ıı|ıı|ıı CISCO

Cisco Room Kit EQX

Installation guide, wall mount option









Cisco Room Kit EQX



The Cisco Room Kit EQX system is designed to make your video conferencing room more versatile and flexible also for local meetings.

The Cisco Room Kit EQX is an all-in-one bundle with the Codec EQ and the Quad Camera as core. It gives the flexibility to bring your own external screens and integrate them with the purpose-built kit of room conferencing hardware components.

You can choose between three mounting options: wall-mount, wall-stand, and a freestanding floor-stand.

The device supports advanced multi-camera scenarios, and offers speaker tracking, and intelligent presenter and audience views. Integrated microphones support the state of the art speaker tracking solution.

The device's integrated loudspeaker system consists of six main loudspeakers and a bass loudspeaker, driven by a sixteen channel amplifier.

You must connect external microphones for audio pickup, because the integrated microphones are only for speaker tracking. You can choose between analog, USB, or AES67 compatible Ethernet (IP) microphones, for example the Cisco Table Microphone (analog) or Cisco Table Microphone Pro (Ethernet). You can also install a full external DSP controlled microphone solution. More than one digital microphone requires a PoE compatible switch.

For more information, read the Cisco Room Kit EQX datasheet, which is available online.

Table of contents

BEFORE YOU START THE INSTALLATION	3
PACKAGING	4
SCREWS AND TOOLS	5
Mount the wall mount beam	6
2. Mount the modules	9
3. Insert the codec and amplifier	14
ABOUT CABLING	15
4. Mount the power strip and PSUs	17
5. Attach the rating label	. 20
6. Mount the loudspeakers	21
7. Mount the fan module	24
8. Mount the top brackets	27
9. Mount the antenna brackets	28
10. Insert the camera	. 30
11. Attach the antennas	. 33
12. Connect screen cables	. 34
13. Connect power and network cables	. 35
14. Connect the microphones	. 36
15. Connect the Room Navigator and presentation cables	37
16. Mount the covers	. 38
17. Mount the speaker grille	. 39
18. Mount the bottom grille	. 44
19. Mount the side panels	. 48
20. Mount the left screen	. 49
21. Mount the right screen	. 54
22. Fine-adjust the screens	57
23. Finish-up	. 58

BEFORE YOU START THE INSTALLATION

It is important that you read our *Room Preparation Guidelines* before you start the installation. They are available online.

During the installation you need both the *Installation guide* (this guide) and the *Wiring Diagram*. The wiring diagram is shipped with the product.

We recommend you to check if there are newer versions of the documents online. You find the version number on the first page (format: 78-xxxxxx-yyyy, where yyyy is the version number; or Dxxxxx.yy, where yy is the version number).

Download information

You can download the room preparation guidelines, wiring diagram, and installation guides from:

https://www.cisco.com/go/room-kit-eqx-installation



This webpage contains installation guides for all products in the Cisco Room Series. Look for *Cisco Room Kit EQX*.

Installation by instructed personnel

Due to the size and mass of the Room Kit EQX system, it must be installed according to our installation instructions by qualified personnel. The installer must determine whether the wall must be reinforced prior to the installation and calculate the number and type of screws required for a safe wall mounting.

The product is fastened to the wall

The Room Kit EQX is fastened to the wall with a horizontal beam. The beam must be fastened so that it can safely support the product. The product may weigh up to 220kg (485lb), including screens*.

Perfectly flat wall

The beam must be level. If the wall is not perfectly flat, this must be compensated for before you mount the beam.

Power

Don't use an external multi-socket extension cord for the Cisco components; use the provided power strip.

Temperature

Don't install the Room Kit EQX where it may be exposed to direct sunlight.

Only use screens with operating temperature of 40°C (104°F) or better.

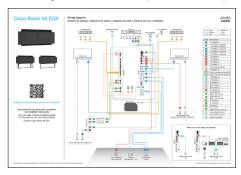
^{*} Maximum weight per screen allowed is 50 kg (110 lb).

PACKAGING

You have received a pallet with several boxes. Except for the screens, which are not provided by Cisco, these boxes include the parts you need to install the wall mount version of Room Kit EOX.

When installing the system, you start with the mounting kit, which is in the box marked with A.

You find the complete wiring diagram and some information about the boxes just below the overpack lid on the pallet.



Additional components required

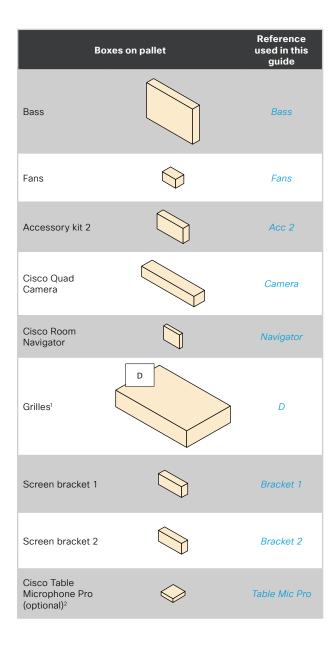
Two screens

Refer to the Room preparation guidelines online for screen requirement details and recommended screens.

- Microphones (only if you have not included Cisco microphones in your order).
- Ethernet switch (only if you have more then one digital microphone, such as Cisco Table Microphone Pro).

We recommend the switches covered in the Configuration of Cisco CBS250, CBS350, and C1200 switches for use with Cisco video collaboration devices technical paper online.

В	oxes on pallet	Reference used in this guide
Wall mount kit ¹	A	Α
Center module ¹	B	В
Side module 1 ¹	C	C1
Side module 2 ¹	C	C2
Cisco Codec EQ		Codec
Cisco DNAM IV Amplifier		Amplifier
Accessory kit 1		Acc 1
Loudspeakers		Speakers



¹ The box has a white label, as shown in the illustration, to help finding the box on the pallet.

² If you have ordered Cisco Table Microphone Pro (maximum 3), they are shipped in separate boxes on the pallet. If you have ordered the Cisco Table Microphone (maximum 3), they are shipped in Accessory kit 2.

SCREWS AND TOOLS

Recommended tools and equipment

- · Stepladder
- Drill
 - Torx T20 bit
 - · Hex 4 mm bit
 - Appropriate drill bits for your wall material
 - · Appropriate wall fasteners/anchors for your wall construction
- · Laser level and/or spirit level
- Measuring tape
- Pencil

Screws and spacers

The following screws and spacers are shipped with the product. They are in boxes *A*, *B*, *D*, and *Acc 2*, as further detailed in each step throughout this guide.



In addition:

• The installer must bring the number and type of screws required for a safe wall mounting of the system (step 1 and step 2).

Tools

The following tools are shipped with the product. You find them in box A.



1. Mount the wall mount beam

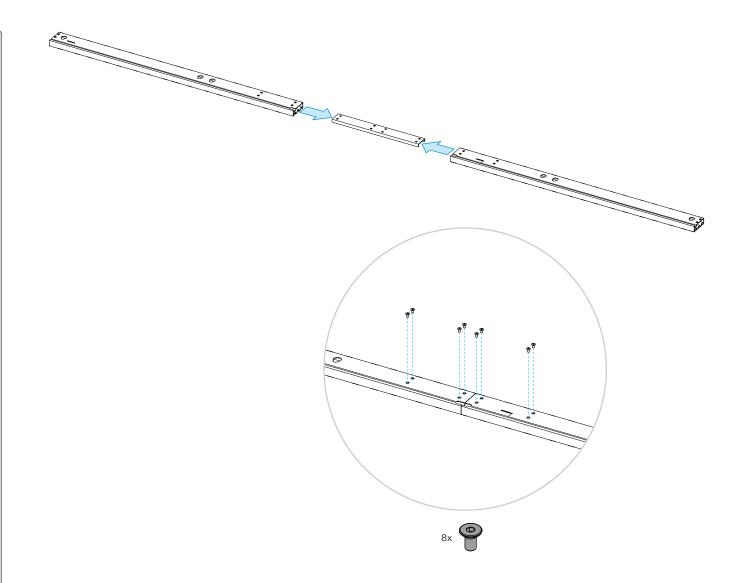
The wall mounted Room Kit EQX system is mounted on a beam that is fastened to the wall.

The beam must be level, and accurately centered about the system's vertical center line.

Beam parts (Box: A) 1x left carrier beam 1x right carrier beam 1x joining bracket 6x wall mount bracket 12x sliding nut (M6x12, Hex 4 mm) (M6x8, Hex 4 mm) You also need the number and type of screws that are required for fastening the beam safely to the wall (these screws are not provided by Cisco).

1.1. Assemble the wall mount beam

Connect the left and right carrier beam parts together using the joining bracket and 8 screws (M6x12, Hex 4 mm).



1.2. Add wall mount brackets to the beam

Read before you continue:

We provide 6 wall mount brackets to hold the system.

The brackets can slide on the beam so that you can place them where it suits best, for example where there are studs in the wall.

You can use the holes that fit best to attach the bracket to the wall.

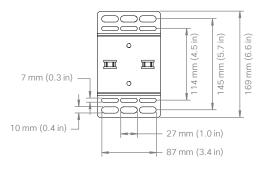


The installer must provide screws and fasteners that suites your type of wall.

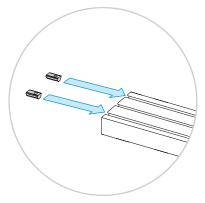
The installer must decide the number of wall mount brackets and where to place them to safely support the system (weight up to 220 kg (485 lb) including screens*).

- Use at least 4 wall brackets.
- The distance from the outermost bracket to the end of the beam must not exceed 400 mm (15.7 in.) to ensure good weight distribution on the beam.

Wall bracket dimensions:

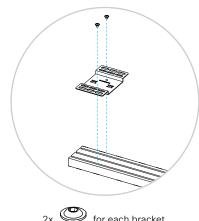


1. Enter one nut in each notch of the wall mount beam.

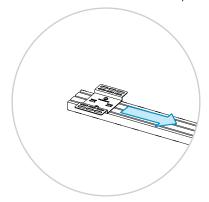




Fasten a wall mount bracket loosly to the nuts that you just slid in with two screws (M6x8, Hex 4mm); don't tighten the screws.



3. Slide the bracket on the beam to its correct position.



4. When in the correct position, tighten the two screws.

Repeat steps 1-4 above for all wall brackets.

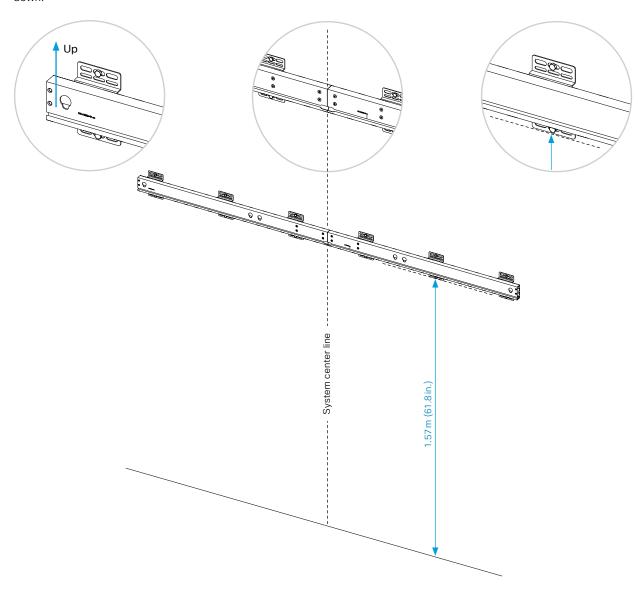


^{*} Maximum weight allowed per screen is 50 kg (110 lb).

1.3. Fasten the beam to the wall

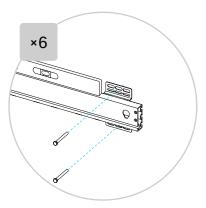
1. The distance from the floor to the lower edge of the wall brackets are shown in the illustration.

Check the key holes to avoid placing the beam upside down.



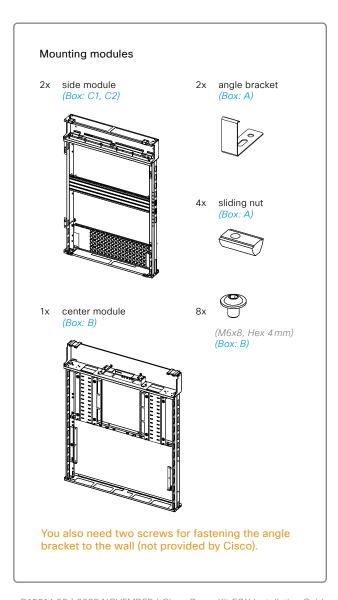
Make sure the beam is level, and fasten all the brackets to the wall. You can use any of the horizontal slots in the bracket.

The installer must provide screws and fasteners that suites your type of wall.



2. Mount the modules

The main mounting structure is composed of three modules hanging on the wall mount beam; one center module and two identical side modules.

