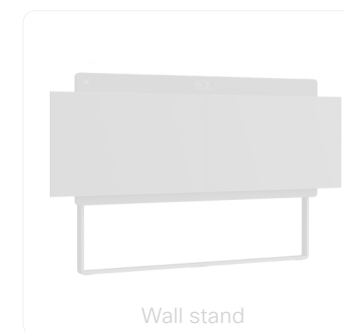
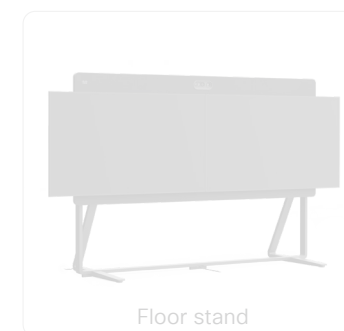


Cisco Room Kit EQX

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.

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BEFORE YOU START THE INSTALLATION

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

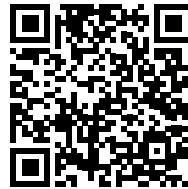
During the installation you need both the *Installation guide* (this guide) and the *Wiring Diagram*. The wiring diagram is shipped with the product.

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-xxxxx-yyyy, where yyyy is the version number; or Dxxxx.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 220 kg (485 lb), 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.

Because some heat might build up inside the Room Kit EQX, the screens must be rated for operation in ambient temperatures up to at least 40°C (104°F).

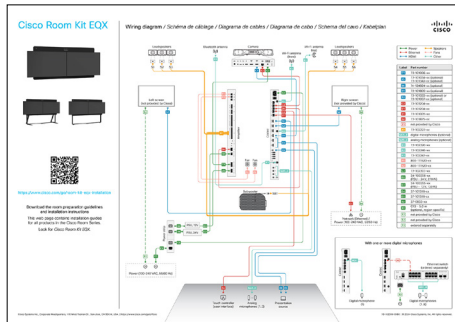
* Maximum weight per screen allowed is 50 kg (110 lb).

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 EQX.

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

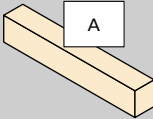
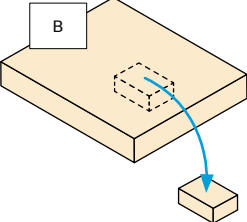

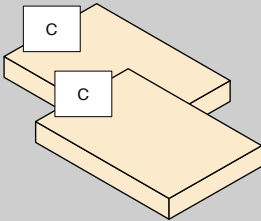




- **Two screens**

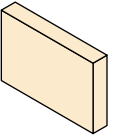


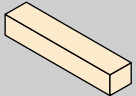

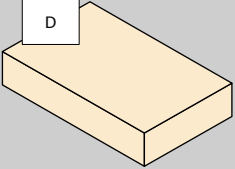
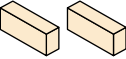

Refer to the [Room preparation guidelines](#) online for screen requirement details and recommended screens.

- **Microphones** (if you have not included Cisco microphones in your order).

- **Ethernet switch** (if you have more than 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.

Boxes on pallet	Reference used in this guide
Wall mount kit ¹	 A
Center module ¹	 B
Includes box with brackets and other components	 Center kit
Side module 1,2 ¹	 C1, C2
Cisco Codec EQ	 Codec
Amplifier (Cisco DNAM IV)	 Amplifier
Accessory kit 1	 Acc kit 1
Loudspeakers	 Loudspeakers

Boxes on pallet	Reference used in this guide
Subwoofer	 Subwoofer
Fans	 Fans
Accessory kit 2	 Acc kit 2
Camera (Cisco Quad Camera)	 Camera
Cisco Room Navigator	 Navigator
Grilles ¹	 D
VESA bracket 1,2	 VESA bracket 1, VESA bracket 2
Cisco Table Microphone Pro (optional) ²	 Table Mic Pro

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







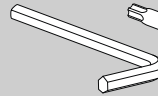
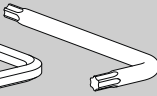
- Stepladder
- Drill
 - Torx T20 bit
 - Hex 4 mm bit
 - Appropriate drill bits for your wall material
 - Appropriate wall fasteners/anchors for your wall construction
- Laser level and/or spirit level
- Measuring tape
- Pencil

Screws, nuts, spacers, and tools

Screws, nuts, spacers, and tools are in small cardboard boxes inside the bigger boxes [A](#), [Center kit](#) (placed inside [B](#)), and [D](#); and in a paper bag in [Acc kit 2](#).

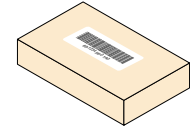
We recommend: When you open one of the bigger boxes, first look for the screw box and place it where you can easily find it when you need the screws.

Each step throughout this guide has an inventory list with all required parts for that step. These lists also include the number and type of screws, and in which box you find them.

		A (1 box)	Center kit (1 box)	D (2 boxes)	Acc kit 2 (1 paper bag)
M6x12, Hex 4 mm		8x			
M6x8, Hex 4 mm		12x	8x	8x	
M4x8, Torx T20		4x	21x		4x
M4x10, Torx T20			12x	70x	
Plastic washer				66x	
Sliding nut			16x		
	  Hex 4 mm Torx T20		✓		

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](#)).



The screw boxes are small, and with a white barcode sticker.

- Width: 115 mm (4.5 in.)
- Depth: 65 mm (2.6 in.)
- Height: 27 mm (1.1 in.)

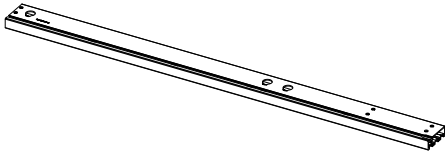
1. Mount the carrier beam

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

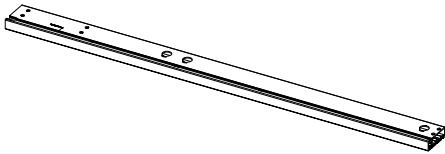
The beam must be level, and accurately centered about the system's vertical center line.

Beam parts (Box: A)

1x left carrier beam



1x right carrier beam



1x joining bracket



6x wall bracket



12x sliding nut



8x



(M6x12, Hex 4 mm)

12x

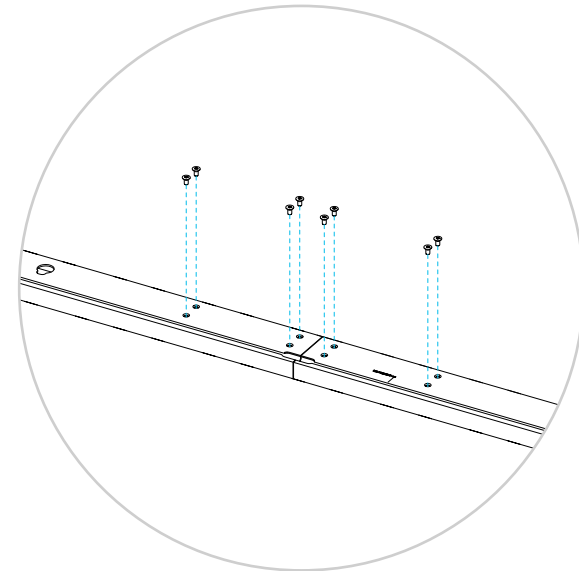
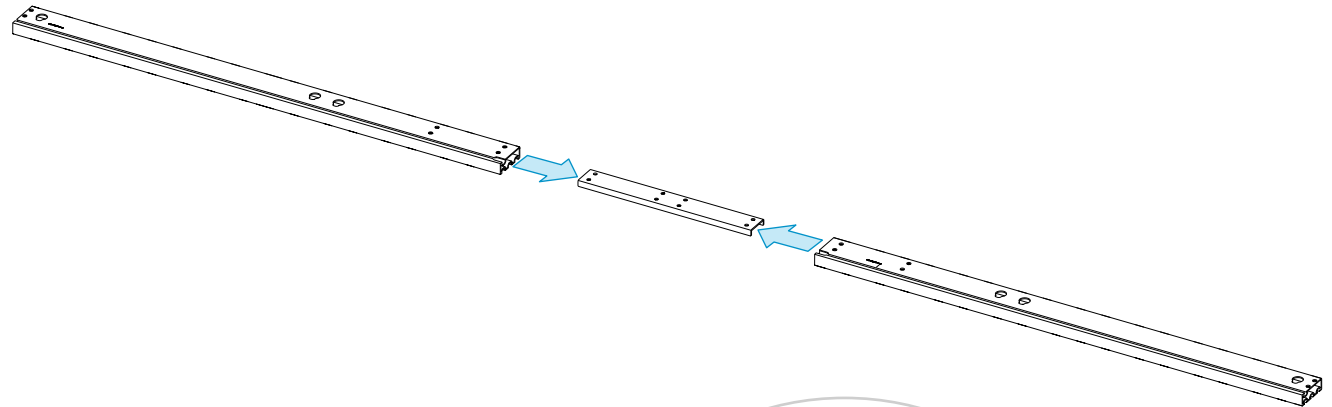


(M6x8, Hex 4 mm)

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 carrier beam

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



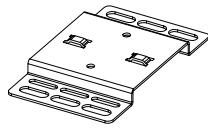
1.2. Add wall brackets to the carrier beam

Read before you continue:

We provide 6 wall 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.

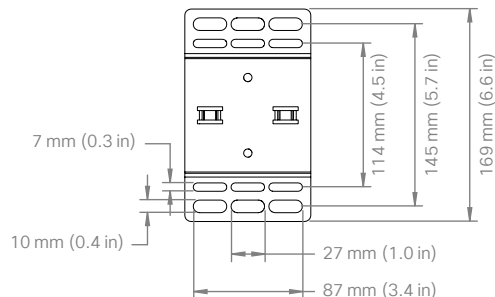


The installer must provide screws and fasteners that suit your type of wall.

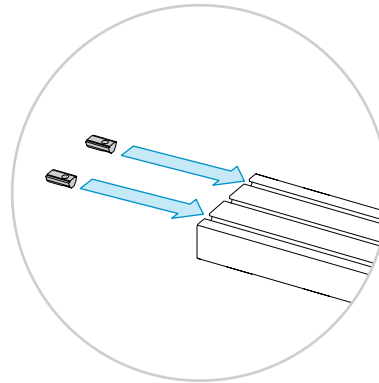
The installer must decide the number of wall brackets and where to place them to safely support the system (weight up to 220 kg (485 lb) including screens*).

- 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:

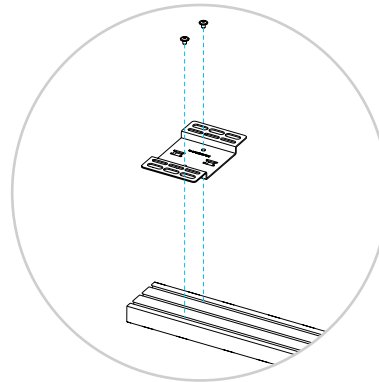



1. Enter one nut in each notch of the carrier beam.



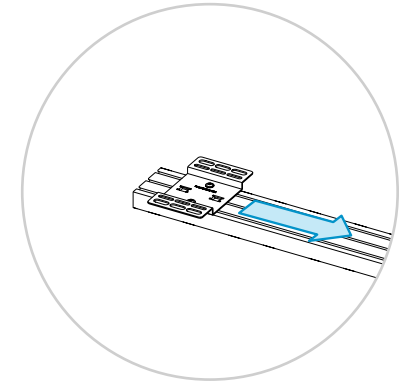
2x  for each bracket

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



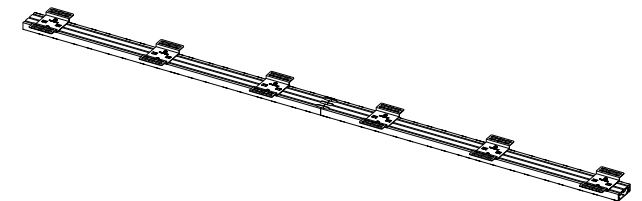
2x  for each bracket

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).

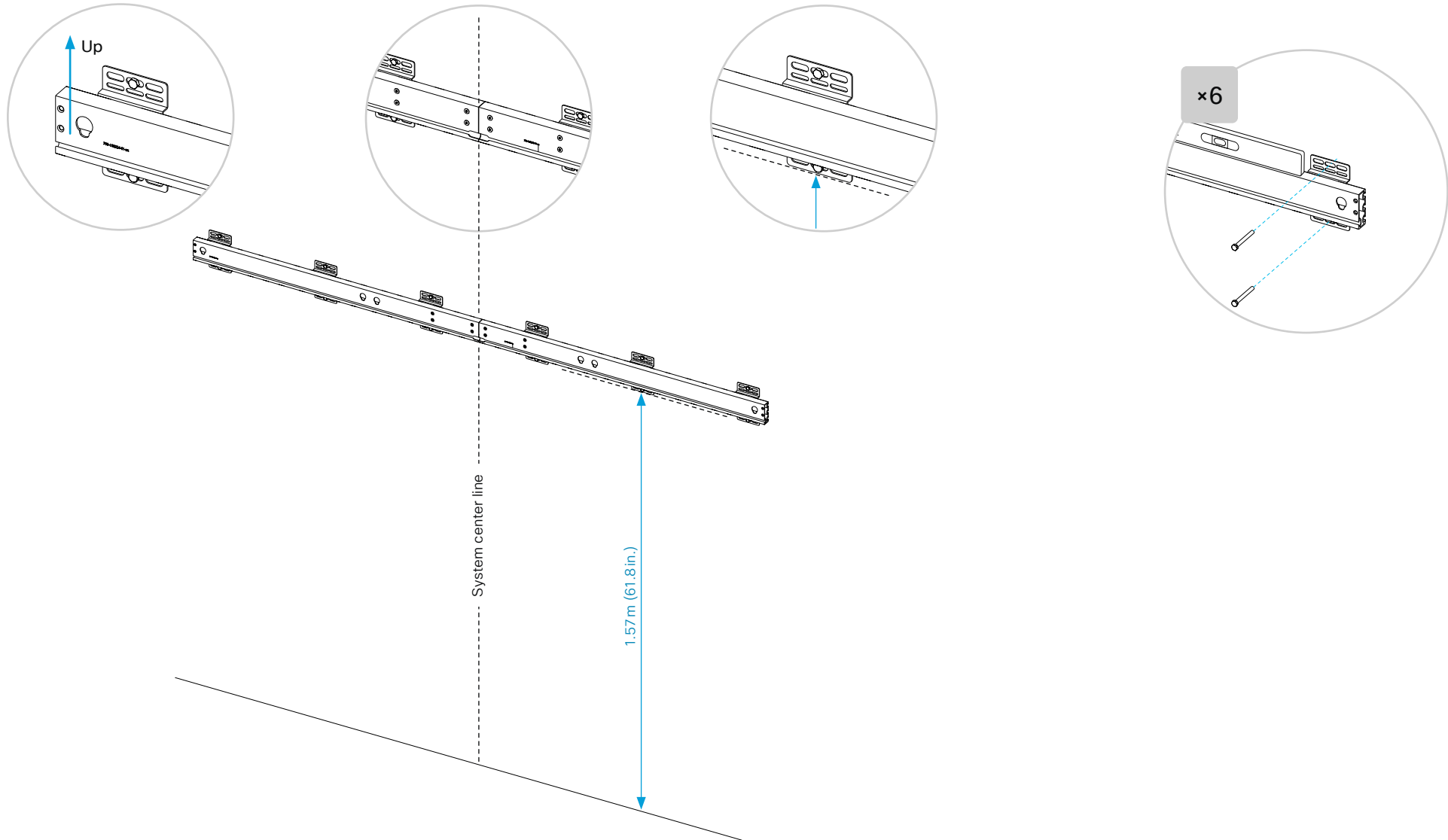
1.3. Fasten the beam to the wall

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.

2. 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.

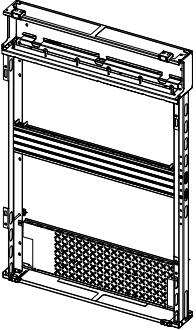


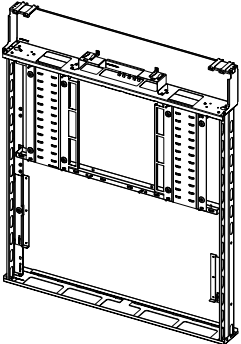

The installer must provide screws and fasteners that suites your type of wall.



2. Mount the modules

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

Mounting modules

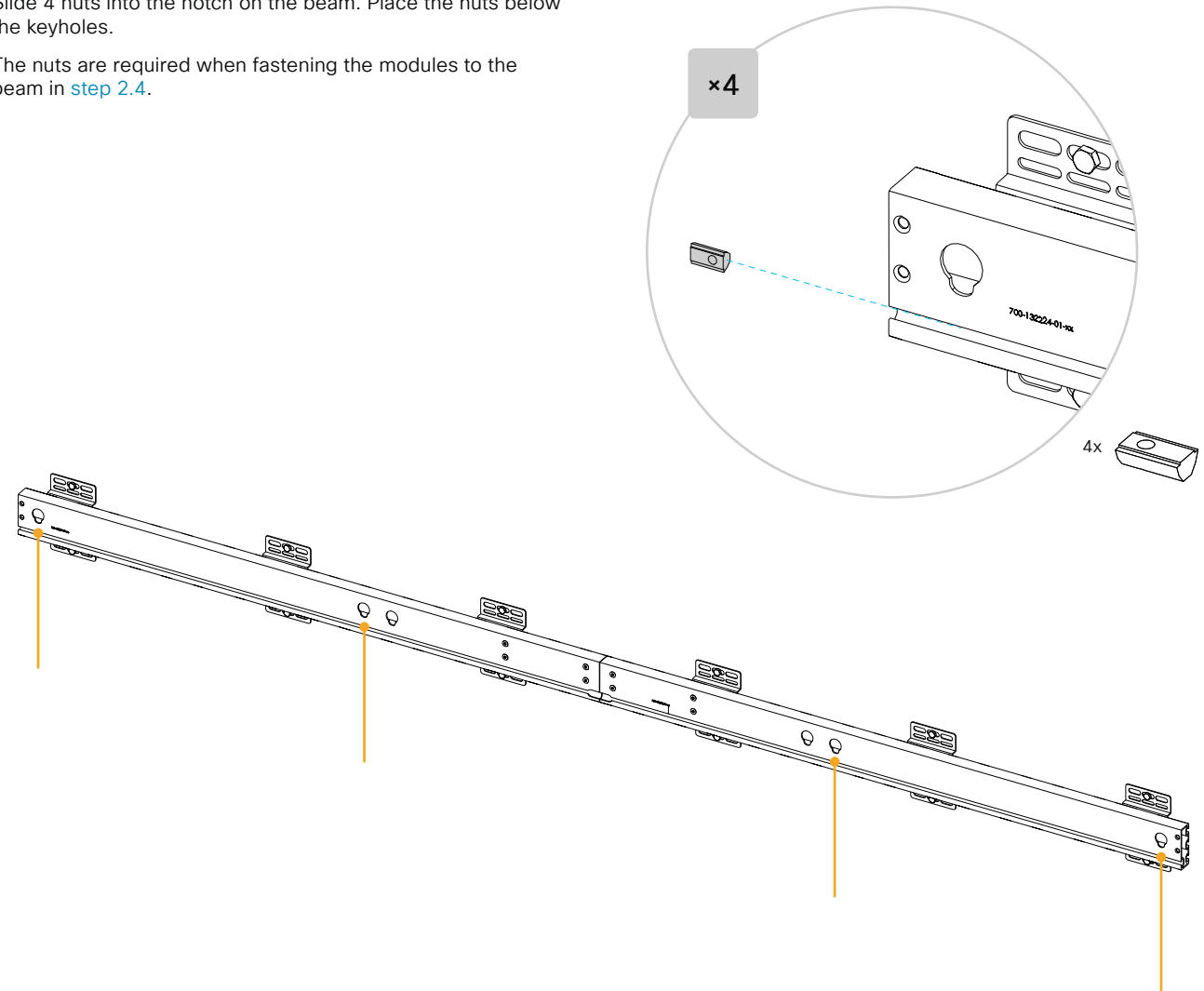
2x side module (Box: C1, C2)	2x angle bracket (Box: A)
	
	4x sliding nut (Box: A)
	
1x center module (Box: B)	8x (M6x8, Hex 4 mm) (Box: Center kit)
	

You also need two screws for fastening the angle bracket to the wall (not provided by Cisco).

2.1. Slide nuts into the carrier beam

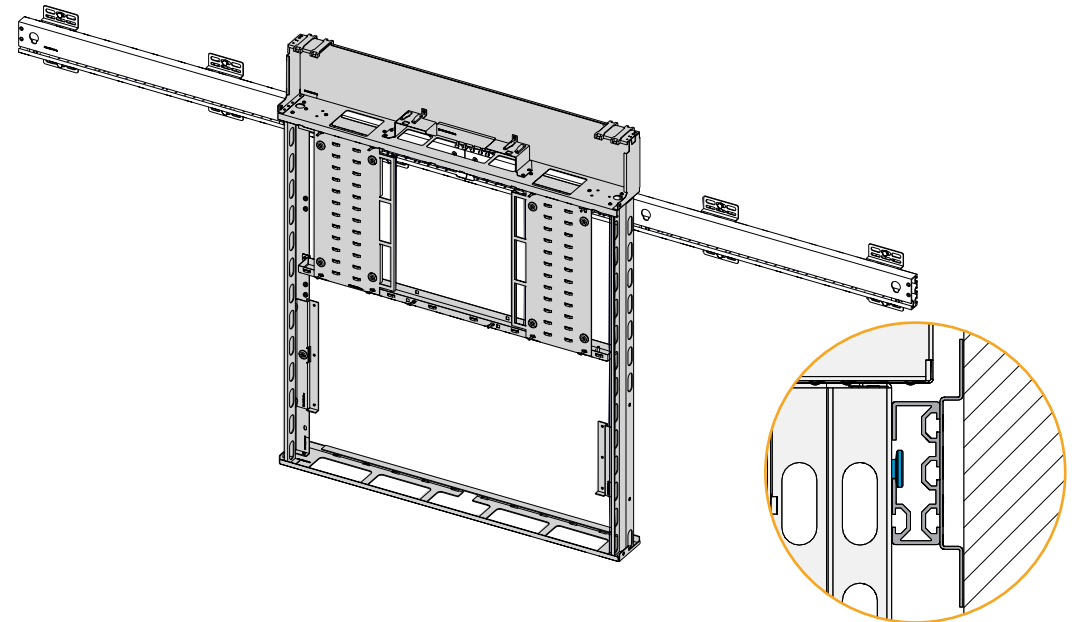
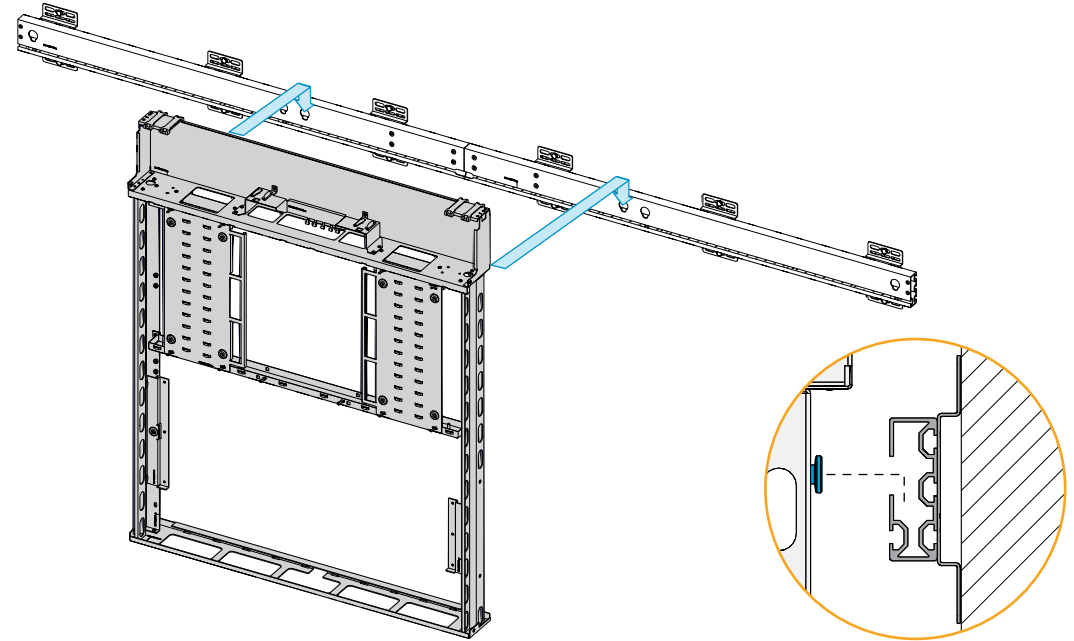
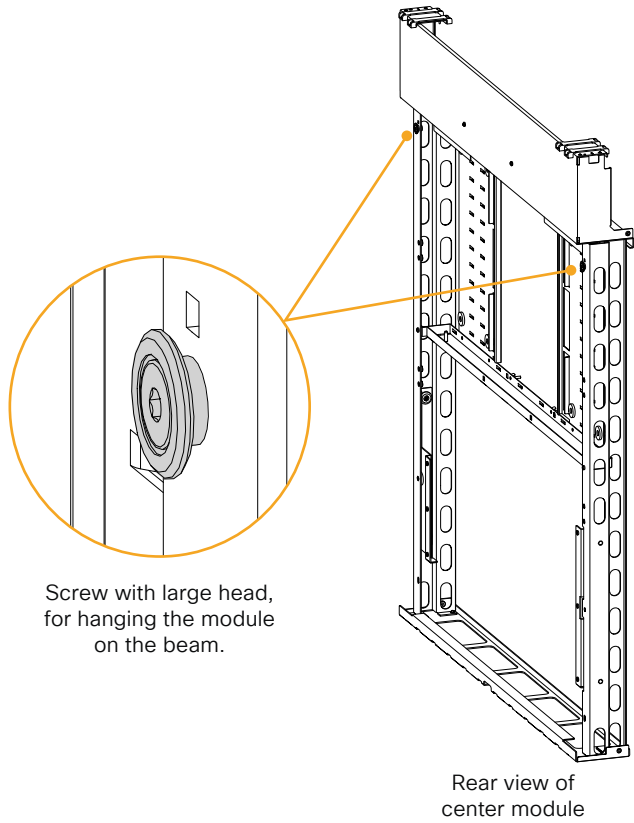
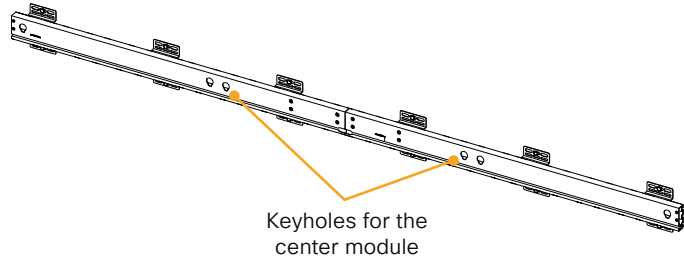
Slide 4 nuts into the notch on the beam. Place the nuts below the keyholes.

The nuts are required when fastening the modules to the 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.



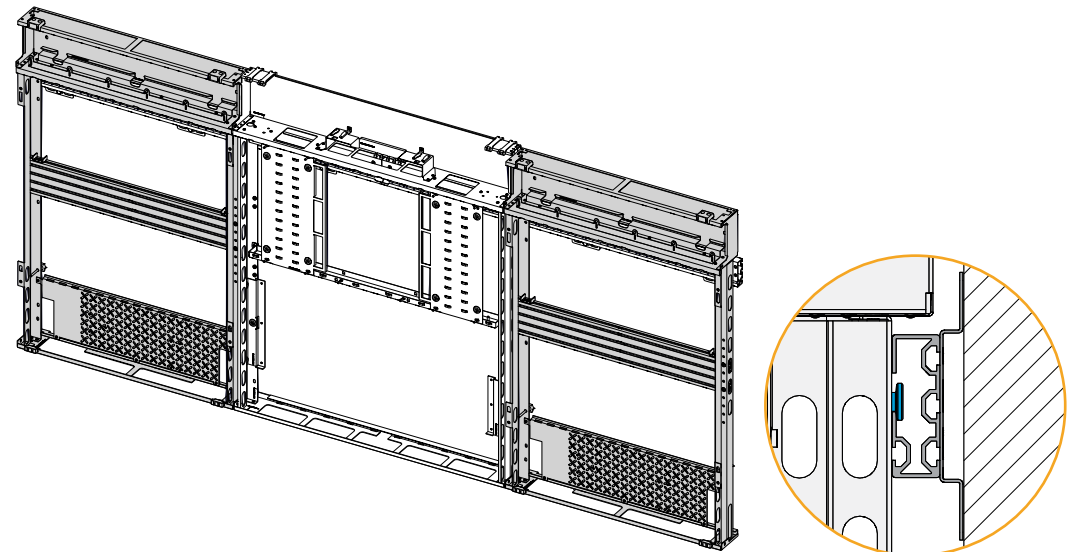
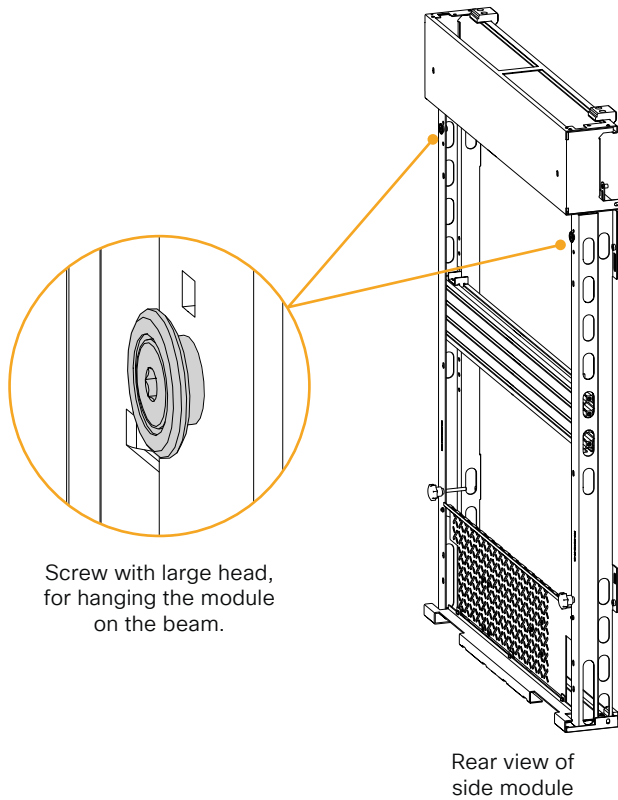
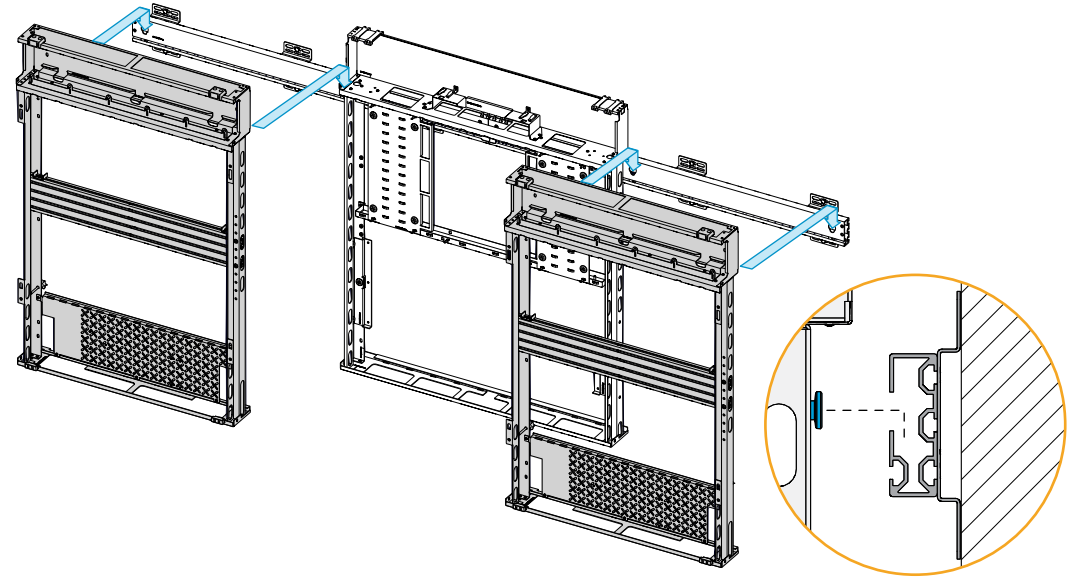
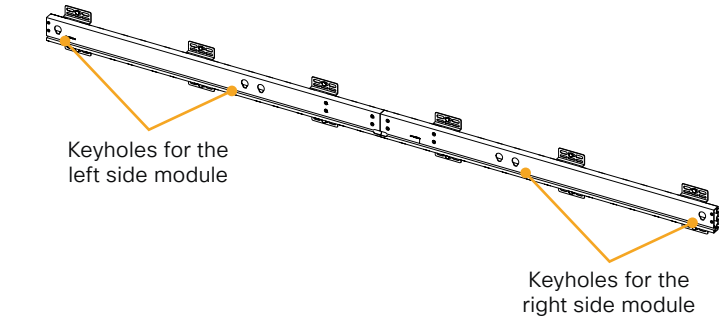
2.3. Hang the side modules onto the beam

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.

