

Cisco TelePresence IX5000 and IX5200 Installation Guide

Revised: November 6, 2017 - Summary of Changes:

November 6, 2017: Removed the wiring diagram and put in the URL to the separate document.

July 20, 2017: Updated cable routing and wiring diagrams.

April 14, 2017: Added section "Important Updates for the Room Readiness Assessment and Network Path Assessment"

July 8, 2015: Added picture of the microphone bar cap in its packaging to page 1-5

July 7, 2015: Added information about the inside table legs being specific to the left and right sides (page 1-5)

June 23, 2015: Added information to page 7-4 to show where to find the 800- number for the front inside table legs

June 23, 2015: Changed page 15-6 to show correct positioning of lower corner cabinets

June 5, 2015: Fixed step numbering in Chapter 13

May 13 2015: Added extra wording to denote the display connections (Chapter 9)

May 11, 2015:

- o Added procedure to install the optional seismic bracket (pages B-1 through B-10) and added extra steps and required tools for this procedure (Chapter 1)*
- o Added procedure to check that the two inside table legs have the plate installed correctly (Step 1 on page 7-2)*
- o Added first-time setup requirements to the "Important Notes" section on page 1-6*
- o Added note on page 1-5 to not throw away any boxes before installation is complete, as small parts can be hidden in the packaging*



Important Updates for the Room Readiness Assessment and Network Path Assessment

While immersive telepresence orders are processed in the same way as other Cisco collaboration endpoints, the Cisco Advanced Technology Partner (ATP) performs additional network and room readiness before the system is installed in the customer premises. It is the partner's responsibility to make sure that all network and room readiness is performed prior to the system being powered on and connected to the customer's network. This preparation ensures the best immersive experience.

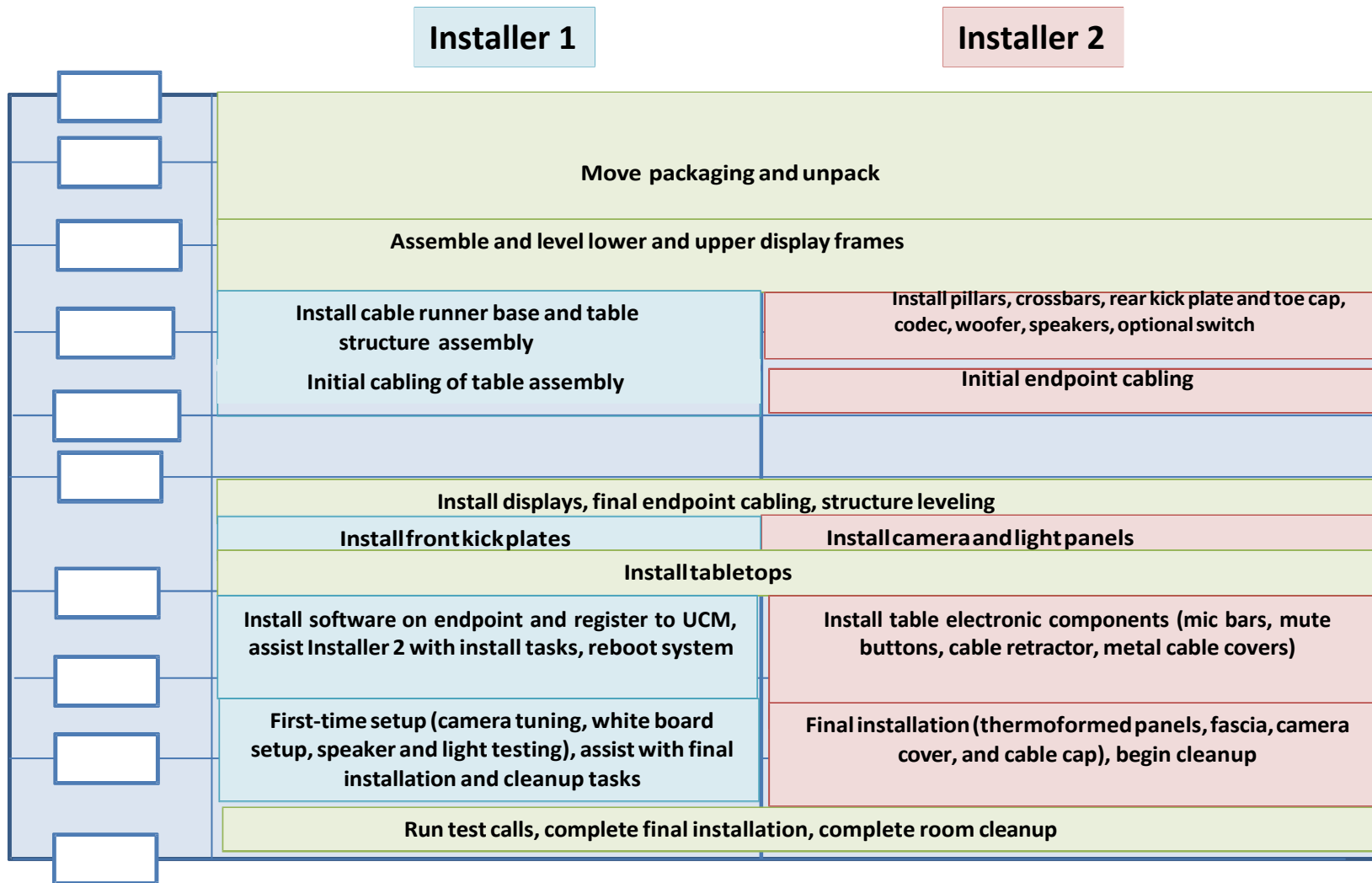
The room readiness information was previously performed by partners using the Room Readiness Assessment (RRA) tool. The partner will make sure that the room in which the system is installed follows all room requirements. For the latest room size, power, HVAC, lighting, and acoustic requirements for your immersive TelePresence room, refer to the following document:

- “Cisco TelePresence IX5000 and IX5200 Room Requirements” document at https://www.cisco.com/c/en/us/td/docs/telepresence/ix5000/recommendations/ix5000_room_requirements.html

The partner will design and implement your network for your immersive system using the latest requirements and guidelines for bandwidth, Quality of Service (QoS), latency, packet loss, and packet jitter. For network design considerations and IX5000 bandwidth requirements, see the following documents:

- “Cisco Collaboration System 11.x Solution Reference Network Designs (SRND)” document at: https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/srnd/collab11/collab11.html
- “IX System Network and Bandwidth Requirements” section of the “Administration Guide for Cisco TelePresence Software Release IX8” at: https://www.cisco.com/c/en/us/td/docs/telepresence/ix_sw/8_x/admin/guide/ix_8_admin_guide.html

Installation Sequence



Installation Quick Reference

1. Move material and unpack (2 people required)
2. Install the lower display frames (2 people required)
3. (Systems that include seismic brackets only) measure, drill for, and install the seismic brackets (see the “Installing the Seismic Bracket” chapter on page C-1) (2 people required). Note that this step adds extra time to the installation.
4. Install the upper display frames (2 people required)
5. Install the cable runner
6. Install the upper crossbars, rear kick plates, and toe caps
7. Install the codecs, PDUs, subwoofer, speakers, and optional endpoint switches into the endpoint structure
Note: The switches in the endpoint structure are optional items. The switches in the table legs to connect the Touch 10 device(s) are required for the Touch 10 device(s).
8. Install the table legs and electronic equipment (Ethernet/power modules for table legs, microphone connector (MC), PoE switch) for the front row table, and begin cabling procedures for the table (2 people required for some steps)
9. Perform cable routing for all installed equipment (codecs, PDUs, subwoofer, and speakers for the endpoint structure, and power/laptop connectivity and PDUs for the table legs) AND place the cables for the light panels and camera
10. Install the displays, light panels, and camera, including cabling
11. Install the front kick plates and toe caps
12. Install the front row tabletops (2 people required)
13. Install and cable the microphone bars, mute buttons, retractors/presentation cables
14. (IX5200 systems only) install and cable the second row table (2 people required for some steps)
15. Install the PET, fascias, display trim and thermoformed outer panels (2 people required)
16. Install software, register endpoint to Unified CM, perform first-time setup, run test calls
17. Room cleanup

Required Tools

- Metric Allen (hex) set
- 6mm T-handle hex key
- 7mm hex socket driver
- #0, #1, #2 and #3 Phillips drivers
- Snips and long nose pliers
- Extensions for Phillips bits/long handle screw drivers
- Cordless driver
- Socket wrench set (metric)
- 10mm, 13mm & 19mm wrench and adjustable wrench
- 19mm 12-point ratcheting box end wrench
- Spirit level or digital Level
- Laser level with tripod
- White gloves (included with accessory kit)
- Metric tape measure
- Box cutter

Tools for Optional Seismic Bracket

- #3 Phillips Driver
- Drill and 1/2-inch (12.7mm) carbide drill bit
- 1 1/8 inch or 29mm open-end or box-end wrenches or adjustable wrenches
- Torque wrench with 75 foot-pound (102 N-m) or greater capacity
- 9/16 inch or 15mm socket
- Measuring tape
- Compressed air source (canned compressed air is acceptable) to clean the holes after drilling

Important Notes for installing the IX5000 and IX5200

- In this manual, Left or Right always means “left or right as viewed facing the front of the system”. Installation of the IX system is very different than the TX9000, CTS-3000, or CTS-3010 systems, even though the components are similar.
- Display installation is completely different. The displays rest on shelves and levelers in the endpoint structure. The display spools are only used to adjust the front-back position of the outer edge of the left and right display. **Measure spool distance carefully before installing the displays** or the spool cannot drop into its place in the display frame. You can adjust the spools inward or outward after installation.
- Each cable has a reference designator (printed label) attached to each end. When installing cables, check the cabling diagram and make sure that each reference designator on the cable corresponds to the correct reference designator on the electrical component in the table or endpoint structure.
- Some small parts are partially hidden in some bulky packaging. Do not throw any packaging away until you finish installing the system.
- In many cases, you cannot use a power driver when installing fasteners (screws). Use a manual screwdriver instead. Do not use a power driver when installing the following components:
 - The speakers and speaker blocks
 - Any component that uses captive screws (the cable runner and speaker cover)
 - Many of the thermoformed and PET outer panelsFollow the instructions in the manual when installing these parts.
- The two inner legs for the front row are different, even though they look similar. Do not switch right for left and vice versa. If incorrectly installed, the magnets in the legs will not attach the side panels correctly.

Important Notes cont'd

After you install the system, **follow the instructions exactly to install the latest IX software and configure your system for the first time** in the “IX5000 and IX5200 First-Time Setup” document at https://www.cisco.com/c/en/us/td/docs/telepresence/ix5000/first_time_setup/ix5000_first_time_setup.html.

Failure to do so can make the switch in the table or the Touch 10 devices inoperable.

Finding Immersive Room Requirements

For the latest room size, power, HVAC, lighting, and acoustic recommendations for your immersive TelePresence room, refer to the “Cisco TelePresence IX5000 and IX5200 Room Requirements” document at https://www.cisco.com/c/en/us/td/docs/telepresence/ix5000/recommendations/ix5000_room_requirements.html

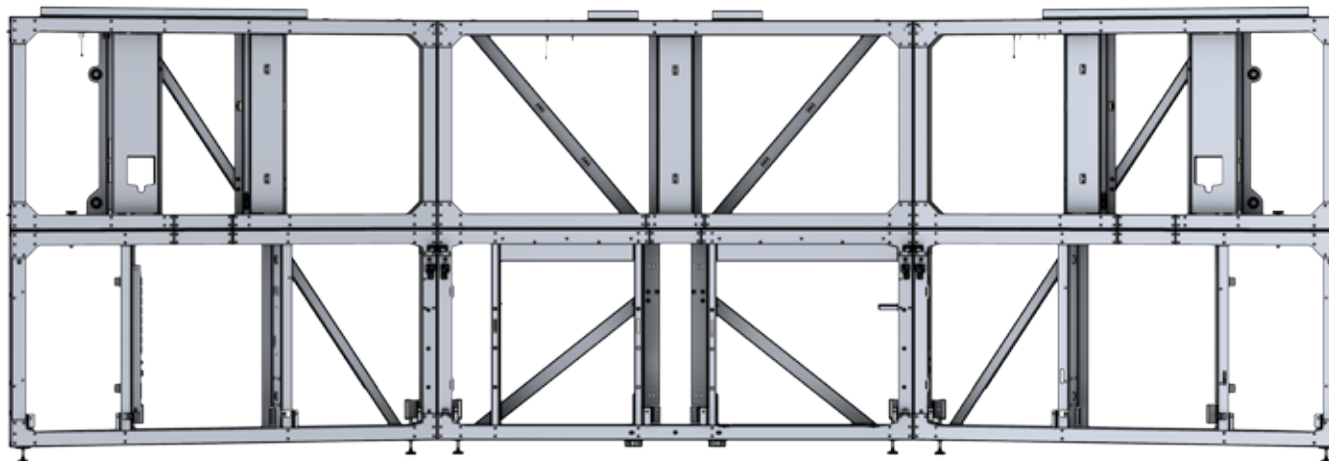
Installing the Lower and Upper Display Frames

Required Parts

- 1x each left, center, and right lower display frames (800-40923-xx, 800-40920-xx, 800-40928-xx)
- 1x each left, center, and right upper display frames (800-40934-xx, 800-40948-xx, 800-40941-xx)
- 2x Tie bars 700-43084-xx
- 56x black M8 X 16mm screws 69-2792-xx
- 1x compliance label 47-27415-xx

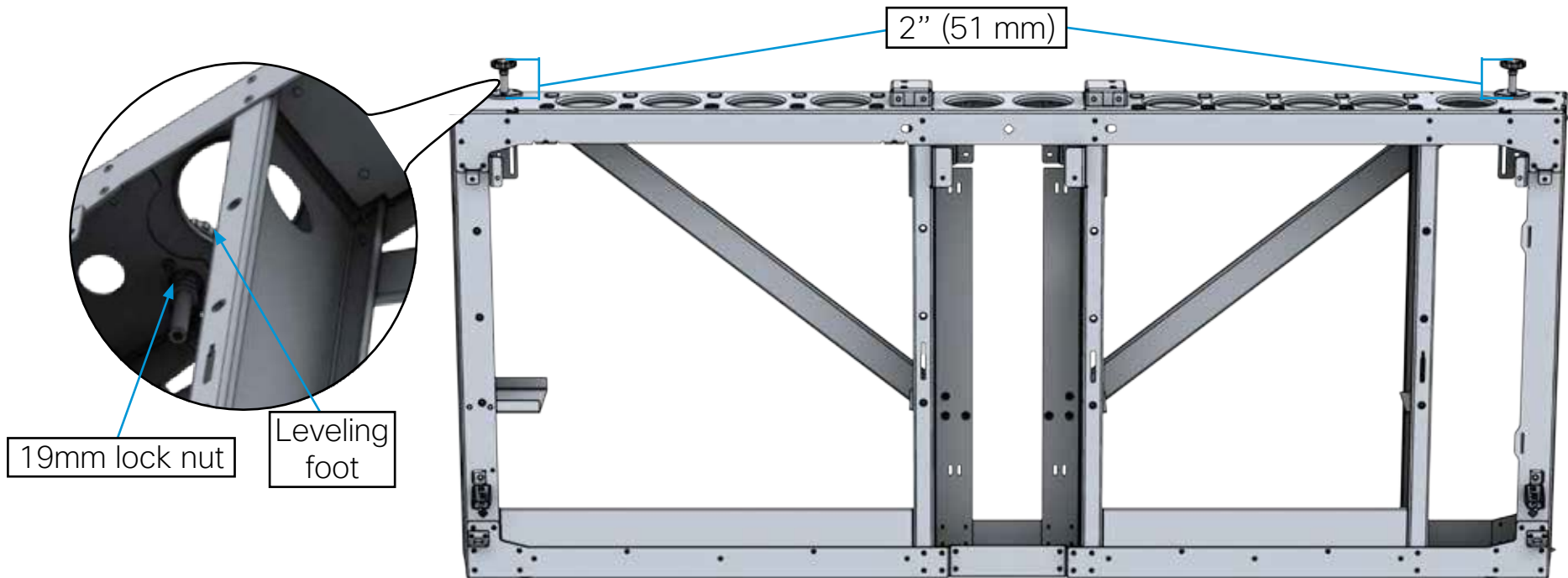
Required Tools

- #3 Phillips Driver
- 13mm wrench or adjustable wrench
- 19mm 12-point ratcheting box end wrench
- Metric tape measure
- Spirit level
- Laser level



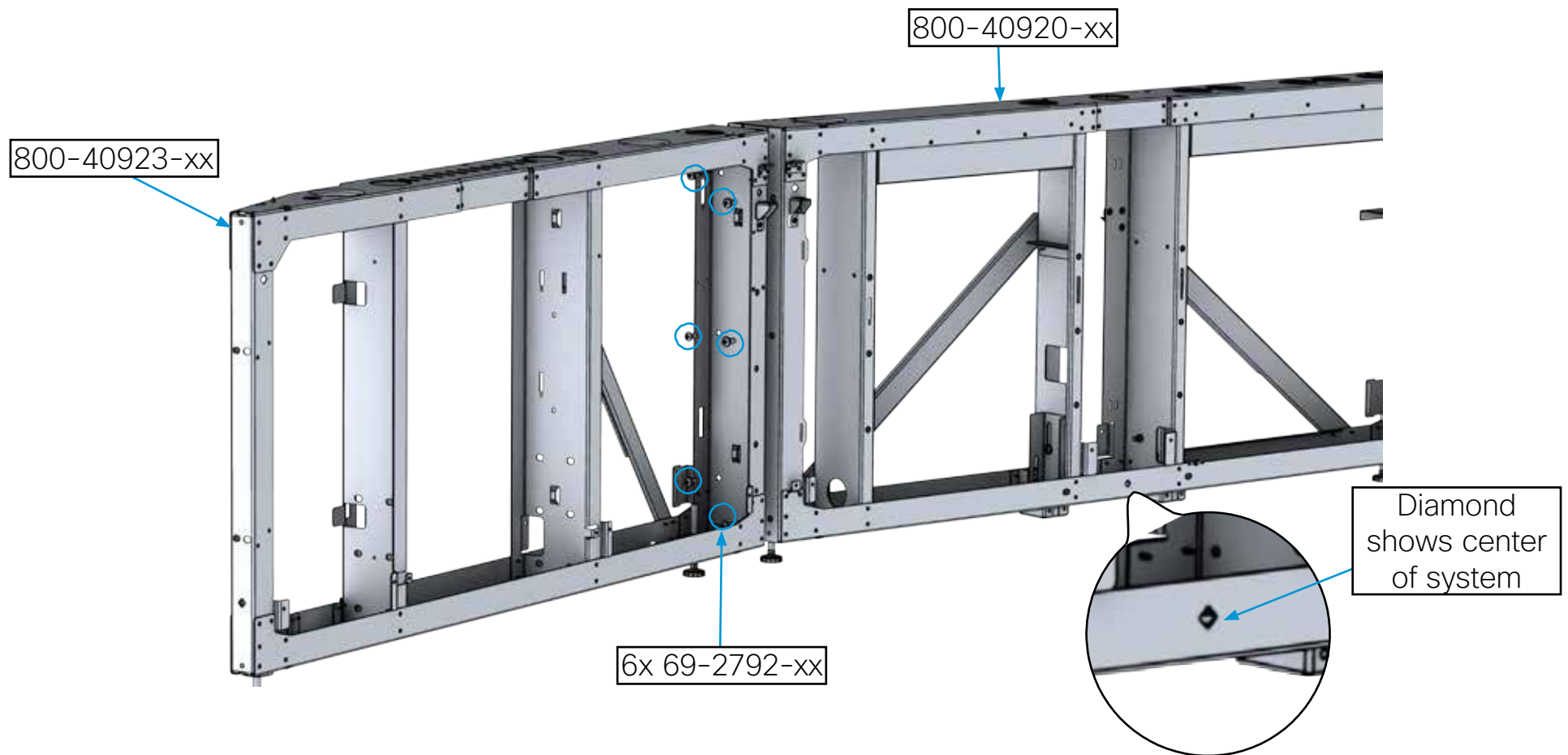
Installing the Lower and Upper Display Frames

- 1 Place the left, center, and right lower display frames (800-40923-xx left, 800-40920-xx center, 800-40928-xx right) upside-down on the floor, and check that there is 2 inches (51mm) from the bottom of the frame to the bottom of the feet. If adjustment is required, loosen the 19mm lock nut.

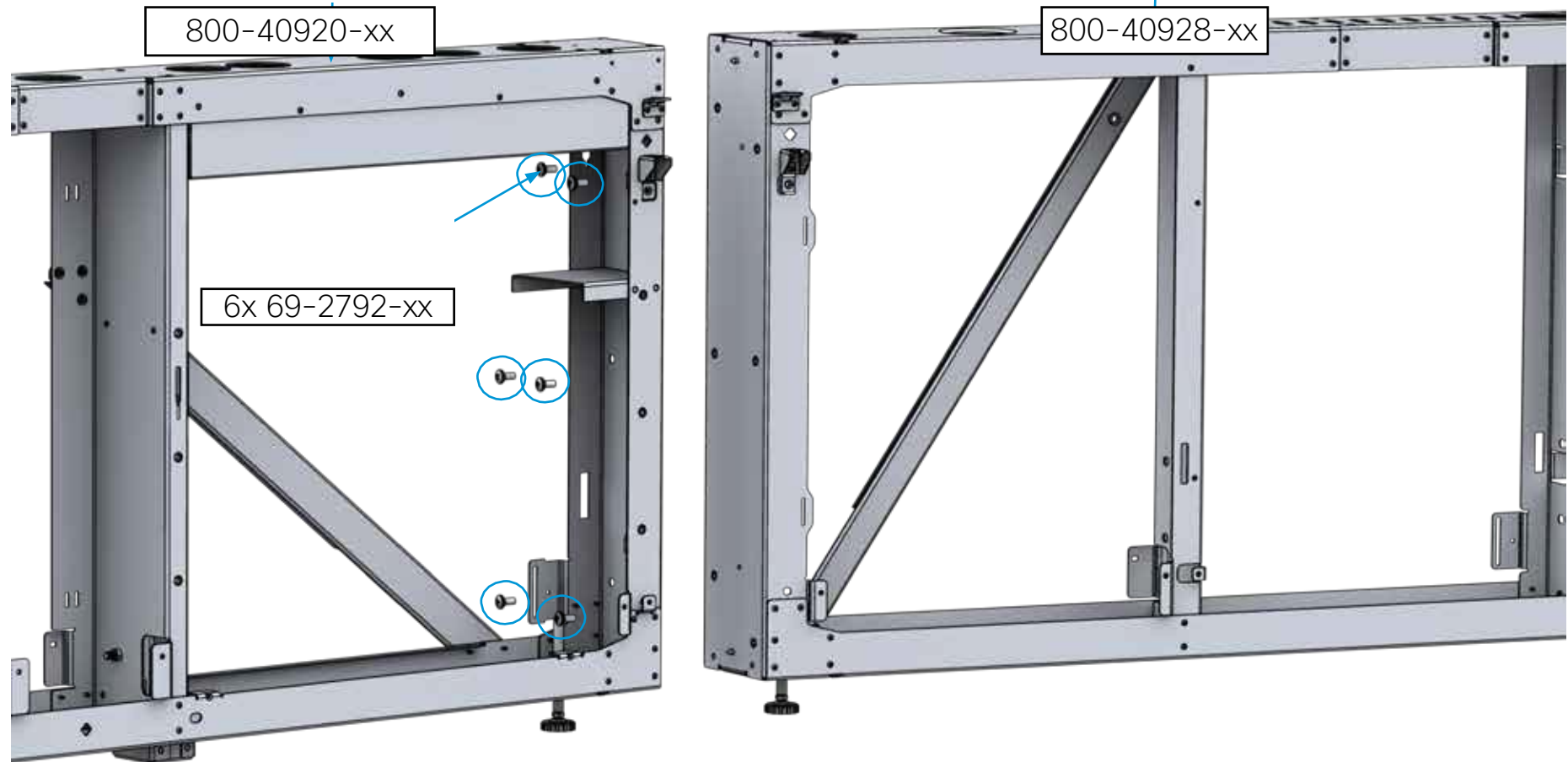


Installing the Lower and Upper Display Frames

2 Place the center frame where you want the center of the system to be. The center frame has a diamond in the center of the frame for this purpose. Assemble the lower left frame 800-40923-xx to the lower center frame 800-40920-xx. Align the pins on the side of 800-40920-xx with the hole and slot on the side of 800-40923-xx. Install and tighten 6x black M8 X 16mm screws 69-2792-xx using a #3 Phillips driver.

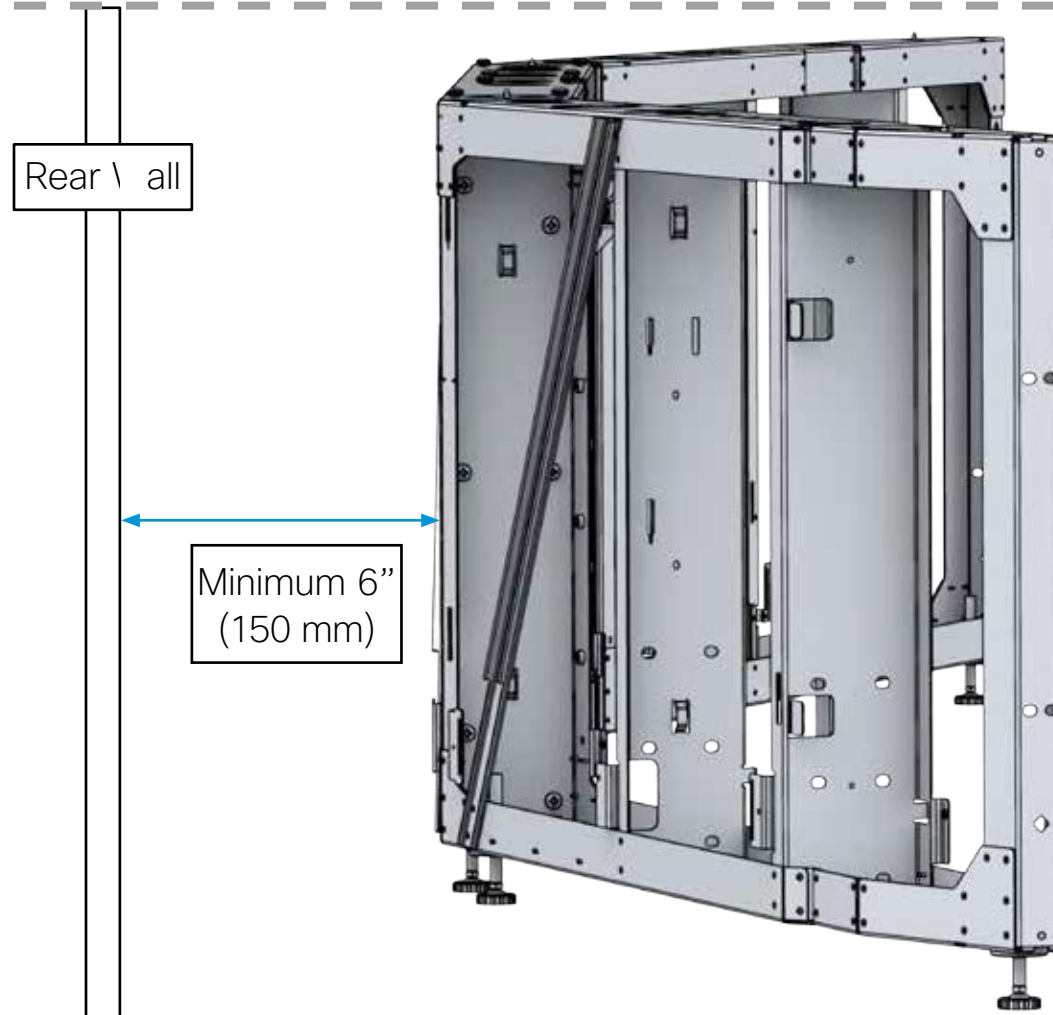


- 3 Attach the lower right frame 800-40928-xx to the display structure. Align the pins on the side of 800-40928-xx with the hole and slot on the side of 800-40920-xx. Install 6x black M8 X 16mm screws 69-2792-xx and tighten using a #3 Phillips driver.



Installing the Lower and Upper Display Frames

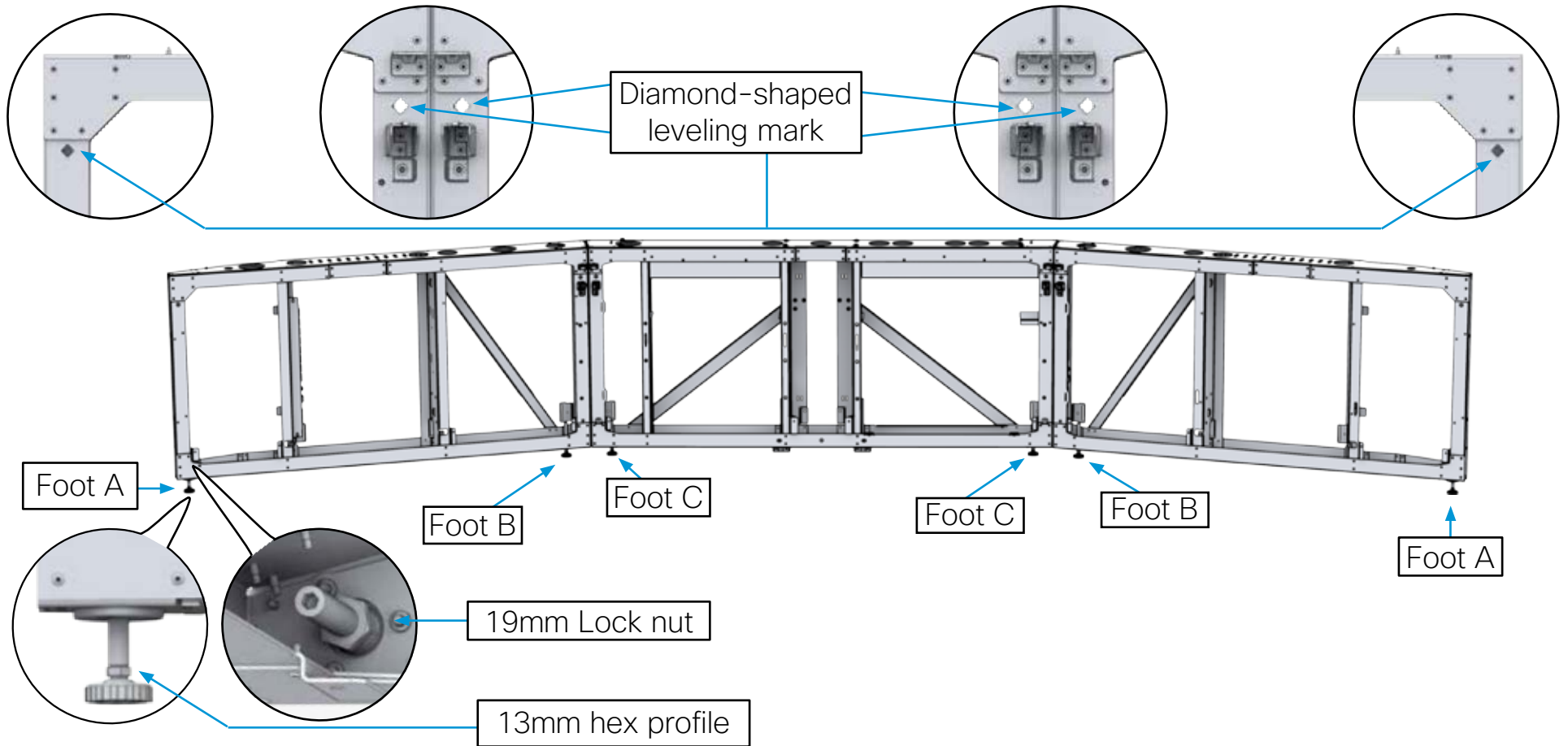
- 4 Set the frame position from the rear wall. The distance should be a minimum of 150mm (6 inches) from the back of the frame to the wall. Measure two positions (left side and right side of the center frame) to ensure that the frame is parallel to the rear wall.



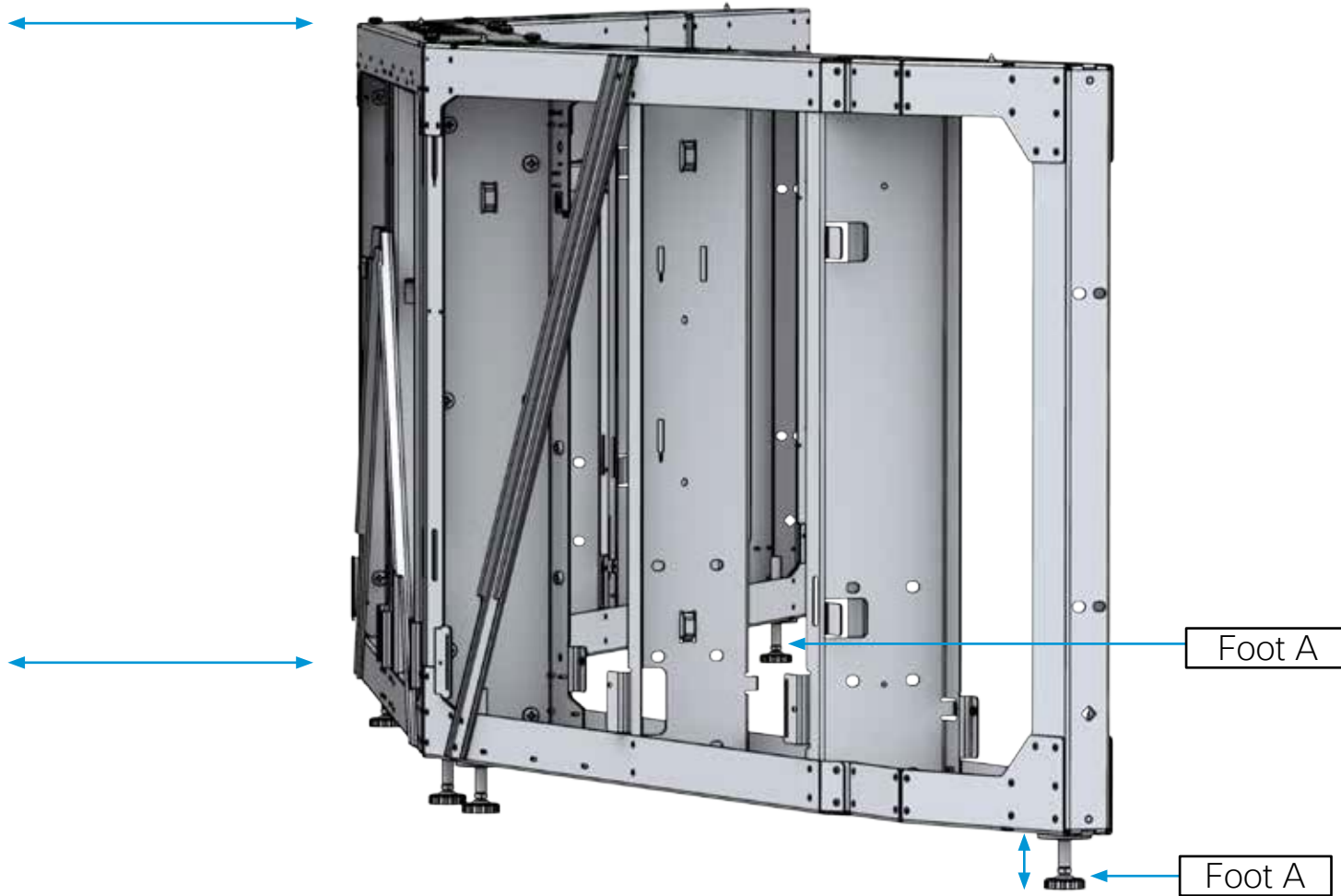
Installing the Lower and Upper Display Frames

5 Level the system end-to-end using a laser level. Use the diamond-shaped leveling marks as a guide for the horizontal level. **Note:** When leveling the system, use the outside feet of the two outside display frames (Foot A in the illustration) and both feet of the center display frame (Foot C in the illustration). Loosen the 19mm lock nut on the leveling feet, and adjust the feet using the 13mm hex profile above each foot.

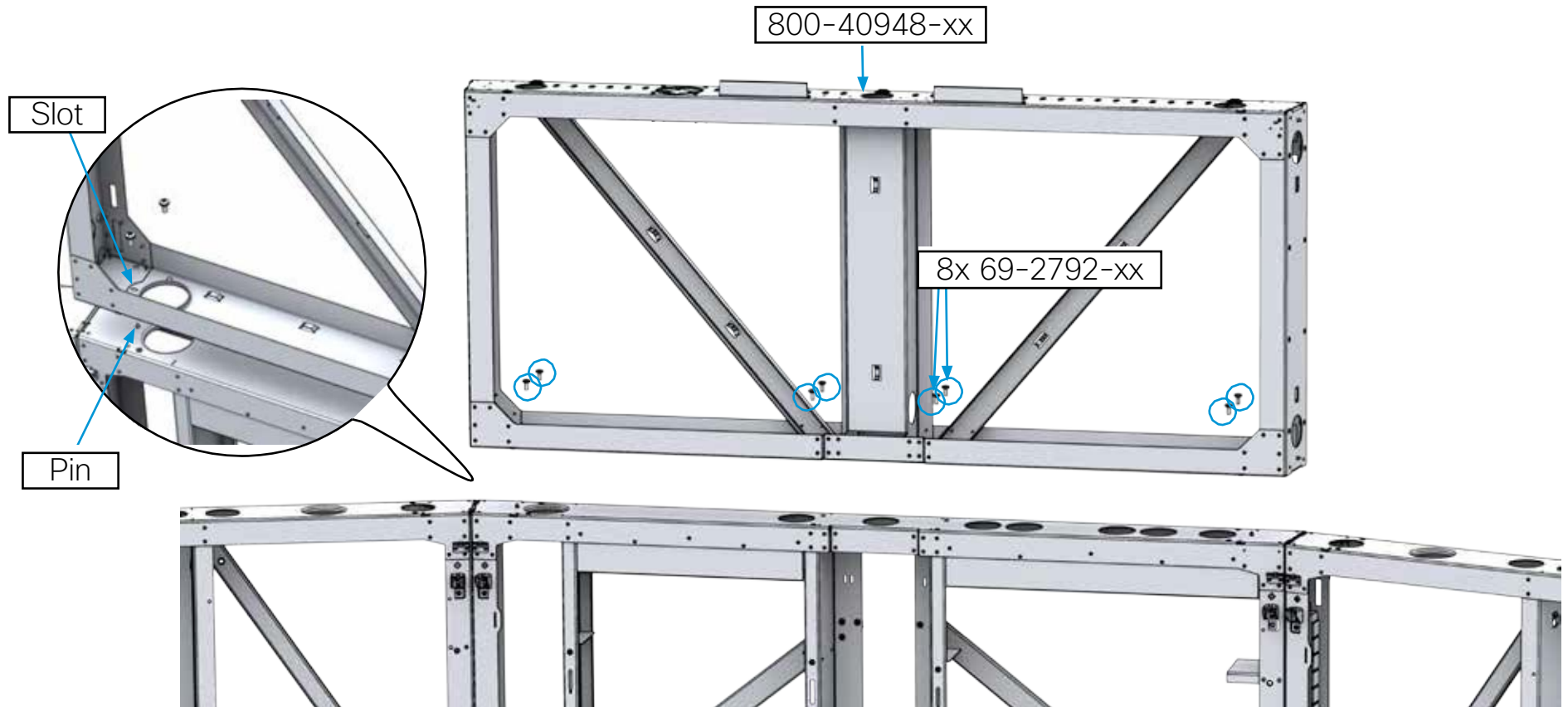
Systems using the seismic bracket only: Measure and center the frames, then place the seismic brackets under the frames and mark the drilling holes. See the “Installing the Seismic Bracket” on page C-1 for more information.



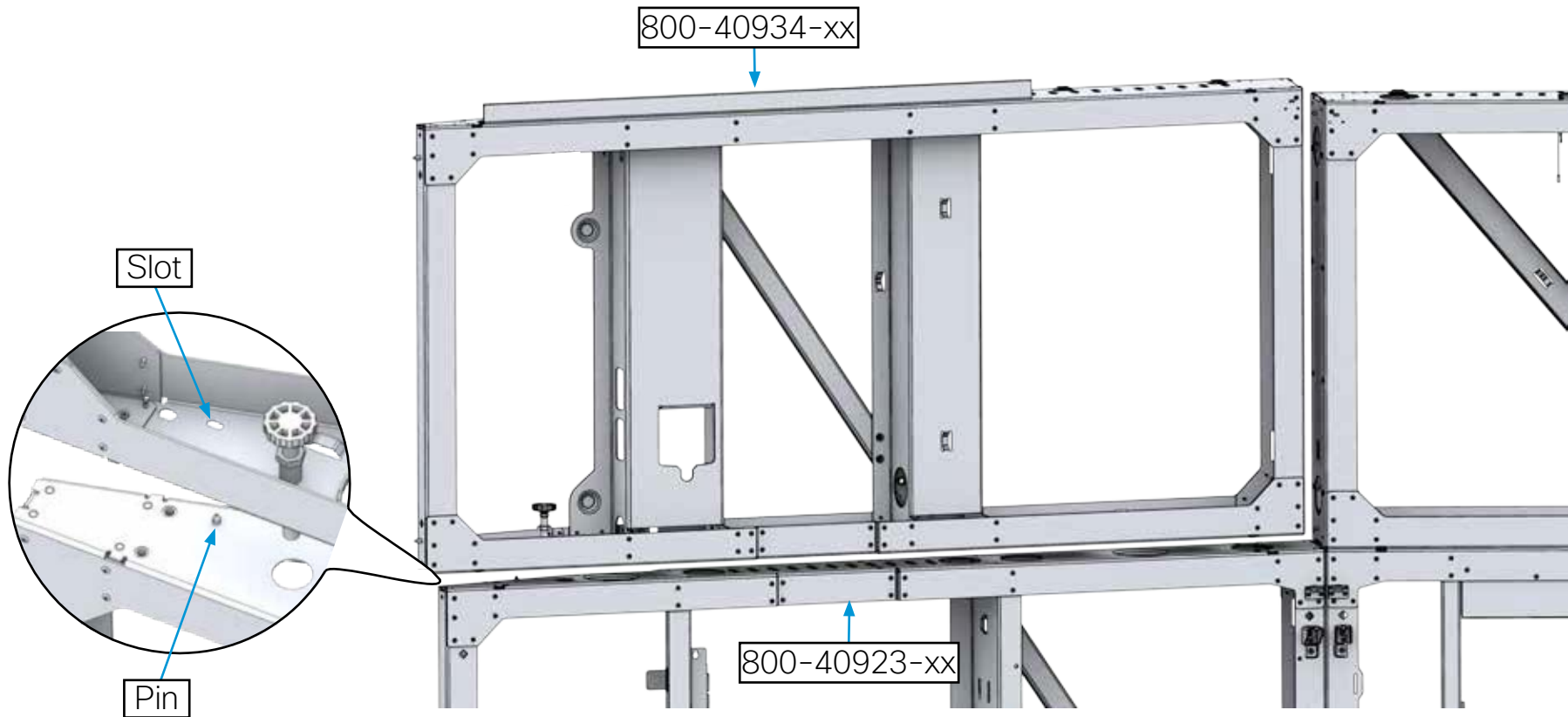
- 6 Adjust the system for plumb (side-to-side) adjustment by raising or lowering the two outer feet marked “A” by the same amount while checking plumb with a level.



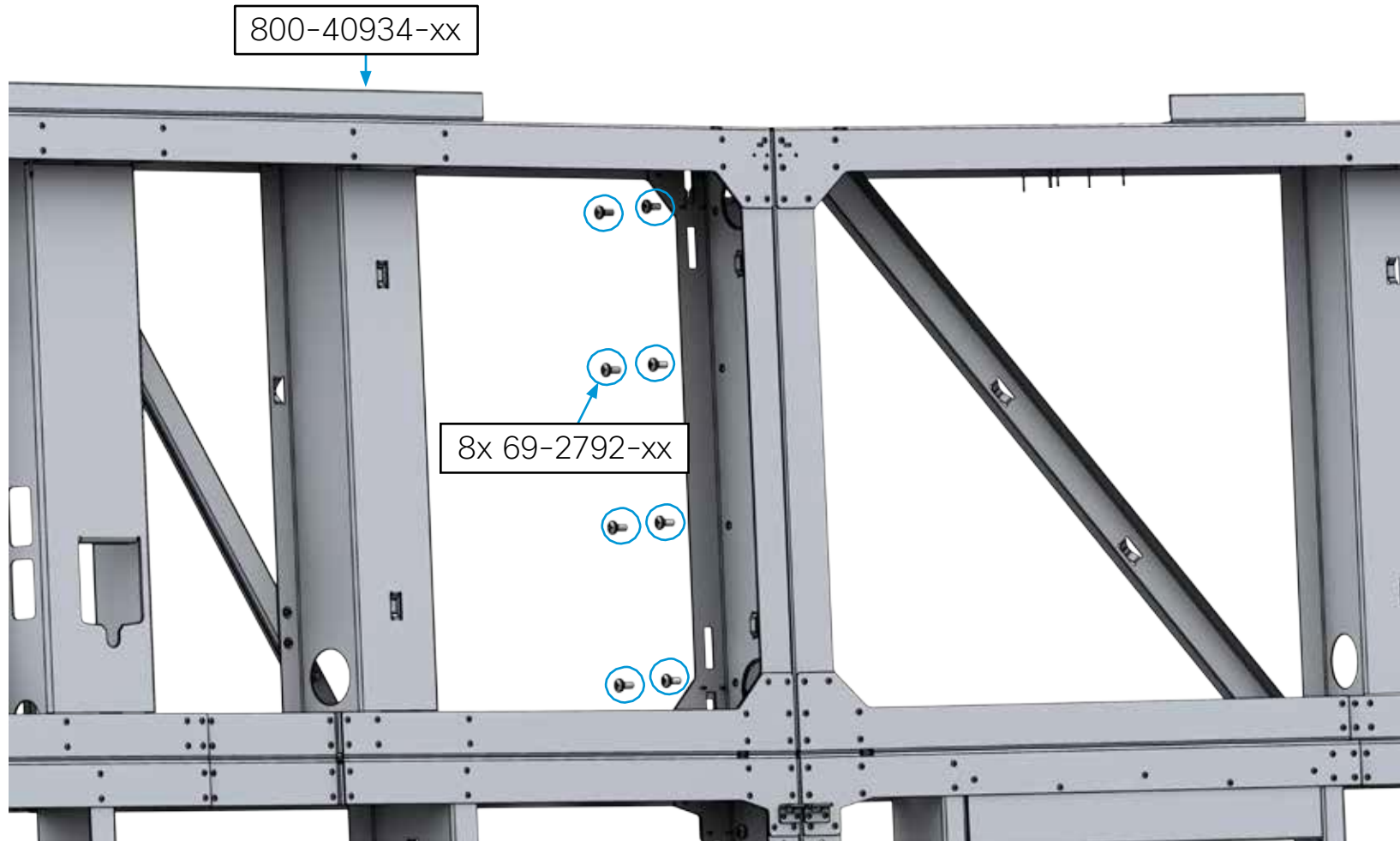
7 Assemble the upper center frame 800-40948-xx to the lower center frame 800-40920-xx. Align the pins on the lower frame with the slot and hole on the upper frame (a slot on the left side of the upper frame, a hole on the right). Install 8x black M8 X 16mm screws 69-2792-xx and tighten with a #3 Phillips driver.



