the display shelves to the display assembly.
- Step 17** Reattach the speaker boards and speaker cables. See [Chapter 8, “Assembling the Cisco TelePresence Peripheral Electrical Components”](#) for detailed instructions.
- Step 18** Reattach the white speaker screen.
- Step 19** Power on the system by turning the power switches to the On position on the two left PDUs, single right PDU, and (if present) auxiliary control unit or PDU on the rear center of the display assembly.

Replacing a First Row Tabletop Section

Complete these steps to replace a first row tabletop section.

Required Information, Tools, and Equipment

To remove and replace a tabletop section, you need the following tools:

- Medium and large Phillips screwdriver
- 10 mm wrench



Tip

A 10 mm open-ended ratcheting wrench is useful to loosen and tighten the draw bolts or cam locks.



Note

Make sure to retain all screws, connectors, and other parts during the disassembly.

Removing and Replacing a Tabletop Section

- Step 1** Open the table door.
- Step 2** If you are replacing the table door or the left-center tabletop section, remove the table door. See [Figure 9-31](#) for an exploded diagram of the parts for the door.
- Step 3** Detach the microphone from the tabletop section to be replaced. See [Figure 6-9](#) for an exploded diagram of the microphone and its attachment hardware.
- Step 4** Perform one of the following actions to remove the microphone:
- If the microphone cable runs directly from the microphone to the codec or audio/video extension unit, disconnect the microphone from the codec or audio/video extension unit, route the cable through the tabletop section, and remove the microphone.
 - If the microphone uses an extension cable, disconnect the microphone from the extension cable and remove the microphone. The extension cord connects to the three foot (1 meter) long microphone cord.

- Step 5** Remove the privacy panel from the tabletop section to be replaced.



Tip

See [Chapter 6, “Building the First Row Table Assembly”](#) for exploded drawings of the privacy panels.

- Step 6** Remove the screws from the table legs that support the tabletop section.

- Step 7** Move one of the table legs to allow access to the draw bolts or cam locks.



Note

Make sure that the leg still supports both tabletop sections.

- Step 8** Remove the draw bolts or cam locks between the tabletop sections on the side that you moved. See [Chapter 6, “Building the First Row Table Assembly”](#) for the location of the draw bolts or cam locks.

- Step 9** If required, reposition the table leg so that it fully supports both table sections.

- Step 10** Move the table leg on the other side of the tabletop to allow access to the draw bolts or cam locks, making sure that the leg still supports both tabletop sections.
- Step 11** Remove the draw bolts or cam locks between the tabletop sections on the side that you moved.
- Step 12** Separate the tabletop sections to create a space between the section to be replaced of approximately one inch (2.5 centimeters); this step allows you to remove the splines between the tabletop sections.

**Tip**

Move the sections to the left and use the space created by the open table door.

**Caution**

Be sure that the legs support all tabletop sections and do not allow any of the sections to fall.

- Step 13** Remove the splines from the slot in the edges of the tabletop section.
- Step 14** Remove the tabletop section from the table legs.
- Step 15** Place the new tabletop section on the table legs.
- Step 16** Place the splines in the slots on the edge of the new tabletop section.
- Step 17** Press the tabletop sections together.
- Step 18** Insert the draw bolts or cam locks and tighten them between the new tabletop section and the adjoining tabletop sections. See [Chapter 6, “Building the First Row Table Assembly”](#) for the location of the draw bolts or cam locks.
- Step 19** Attach the legs to the tabletop sections with the screws. See [Chapter 6, “Building the First Row Table Assembly”](#) for the location of the table legs and screw attachment locations.
- Step 20** Reconnect the microphone to the new tabletop section.
- Step 21** Either route the microphone cable to the codec or audio/video extension unit and connect the cable to the unit, or connect the microphone to the microphone extension cord.
See [Figure 6-9](#) for microphone installation instructions.
- Step 22** Close the table door.
- Step 23** If you removed the table door, replace the door.
See [Figure 9-31](#) for table door installation instructions.
-

Replacing a Second Row Table Top Section

Complete these steps to replace a second row table top section.

Required Information, Tools, and Equipment

To remove and replace a second row table top, you need the following tools:

- Medium and large Phillips screwdriver
- 10 mm wrench



Tip

A 10 mm open end ratcheting wrench is useful to loosen and tighten the draw bolts or cam locks.

- Furniture sliders (recommended but not required)



Note

Furniture sliders are flat plastic pieces that you place under the table legs before you move the table. Using furniture sliders can make moving the second row table easier.



Note

Make sure to retain all screws, connectors, and other parts during the disassembly.

Removing and Replacing a Second Row Table Top Section

- Step 1** Remove the privacy panel from the following table top sections:
- The table top section to be replaced
 - All table sections to the right of the table top section to be replaced



Note

See [Chapter 7, “Building the Second Row Table Assembly”](#) for expanded views of the privacy panels.

- Step 2** Remove the microphone from the table top section to be replaced. See [Figure 7-40](#) for an expanded view of the microphone and its attachment hardware.

- Step 3** Disconnect the microphone from the audio/video extension unit, route the cable through the table top section, and remove the microphone.