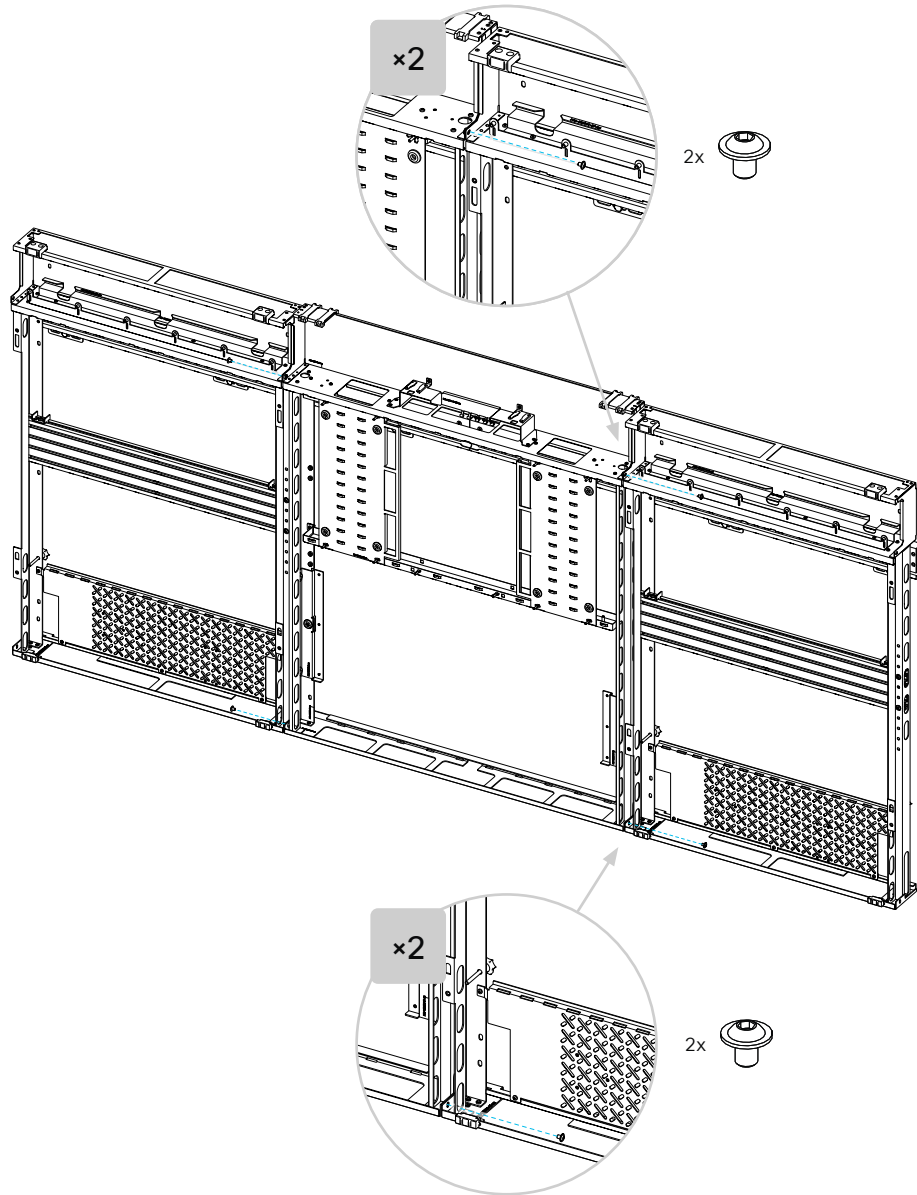


To avoid getting your fingers pinched between the modules, lift a side module by holding your hands on the top and bottom of the module; NOT on the side toward the center module.

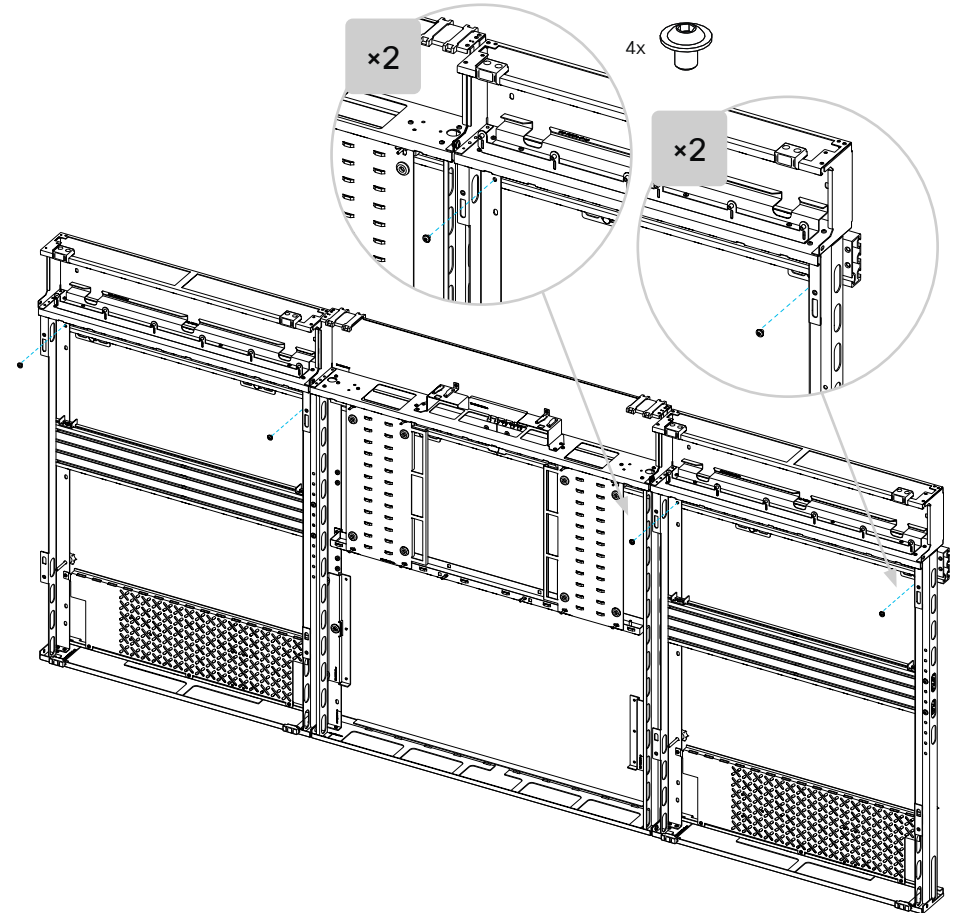


2.4. Fasten the modules to each other and to the beam

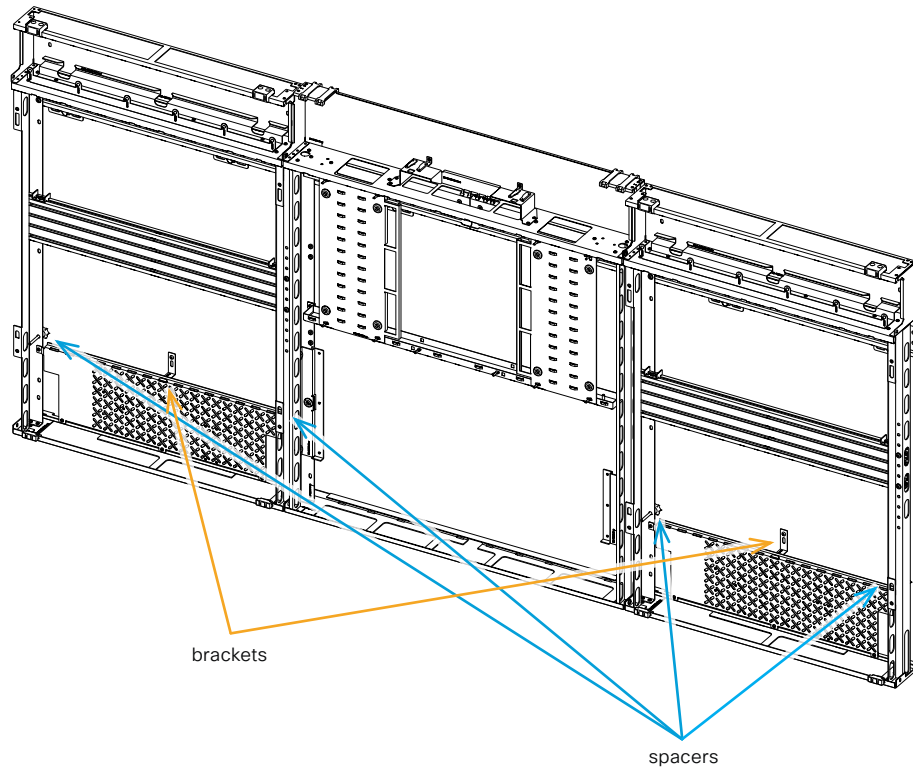
1. Fasten both side modules to the center module with 2 screws (M6x8, Hex 4 mm) each.



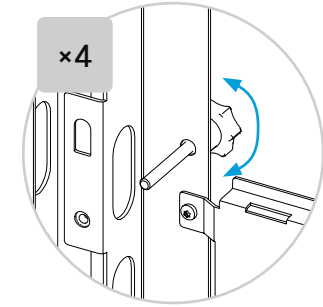
2. Fasten the side modules to the beam with 2 screws (M6x8, Hex 4 mm) each. The screws enter the nuts that you added in [step 2.1](#).



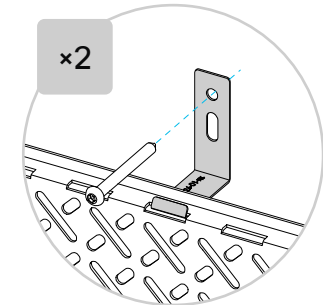
2.5. Straighten up the frame



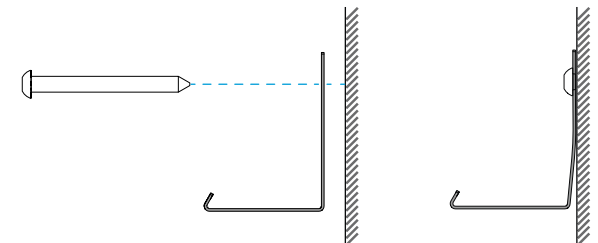
1. Adjust the four spacers (thumbscrews) until the frame is plumb (perfectly straight up and down; no tilt). Use a spirit level.



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

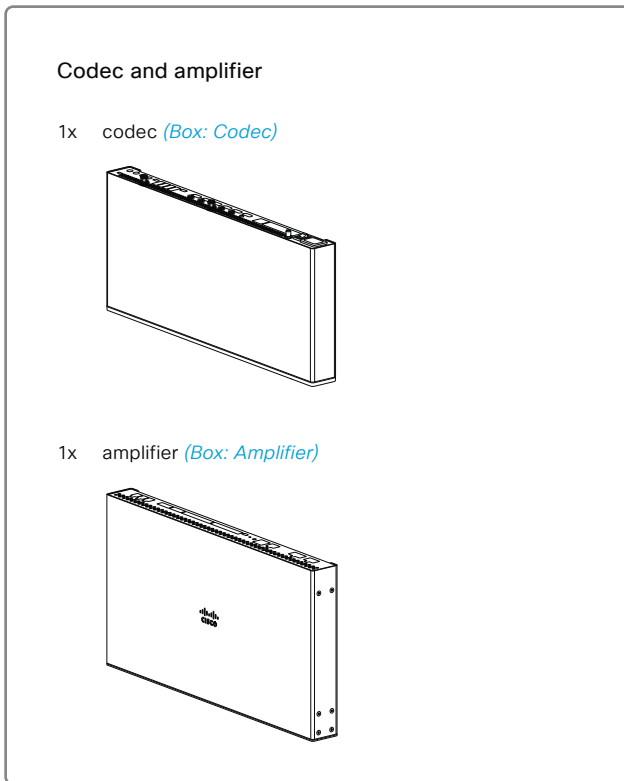
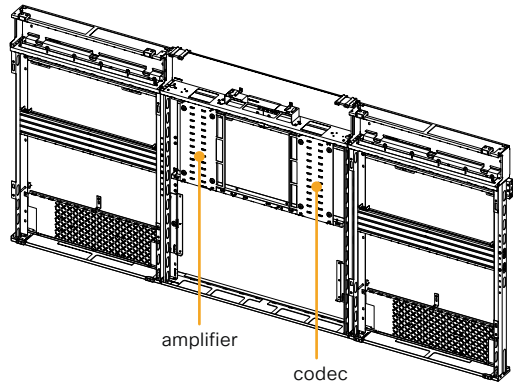


When tightening the screw the bracket will intentionally bend a bit, since the spacers (not these brackets) determine the system's distance to the wall.



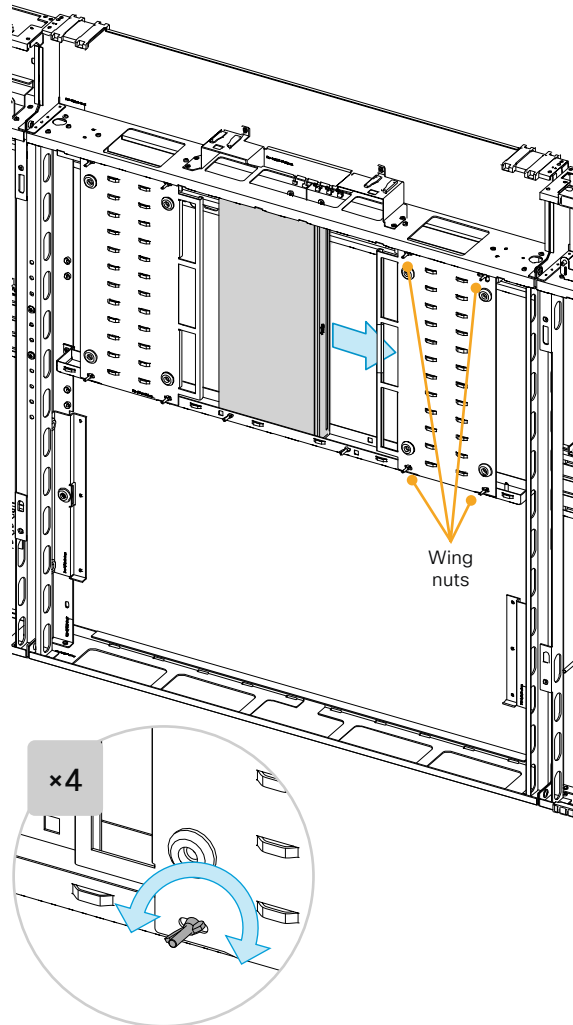
3. Insert the codec and amplifier

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



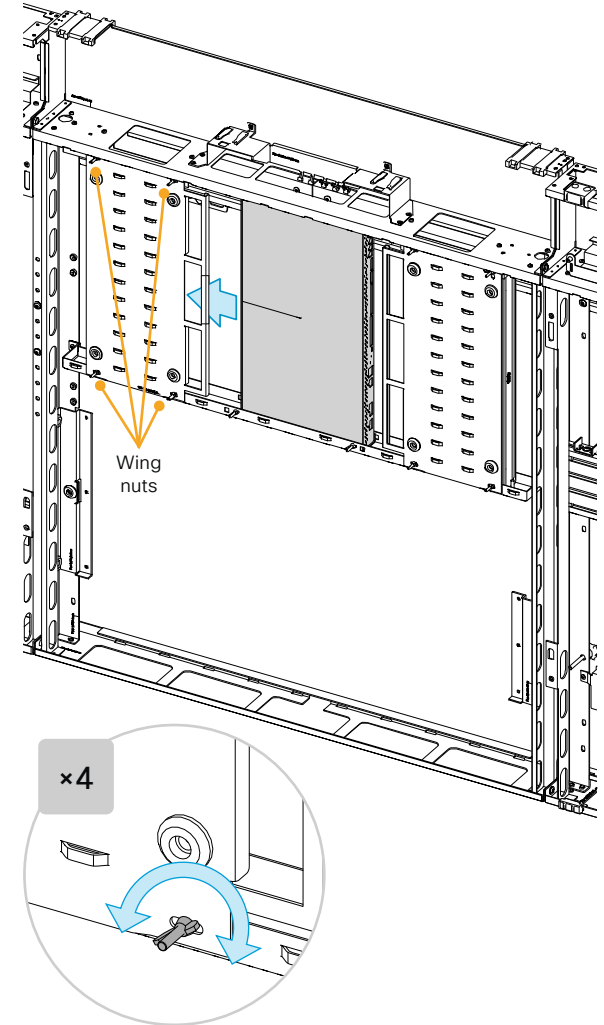
3.1. Insert the codec

1. Loosen slightly 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.**
3. Slide the metal clamp to the right until it stops against the codec in place. then tighten the four wing nuts to keep the codec in place.



3.2. Insert the amplifier

1. If the amplifier has rack ears, remove them. (*Torx T10*).
2. Loosen slightly the four wing nuts that hold the left metal clamp in place.
3. Slide the amplifier fully into the bay behind the clamp. **Connectors facing toward center; fan connectors up.**
4. 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

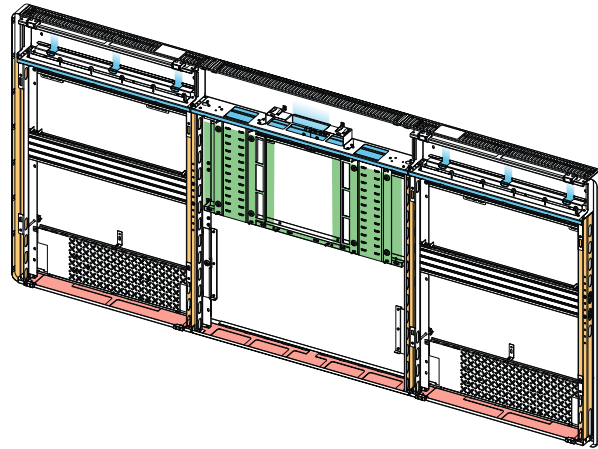
When you mount components in [step 4](#) onward, you route and connect associated cables at the same time. Here are some important notes for correct, nice, and tidy cabling.

Do not connect to power yet!

Do not connect any power cables to wall socket outlets before step "26. Finish-up" on page 60.

Cable routing

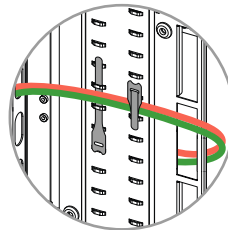
The colored areas in this illustration show the main areas for cable routing. See more details on the next page.



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: Center kit](#)). This is to avoid strain on cables and connectors, to avoid rattling noise, and for a neat and tidy look.

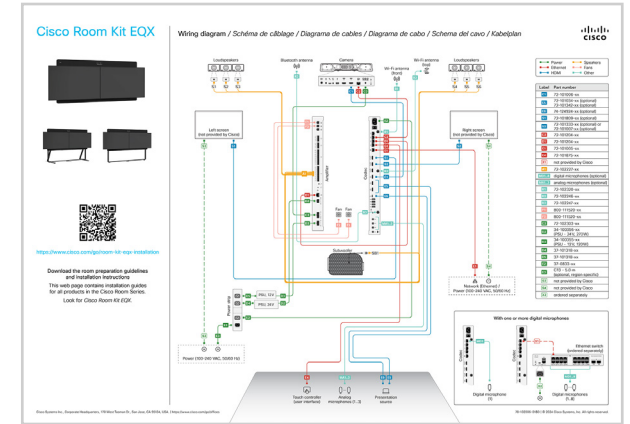


The steel structure is equipped with many fastening points for velcro straps.

The 3 nylon cable ties ([Box: Center kit](#)) 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.

Label	Part number
C1	72-101006-xx
E5	72-101034-xx (optional) 72-101342-xx (optional)
E6	74-124924-xx (optional)

Where are the cables

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

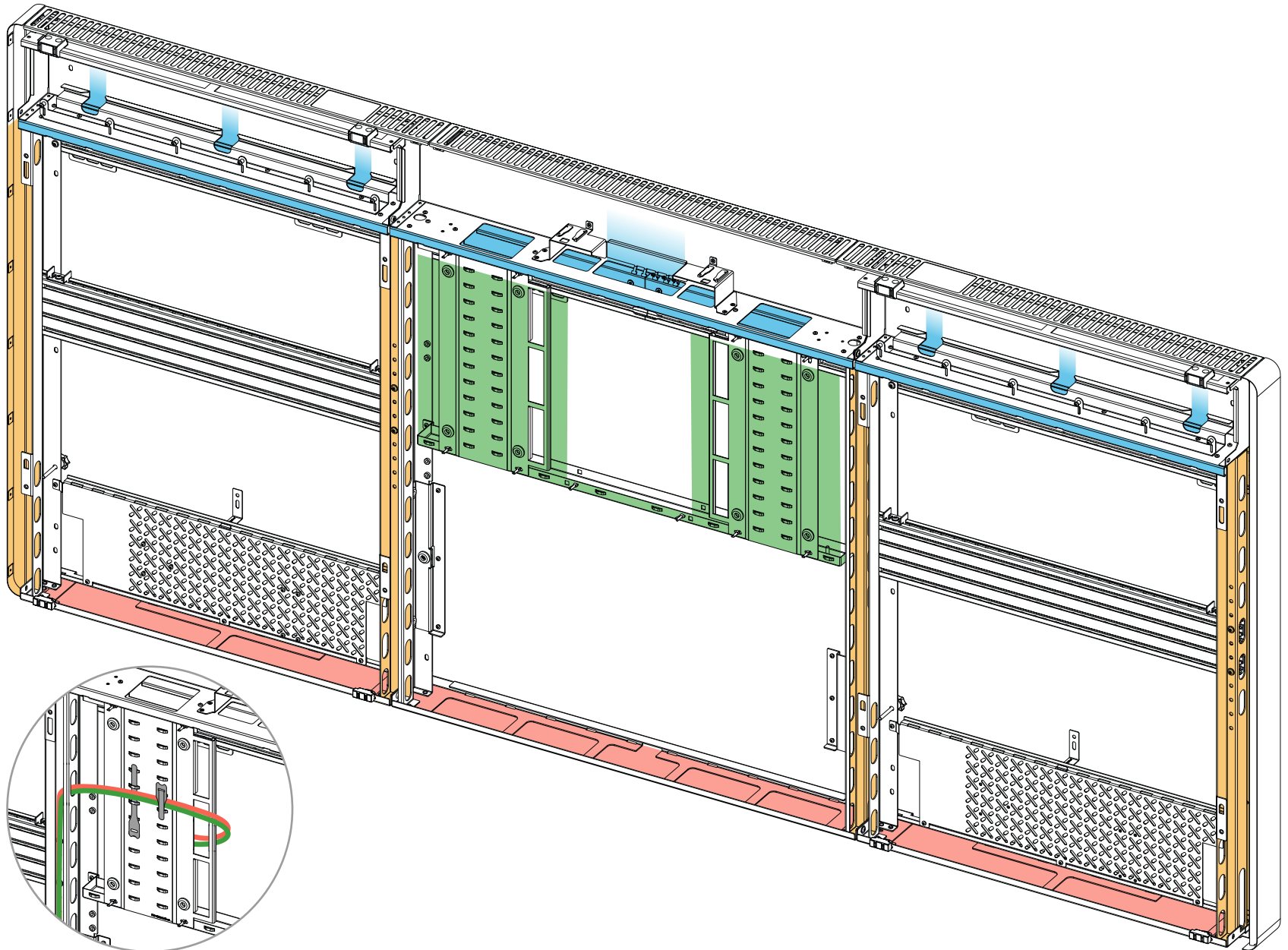
In front of the codec and amplifier clamps.

All cables for the codec/amplifier come 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.



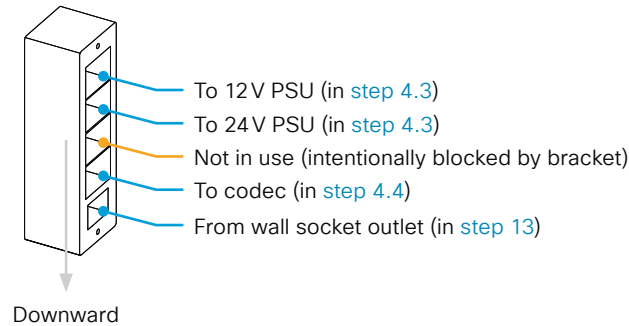
4. Mount the power strip and PSUs

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.

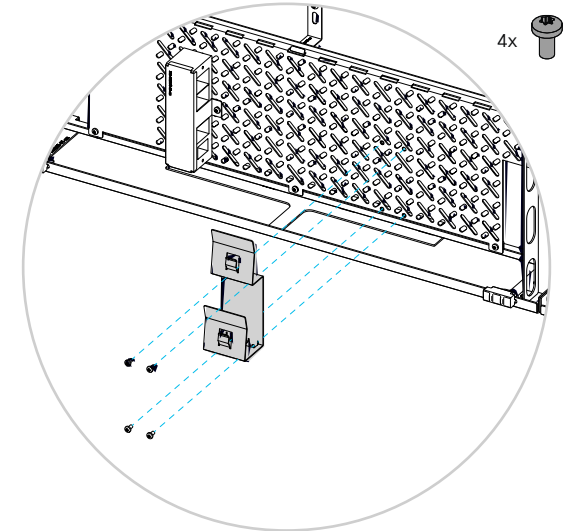
4.1. Mount the power strip

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



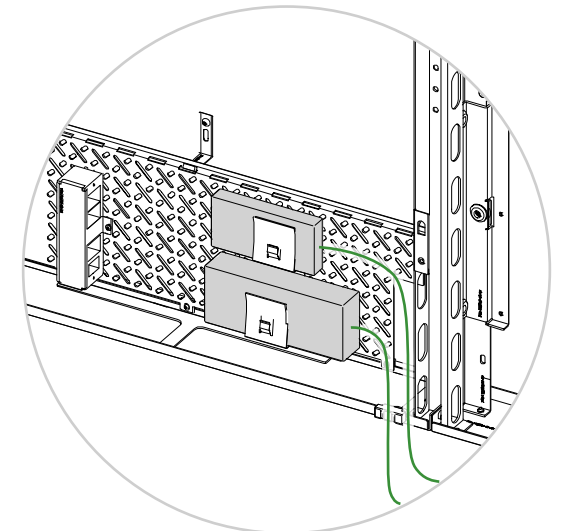
4.2. Mount the PSUs

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



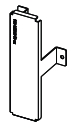
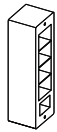
2. Slide the two PSUs into the bracket. The smaller 12V PSU is above the larger 24V PSU.