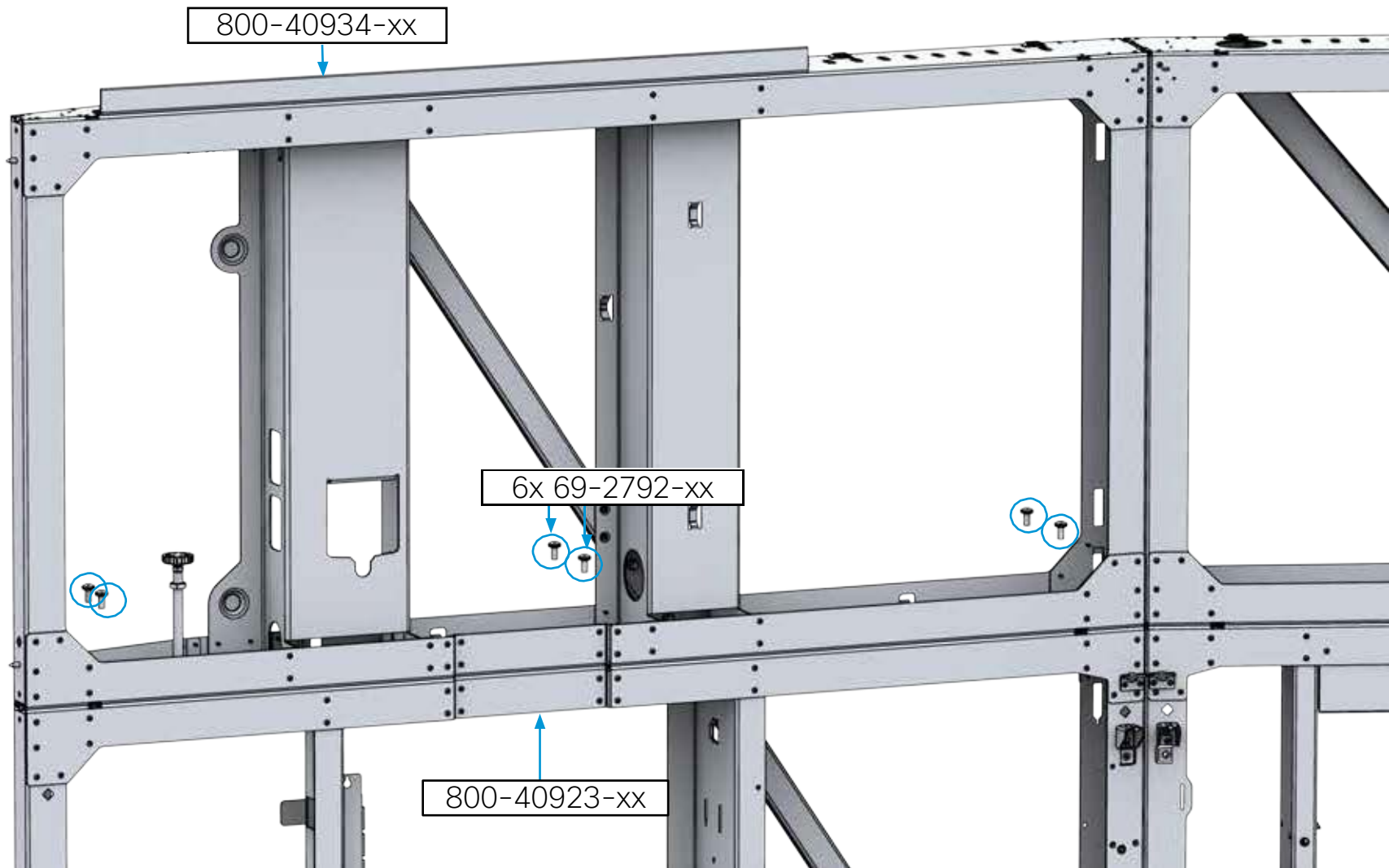
8a Assemble the upper left frame 800-40934-xx to the display structure. Align the slots and pins in the vertical beams, then place the upper frame on the lower frame and align the pin and slot in the horizontal beams.



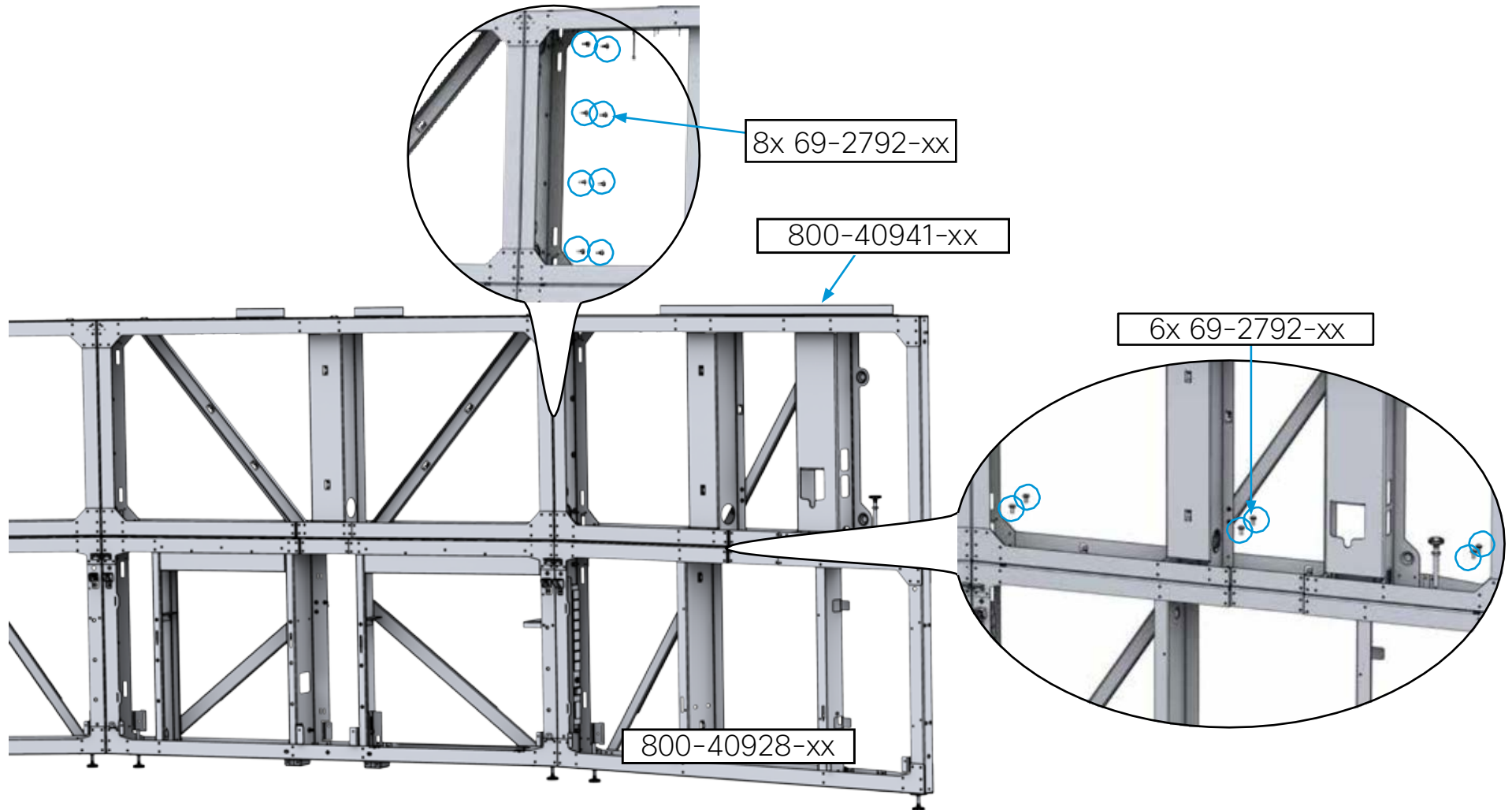
8b Install 8x black M8 X 16mm screws 69-2792-xx in the vertical columns and tighten using a #3 Phillips driver. **Install and tighten these screws before installing the screws on the horizontal beam.**



8c Install 6x black M8 X 16mm screws 69-2792-xx in the horizontal beam and tighten using a #3 Phillips driver.

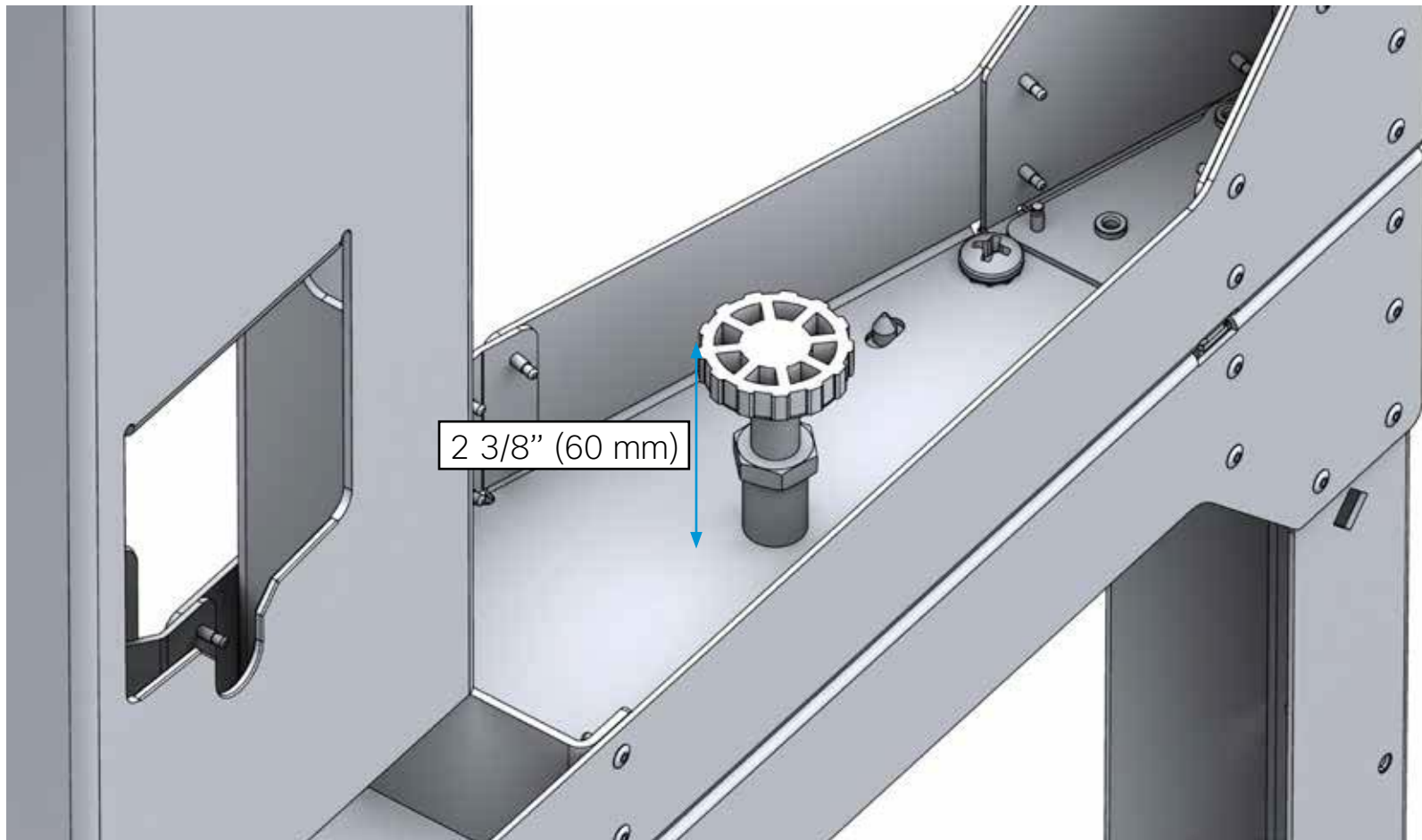


- 9 Install the upper right frame 800-40941-xx to the display structure following the same procedure as the upper left frame using 14x black M8 X 16mm 69-2792-xx screws. **Install and tighten the side screws first.**

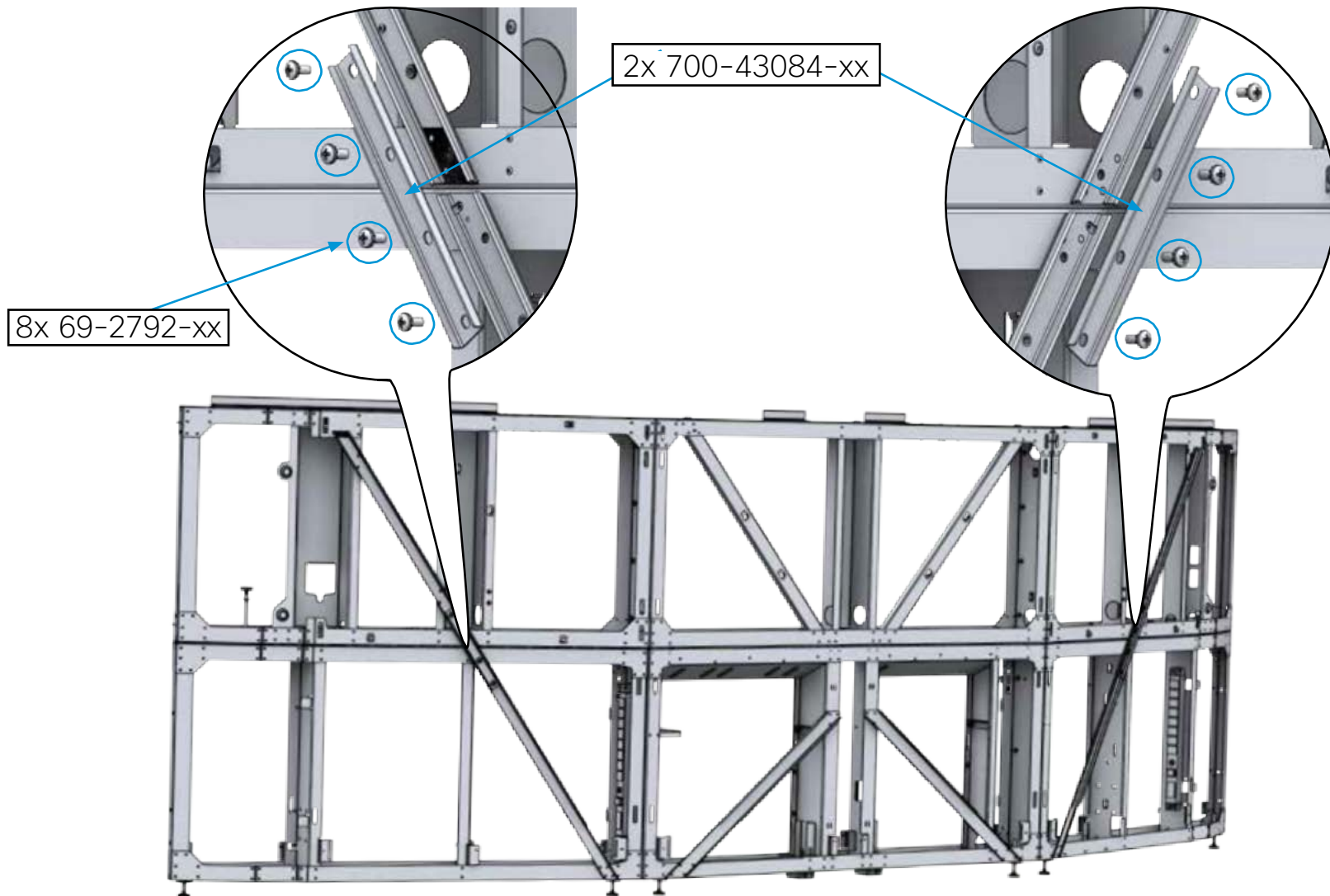


Installing the Lower and Upper Display Frames

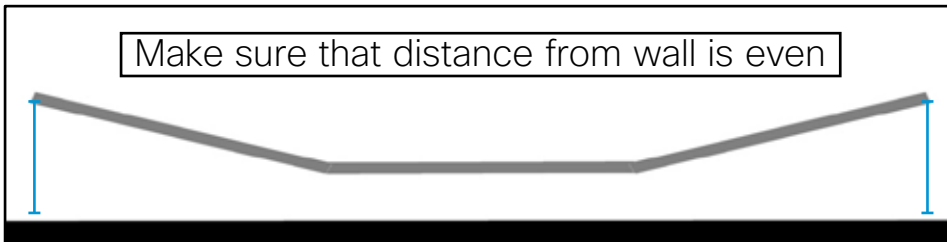
- 10 Set the height of the 2 levelers in the upper frame (one leveler shown) to 2 3/8 inches (60 mm) between the surface of the beam and the top of the leveler pad. Loosen the lock nut using a 13mm or adjustable wrench before adjusting the height of the leveler. Do not re-tighten the lock nut.



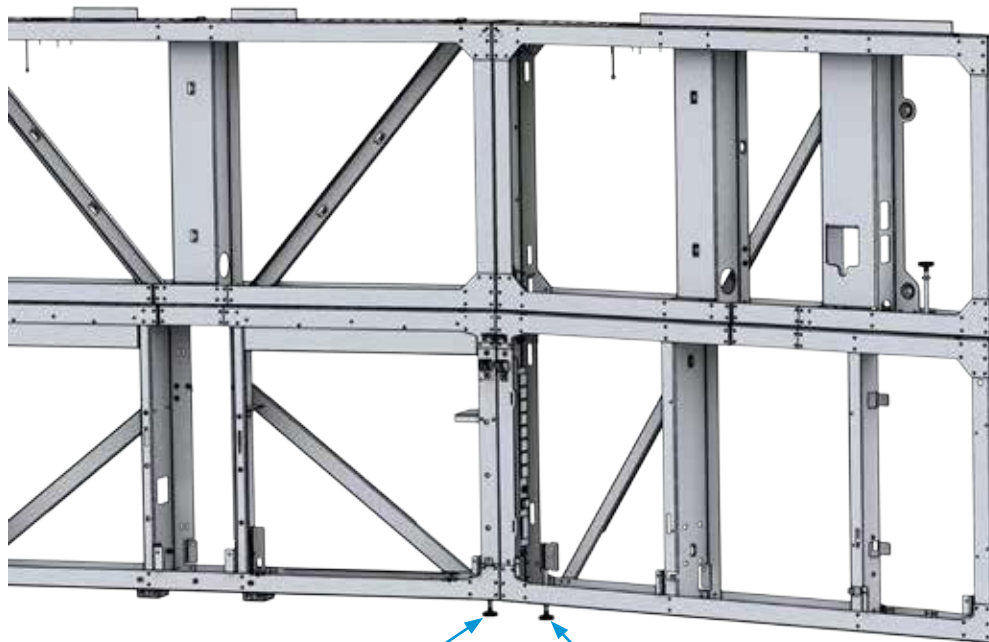
- 1 Assemble 2x tie bars 700-43084-xx to the rear left and right sides of the frames using 8x black M8 X 16mm screws 69-2792-xx.



12 Make sure that the outside corners of the structure are an equal distance from the wall, then level the display frames for level and plumb (horizontal and vertical), using 2x Foot A and 2x Foot C. Make sure that all feet touch the floor after leveling. **NOTE:** Lean the structure a few degrees toward the wall (backwards). After you install the displays, the structure will lean slightly forward and bring it back to level.



Laser level is aligned with the left point of the diamond

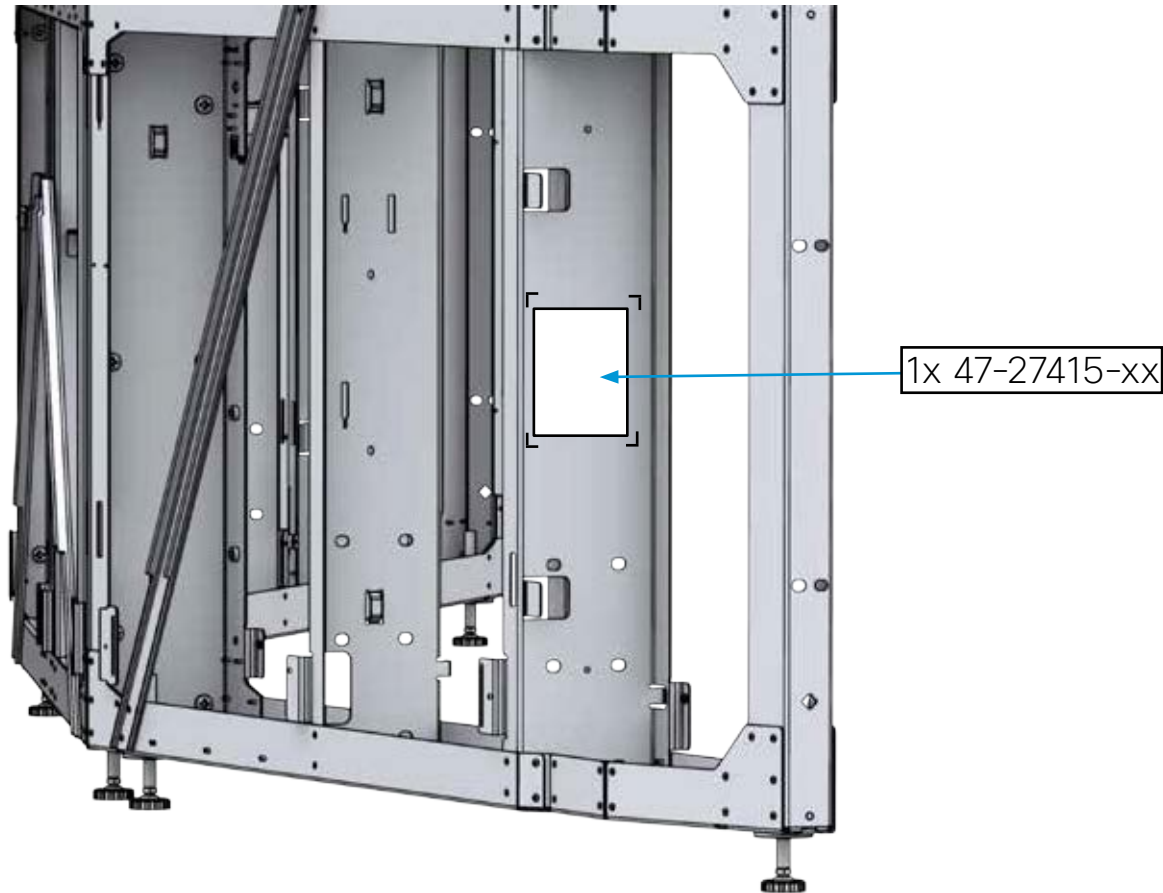


Foot C

Foot B

Foot A

- 13** Attach the compliance label 47-27415-xx to the pillar on the left side of the lower left display frame. Use the four locating marks on the frame to find the correct placement.
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Installing the Cable Runner

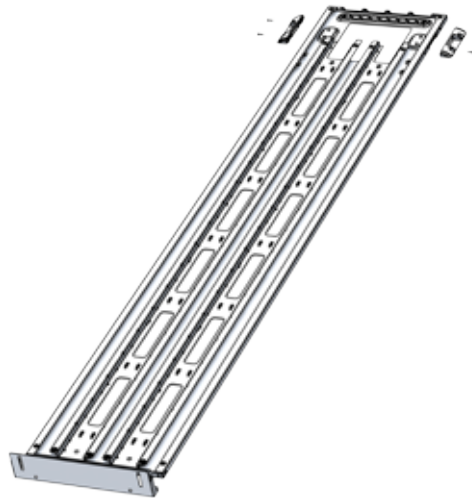
Required Parts

Parts needed:

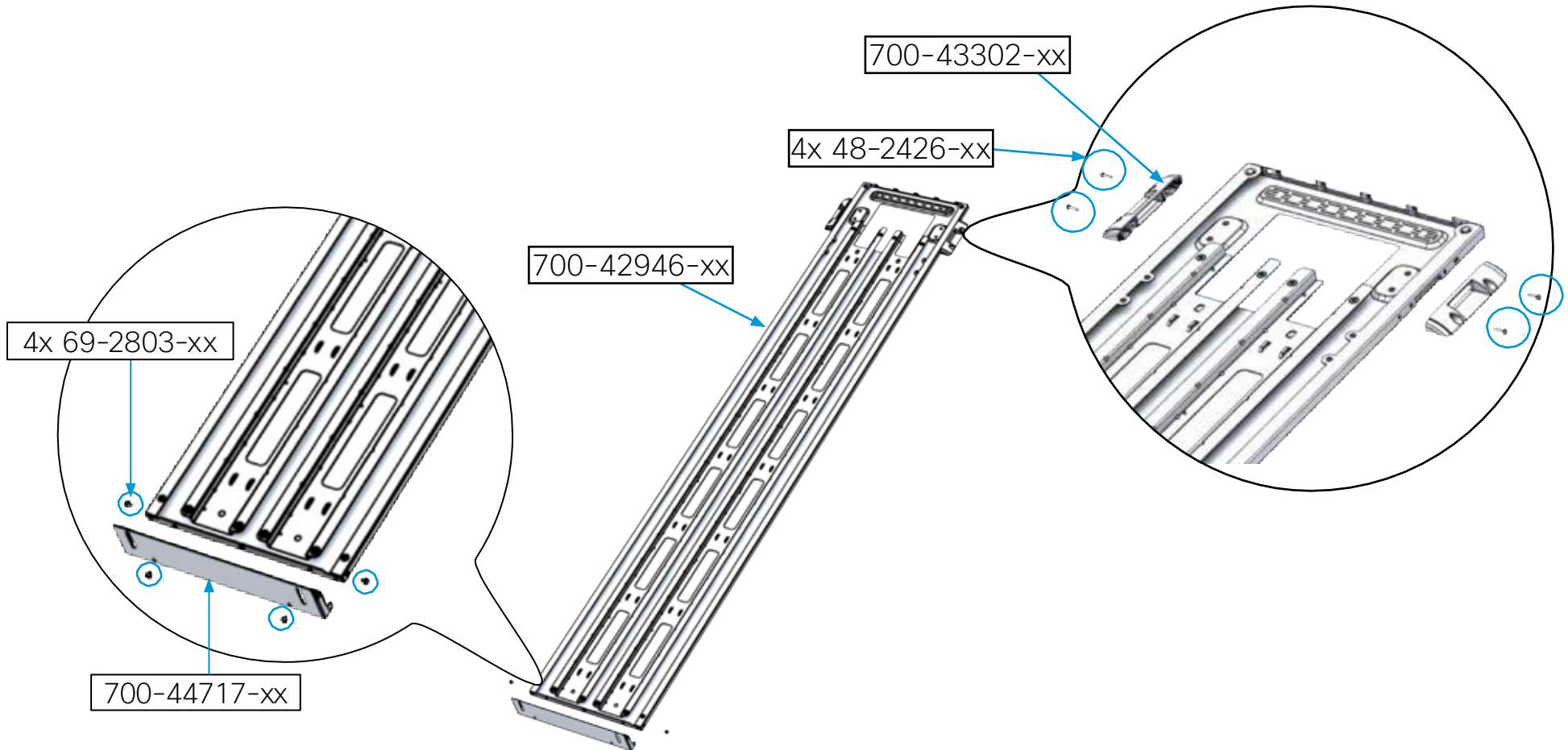
- o 1x Cable runner 700-42946-xx
- o 2x Cable runner bridges 700-43302-xx
- o 4x Black M4 X 12mm long screws with external lock washer 48-2426-xx
- o 1x Cable runner plate 700-44717-xx
- o 4x M6x10mm screws 69-2803-xx

Required Tools

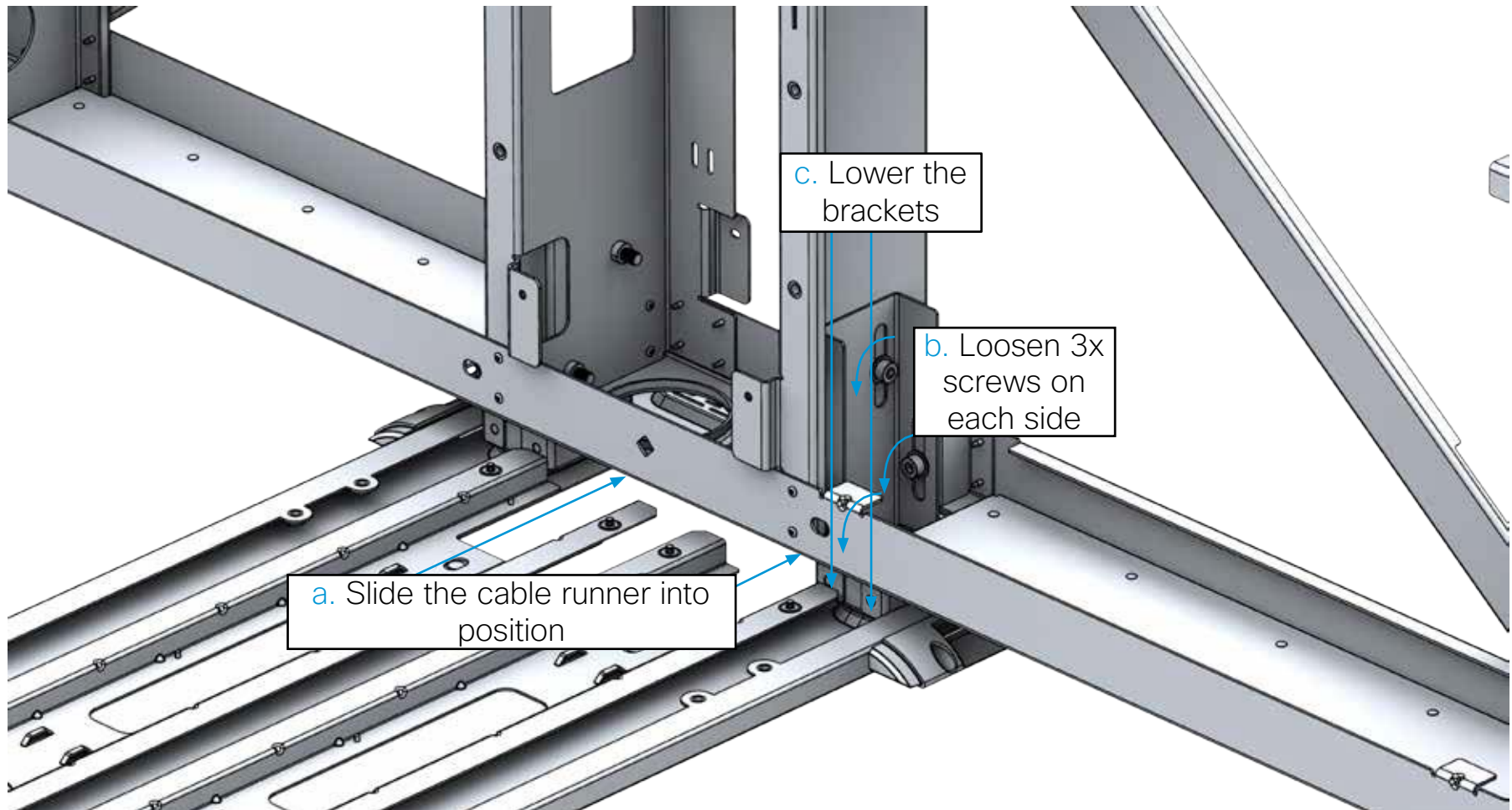
- o #2 and #3 Phillips Driver
- o 6mm T-handle hex driver



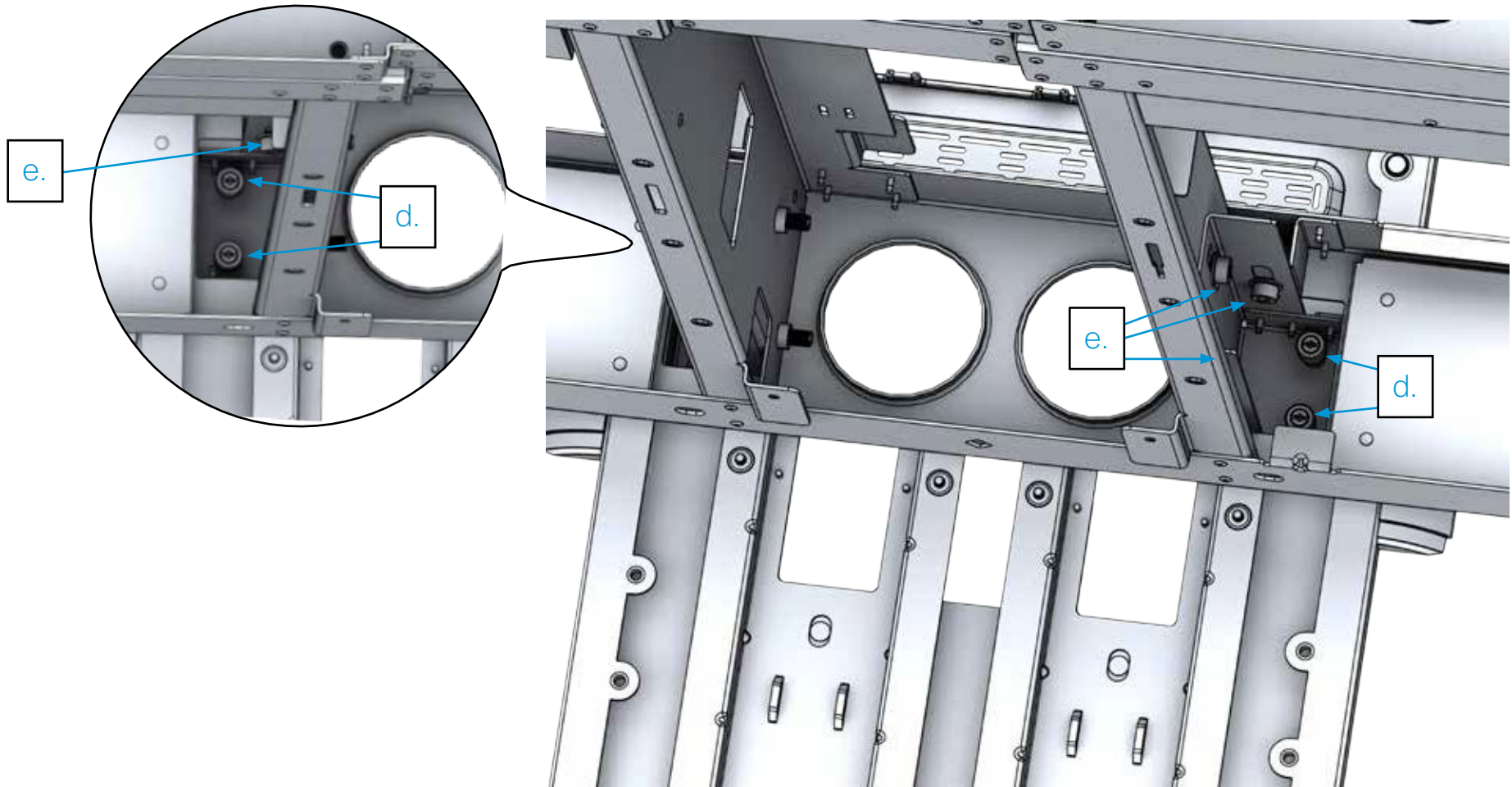
- 1** a. Assemble the 2x cable runner bridges 700-43302-xx to the cable runner base 700-42946-xx with 4x black M4x12mm screws 48-2426-xx using a #2 Phillips screwdriver. b. Install the cable runner plate 700-42946-xx to the cable runner 700-42946-xx with 4x M6x10mm screws 69-2803-xx.



- 2** **a.** Slide the cable runner base into position under the lower center frame. **b.** Loosen the 6x hex screws (3x per cable runner bracket) using a 6mm T-handle hex driver. Place the hex driver through the access holes in the frame beam as required. **c.** Lower the runner brackets through the cutouts in the runner until both brackets are resting on the lower part of the runner (not on the ribs).



- 3** **d.** Attach the 4x captive fasteners (2x fasteners per bracket) on the cable runner to the display frames.
e. Re-tighten the 6x M8 screws on both brackets with the hex driver.



Installing the Pillars, Crossbars, and Rear Kick Plate/Toe Cap

Required Parts

Pillars:

- o 4x 700-43514-xx (inside, outside, 2x center)
- o 2x 700-43515-xx (far center-right and center-left)
- o 2x 700-43516-xx (near center-right and center-left)
- o 32x Black M4 X 12mm long screws with external lock washer 69-2797-xx

Crossbars:

- o 3x crossbar pieces (700-43519-xx left, 700-43517-xx center, 700-43518-xx right)
- o 16x Black M4 X 12mm long screw with external lock washer 69-2797-xx

Rear kick plates:

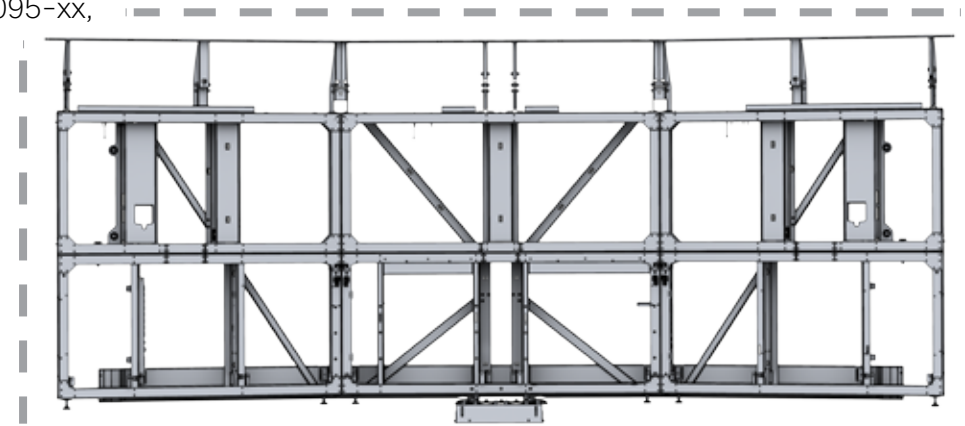
- o 3x Center, left, and right rear kick plates (center 700-43100-xx, left 700-43101-xx, right 700-43099-xx)
- o 6x M4 nut with lock washer 69-2793-xx
- o 1x Cardboard spacer **no part number, attached to the cable runner base**

Rear toe caps:

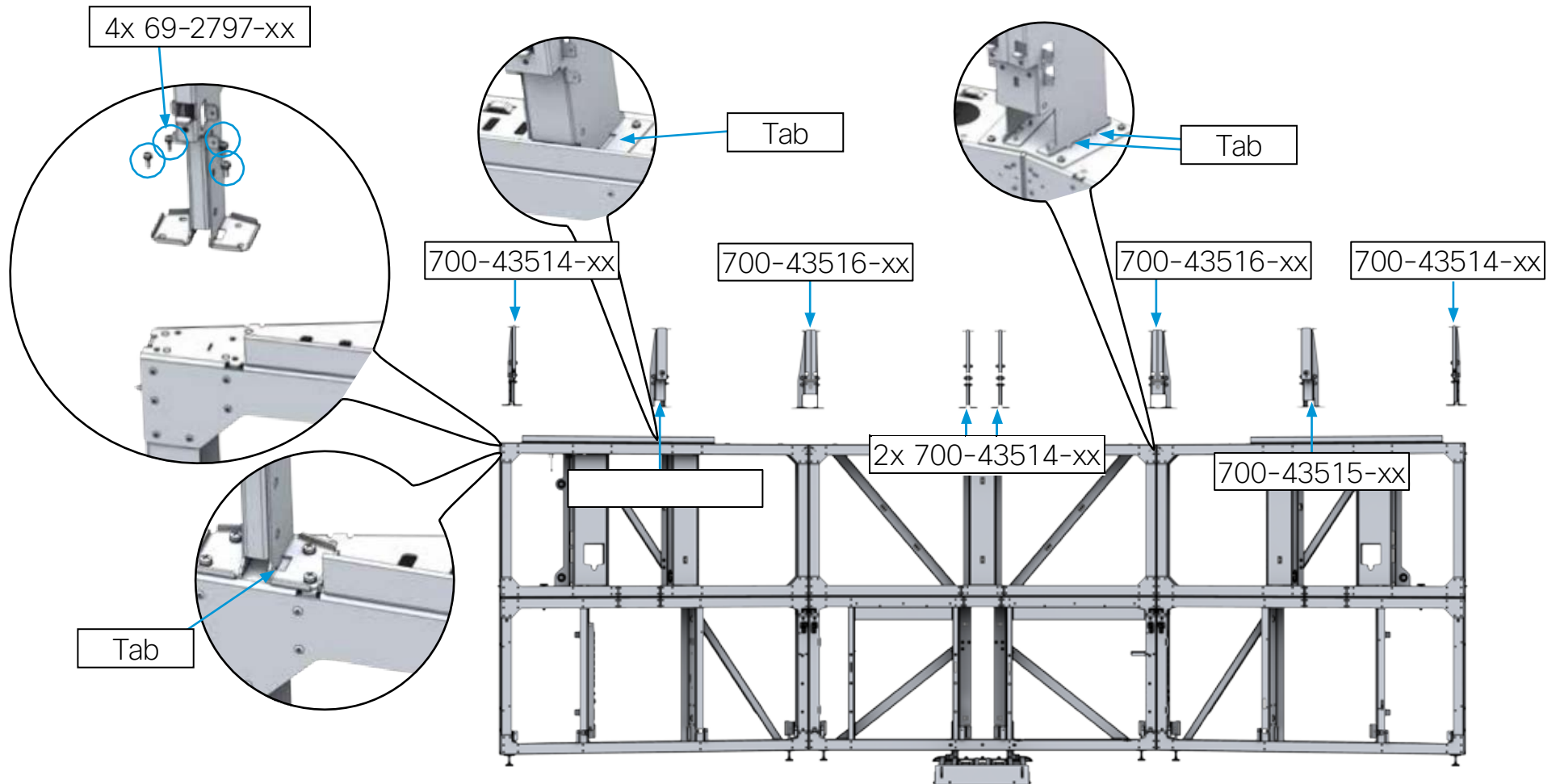
- o 3x Center, left, and right toe caps (center 700-43094-xx, left 700-43095-xx, right 700-43093-xx)
- o 10x M4 nut with lock washer 69-2793-xx

Required Tools

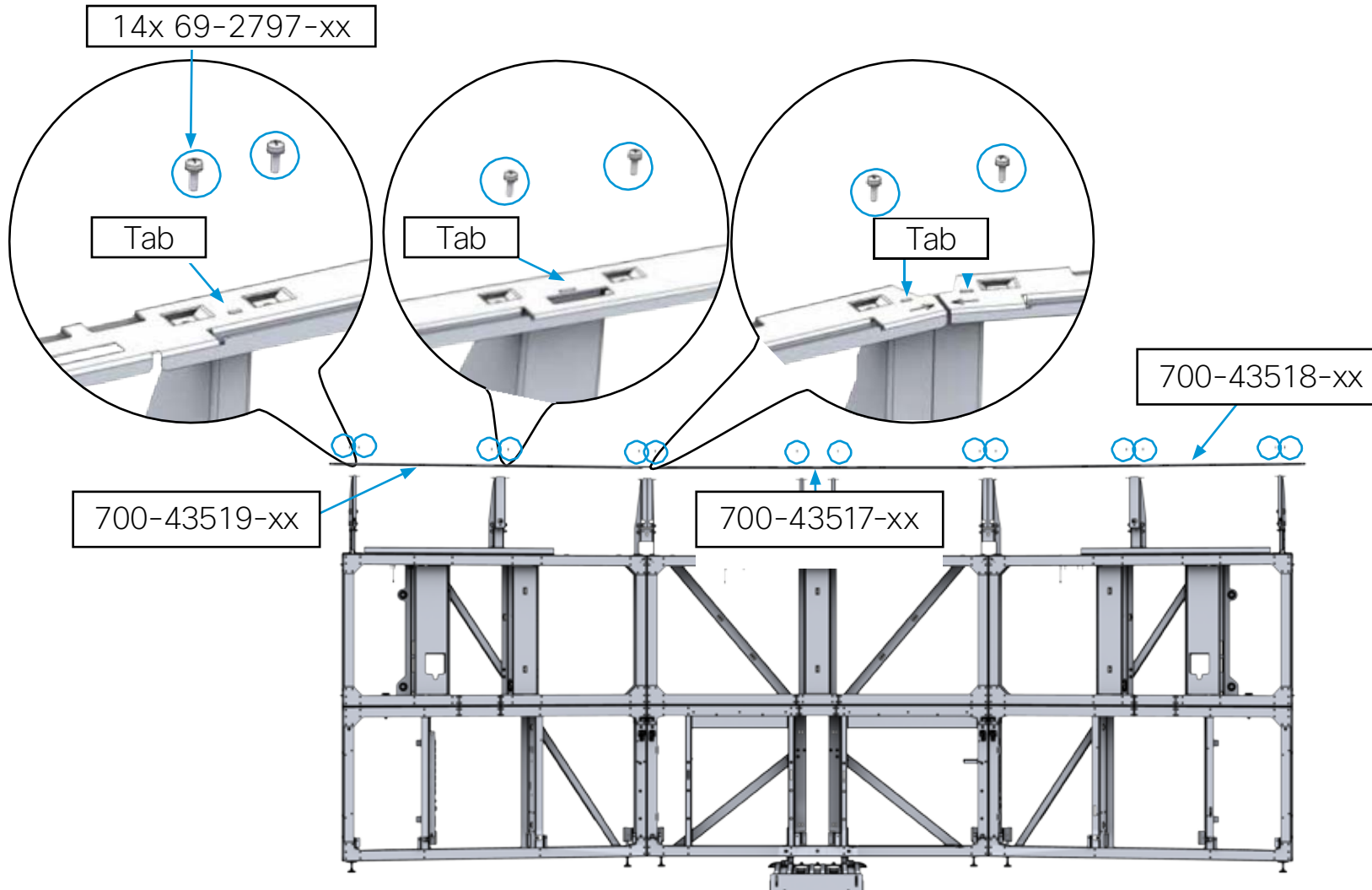
- o **Crossbar:** #2 Phillips screwdriver
- **Kick Plate and Toe Cap:** 7mm Hex Driver
- **Kick Plate only:** cardboard spacer



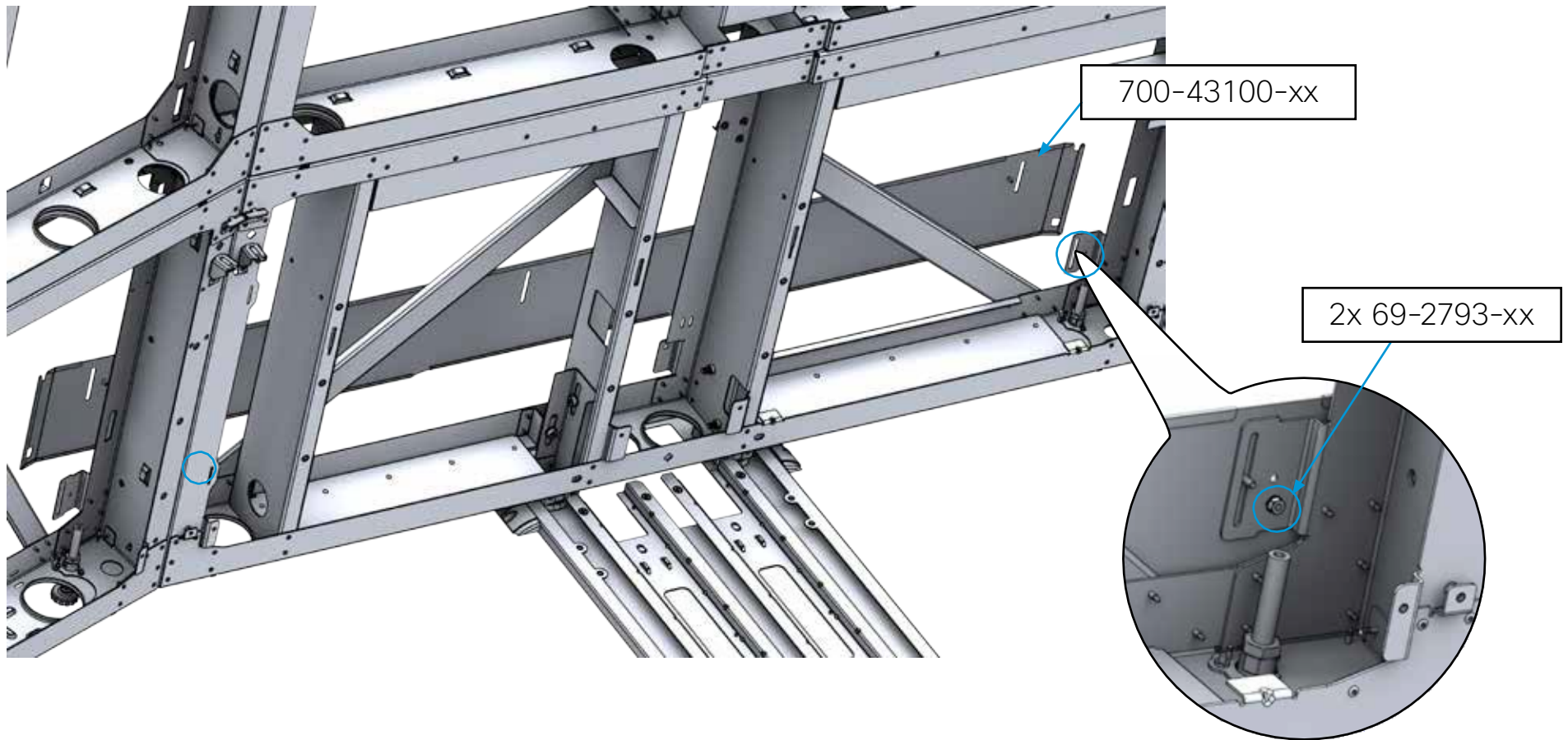
- 1 Install the pillars (4x 700-43514-xx, 2x 700-43515-xx, 2x 700-43516-xx) into the frame by aligning the tabs in the pillars into the slots on the frame. Attach the pillars to the frame with 32x M4 X 12mm screws (4x for each pillar) using a #2 Phillips screwdriver.



