Camera guide

for Cisco Quad Camera, Cisco TelePresence Precision 60, and Cisco TelePresence SpeakerTrack 60
Thank you for choosing Cisco!

Your Cisco product has been designed to give you many years of safe, reliable operation.

This guide is supposed to make you comfortable with the Quad Camera, the TelePresence Precision 60, and the SpeakerTrack 60.

May we recommend you to visit the Cisco website regularly for updated versions of the user documentation.

The user documentation can be found at:

- https://www.cisco.com/go/telepresence/docs

How to use this guide

The top menu bar and the entries in the Table of Contents are all hyperlinks. You can click on them to go to the topic.

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CHAPTER 1

Introduction
About this guide

This guide describes the Quad Camera, Precision 60 and SpeakerTrack 60 camera, with detailed information about the cameras. You can also find information about the codecs that are supported and how to connect to the codecs.

User documentation

The user documentation for the Cisco TelePresence systems running the CE or TC software have several guides aimed at various user groups:

- Getting started guide
- User guides
- Administrator guides
- API reference guides
- Physical interfaces guides

Download the user documentation

Visit one of these websites to find out more about setup, management, and use of these products:

- https://www.cisco.com/go/telepresence/docs
- https://www.cisco.com/go/roomkit-docs

Explore the Cisco Project Workplace to find inspiration and guidelines when preparing your office or meeting room for video conferencing:

- https://www.cisco.com/go/projectworkplace

Software

The camera software is automatically upgraded through the codec.

For more information, see the Software compatibility chapter.
CHAPTER 2

Physical interface
Quad Camera

Video
- HDMI is the main video source. The maximum resolution is 1080p60.
- 2 HDMI outputs support formats up to 3840 x 2160p60 (4Kp60).
- For long cable lengths, HDMI extenders supporting EDID should be used. The extender must not alter the SPA address or any EDID information incorrectly.
- If EDID is not supported, use the following setting:
  
  Cameras > Camera n > AssignedSerialNumber

This setting allows you to manually assign a camera ID to a camera by associating the camera ID with the camera’s serial number. The setting is persistent until the codec is factory reset.

Power
- Power rating: 12 V_{dc}, 5.83 A.
- Always use the provided cables and power adapter.

Ethernet
For camera control and software upgrades.

⚠️ Do NOT connect a camera control cable to the Ethernet codec port of the device. This will destroy the system.

Kensington lock
The Kensington lock may be used to prevent the camera from being moved from its place or to prevent theft.

For more information about the Quad Camera setup, please refer to the following installation guides:

- Cisco Webex Room Kit Plus installation guide
- Cisco TelePresence SX80 Integrator Package with Quad Camera installation guide
Precision 60

Video
- HDMI is the main video source. The maximum resolution is 1080p60.
- 3G-SDI is the secondary video source. The maximum resolution is 1080p60.
- In multiple camera scenarios, the HDMI output should be used.
- For long cable lengths, HDMI extenders supporting EDID should be used. The extender must not alter the SPA address or any EDID information incorrectly.
- If EDID is not supported, use the following setting:

\[Cameras > Camera n > AssignedSerialNumber\]

This setting allows you to manually assign a camera ID to a camera by associating the camera ID with the camera’s serial number. The setting is persistent until the codec is factory reset.

Power
- Power rating: 12 VDC, 3 A.
- Always use the provided cables and power adapter.

Ethernet
For camera control and software upgrades.

⚠️ Do NOT connect a camera control cable to the Ethernet codec port of the device. This will destroy the system.

Kensington lock
The Kensington lock may be used to prevent the camera from being moved from its place or to prevent theft.

For more information about the Precision 60 setup, please refer to the Cisco Webex Room Kit P60 installation guide.
**SpeakerTrack 60**

**Video**
- Two HDMI cables from the cameras.

**Power**
- Power rating: 12 VDC, 6.5 A.
- Always use the provided cables and power adapter.
- Power out to cameras (internal connection).

**Ethernet**
Two Ethernet ports are used for the internal camera control connection. The third connector is used for connecting the codec.

Do **NOT** connect a camera control cable to the Ethernet codec port of the device. This will destroy the system.

**Microphone connectors**
The right set is used for internal connection to the microphone panel. The left set of connectors is intended for future use.

**Kensington lock**
The Kensington lock may be used to prevent the camera from being moved from its place or to prevent theft.