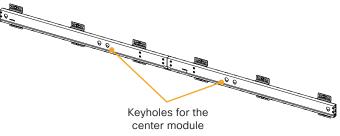


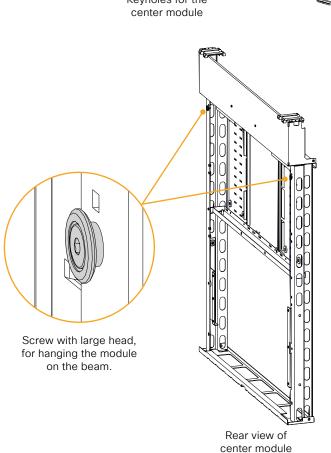
2.1. Slide nuts in the wall mount beam

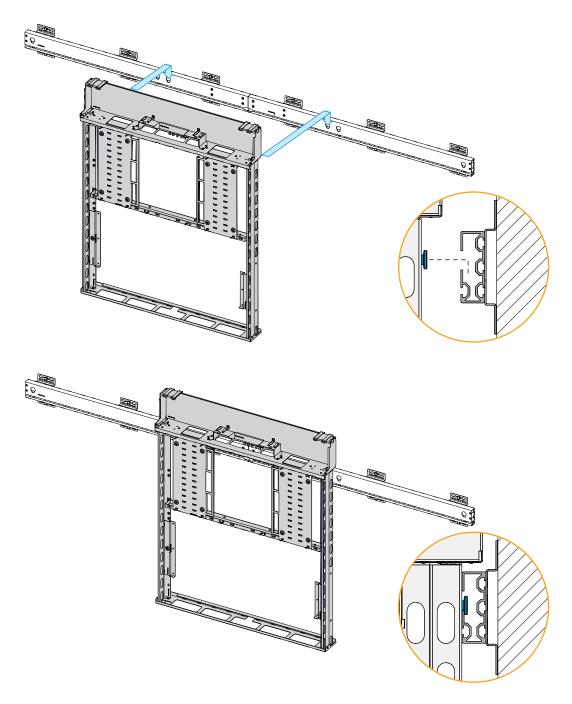
Slide 4 nuts into the notch on the beam. Place the nuts below the keyholes. The nuts are required when fastening the modules to the ×4 beam in step 2.4.

2.2. Hang the center module onto the beam

- 1. Observe the keyholes on the beam, and the large screw heads at the back of the center module.
- 2. Hang these screws onto the beam keyholes.



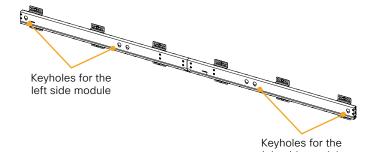


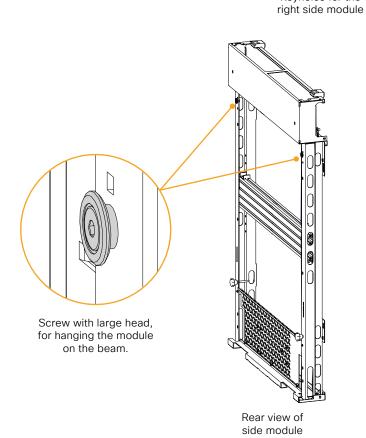


2.3. Hang the side modules onto the beam

Repeat this for both side modules; the side modules are identical.

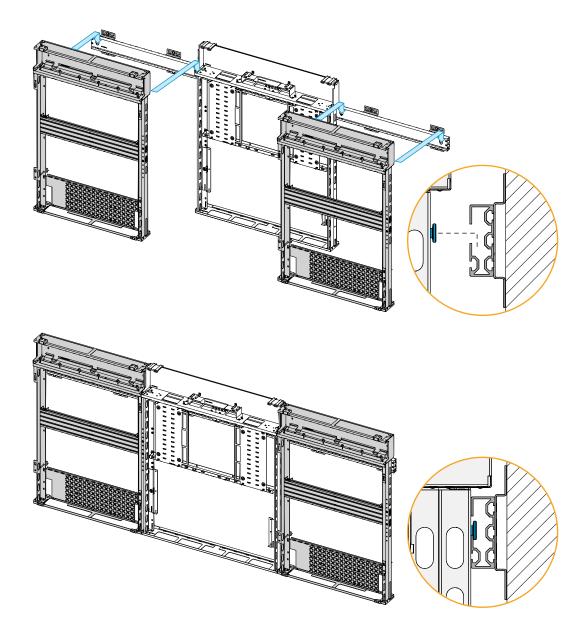
- 1. Observe the keyholes on the beam, and the large screw heads at the back of the side module.
- 2. Hang these screws onto the beam keyholes.





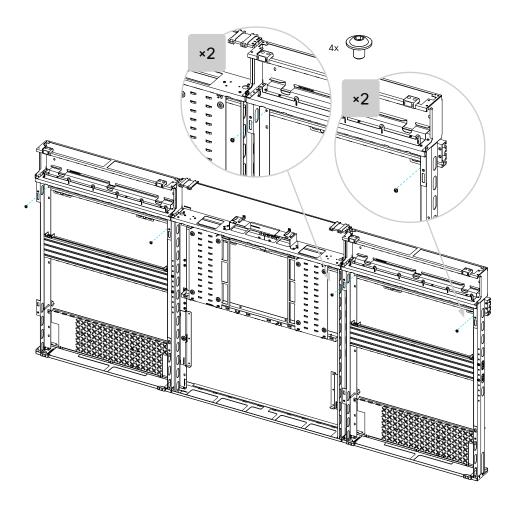


To avoid getting your fingers pinched between the modules, lift a side module by holding your hands on the top and bottom of the module; NOT on the side toward the center module.

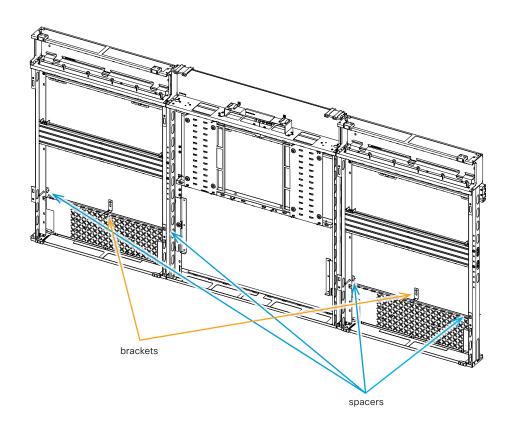


2.4. Fasten the modules to each other and to the beam

- 1. Fasten both side modules to the center module with 2 screws (M6x8, Hex 4 mm) each.
- 2. Fasten the side modules to the beam with 2 screws (M6x8, Hex 4mm) each. The screws enter the nuts that you added in step 2.1.



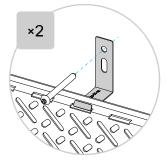
2.5. Straighten up the frame



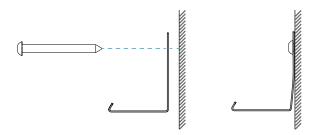
 Adjust the four spacers (thumbscrews) until the frame is plumb (perfectly straight up and down; no tilt). Use a spirit level.



2. Fasten the straightened up frame with one bracket on each side. The installer must provide screws and fasteners that suites your type of wall.

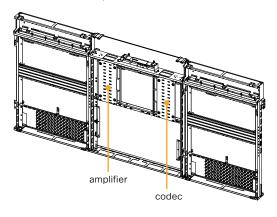


When tightening the screw the bracket will intentionally bend a bit, since the spacers (not these brackets) determine the system's distance to the wall.



3. Insert the codec and amplifier

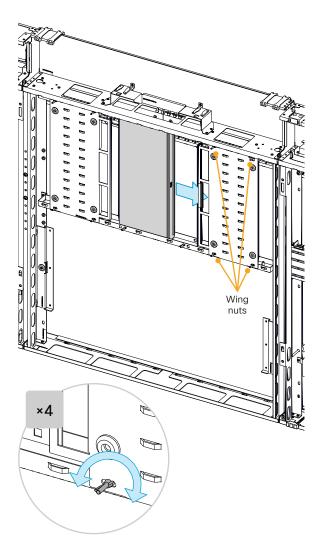
The codec and amplifier are placed in the center module, in bays behind metal clamps.



Codec and amplifier 1x codec (Box: Codec) 1x amplifier (Box: Amplifier)

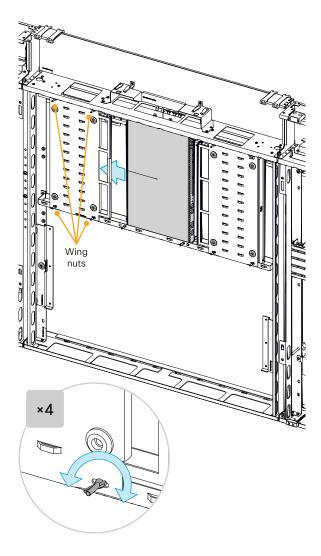
3.1. Insert the codec

- Loosen the four wing nuts that hold the right metal clamp in place.
- 2. Slide the codec fully into the bay behind the clamp.
 Connectors facing toward center; power socket up.
- Slide the metal clamp to the right until it stops against the codec edge; then tighten the four wing nuts to keep the codec in place.



3.2. Insert the amplifier

- 1. If the amplifiers has rack ears, remove them. (Torx T10).
- 2. Loosen the four wing nuts that holds the left metal clamp in place.
- 3. Slide the amplifier fully into the bay behind the clamp. Connectors facing toward center; fan connectors up.
- Slide the metal clamp to the left until it stops against the amplifier edge; then tighten the four wing nuts to keep the amplifier in place.



ABOUT CABLING

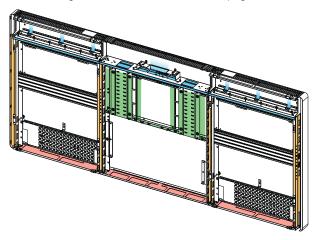
In the next mounting step you start connecting cables. Here are some important notes for a correct, nice, and tidy cabling.

Do not connect to power yet!

Do not connect any power cables to wall socket outlets before step "23. Finish-up" on page 58.

Cable routing

The colored areas in this illustration show the main areas for cable routing. See more details on the next page.



In each step, we show the recommended route for that specific cable; without explicitly showing which hole to thread each and every cable through.

Organize cables neatly using velcro

We strongly recommend that you fasten the cables to the steel structure with velcro straps (Box: B). This is to avoid strain on cables and connectors, to avoid rattling noise, and for a neat and tidy look.

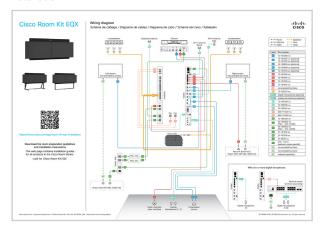


The steel structure is equipped with many fastening points for velcro straps.

The 3 nylon cable ties (Box: B) are for securing the camera cables in step 10.3.

Wiring diagram

A full wiring diagram is shipped with the product. It is also available online, at https://www.cisco.com/go/room-kit-eqx-installation

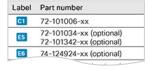


The wiring diagram also gives some guidance how to route the cables.

Cable marking

Each cable has a part number, which is printed on the cable. The installation guide and wiring diagram refer to cables by a label, for easy reference.

You'll find a table that maps the label to a part number in the wiring diagram.



Where are the cables

The cables are in the accessory kit boxes (Box: Acc 1, Acc 2).

The main cable routing areas

Behind the flap - from the channels and through the holes for the camera and loudspeakers. Keep the cables away from the loudspeakers to avoid rattling noise. Use the supplied velcro straps.

The bottom trays. Keep the cables away from the bass to avoid rattling noise. Use the supplied velcro straps.

The channels between the modules. Also the channels on the sides can be used, if convenient for the socket outlet location in your room.

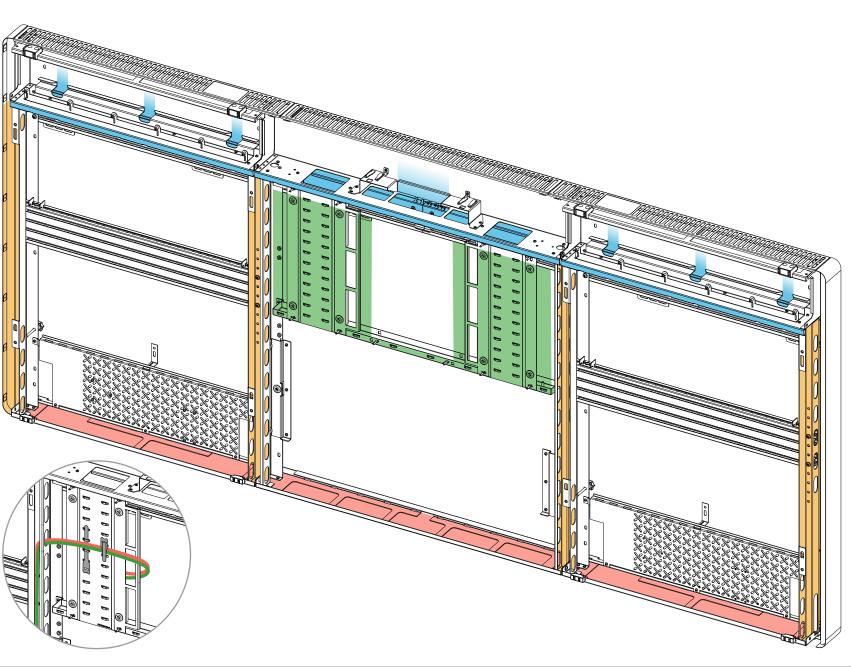
Thread cables through the holes where convenient.