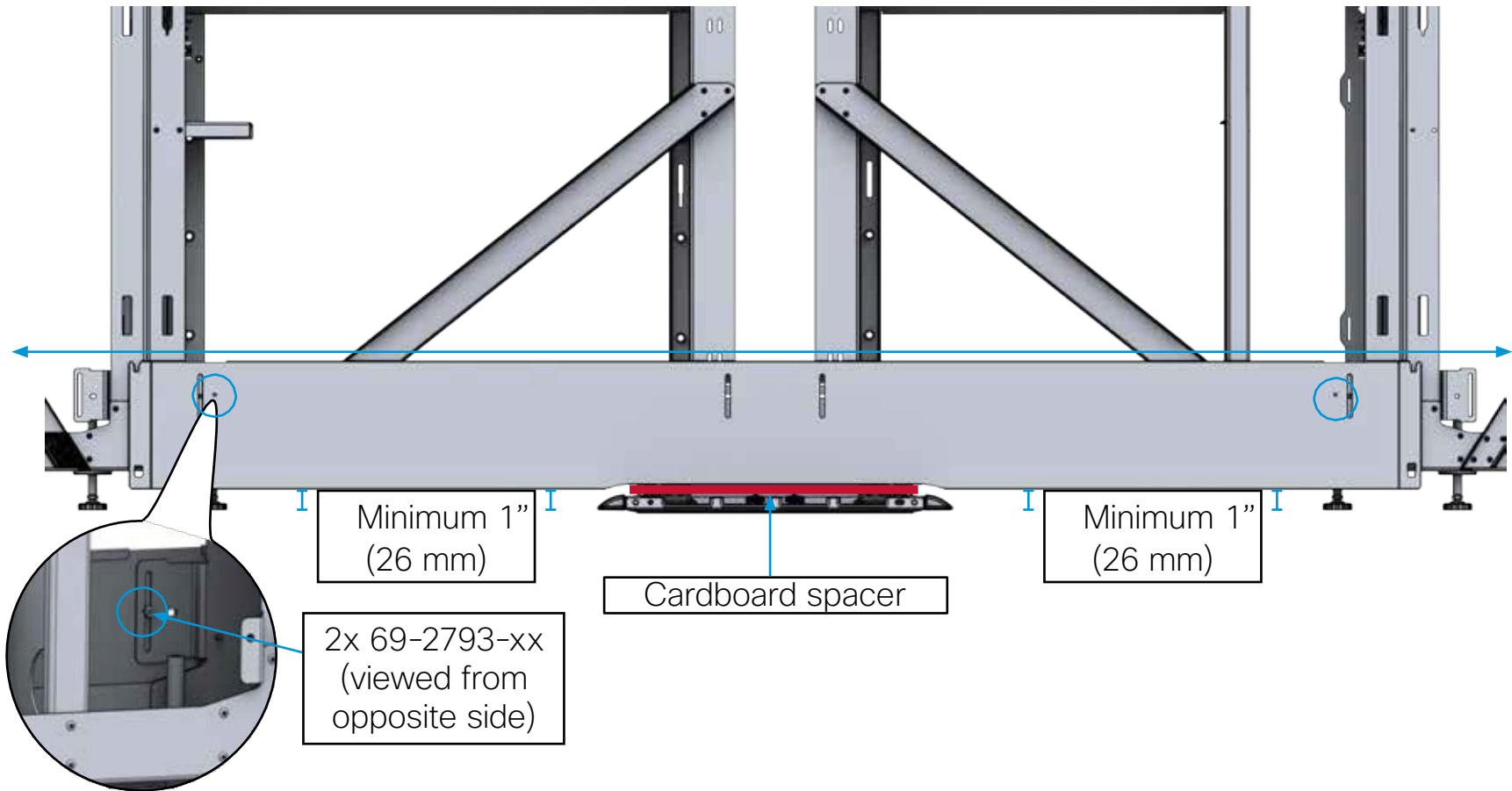
2 Place the horizontal crossbars (700-43519-xx left, 700-43517-xx center, 700-43518-xx right) on the pillars and fasten with 14x black M4 X 12mm screws 69-2797-xx using a #2 screwdriver.



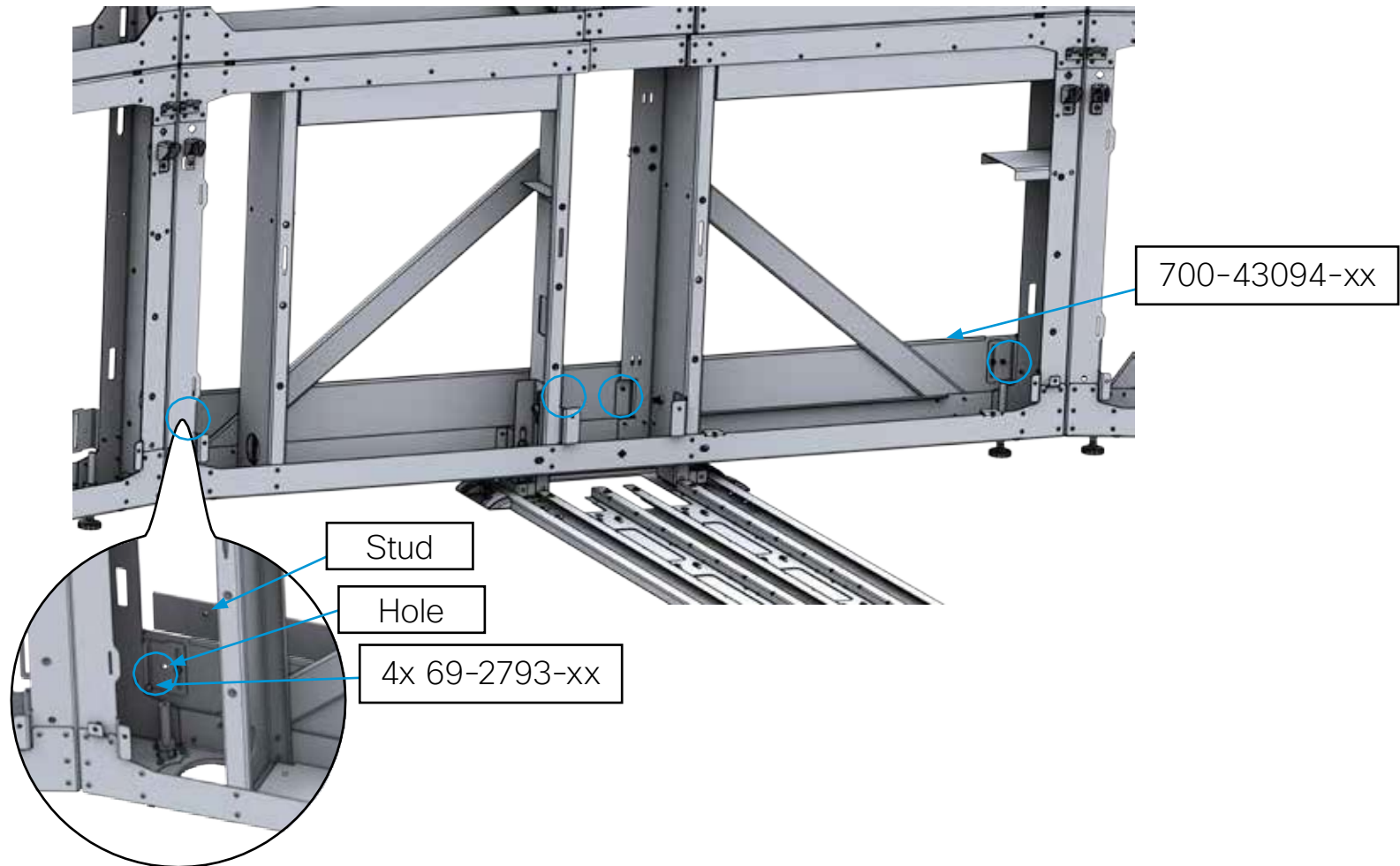
- 3 Attach the lower rear kick plate 700-43100-xx to the endpoint structure. Align the threaded studs to the slots in the display stand, then loosely install (but do not fully tighten) using 2x M4 nuts 69-2793-xx.



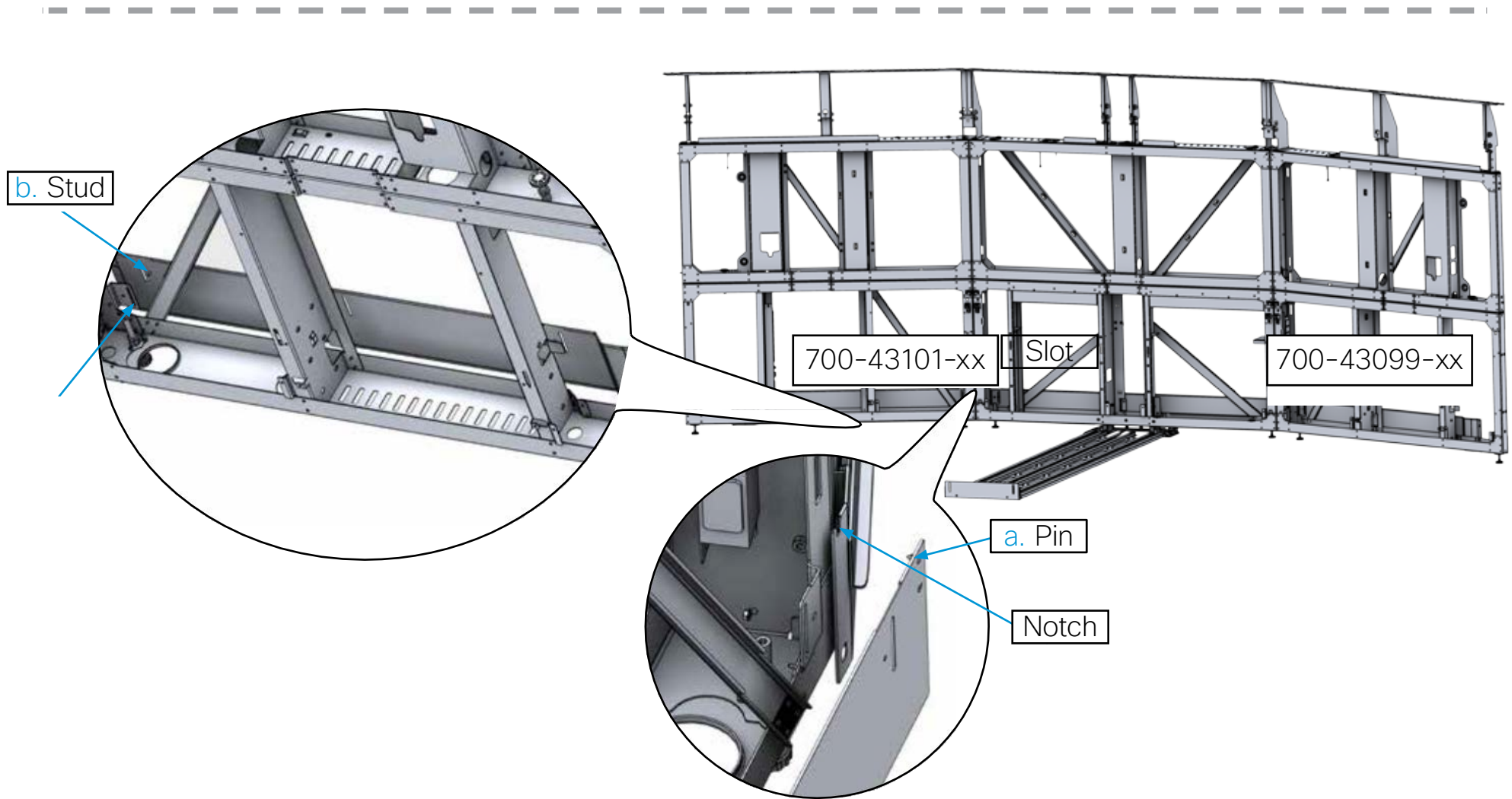
4 Place the cardboard spacer (attached to the cable runner base) between the cable runner 700-42946-xx and the rear kick plate 700-43100-xx. Level the rear kick plate with a spirit level. Verify that the kick plate is at least 26mm (1 inch) above the highest point on the floor (measured on both the left or right side of the kick plate), then tighten the 2x M4 nuts you attached in Step 3. **Save the spacer.** You will use it when you install the front kick plates.



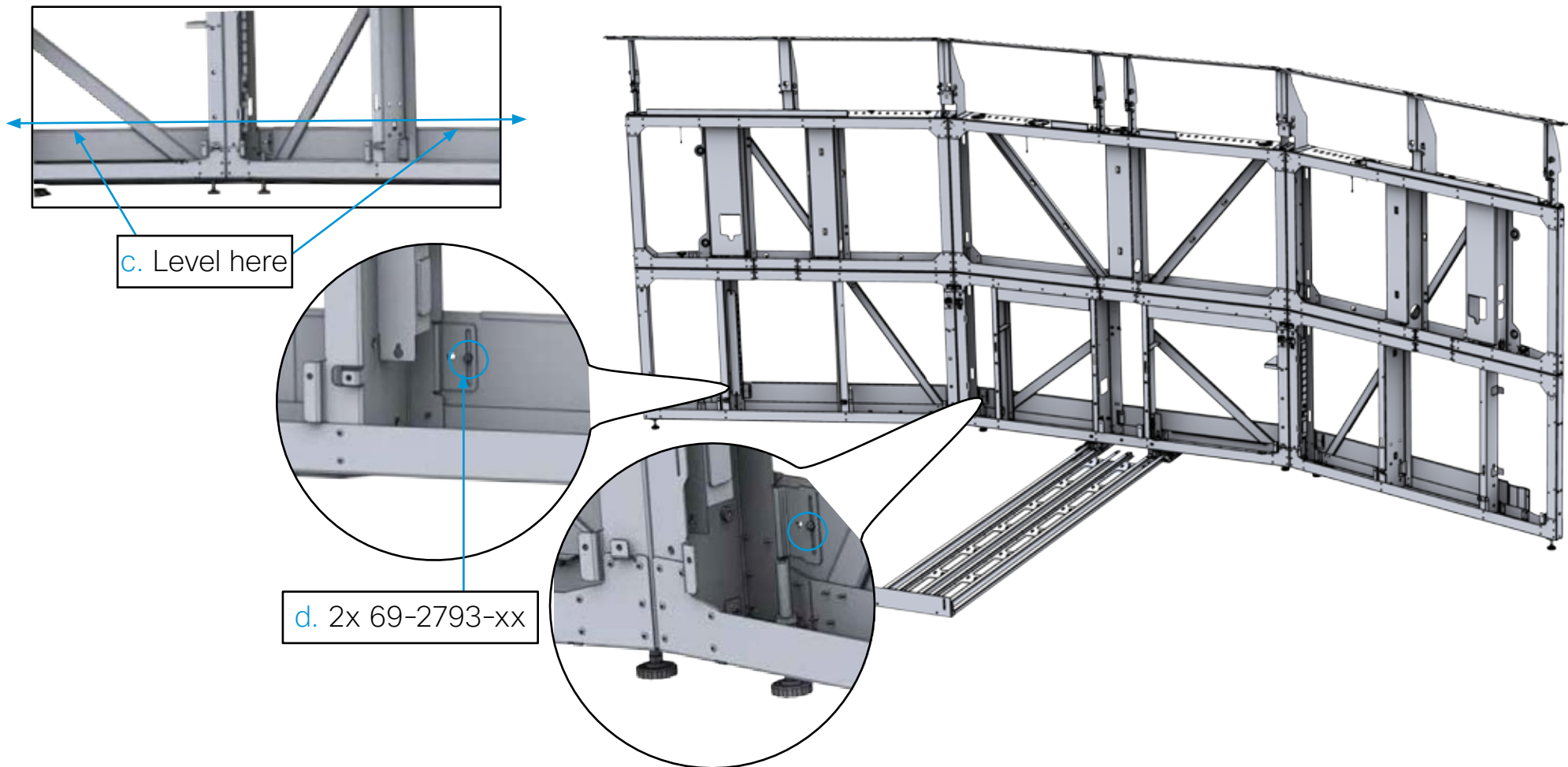
- 5** Install the rear center toe cap 700-43094-xx to the kick plate by placing the threaded studs into the holes in the display stand and installing and tightening the 4x M4 nuts 69-2793-xx.



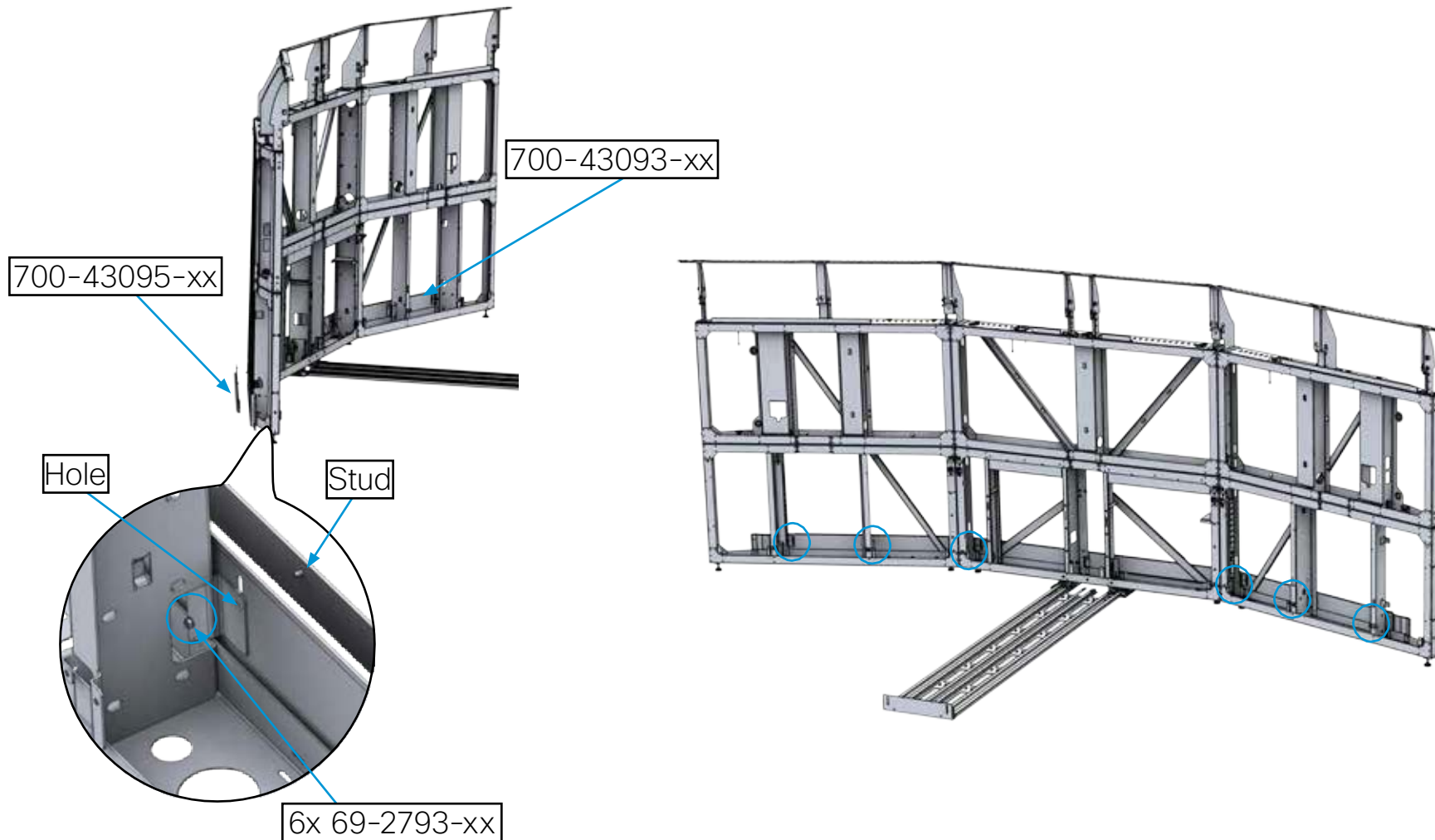
6a Attach the left and right rear kick plates (left 700-43101-xx, right 700-43099-xx). **a.** Hook the pin on the rear side kick plates over the notch in the rear center kick plate. **b.** Place the studs (one for each kick plate) into the slot in the frame.



6b c. Using a level, level the rear side kick plates with the rear center kick plate. d. Attach the x2 M4 nuts with lock washer 69-2793-xx to the stud for each plate and tighten with the 7mm hex driver.



7 Install the side toe caps (left 700-43095-xx, right 700-43093-xx). Place the studs in the left toe cap 700-43095-xx into the holes in frame. Attach the x3 M4 nuts with lock washer 69-2793-xx to the stud and tighten with the 7mm hex driver. Repeat for the right toe cap.



Installing the Codecs, PDUs, and Optional LAN Switches

Required Parts

Codecs:

- o 1x encoder/decoder codec 800-39337-xx
- o 1x each encoder/decoder codec mounting brackets 700-43404-xx left, 700-44771-xx right
- o 1x host CPU codec 800-41502-xx
- o 1x each host CPU codec mounting brackets 700-43404-xx left, 700-43573-xx right
- o 12x black M8x16mm screws with external tooth lock washer 69-2792-xx
- o 16x black M4x12mm screws with external tooth lock washer 69-2797-xx

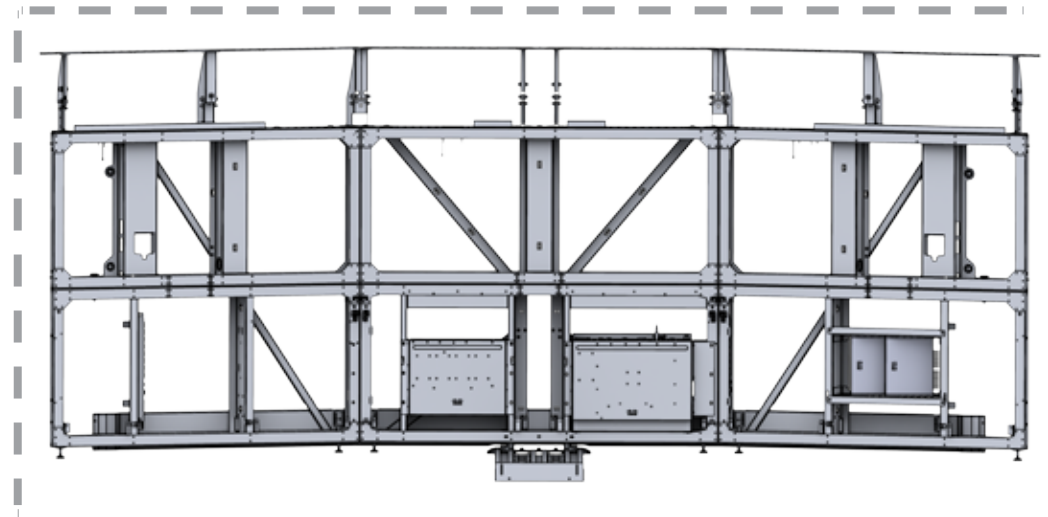
Optional LAN Switches:

Note: The switches in the endpoint structure are optional items that can be used for the Ethernet connectivity modules from the table legs. You install switches in the table assembly for the Touch 10 device(s) in a later procedure; these are required.

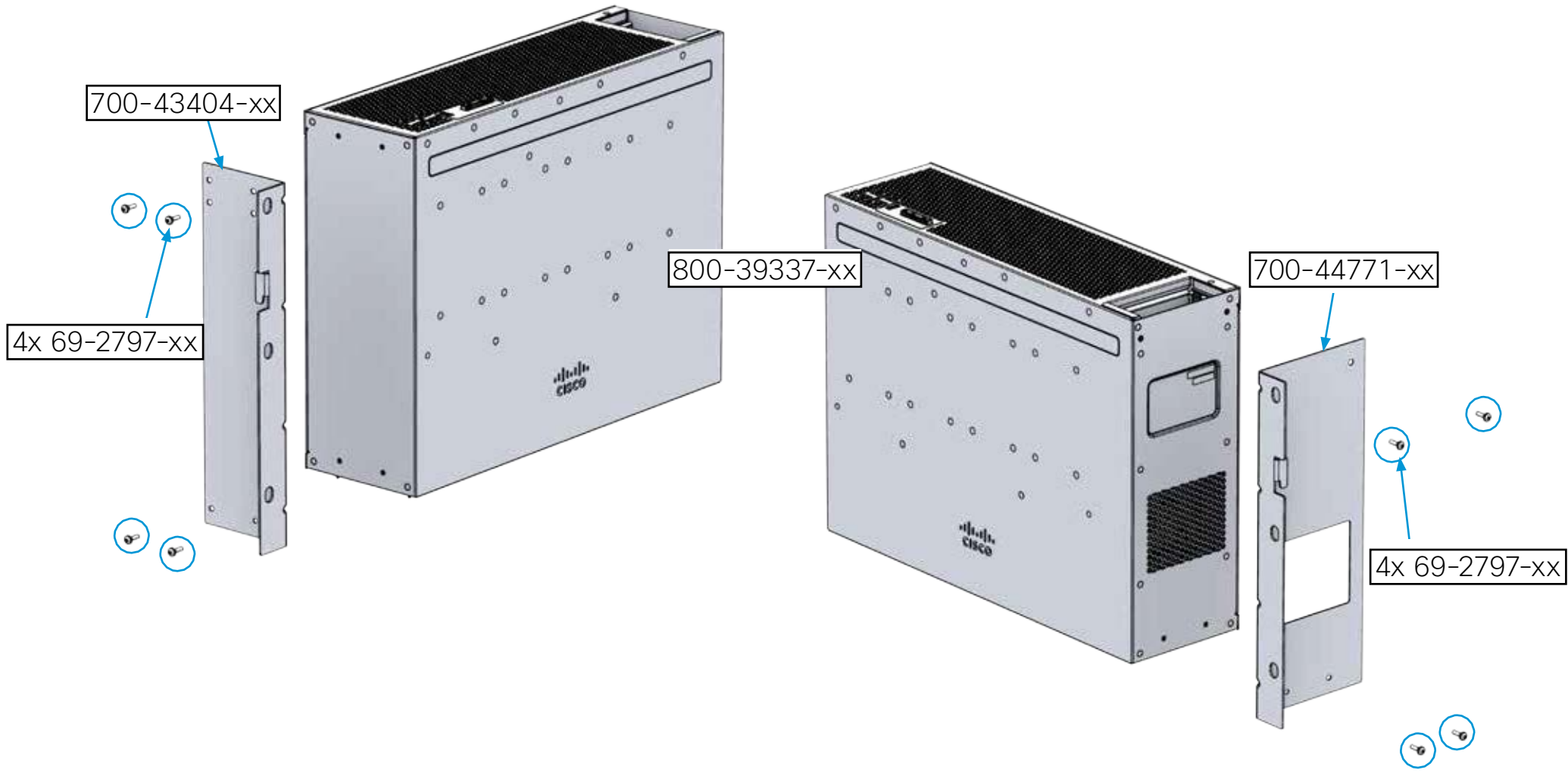
- o 2x WS-C2960C-12PC-L switch
- o Upper and lower switch brackets (700-43091-xx top), 700-43090-xx bottom)
- o 4x black 10-32x10mm screw with external tooth lock washer 69-100186-xx (part of kit 69-100184-xx and included with the switch brackets)
- o 4x black M4x12 mm screw with external tooth lock washer 69-100185-xx (part of kit 69-100184-xx and included with the switch brackets)

Required Tools

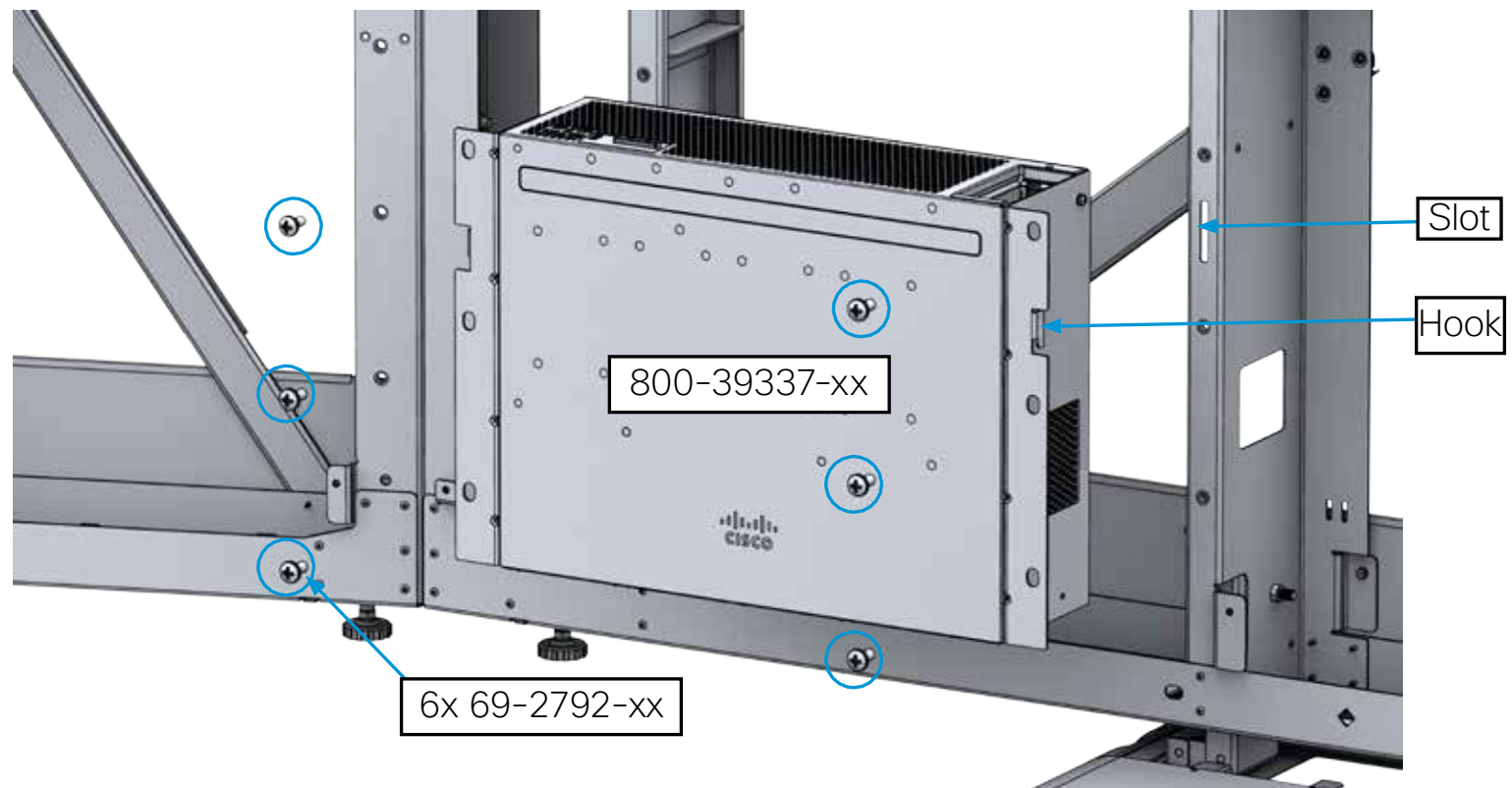
#2 and #3 Phillips driver



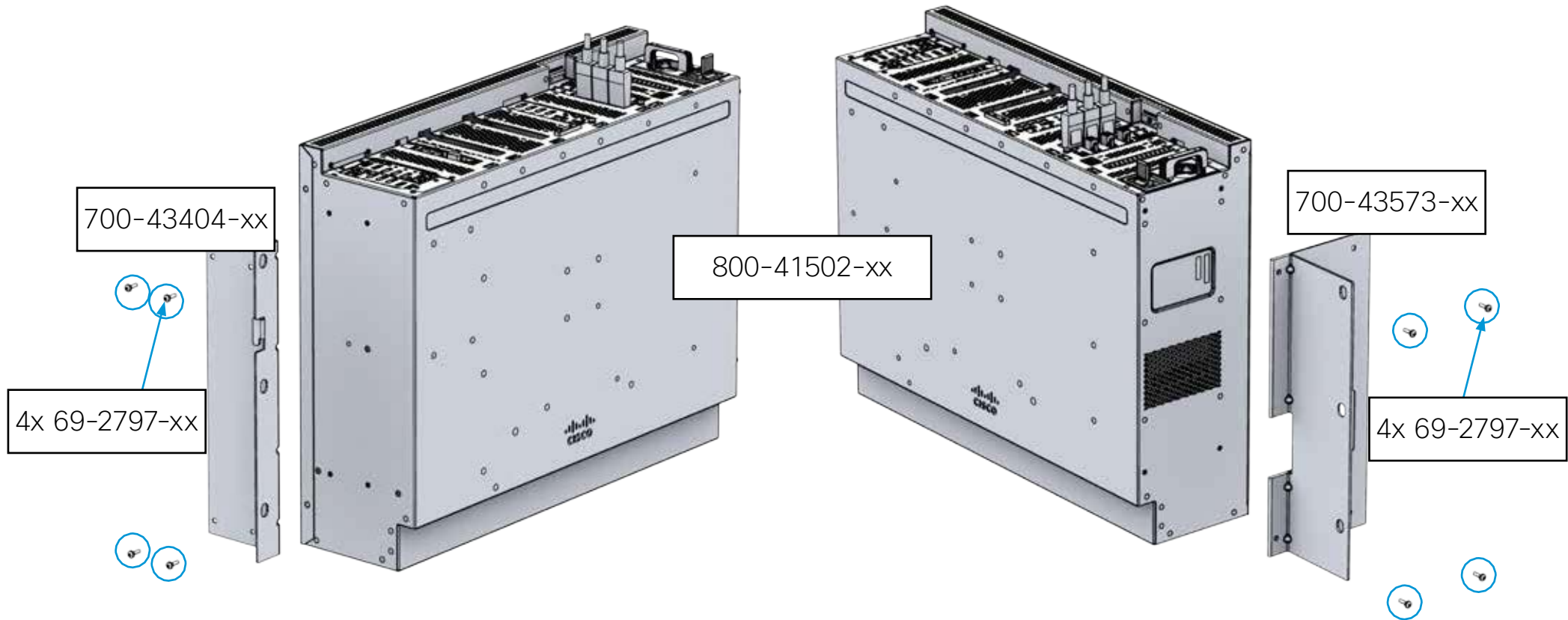
- 1 Assemble the brackets (700-43404-xx left, 700-44771-xx right) to the sides of the encoder/decoder codec 800-39337-xx using 8x black M4x12mm screws 69-2797-xx. Tighten with a #2 Phillips driver.



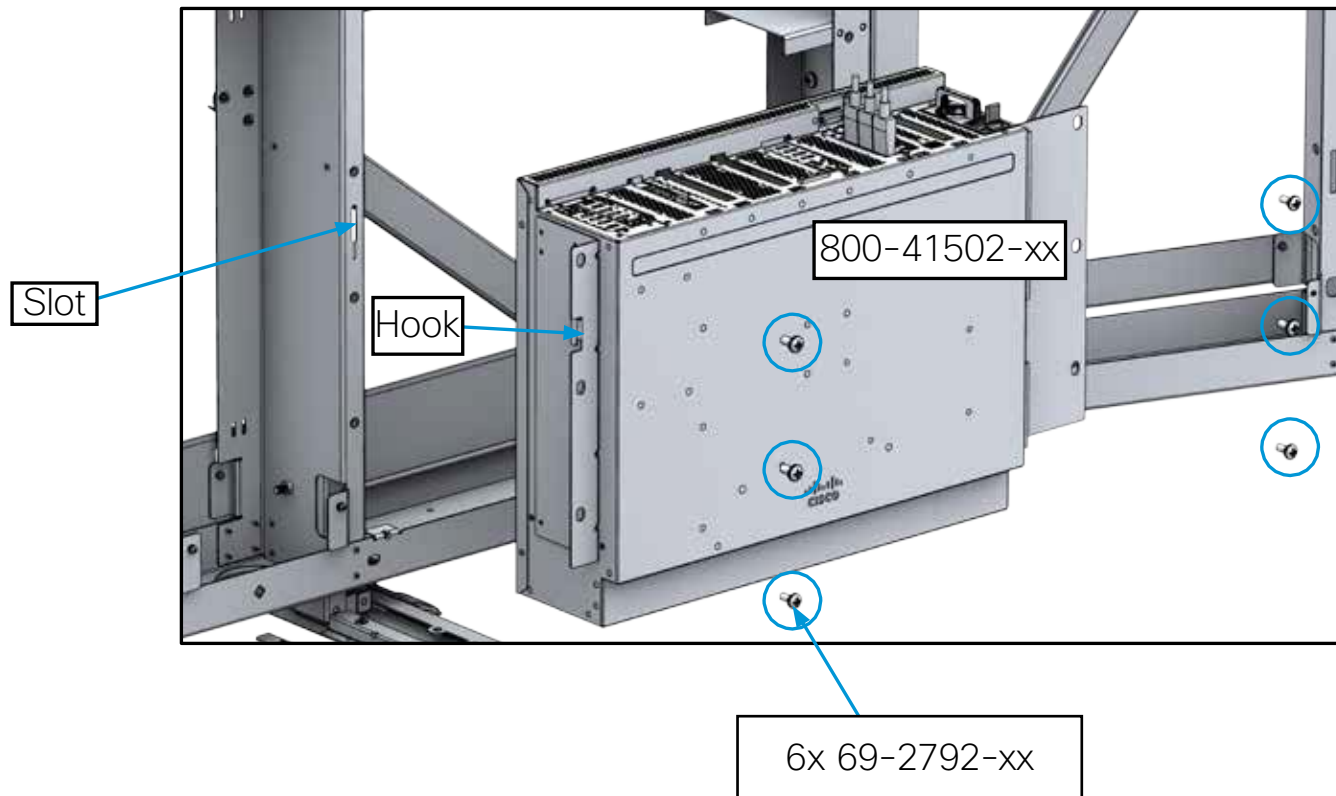
- 2 Assemble the encoder/decoder codec to the lower center frame by engaging the bracket hooks with the slots in the frame and then lowering the box until the hooks rest on the bottom of the slots. Install 6x black M8x16mm screws 69-2792-xx and tighten with a #3 Phillips driver.



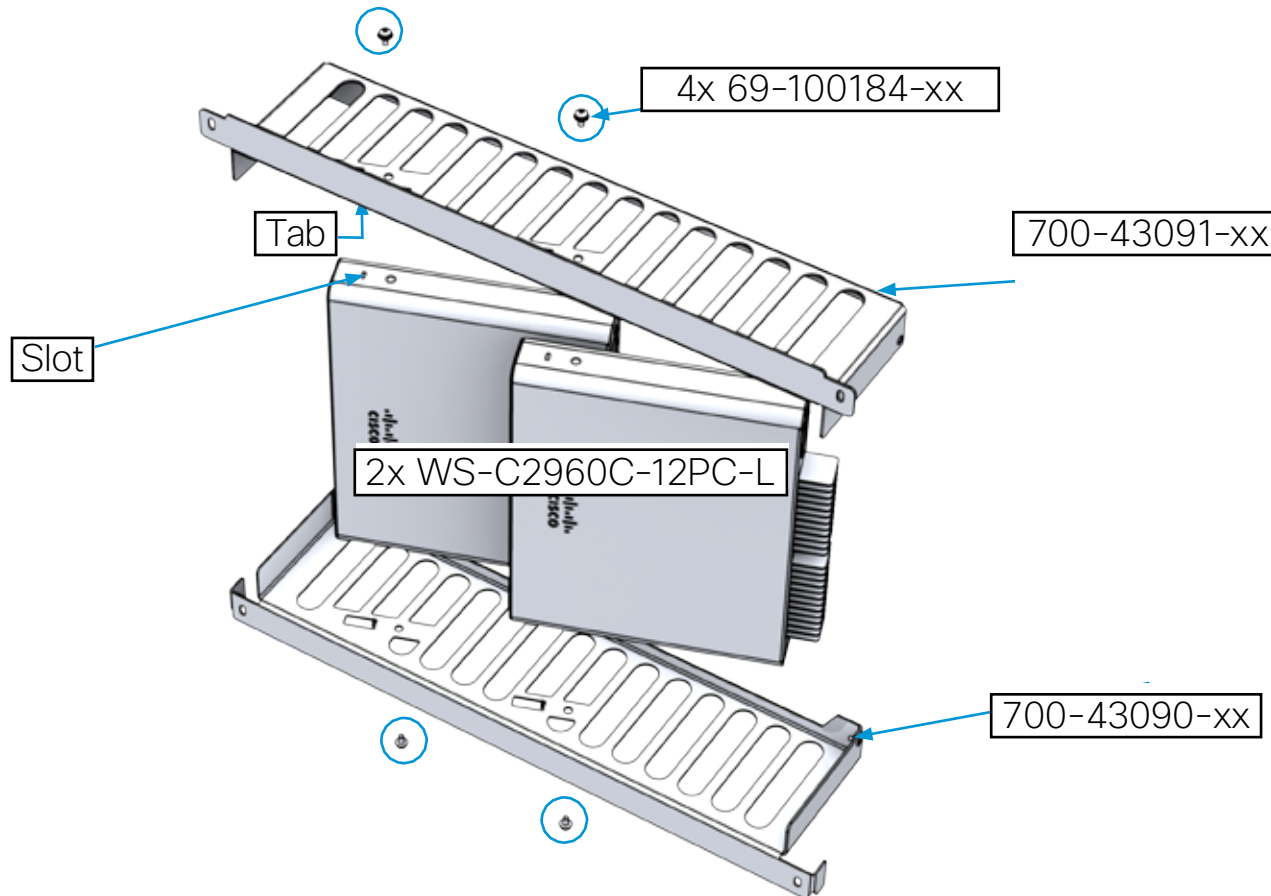
- 3** Assemble the brackets (700-43404-xx left, 700-43573-xx right) to the sides of the Host CPU codec 800-41502-xx using 8x black M4x12mm screws 69-2797-xx. Tighten with a #2 Phillips driver.