For more information about the SpeakerTrack 60 setup, please refer to the Cisco TelePresence SpeakerTrack 60 installation guide.
CHAPTER 3

Connecting to a codec
Codec compatibility

Quad Camera
The Quad Camera is compatible with the following codecs:
- Cisco Webex Codec Plus
- Cisco TelePresence SX80 codec

Precision 60
The Precision 60 camera is compatible with the following codecs:
- Cisco Webex Codec Plus
- Cisco TelePresence SX80 codec

SpeakerTrack 60
The SpeakerTrack 60 system is compatible with the following codecs:
- Cisco TelePresence SX80 codec
- Cisco TelePresence C90 codec
- Cisco TelePresence C60 codec
- Cisco TelePresence C40 codec
Software compatibility

- The camera software is automatically upgraded through the codec.
- Minimum software version requirement for the codecs can be found in the table below:

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Connect Quad Camera to Codec Plus

- Connect the video cable (HDMI) between the camera and codec.
  Codec: Always use Connector 1 (HDMI input) for the main camera.
  Camera: Connect to connector 1 (HDMI output).
- Connect the camera control cable (Ethernet) between the camera control ports on the camera and codec. The connectors are marked with the camera control symbol.
- Connect the power adapter to the camera and connect to power.
- Connect other codec cables as described in the Cisco Webex RoomKit Plus installation guide.
Connect Quad Camera to SX80 Codec

- Connect the video cable (HDMI) between the camera and codec.
  Codec: Always use Connector 1 (HDMI input) for the main camera.
  Camera: Connect to connector 1 (HDMI output).
- Connect the camera control cable (Ethernet) between the camera control ports on the camera and codec.
  Codec: Connect to the codec’s 2nd or 3rd Ethernet port.
  Camera: The connector is marked with the camera control symbol.
  Connect a network switch to the codec’s 2nd or 3rd Ethernet port if you need more than two ports to support your device.
- Connect the power adapter to the camera and connect to power.
- Connect other codec cables as described in the Cisco TelePresence SX80 Integrator Package with Quad Camera Installation Guide.
Connect Precision 60 to Codec Plus

- Connect the video cable (HDMI) between the camera and codec.
  Codec: Always use Connector 1 (HDMI input) for the main camera.
  Camera: Connect to the HDMI output.
- Connect the camera control cable (Ethernet) between the camera control ports on the camera and codec.
  Codec: The connector is marked with the camera control symbol.
  Camera: Connect to the Ethernet port.
- Connect the power adapter to the camera and connect to power.
- Connect other codec cables as described in the Cisco Webex RoomKit Plus Precision 60 installation guide.

![Connect Precision 60 to Codec Plus diagram](image)
Connect Precision 60 to SX80 Codec

- Connect the video cable (HDMI) between the camera and codec.
  Codec: Always use Connector 1 (HDMI input) for the main camera.
  Camera: Connect to the HDMI output.
- Connect the camera control cable (Ethernet) between the camera control ports on the camera and codec.
  Codec: The connector is marked with the camera control symbol.
  Camera: Connect to the Ethernet port.
- Connect a network switch to the codec’s 2nd or 3rd Ethernet port if you need more than two ports to support your device.
- Connect the power adapter to the camera and connect to power.
- Connect other codec cables as described in the Cisco Telepresence SX80 installation guide.
Connect SpeakerTrack 60 to SX80 Codec

- Connect the video cables (HDMI).
  Left camera: Connect between Connector 1 (HDMI input) on the codec to the HDMI input of the left camera.
  Right camera: Connect between Connector 2 (HDMI input) on the codec to the HDMI input of the right camera.
- Connect the camera control cable (Ethernet). Connect between the codec's 2nd or 3rd Ethernet port to the Network port (Ethernet) on the SpeakerTrack 60 connector panel.
- Connect the power adapter to the SpeakerTrack 60 connector panel and connect to power.
- Connect other codec cables as described in the Cisco Telepresence SX80 installation guide.
Connect SpeakerTrack 60 to Codec C40

- Connect the video cables (HDMI).
  Left camera: Connect between Connector 1 (HDMI input) on the codec to the HDMI input of the left camera.
  Right camera: Connect between Connector 2 (HDMI input) on the codec to the HDMI input of the right camera.
- Connect the camera control cable (Ethernet) between the codec’s 2nd Ethernet port and the Network port (Ethernet) on the SpeakerTrack 60.
- Connect the power adapter to the SpeakerTrack 60, and connect to power.
- Connect other codec cables as described in the Cisco Telepresence Coded C40 installation guide.