In front of the codec and amplifier clamps. All cables for the codec/ amplifier comes from the channels between the modules.

Lead the cables out through one of the holes, across the clamp, and then back again to the connector panels. This is important for strain relief.

When done, fasten the cables with velcro.

A few cables also run across from left to right just below the clamps. Keep the cables away from the bass to avoid rattling noise. Use the supplied velcro straps.



4. Mount the power strip and PSUs

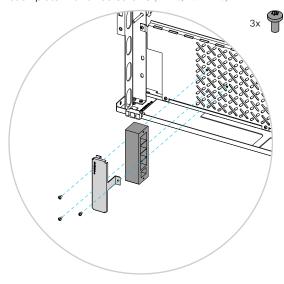
The power strip and PSUs are placed in the left side module, close to the bottom.

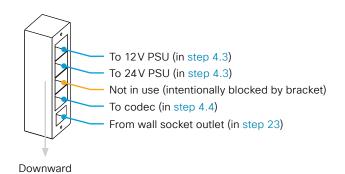
Don't connect the power strip to the wall socket outlet now.

Power strip and PSUs 1x Power strip (Box: Acc 1) 1x Power strip bracket (Box: B) 1x PSU, 12V (Box: Acc 1) 1x PSU bracket (Box: B) 1x PSU, 24V (Box: Acc 1) (M4x8, Torx T20) (Box: B)

4.1. Mount the power strip

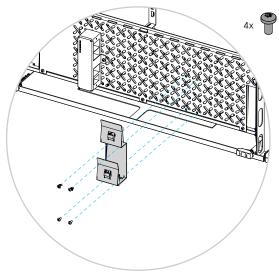
Place the bracket over the power strip and fasten it to the back plate with three screws (M4x8, Torx T20).





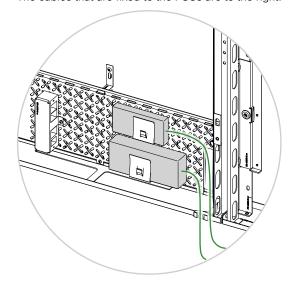
4.2. Mount the PSUs

1. Fasten the PSU bracket to the back plate with four screws (M4x8, Torx T20).



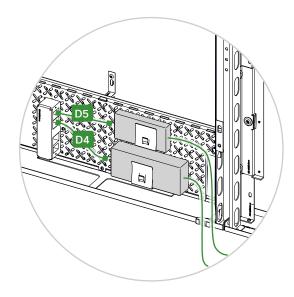
2. Slide the two PSUs into the bracket. The smaller 12V PSU is above the larger 24V PSU.

The cables that are fixed to the PSUs are to the right.



4.3. Connect the PSU cables

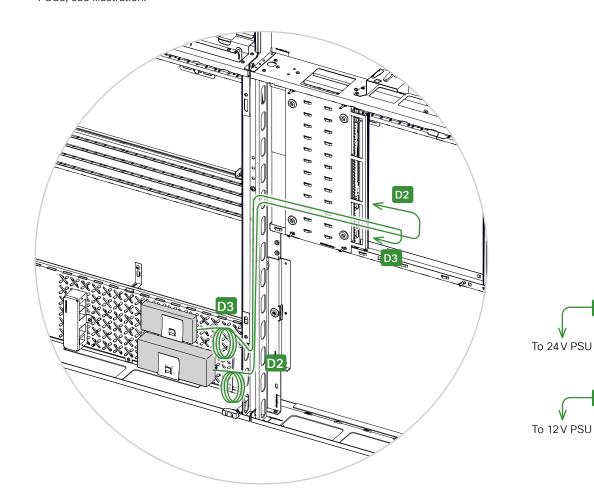
- 1. Connect the PSUs to the power strip:
 - D4 for the 24 V PSU
 - D5 for the 12V PSU



2. The 24 V PSU (the largest one) has a power switch. Switch it to ON.

- 3. Guide the cables as shown in the illustration, and connect the PSUs to the amplifier:
 - D2 for the 24V PSU
 - D3 for the 12V PSU

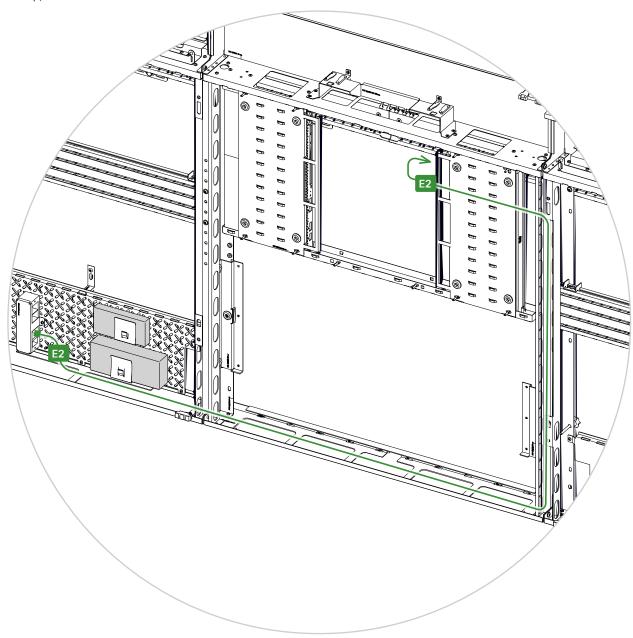
Coil and strap (with velcro) excess cable close to the PSUs, see illustration.



Amplifier

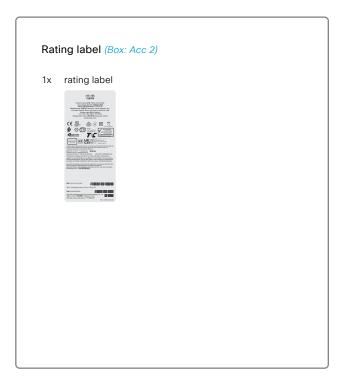
4.4. Connect the codec power cable

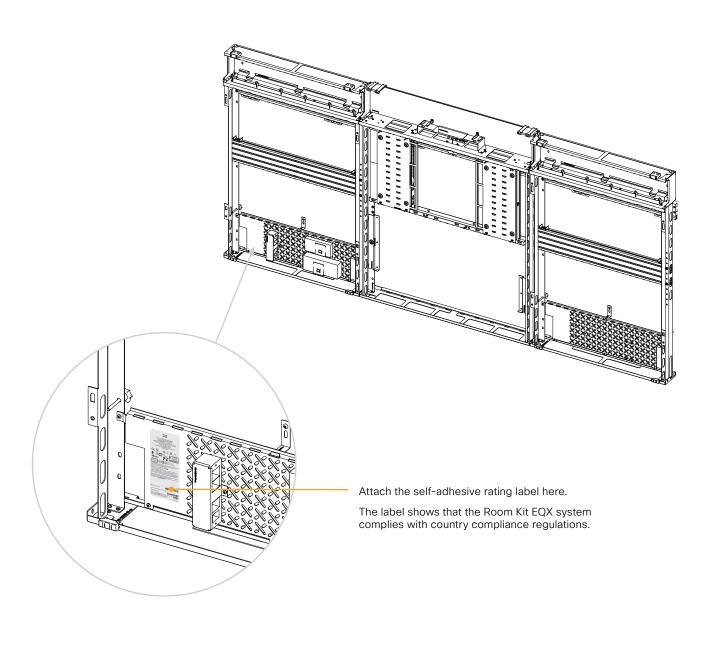
Connect the power cable between the codec and the power strip, $\ensuremath{\mathsf{E2}}.$





5. Attach the rating label





6. Mount the loudspeakers

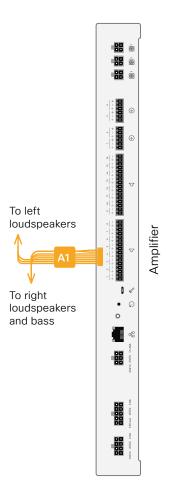
There are three loudspeakers on each side – and a bass unit. Their cables are bundled, and have a common connector connected to the amplifier. The other ends of the cable bundle are labeled S1, S2, S3, S4, S5, S6, SB1 to identify which cable goes to which loudspeaker.

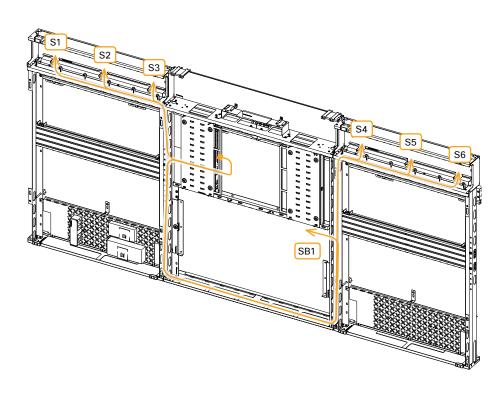
Loudspeakers 6x loudspeaker (Box: Speakers) 12x (M4x10, Torx T20) (Box: B) 1x bass (Box: Bass) 6x (M4x8, Torx T20) (Box: B)

6.1. Connect and arrange the cables

- 1. Connect the loudspeaker cable to the amplifier.
- 2. Route the other ends of the cable bundle as shown in the illustration. Let the ends hang freely at this point.

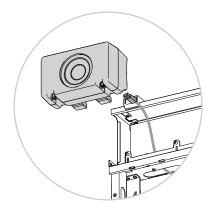
Check the labels, because it is important for the audio experience that the correct cable is connected to the correct loudspeaker.





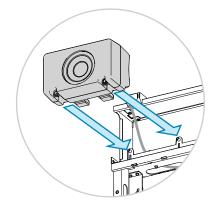
6.2. Insert the loudspeakers

The system has six loudspeakers; three on each side of the camera. The speakers are identical. Repeat this procedure for all loudspeakers.



1. Connect the correct cable to the loudspeaker.

The cables are marked with S1 to S6 – counting from the left, see illustration.

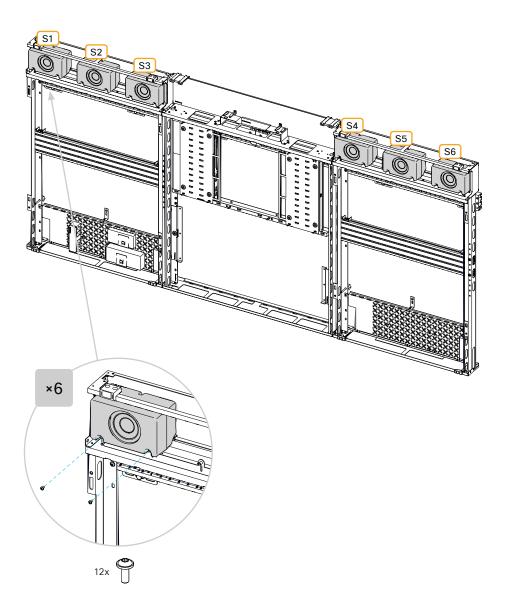


2. Enter the loudspeaker onto the pegs.

Check that the rubber gaskets stay firmly on the pegs.

Make sure that no cables are touching the loudspeakers. If they do, they may cause rattling noise.

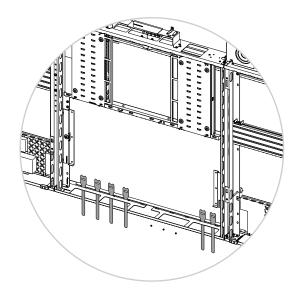
3. Fasten each loudspeaker with two screws (M4x10, Torx T20).



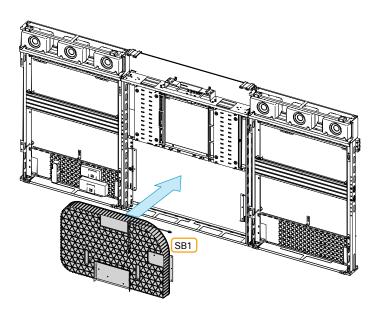
6.3. Add velcro straps to the lower tray

We recommend you add velcro straps to the center tray now, because it's more difficult when the bass is in place.

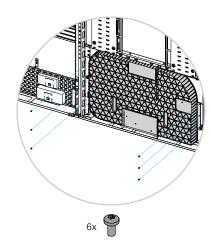
You will us them to secure the cables that run underneath the bass later in the installation process.



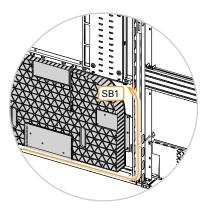
6.4. Insert the bass



1. Place the bass in the frame, and fasten with six screws (M4x8, Torx T20).



Connect the cable to the bass. The cable is marked with SB1.



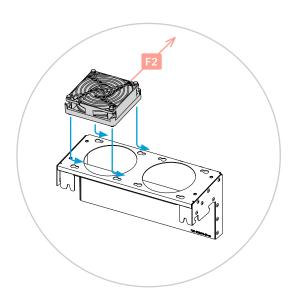
Make sure that no cables are touching the bass. If they do, they may cause rattling noise.