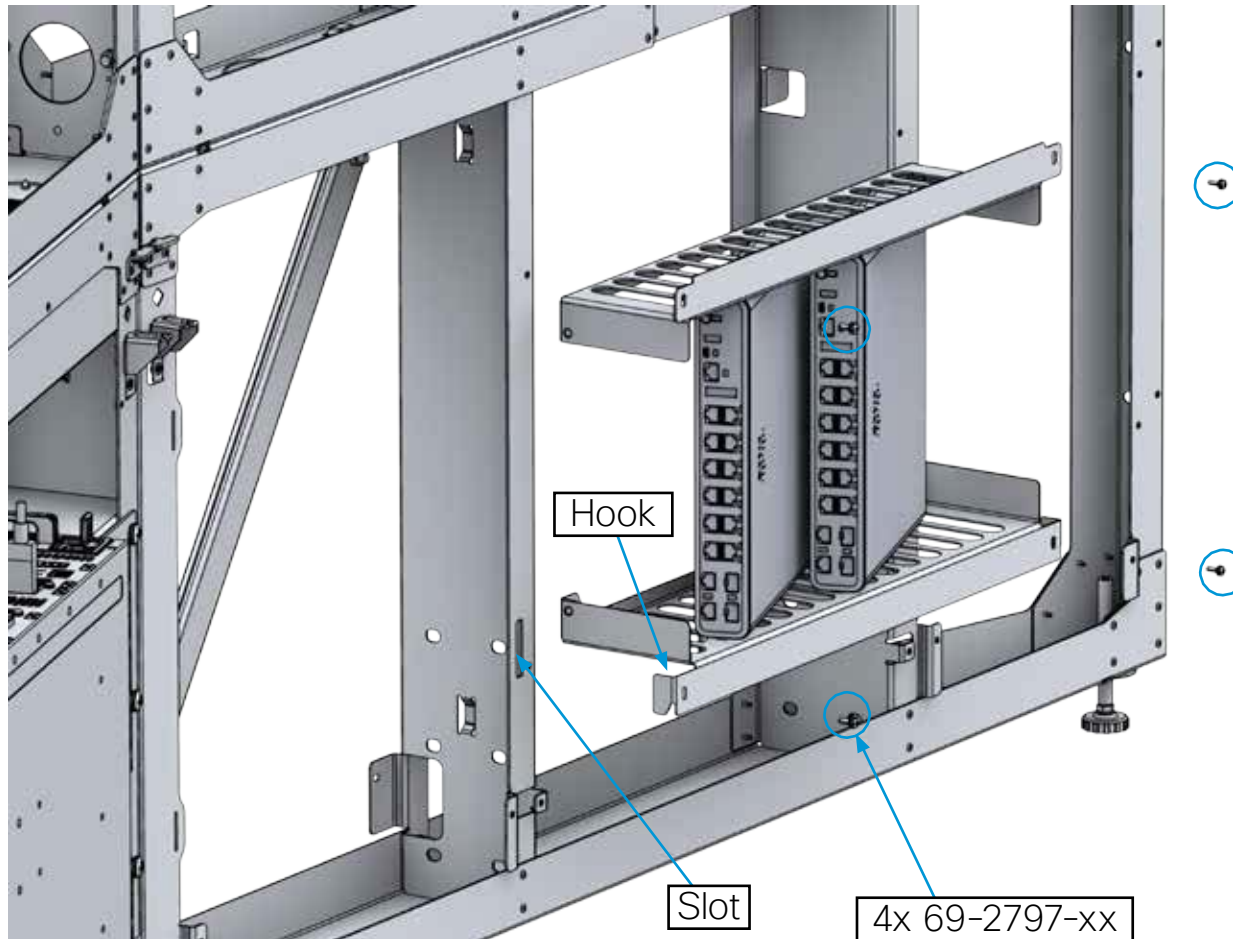
- 4 Assemble the Host CPU codec to the lower center frame by resting the box on the bottom beam and rotating / sliding into place. Engage the hook on the left side bracket with the slot in the frame. Install using 6x black M8x16mm screws 69-2792-xx and tighten with a #3 Phillips driver.



5a **Optional: Installing the LAN switches:** Orient the switches WS-C2960C-12PC-L as shown and assemble the brackets (700-43091-xx top, 700-43090-xx bottom) using x4 black 10-32 X 10mm screws 69-100184-xx (included with the switch brackets). Engage the tabs on the brackets with the slots in the switches. Tighten the screws with a #2 Phillips driver.



5b *Optional: Installing the LAN switches:* Install the switches and brackets by engaging the two bottom hooks in the slots in the frames. Install 4x black M4 X 12mm screws 69-2797-xx and tighten with a #2 Phillips driver.



Installing the Subwoofer and Speakers

Required Parts

Woofers:

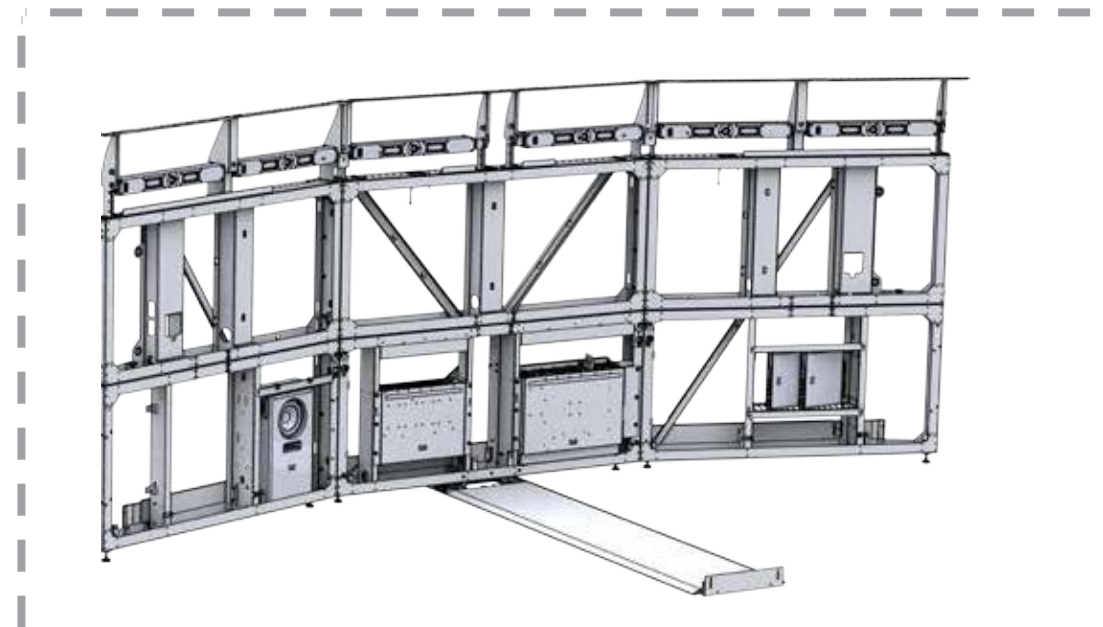
- o 1x Power amp 800-42333-xx
- o 1x woofer 74-12848-xx
- o 1x woofer bracket 700-43076-xx
- o 1x power supply 341-0414-xx
- o 8x black M4 x12mm screws 69-2797-xx
- o 2x silver M4 washer 69-2796-xx
- o 2x M4 nut with lock washer 69-2793-xx

Speakers:

- o 6x Speakers 74-12204-xx
- o 2x Speaker Mounting Block 700-47073-xx
- o 48x Black M3 Shoulder Screw 69-2791-xx

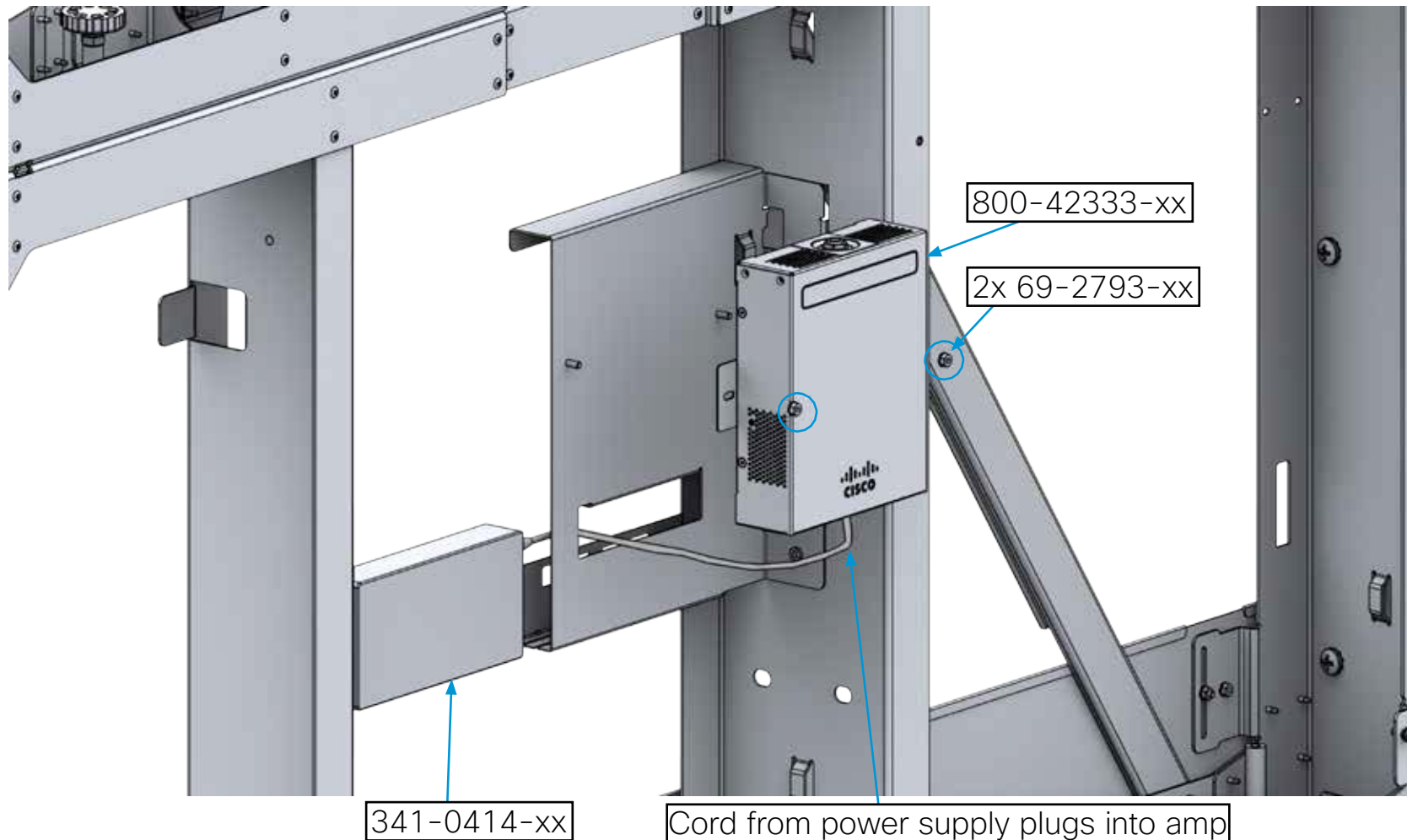
Required Tools

- o #2 Phillips driver
- o 7mm hex socket driver

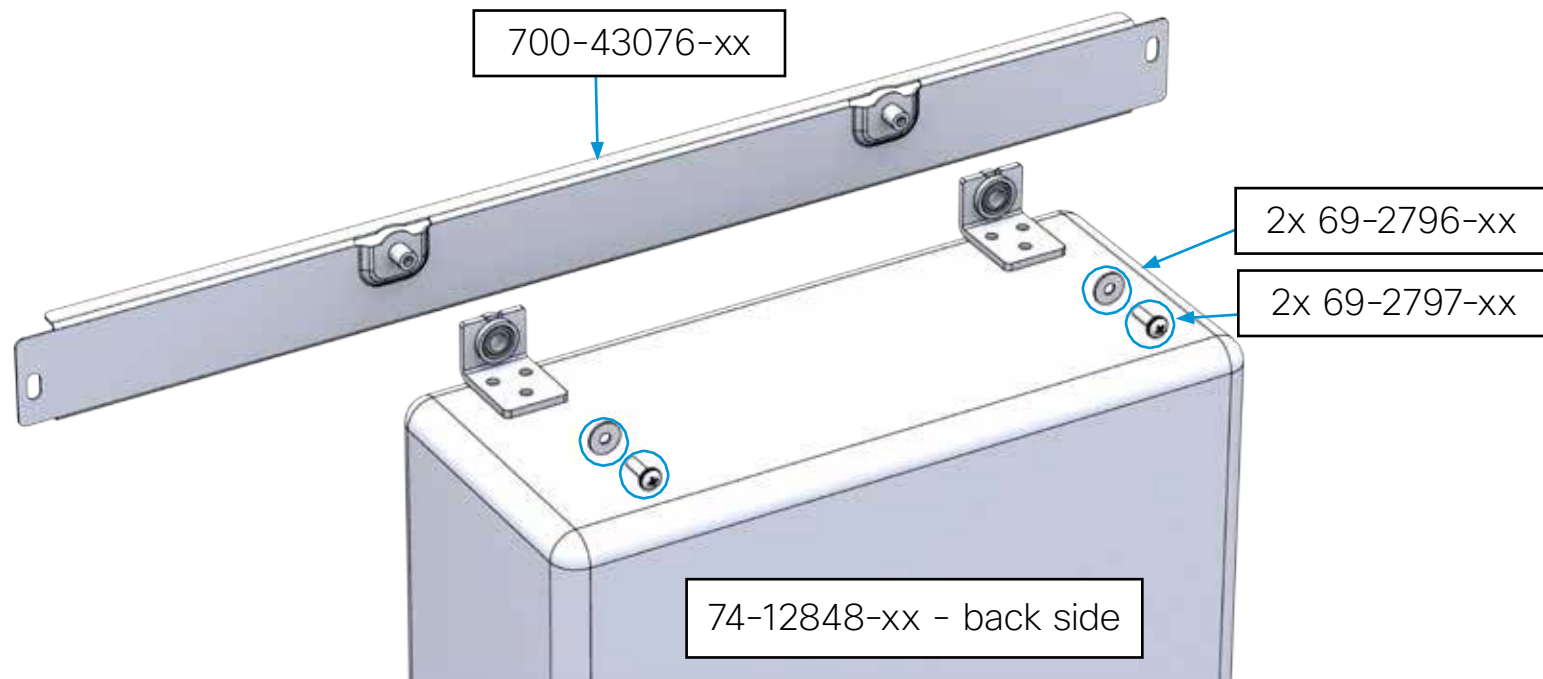


Installing the Subwoofer and Speakers

- 1 Install the power amp 800-42333-xx on the power bracket on the left display frame. Install 2x M4 nuts 69-2793-xx on the threaded studs and tighten with a 7mm hex socket driver. Insert the power supply 341-0414-xx into the channel on the back of the bracket and plug the power supply into the bottom of the amp.

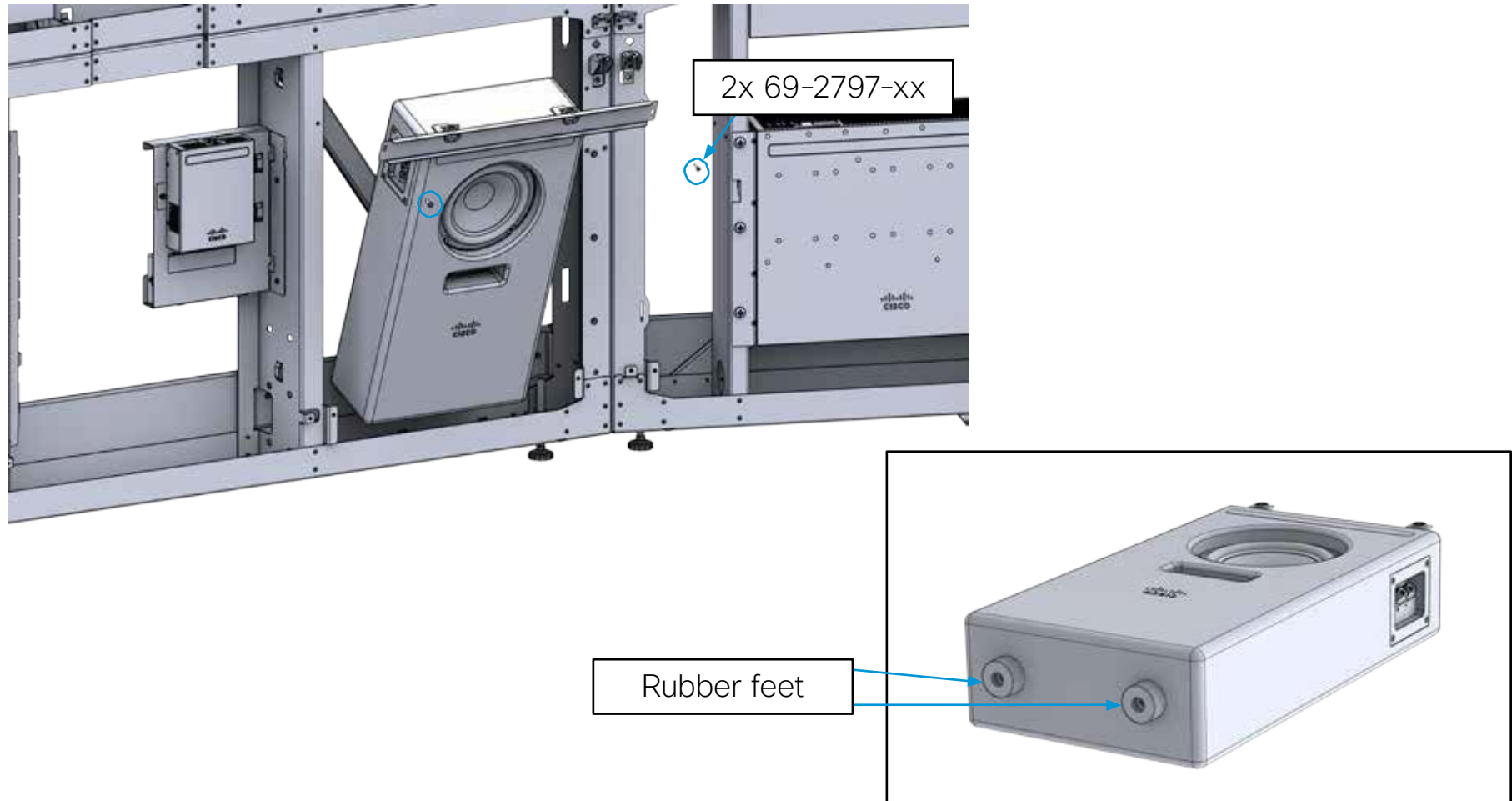


- 2 Assemble the bracket 700-43076-xx to the woofer 74-12848-xx. Insert the standoffs in the bracket into the rubber grommets on the woofer. Install the 2x silver M4 washers 69-2796-xx to the 2x M4x12mm screws 69-2797-xx and tighten with a #2 Phillips driver.

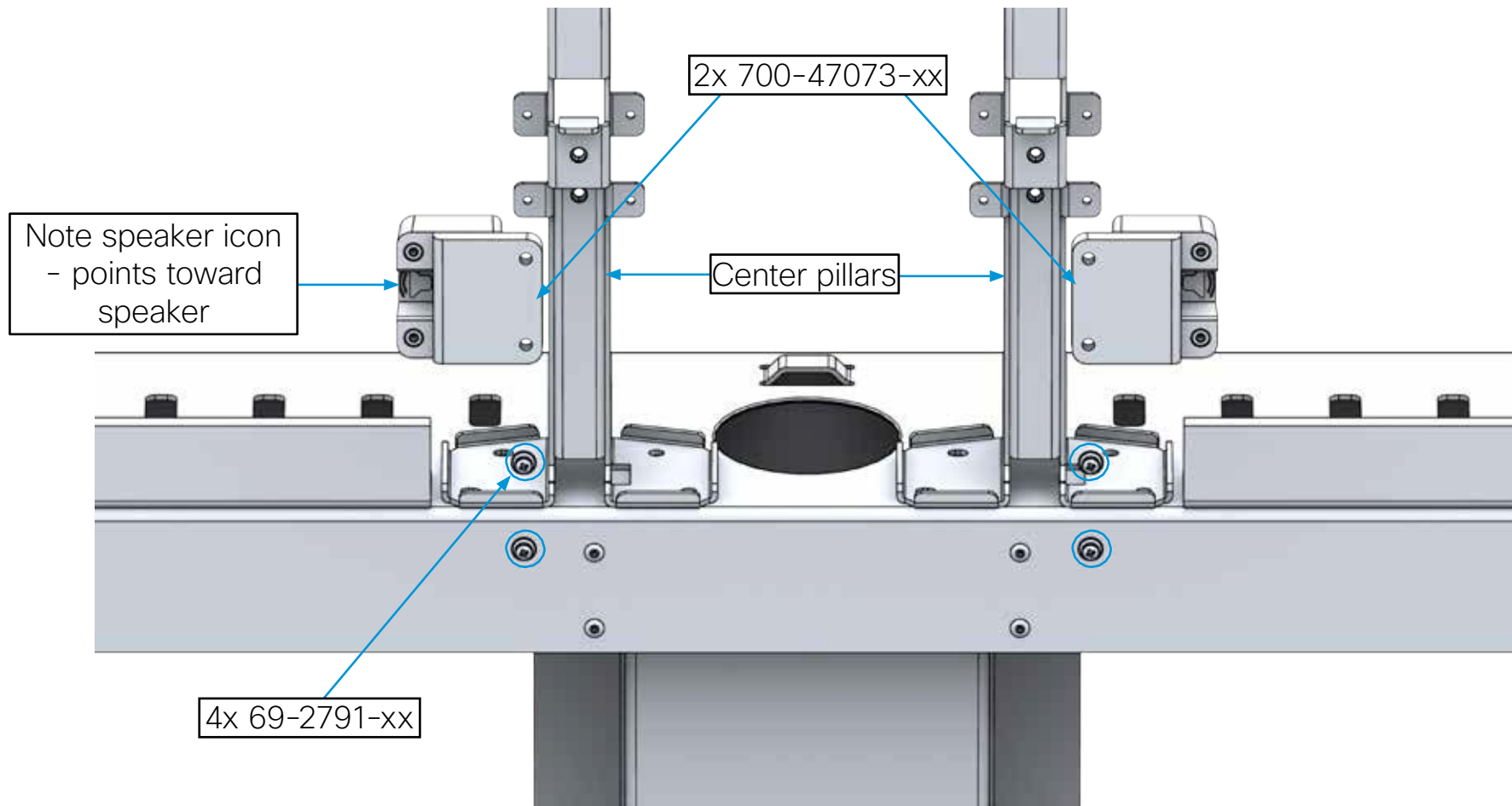


Installing the Subwoofer and Speakers

- 3 Install the woofer by rotating it forward and placing it into the lower left display frame, making sure that the woofer feet are located within the sheet metal forms on the frame. Rotate the woofer backward, install 2x M4x12mm screws 69-2797-xx, and tighten with a #2 Phillips driver.

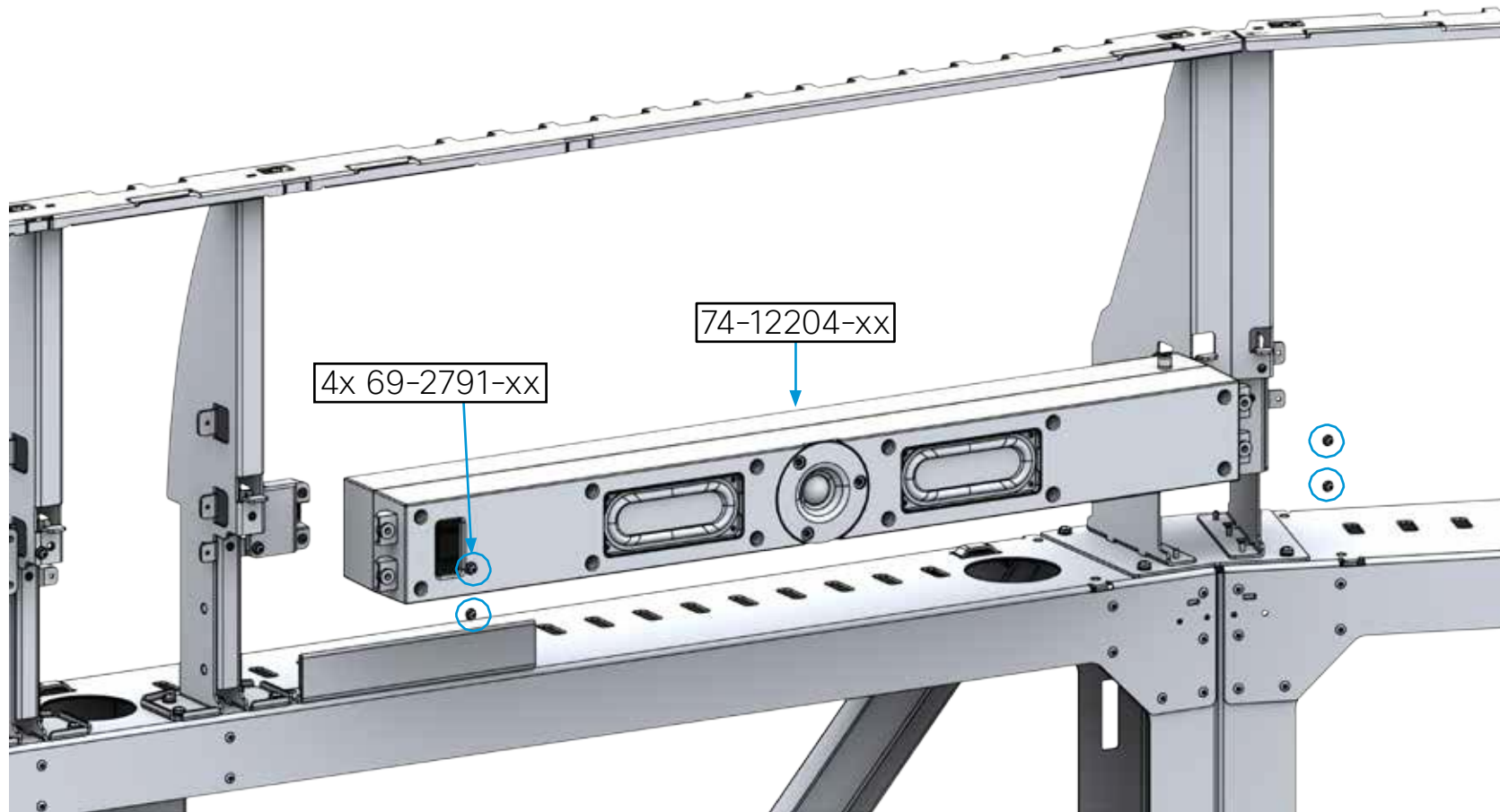


4a Install the speakers. Attach the 2x Speaker Mounting Blocks 700-47073-xx to the center pillars with 4x Black M3 Shoulder Screws 69-2791-xx (2x per pillar). **NOTE:** only the two center vertical pillars use this block. Note the speaker icon, which points toward the speakers after they are installed.

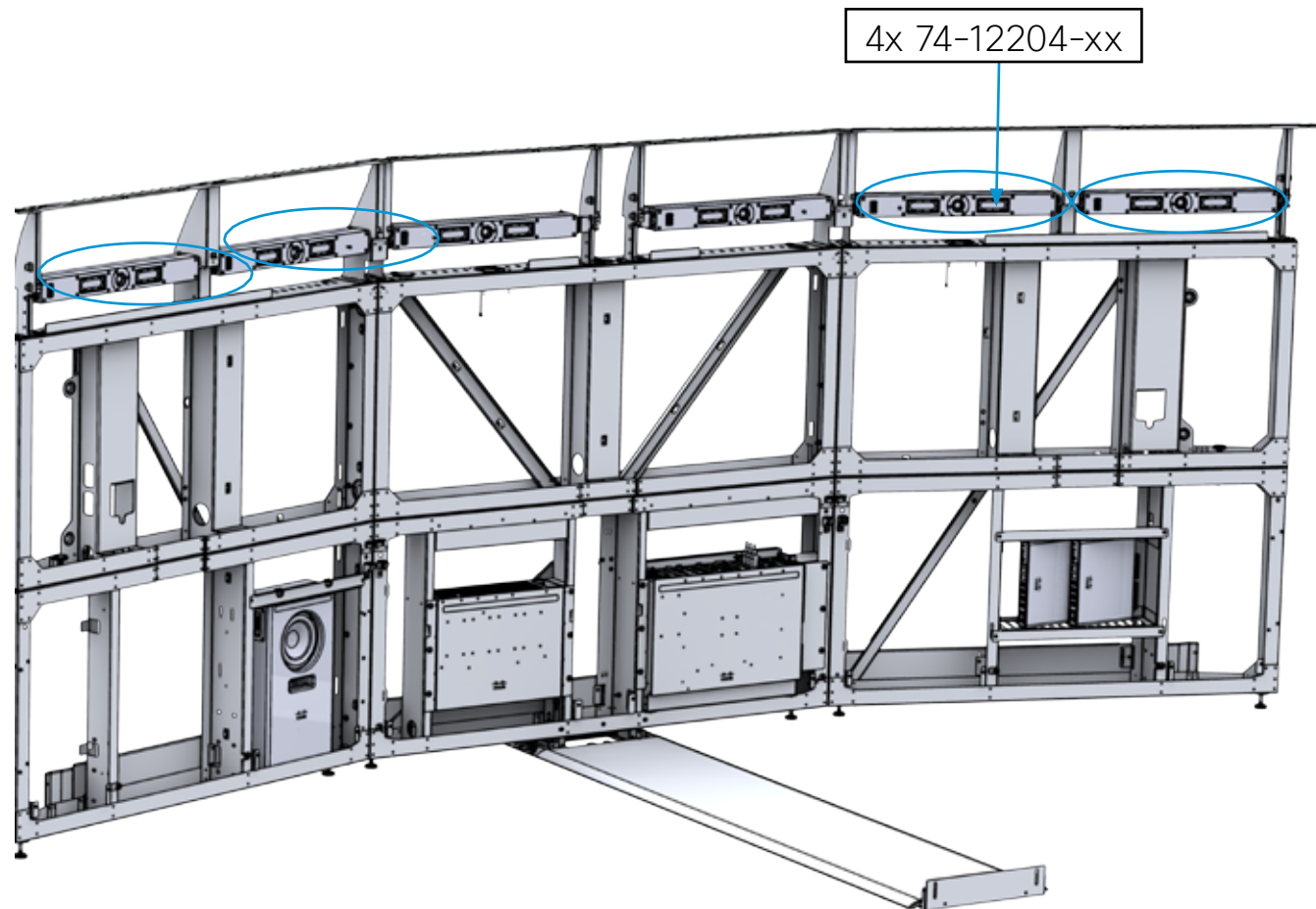


Installing the Subwoofer and Speakers

4b Mount the speaker 74-12204-xx to the rubber block and attach it using 4x Black M3 shoulder screws 69-2791-xx per speaker. ***Do not use a power driver for these screws, as this might cause damage to the thread inserts.***



- 5 Install the four remaining speakers using 4x Black M3 Shoulder Screw 69-2791-xx per speaker. **Do not use a power driver when installing the screws to avoid damage to the thread inserts.**



Starting Installation and Cabling of the Front Row Table

Required Parts

Table legs (1x left inside table leg 800-44195-xx, 1x right inside table leg 800-41001-xx, 2x outside table leg 800-41002-xx)

Ethernet/Power modules:

- o 6x Power/Ethernet connectivity modules (*part varies by country*)
- o 4x Power/Ethernet connectivity cover 700-47772-xx
- o 2x Power/Ethernet connectivity blanking plates 700-45421-xx
- o 20x #4-40 nuts for power/Ethernet connectivity brackets
- 1x Front Row Cable Management Assembly 800-40845-xx 49-0326-xx
- 14x M8x16mm screws 69-2792-xx
- 6x M6 nuts 69-2800-xx
- 2x Table leg connectors (700-44718-xx right, 700-44719-xx left)
- 8x M6x10mm screws 69-2803-xx
- 4x Cosmetic leg brackets (700-46219-xx far right, 700-44754-xx right-center, 700-44755-xx left-center, 700-46218-xx far left)
- 2x jumper cables 37-0833-xx
- 1x PoE Switch WS-C2960C-8PC-L
- 2x switch bracket 700-44758-xx
- 2x #10-32 screws 69-100184-xx
- 1x Microphone Connector (MC) 800-40951-xx
- Velcro cables 52-0449-xx as needed

Required Tools

- o #3 and #4 Phillips Driver
- o 13mm wrench or adjustable wrench
- o 19mm 12-point ratcheting box end wrench
- o Metric tape measure or ruler
- o Spirit level
- o Laser level
- o 1/4-inch nut driver or wrench (for Power/Ethernet brackets)

Cables - First Row Table

CTS-5K-CBL-R1-SW (69-2669-xx), includes 1x 5 meter Ethernet cable 37-1534-xx

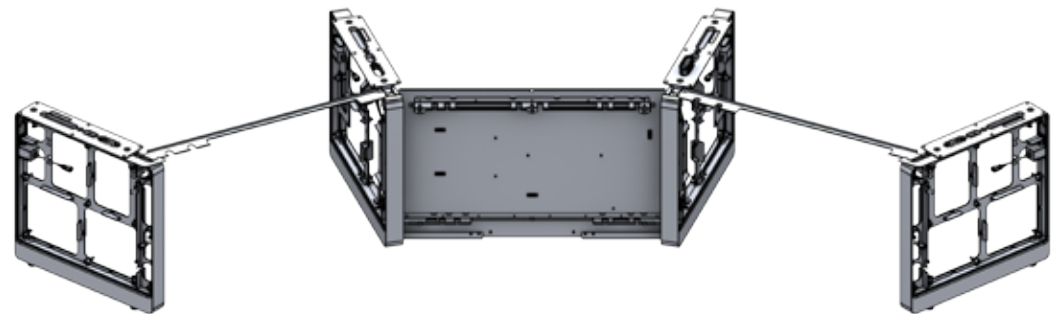
CTS-5K-CBL-R1-LAP (69-2671-xx), Ethernet connectivity modules, includes

- o 1x 5 meter Ethernet cable 37-1561-xx EX1
- o 6x 8 meter Ethernet cable 37-1562-xx, C1-C6

CTS-5K-CBL-R1-MIC (69-2674-xx), includes 6x DisplayPort-to-DisplayPort cable, 2.6 meter, 37-1542-xx A1-A6

CTS-5K-CBL-R1-AC 69-2676-xx power cables, includes:

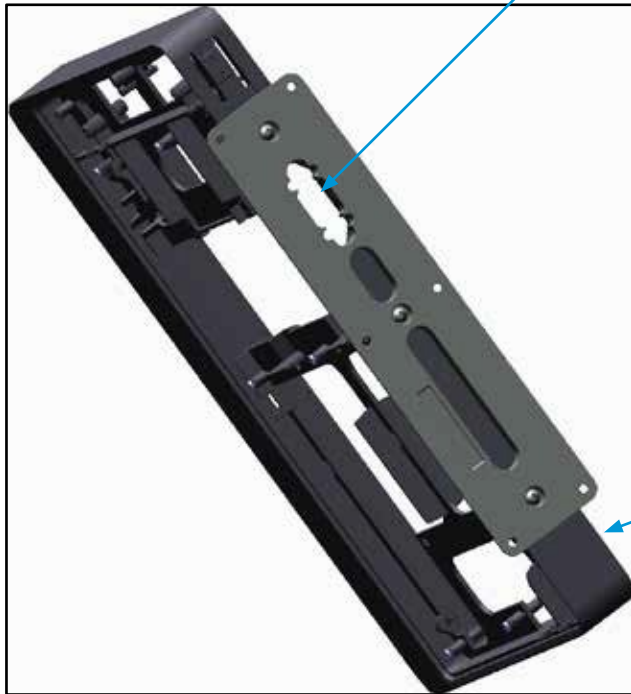
- 2x Jumper cable, 3 meter, 37-0833-xx D1 and D6
- 2x Jumper Cable, 2 meter, 37-0994-xx no reference designator - extra jumper cables for middle legs



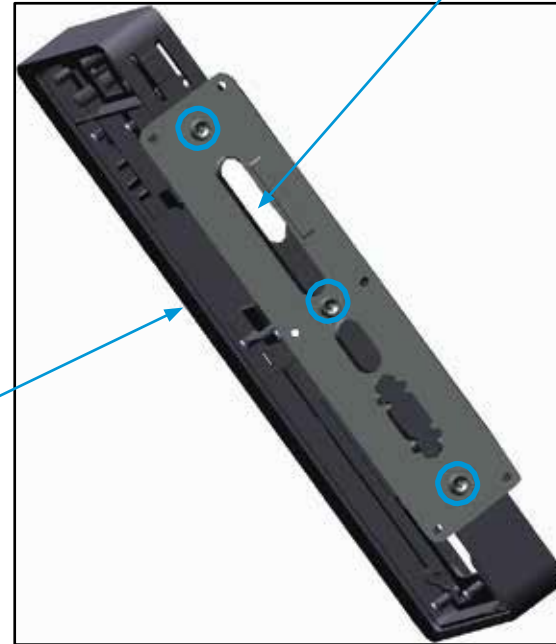
- 1 Unpack the two table legs 800-41001-xx and 800-44195-xx and make sure that the top plate is correctly installed. If the plates are incorrectly installed, remove the three screws that attach the plate to the leg, flip it 180 degrees, then re-install it.

Correct - Cloverleaf pattern on plate matches with slot on table leg

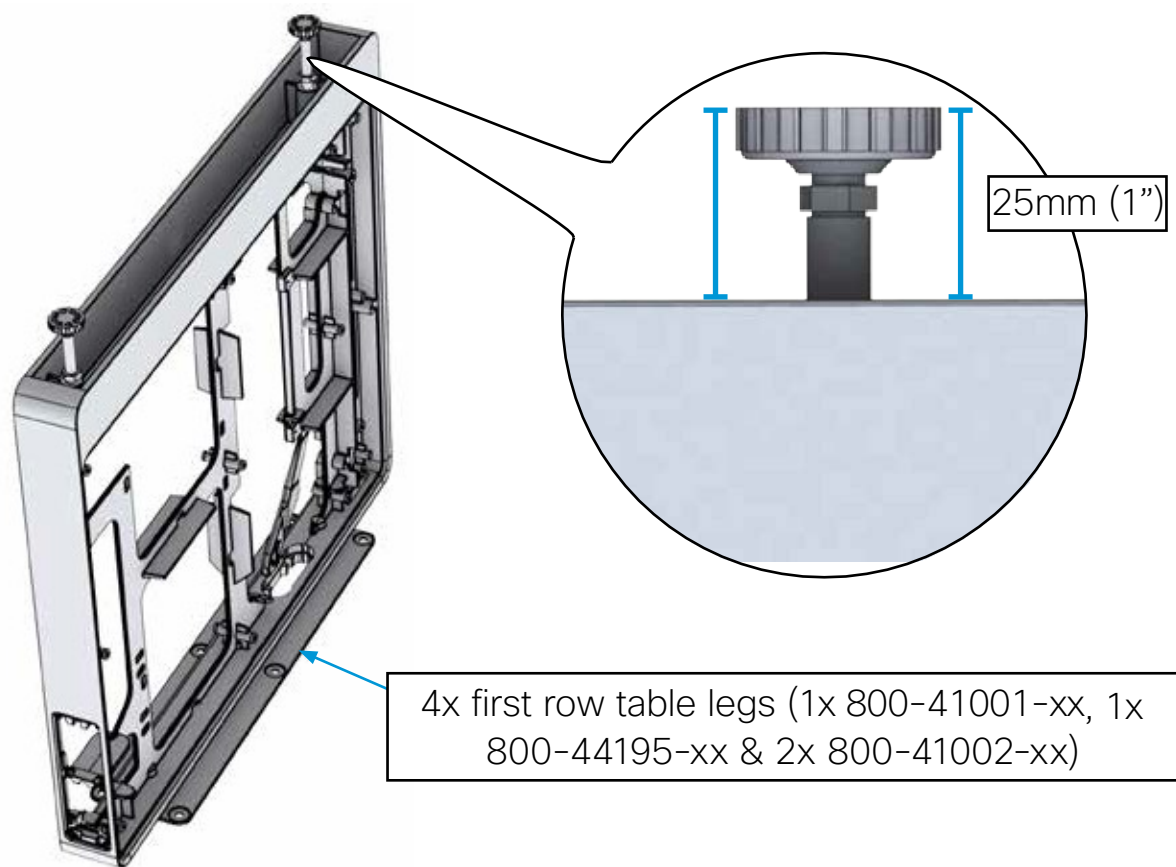
Incorrect - Long slot on plate matches with slot on table leg. Remove the three screws, flip plate 180 degrees, and reattach



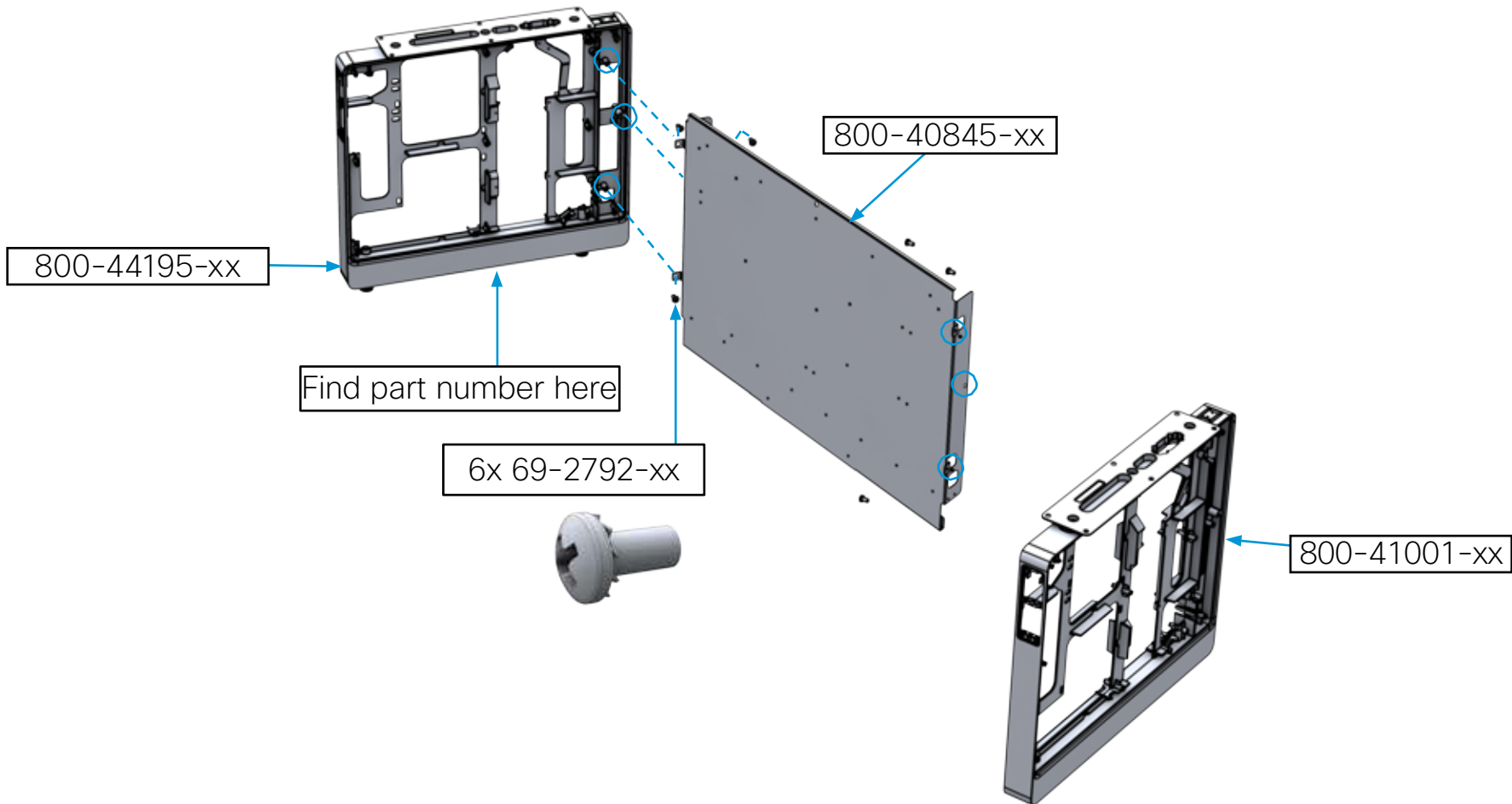
800-41001-xx and
800-44195-xx



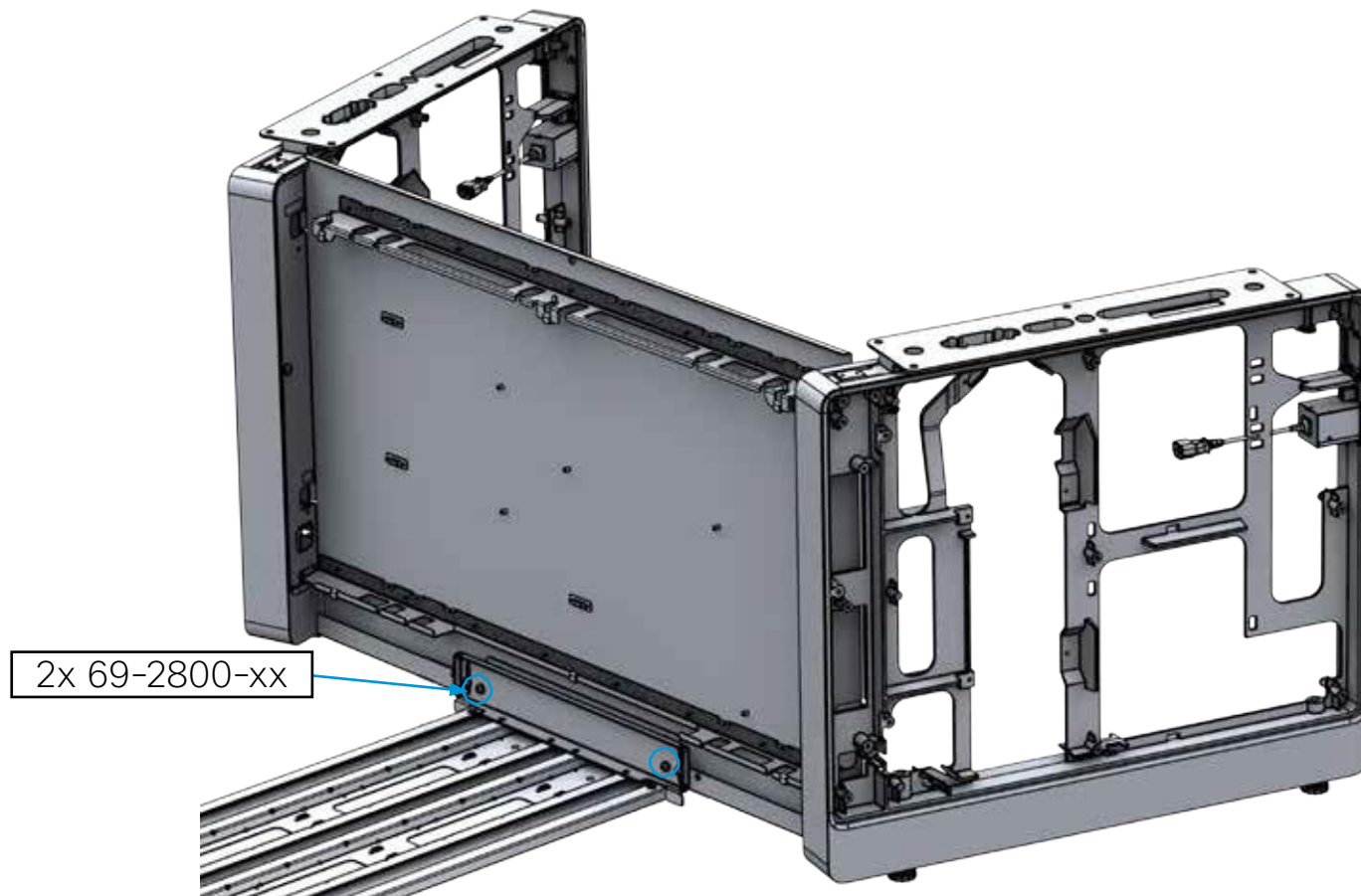
- 2 Turn the 4x table legs (1x each inside table legs 800-41001-xx and 800-44195-xx and 2x outside table legs 800-41002-xx) upside down. Adjust the levelers until there is 1 inch (25mm) between the bottom edge of the leg and the base of the foot.