The microphone cable routes from the audio/video extension unit to the table top section by way of the cable gutters on the second row table. The gutters are behind the privacy panels that you removed in [Step 1](#).

- Step 4** If required, remove the cable cover for the right end privacy panel as shown in [Figure 7-48](#) and remove cable ties that bundle the microphone cable with other cables.

- Step 5** Remove the privacy panel alignment bracket.

See [Chapter 7, “Building the Second Row Table Assembly”](#) for the location of the privacy panel alignment brackets.

- Step 6** If you are replacing the left or right tabletop end, remove the privacy panel end piece and panel end brace. See [Figure 7-49](#) for the privacy panel end piece locations and [Figure 7-32](#) for the panel end brace locations.
- Step 7** Remove the privacy panel hangers from the table legs that support the table top section to be replaced. See [Chapter 7, “Building the Second Row Table Assembly”](#) for the privacy panel hanger attachment points and screw locations.
- Step 8** Remove the floating bracket on each side of the table top section to be replaced. See [Chapter 7, “Building the Second Row Table Assembly”](#) for the floating bracket attachment points and screw locations.
- Step 9** Remove the gutter panel for the table top section to be replaced. See [Chapter 7, “Building the Second Row Table Assembly”](#) for the gutter panel attachment points and screw locations.
- Step 10** Remove the gutter and privacy panel support brackets from the table legs that support the table top section to be replaced. See [Chapter 7, “Building the Second Row Table Assembly”](#) for the screw locations for the gutter and privacy panel support brackets.
- Step 11** Remove the screws from the table legs that support the table top section.
- Step 12** Move one of the table legs to allow access to the draw bolts or cam locks and remove the draw bolts or cam locks from the adjoining table top sections. See [Chapter 7, “Building the Second Row Table Assembly”](#) for the location of the draw bolts or cam locks.

**Note**

Make sure that the leg still supports both table top sections.

- Step 13** If you are replacing an end piece, remove the attachment plates.
- Step 14** If required, reposition the table leg so that it fully supports both table sections.
- Step 15** Move the table leg on the other side of the table top to allow access to the draw bolts or cam locks and remove the draw bolts or cam locks from the adjoining table top sections.

**Note**

Make sure that the leg still supports both table top sections.

- Step 16** Separate the table top sections to create a space between the section to be replaced of approximately one inch (2.5 centimeters); this step allows you to remove the splines between the table top sections.


**Tip**

To ease movement of the sections, you can place furniture sliders under each table leg before you move the sections.

**Caution**

Be sure that the legs support all table top sections and do not allow any of the sections to fall to the ground.

- Step 17** Remove the splines from the slot in the edges of the table top section.
- Step 18** Remove the table top section to be replaced.
- Step 19** Place the new table top section on the table legs.

- Step 20** Place the splines in the slots on the edge of the new table top section.
- Step 21** Press the table top sections together.
- Step 22** Insert the draw bolts or cam locks and tighten them between the new table top section and the adjoining table top sections. See [Chapter 7, “Building the Second Row Table Assembly”](#) for the location of the draw bolts or cam locks.
- Step 23** If you are replacing an end piece, insert and attach the attachment plates.
- Step 24** Attach the legs to the table top sections with the screws. See [Chapter 6, “Building the First Row Table Assembly”](#) for the location of the table legs and screw attachment locations.
- Step 25** Attach the gutter and privacy panel support brackets to the table assembly.
See [Chapter 7, “Building the Second Row Table Assembly”](#) for the gutter and privacy panel support bracket attachment points and screw locations.
- Step 26** Attach the gutter panel for the table top section.
See [Chapter 7, “Building the Second Row Table Assembly”](#) for the gutter panel attachment points and screw locations.
- Step 27** Attach the floating bracket on each side of the table top section.
See [Chapter 7, “Building the Second Row Table Assembly”](#) for the floating bracket attachment points and screw locations.
- Step 28** Attach the privacy panel hangers to the table legs that support each side of the table top section.
See [Chapter 7, “Building the Second Row Table Assembly”](#) for the privacy panel support bracket attachment points and screw locations.
- Step 29** Attach the privacy panel alignment bracket.
See [Chapter 7, “Building the Second Row Table Assembly”](#) for the location of the privacy panel support brackets.
- Step 30** If you are replacing the left or right tabletop end, attach the privacy panel end pieces and panel end brace. See [Figure 7-49](#) for the privacy panel end piece locations and [Figure 7-32](#) for the end brace locations.
- Step 31** Insert the microphone cable into the hole in the table top and route the cable through the cable gutters to the audio/video extension unit.
- Step 32** Connect the microphone cable to the audio/video extension unit.
- Step 33** Reconnect the microphone to the new table top section.
See [Figure 7-40](#) for microphone installation instructions.
- Step 34** Attach the privacy panels to the table sections.
-  **Note** If required, adjust the privacy panel sections so that there is an equal amount of space between each section.
- Step 35** If required, replace the cable cover for the right end privacy panel as shown in [Figure 7-48](#) and add cable ties to bundle the microphone cable with other cables.
- Step 36** Reposition the second row table so that the trailing edge of the first row table is exactly 59 inches (150 cm) behind the leading edge of the second row table. See [Figure 7-50](#) for the correct second row table positioning.