7. Mount the fan module

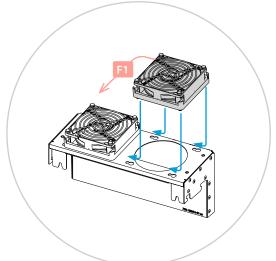
The fan module is placed above the bass. It contains two identical fans.

7.1. Assemble the fan module

 Rotate the fan so that the cable (F2) is facing backward (see illustration), and slide the first fan onto the bottom part of the fan duct.

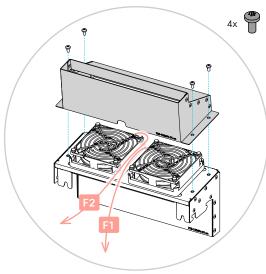


2. Rotate the second fan so that the cable (F1) is facing left (see illustration), and slide the fan onto the bottom part of the fan duct.

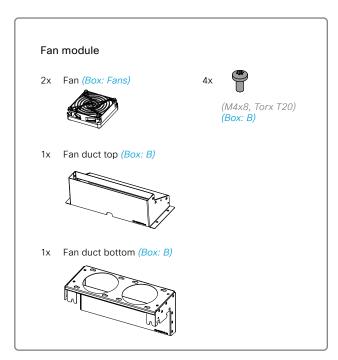


3. Place the top part of the fan duct on top, and fasten it with 4 screws (M4x8, Torx T20).

Make sure the cables (F1, F2) comes through the slot at front without being pinched.

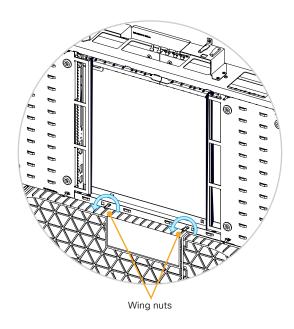


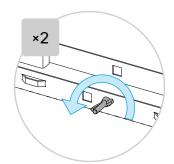




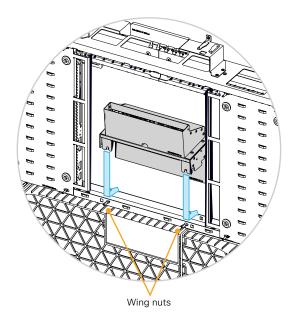
7.2. Install the fan module

1. Loosen the two wing nuts, but not remove them.

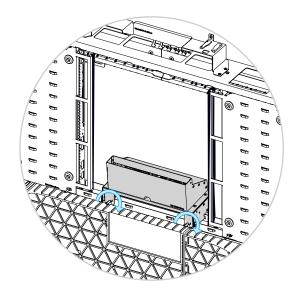


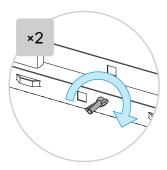


Lower the fan module down onto the screws with wing nuts, and then push it into the groove.



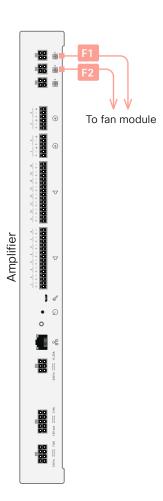
3. Tighten the two wing nuts.

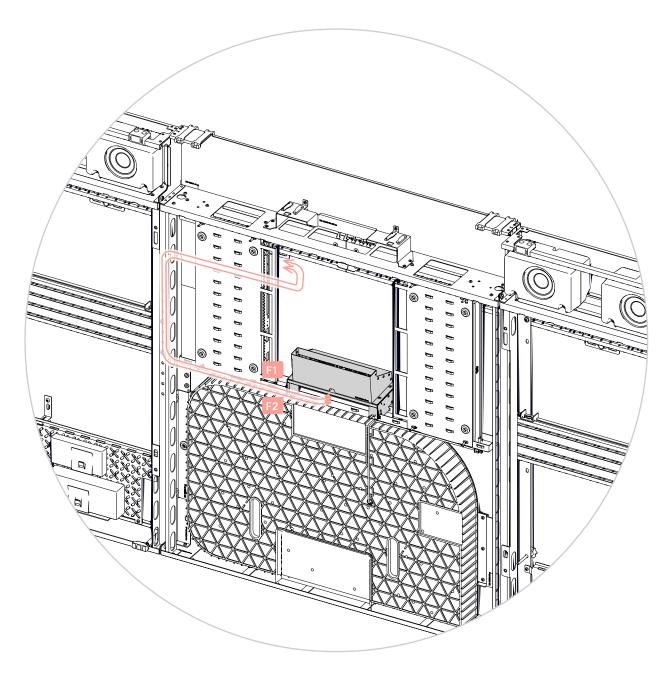




7.3. Connect the fans to the amplifier

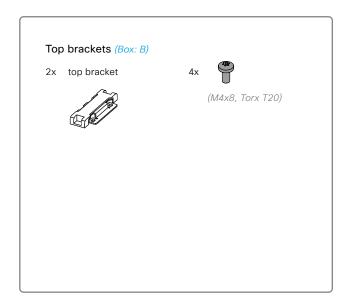
Guide the fan cables (F1, F2) as shown in the illustration, and connect them to the amplifier. The two fans are equal.

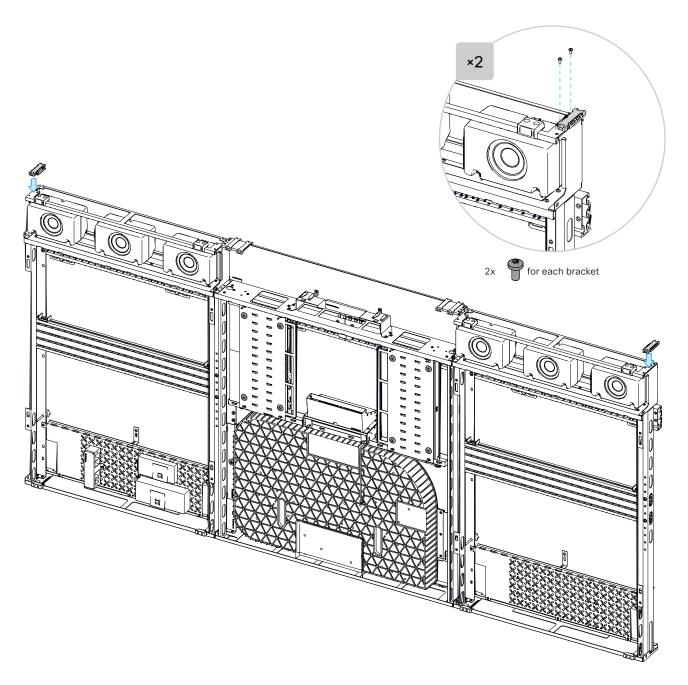




8. Mount the top brackets

There is a small bracket on each upper corner. Fasten the brackets with two screws each (M4x8, Torx T20).





9. Mount the antenna brackets

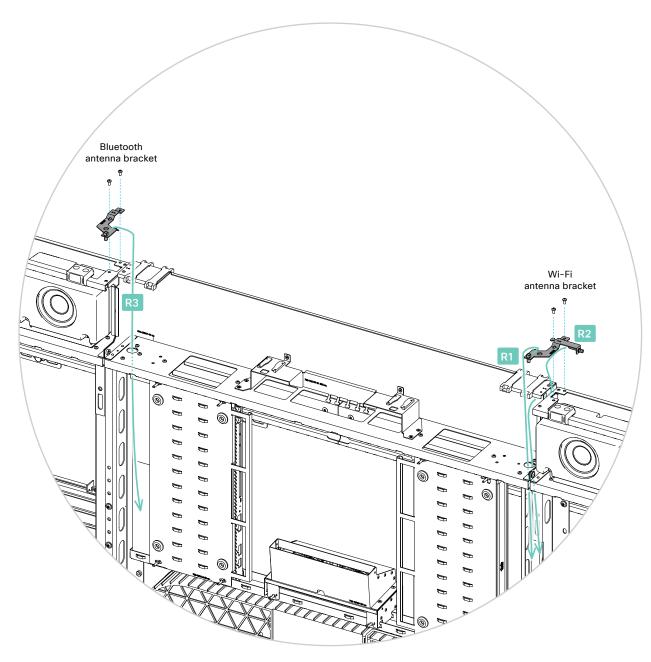
The system has two Wi-Fi antennas and one Bluetooth® antenna.

The antenna cables are pre-mounted on the brackets; the whip antennas themselves are mounted in step 11.

Antennas (Box: Acc 2) 1x Bluetooth antenna bracket with antenna cable 1x Wi-Fi antenna bracket with two antenna cables (M4x8, Torx T20)

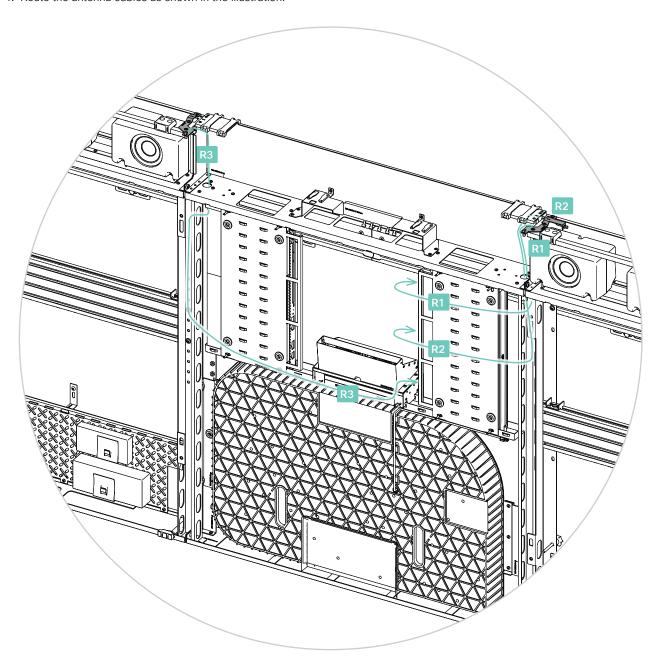
9.1. Fasten the antenna brackets

Fasten the two antenna brackets with two screws each (M4x8, Torx T20)



9.2. Route the antenna cables and connect them to the codec

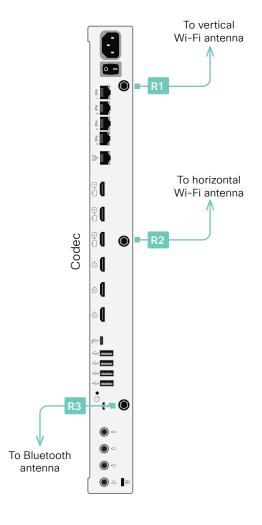
1. Route the antenna cables as shown in the illustration.



2. Connect the antenna cables to the codec.

It's important to connect the correct antenna to the correct connector on the codec.

For more details, see the full wiring diagram that were shipped with the system. It's also available online.



29

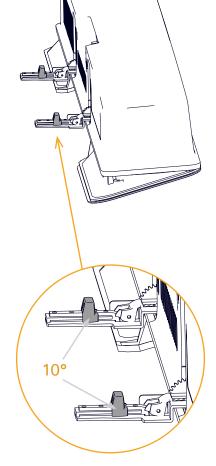
10. Insert the camera

Camera (Box: Camera)

1x camera

10.1. Set the camera tilt angle to 10°

There are two sliders for adjusting the camera tilt angle at the bottom of the camera.

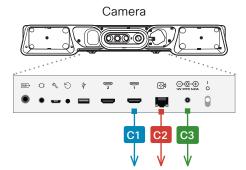


Flip down the hinges and move the sliders to 10°, which is the required tilt angle for this product.

Flip the hinges back when done.

10.2. Connect cables to the camera

1. Connect cables to the camera (C1, C2, C3). Let the other end hang freely for now.



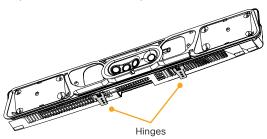
2. Check that the camera power switch is On.



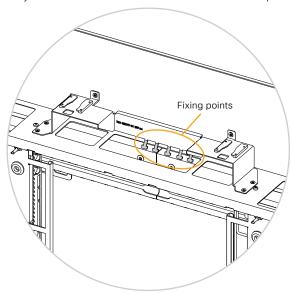


10.3. Snap the camera onto the bracket

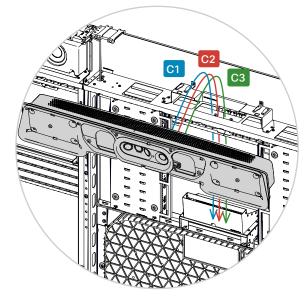
1. Observe the small hinges below the camera. They will snap onto the bracket in step 4.



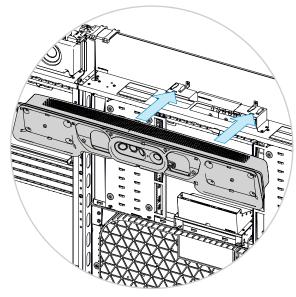
2. Observe these fixing points under the camera bracket. They will be used to secure the camera cables in step 5.