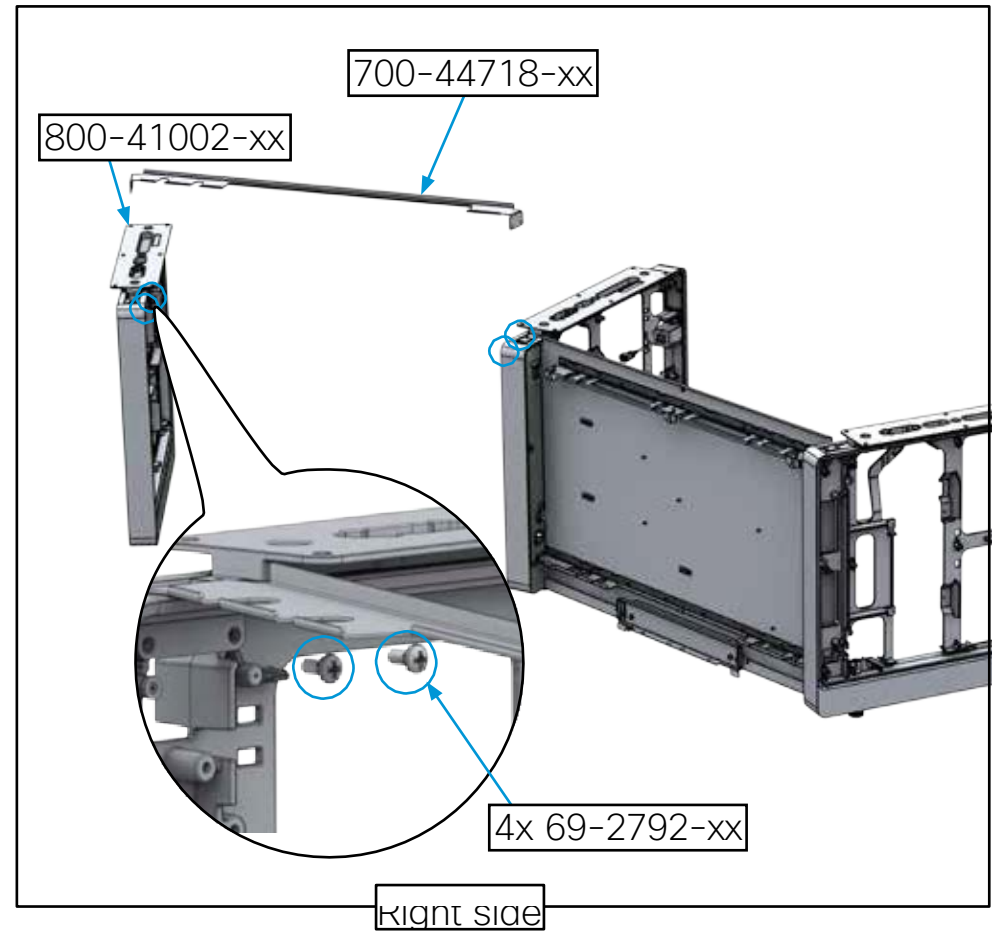
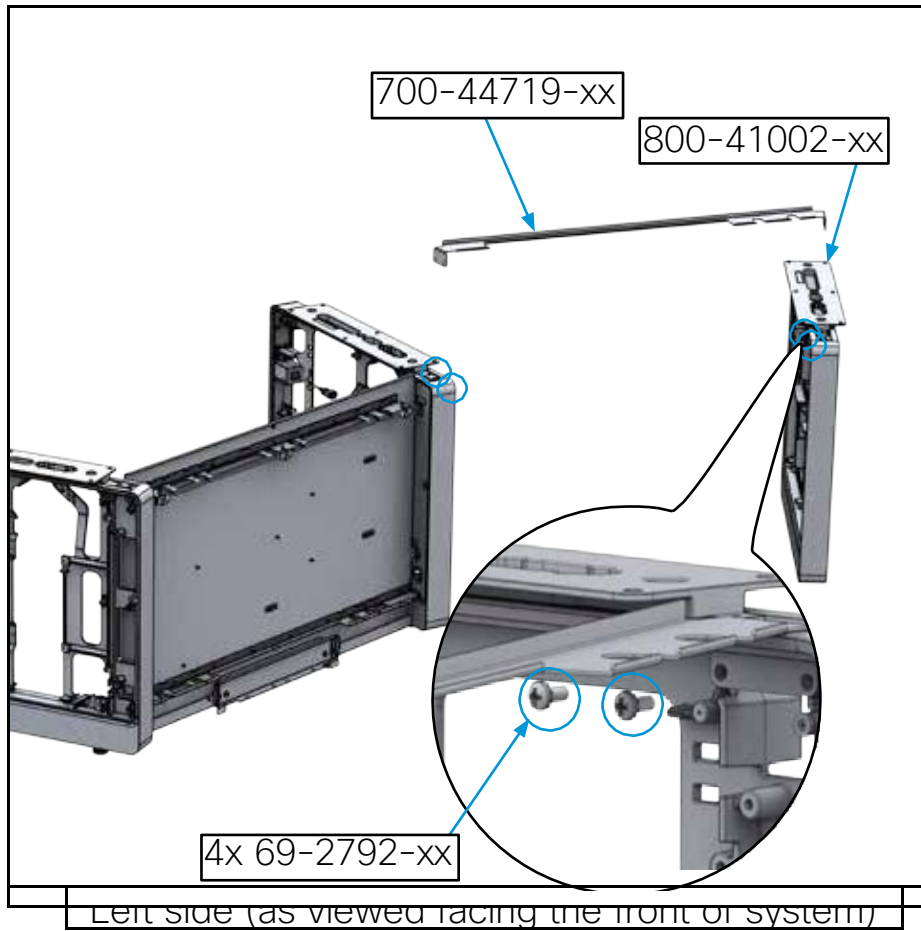
3 Align the pins on the front row cable management assembly 800-40845-xx with hole and slot on the inner table legs (800-44195-xx left, 800-41001-xx right). then connect the legs to the assembly using 6x M8x16mm screws 69-2792-xx (3 per leg). **Tip:** The part number is printed on the underside of the leg.



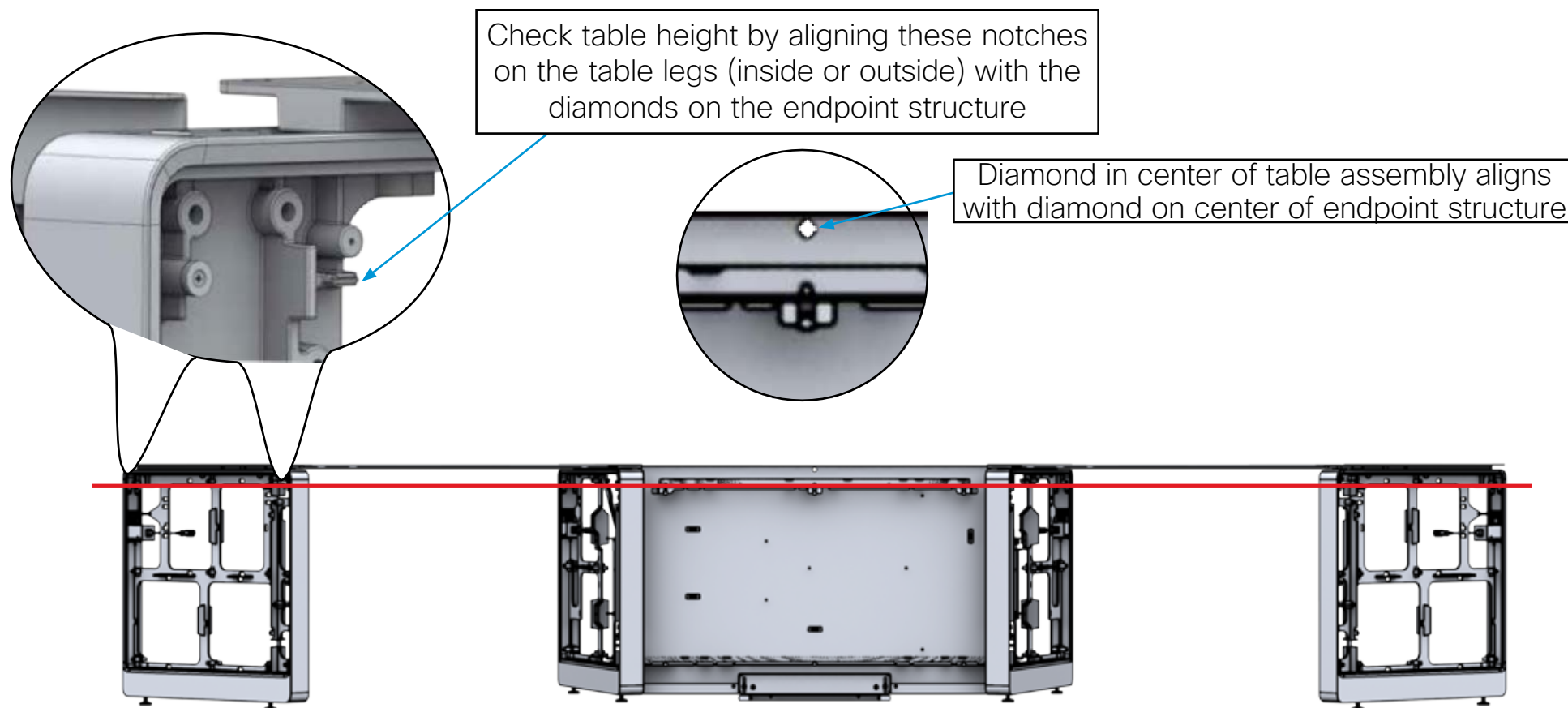
- 4 Loosely attach the Cable Runner Bracket to the Front Row assembly by sliding the slots in the Cable Runner Bracket onto the two M6 studs located on the Front Row Cable Management assembly. Attach 2x M6 nuts 69-2800-xx to the studs finger-tight.



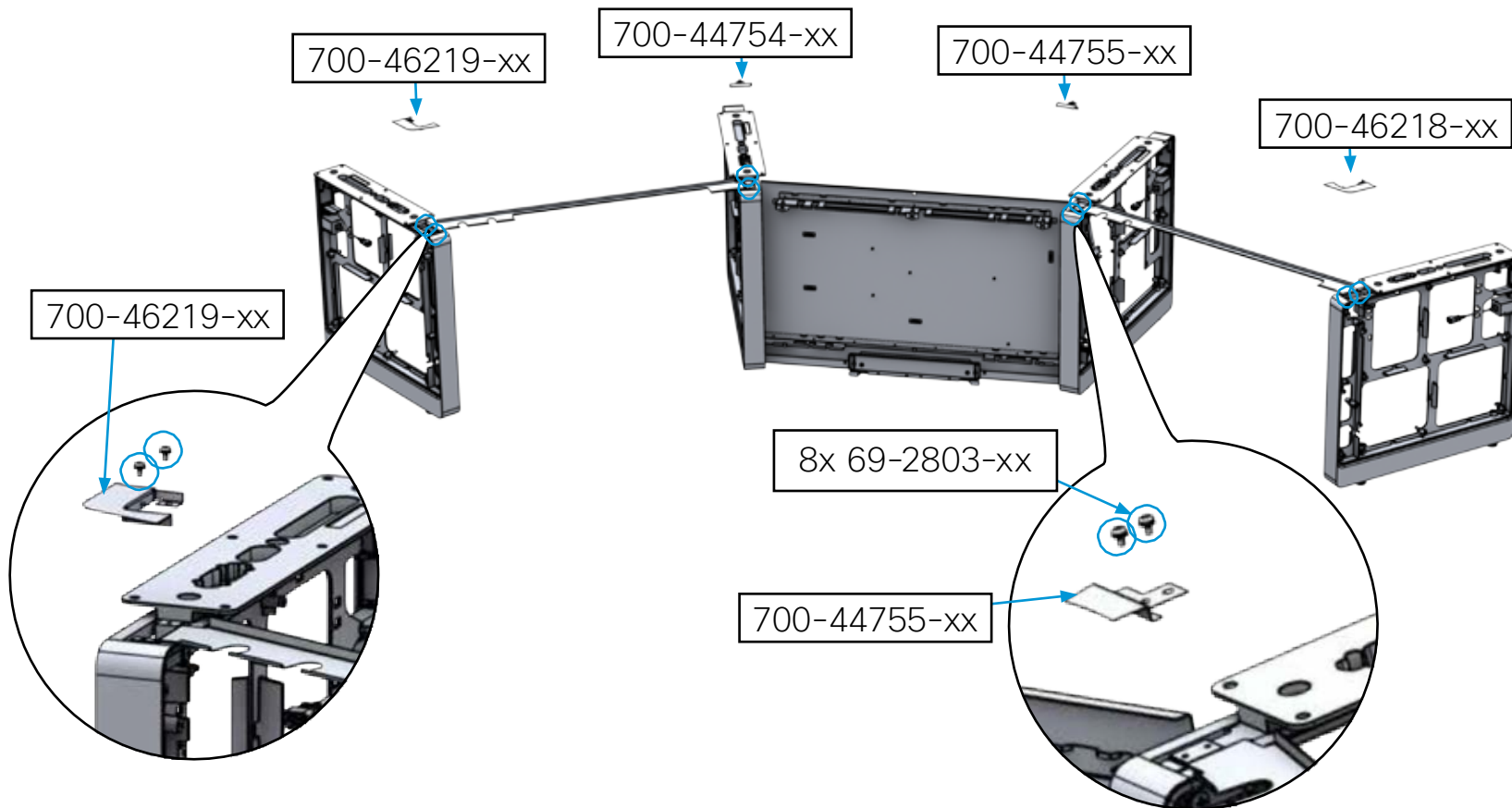
- 5** Hold the right outside table leg 800-41002-xx and attach the right Table leg connector 700-44718-xx to connect the table leg. Attach the bracket to the table legs using 4x M8x16mm screws 69-2792-xx. Connect the left table leg 800-41002-xx using the same procedure, using the 700-44719-xx left connector and 4x M8x16mm screws 69-2792-xx.



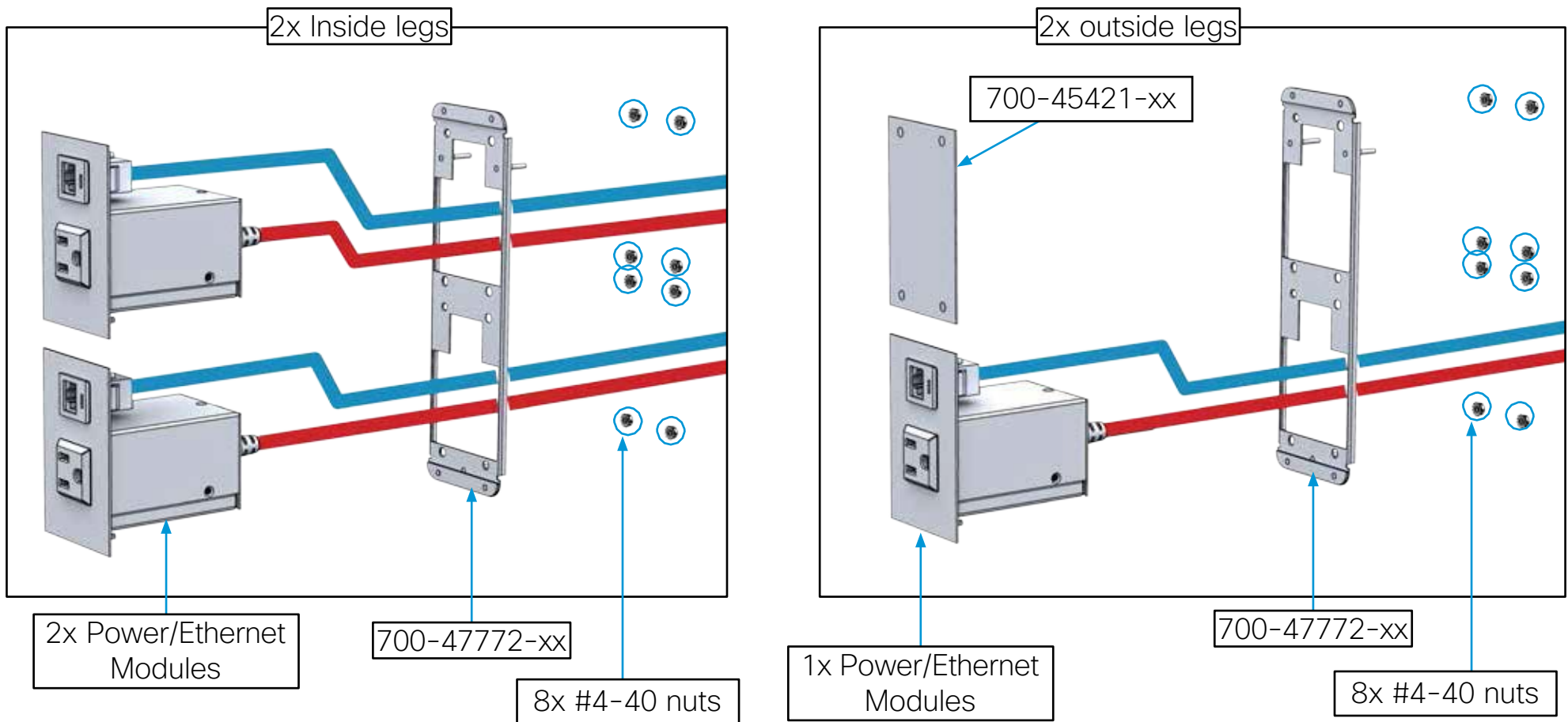
- 6 Using a laser level, make sure that the outside table legs are level with the inside table legs.



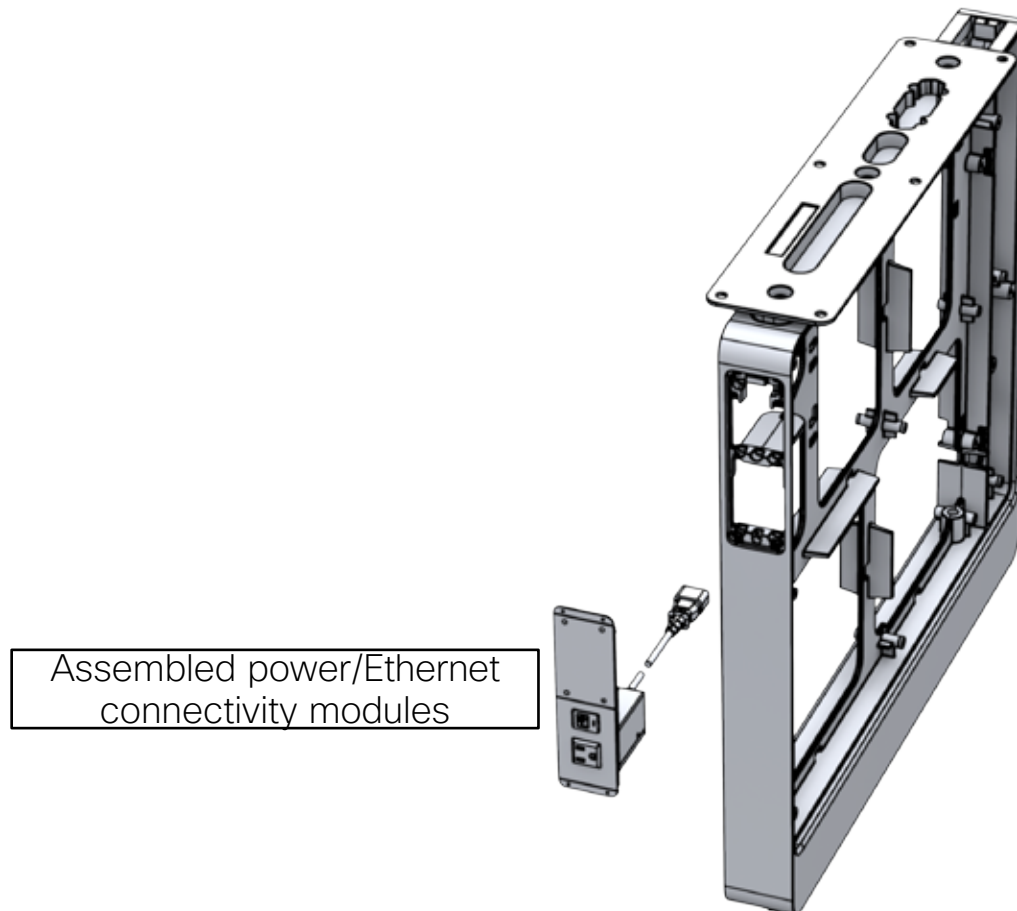
7 Insert the cosmetic leg brackets (700-46219-xx far right, 700-44754-xx right-center, 700-44755-xx left-center, 700-46218-xx far left) into the table legs. Use 8x M6x10mm 69-2803-xx screws to attach these to the table leg brackets (2 screws per bracket).



8 Assemble the power outlets to the outlet covers prior to installation to the table legs. **a.** Take the 6x Power/Ethernet connectivity modules (part number varies by country) and assemble them to the 4x Power/Ethernet connectivity cover 700-47772-xx using the #4-40 nuts included with the power/Ethernet module. **b.** Use the blanking plates 700-45421-xx for the two outside legs as shown and attach using 8x 4-40 nuts 49-0326-xx. **Tip:** Hold the cover flat and install the nuts from below using a nut driver to facilitate installation.

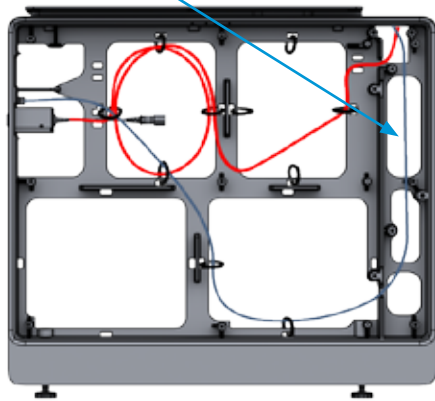


- 9 Install the 4x power/Ethernet connectivity modules to the table legs. Install 3x #4-40 nuts 49-0326-xx to the studs and tighten the nuts. Insert the modules with two outlets into the 2x inside table legs and insert the modules with one outlet and one blanking plate into the 2x outside table legs.
-

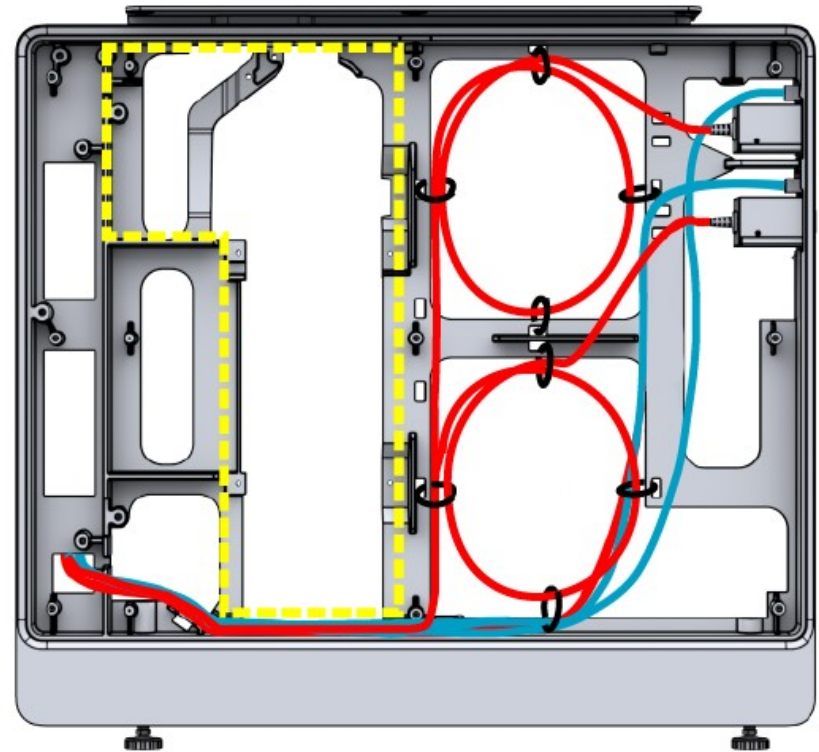


10 Connect and route the power and Ethernet cables for the table legs. Insert an extra power (jumper) cable to the outside legs as shown in the picture on the left, and ensure that the inside legs have room for the cable retractor (installed later) as shown by the yellow outline in the illustration on the right. **Note:** The extra jumper cable is used in case of failure of the power module - you can replace the module without removing the tabletops.

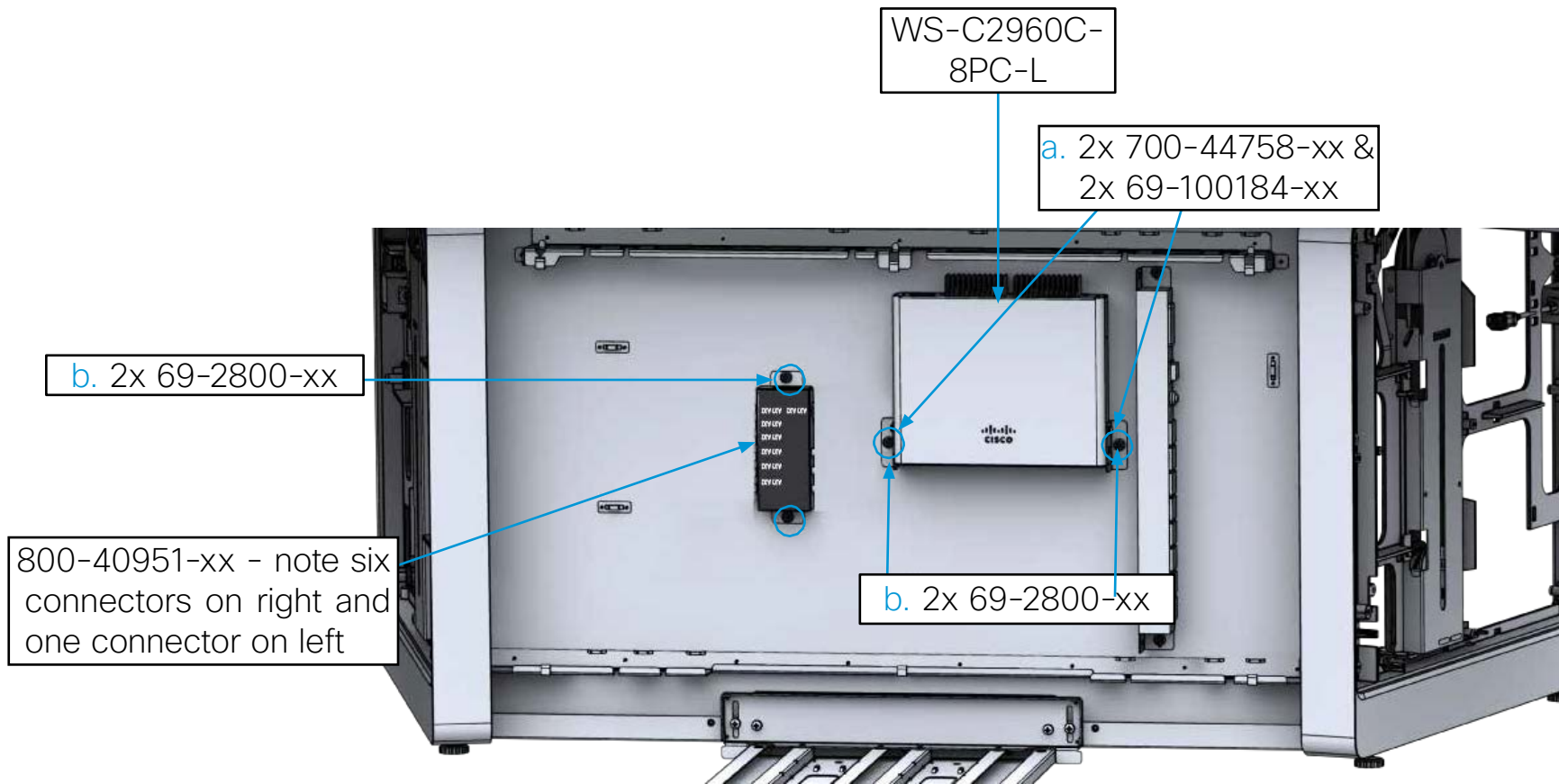
Outside table legs - insert extra jumper cable and route behind power connector - note jumper connections



clear from yellow dotted area as shown. Inside



- 11** Attach the Microphone Connector and the switch to the cable management assembly. **a.** Connect the 2x switch bracket 700-44758-xx to the POE Switch WS-C2960C-8PC-L with 2x #10-32 screws 69-100184-xx. **b.** Attach the switch and the Microphone Connector 800-40951-xx to the studs in the cable management assembly using 4x M6 nuts 69-2800-xx. Note the correct orientation of the Microphone Connector, with the single connector facing to the right, and the six connectors facing to the left.



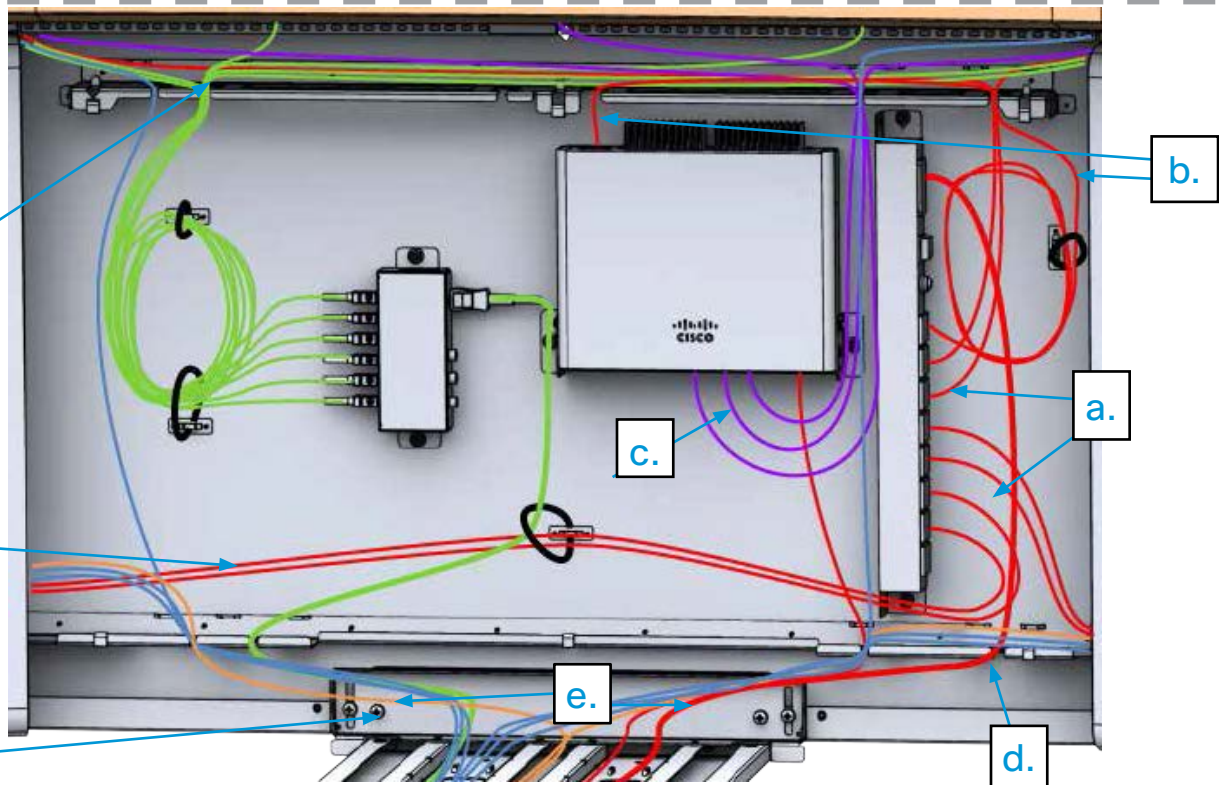
12 Route the cables. **Note the reference designators on the cables, and check the cabling diagram to make sure you use the correct cables.** a. Route the 6x power cables from the power/Ethernet table leg modules to the PDU. Use the slots in the cable management assembly to assist in routing. b. Route the 1x power cable from the PoE Switch to the PDU (shown in red). Use Velcro cable wrap 52-0449-xx to manage excess cables. 3. c. Route 1x-6x Ethernet cables from the Ethernet switch to the top of the table (to be used for the 1x - 6x Touch 10 call control devices). **Use this switch for the Touch 10 devices only; DO NOT use this switch for the table leg Ethernet connections.** d. Route the 1x power cable from the PDU to the cable runner (shown in red). e. Route the Ethernet cables from the power/Ethernet table leg modules to the cable runner (shown in blue). Leave space above the switch for venting. f. Connect the mic bar cables to the Microphone Connector, and route the main Microphone Connector cable through the cable runner. **NOTE:** The mic bars, Touch 10 device, and presentation cable retractors are installed in a later procedure.

- Legend:
- o Green - Microphone Connector/mic bars
 - o Red - power cables
 - o Blue - Ethernet cables
 - o Orange - presentation cables

Microphone Connector cables from all mic bars and power/Ethernet from two outside legs - note routing through cable management slots

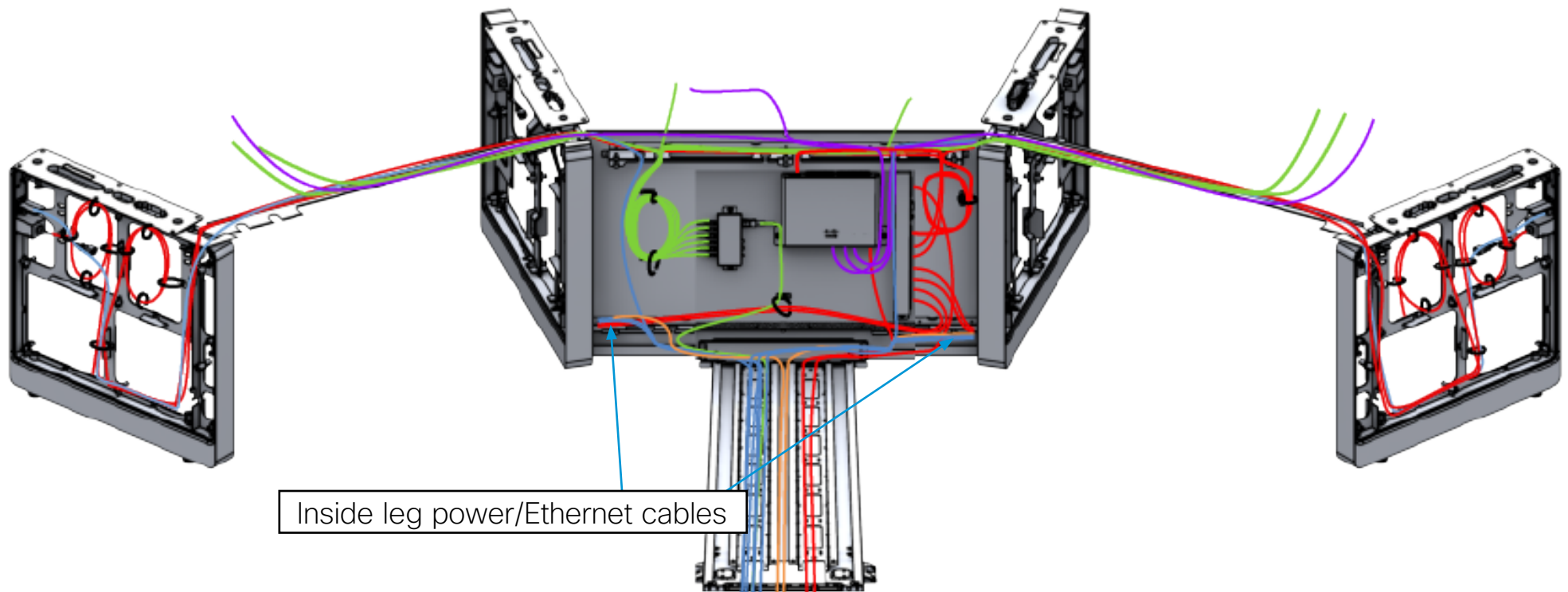
Power/Ethernet cables and presentation cables from two inside legs

All cables routing down to the cable runner must come from the sides - routing from the top could interfere with the installation of the cable runner cap

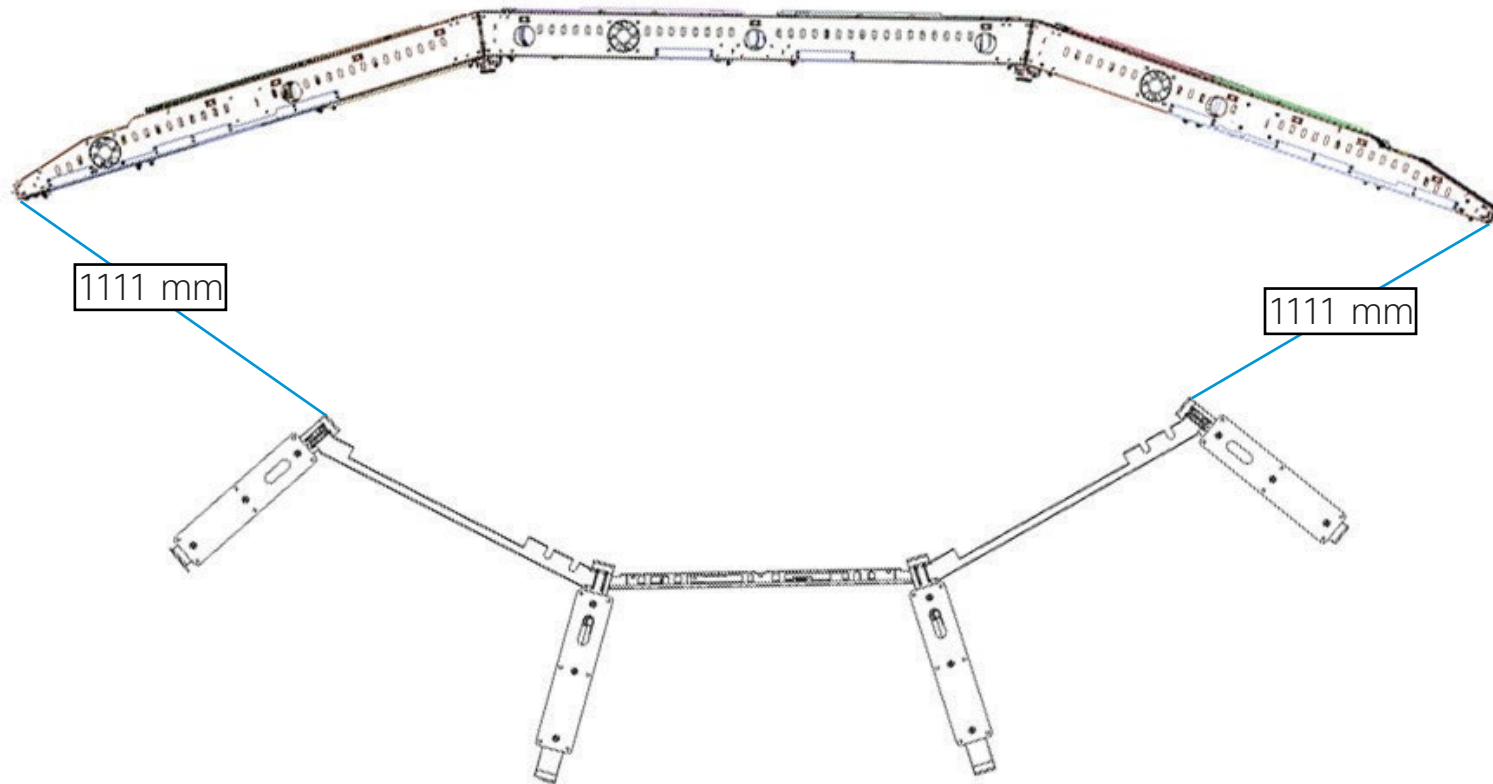


Additional cabling diagram provided here for clarity. Note that the number of Touch 10 cables will vary, depending on the number of Touch 10 devices (1 to 6 for the first row). **Caution: Failure to follow cabling directions can result in either the parts not fitting correctly, or electrical impedance issues.**

- Legend:
- o Green - Microphone Connector/mic bars
 - o Red - power cables
 - o Blue - Ethernet cables
 - o Orange - presentation cables



- 13 Level the system using the laser level, and measure the distance between the outside table legs and the edges of the display stands in the endpoint structure.



Cable Routing and Cable Diagrams

Cables - Codec

Host CPU codec cabling kit 69-2702-xx:

- o 2x DisplayPort-to-DisplayPort cable, 400mm, 72-100828-xx, DP2 and DP3
- o 1x DisplayPort-to-DisplayPort cable, 4 meter, 37-1544-xx AX1
- o 1x Ethernet cable, 4.27 meter, 37-1546-xx, EX1
- o 1x Jumper cable, 2 meter, 37-0994-xx, D22

Encoder/Decoder codec cabling kit 69-2704-xx:

- o 1x USB-to-USB cable, 2 Meter, 37-1538-xx USB1
- o 1x Jumper cable, 2 meter, 37-0994-xx D24

Cables - Speakers, Camera, and Lights

Speaker, light and camera cabling kit, 69-2668-xx:

- o 3x Light bar cables, 37-100748-xx, L1, L2, L3
- o 3x RCA Y cable for speaker 37-1557-xx L4, L4 R&L, L5, L5 R&L, L6, L6 R&L
- o 1x DisplayPort-to-DisplayPort cable, 2 meter, 37-1547-xx DP1

Note: Firmly connect the DisplayPort cable until it clicks into place.