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

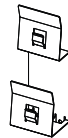
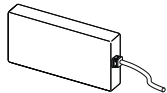


Power strip and PSUs

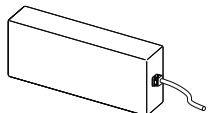
- 1x Power strip (Box: Acc kit 1) 1x Power strip bracket (Box: Center kit)



- 1x PSU, 12V (Box: Acc kit 1) 1x PSU bracket (Box: Center kit)

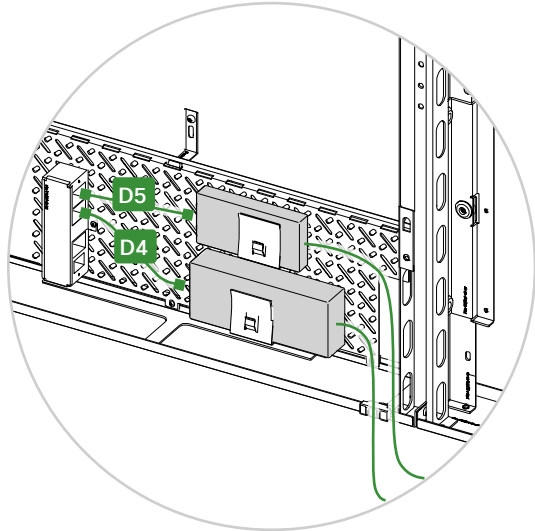


- 1x PSU, 24V (Box: Acc kit 1) 7x (M4x8, Torx T20) (Box: Center kit)



4.3. Connect the PSU cables

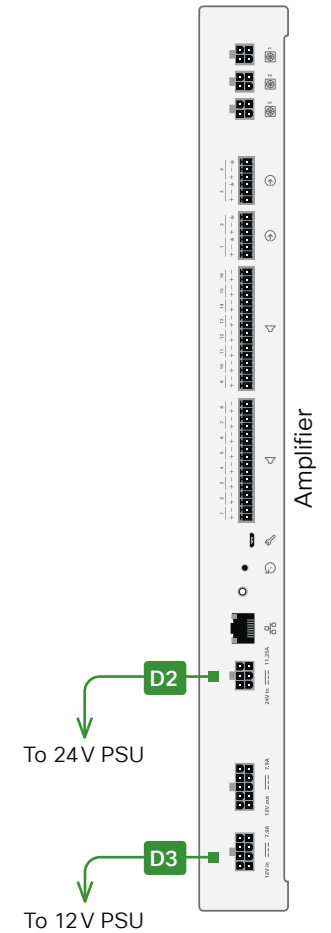
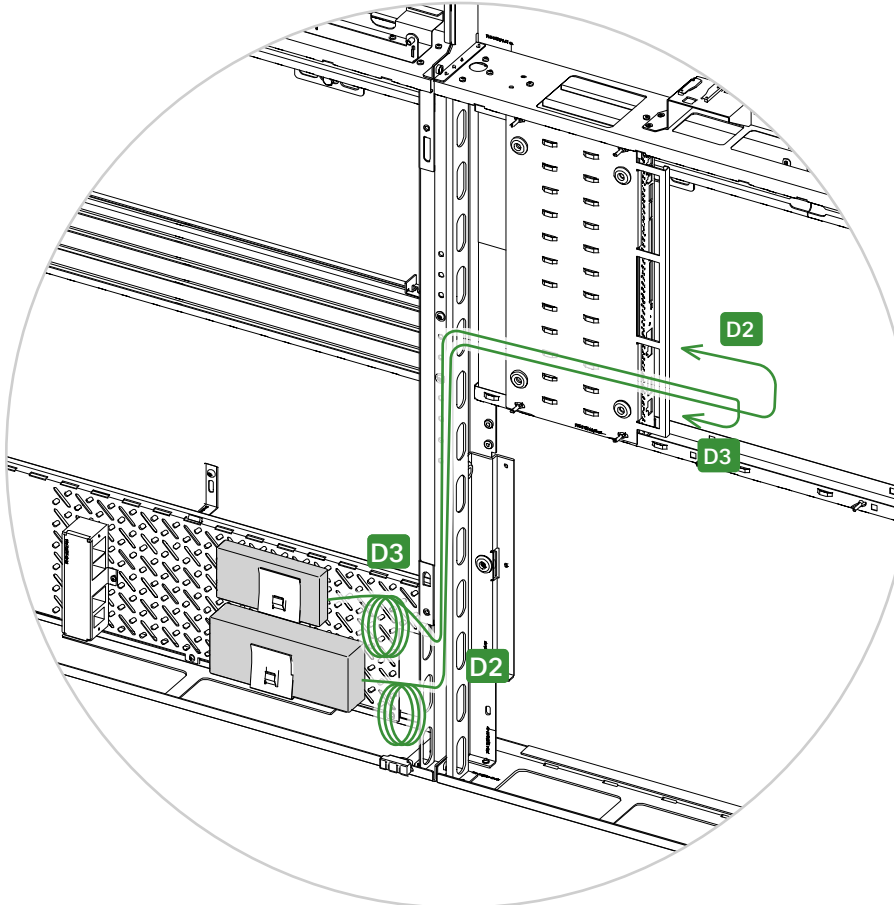
1. Connect the PSUs to the power strip:
 - D4 for the 24V PSU
 - D5 for the 12V PSU



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

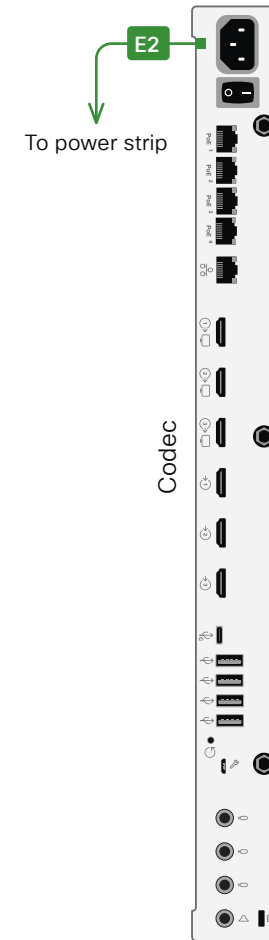
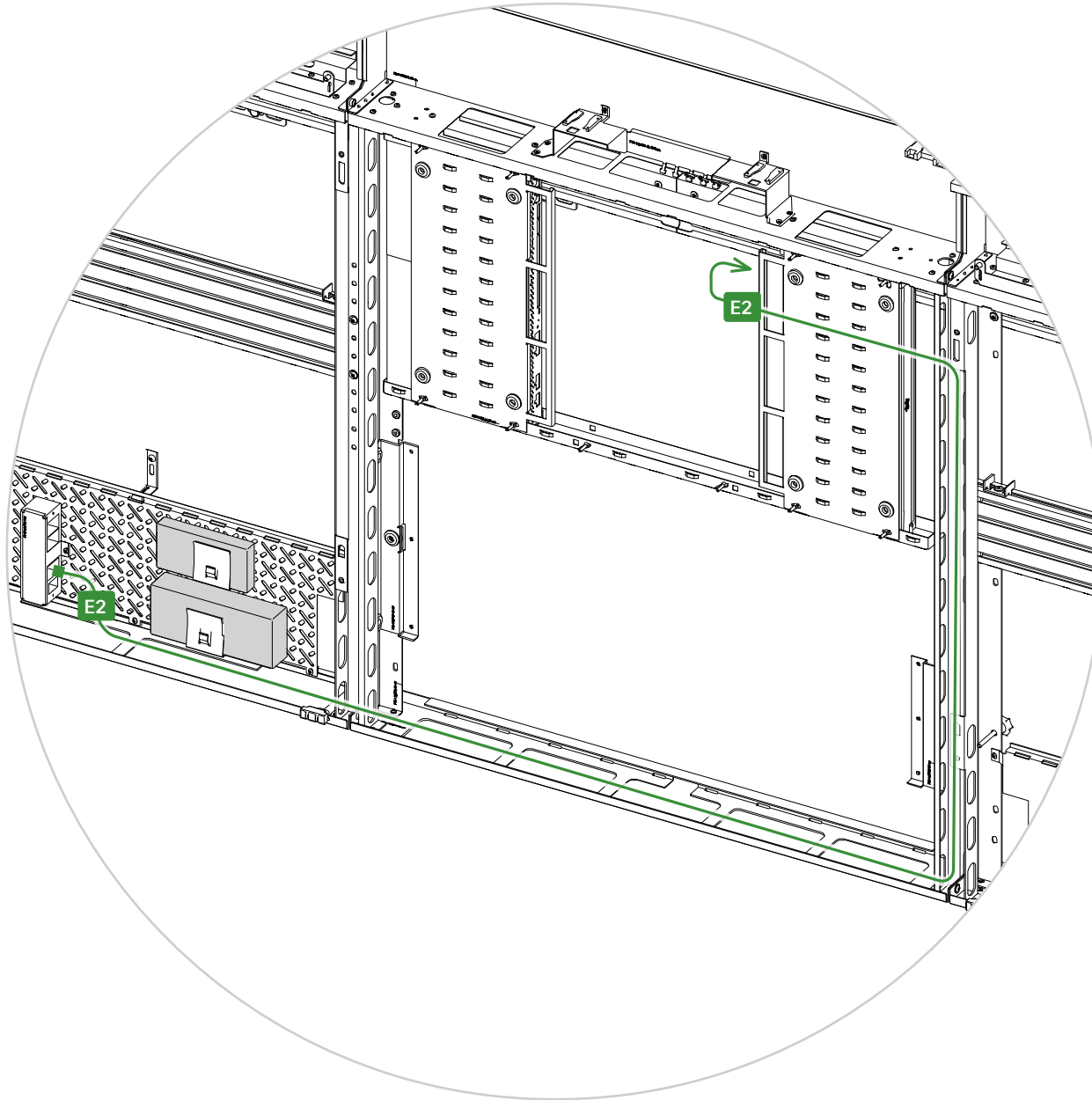
3. Guide the cables as shown in the illustration, and connect the PSUs to the amplifier:
 - D2 for the 24V PSU
 - D3 for the 12V PSU

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



4.4. Connect the codec power cable

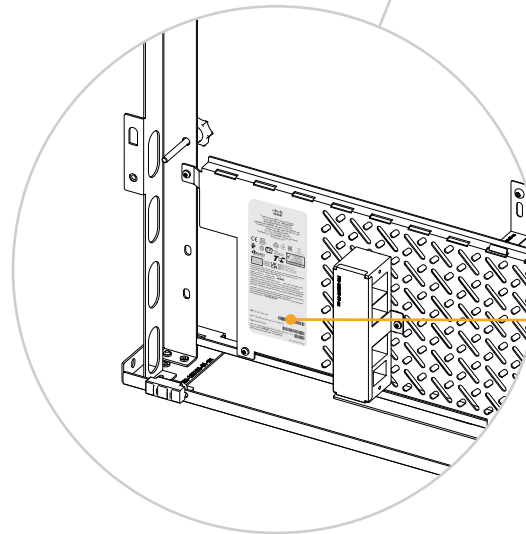
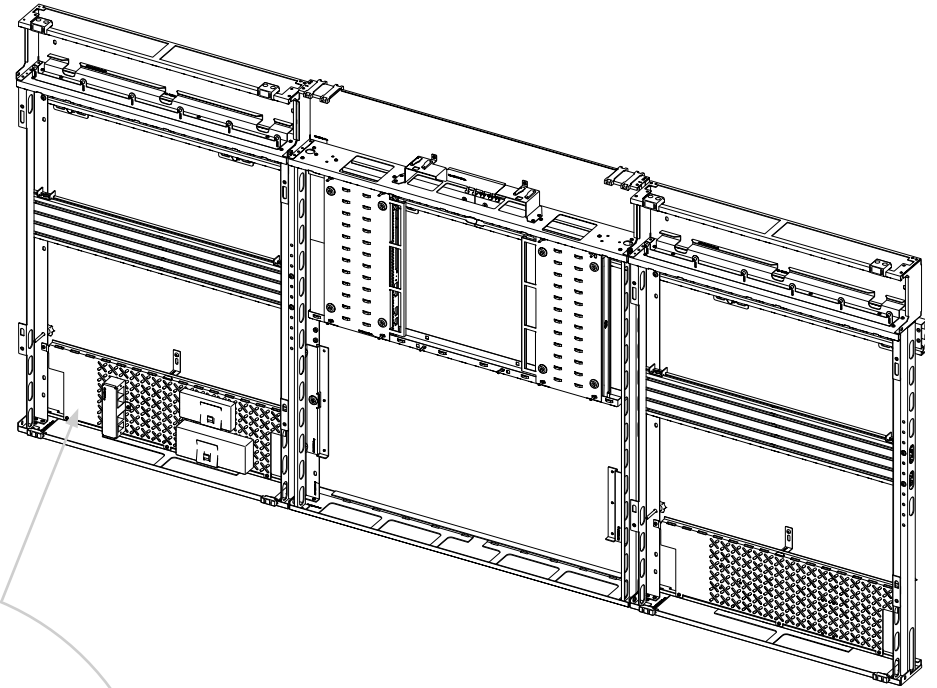
Connect the power cable between the codec and the power strip, E2.



5. Attach the rating label

Rating label (Box: Acc kit 2)

1x rating label



Attach the self-adhesive rating label here.

The label shows that the Room Kit EQX system complies with country compliance regulations.

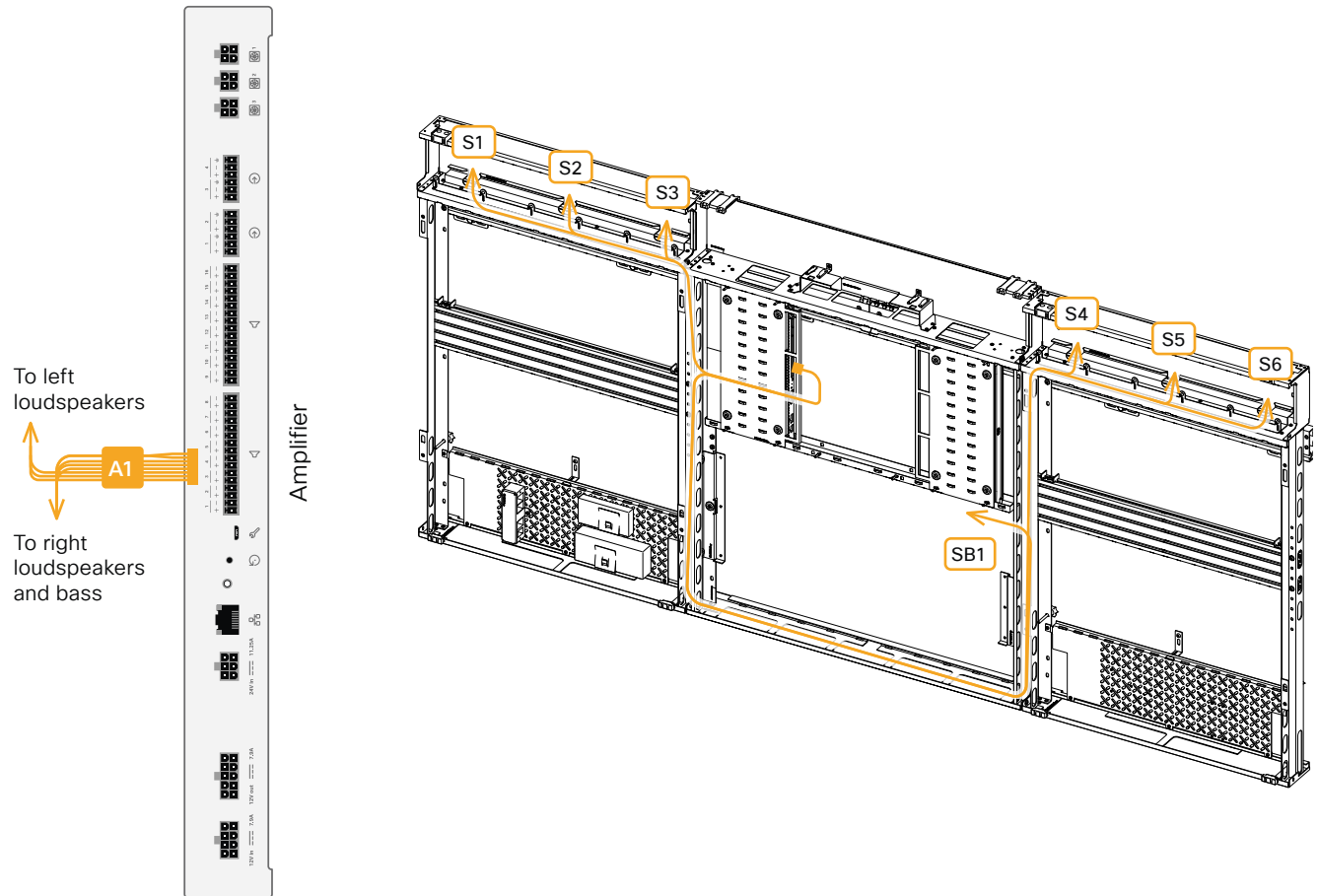
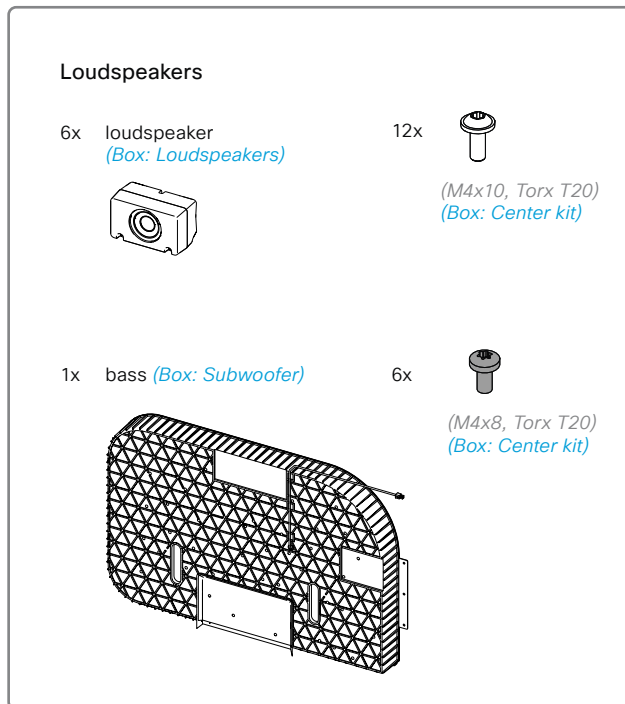
6. Mount the loudspeakers

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.

6.1. Connect and arrange the cables

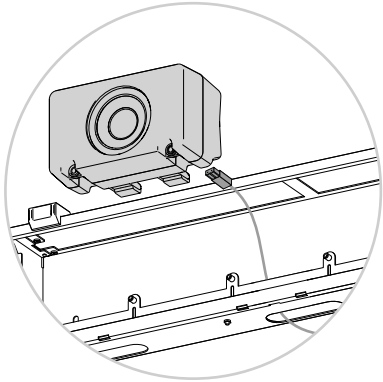
1. Connect the loudspeaker cable to the amplifier.
2. Route the other ends of the cable bundle as shown in the illustration. Let the ends hang freely at this point.

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



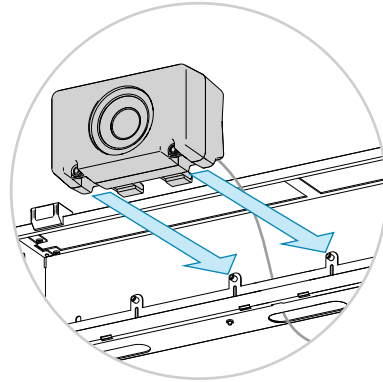
6.2. Insert the loudspeakers

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

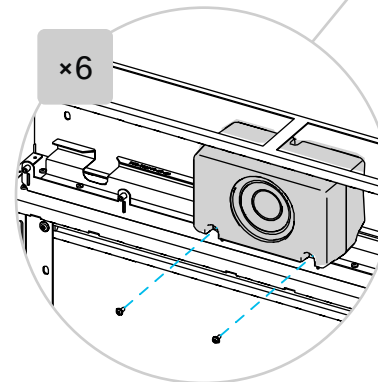
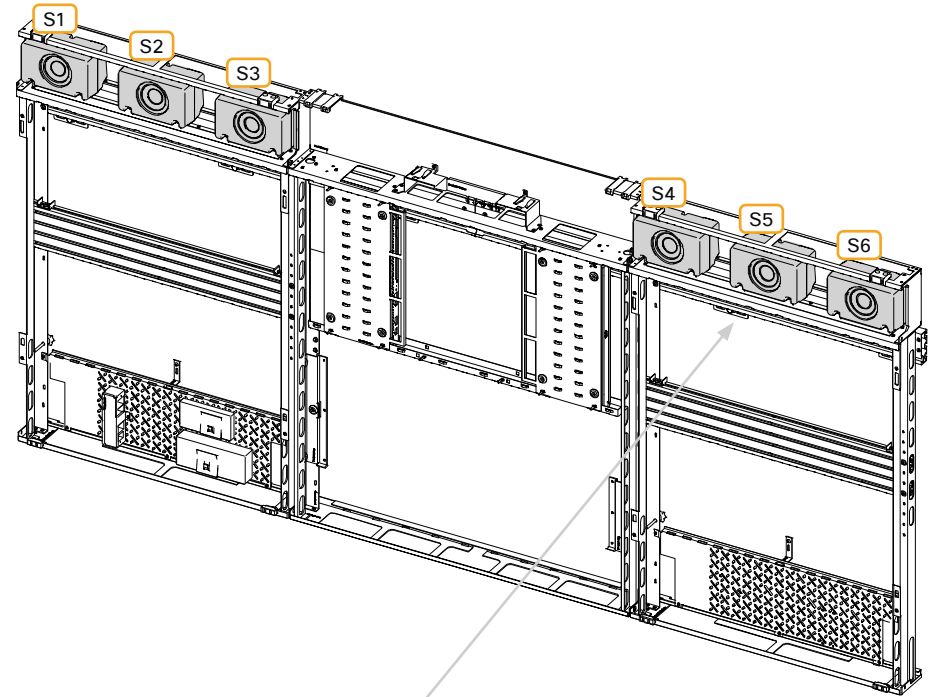


1. Connect the correct cable to the loudspeaker.

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



2. Enter the loudspeaker onto the peg.
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).

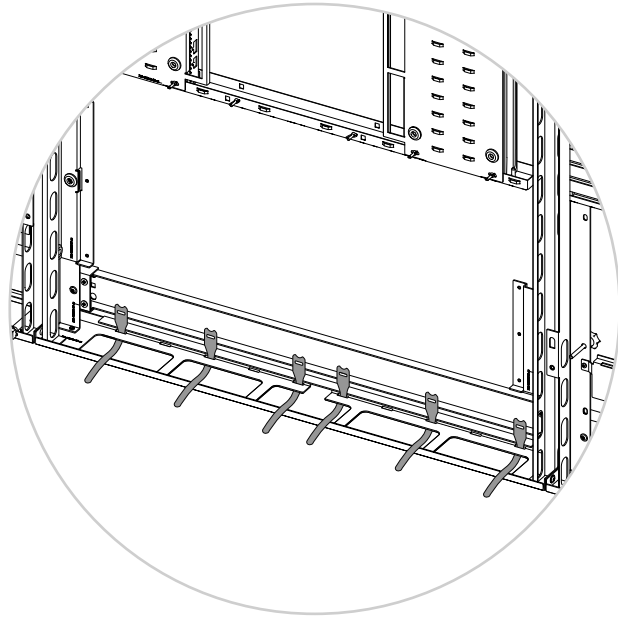


12x 

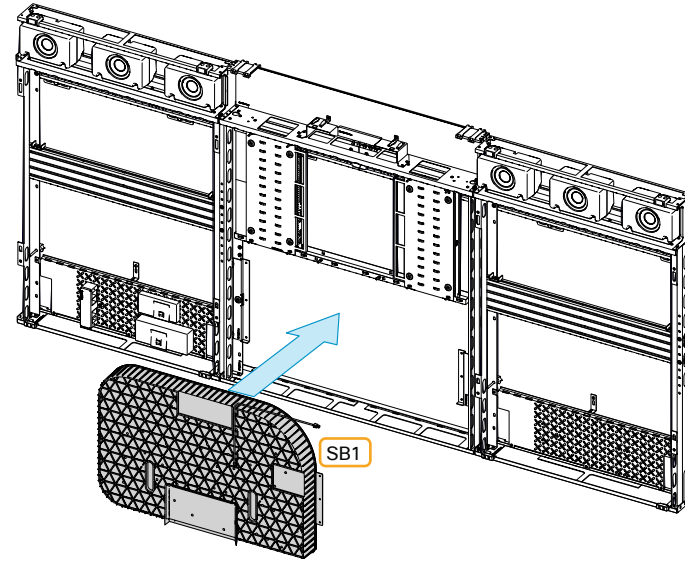
6.3. Add velcro straps to the lower tray

We recommend you add 6 velcro straps to the center tray now, because it's more difficult when the bass is in place.

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

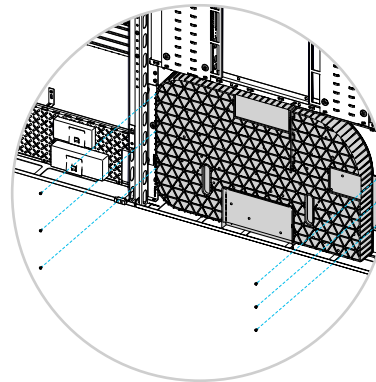


6.4. Insert the bass

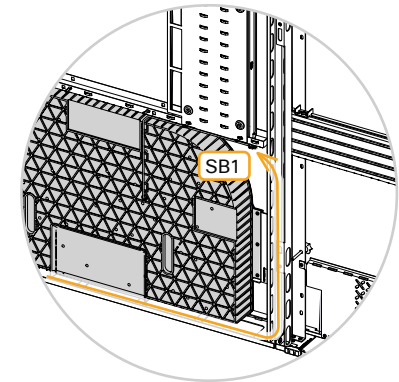


1. Place the bass in the frame, and fasten with six screws (M4x8, Torx T20).

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



6x 



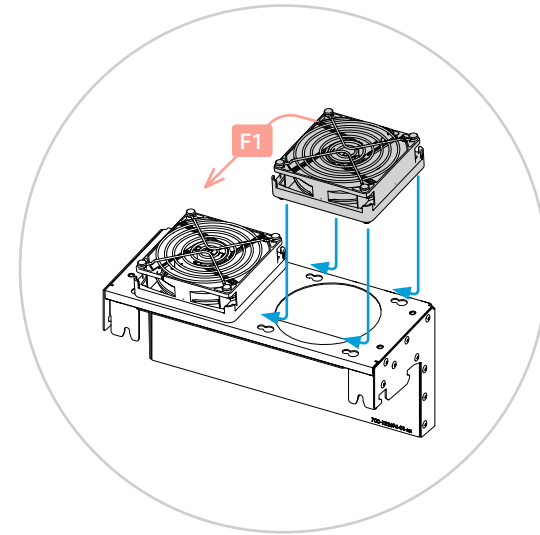
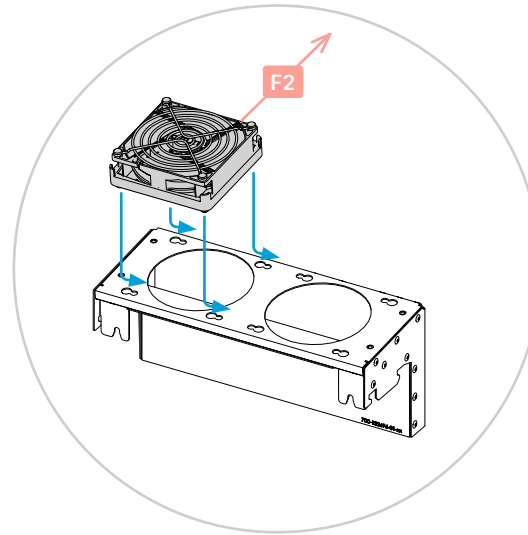
Make sure that no cables are touching the bass. If they do, they may cause rattling noise.

7. Mount the fan module

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

7.1. Assemble the fan module

1. Rotate the fans so that the **F2** cable is facing backward and the **F1** cable is facing left (see illustrations).
Then slide the fans onto the bottom part of the fan duct.

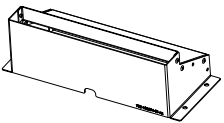


Fan module

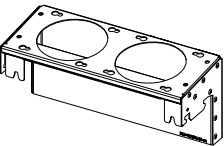
2x Fan (Box: Fans)



1x Fan duct top (Box: Center kit)

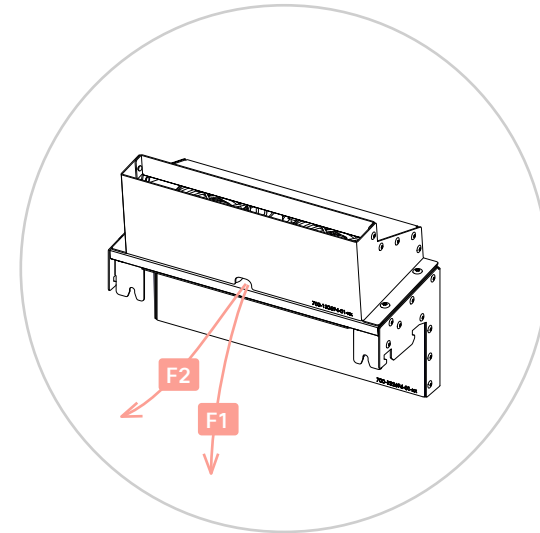
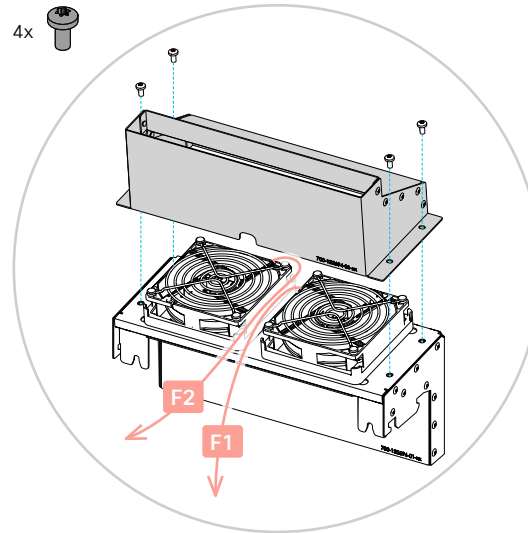


1x Fan duct bottom (Box: Center kit)



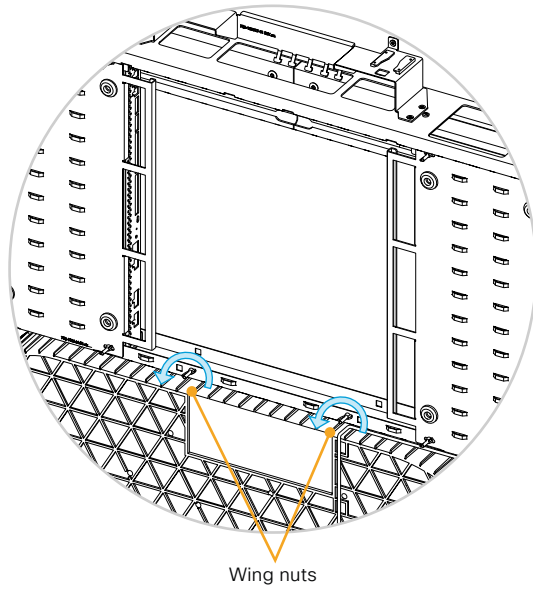
4x 
(M4x8, Torx T20)
(Box: Center kit)

2. 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.

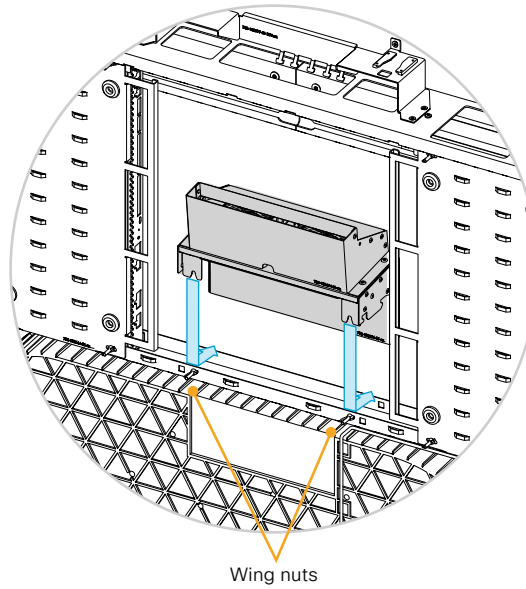


7.2. Install the fan module

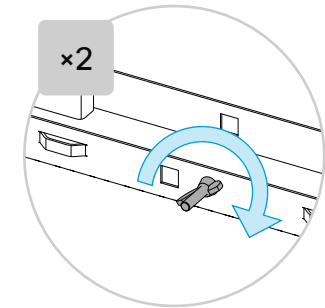
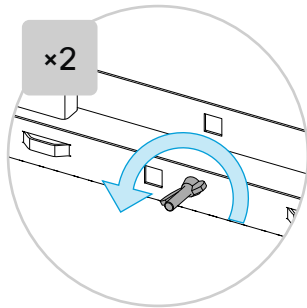
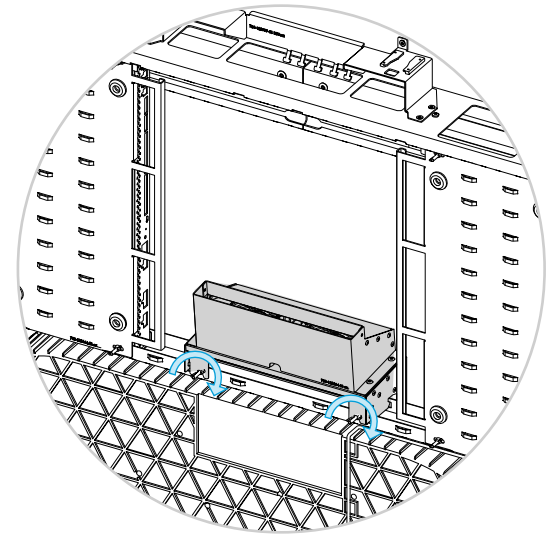
1. Loosen the two wing nuts, but not remove them.