3. Thread the cables down the hole by the camera bracket.



4. Click the camera hinges onto the bracket, without pinching or disconnecting the cables.



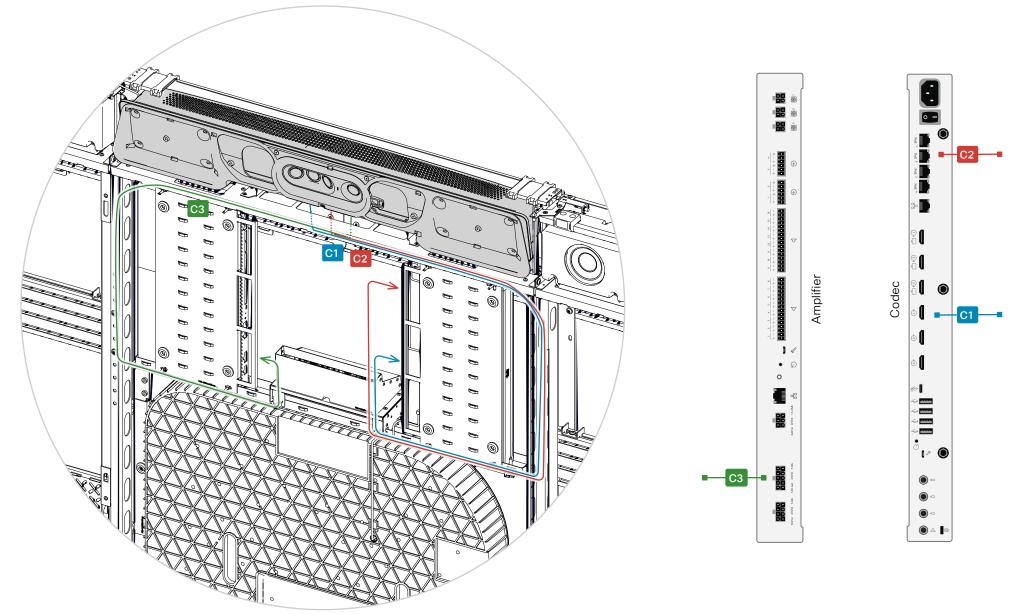
Make sure the camera sits firmly in place by gently trying to pull it.

To avoid accidentally pulling out the camera cables, secure them to the fixing points under the camera bracket with the supplied plastic cable ties.

10.4. Connect the camera to the codec and amplifier

Route the cables as shown in the illustration.

- Connect the video (C1) and camera control (C2) cables to the codec
- · Connect the power cable (C3) to the amplifier.

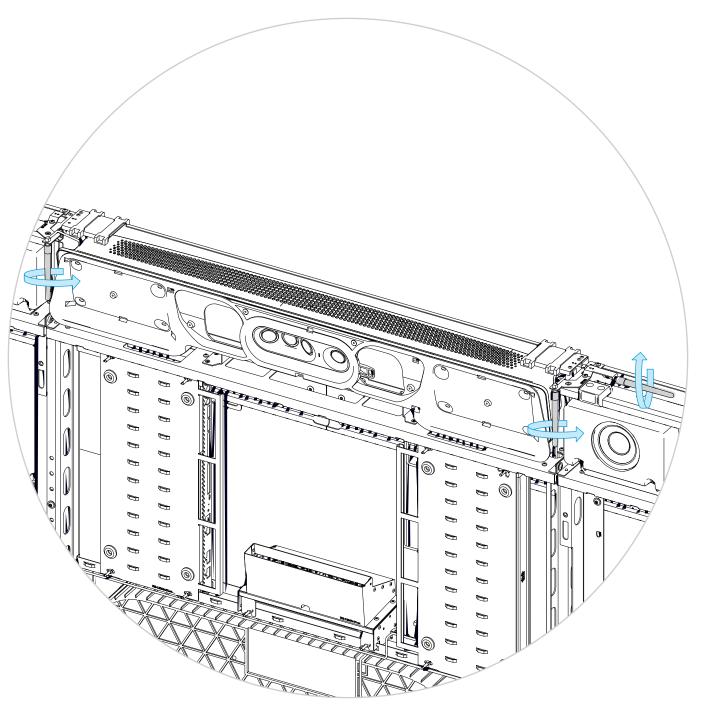


11. Attach the antennas

Attach whip antennas to the antenna brackets that were mounted in step 9: one to the left of the camera, and two to the right of the camera.

The three whip antennas are equal.





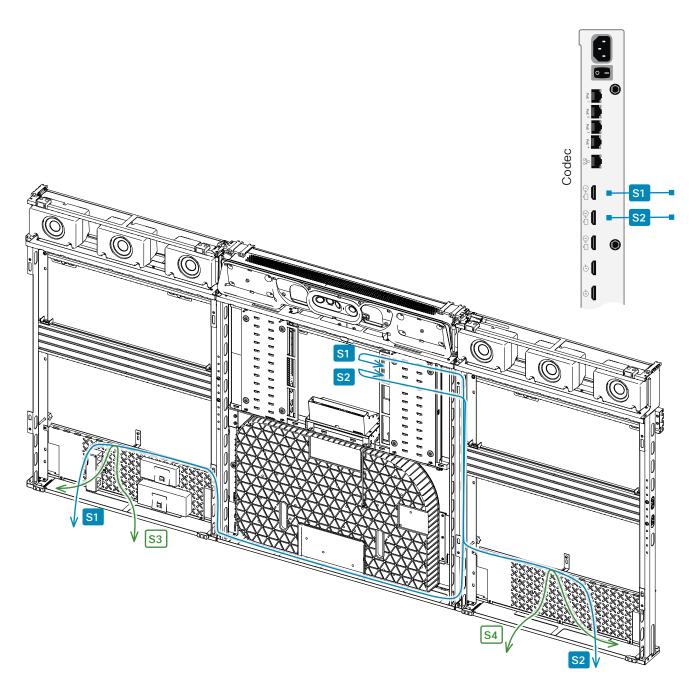
12. Connect screen cables

HDMI cables for the screens:

- Connect the left (S1) and right (S2) screen HDMI cables to the codec.
- Route the cables as shown, and leave the end for the screen hanging freely. The cables will be connected to the screens in step 23.

Power cables for the screens:

- Fasten the power cables for the left (S3) and right (S4) screens to the corresponding side module with velcro straps. These cables are shipped with the screens.
 - The best placement depend on your screens and the position of your power outlets.
- Use the regular cable routes when leading the cables toward the wall socket outlets.
- Don't connect them to the wall socket yet.
- The cables will be connected to the screens in step 23.



13. Connect power and network cables

Connect amplifier to codec:

 Connect the cable between the amplifier and the codec (D1). Route it as shown in the illustration.

Main network cable:

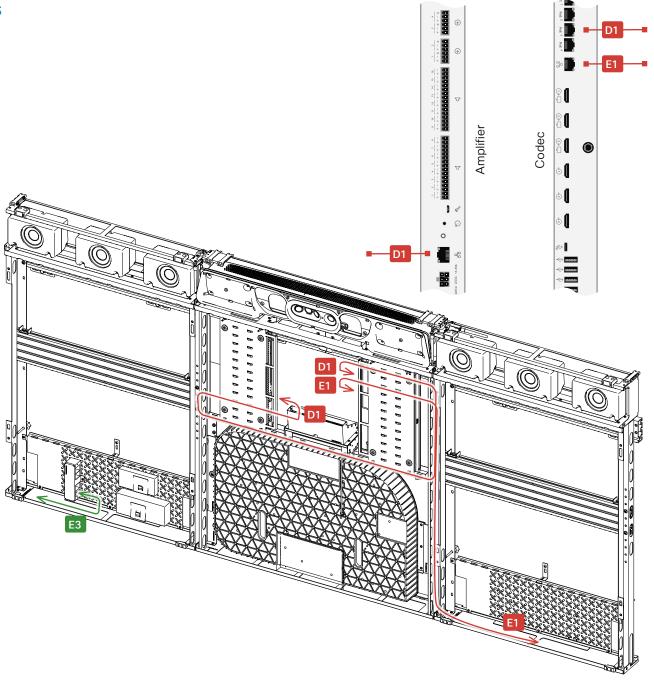
 Connect the network cable to the codec (E1). Use the regular cable routes when leading the cable toward the network wall socket.

Don't connect it to the wall socket yet.

Main power cable:

 Connect the cable to the power strip (E3). Use the regular cable routes when leading the cable toward the network wall socket.

Don't connect it to the wall socket yet.

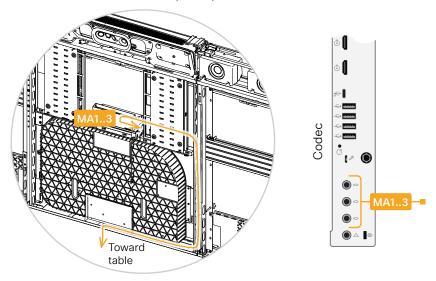


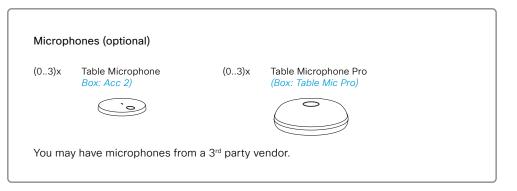
14. Connect the microphones

The system needs external microphones. You may have ordered analog or digital microphones from Cisco, or you may rely on a 3rd party microphone solution.

Analog microphones:

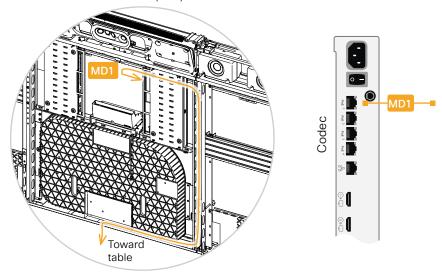
• Lead the microphone cables from the table to the system using the regular cable routes. Then connect them to the codec (MA1..3).





One digital microphone:

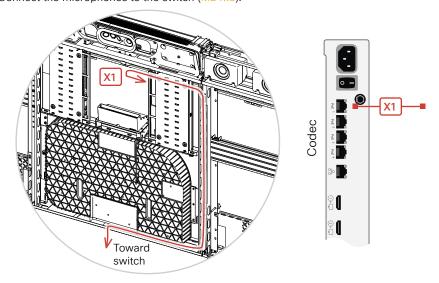
Lead the microphone cable from the table to the system using the regular cable routes.
 Then connect it to the codec (MD1).



More than one digital microphone:

You must connect the microphones to the codec via an Ethernet switch (see the wiring diagram):

- Place an Ethernet switch by the table and connect it to the codec (X1). Also connect the switch to power (X2).
- · Connect the microphones to the switch (MD1..3).



15. Connect the Room Navigator and presentation cables

Room Navigator:

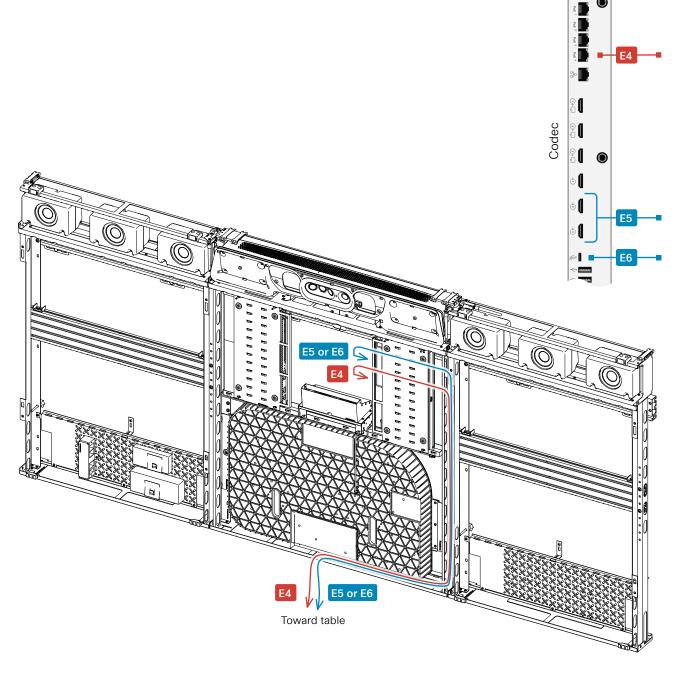
· Connect the Room Navigator to the codec (E4).

Or alternatively, if you have connected an Ethernet switch by the table as described for digital microphones in step 14, you can choose to connect the Room Navigator (E4) to this switch instead of to the codec. This alternative in not shown in the wiring diagram.

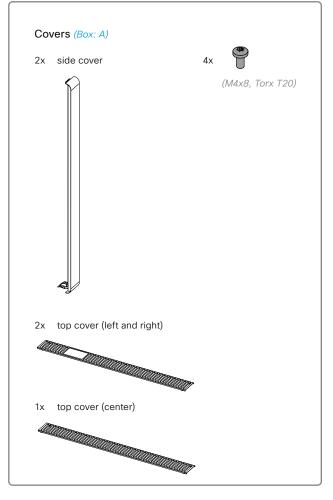
Presentation cable:

- Connect one or more presentation cables to the codec.
 You may use HDMI (E5) or USB-C (E6).
- Use the regular cable routes when leading the cables toward the table.