Cables - Woofer

Woofer cabling kit 69-2673-xx includes:

- o Power Cord, 37-1331-xx, D21
- o 3.5mm Stereo Jack cable, 37-1539-xx, A28
- o USB cable, 37-1538-xx, USB2
- o Phone plug-to-terminal cable, 72-5653-xx, A29

42-Inch Display (Optional):

- o Power and DVI-to-HDMI cable for the display (included with display), H5 and D27
- o

- 1 Install the cabling for the codecs, PDUs, lights, speakers, woofer, and (optionally) the 42-inch display under the three main displays. The next few pages show the cable routing.

See the cable routing diagrams later in this section and at https://www.cisco.com/c/dam/en/us/td/docs/telepresence/ix5000/wiring_diagram/IX5000_WiringDiagram.pdf for the cabling connections. The color-coded designators next to the cable ends (L1, L2, L3, etc.) are shown on the previous page and correspond to the connections on the electrical unit (codecs, PDUs, lights, speakers, and woofer). Be sure to connect these on the correct side (for example, connect the side of the cable with the microphone icon to the microphones, and connect the side of the cable with the MC icon to the Microphone Connectors).

Caution: Do not plug any additional equipment that is not part of the IX5000 or IX5200 system into the PDUs, such as external 55-inch content monitors and document cameras.

NOTE: Since the light bars and camera are not yet installed, prepare these cables for installation using the following procedure:

- Lay the light cables atop the speakers (left, right, and center atop the endpoint structure).
- Lay the camera cable directly in the center of the endpoint structure between the speakers.

Tip: If you need more Velcro straps, cut them crosswise to make double the amount of straps.



Speaker

Left PDU and Woofer



Codec cabling (note iPass cable between Encoder/Decoder and Host CPU codecs).
Use Velcro cables as required.



Codec and cable runner
Power cable in the left-side channel, Ethernet cables in the right-side channel, Presentation cables in the center channel



Optional 42-inch display (use this as a guideline only - the cable runner cover will not be installed at this time)



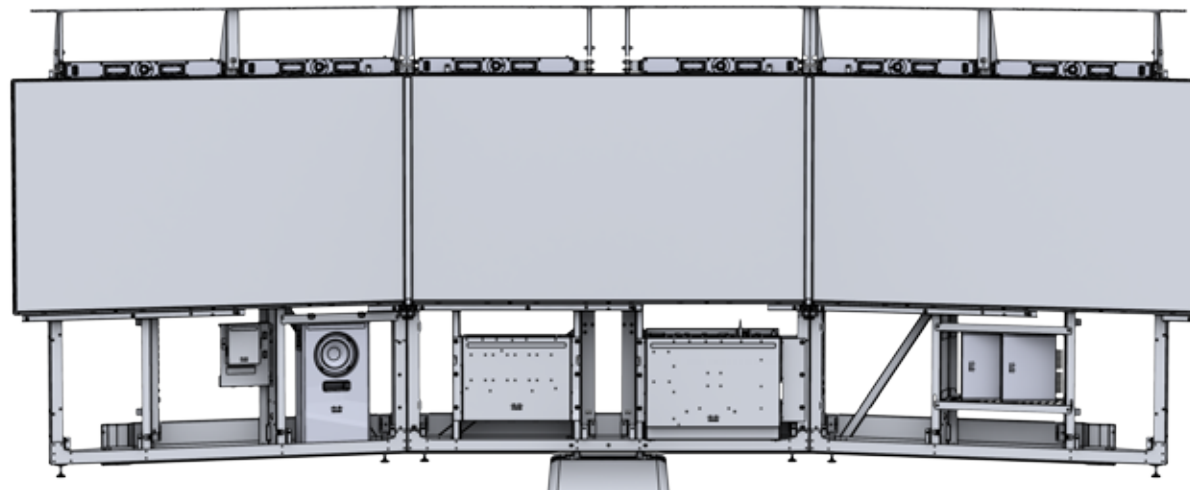
Installing and Cabling the Displays

Required Parts

- 3x Displays 74-12597-xx
- 6x Display Z-clips 3x 700-46232-xx and 3x 700-46233-xx
- 2x Display mounting spools 69-2625-xx
- 2x Silver M8 threaded studs 69-2625-xx
- 2x Silver M8 external tooth lock washers 69-2625-xx
- 2x Display brackets (no part number, included with the displays)
- 10x M6 display bracket screws (included with the displays)
- 2x Vertical bezel extrusions 800-41842-xx
- 10x M4 X 12mm screws 69-2797-xx
- 6x M4 X 6mm screws, black, 69-2625-xx
- Display cabling kit, 69-2678-xx includes the following cables:
 - o 3x power cord, 3 meter, 37-0833-xx
 - o 3x HDMI-to-DVI-D patch cord, 3 meter, 37-1387-xx

Required Tools

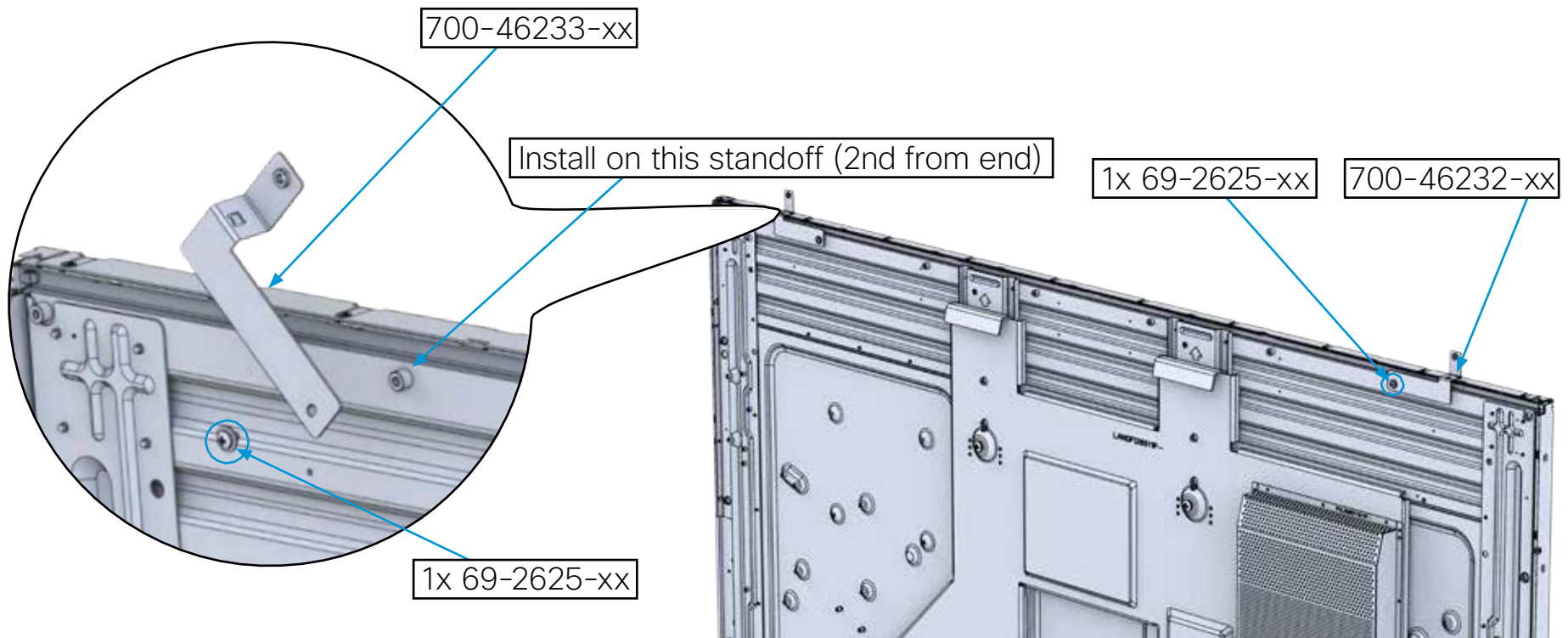
- o #2 Phillips driver
- o #3 Phillips driver
- o 13mm wrench or adjustable wrench
- o 19mm ratcheting box end wrench
- o Spirit or digital level
- o Gloves (recommended for display mounting because the vertical edge of the displays has a sharp edge)
- o 6mm T-handle hex driver



1 CAUTION: Use care and wear gloves when mounting the displays - the vertical outer edge of the displays has a sharp edge that can cause injury if the display slides through your hands.

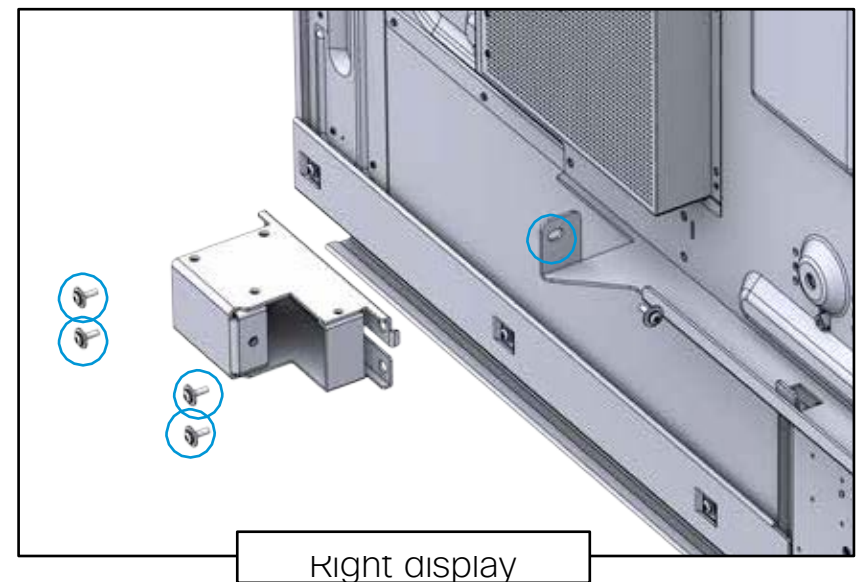
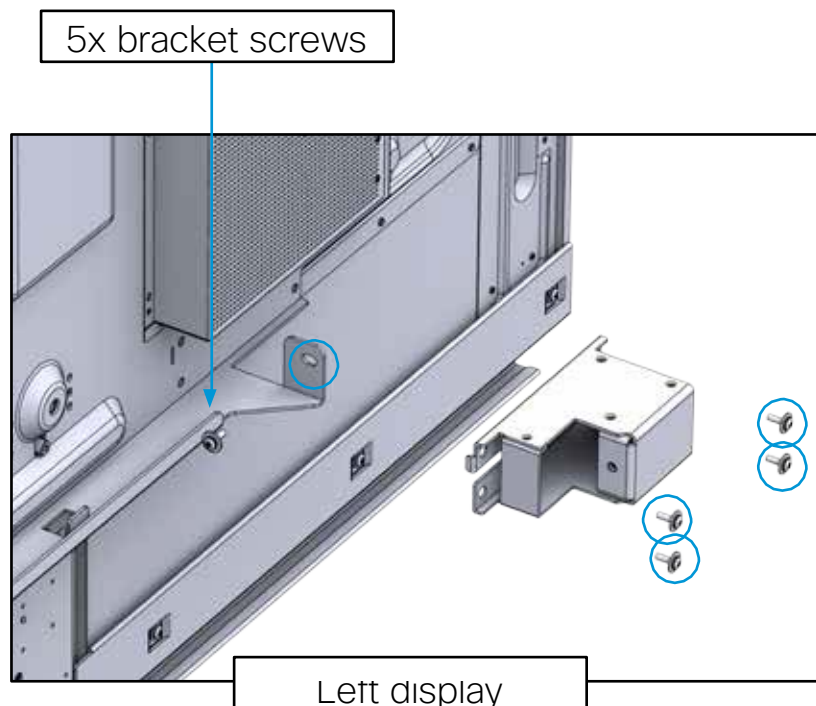
NOTE: Display assembly is different than the TX or CTS immersive systems, please read this section carefully before installation and follow all steps in the correct order.

Attach the Z-clips to the top of the displays. 700-46232-xx goes on the left side (when viewed from the FRONT of the display) and 700-46233-xx goes on the right. **a)** insert the 1x M4 X 6mm screw 69-2625-xx into the bracket finger-tight, **b)** peel off the adhesive tape backing on the bracket, **c)** press the bracket to the display, and **d)** tighten the 69-2625-xx screw with a #2 Phillips screwdriver. **e)** Repeat for all three displays.

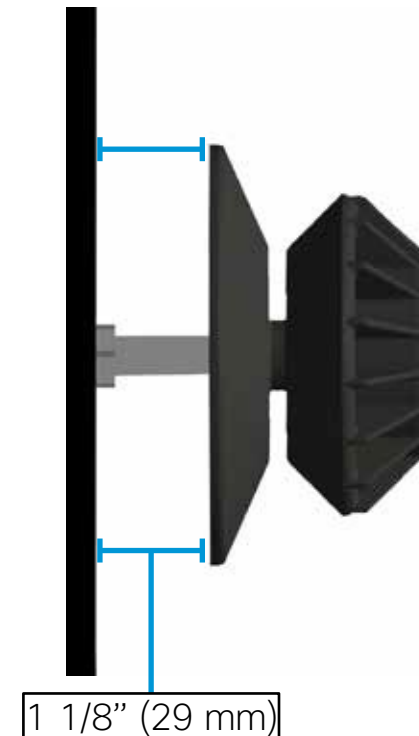
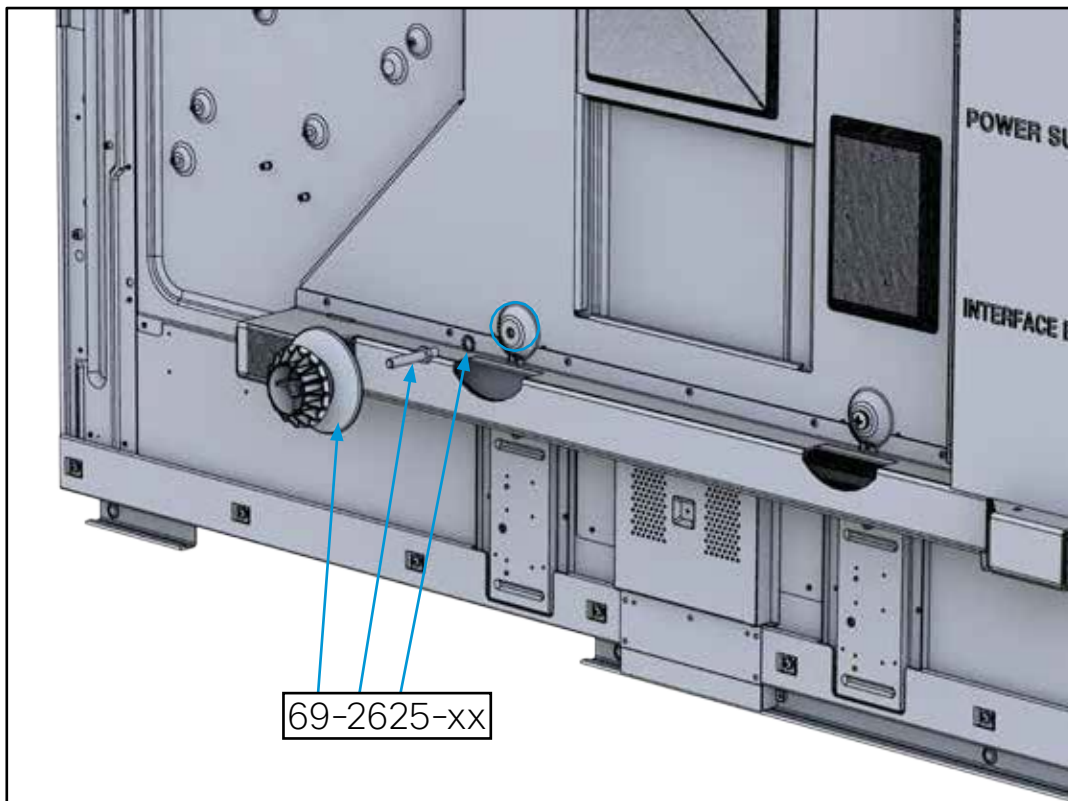


Installing Endpoint Structure Cables

- 2 Install the display brackets (included with the display) to the left and right displays with the 10 M6 screws included with the brackets using a #2 Phillips driver. Install the bracket on the left side for the left display and install the bracket on the right for the right display. **NOTE:** For this book, left and right are as viewed from the FRONT of the system, therefore left and right are reversed.

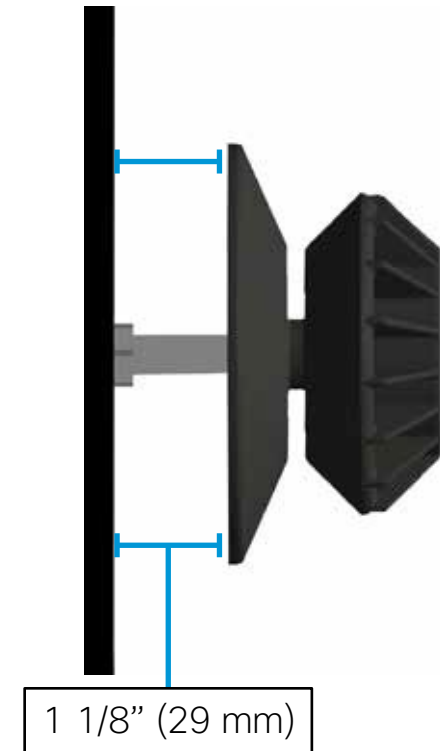
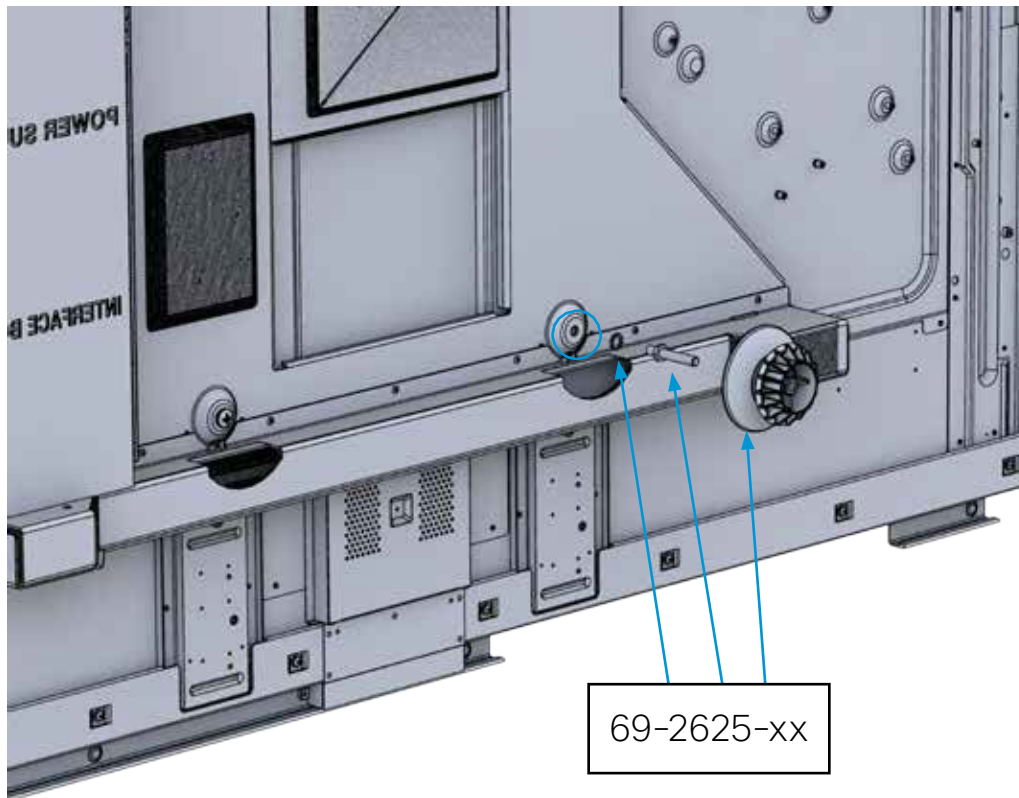


3 Insert the spool on the right display. **a.** remove one M8 screw on the lower right side (when viewed from the FRONT) of the display using a #3 Phillips driver. **b.** Install a silver M8 lock washer (part of 69-2625-xx) and an M8 stud (part of 69-2625-xx). **c.** Tighten the stud with a 13mm wrench. **d.** Install the spool (part of 69-2625-xx) on the threaded stud. **d. MAKE SURE THAT THERE IS 1 1/8 inch (29mm) distance between the spool and the rear of the display or you cannot install the display.**

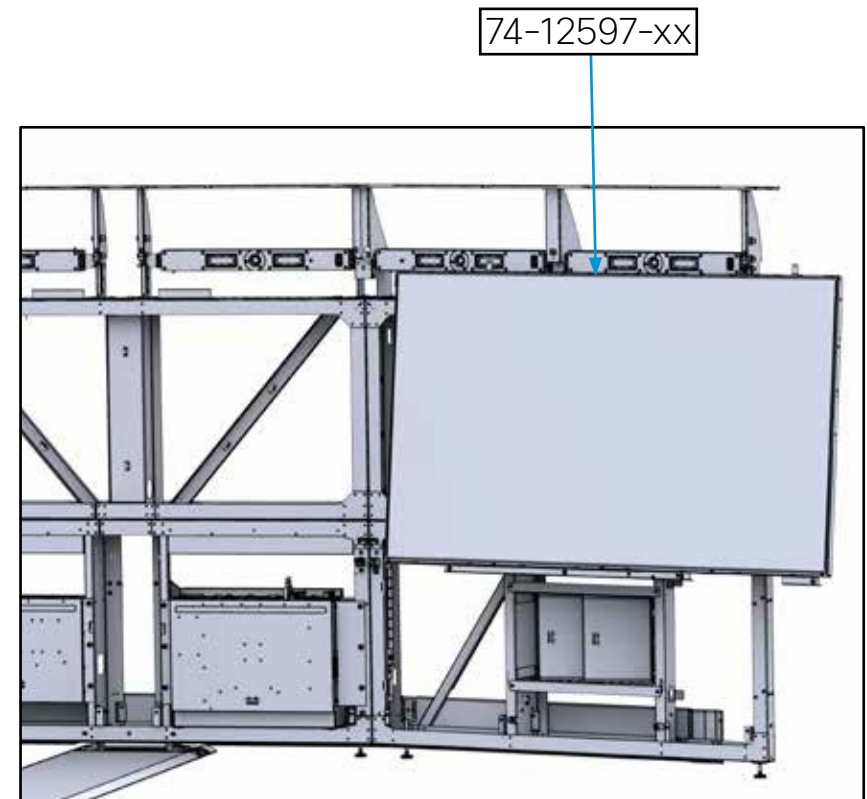
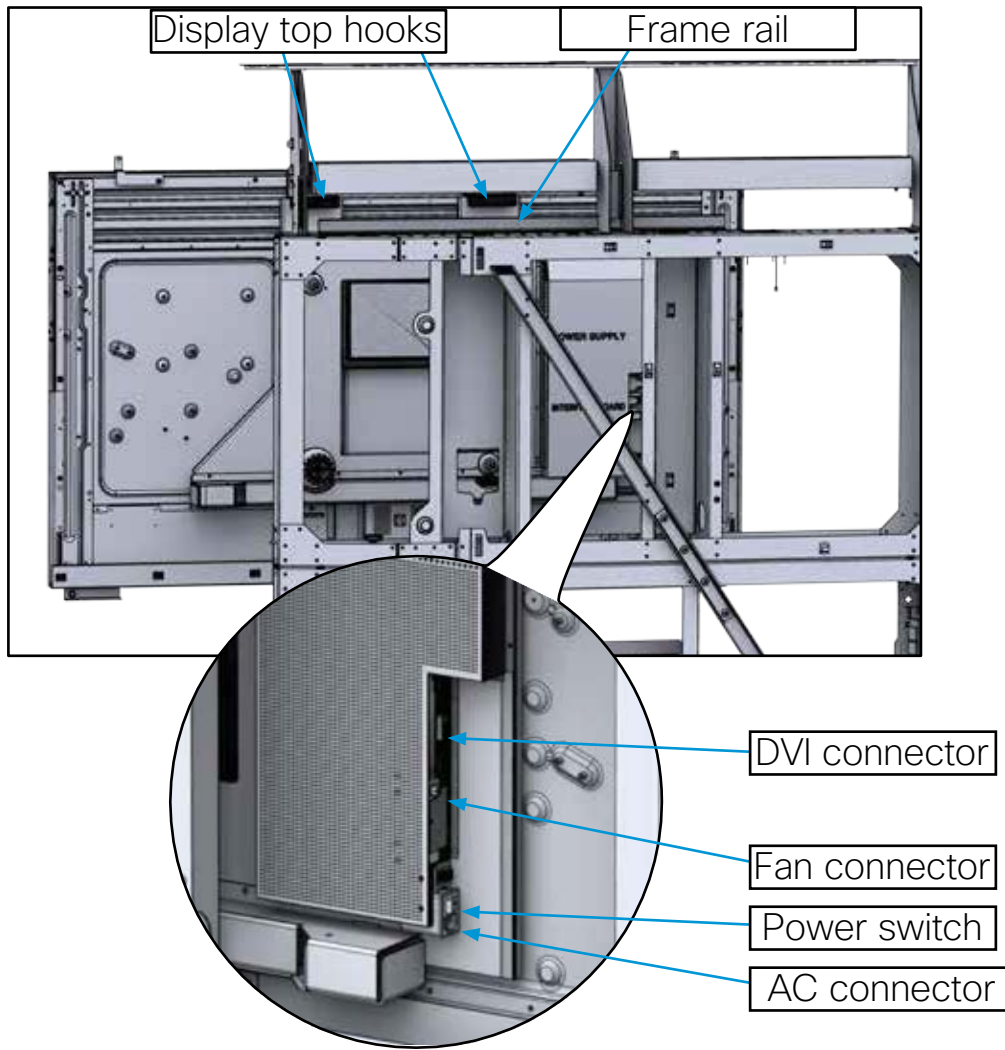


Installing Endpoint Structure Cables

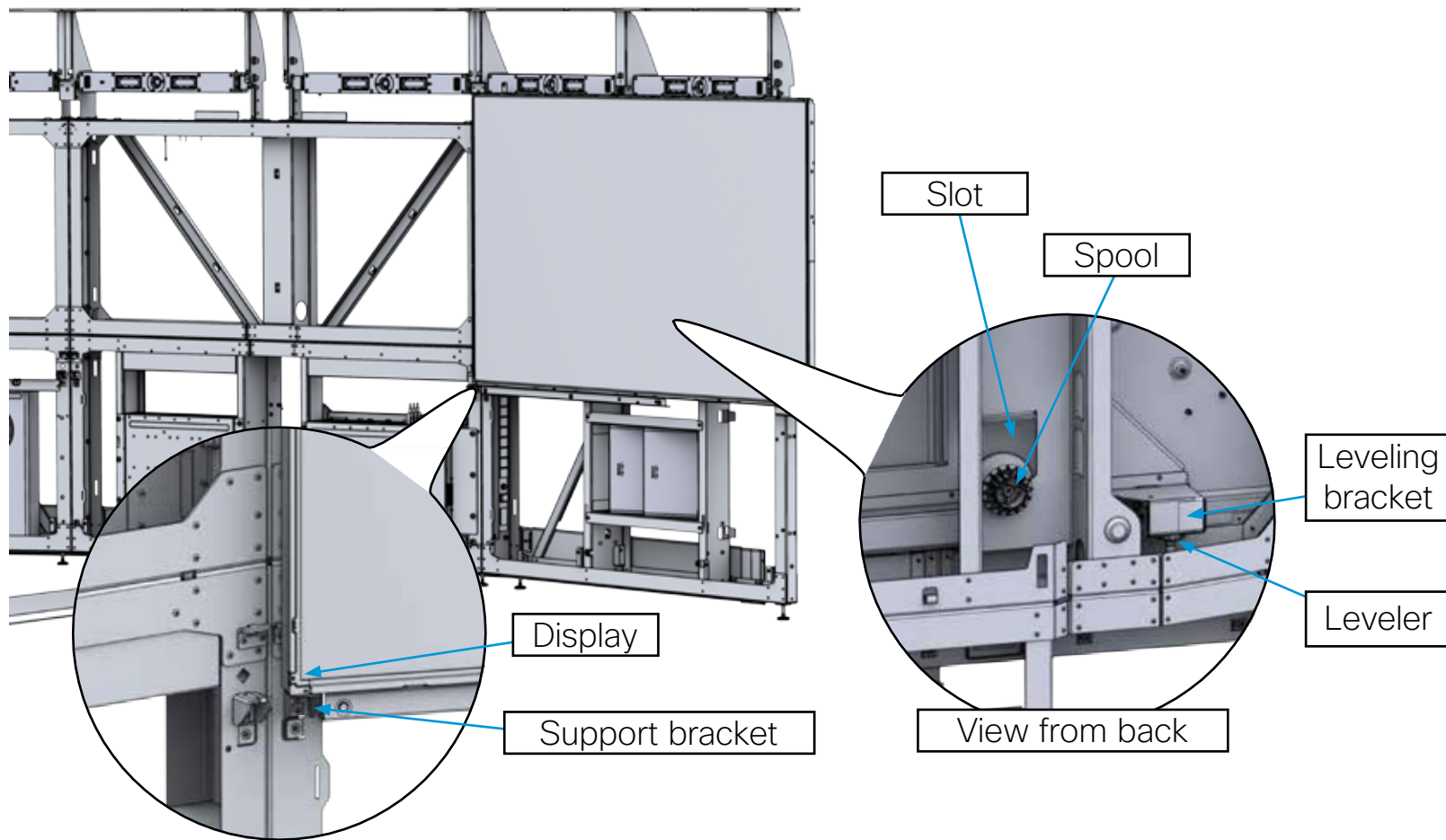
- 4 Insert the spool on the left display.** The procedure is the same as installing the spool on the right display, but you place the spool on the lower left side (when viewed from the FRONT) of the display, instead of the lower right. **Make sure that there is 1 1/8 inch (29mm) distance between the spool and the rear of the display for correct installation of the display.**



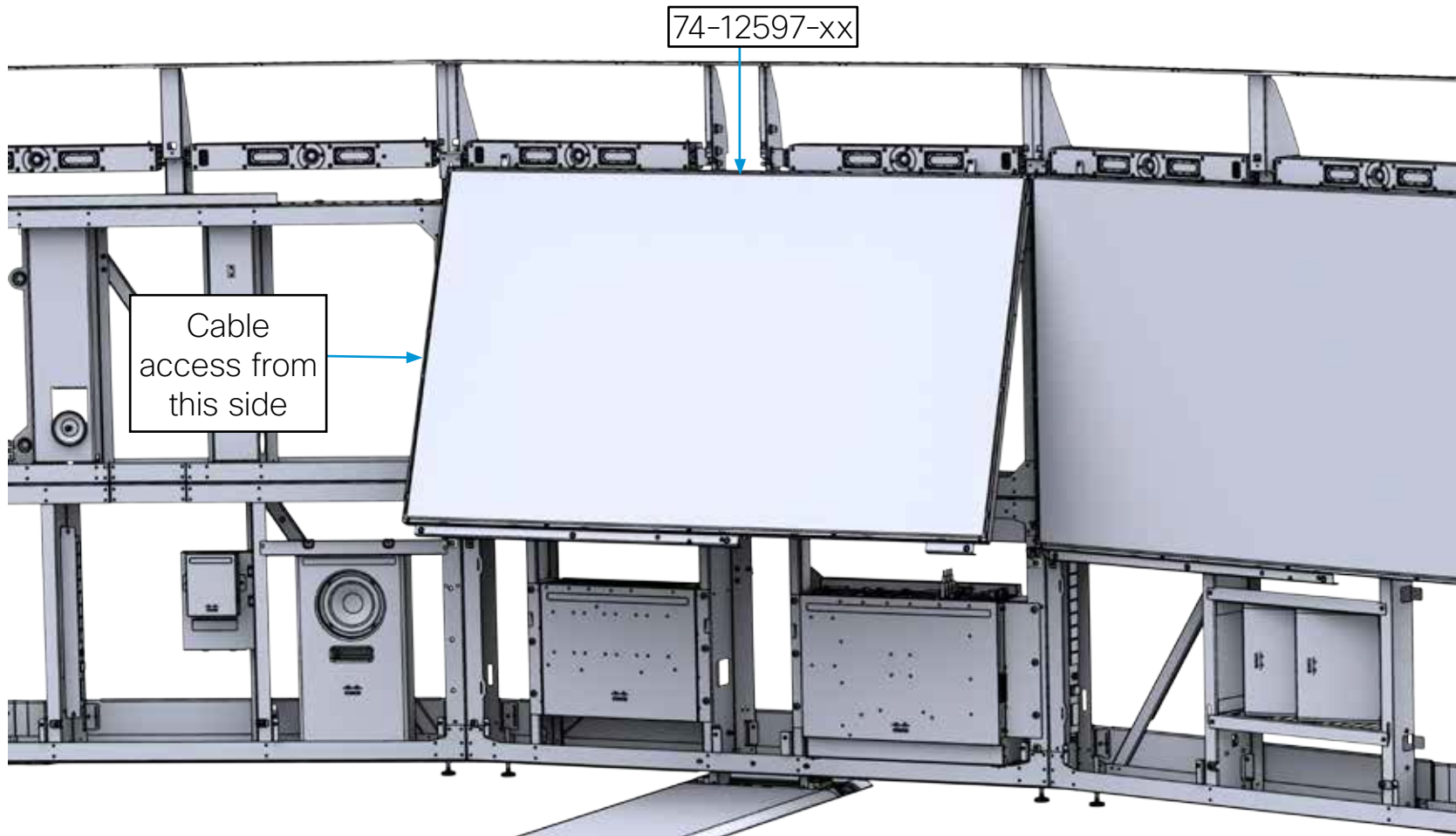
5a Temporarily hang the right display onto the frame rail of the structure using the top hooks. Connect the power, DVI, and fan cables. See page C-2 for the connections to the codec and PDU; the fan connects directly to the display. **TURN THE DISPLAY POWER SWITCH TO THE ON POSITION.**



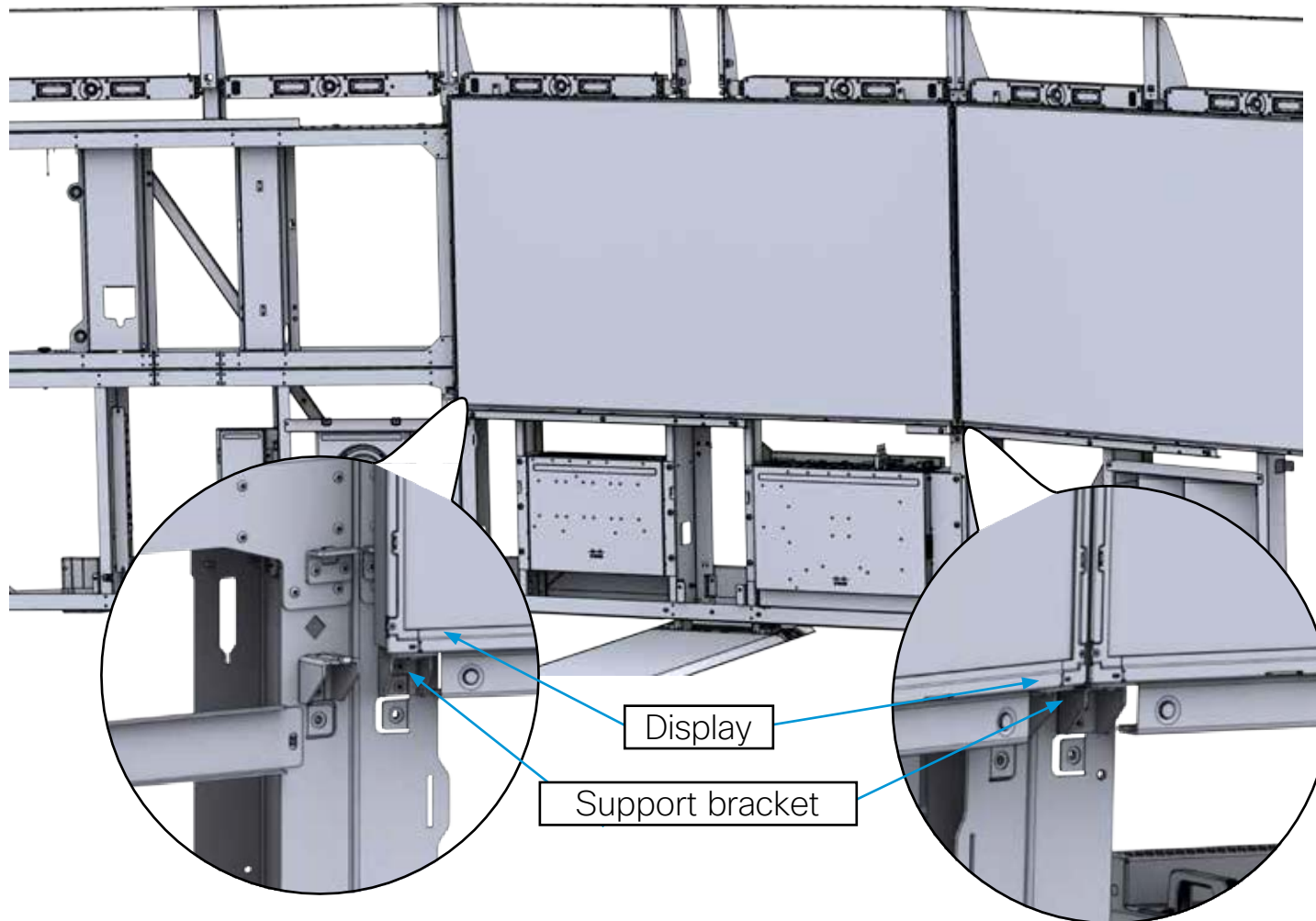
5b Move the right display into its installed position. Engage the spool in the slot in the frame, place the inner corner of the display on the support bracket, and place the leveling bracket on the leveler. Note that the display is **not** supported by the top hooks on the frame rail. **CAUTION: Do not pinch your hand between the display and the support bracket.**



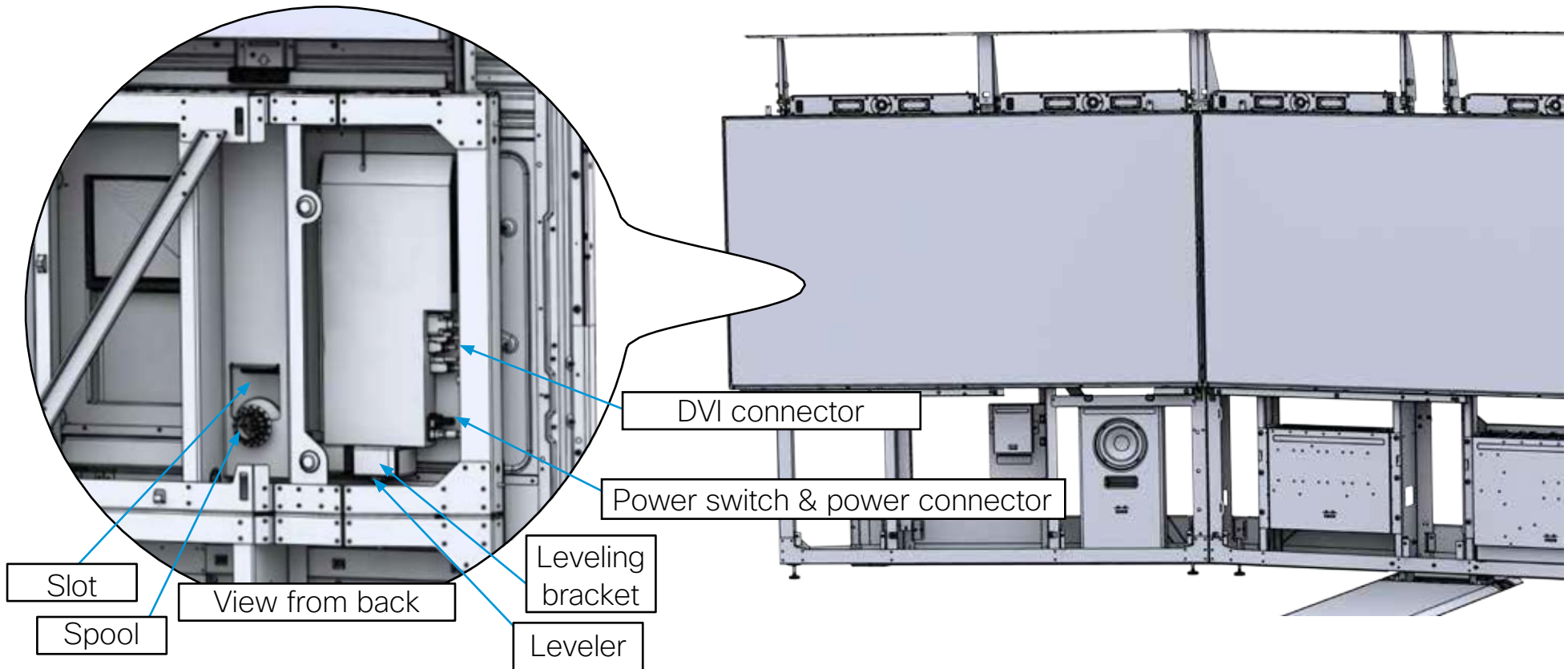
- 6a** Temporarily hang the center display using the top hooks and frame rail and rotate the frame out to connect the power, DVI, and fan cables. See page C-2 for the connections to the codec and PDU; the fan connects directly to the display. **TURN THE SWITCH FOR THE DISPLAY TO THE ON POSITION.**



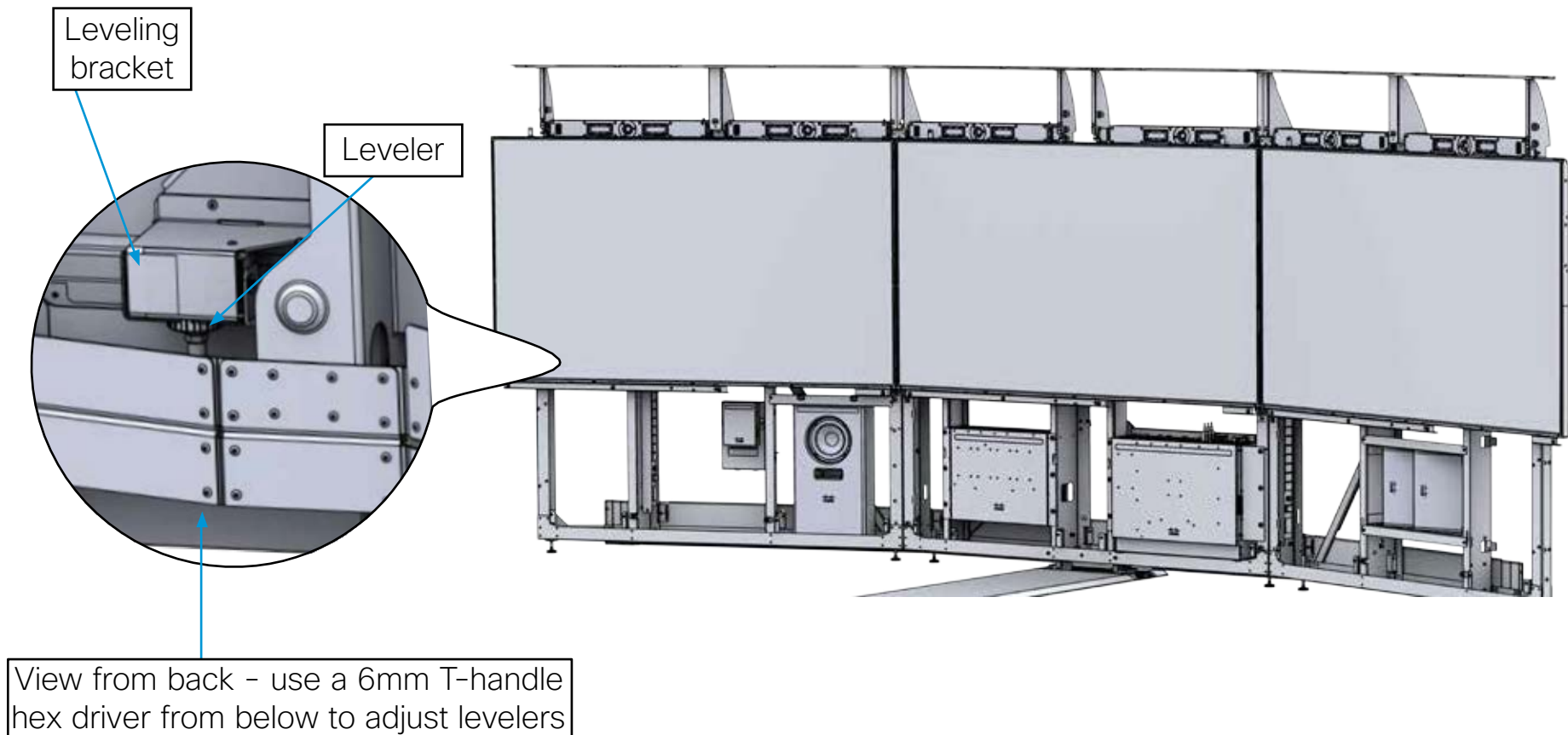
6b Move the center display into the display frame. **CAUTION: Do not pinch your hand between the display and the support brackets.**



7 Move the left display into its installed position and attach the power, DVI, and fan cables on the rear of the display. See page C-2 for the connections to the codec and PDU; the fan connects directly to the display. **TURN THE SWITCH FOR THE DISPLAY TO THE ON POSITION.** **CAUTION: Do not pinch your hand between the display and the support bracket.**



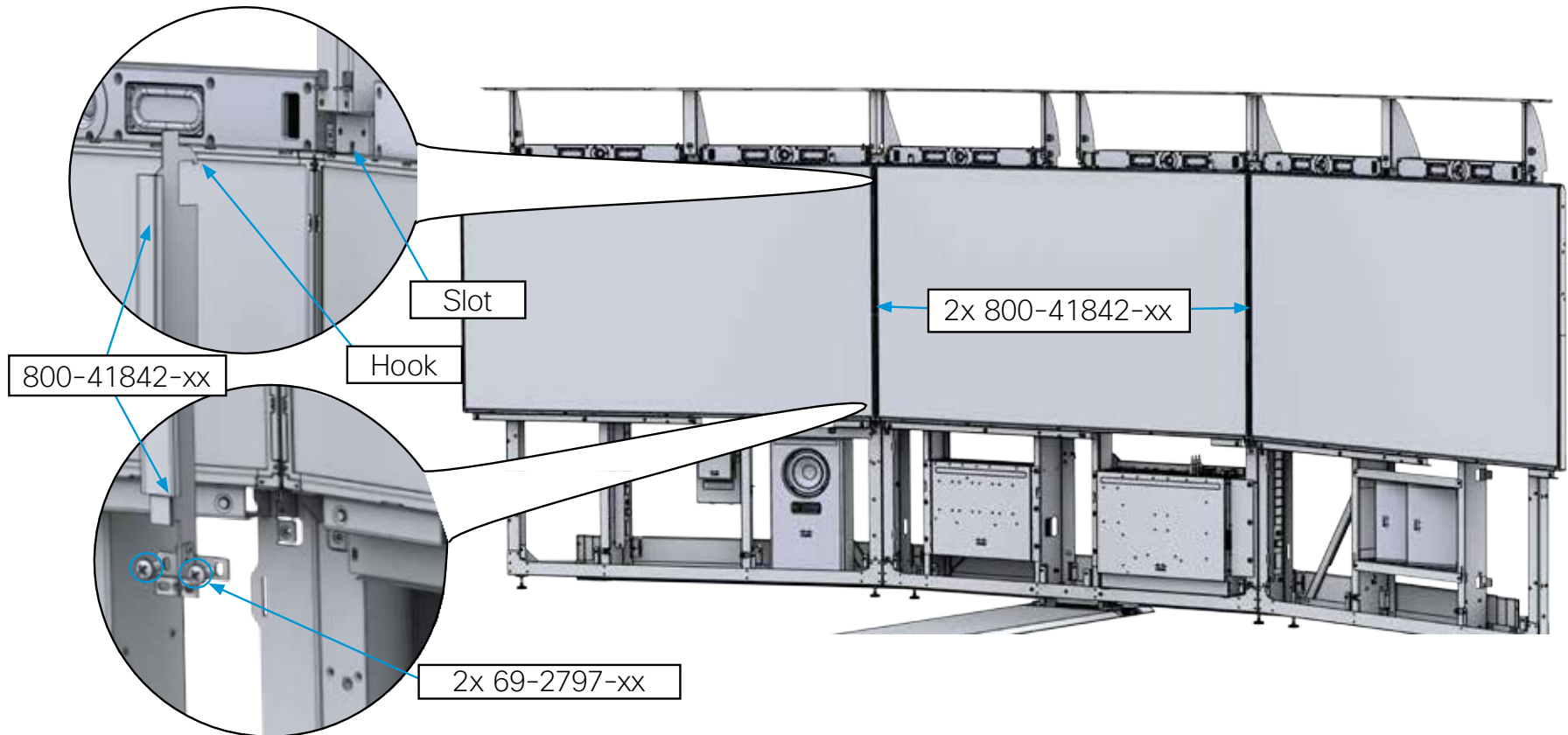
8 Level the displays and make the left and right displays vertically level with the center display. Use the left and right levelers to create an even gap between the left and center, and center and right, displays. Use a 6mm T-handle hex driver to turn the leveler from below (it has a socket in the end of the threaded stud). Tighten the lock nut on the levelers after you complete leveling.