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

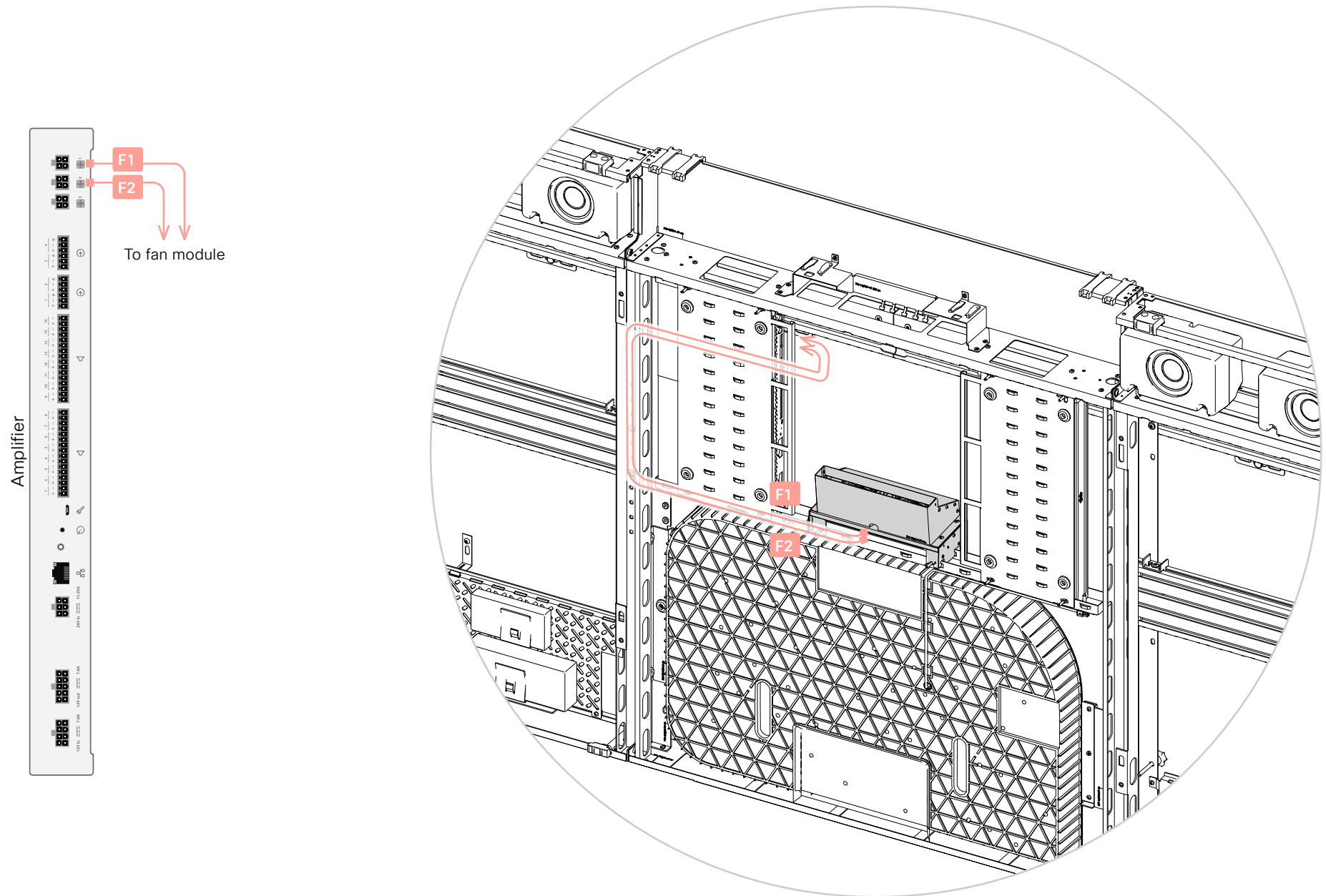


3. Tighten the two wing nuts.



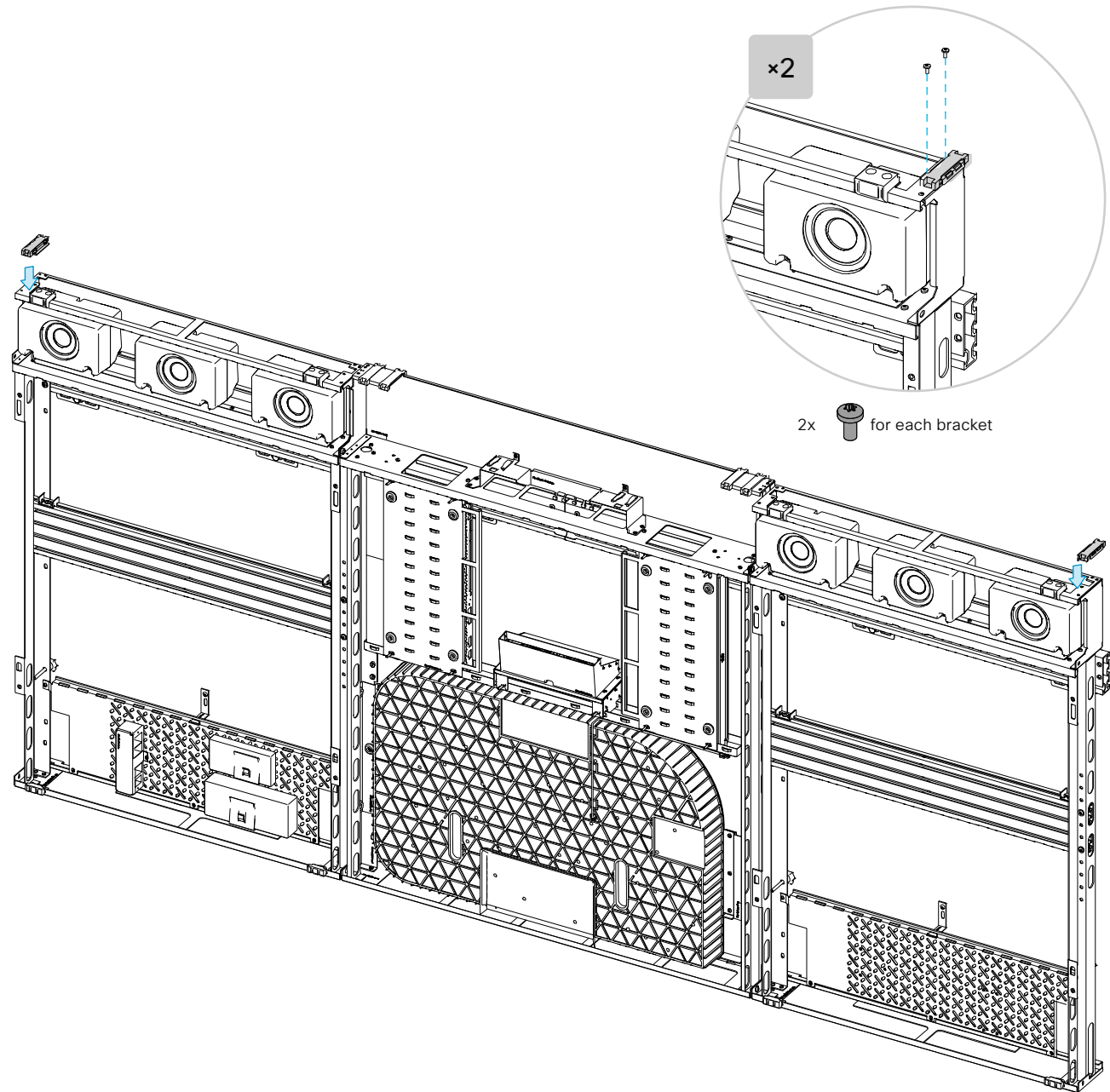
7.3. Connect the fans to the amplifier

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




8. Mount the top brackets


Fasten the small top brackets, one on each side, with two screws each (M4x8, Torx T20).



Top brackets (Box: Center kit)

2x top bracket

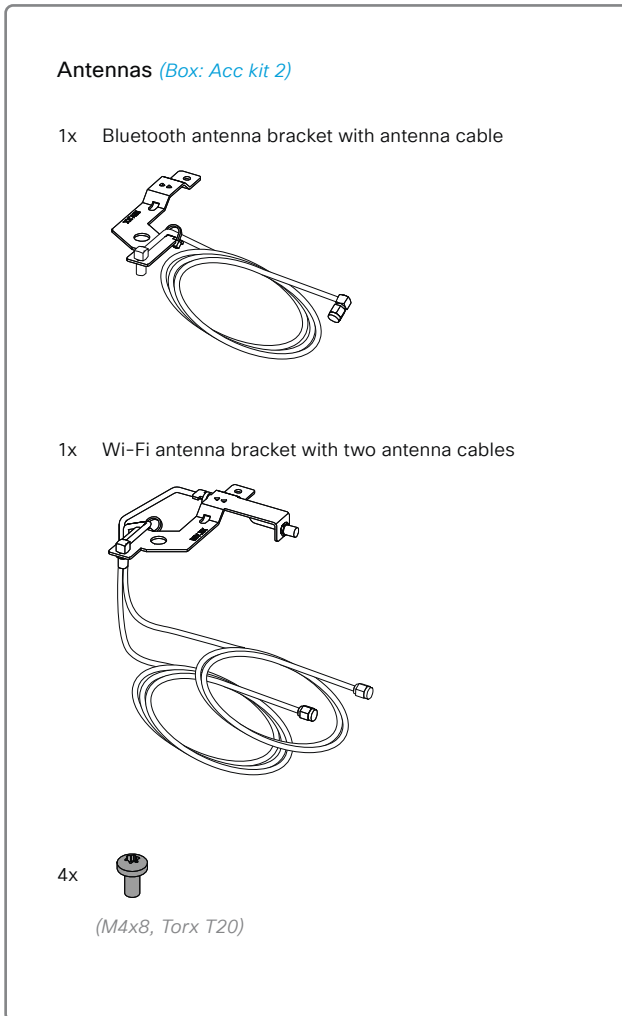
4x  (M4x8, Torx T20)



9. Mount the antenna brackets

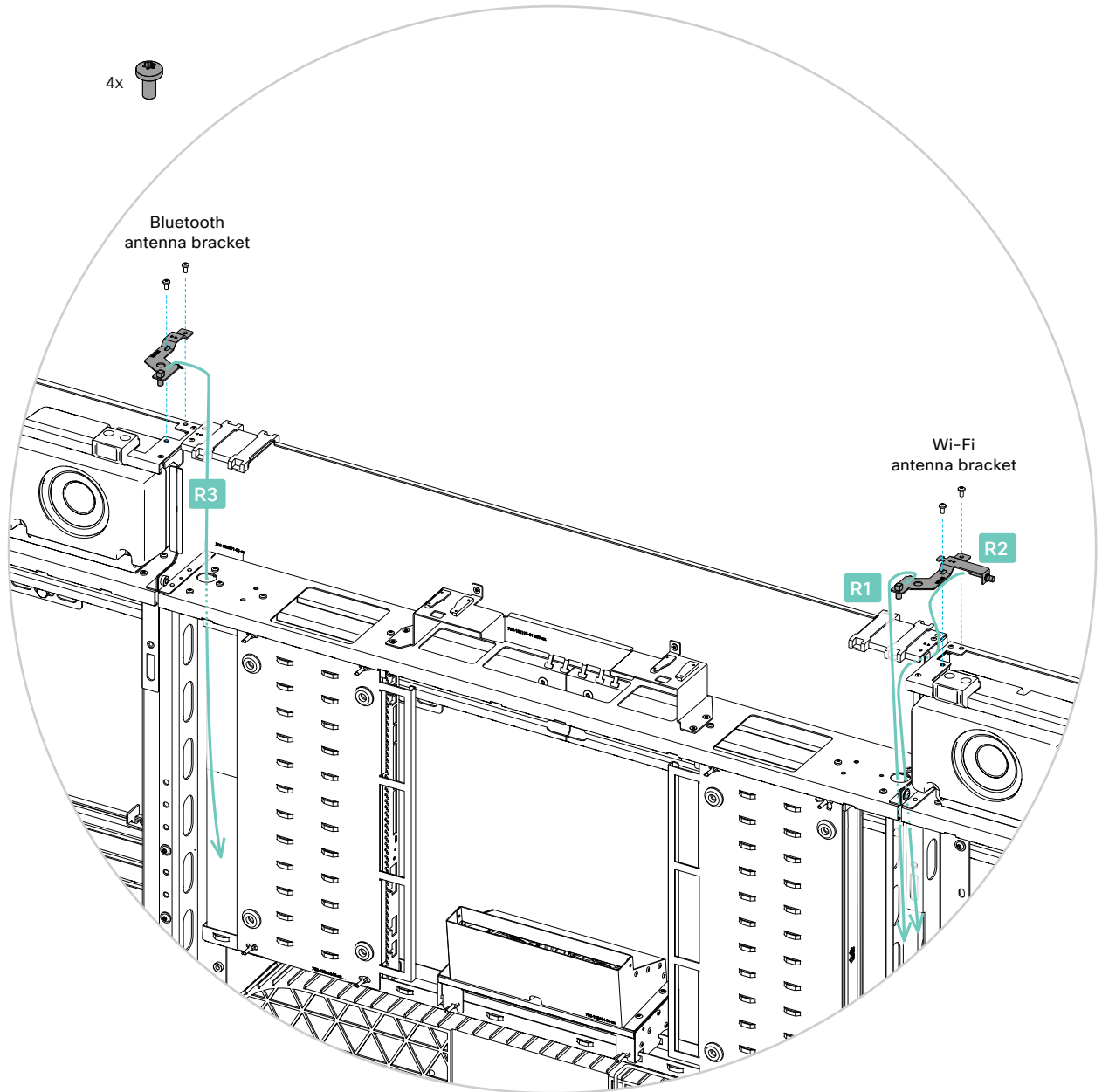
The system has two Wi-Fi antennas and one Bluetooth® antenna.

The antenna cables are pre-mounted on the brackets; the whip antennas themselves are mounted in [step 11](#).



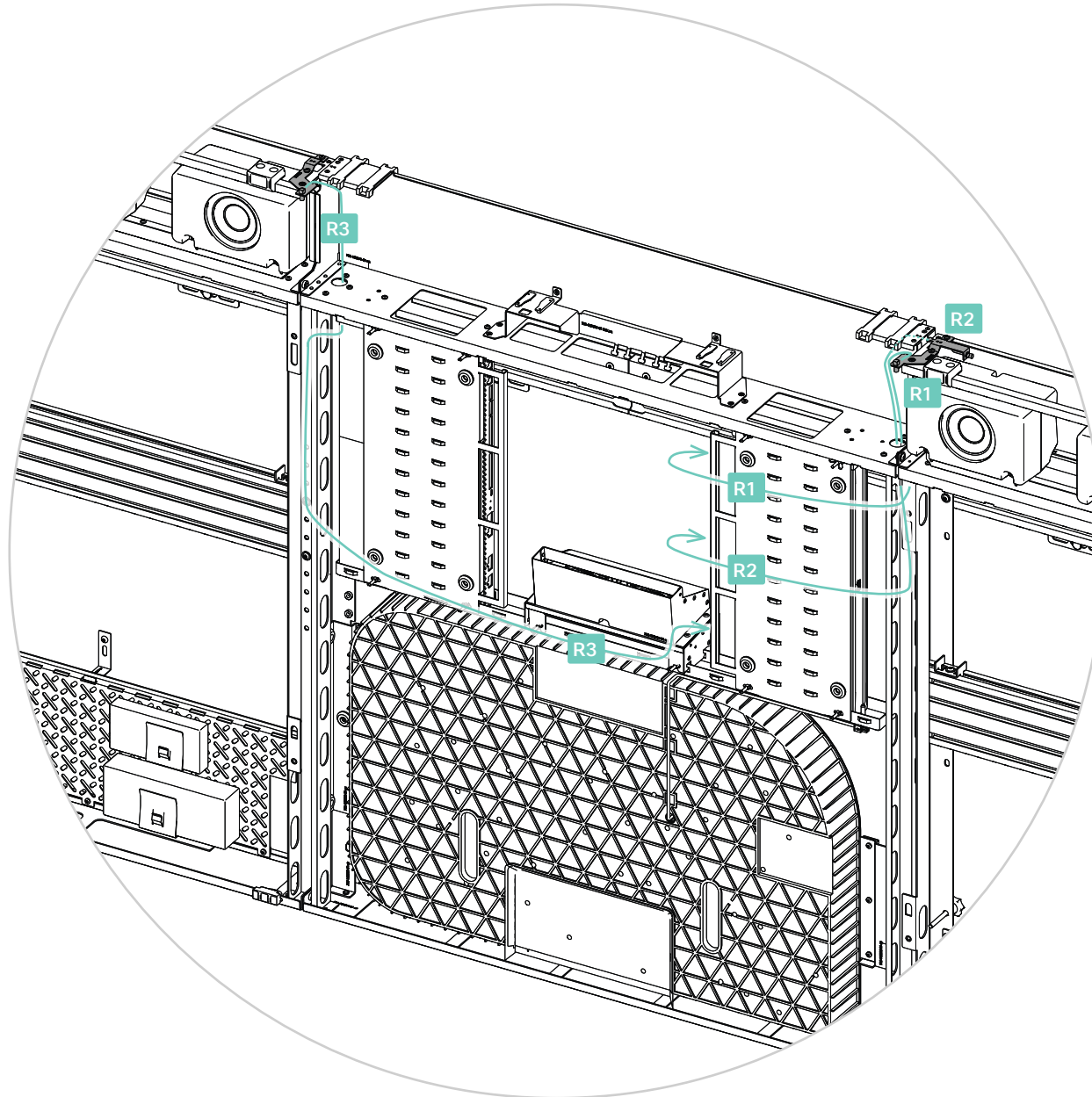
9.1. Fasten the antenna brackets

Thread the antenna cables through the holes, and fasten the two antenna brackets with two screws each (M4x8, Torx T20).



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

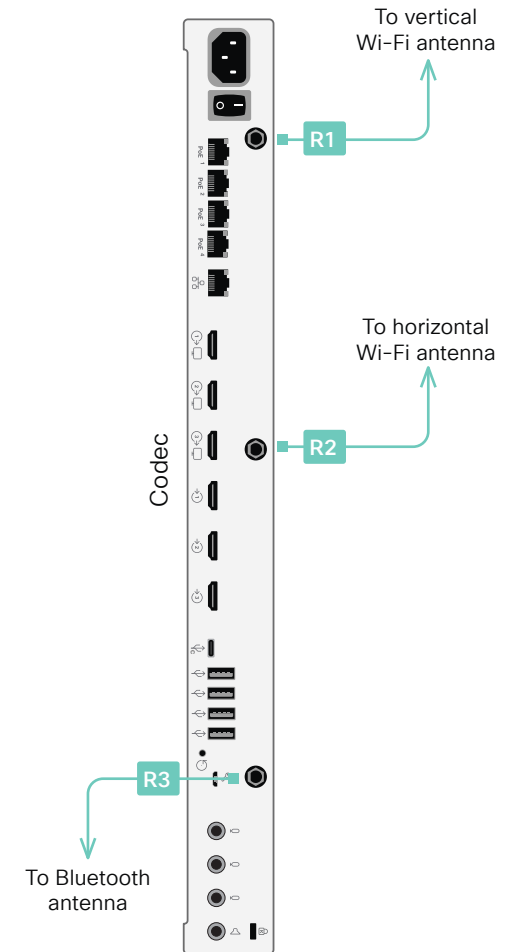
1. Route the antenna cables as shown in the illustration.



2. Connect the antenna cables to the codec.

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

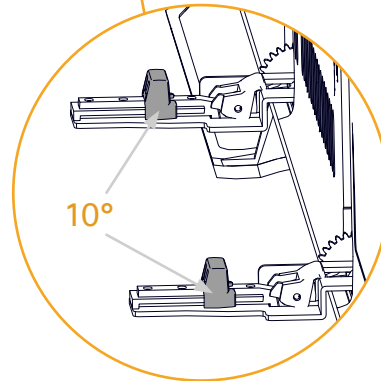
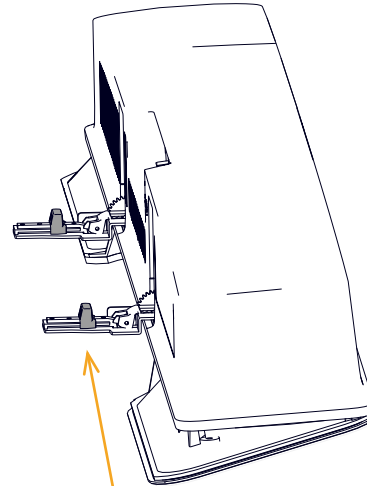
For more details, see the full wiring diagram that were shipped with the system. It's also available online.



10. Insert the 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.

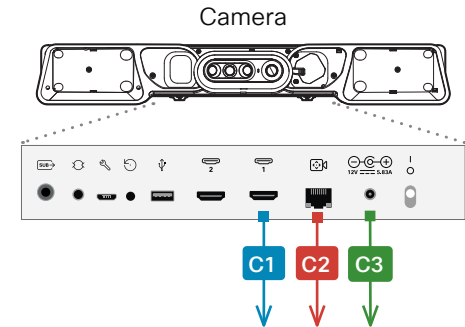


Flip down the hinges and **move the sliders to 10°**, which is the required tilt angle for this product.

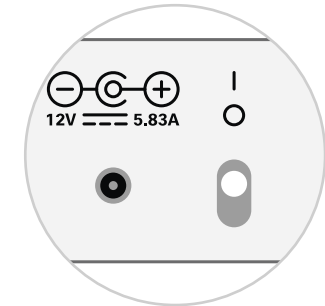
Flip the hinges back when done.

10.2. Connect cables to the camera

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

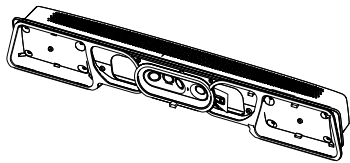


2. Check that the camera power switch is On.



Camera (Box: Camera)

1x camera

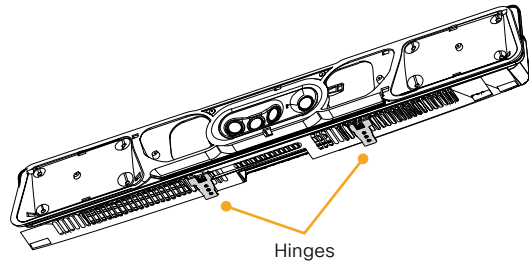


3x nylon cable ties (Box: Center kit)

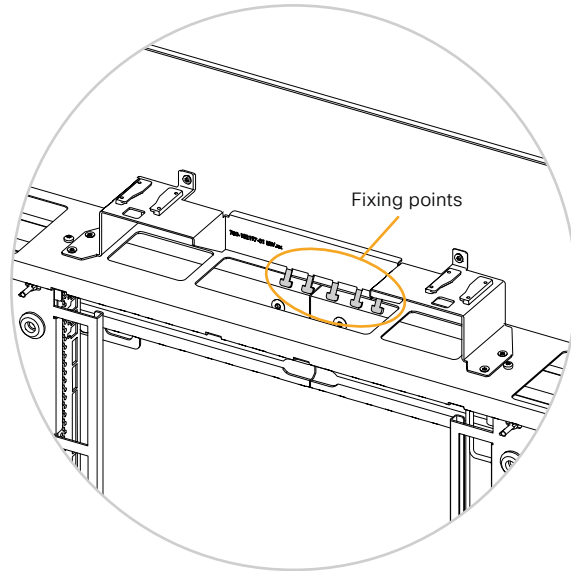


10.3. Snap the camera onto the bracket

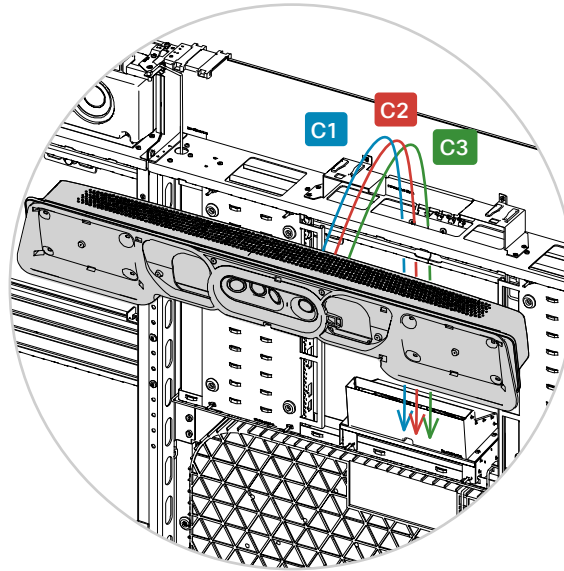
1. Observe the small hinges below the camera. They will snap onto the bracket in step 4.



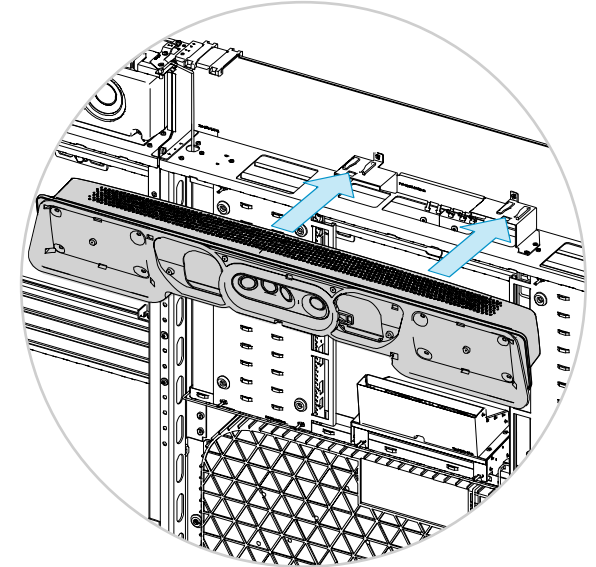
2. Observe these fixing points under the camera bracket. They will be used to secure the camera cables in step 5.



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.



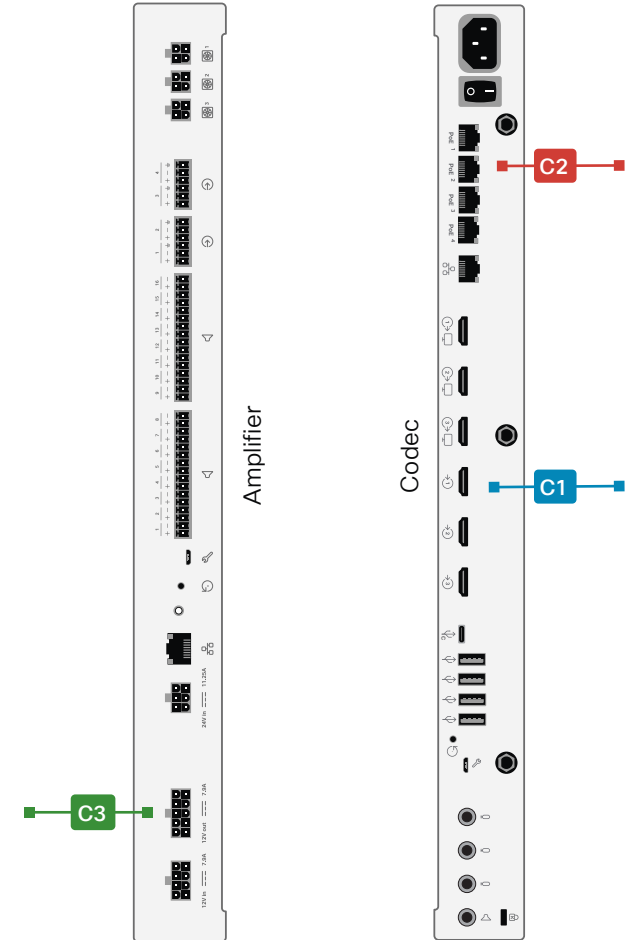
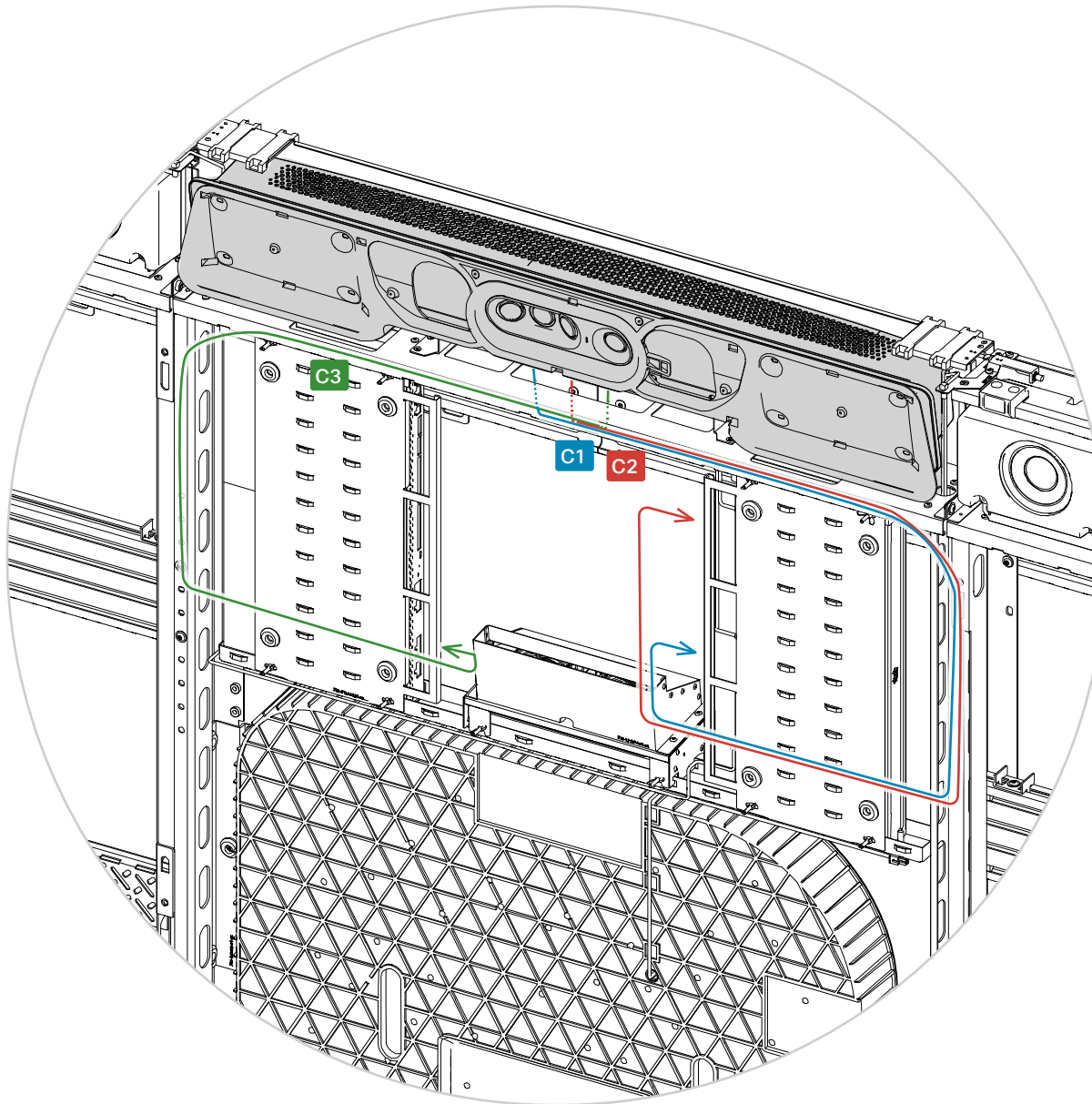
Make sure the camera sits firmly in place by gently trying to pull it.