Room Navigator 1x Room Navigator (Box: Navigator)



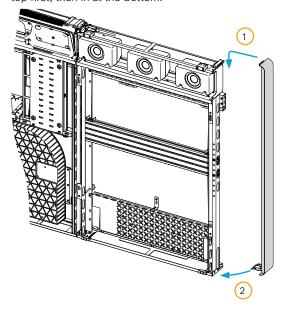
16. Mount the covers



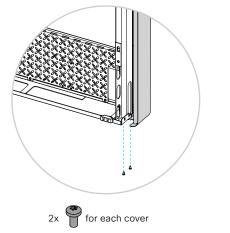
16.1. Mount the side covers

Repeat on both sides.

1. Place the side cover as shown. Push it in and down at the top first, then in at the bottom.



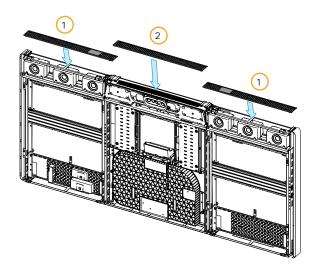
2. Fasten the cover with two screws (M4x8, Torx T20).



16.2. Mount the top covers

Place the top covers as shown in the illustration. Left and right first, then the center top cover. The covers shall rest on the rubber grommets an both ends.

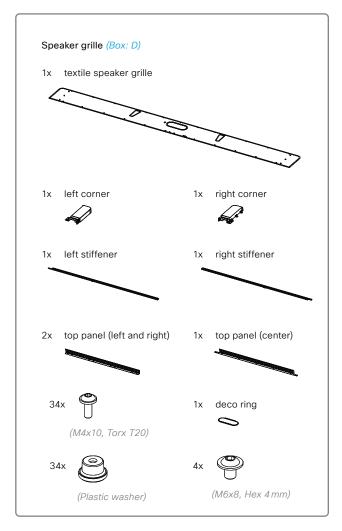
To avoid rattling noise, make sure the covers doesn't touch any metal parts. Also, make sure not to interfere with the antenna cables.



17. Mount the speaker grille

Both the speaker grille (assembled in this step) and bottom grille (assembled in step 18) consist of several parts. The corners and stiffeners are equal for both grilles; the top/ bottom panels are different.

There are marks on the parts, identifying which goes on the left side and which goes on the right side. Left and right, referring to the grille laying like shown in the illustrations.

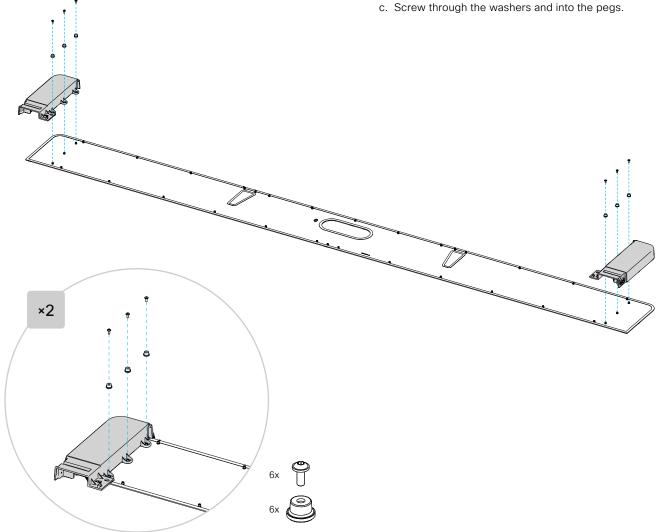


17.1. Assemble the speaker grille

- 1. Place the textile speaker grille on a flat and clean surface, front side down.
- 2. The pegs on the grille has threaded holes for screws.

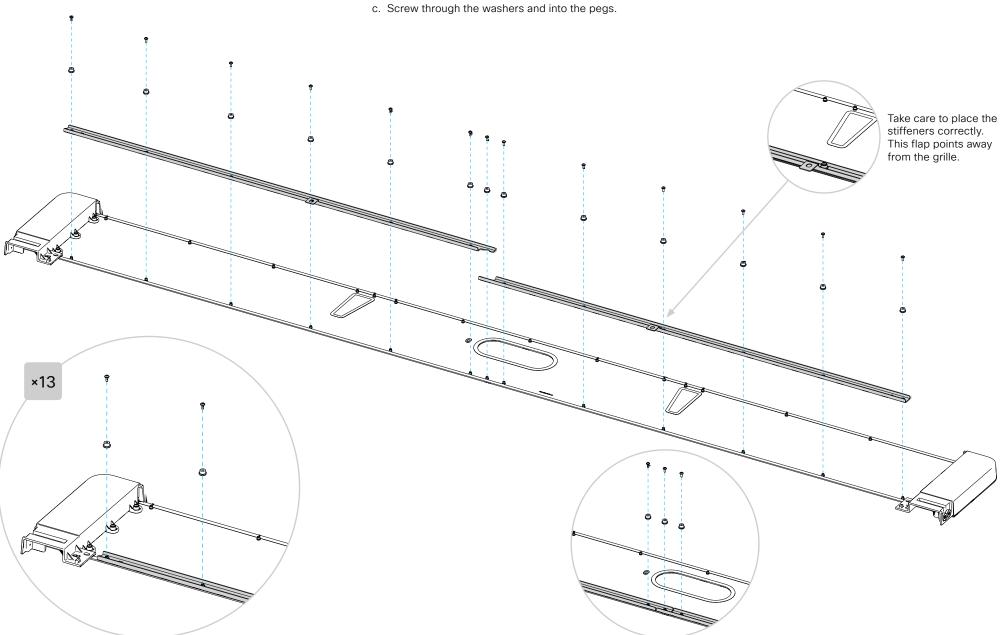
The left and right corners are fastened to the rear of the grille with three screws (M4x10, Torx T20) and washers (Plastic washer) for each corner.

- a. Place the corner onto the pegs as shown in the illustration.
- b. Place the washers on the pegs.



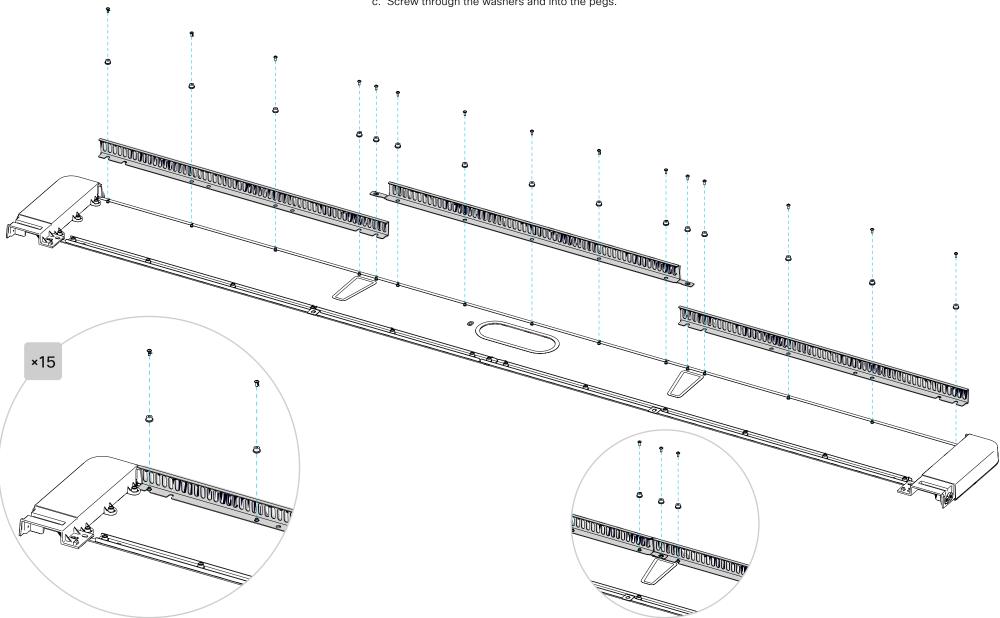
- 3. The left and right stiffener are fastened to the grille with 13 screws (M4x10, Torx T20) and washers (Plastic washer) in total.
- a. Place the stiffeners onto the pegs as shown in the illustration.

- b. Place the washers on the pegs.



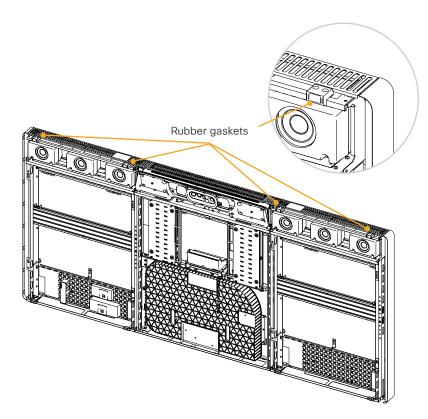
- 4. The top panels are fastened to the grille with 15 screws (M4x10, Torx T20) and washers (Plastic washer) in total.
- First, place the left and right panel onto the pegs as shown in the illustration. Then, place the center panel on top.
- 5x 🖱 1
 - 15x

- b. Place the washers on the pegs.
- c. Screw through the washers and into the pegs.

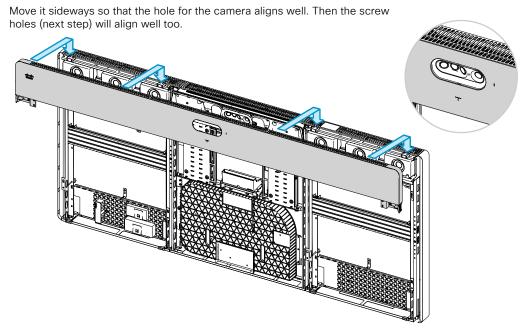


17.2. Attach the speaker grille

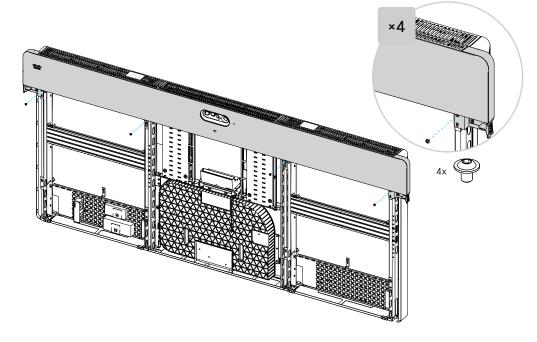
1. Observe the rubber gaskets that the grille will rest on.



2. Hang the speaker grille onto the steel frame and let it rest on the rubber gaskets.



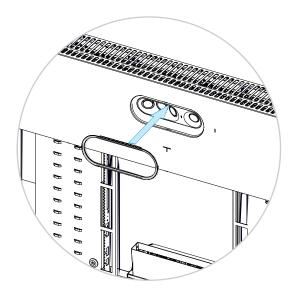
3. Fasten the grille with four screws (M6x8, Hex 4mm).



42

17.3. Insert the deco ring

Place the deco ring around the camera. The ring provides a neat transition between the grille and camera.



18. Mount the bottom grille

Both the speaker grille (assembled in step 17) and bottom grille (assembled in this step) consist of several parts. The corners and stiffeners are equal for both grilles; the top/bottom panels are different.

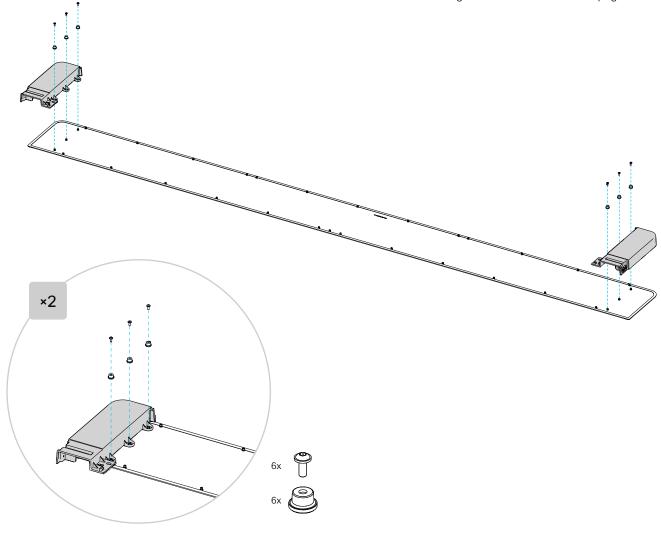
Bottom grille (Box: D) 1x textile bottom grille 1x left corner 1x right corner 1x right stiffener 1x left stiffener 2x bottom panel 1x bottom panel (left and right) (center) (M4x10, Torx T20) (M6x8, Hex 4 mm) (Plastic washer)

18.1. Assemble the bottom grille

- Place the textile bottom grille on a flat and clean surface, front side down.
- 2. The pegs on the grille has threaded holes for screws.