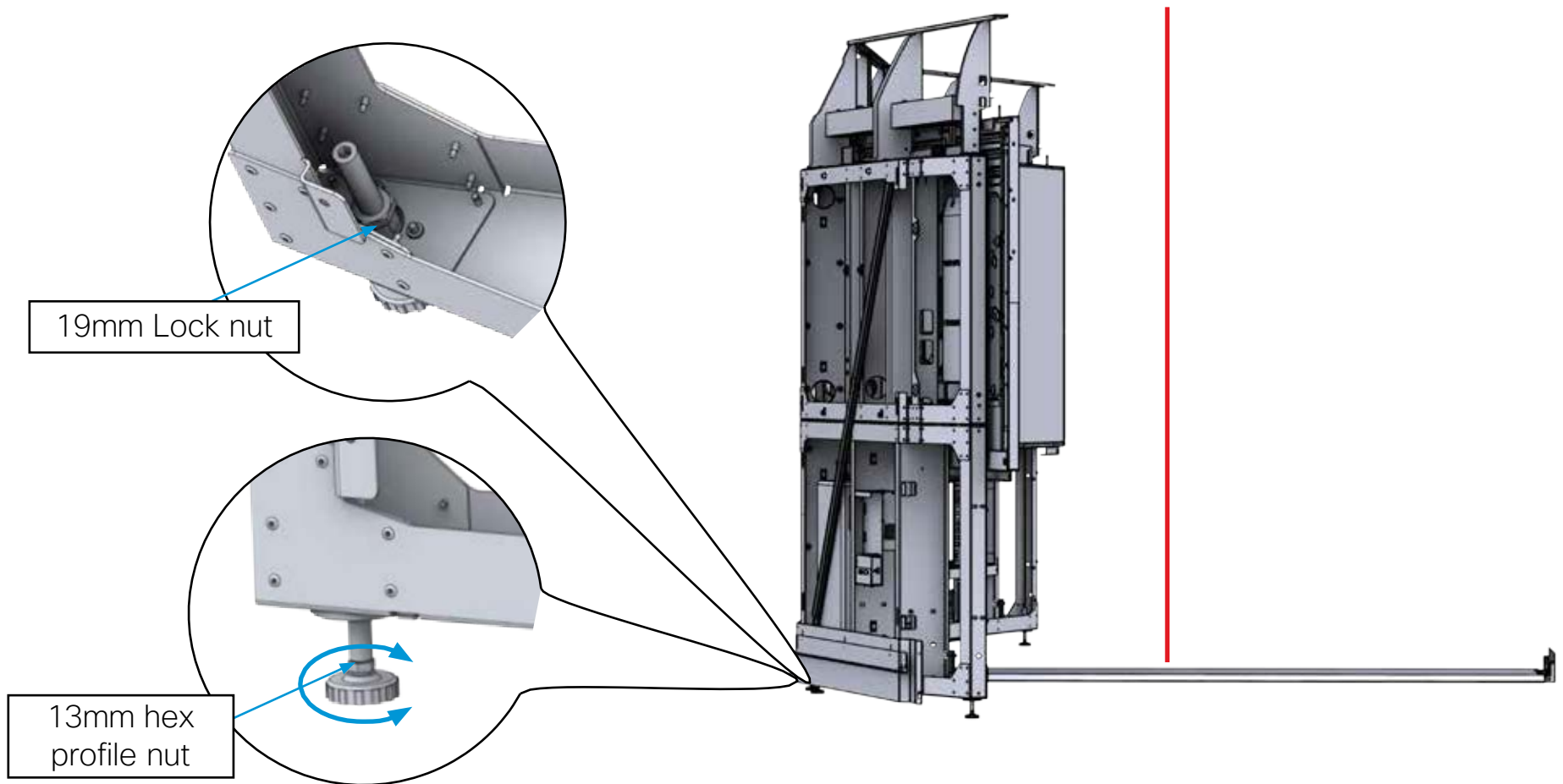
- 9 Remove the protective film from the displays by pulling the tape off in the directions shown by the arrows.



10 Install the 2x 800-41842-xx vertical bezel extrusions between the displays. **a.** Insert the extrusion center rib between the left and center displays, and insert the hook into the slot in the center pillar. **b.** Insert 4x M4x12 screws 69-2797-xx into the lower part of the extrusions (2x each per extrusion) and tighten the screws with a #2 Phillips driver. Do NOT use a power driver for this procedure and do not overtighten. **c.** Push the left and right displays from the sides towards the center against the extrusions to take up any gaps. Leave the film on the front of the displays.



11 Check that the system is plumb using a spirit or digital level. Adjust the two outer feet as needed using a 13mm open-end wrench or adjustable wrench on the hex profile above the foot base. **Make sure that all six feet are touching the floor** and tighten the locknuts on all six feet using a 19mm ratcheting box wrench.



Installing the Camera and Light Panels

Required Parts

Camera:

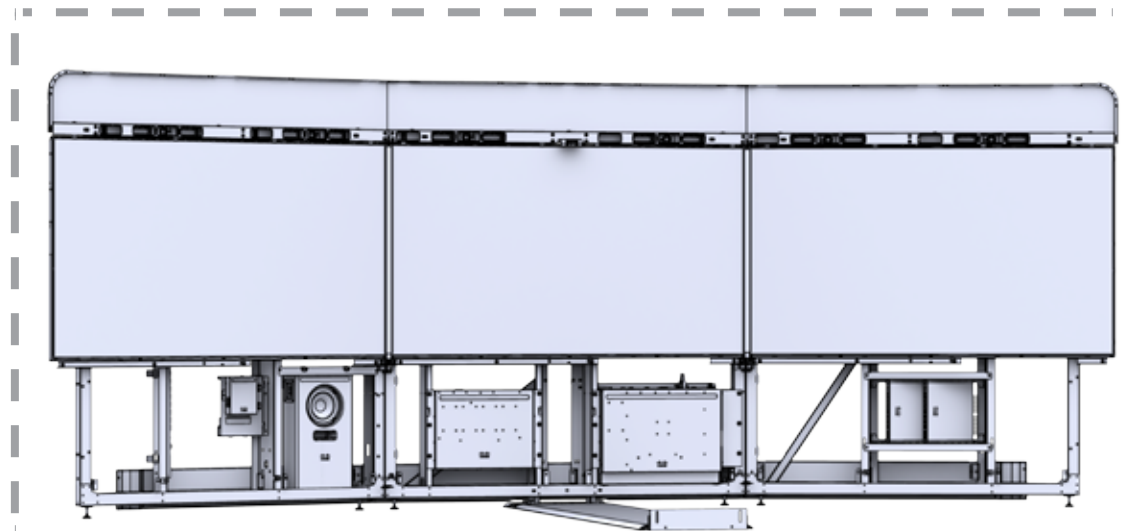
- o 1x Camera 74-12203-xx

Light Bars:

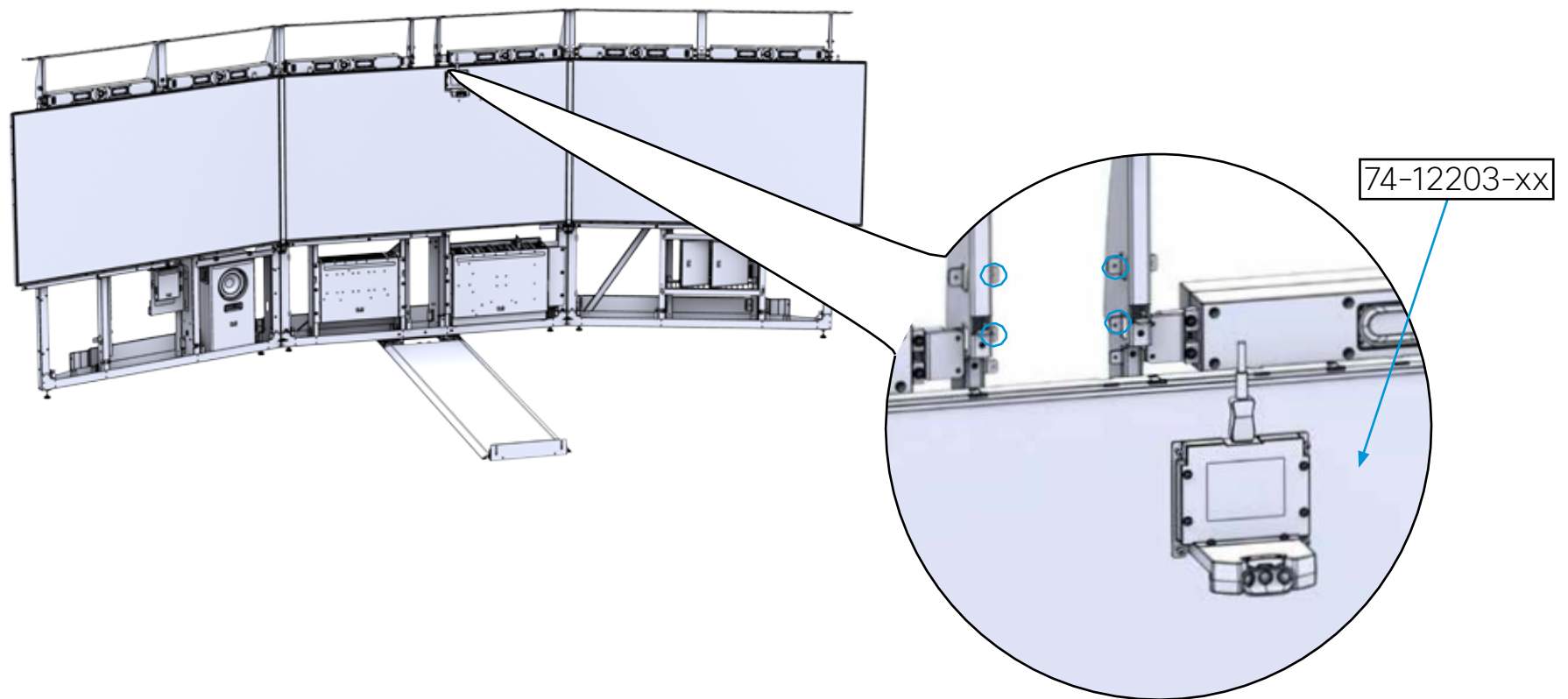
- o 1x each left, center, and right light panels (3x 74-12235-xx)
- o 1x each left, center, and right speaker cover (700-46597-xx, 700-46596-xx, and 700-46595-xx respectively)
- o 1x each left and right fascia corner braces (700-46598-xx left, 700-46594-xx right)
- o 8x black M4x12mm screw with external lock washer 69-2797-xx

Required Tools

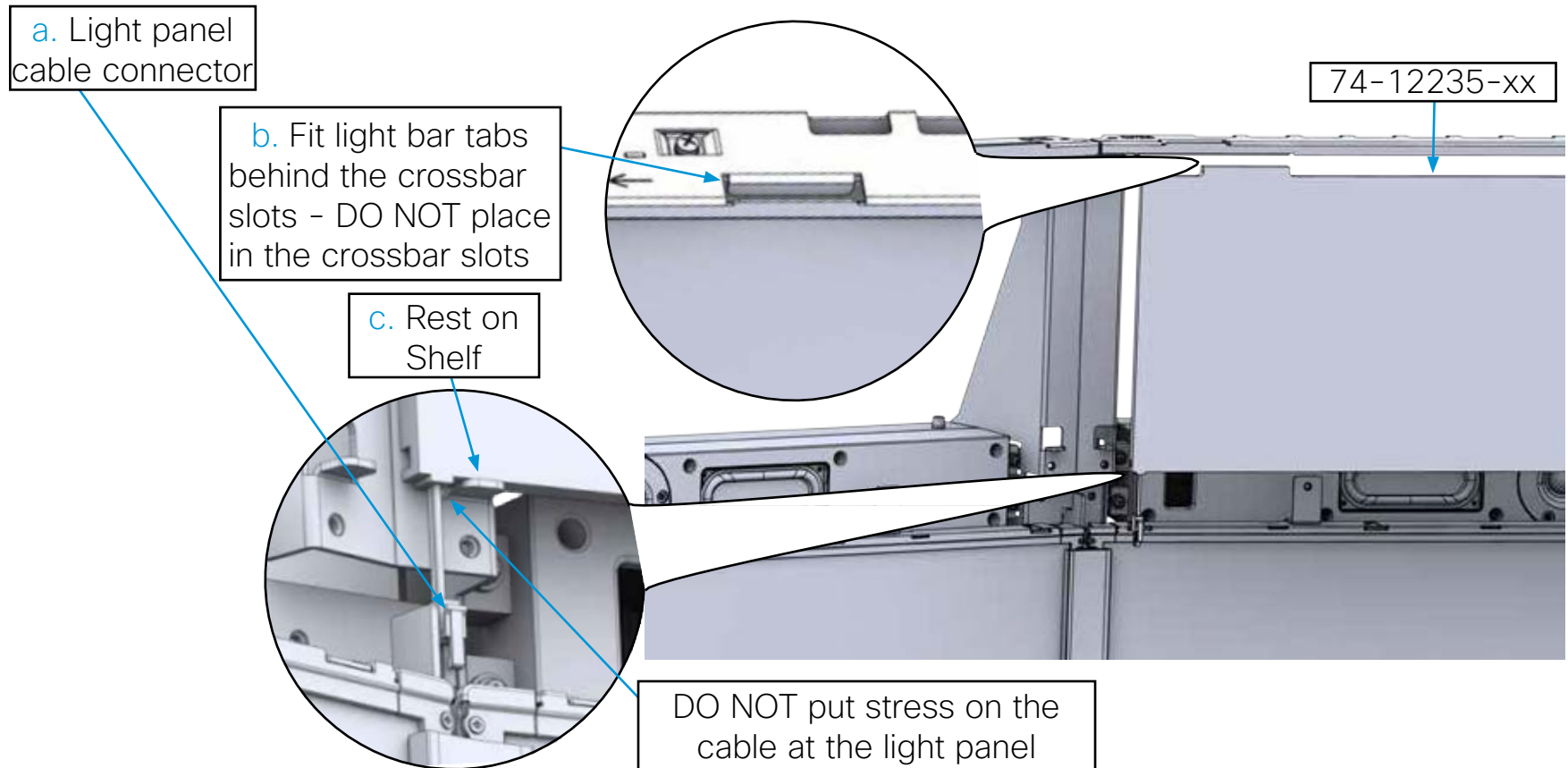
- o #2 Phillips driver



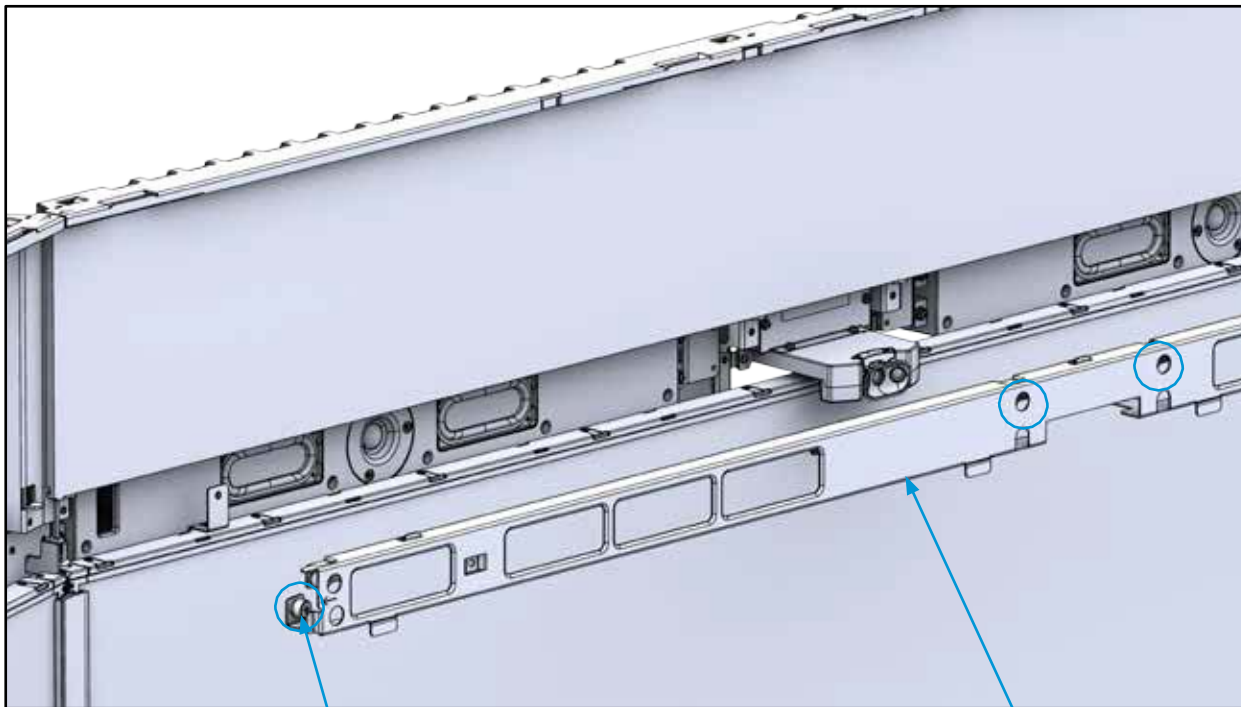
- Attach the camera 74-12203-xx to the vertical structure supports of the endpoint structure. The screws are pre-attached to the camera.
 - Attach the DisplayPort Cable to the port at the top of camera housing.



2 Attach the light panels. **a.** Connect the cable connectors between the center light panel (part of 74-12235-xx) and the cable between the light bar and codec (already installed in the endpoint structure). **Do not put stress on the cable connection**, as it can break the connection inside the light bar. **b.** Lift the panel into position and fit the tabs on top of the light panel behind the tabs in the center horizontal crossbar. **Do not place the light bar tabs into the crossbar slots.** **c.** Swing the bottom of the light panel inward so it sits on the small shelf on the pillar. Visually center the light panel in the frame. **DO NOT** allow the panel to fall during this procedure.

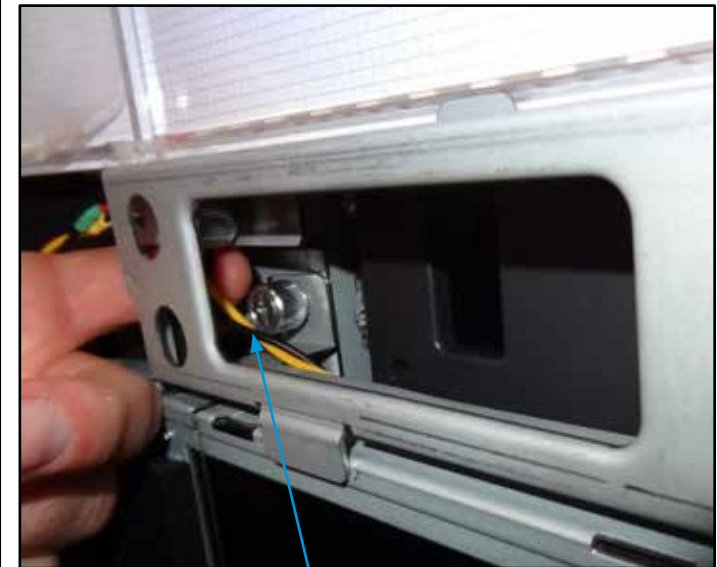


3 Install the center speaker cover 700-46596-xx and attach the cover to the endpoint structure using the 4x captive Phillips screws. The cover fits under the small shelf on the pillar. Be careful to not pinch the light wire as shown in the below picture.



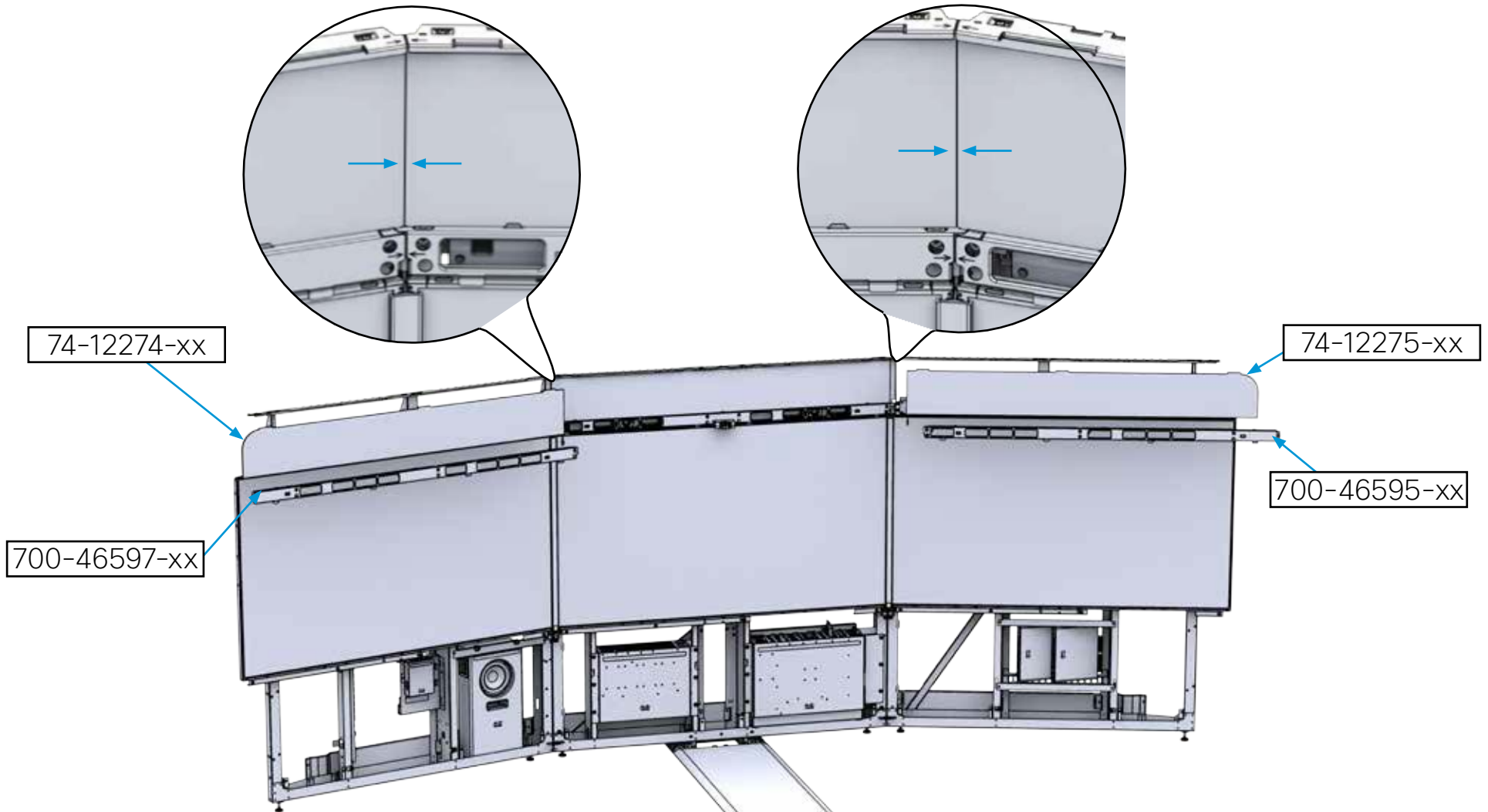
4x Captive Screws

700-46596-xx

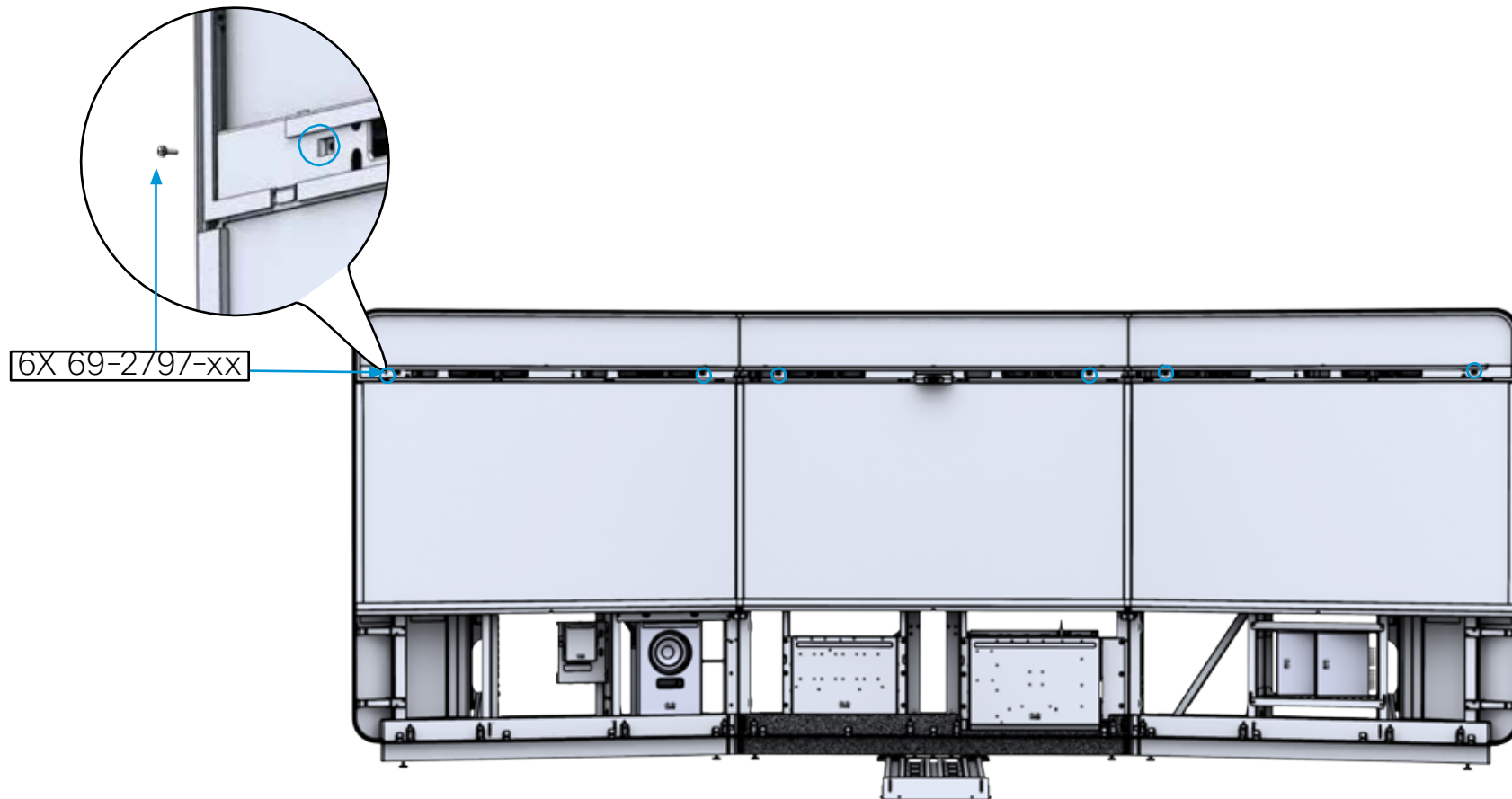


Do not pinch cable

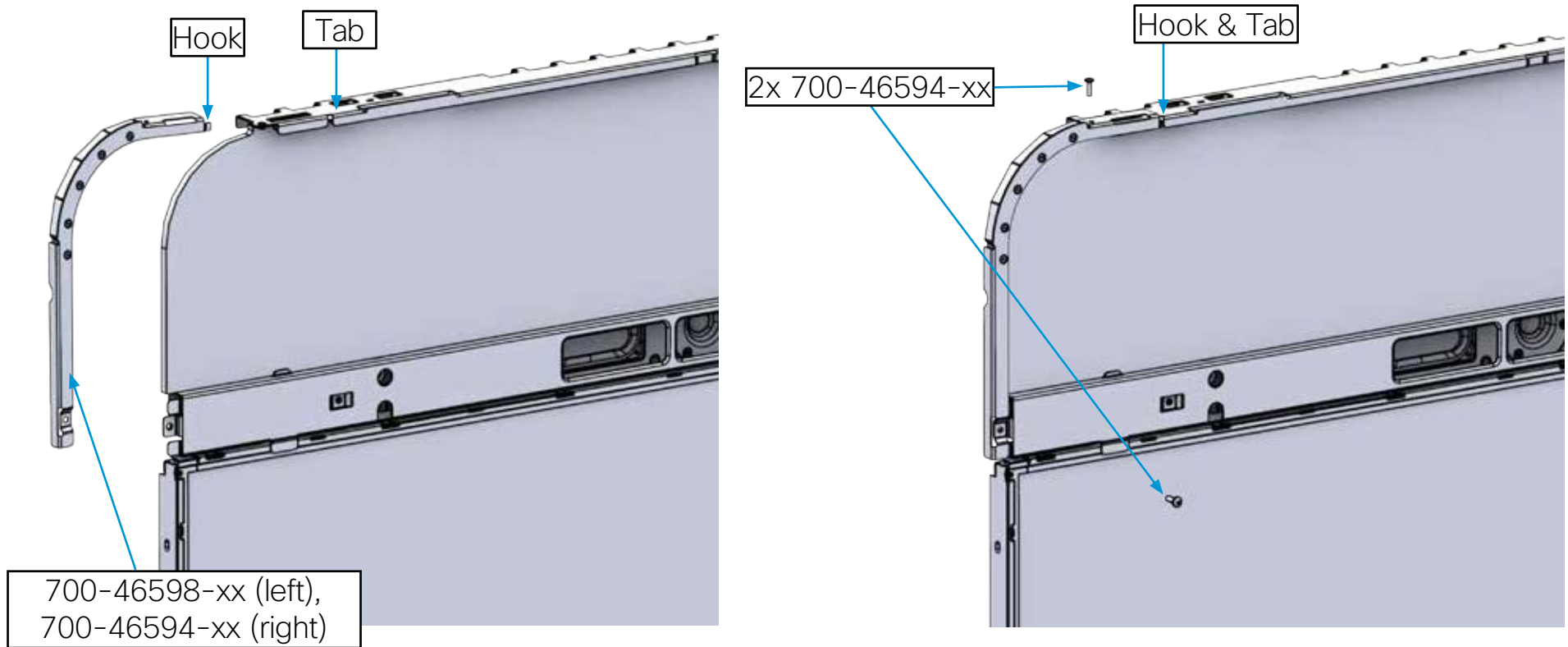
4 Install the left light panel (part of 74-12235-xx) and left speaker cover 700-46597-xx, then the right light panel (part of 74-12235-xx) and right speaker cover 700-46595-xx using the same procedure as the center speaker cover and light panel. After installation, make sure that the edges of the panels touch.



5 Install 6x Black M4 X 12mm screws 69-2797-xx into the recessed holes in the speaker covers. Make sure that the screws thread into the threaded holes behind the covers. Install the 2x screws for the left display first, then 2x center screws, then 2x right. **Note:** If the screws do not align with the threaded holes, DO NOT place a screwdriver or other object into the hole to align them. Raise or lower the displays using the display levelers from the rear of the system to align the holes.



6 Insert the hook of the left fascia corner brace 700-46598-xx into the tab in the horizontal crossbar, then rotate the brace into position and attach the brace to the endpoint structure using 2x M4 screws 69-2797-xx. Repeat for the right fascia corner brace 700-46594-xx.



Installing the Front Kick Plates

Required Parts

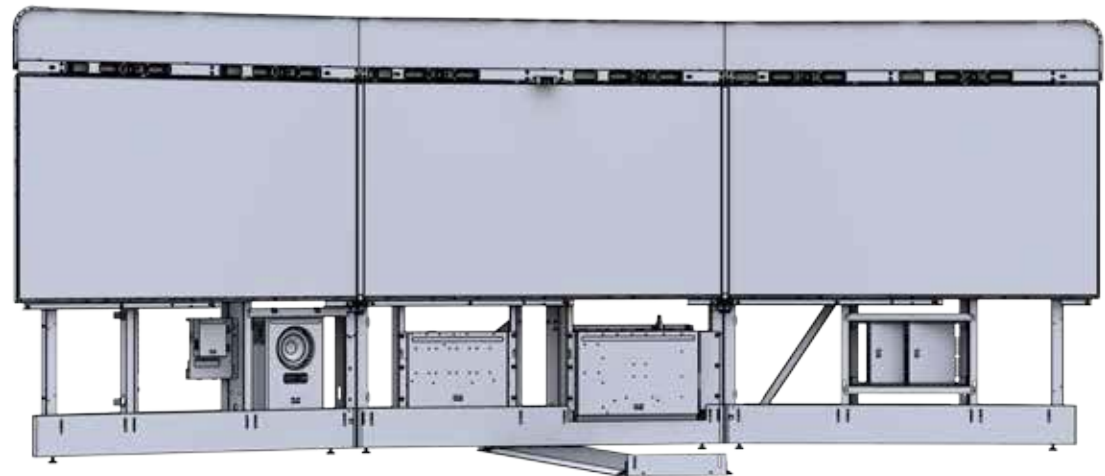
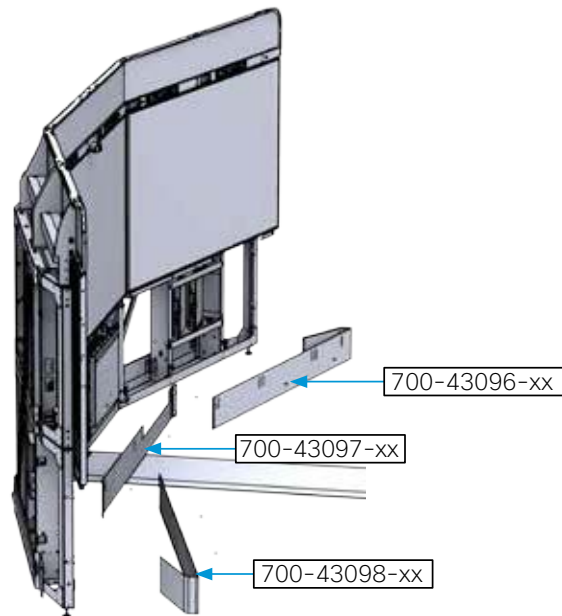
Front kick plates:

- Left, center, and right front kick plates (700-43097-xx center, 700-43098-xx left, 700-43096-xx right)
- 1x Cardboard spacer *no part number, attached to the cable runner base*
- 5x black M4x12mm screw 69-2797-xx

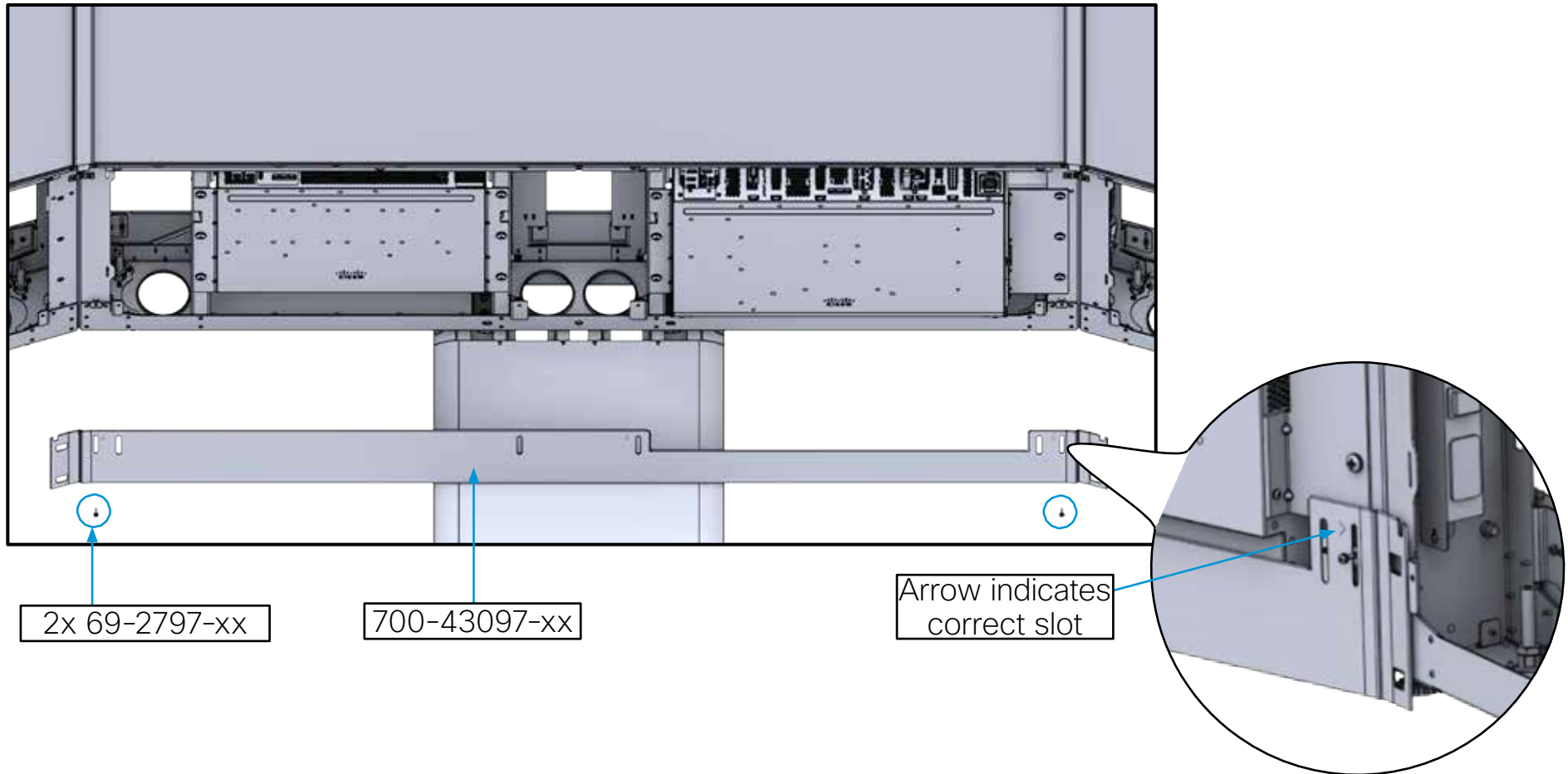
Required Tools

- #2 Phillips driver

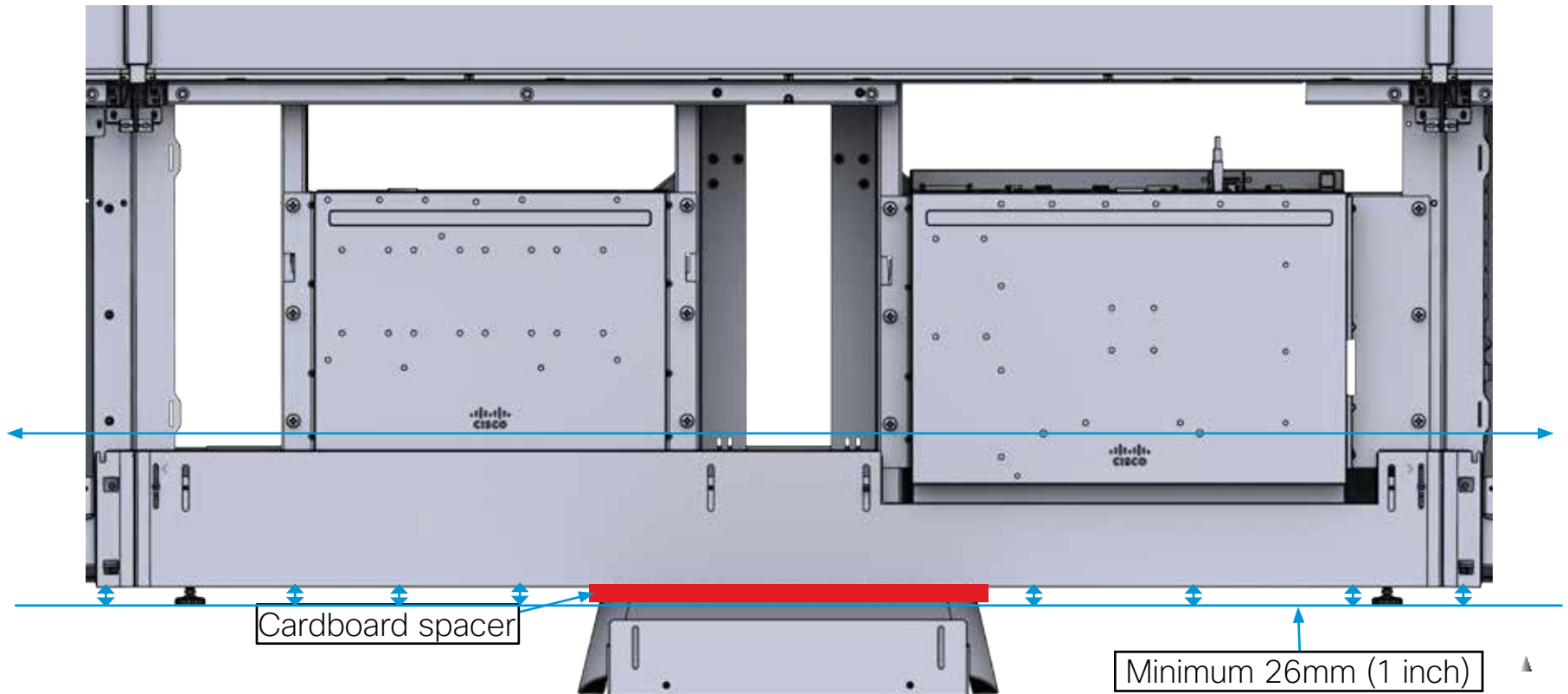
NOTE: Make sure that all cabling between the endpoint structure and the front row table is complete before you install the front kick plates.