When using a SpeakerTrack 60 with a C Series codec, the codec cannot be controlled with the TRC5 (Cisco Remote Control). Instead, a Cisco TelePresence Touch 8 user interface or an external control device must be used.
Connect SpeakerTrack 60 to Codec C60

- Connect the video cables (HDMI).
  Left camera: Connect between Connector 1 (HDMI input) on the codec to the HDMI input of the left camera.
  Right camera: Connect between Connector 2 (HDMI input) on the codec to the HDMI input of the right camera.
- Connect the camera control cable (Ethernet). Connect between the codec’s 2nd Ethernet port and the Network port (Ethernet) on the SpeakerTrack 60 connector panel.
- Connect the power adapter to the SpeakerTrack 60 connector panel and connect to power.
- Connect other codec cables as described in the Cisco Telepresence Codec C60 installation guide.

When using a SpeakerTrack 60 with a C Series codec, the codec cannot be controlled with the TRC5 (Cisco Remote Control). Instead, a Cisco TelePresence Touch 8 user interface or an external control device must be used.

Power adapter

Power
(100-240 V AC, 50/60 Hz)

Always use the provided power cable and adapter.
Connect SpeakerTrack 60 to Codec C90

- Connect the video cables (HDMI).
  Left camera: Connect between Connector 1 (HDMI input) on the codec to the HDMI input of the left camera.
  Right camera: Connect between Connector 2 (HDMI input) on the codec to the HDMI input of the right camera.
- Connect the camera control cable (Ethernet). Connect between the codec’s 2nd Ethernet port and the Network port (Ethernet) on the SpeakerTrack 60 connector panel.
- Connect the power adapter to the SpeakerTrack 60 connector panel and connect to power.
- Connect other codec cables as described in the Cisco Telepresence Codec C90 installation guide.

When using a SpeakerTrack 60 with a C Series codec, the codec cannot be controlled with the TRC5 (Cisco Remote Control). Instead, a Cisco TelePresence Touch 8 user interface or an external control device must be used.
CHAPTER 4

Factory reset
Quad Camera

A factory reset should only be performed by a system administrator or in contact with Cisco technical support.

The camera will be reset to factory defaults, and all configuration and logs will be erased.

⚠️ It is not possible to undo a factory reset.

To perform a factory reset:

1. Locate the pinhole button at the back of the camera.
2. Use a pen or similar to press and hold the factory reset button for 10 seconds.
3. The camera LED will be lit red during the factory reset.

⚠️ Do not unplug power.

4. When the factory reset is complete, the camera restarts and the camera LED lights up.
Precision 60

A factory reset should only be performed by a system administrator or in contact with Cisco technical support. The camera will be reset to factory defaults, and all configuration and logs will be erased.

⚠️ It is not possible to undo a factory reset.

To perform a factory reset:
1. Locate the pinhole button at the back of the camera.
2. Use a pen or similar to press and hold the factory reset button for 10 seconds.
3. The camera LED will be lit red during the factory reset.

⚠️ Do not unplug power.

4. When the factory reset is complete, the camera restarts and the camera LED lights up.
SpeakerTrack 60

Factory resetting the device

A factory reset should only be performed by a system administrator or in contact with Cisco technical support.

The device will be reset to factory defaults, and all configuration and logs will be erased.

If errors continue to occur, the cameras might have to be reset too. See the next page for instructions on how to reset the cameras.

⚠️ It is not possible to undo a factory reset.

To perform a factory reset:

1. Remove the top cover of the SpeakerTrack 60 device.
2. Locate the pinhole button at the top of the SpeakerTrack 60.
3. Use a pen or similar to press and hold the factory reset button for 10 seconds.
4. The camera LED will be lit red during the factory reset.

⚠️ Do not unplug power.

5. When the factory reset is complete, the device restarts and the LED lights up.
SpeakerTrack 60

Factory resetting the cameras

Lift the cameras from the carrier tray in order to reset them. The pinhole button is on the back panel of the camera.

A factory reset should only be performed by a system administrator or in contact with Cisco technical support.

The cameras will be reset to factory defaults, and all configuration and logs will be erased.

⚠️ It is not possible to undo a factory reset.

To perform a factory reset:

1. Remove the top cover of the SpeakerTrack 60 device.
2. Unscrew the wing nut that fastens the camera.
3. Locate the pinhole button at the back of the camera. See also the Precision60 chapter.
4. Use a pen or similar to press and hold the factory reset button for 10 seconds.
5. The camera LED will be lit red during the factory reset.

⚠️ Do not unplug power.