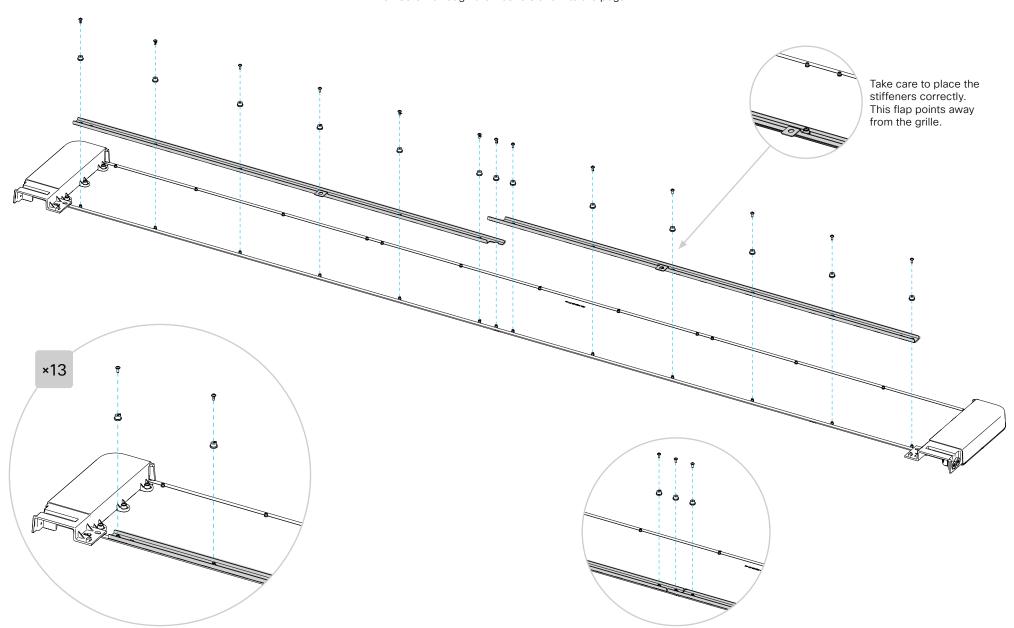
The left and right corners are fastened to the rear of the grille using three screws (M4x10, Torx T20) and washers (Plastic washer) for each corner.

- a. Place the corner onto the pegs as shown in the illustration.
- b. Place the washers on the pegs.
- c. Screw through the washers and into the pegs.



- 3. The left and right stiffener are fastened to the grille with 13 screws (M4x10, Torx T20) and washers (Plastic washer) in total.
- a. Place the stiffeners onto the pegs as shown in the illustration.
- x 🖱 13x 🕻

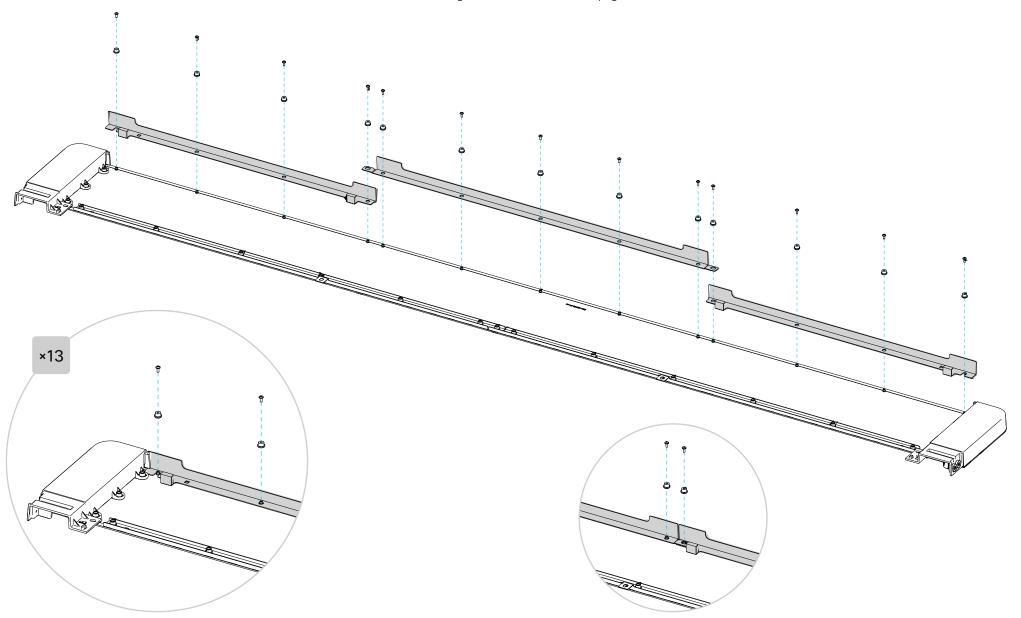
- b. Place the washers on the pegs.
- c. Screw through the washers and into the pegs.



4. The bottom panels are fastened to the grille with 13 screws (M4x10, Torx T20) and washers (Plastic washer) in total.

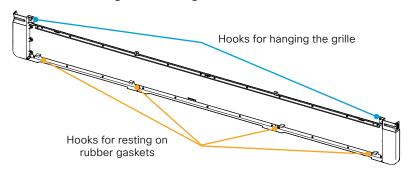
- First, place the left and right panel onto the pegs as shown in the illustration. Then, place the center panel on top.
- x 🎒 13x

- b. Place the washers on the pegs.
- c. Screw through the washers and into the pegs.

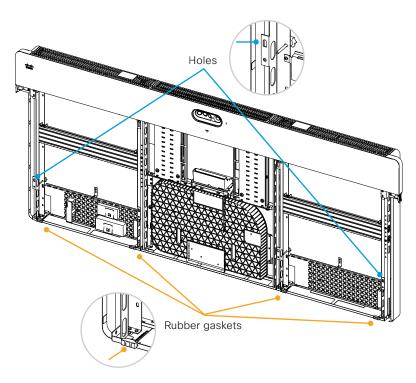


18.2. Attach the bottom grille

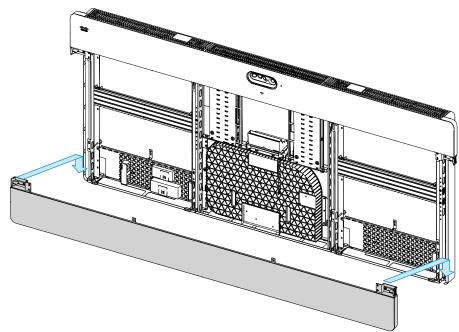
1. Observe the following hooks on the grille rear side.



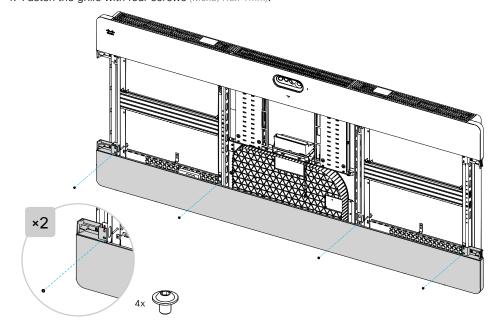
2. Observe the holes that the grille will hang in, and rubber gaskets it will rest on.



3. Hang the bottom grille in the holes and let it rest on the rubber gaskets.

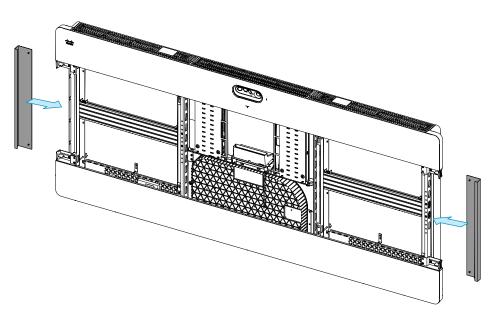


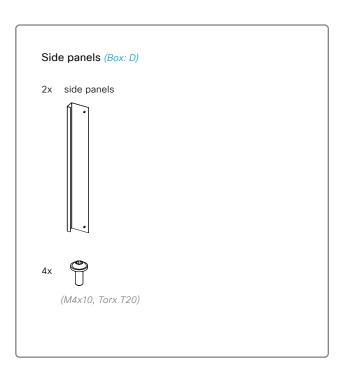
4. Fasten the grille with four screws (M6x8, Hex 4mm).



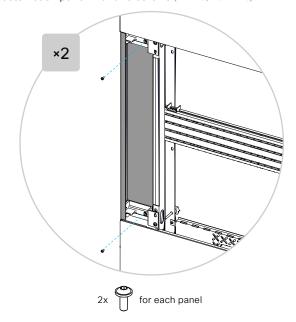
19. Mount the side panels

1. Insert the side panels as shown. Align them so that the top and bottom gaps are equal.





2. Fasten each panel with two screws (M4x10, Torx T20).



20. Mount the left screen

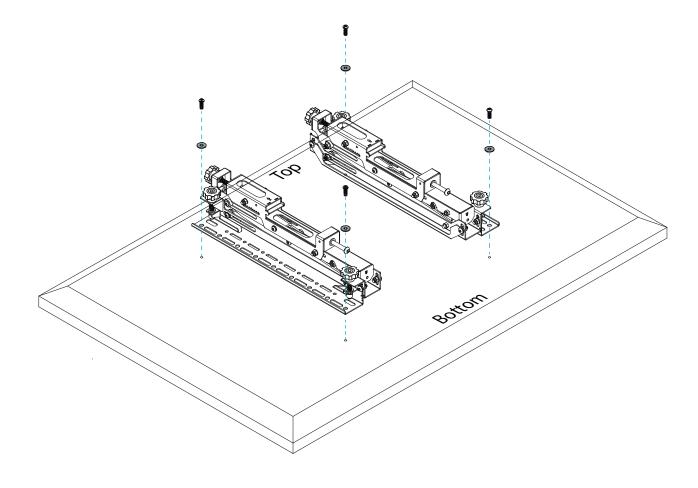
Mount the brackets on the VESA holes on the back of the screen. See the installation guide that follow the brackets for more details than provided here.

Left screen 1x screen 1x right interface arm 1x left interface arm (Box: Bracket 1) (Box: Bracket 1) 1x adjustable brace (Box: Bracket 1) (M5x6) (Box: Bracket 1) A set of screws, spacers, and washers for fastening the interface arms to the screen is provided. Use the ones that suit your screen. If neither of the screws and spacers fit your screen, the installer must provide the required hardware.

20.1. Attach the interface arms to the back of the screen

- Carefully place the screen on a flat, even, soft surface with the back facing upward. Take care not to make any scratches on the screen. Follow guidelines given by the screen vendor.
- Attach the interface arms to the back of the screen; the row of holes facing the screen edge. Ensure the same holes are used on both arms.

The interface arms come with an interface kit, that is, a set of screws and spacers; use the ones that suits your screen. If neither of the screws and spacers fits your screen, you must provide your own.

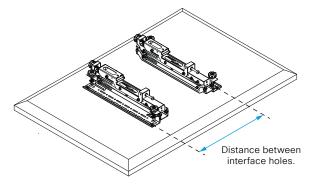


49

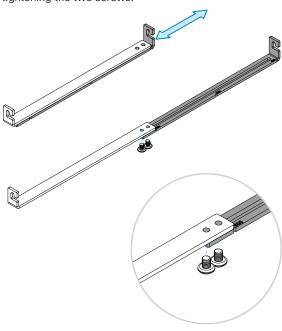
20.2. Connect the interface arms with the adjustable brace

1. Measure the horizontal distance between the interface holes on your screen.

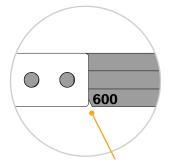
The adjustable brace supports distances ranging from 400 mm to 600 mm.



2. Extend the brace and fix it at the desired length by tightening the two screws.

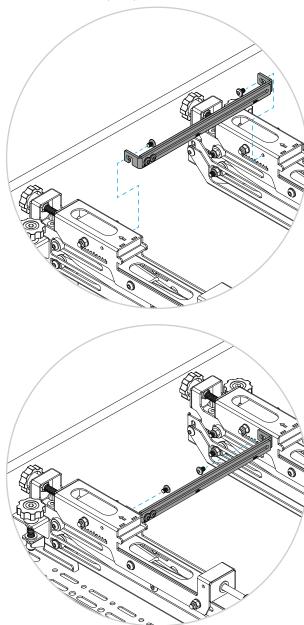


Notches show the fixing position for $400\,\mathrm{mm}$, $500\,\mathrm{mm}$, and $600\,\mathrm{mm}$ distances.



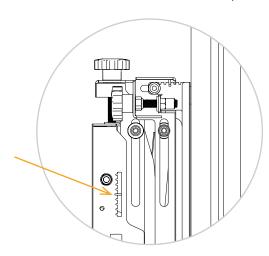
Example: If the interface holes are 600 mm apart, extend the brace to the notch marked with 600.