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

10.4. Connect the camera to the codec and amplifier

Route the cables as shown in the illustration.

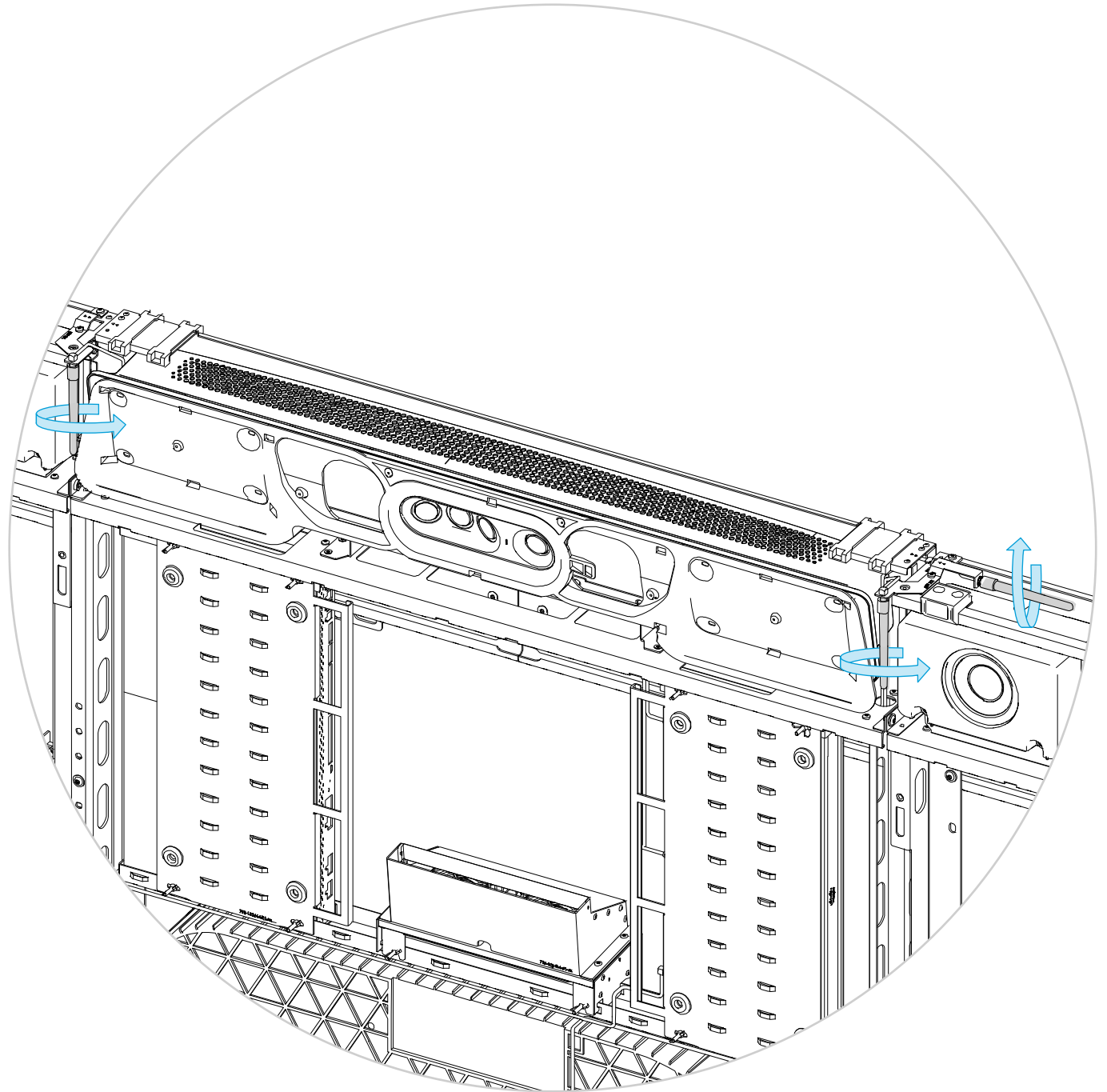
- Connect the HDMI (C1) and camera control (C2) cables to the codec.
- Connect the power cable (C3) to the amplifier.



11. Attach the antennas

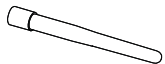
Attach whip antennas to the antenna brackets that were mounted in [step 9](#): one to the left of the camera, and two to the right of the camera.

The three whip antennas are identical.



Antennas (Box: Acc kit 2)

3x antennas



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 26](#).

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.

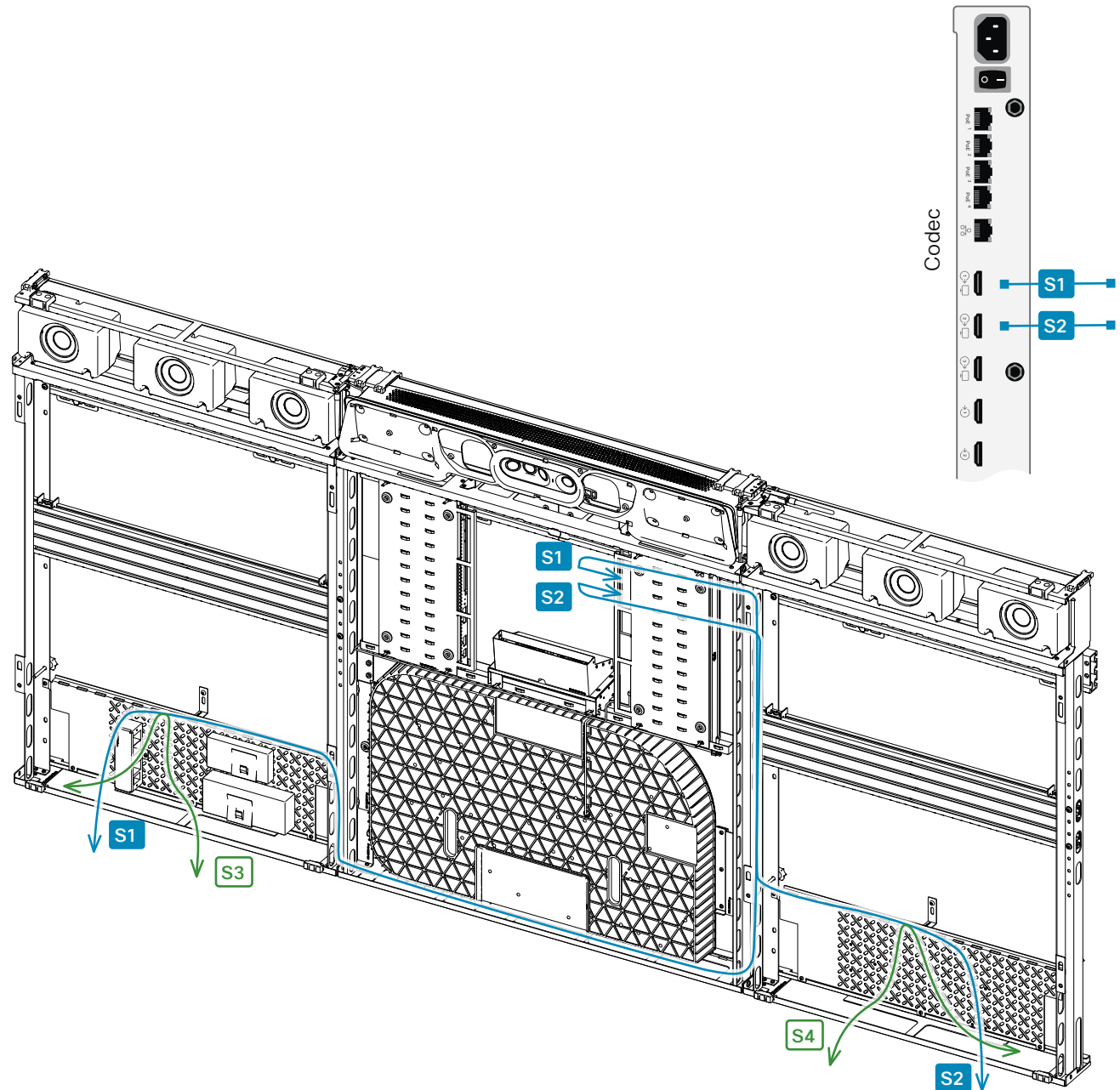
The best placement depends on your screens and the position of your power outlets.

These power cables are most often shipped with the screens. If it is inconvenient to open the screen boxes now, you can fasten the power cables to the side modules later.

- 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 26](#).



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:

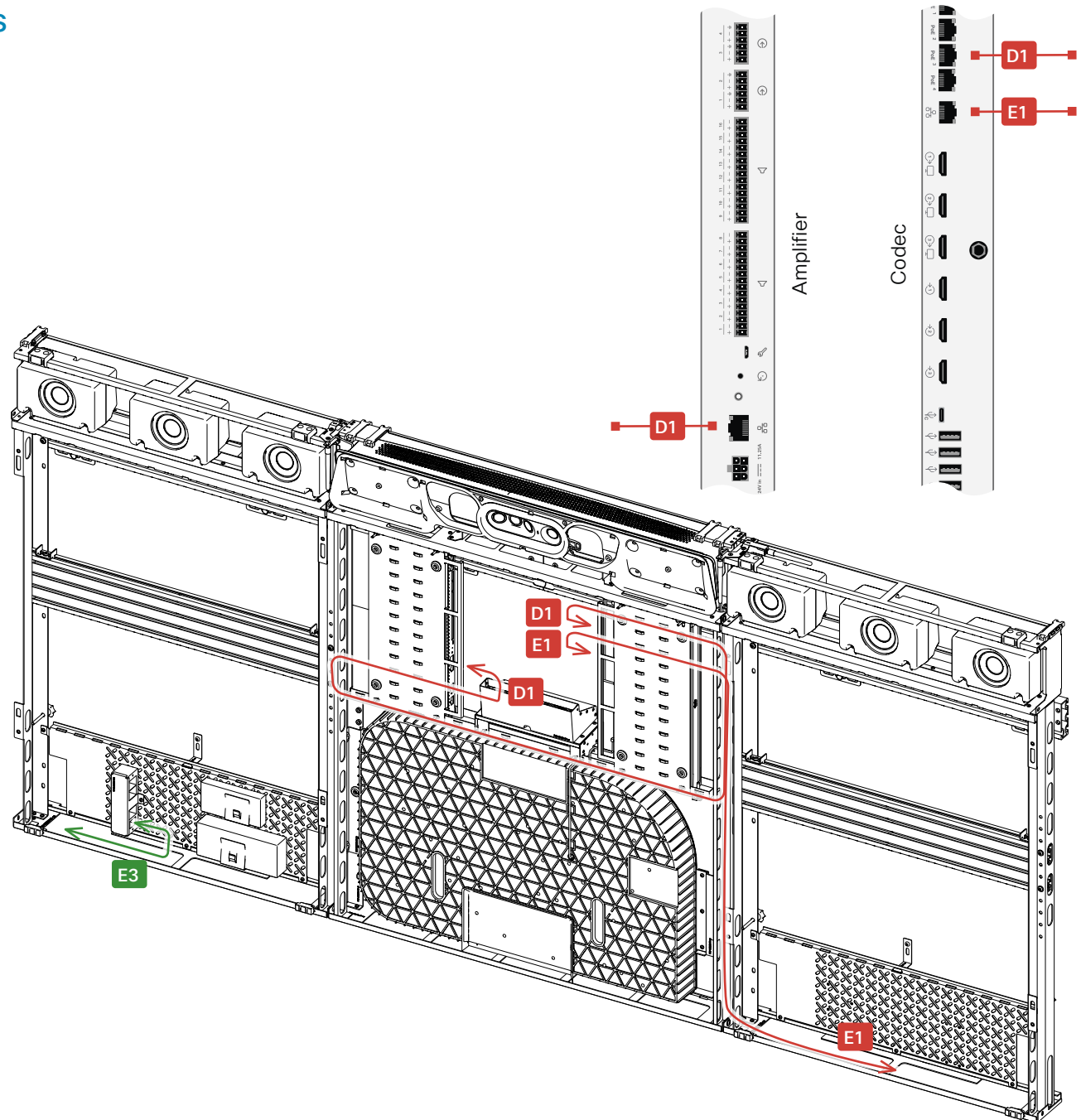
- Connect the network cable to the codec (E1). Use the regular cable routes when leading the cable toward the network wall socket.

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.

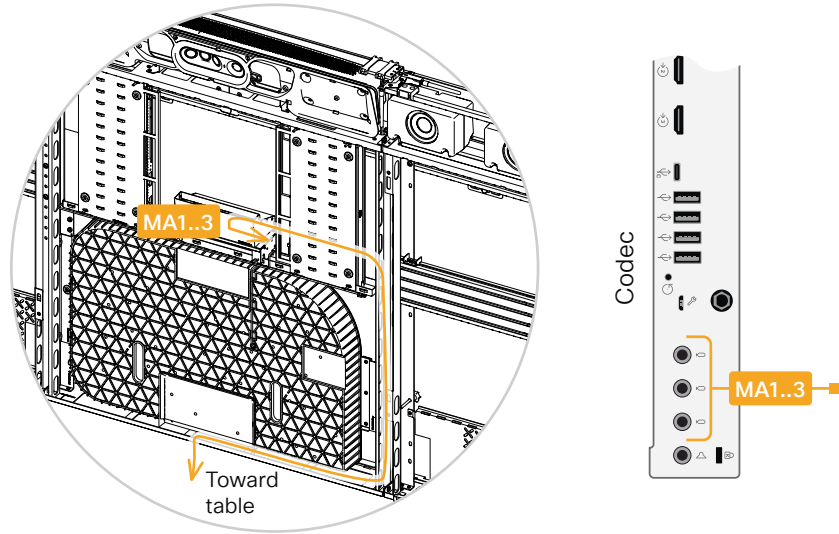


14. Connect the microphones

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.

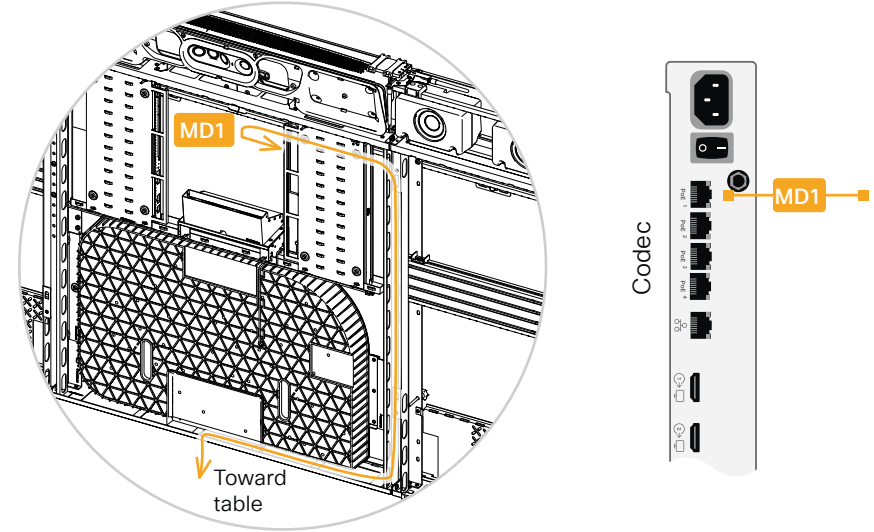
Analog microphones:

- 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:

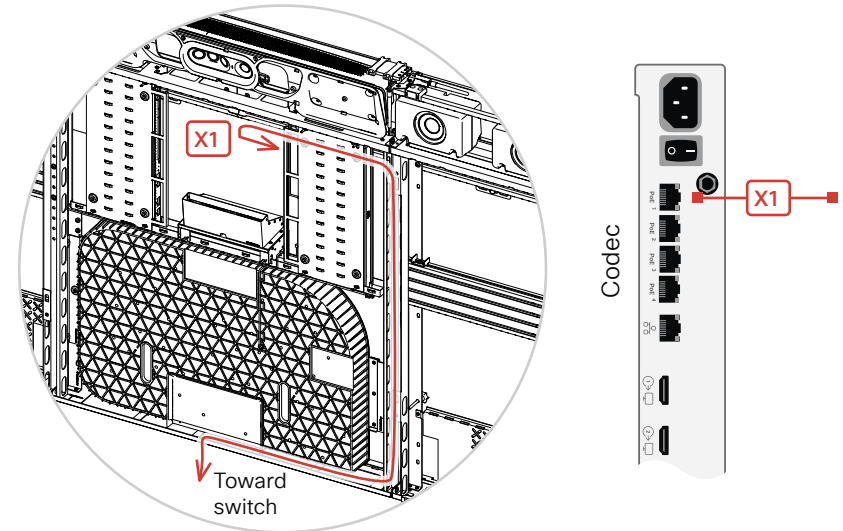
- Lead the microphone cable from the table to the system using the regular cable routes. Then connect it to the codec (MD1).



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).

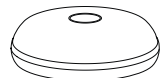


Microphones (optional)

(0..3)x Table Microphone
Box: Acc kit 2



(0..3)x Table Microphone Pro
Box: Table Mic Pro



You may have microphones from a 3rd party vendor.

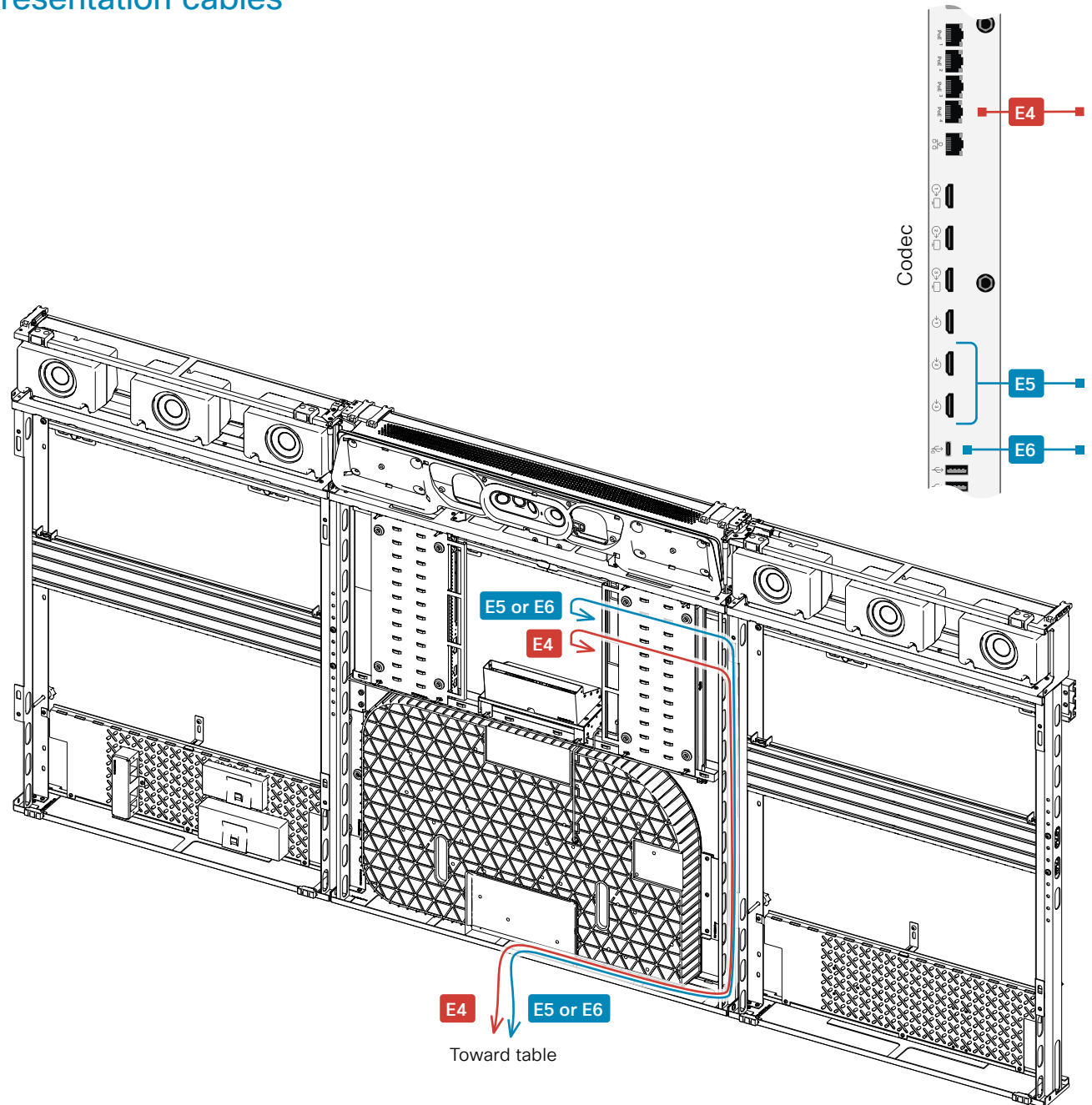
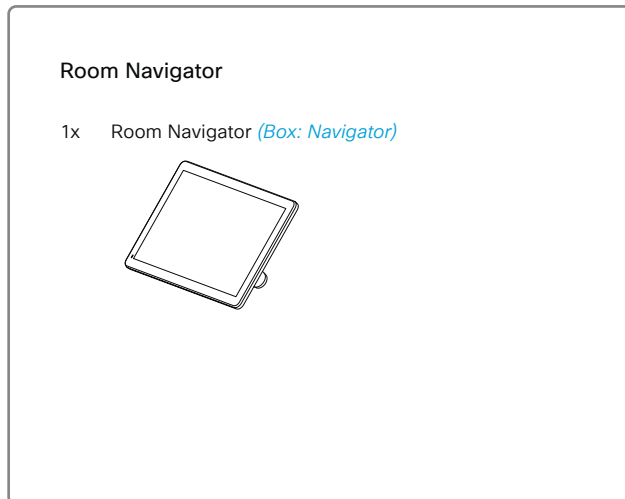
15. Connect the Room Navigator and presentation cables

Room Navigator:

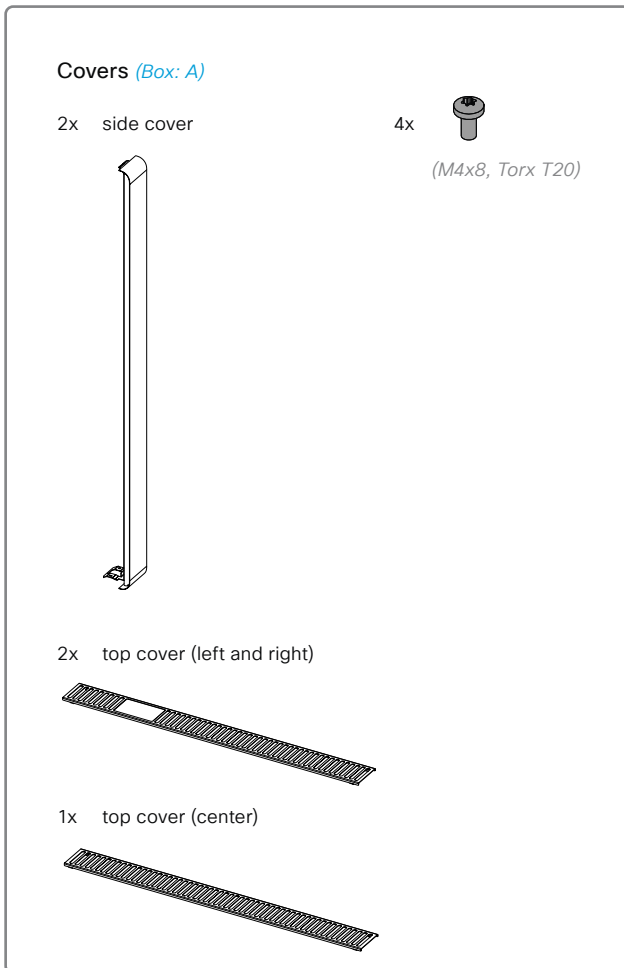
- Connect the Room Navigator to the codec (E4).
Or alternatively, if you have connected an Ethernet switch by the table as described for digital microphones in [step 14](#), you can choose to connect the Room Navigator (E4) to this switch instead of to the codec. This alternative is not shown in the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



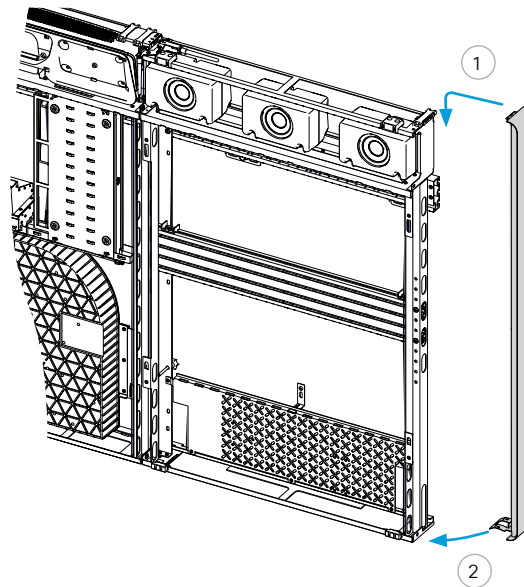
16. Mount the covers



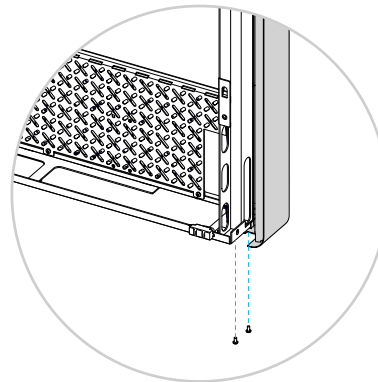
16.1. Mount the side covers


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).

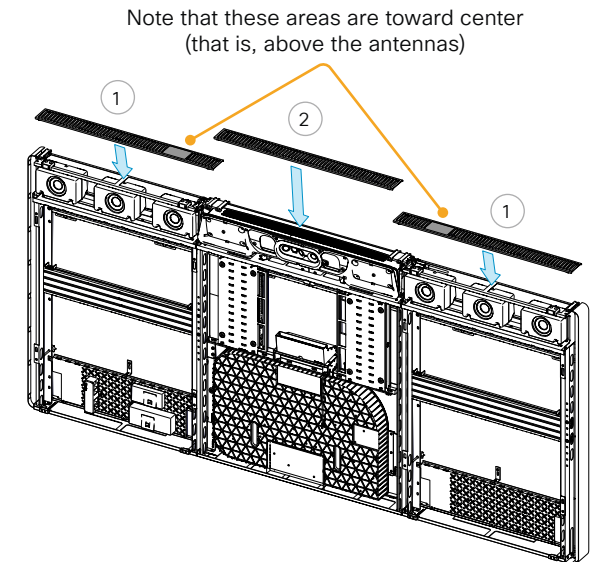


2x  for each cover

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 on both ends.

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



17. Tidy up cabling and check power

17.1. Tidy up the cabling

Now, **you're done with all the cabling** behind the grilles and screens!

We recommend you tidy up and fasten all cables nicely to the frame with velcro. Make sure to keep cables away from the bass and speakers to avoid rattling noise.

Remember to tighten the velcro straps that secures the cables below the bass.

17.2. Check power

We recommend you to **temporarily** connect the system to the socket outlet, and check that the LEDs of these components light up:

1. The camera (has power switch)
2. The codec (has power switch)
3. The amplifier (no power switch)
4. The 24 V PSU (has power switch)
5. The Room Navigator (no power switch)

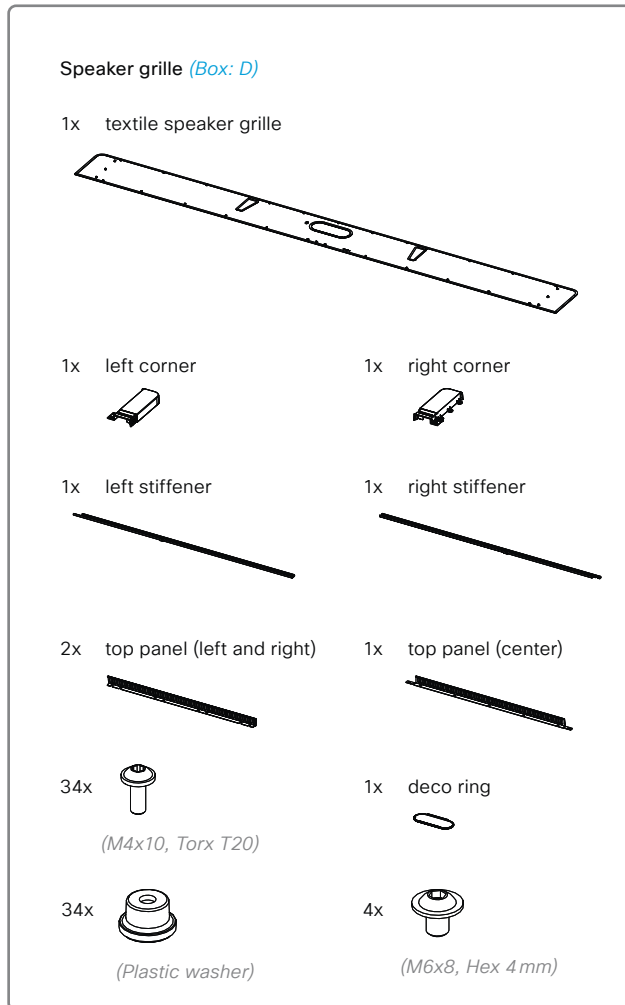
When you've seen the LEDs light up as expected, **unplug the socket outlet and continue with the installation.**

If the LEDs don't light up as expected, go back and check the cabling and power switches.

18. Mount the speaker grille

Both the speaker grille (assembled in this step) and bottom grille (to be assembled in [step 19](#)) consist of several parts. The corners and stiffeners are identical for both grilles; the top/bottom panels are different.