6. When the factory reset is complete, the camera restarts and the camera LED lights up.
7. Set the camera back to the tray and tighten the wing nut (see picture 2 on the right).
8. Repeat steps 2–7 with the other camera.
9. Set back the top cover.
CHAPTER 5

Appendix
Technical specifications

Quad Camera
- 5k Ultra HD camera
- 5120 x 2880 pixel resolution
- 5x digital zoom (3 tele-lenses each with 50° horizontal field of view)
- 83° horizontal field of view
- 51.5° vertical field of view
- Focus distance: 1.0 m–∞ (wide)
- F-value: 2.0
- Support up to 60fps
- 15.1 MP image sensor
- Best-overview
- Camera control over Ethernet
- Automatic focus, brightness and white balance
- IP network features:
  - DNS lookup for service configuration
  - Date and Time support via NTP
  - TCP/IP
  - DHCP
- LAN/Ethernet (RJ45) 10/100/1000 Mbit network interface
- 2 HDMI connectors
- RCA subwoofer output
- Power adapter (FSP070-AHAN2, AcBel ADF019):
  - 100 to 240 VAC; 50/60 Hz, 12 VDC input
  - 12 VDC; Max. 5.83 A output
- Operating temperature and humidity:
  - 0°C to 35°C (32°F to 95°F)
  - 10 to 90% relative humidity
- Storing and transport temperature and humidity:
  - -20°C to 60°C (-4°F to 140°F)
  - 10 to 90% relative humidity, non condensing
- Height: 120mm/4.7 in
- Width: 95mm/3.7 in
- Depth: 103mm/4.0 in
- Weight: 4.8kg/10.6 lbs
- Part number: CS-QUADCAM=

For more information about the camera dimension, please refer to the CAD drawings on the Cisco website.
**Precision 60**

- 1080p60 Full High Definition
- 10x optical zoom
- 2x digital zoom
- 20x zoom combined
- Pan range: -100° to +100°
- Tilt range: -20° to +20°
- 80° horizontal field of view
- 48.8° vertical field of view
- Focus distance: 1.0m–∞ (wide)
- F-value: 1.5
- Camera control over Ethernet
- Automatic or manual focus, brightness and white balance
- IP network features:
  - DNS lookup for service configuration
  - Date and Time support via NTP
  - TCP/IP
  - DHCP
- LAN/Ethernet (RJ45) 10/100 Mbit network interface
- HDMI and 3G-SDI video interfaces
- Power adapter (FSP040-DGAA1, FSP040-RHAN2):
  - Input: 100-120 or 200-240 VAC; 50 or 60 Hz
  - Output: 12 VAC / 3.33 A
- Operating temperature and humidity:
  - 0°C to 40°C (32°F to 104°F)
  - 10 to 90% relative humidity
- Storing and transport temperature and humidity:
  - -20°C to 60°C (-4°F to 140°F)
  - 10 to 90% relative humidity, non condensing
- Height: 152 mm/6.0 in
- Width: 268 mm/10.6 in
- Depth: 163 mm/6.4 in
- Weight: 2.5 kg/5.5 lbs
- Part number: CTS-CAM-P60=

For more information about the camera dimension, please refer to the CAD drawings on the Cisco website.
SpeakerTrack 60

- 1080p60 Full High Definition
- 10x optical zoom
- 2x digital zoom
- 20x zoom combined
- Pan range: -100° to +100°
- Tilt range: -20° to +20°
- 80° horizontal field of view (FoV)
- 48.8° vertical FoV
- Tracking horizontal FoV: 80°
- Focus distance: 1.0m–∞ (wide)
- F-value: 1.5
- Camera control over Ethernet
- Automatic or manual focus, brightness and white balance
- IP network features:
  - DNS lookup for service configuration
  - Date and Time support via NTP
  - TCP/IP
  - DHCP
- LAN/Ethernet (RJ45) 10/100 Mbit network interface
- HDMI 1.4 video interface
- Power adapter (FSP084-DIBAN2):
  - Input: 100-120 or 200-240 V AC; 50 or 60 Hz
  - Output: 12 V AC / 7 A
- Operating temperature and humidity:
  - 0°C to 40°C (32°F to 104°F)
  - 10 to 90% relative humidity
- Storing and transport temperature and humidity:
  - -20°C to 60°C (-4°F to 140°F)
  - 10 to 90% relative humidity, non condensing
- Compatibility information:
  - Compatible with C40, C60, C90 and SX80 codecs
  - Requires a Cisco Touch 8 or Touch 10 user interface (unless a control system is used)
- Height: 292 mm/11.5 in
- Width: 800 mm/31.5 in
- Depth: 210 mm/8.3 in
- Weight: 11.5 kg/25.4 lbs
- Part number: CTS-SPKER-TRACK60

For more information about the camera dimension, please refer to the CAD drawings on the Cisco website.
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