3. Place the brace between the interface arms and fasten it with two screws (M5x6).

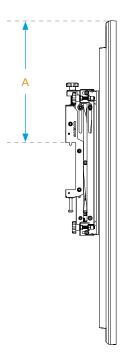


20.3. Adjust the VESA rail position

1. Check that the interface arm is in its neutral position.

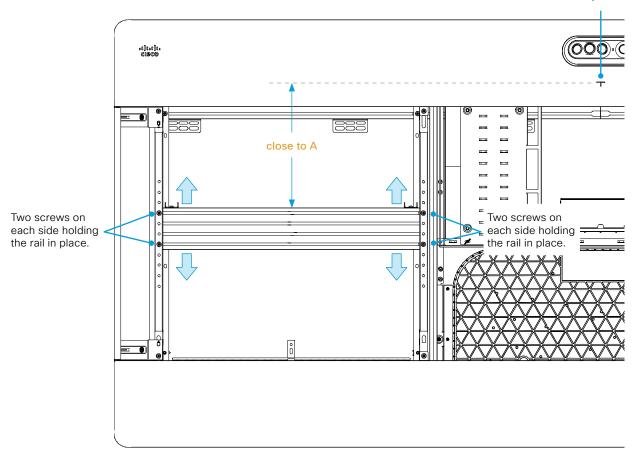


2. Measure the distance A to the top of the screen.



- 3. Hold the VESA rail, while you unscrew the four screws that holds the rail in place.
- 4. Move the rail up or down to match the distance A as close as possible.
- 5. Insert the screws again and tighten to hold the rail firmly in its new position.

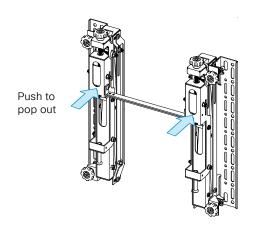
Measure from the T-mark on the grille to the top of the rail.

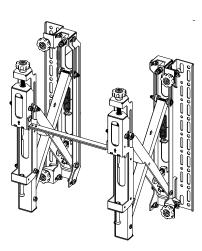


20.4. Hang the screen on the VESA rail

Push both interface arms firmly, to put them in pop-out mode.

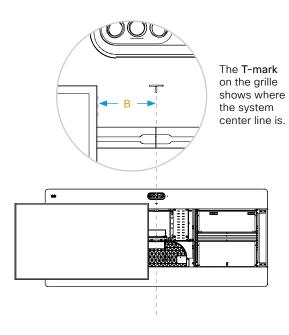
They pop out quickly, so mind your fingers!

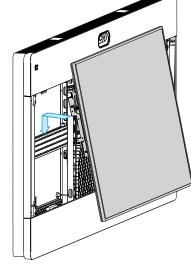


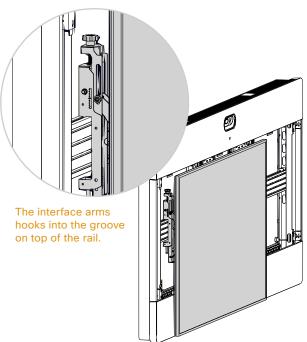


Interface arms in pop-out mode

2. Hang the screen with interface arms onto the rail a distance B, 50-70 mm (2-3 in.), to the of the system center line. Make sure it hooks into the groove as shown in the close-up.

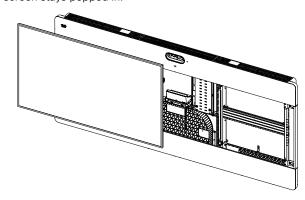




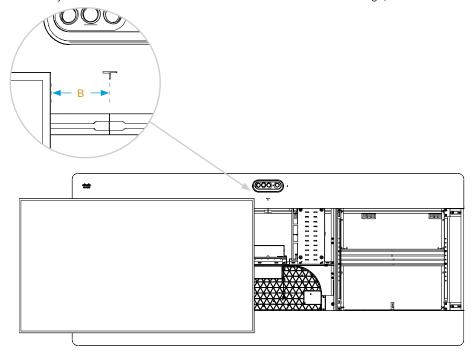


20.5. Move the screen to center

1. Push the screen gently (close to where the interface arms are attached), so that the screen stays popped in.



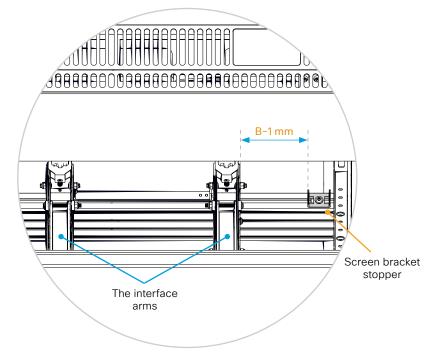
2. Accurately measure the distance between the T-mark and the screen edge, B.



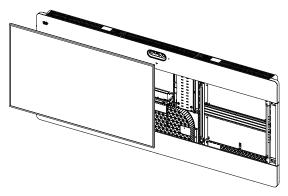
3. Push the screen gently, so that the screen pops out.

4. Locate the screen bracket stopper closest to system center. It is fastened on top of the rail with a screw (view from top, behind the screen).

Loosen the screw (Hex 4mm) and slide the stopper so that the distance between the stopper and the closest interface arm is 1 mm less than the distance B that you just measured.



- 5. Tighten the screw to fasten the stopper in its new position.
- 6. Lift the screen slightly off the rail and re-position it as close to the stopper as possible.
- 7. Push the screen gently, so that the screen stays popped in.



21. Mount the right screen

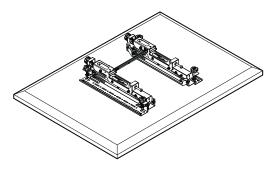
Mount the brackets on the VESA holes on the back of the screen. See the installation guide that follow the brackets for more details than provided here.

Right screen 1x screen 1x right interface arm 1x left interface arm (Box: Bracket 2) (Box: Bracket 2) 1x adjustable brace (M5x6) (Box: Bracket 2) A set of screws, spacers, and washers for fastening the interface arms to the screen is provided. Use the ones that suit your screen. If neither of the screws and spacers fit your screen, the installer must provide the required hardware.

21.1. Attach the interface arms and adjust the rail position

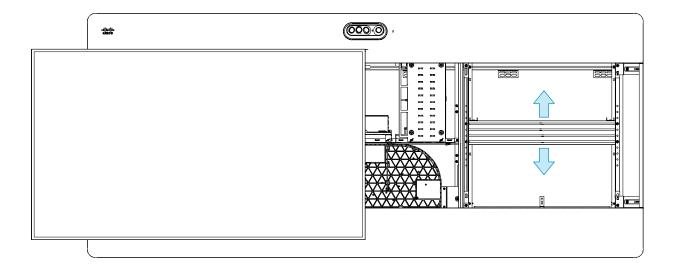
Repeat the following steps for the right screen:

- 1. Step 20.1 "Attach the interface arms to the back of the screen"
- 2. Step 20.2 "Connect the interface arms with the adjustable brace"



3. Step 20.3 – "Adjust the VESA rail position".

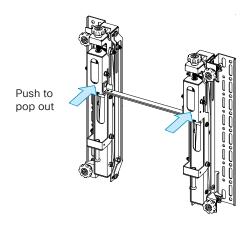
Since the left and right screens are equal, the rail position should be the same as for the left screen.

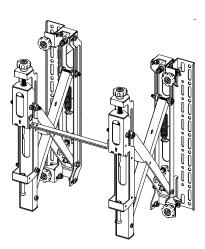


21.2. Hang the screen on the VESA rail

Push both interface arms firmly, to put them in pop-out mode.

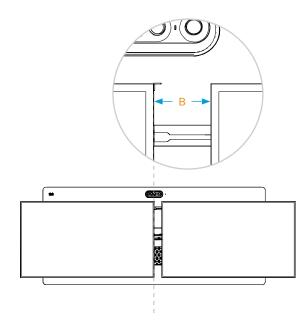
They pop out quickly, so mind your fingers!

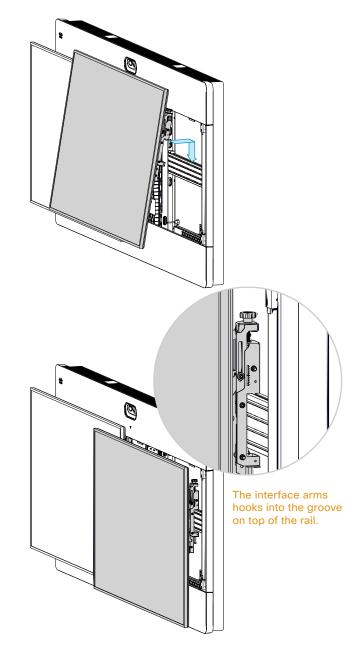




Interface arms in pop-out mode

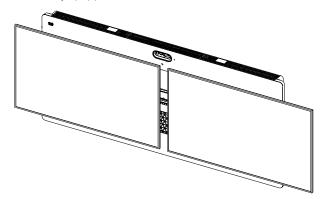
2. Hang the screen with interface arms onto the rail a distance B, 50-70 mm (2-3 in.), away from the left screen. Make sure it hooks into the groove as shown in the close-up.



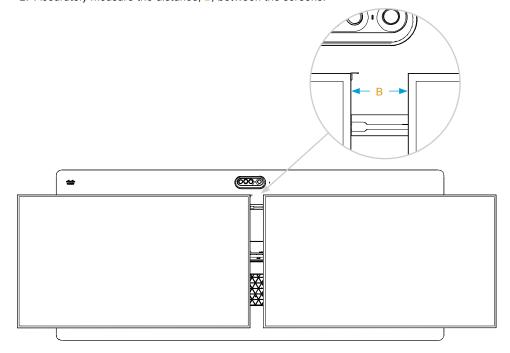


21.3. Move the screen to center

1. Push the screen gently (close to where the interface arms are attached), so that the screen stays popped in.



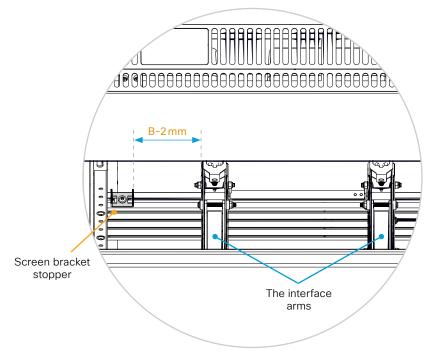
2. Accurately measure the distance, B, between the screens.



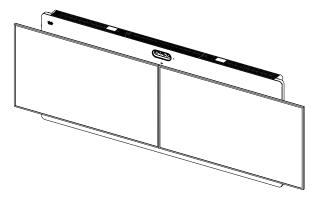
3. Push the screen gently, so that the screen pops out.

4. Locate the screen bracket stopper closest to system center. It is fastened on top of the rail with a screw (view from top, behind the screen).

Loosen the screw (Hex 4mm) and slide the stopper so that the distance between the stopper and the closest interface arm is 2mm less than the distance B that you just measured.



- 5. Tighten the screw to fasten the stopper in its new position.
- 6. Lift the screen slightly off the rail and re-position it as close to the stopper as possible.
- 7. Push the screen gently, so that the screen stays popped in.



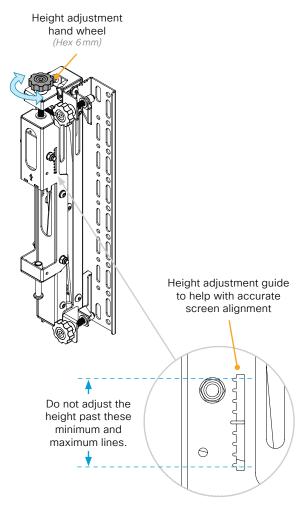
22. Fine-adjust the screens

You can fine-adjust the screen height and depth using the hand wheels on the interface arms.

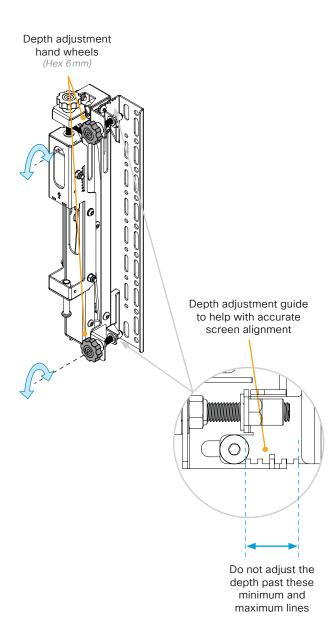
- Ensure the screens are level and at the same height using the height adjustment hand wheels.
- Ensure the screens are plumb with corners equidistant from the grilles using the depth adjustments hand wheels.

Refer to the installation guide that follows the interface arms for more details.

22.1. Height adjustment +/- 20 mm (0.79 in.)



22.2. Depth adjustment +/- 10 mm (0.39 in.)



23. Finish-up

- 1. Remove protection foils from the screens.
- 2. Connect the HDMI (\$1, \$2) and power (\$3, \$4) cables to the screens.
- 3. Also connect the screen power cables (S3, S4) to a wall socket outlet.
- Connect the system to the Ethernet (E1) and power (E3) outlets.
 - The power switches on the camera, codec, and 24V PSU must be ON.
- 5. Follow the instructions on-screen
 - Choose product type "Room Kit EQX" when prompted.

If choosing the wrong product type, the system will not work as expected. You will have to factory reset the codec and run the set-up wizard again to fix the issues.

Intellectual property rights

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of CEP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVENAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE. OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

All printed copies and duplicate soft copies are considered un-Controlled copies and the original on-line version should be referred to for latest version.

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco website at www.cisco.com/go/offices.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

ıı|ııı|ıı CISCO

Cisco Systems Inc. Corporate Headquarters 170 West Tasman Dr. San Jose, CA 95134 USA

https://www.cisco.com