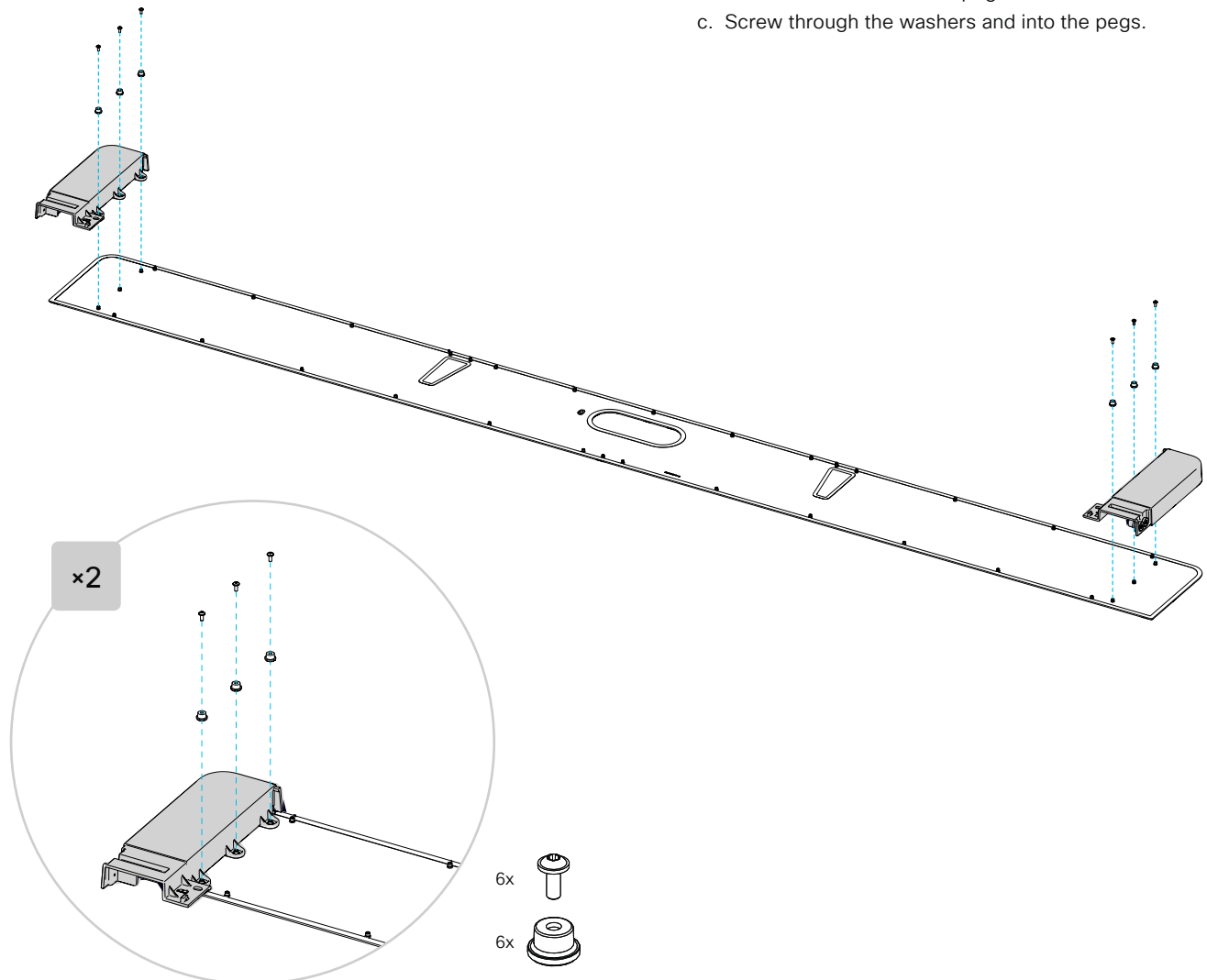
There are marks on the parts, identifying which goes on the left side and which goes on the right side. Left and right, referring to the grille laying like shown in the illustrations.



18.1. Assemble the speaker grille

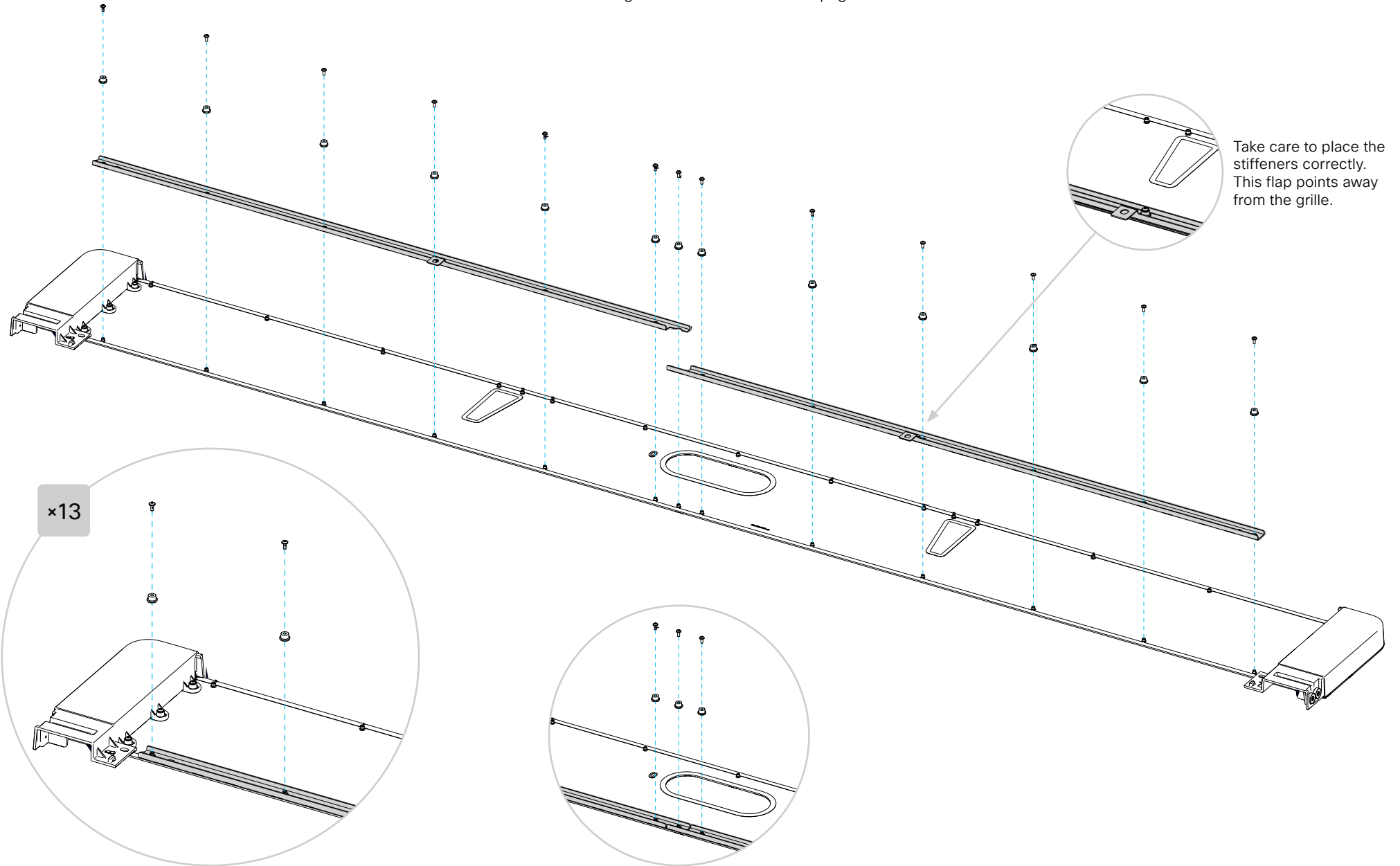
1. Place the textile speaker grille on a flat and clean surface, front side down.

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.
 - c. Screw through the washers and into the pegs.



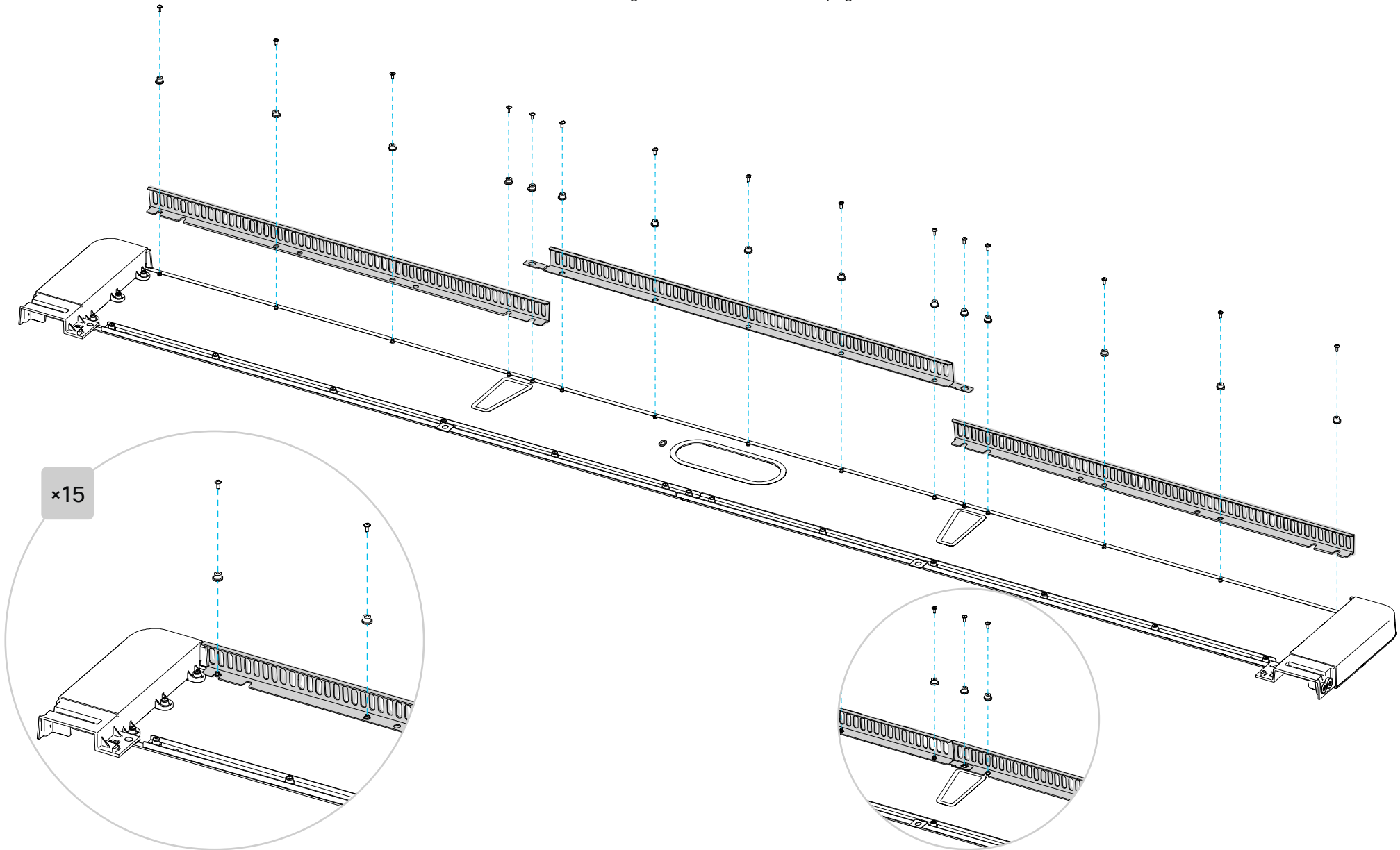
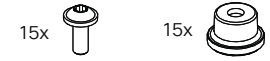
3. The left and right stiffeners are fastened to the grille with 13 screws (M4x10, Torx T20) and washers (Plastic washer) in total.

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



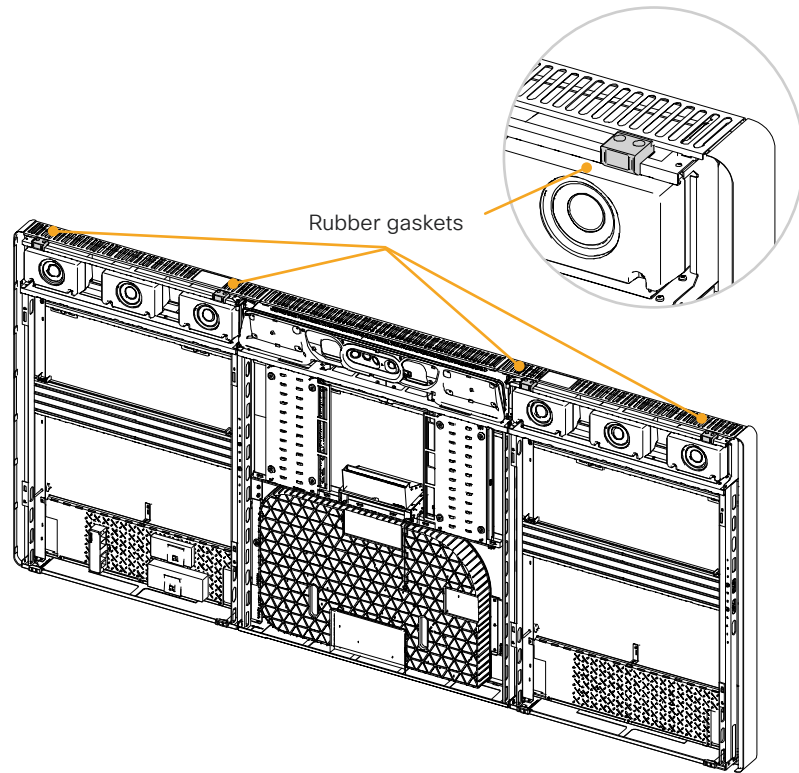
4. The top panels are fastened to the grille with 15 screws (M4x10, Torx T20) and washers (Plastic washer) in total.

- a. First, place the left and right panel onto the pegs as shown in the illustration. Then, place the center panel on top.
- b. Place the washers on the pegs.
- c. Screw through the washers and into the pegs.

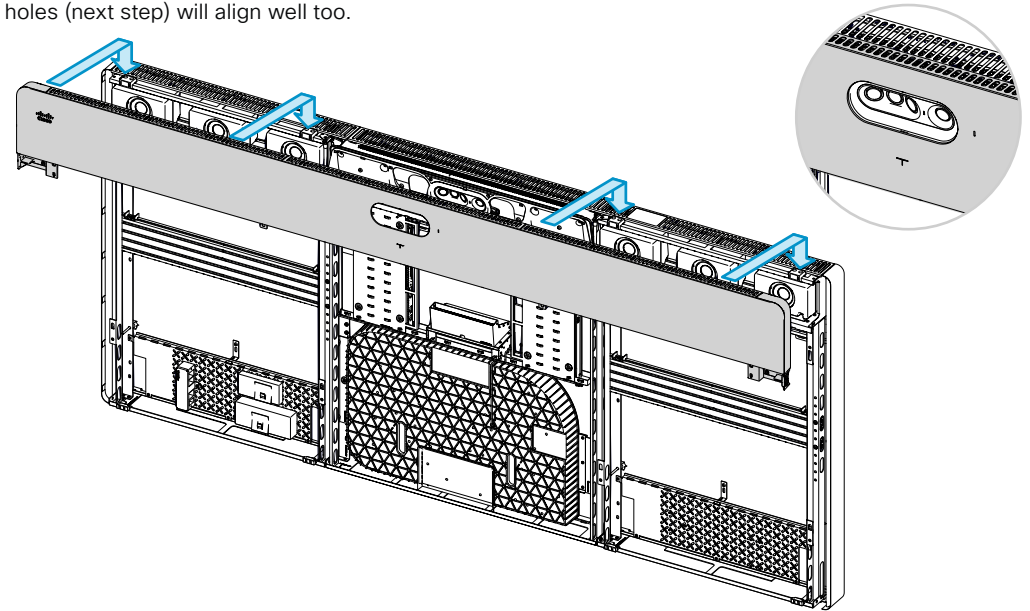


18.2. Attach the speaker grille

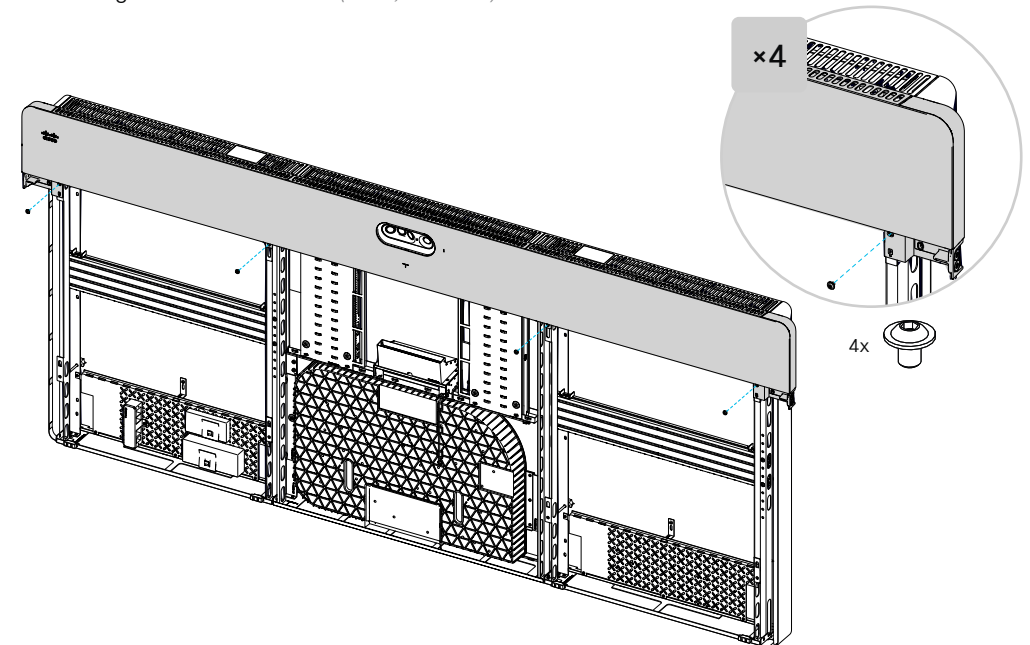
1. Observe the rubber gaskets that the grille will rest on.



2. Hang the speaker grille onto the steel frame and let it rest on the rubber gaskets. Move it sideways so that the hole for the camera aligns well. Then the screw holes (next step) will align well too.

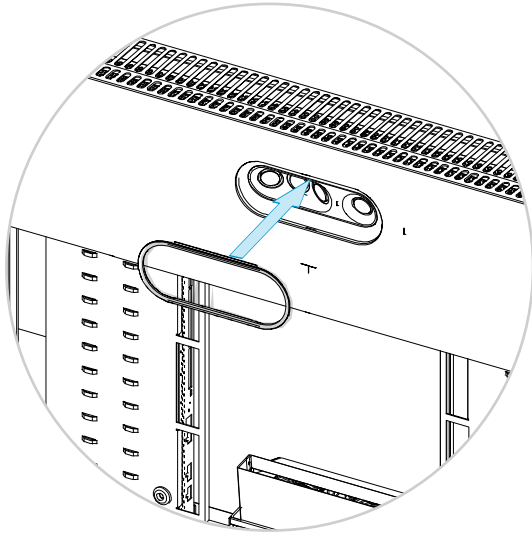


3. Fasten the grille with four screws (M6x8, Hex 4 mm).



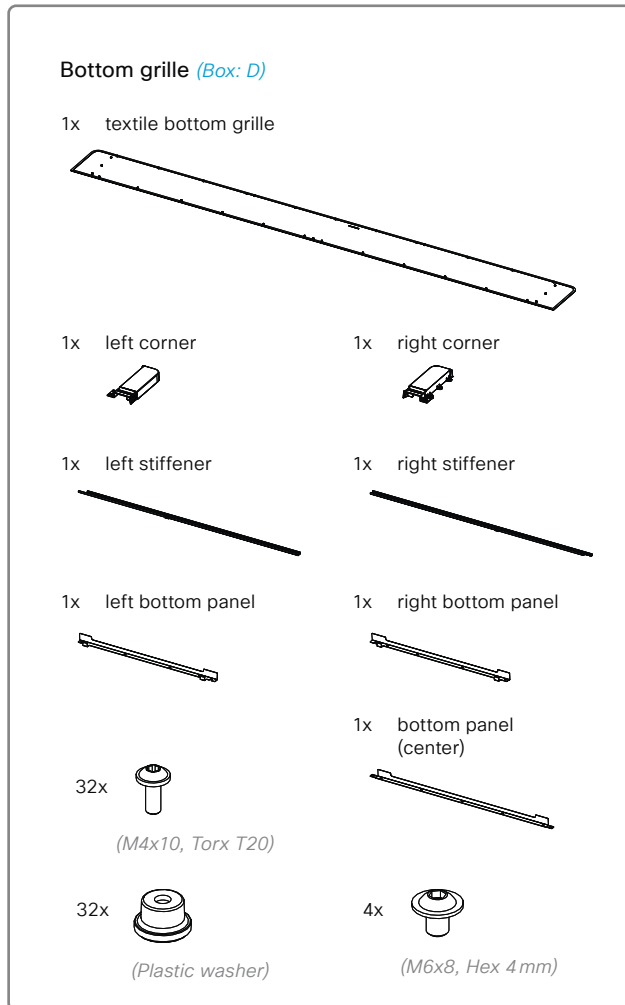
18.3. Insert the deco ring

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



19. Mount the bottom grille

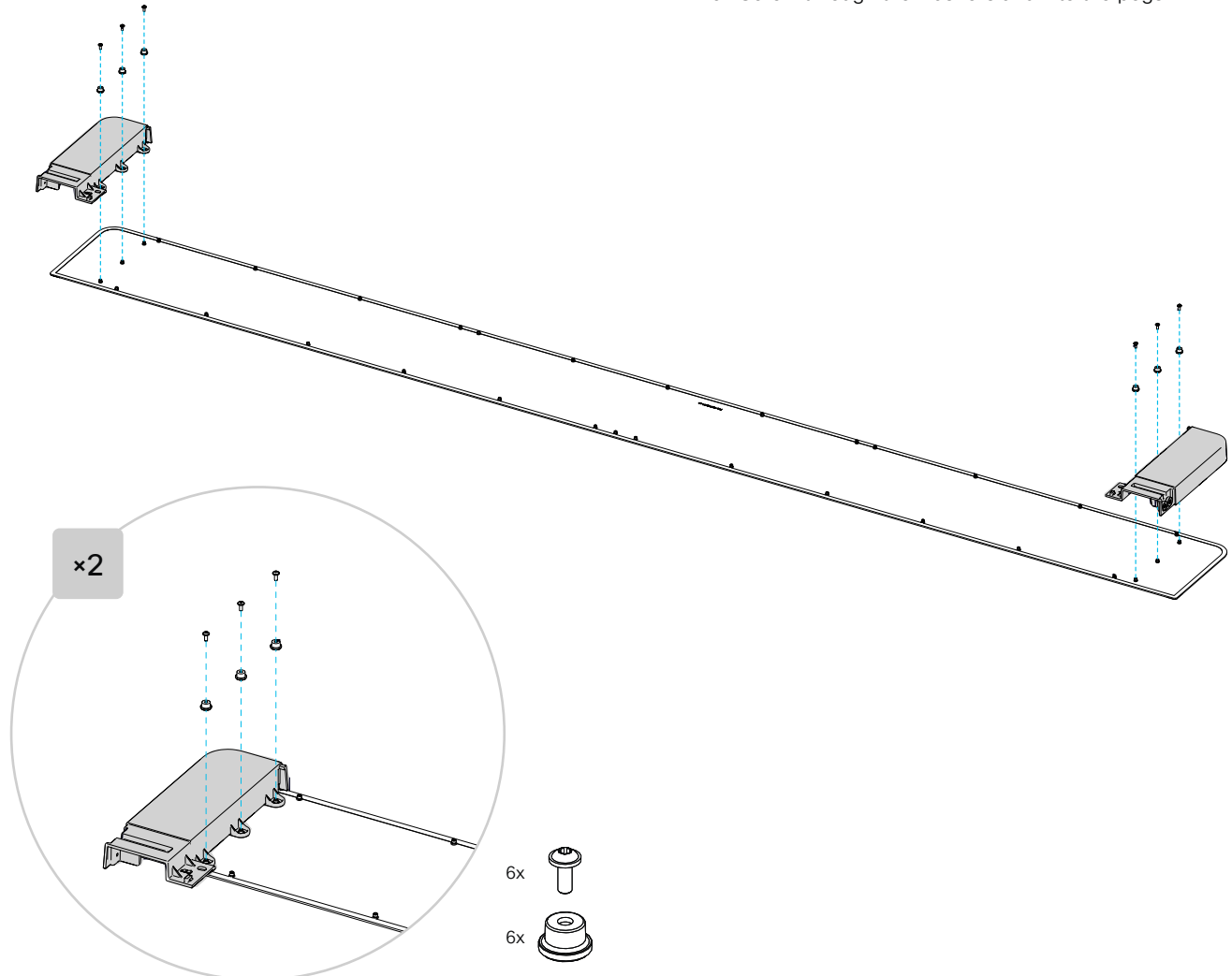
Both the speaker grille (assembled in [step 18](#)) and bottom grille (assembled in this step) consist of several parts. The corners and stiffeners are identical for both grilles; the top/bottom panels are different.



19.1. Assemble the bottom grille

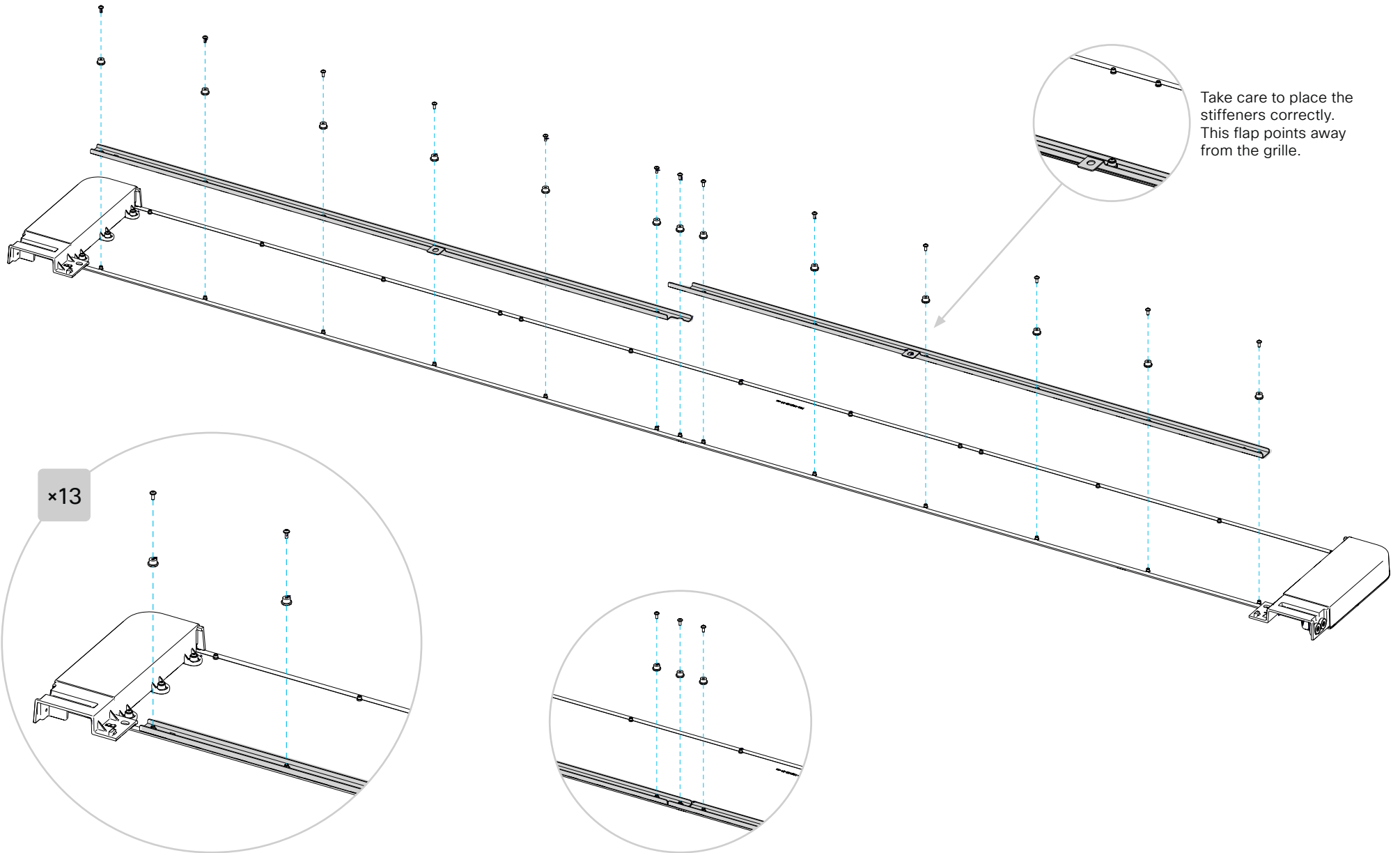
1. Place the textile bottom grille on a flat and clean surface, front side down.

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.



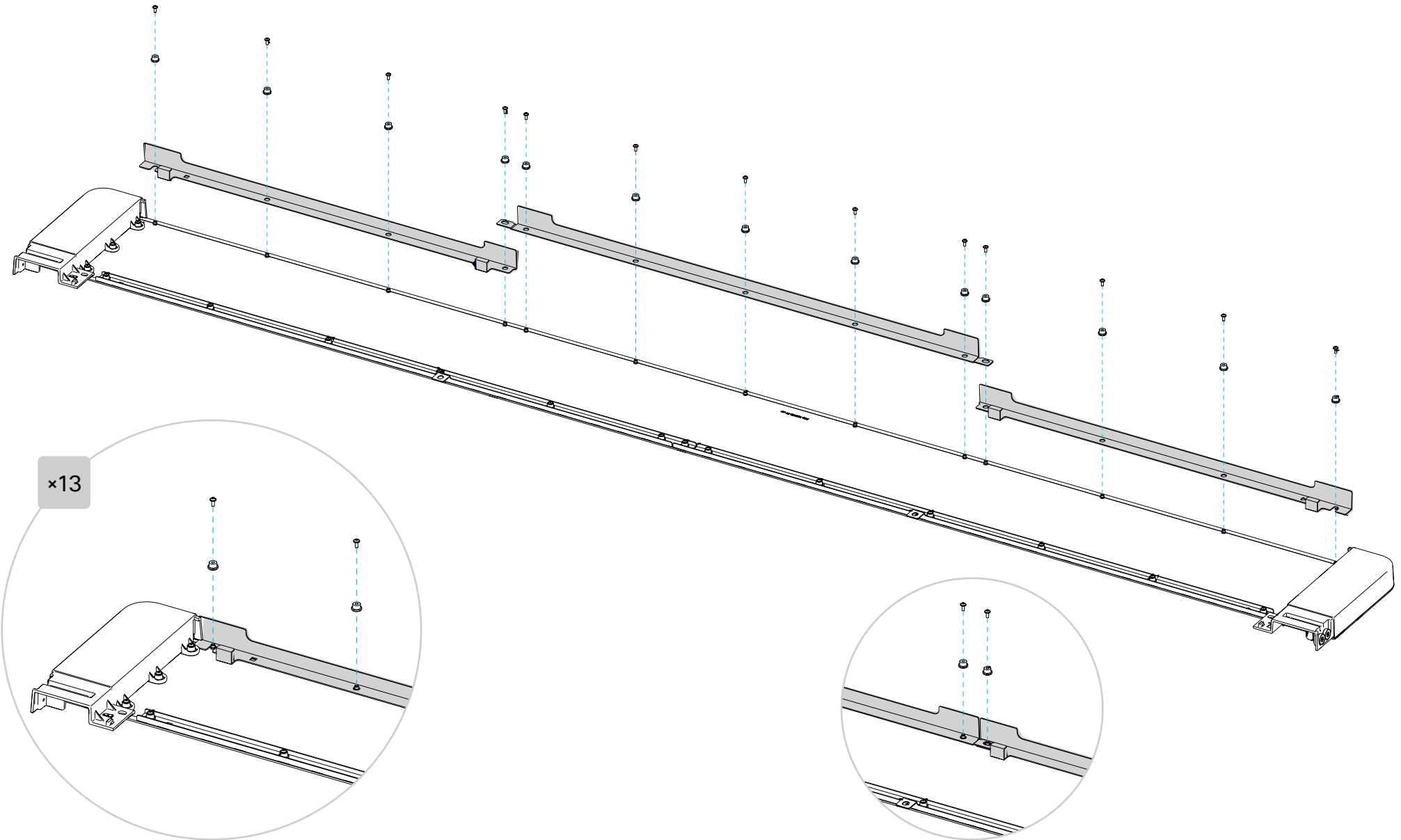
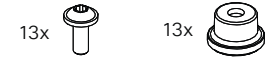
3. The left and right stiffener are fastened to the grille with 13 screws (M4x10, Torx T20) and washers (Plastic washer) in total.

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



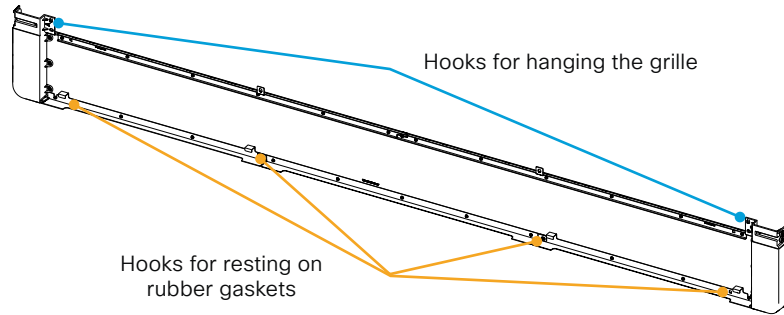
4. The bottom panels are fastened to the grille with 13 screws (M4x10, Torx T20) and washers (Plastic washer) in total.

- a. First, place the left and right panel onto the pegs as shown in the illustration. Then, place the center panel on top.
- b. Place the washers on the pegs.
- c. Screw through the washers and into the pegs.

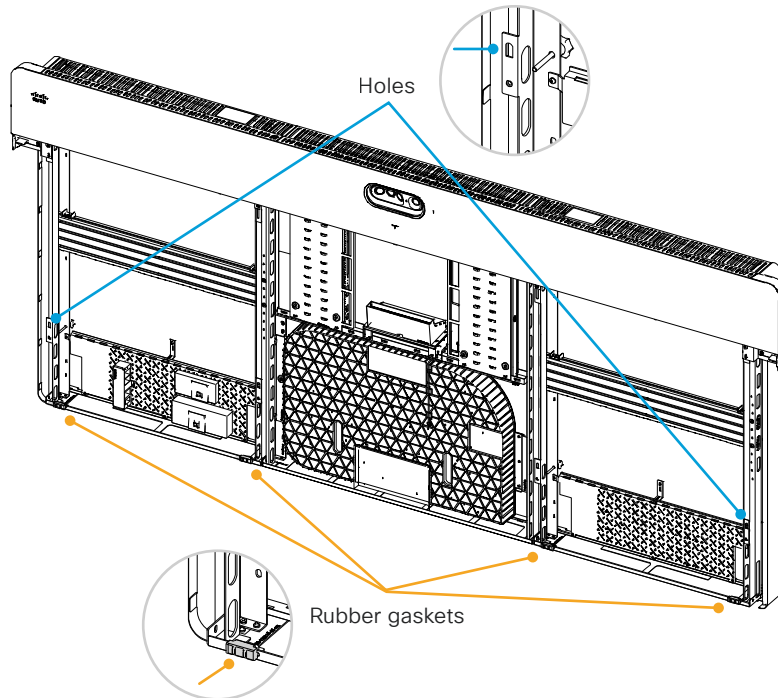


19.2. Attach the bottom grille

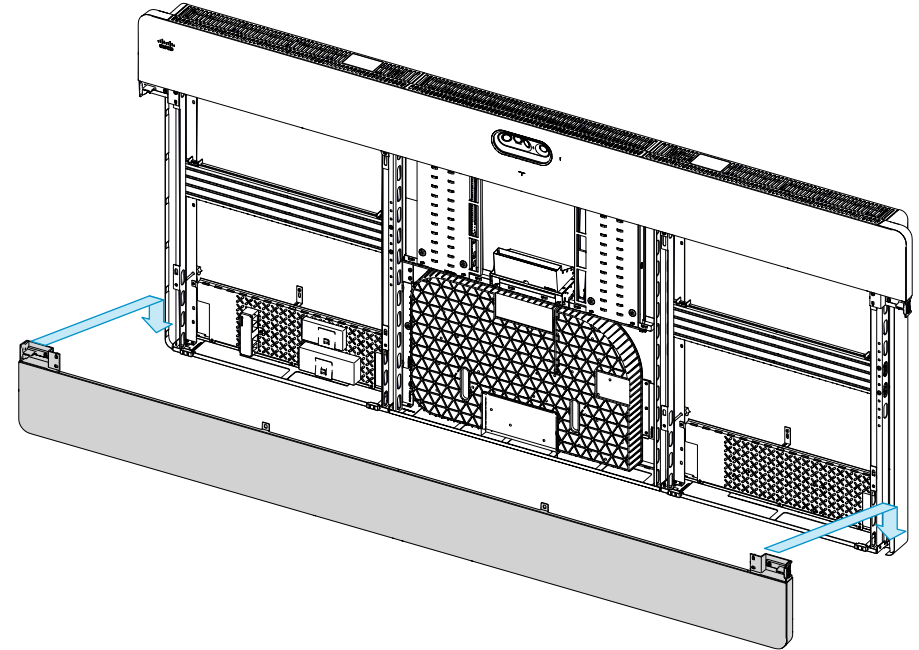
1. Observe the following hooks on the grille rear side.



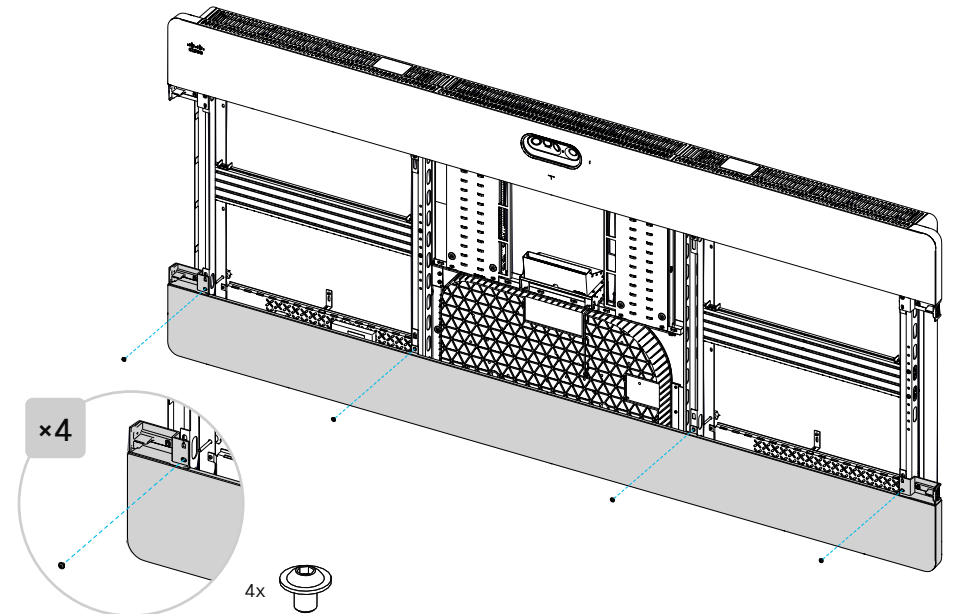
2. Observe the holes that the grille will hang in, and rubber gaskets it will rest on.



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

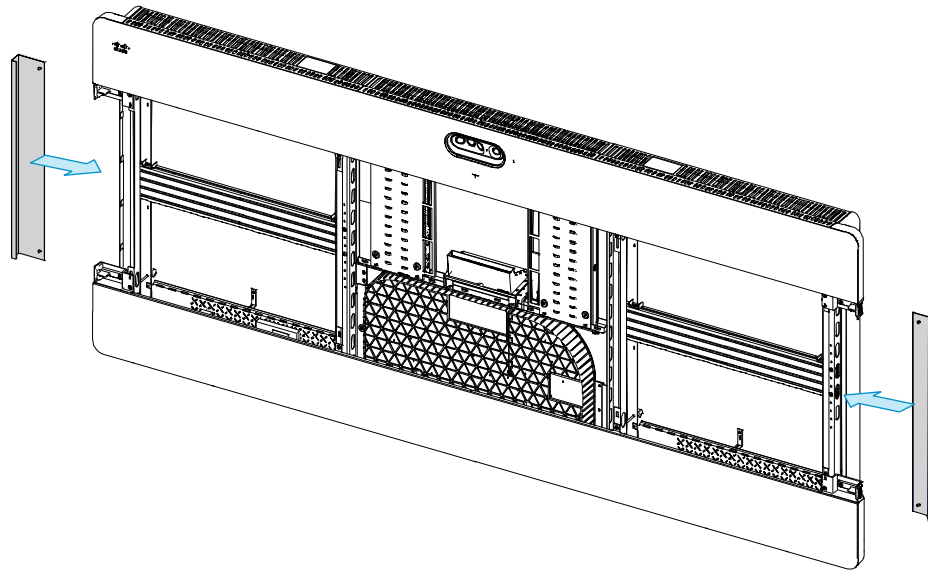


4. Fasten the grille with four screws (M6x8, Hex 4 mm).

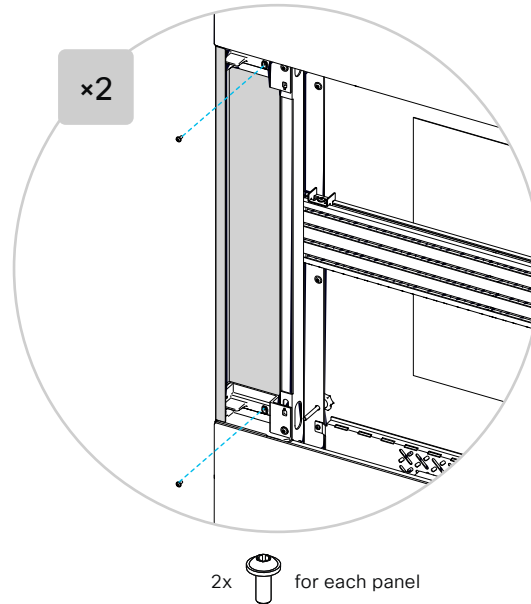


20. Mount the side panels

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*).



Side panels (*Box: D*)

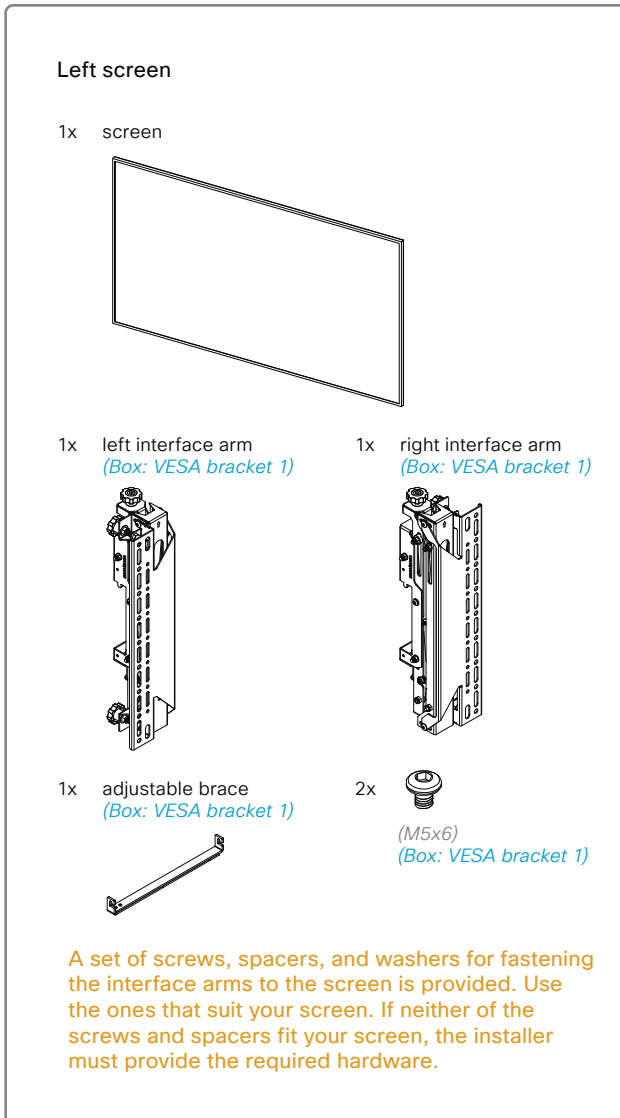
2x side panels



4x 
(*M4x10, Torx T20*)

21. Prepare 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.



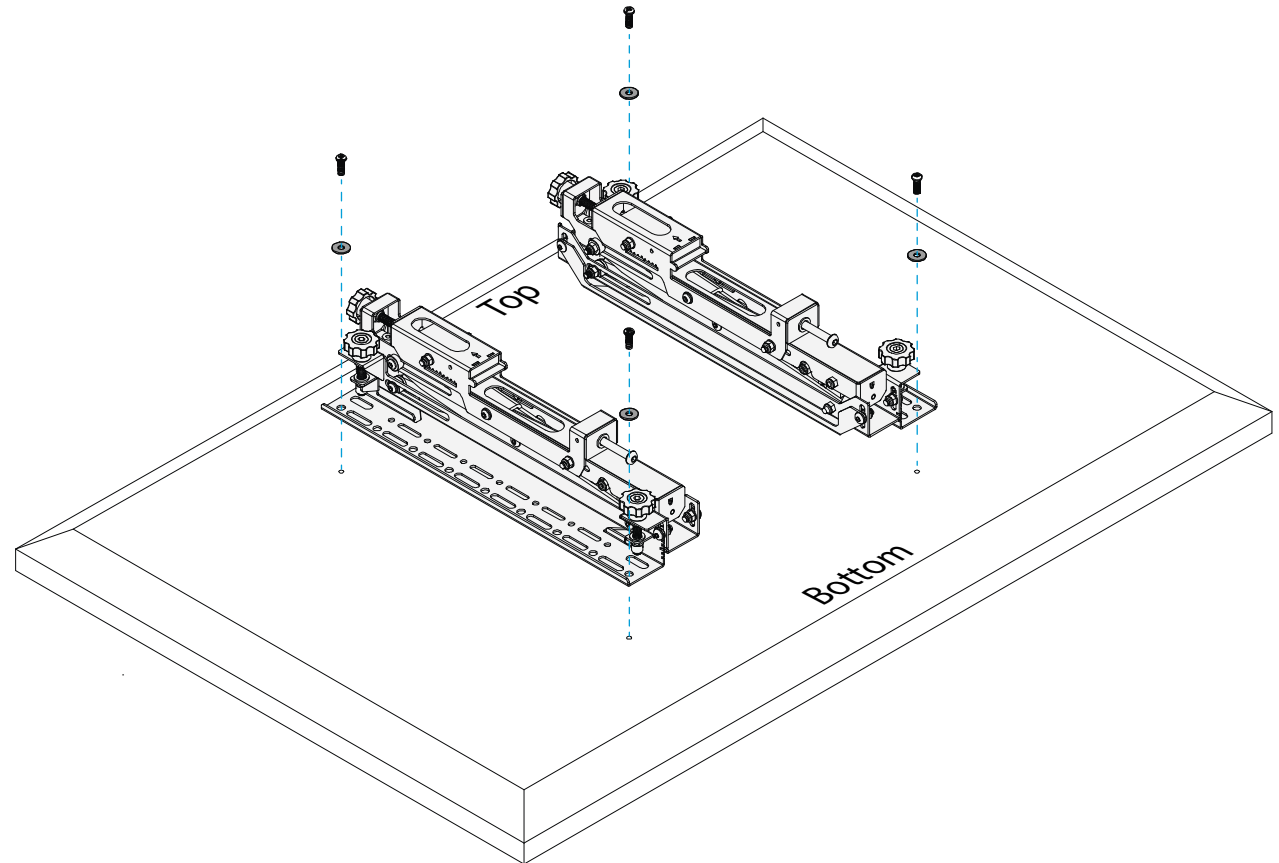
21.1. Attach the interface arms to the back of the screen

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.

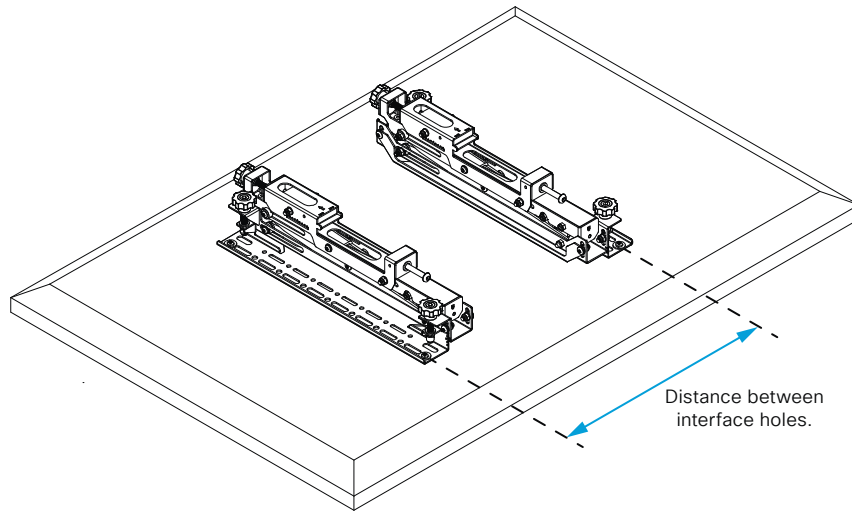
Note: Follow the guidelines given by the screen vendor how to handle the screen.

Whether you keep the screen in the packaging bottom tray, or place it on a flat, even, soft surface with the back facing upward, always take care not to make any scratches on the screen.

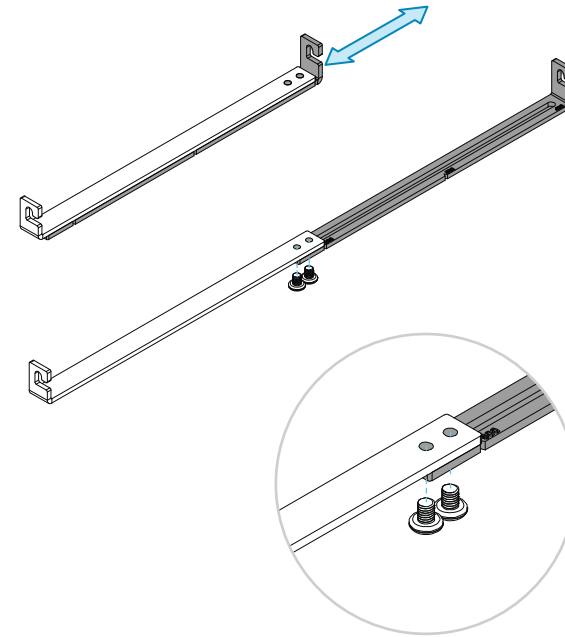


21.2. Connect the interface arms with the adjustable brace

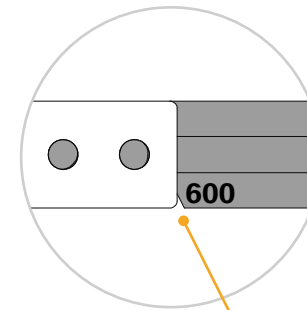
1. Measure the horizontal distance between the interface holes on your screen.
The adjustable brace supports distances ranging from 400mm to 600mm.



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



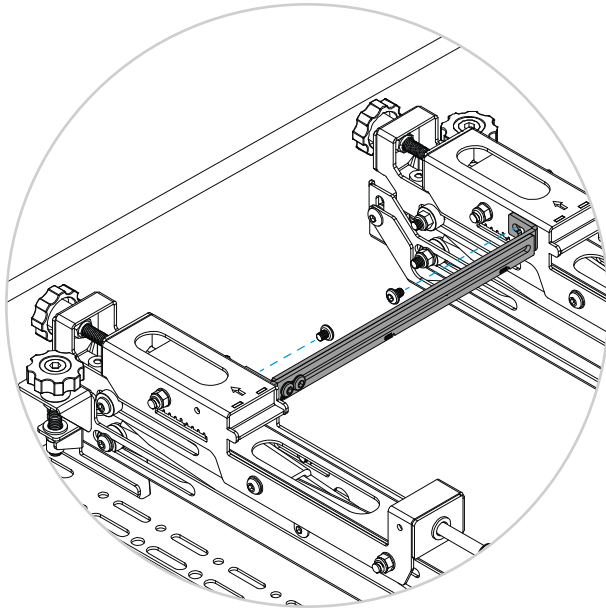
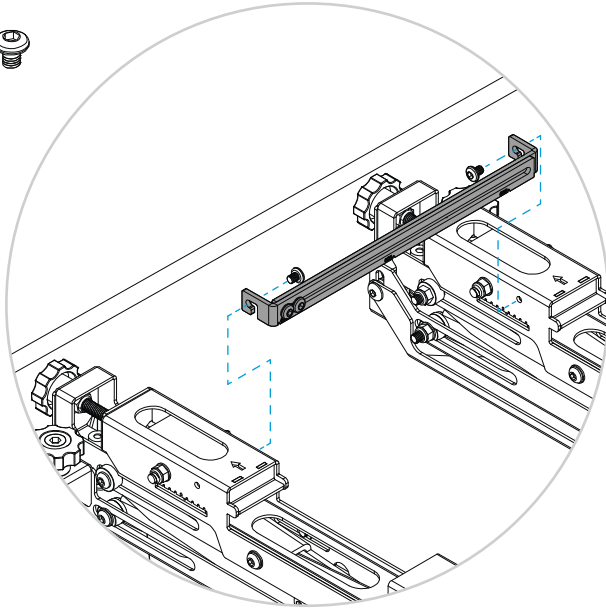
Notches show the fixing position for 400mm, 500mm, and 600mm distances.



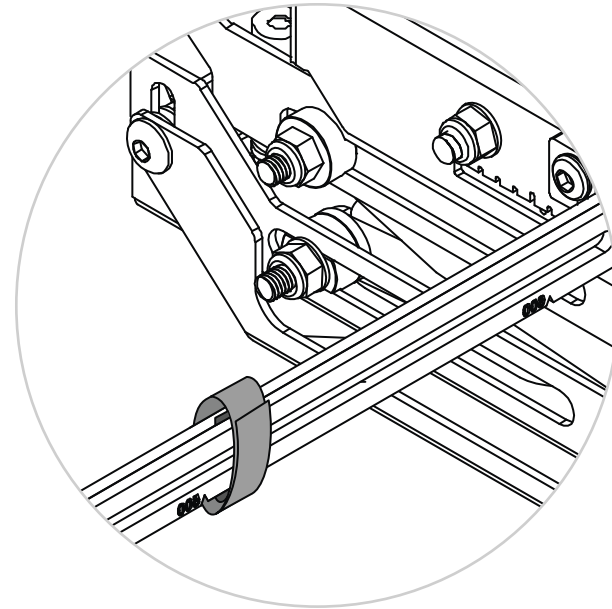
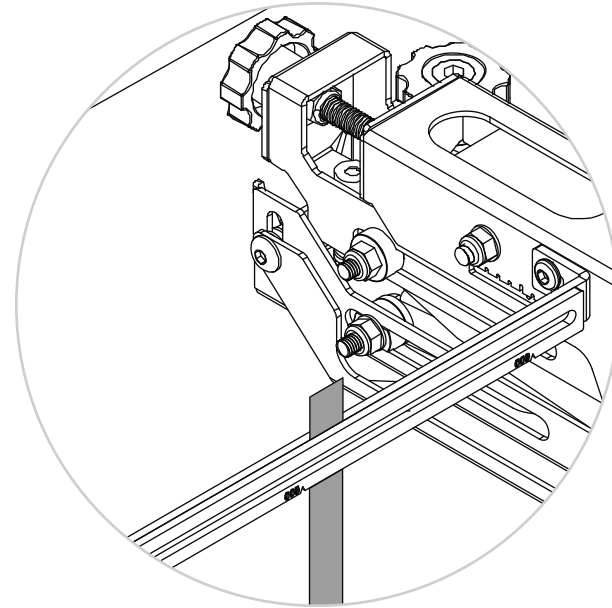
Example: If the interface holes are 600mm apart, extend the brace to the notch marked with 600.

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

2x 



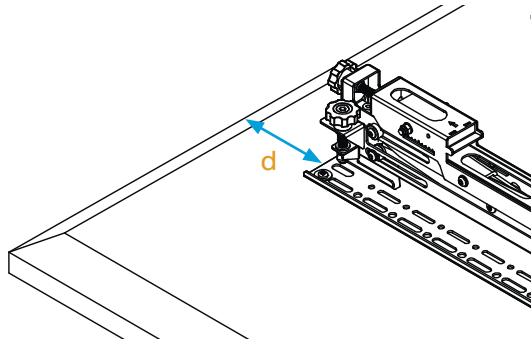
4. If the brace is not extended to its full length, add velcro tight between and around the two brace parts to avoid metal touching metal. This prevents rattling noise.



22. Adjust the VESA rail position

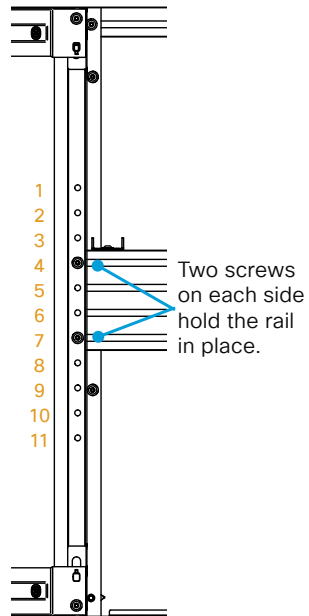
22.1. Find the correct VESA rail position

1. Measure the distance d between the interface arms and the top of the screen.



2. Check the table to find which holes to move the VESA rail to.

Distance d	Fasten the VESA rail in these holes
105-135 mm (4.1-5.3 in.)	1 and 4
135-165 mm (5.3-6.5 in.)	2 and 5
165-195 mm (6.5-7.7 in.)	3 and 6
195-225 mm (7.7-8.9 in.)	4 and 7
225-255 mm (8.9-10.0 in.)	5 and 8
255-285 mm (10.0-11.2 in.)	6 and 9
285-315 mm (11.2-12.4 in.)	7 and 10
315-345 mm (12.4-13.6 in.)	8 and 11



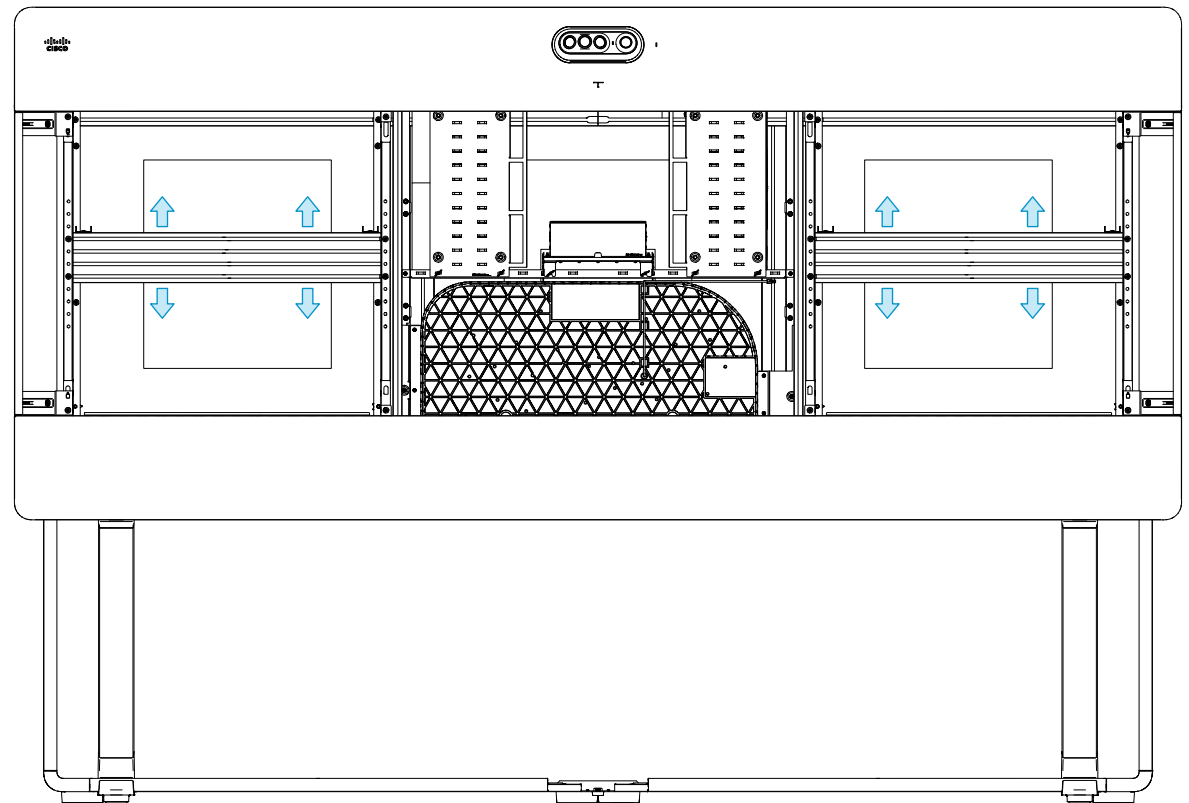
Example:

If $d = 215$ mm (8.5 in.), you must fasten the rail in holes 4 and 7.

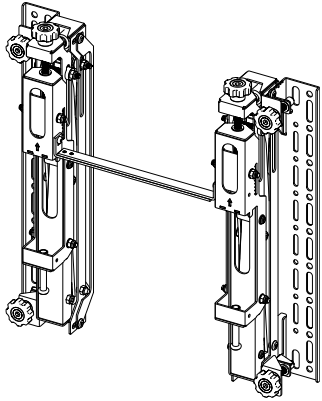
22.2. Adjust the VESA rail position

Repeat for both VESA rails:

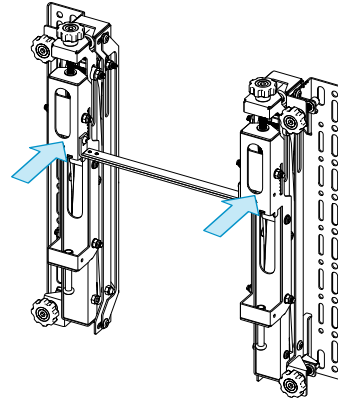
1. Hold the VESA rail, while you unscrew the four screws that holds it in place.
2. Move the rail to the position given in the look-up table.
3. Insert the screws again and tighten to hold the rail firmly in its new position.



SCREEN POP-IN / POP-OUT MECHANISM



Interface arms in pop-in mode

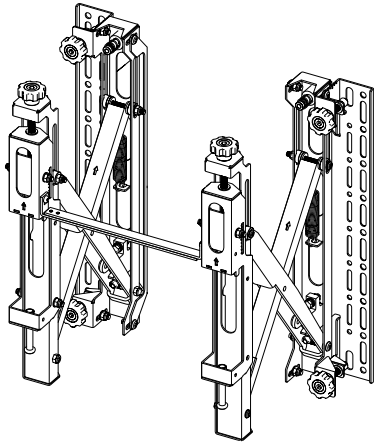


Push to pop out

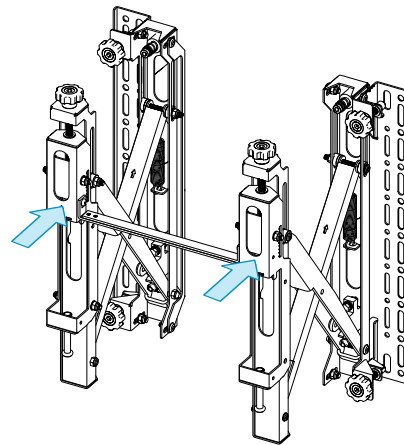
The interface arms pop out quickly, so mind your fingers!

When the screen is hanging on the interface arms, gently push the screen edge at the horizontal position where the interface arms are mounted.

This unlocks the interface arms, and the screen will pop out.



Interface arms in pop-out mode



Push to pop in

When the screen is hanging on the interface arms, gently push the screen edge at the horizontal position where the interface arms are mounted.

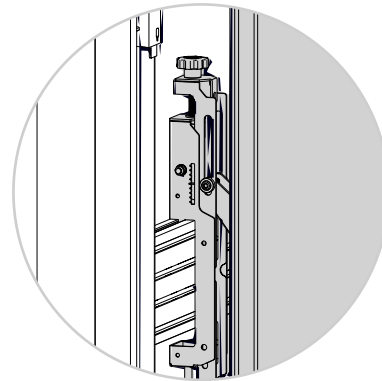
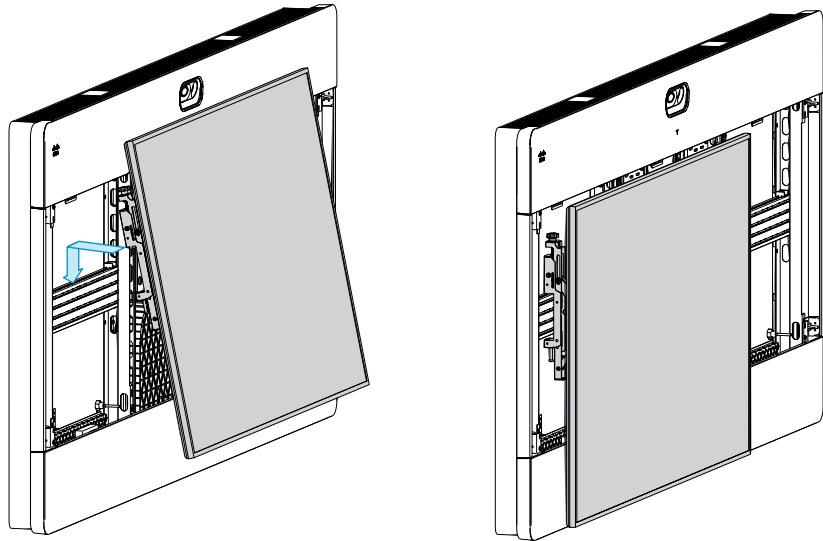
This locks the interface arms in popped-in mode.

If they don't lock, it's probably because you are not able to push them all the way in. Use the depth adjustment wheels (see step 25.2) to make more space between the screen and mounting structure. Then, try again.

23. Mount the left screen

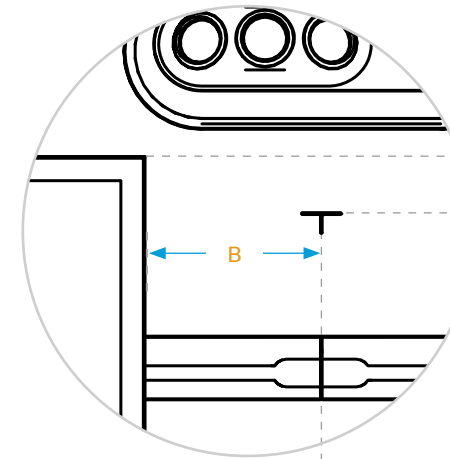
23.1. Hang the screen on the VESA rail

1. Push both interface arms firmly, to put them in pop-out mode. **They pop out quickly, so mind your fingers!**
2. Hang the screen onto the rail **50-70 mm (2-3 in.) to the side** of the system center line. Make sure the interface arms hook into the groove as shown in the close-up.



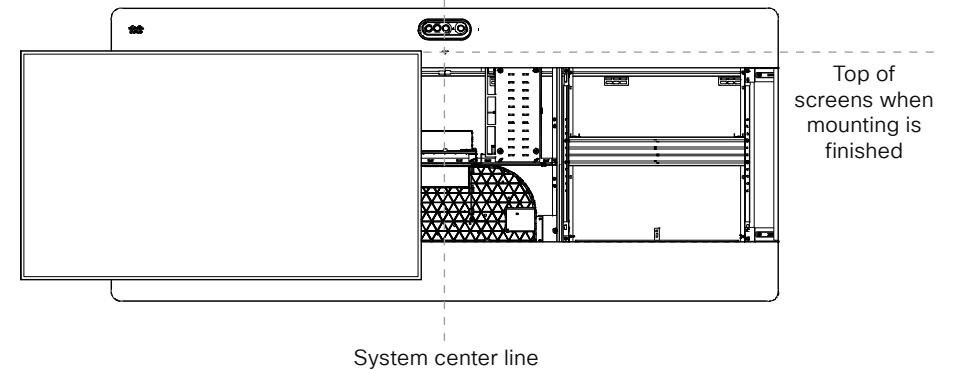
The interface arms hooks into the groove on top of the rail.

3. Push the screen gently, so that the screen stays popped in.
If it doesn't lock in pop-in mode, use the lower depth adjustment wheels (see step 25.2) to make more space between the screen and mounting structure. Then, try again.
4. If the VESA rail has the correct position (step 22), the distance **A** should be less than 15 mm (0.59 in.) (either above or below the T-mark). If it's not you must lift off the screen and move the rails up or down accordingly. Otherwise, you will not be able to fine-adjust the screen height to match the T-mark in step 25.
5. Measure the distance **B** accurately; you need it in step 23.2.



The **T-mark** on the grille shows:

- The system center line
- The top of the screens

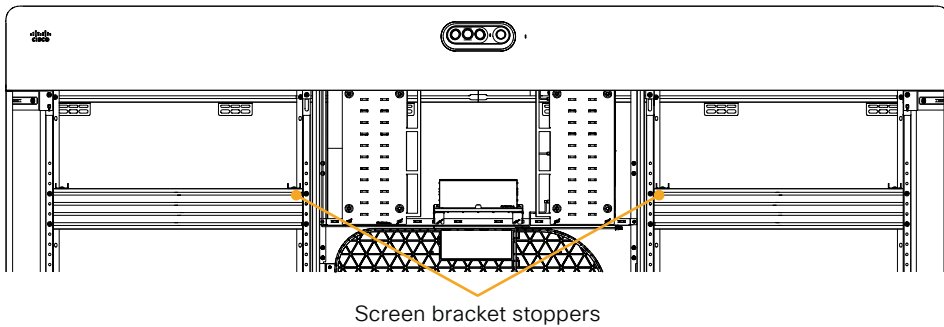


Top of screens when mounting is finished

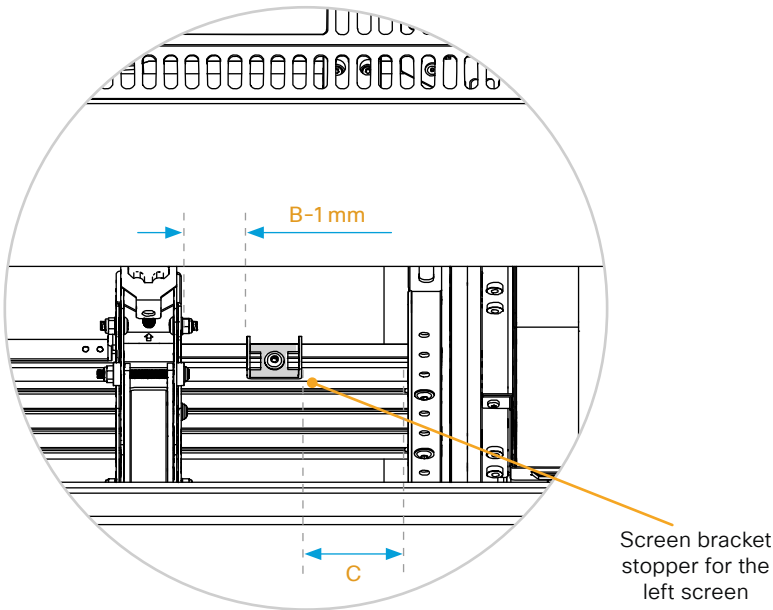
System center line

23.2. Move the screen bracket stoppers

1. Push the screen gently, to pop out the screen.
2. Locate the screen bracket stoppers that are fastened on top of the rails.

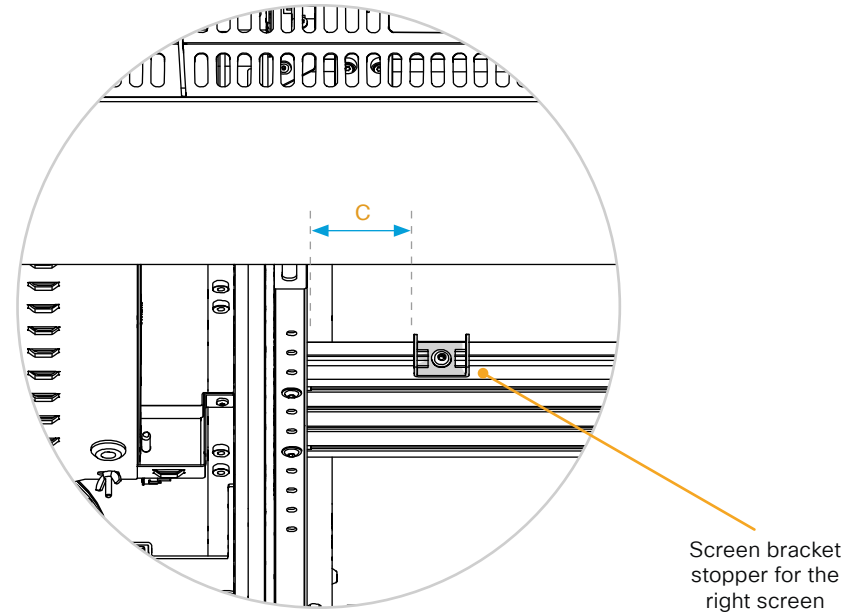


3. Loosen the screw (Hex 4 mm) and slide the stopper as shown in the illustration.
That is, the distance between the stopper and the closest interface arm should be **B-1 mm** (where **B** is the distance that you measured in step 23.1).



4. Tighten the screw to fasten the stopper in its new position.

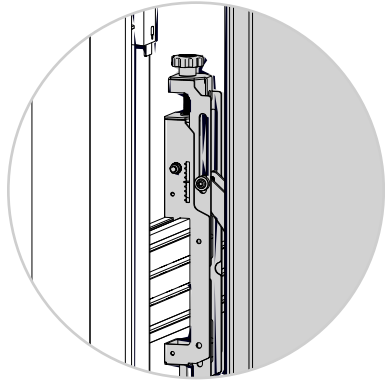
5. Measure the distance **C** for the bracket stopper that you just moved. Then, move the stopper for the right screen to match this distance. Tighten the screw when the stopper is in its new position.



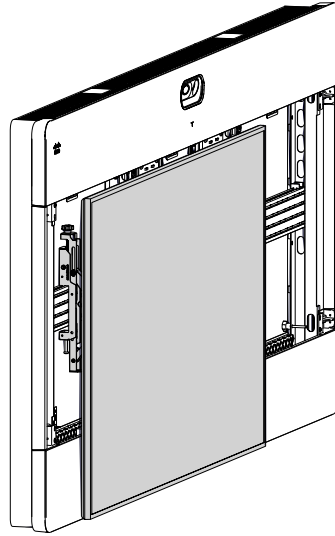
23.3. Move the screen to its correct position

1. Lift the left screen slightly and move it so that its right interface arm touches the screen bracket stopper.

Make sure the interface arms hook into the groove as shown in the close-up.



The interface arms hook into the groove on top of the rail.

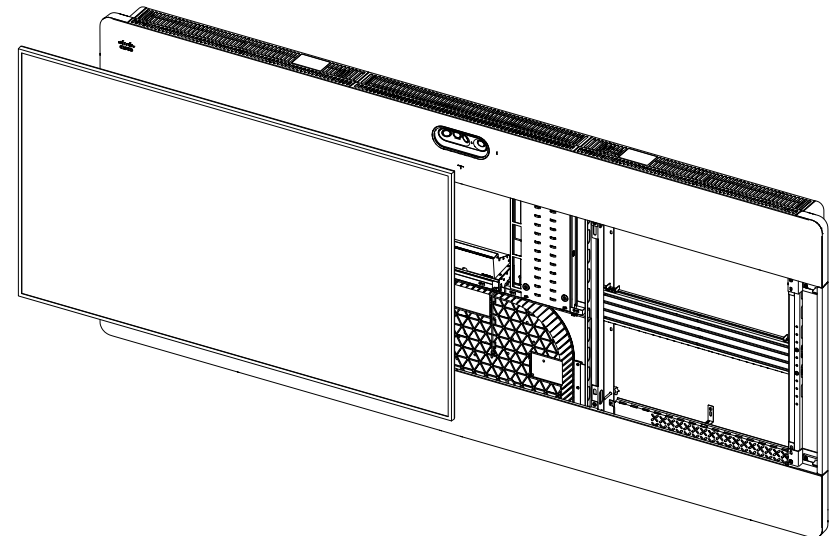
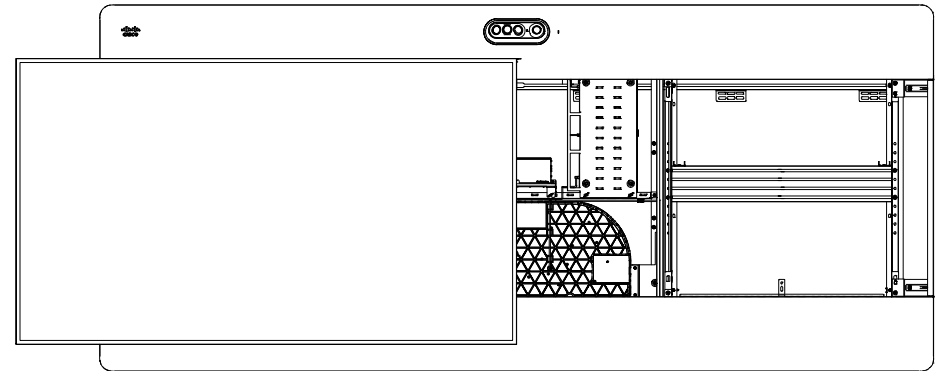


2. Push the screen gently, so that the screen stays popped in.

Now, check how the upper right corner of the screen matches the T-mark on the grille.

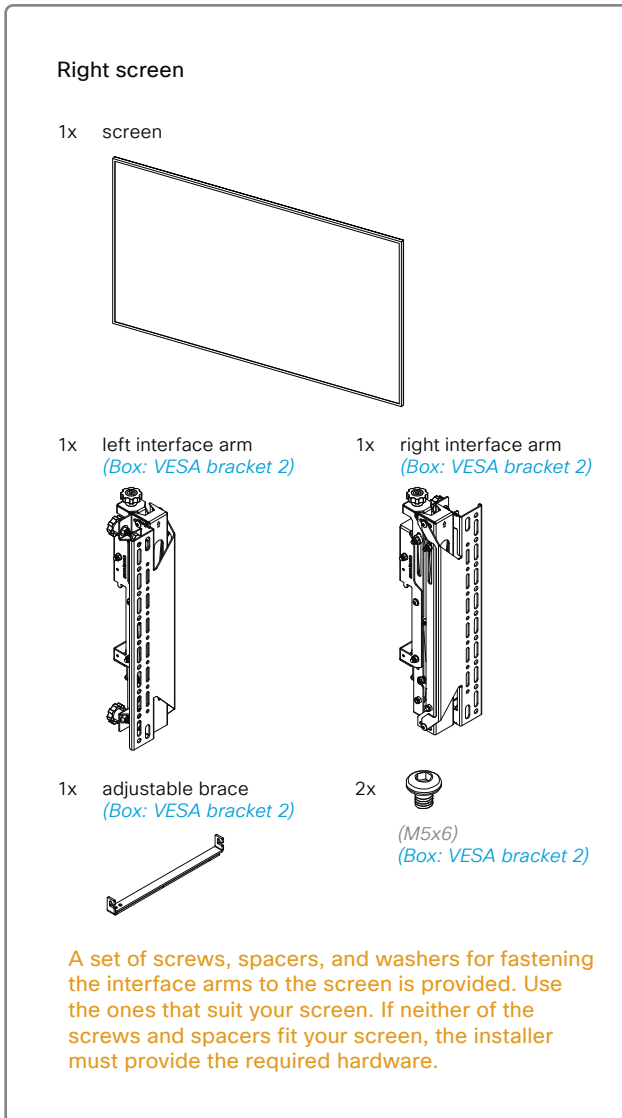
- If it's off horizontally, move the screen bracket stopper until it matches (refer to step [23.2](#)).
- If it's off vertically more than +/- 20 mm (0.79 in.), you have to go back to step [22](#) and adjust the VESA rail position.

You will fine-adjust the height and depth of both screens in step [25](#).



24. Mount the right screen

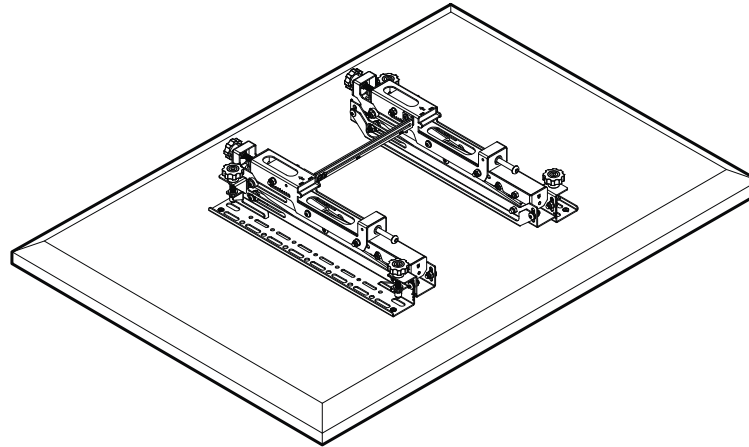
Mount the brackets on the VESA holes on the back of the screen. See the installation guide that follow the brackets for more details than provided here.



24.1. Attach the interface arms

Repeat the following steps for the right screen:

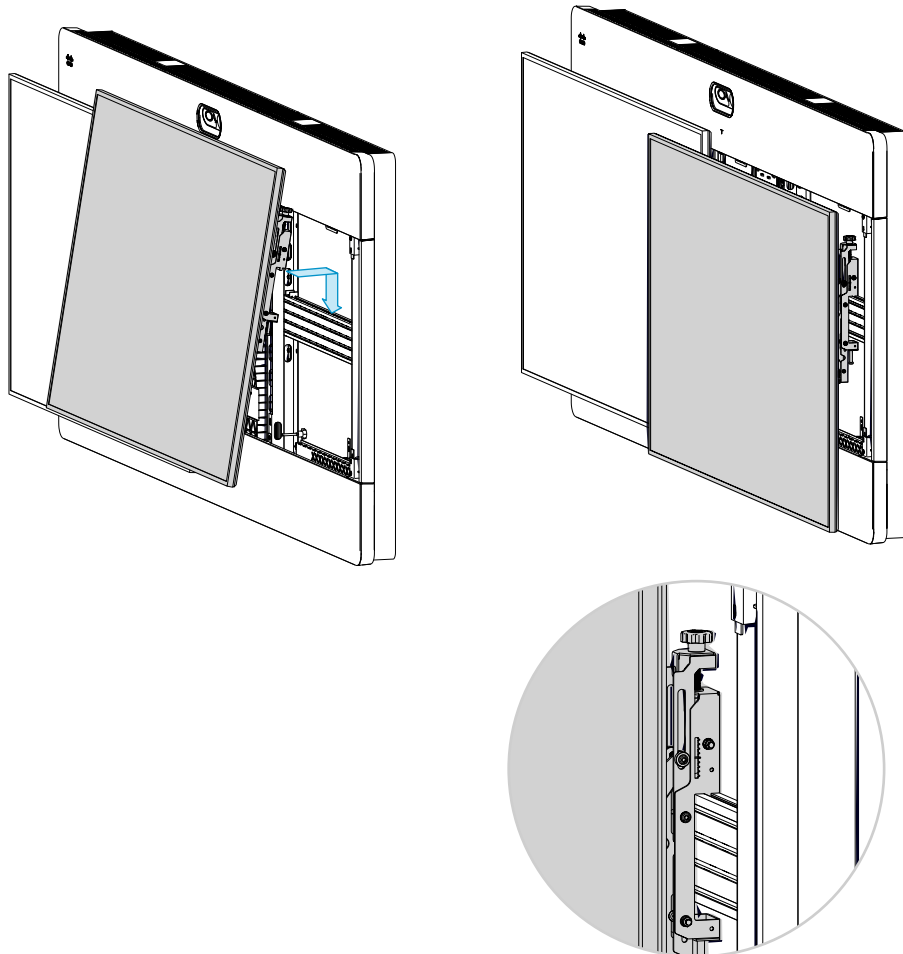
1. Step 21.1 – “Attach the interface arms to the back of the screen”
2. Step 21.2 – “Connect the interface arms with the adjustable brace”



24.2. Hang the right screen on the VESA rail

1. Push both interface arms firmly, to put them in pop-out mode. **They pop out quickly, so mind your fingers!**
2. Hang the right screen onto the VESA rail so that its left interface arm touches the screen bracket stopper.

Make sure it hooks into the groove as shown in the close-up.



The interface arms hooks into the groove on top of the rail.

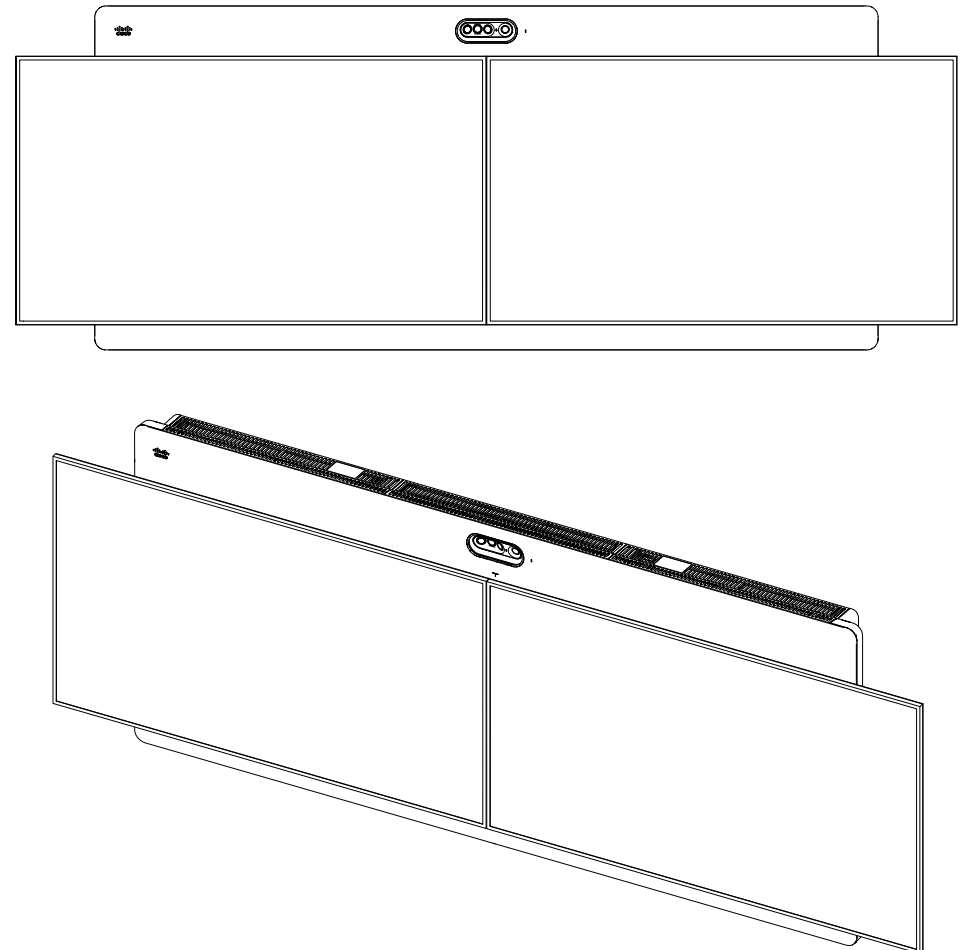
3. Push the screen gently, so that the screen stays popped in.

If it doesn't lock in pop-in mode, use the lower depth adjustment wheels (see step 25.2) to make more space between the screen and mounting structure. Then, try again.

Now, check how the upper left corner of the screen matches the T-mark on the grille.

- If it's off horizontally, move the screen bracket stopper until it matches (refer to step 23.2).
- If it's off vertically more than +/- 20 mm (0.79 in.), you have to go back to step 22 and adjust the VESA rail position.

You will fine-adjust the height and depth of both screens in step 25.



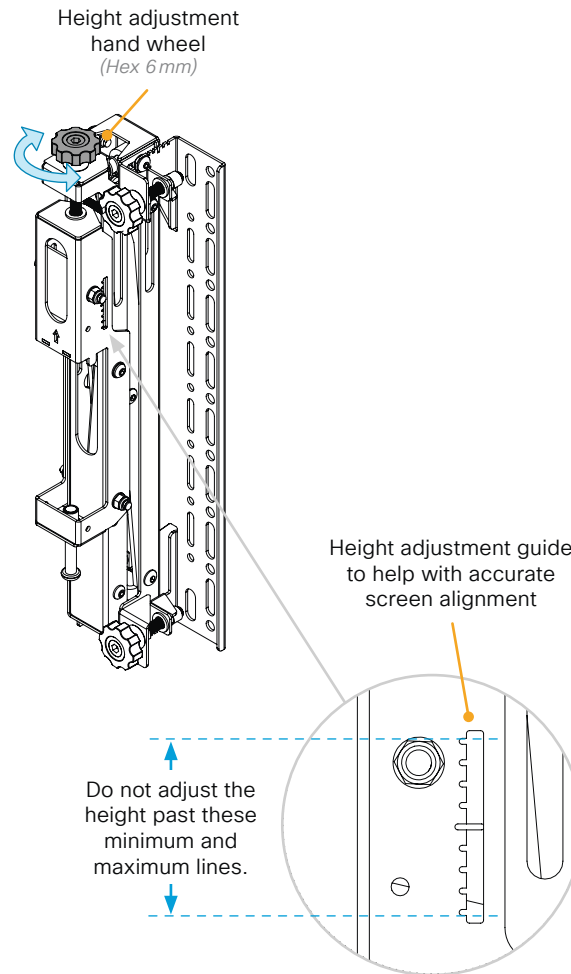
25. Fine-adjust the screens

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

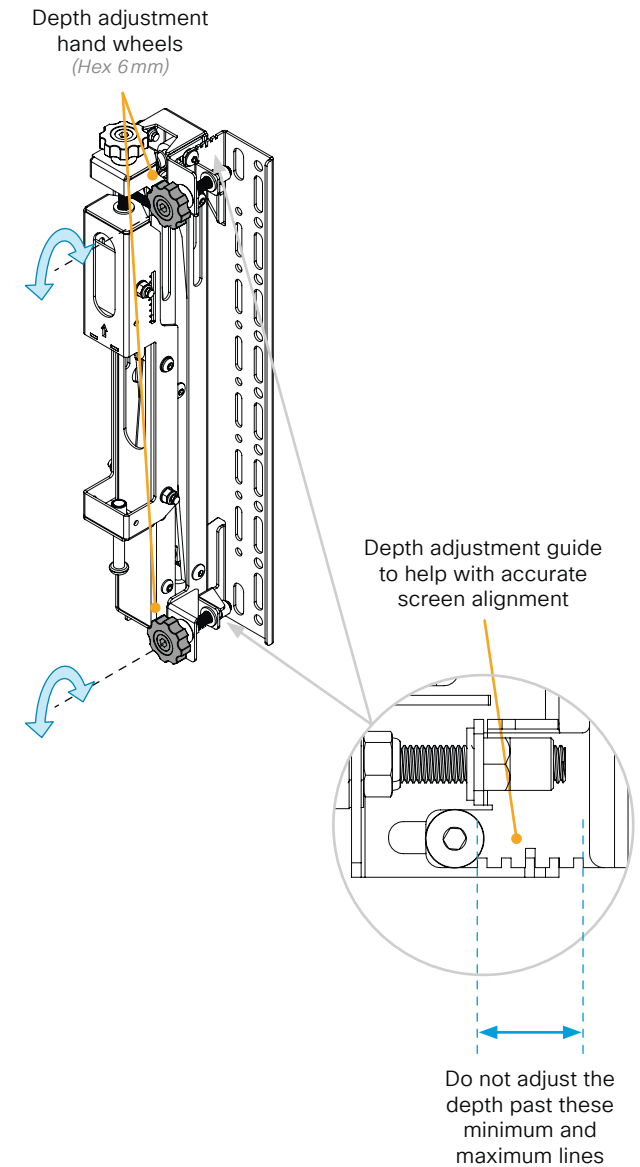
- Ensure the screens are level and at the same height using the **height adjustment hand wheels**.
- Ensure the screens are plumb with corners equidistant from the grilles using the **depth adjustments hand wheels**.

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

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



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



26. Finish-up



1. Remove protection foils from the screens.
2. Connect the HDMI (S1, S2) and power (S3, S4) cables to the screens.
3. Also connect the screen power cables (S3, S4) to a wall socket outlet.
4. Connect the system to the Ethernet (E1) and power (E3) outlets.
 - The power switches on the camera, codec, and 24 V PSU must be ON.
5. Follow the instructions on-screen.
 - Choose device type “Room Kit EQX” when prompted. *
If choosing the wrong device type, the system will not work as expected. You will have to factory reset the device and run the set-up wizard again to fix the issues.

* Alternatively, run the following API command to set the correct device type (refer to the device API-guide online):

```
xCommand SystemUnit ProductPlatform Set Platform: ROOMKITEQX
```

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