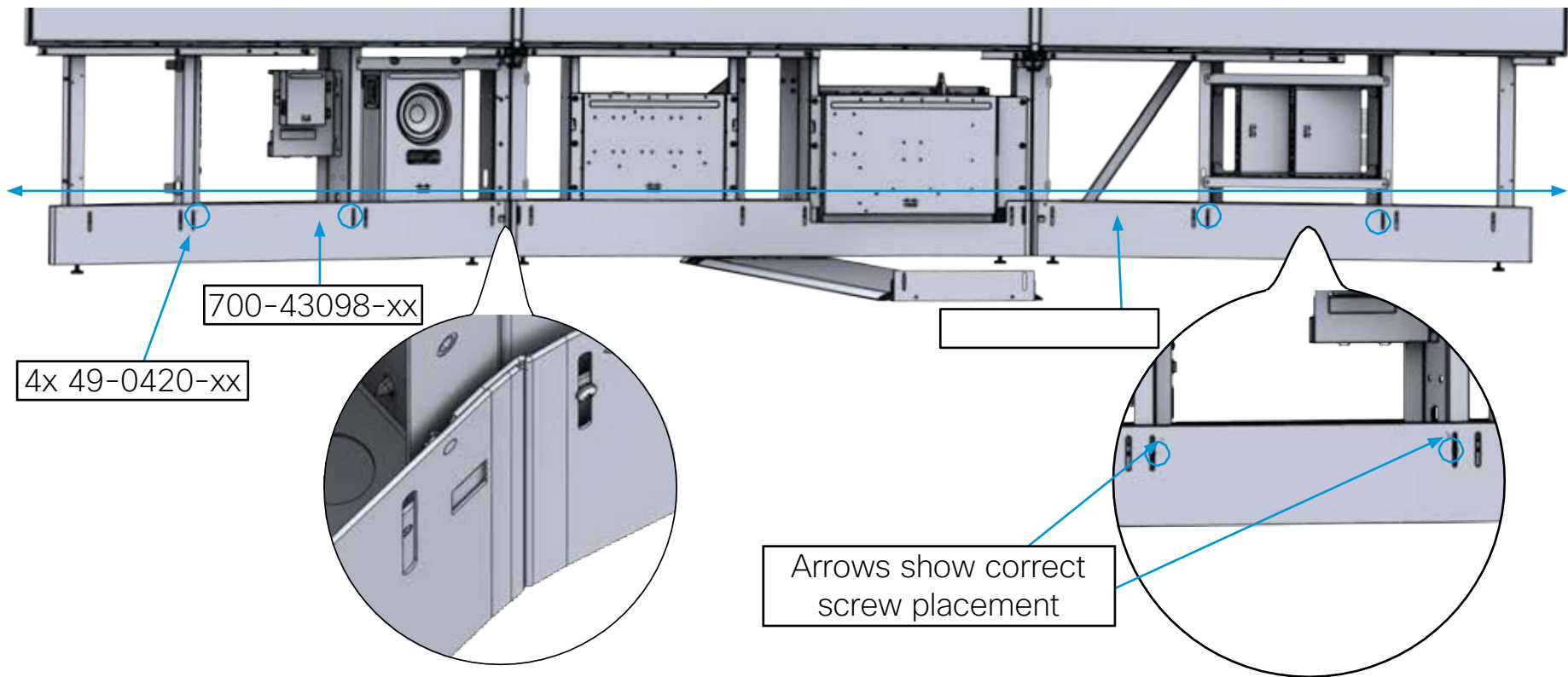
1a Install the front center kick plate 700-43097-xx. **a.** Fit the center kick plate to the frame, placing the cardboard spacer under it. **b.** Attach, but do not tighten, 2x black M4x12mm screws 69-2797-xx into the center of the slot. Note the arrow that indicates the correct slot for the screw.



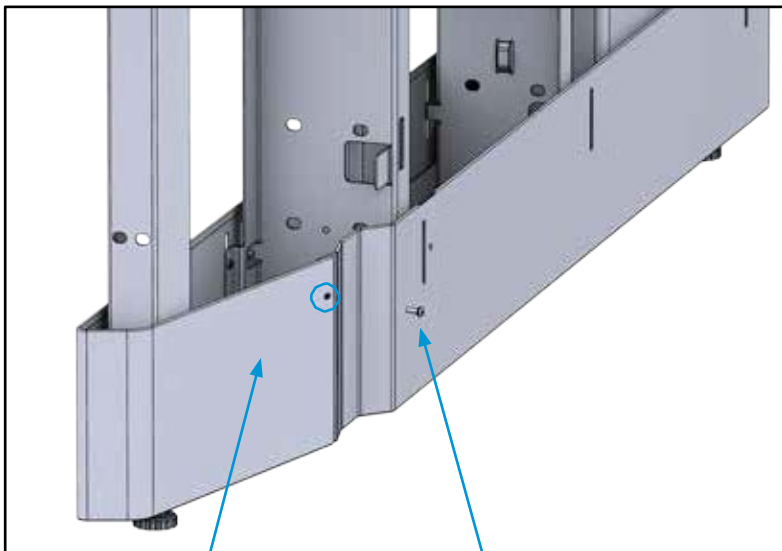
1b c. Place the cardboard spacer between the cable runner and the front kick plate and level the front kick plate using a spirit level. Make sure that the front kick plate is a minimum of 26mm above the highest point on the floor (either left or right). d. Tighten the 2x black M4x12mm screws 69-2797-xx, remove the spacer, and recheck the minimum 26mm of clearance.



2a Attach the front left and right kick plates 700-43098-xx and 700-43096-xx. **a.** Hook the pin on the side kick plates over the alignment notch in the front center kick plate and connect the hooks in the side kick plate to the retention slots in the center kick plate. Support the free end until the remaining screws are installed. **b.** Using a spirit level, level the outside edge of the front left kick plate (700-43098-xx) with the front center kick plate. **c.** Install and tighten 4x black M4x12mm screws 49-0420-xx (2 for each kick plate). Note the arrows on the kick plates that show the correct screw placement.

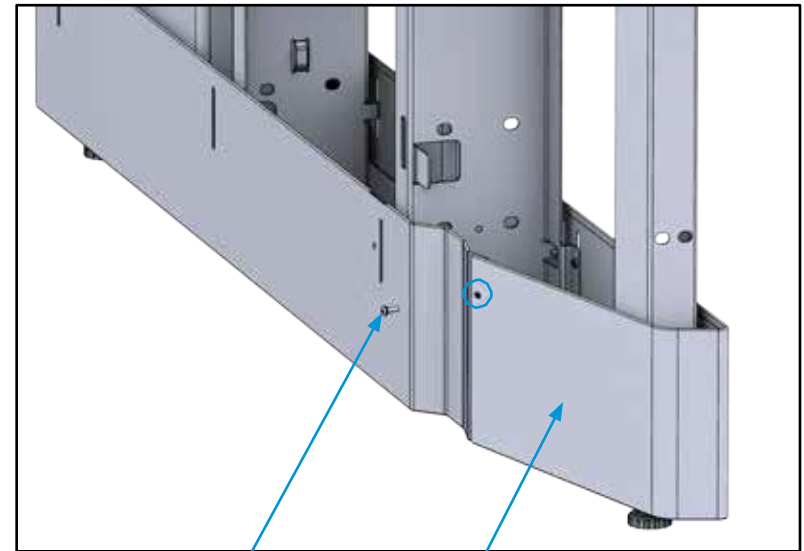


2b Install and tighten 1x black M4x12mm screw 69-2797-xx to connect the front left kick panel 700-43098-xx to the rear kick plate. Re-adjust the rear kick plate to align the screw hole if needed. Repeat for the right side front kick plate 700-43096-xx.



700-43096-xx

69-2797-xx



69-2797-xx

700-43098-xx

Installing the Front Row Tabletops

Required Parts

1x each Tabletops A, B, and C (700-42477-xx, 700-42476-xx, and 700-42478-xx)

8x Biscuit Joiner, 700-23909-xx

4x Half Moon Bolt, M6 x 80mm, 51-6068-xx

4x Joint Plate, 700-23345-xx

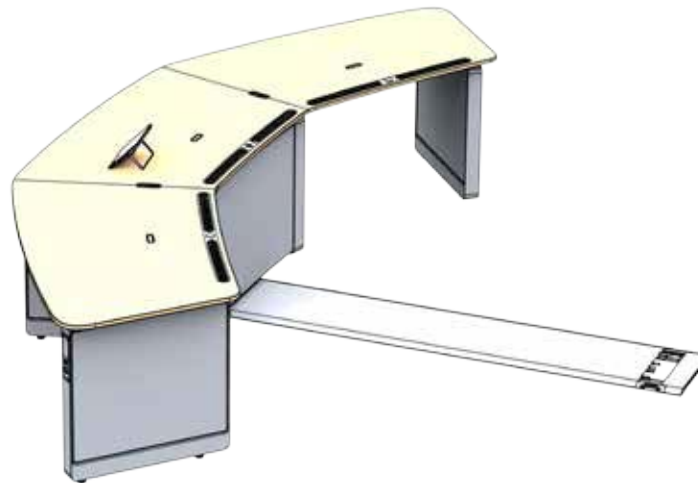
48x M8 x 16mm screws, black 69-2792-xx



Required Tools

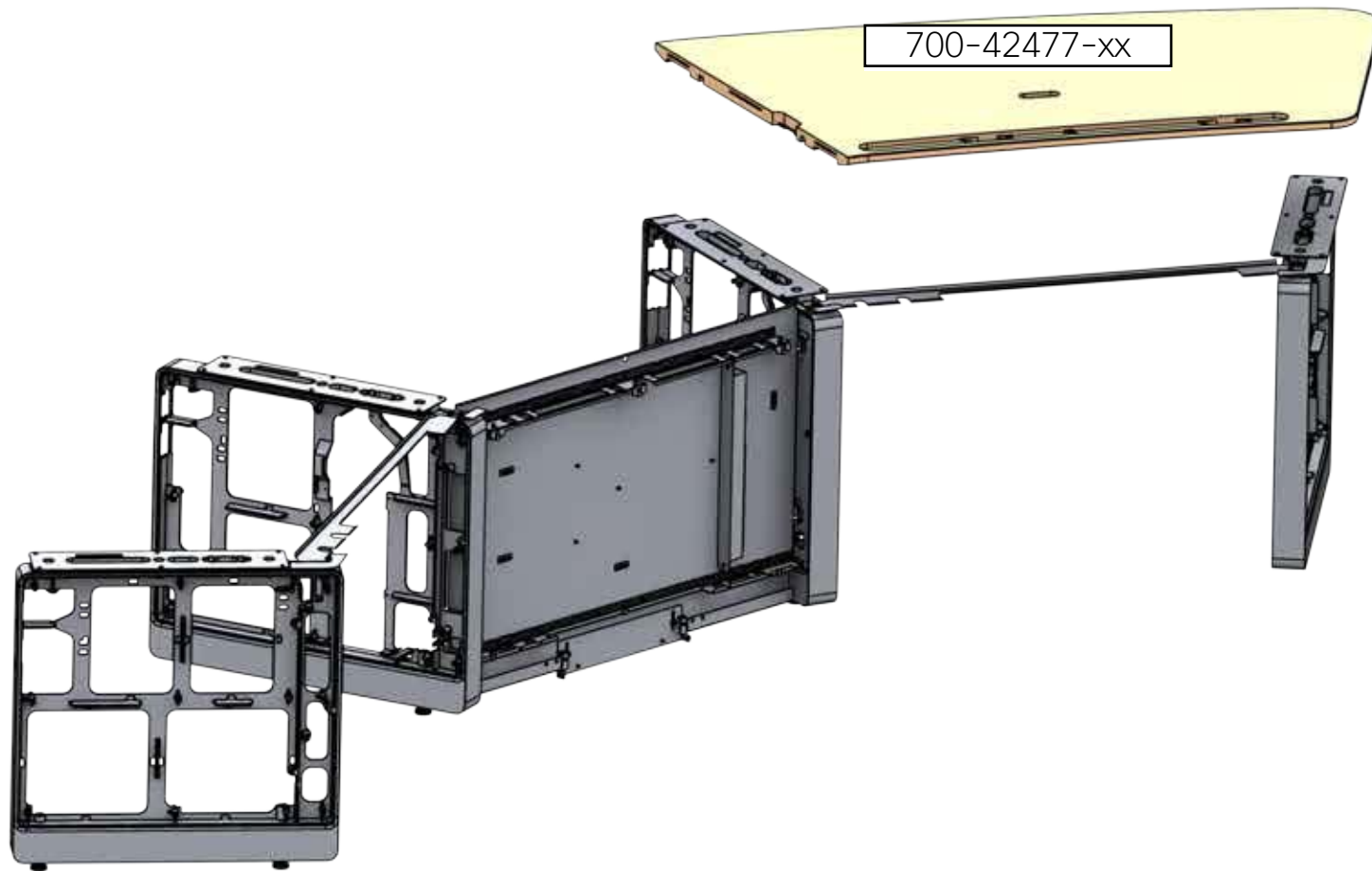
#4 Phillips Screwdriver

o 10mm open end or ratcheting wrench

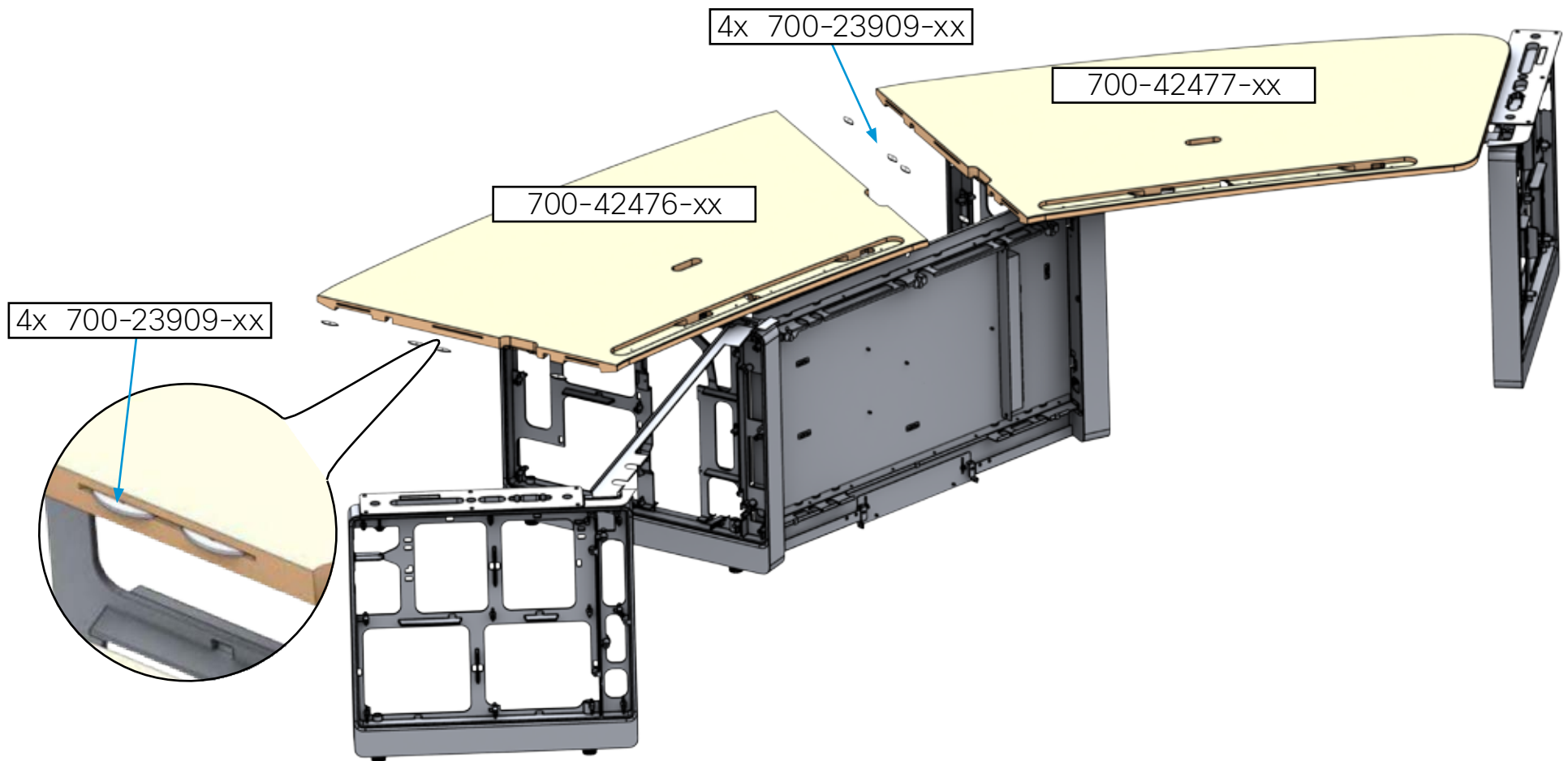


Installing the Front Row Tabletops

- 1 Lower Table Top Assembly A 700-42477-xx onto the table leg assembly. Do not secure the table to the legs at this time. Repeat this step with Table Top B 700-42476-xx.

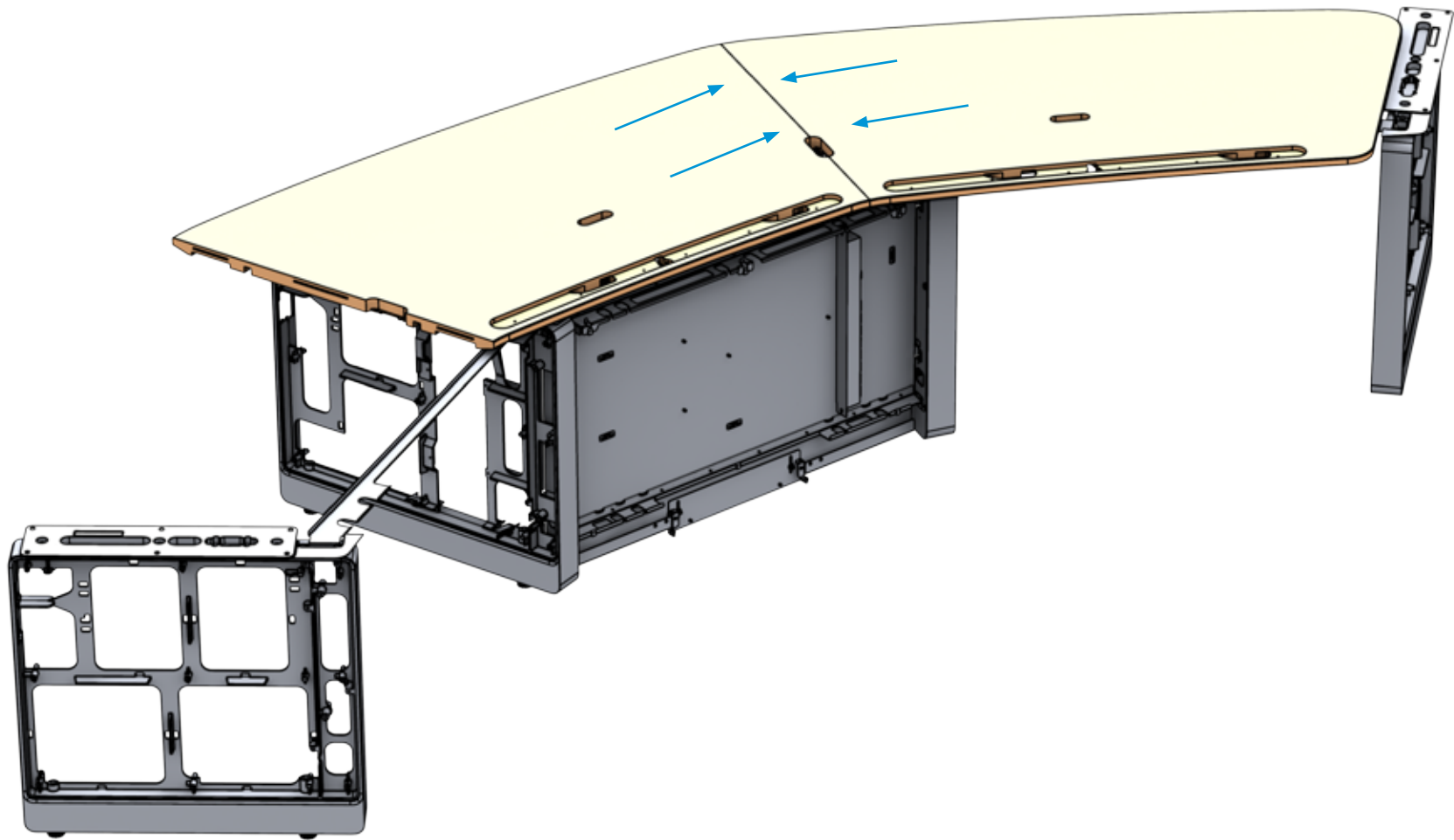


2 With tabletop assemblies A&B resting on the leg assembly, install x8 biscuit joiners 700-23909-xx (4x per seam) into the slots in the tabletops. Be sure that the biscuit joiners are fully seated in their slots.

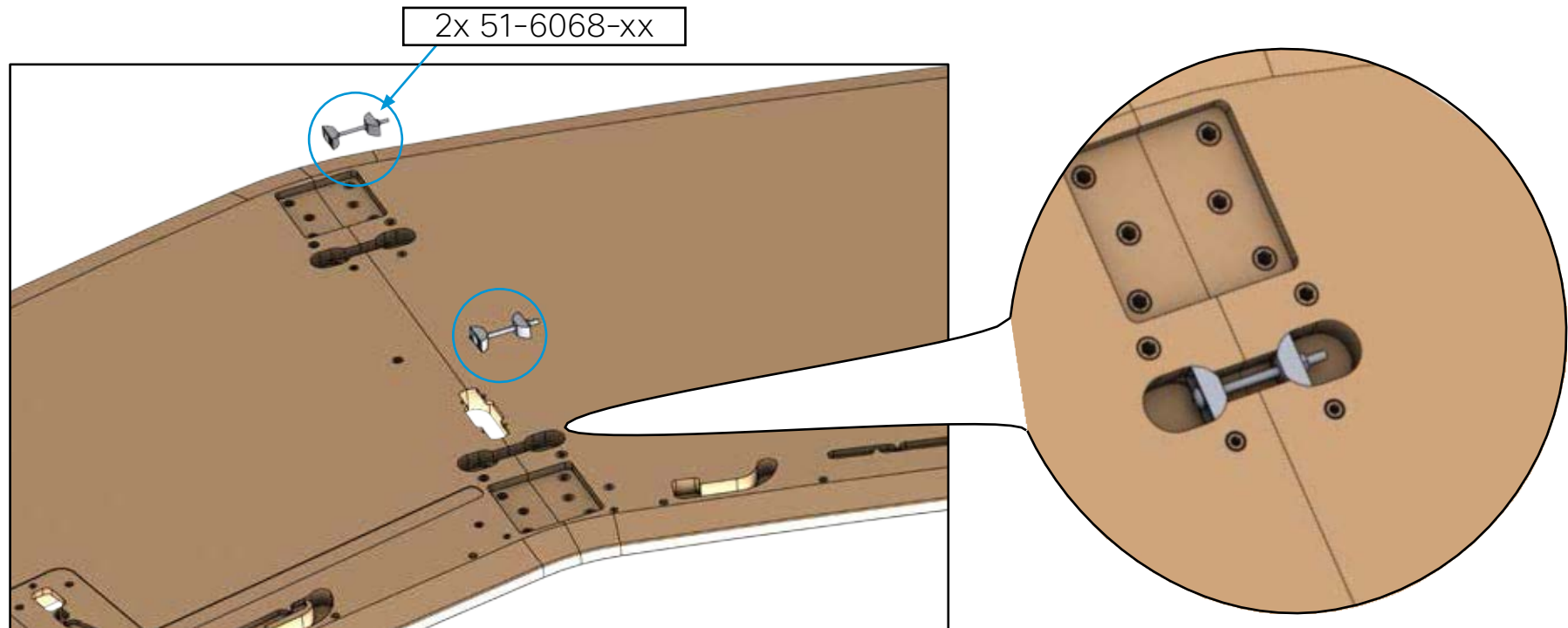


Installing the Front Row Tabletops

- 3 Slide table top assemblies A&B together, then slide the table top slightly to the right or left, allowing enough room to install the tabletop hardware from underneath. Make sure that the tops stay on the table legs and do not fall.

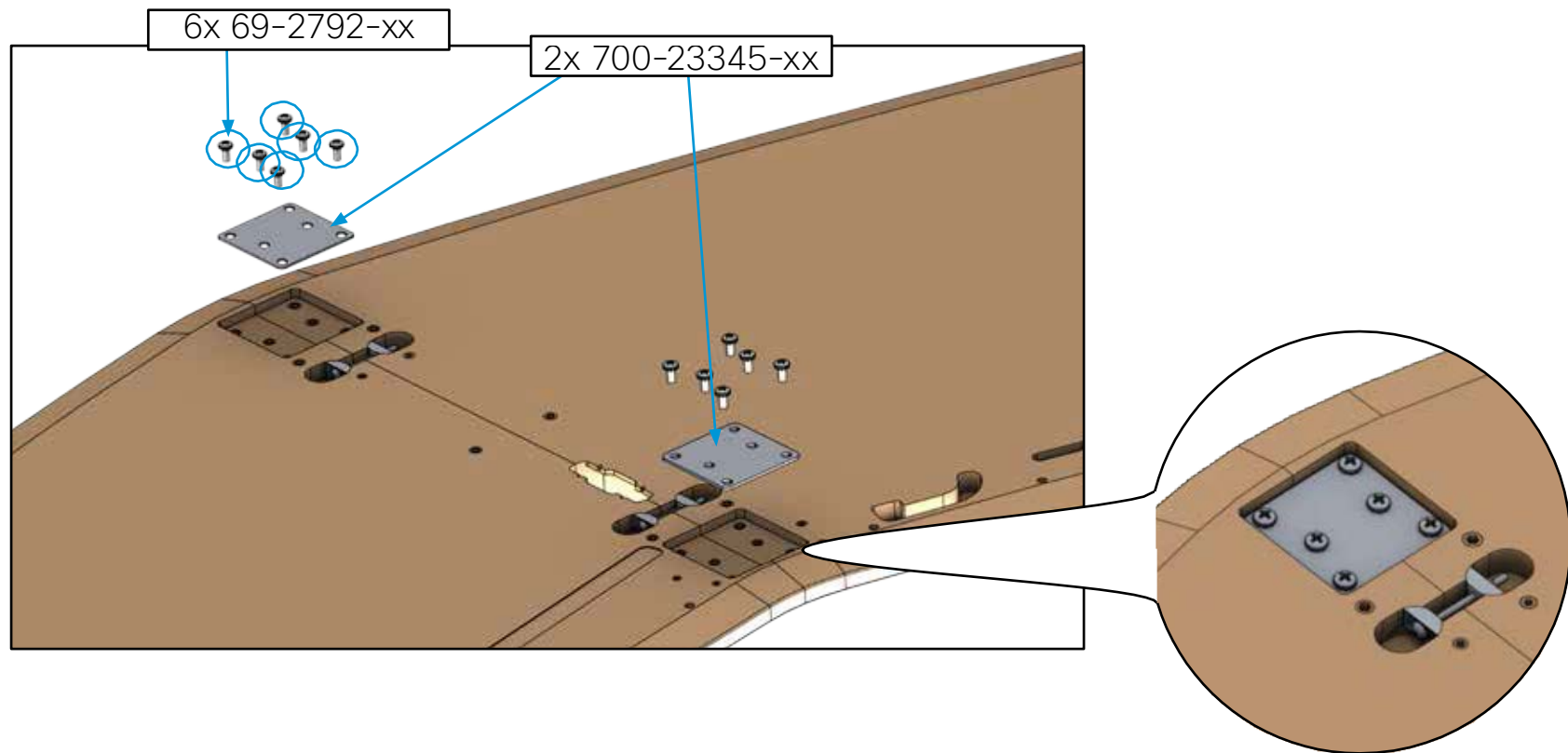


- 4** Install 2x half moon bolt assemblies (51-6068-xx) into slots in the bottom of tabletop assemblies A&B. Use 10mm open end or ratcheting wrench to tighten the nuts and bring the table sections together. Make sure the front and back edges are aligned before tightening, and make sure that the half-moon bolt assemblies are inserted all the way into their recesses in the table.
-

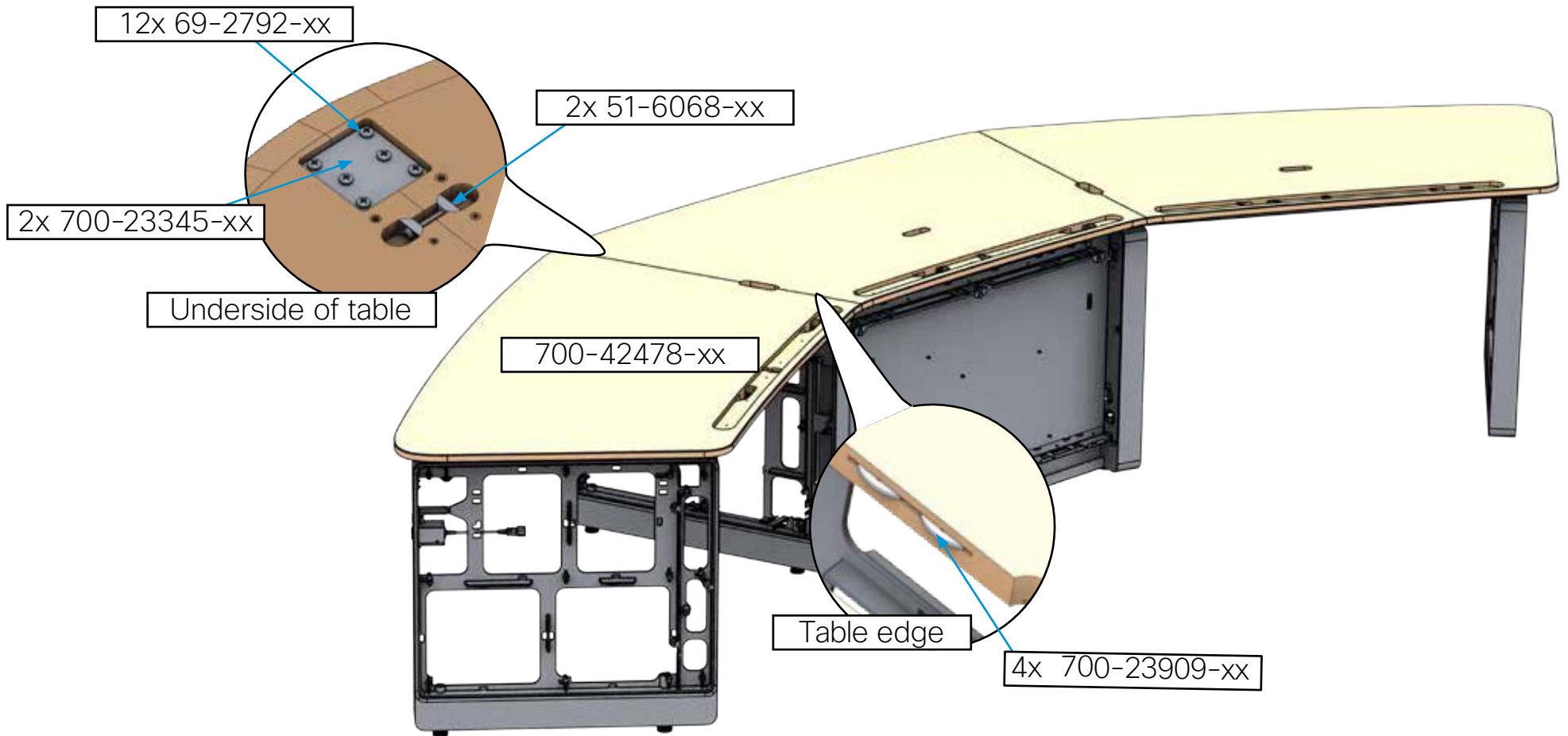


Installing the Front Row Tabletops

- 5 Install the joint plates 2x 700-23345-xx to the bottom of table top assemblies A&B (700-42477-xx & 700-42476-xx) by inserting 6x 69-2792-xx screws per joint plate.

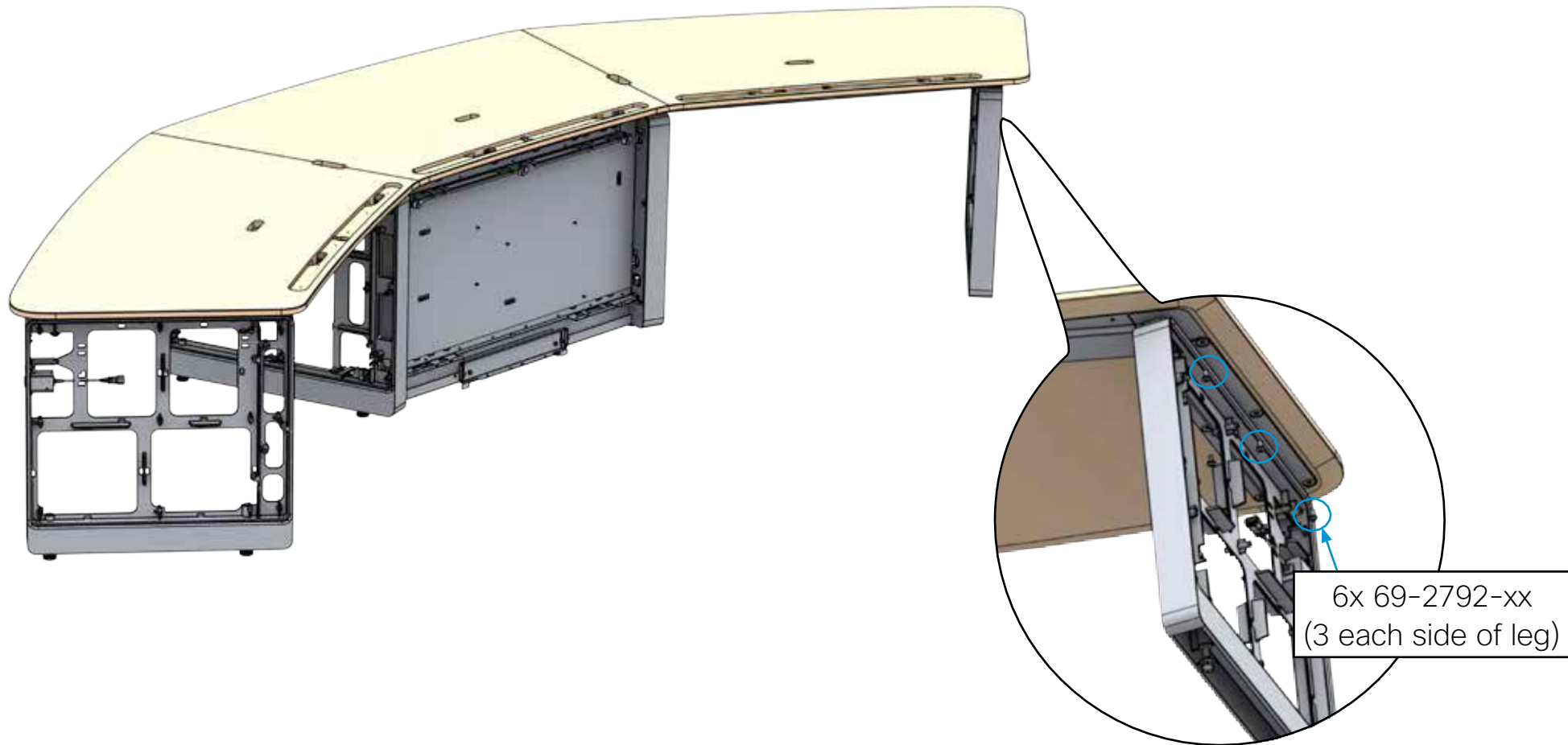


6 Attach tabletop C 700-42478-xx to tabletops A&B, using the exact same parts, tools, and joining procedures as you used to join tabletops A&B.



Installing the Front Row Tabletops

- 7 Slide the tabletop assembly into its correct position, then secure it to the table legs using 24x M8x16mm screws (69-2792-xx), 6x screws per table leg. Start from the inside legs, then move outward.



Completing Installation of the First Row Table

Required Parts

3x mute button 74-12200-xx

3x microphone bars 74-12199-xx

Note: The packaging for the mic bar includes the mic bar and the center cap.
Do **not** throw the small round caps away with the packaging.

24x M4x12mm screws 69-2801-xx

6x Mini-DisplayPort Cables

Velcro straps 52-0449-xx as needed

2x Presentation cup 800-43264-xx

8x M3 thumb screws 69-2824-xx

12x M3x12mm screws 69-2815-xx

12x M3 screws 48-0873-xx (part of mute button 800-41388-01)

2x Cable retractor 800-42888-xx

8x M3x12mm screws for cable retractor 48-2091-xx

1x Cable runner retainer 700-44724-xx

6x M6x10mm screws 69-2815-xx

1x Cable runner cover (700-42945-xx for systems without 42-inch auxiliary displays, 700-47587-xx for systems with auxiliary displays)

Side panel and front panel covers:

o 2x 700-43422-xx - outside of center-left and center-right leg

o 2x 700-43004-xx - inside of the outside legs

o 2x 700-43424-xx - outside of outside table legs

o 2x 700-43423-xx - inside of inside legs

o 1x 700-43425-xx - front (privacy) panel

3x cable mute button covers (1x right 700-44726-xx, 1x left 700-44727-xx, 1x center 700-45410-xx)

13x M4x10mm black screws 69-2821-xx

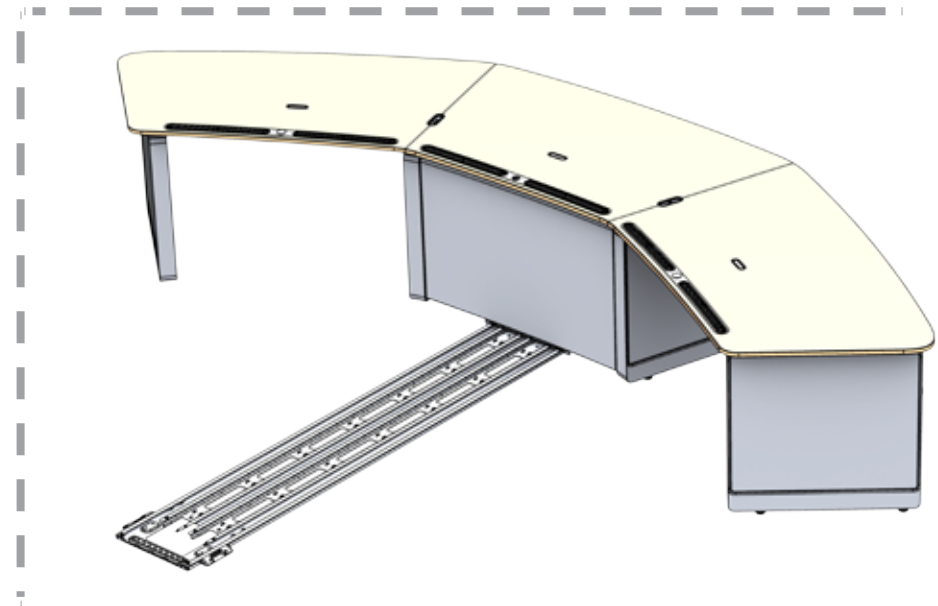
Required Tools

o #4 Philips Screw Driver

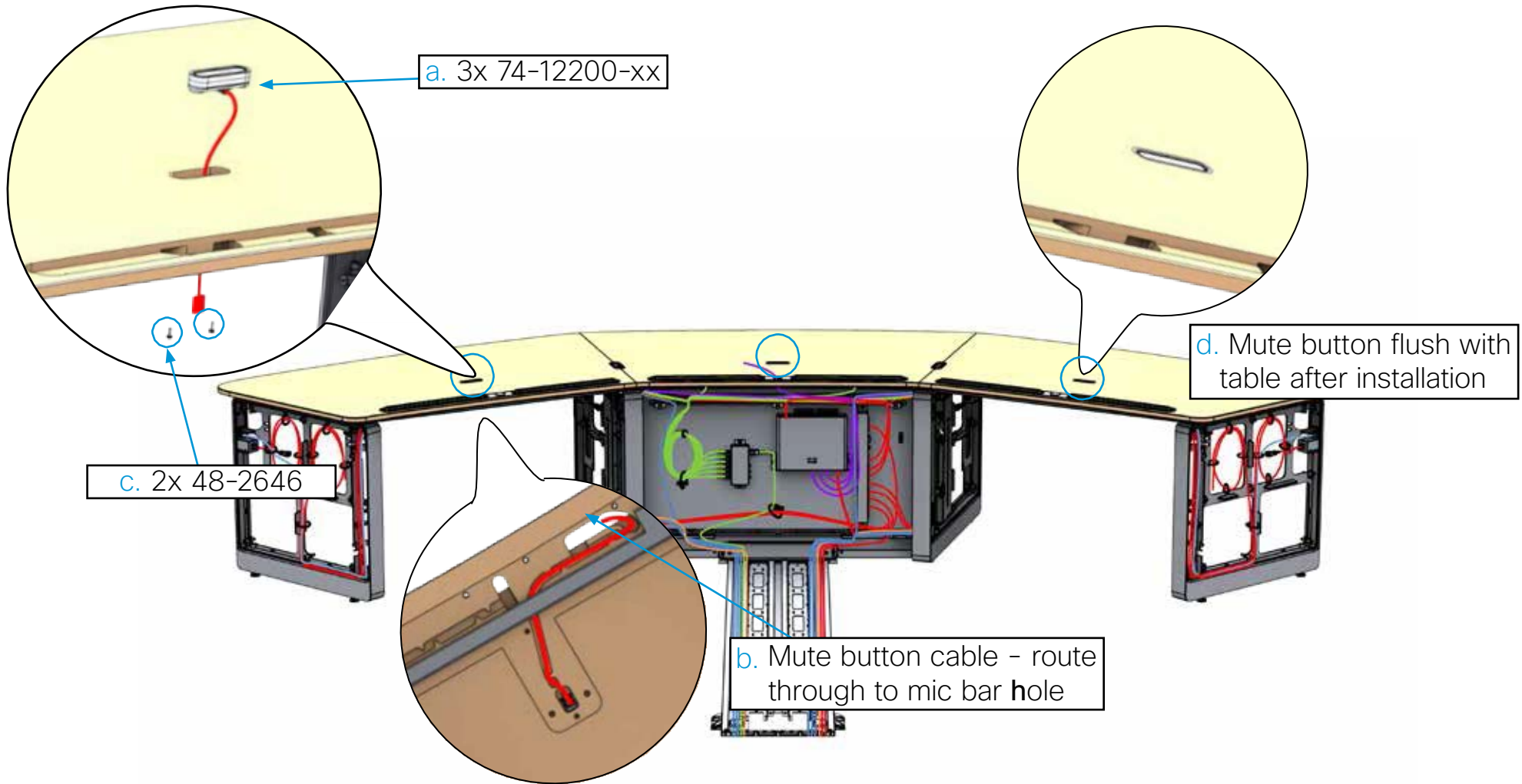
o 10mm socket or ratcheting wrench

o Flat file or Dremel (for the table leg when installing the cable retractor)

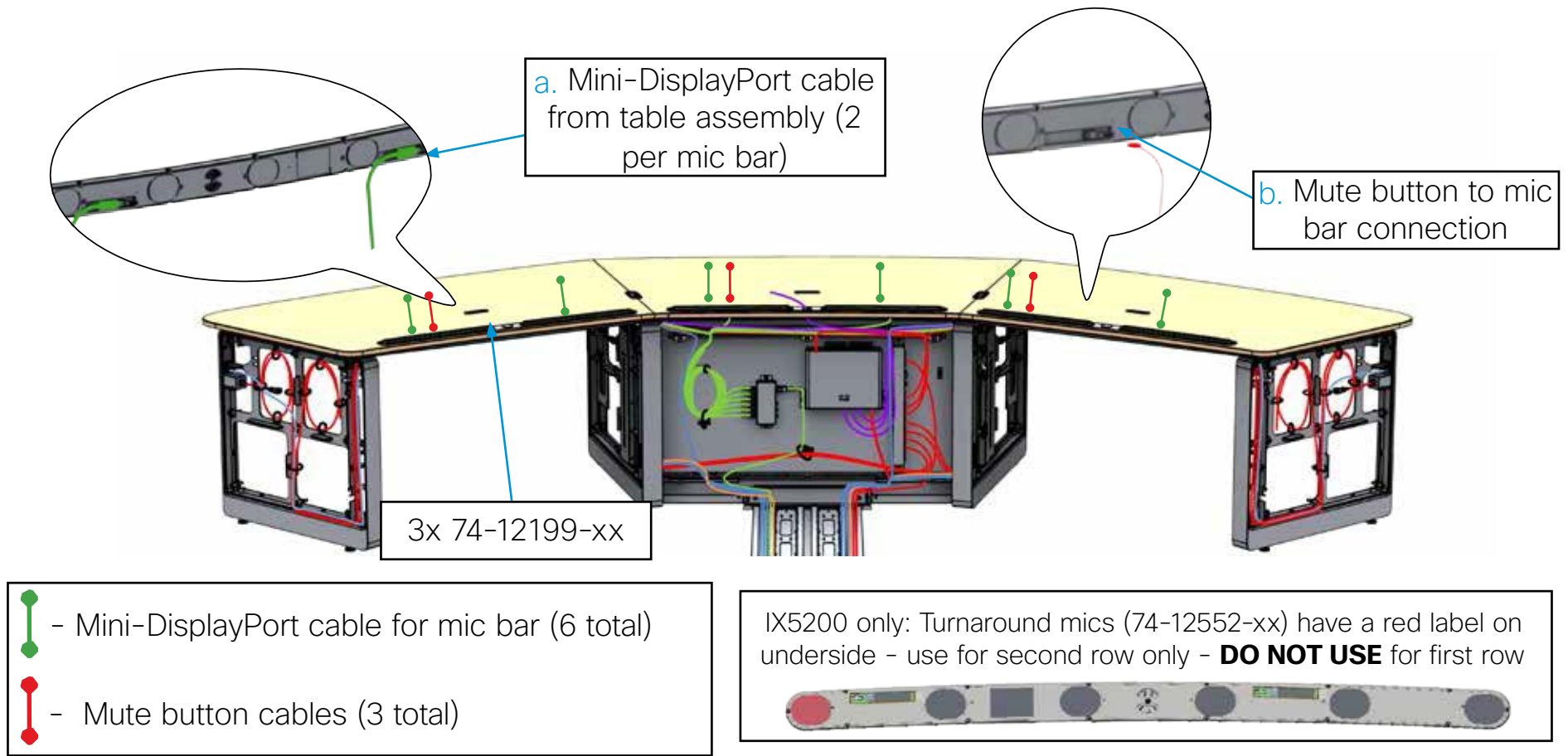
o White gloves (included with accessory kit)



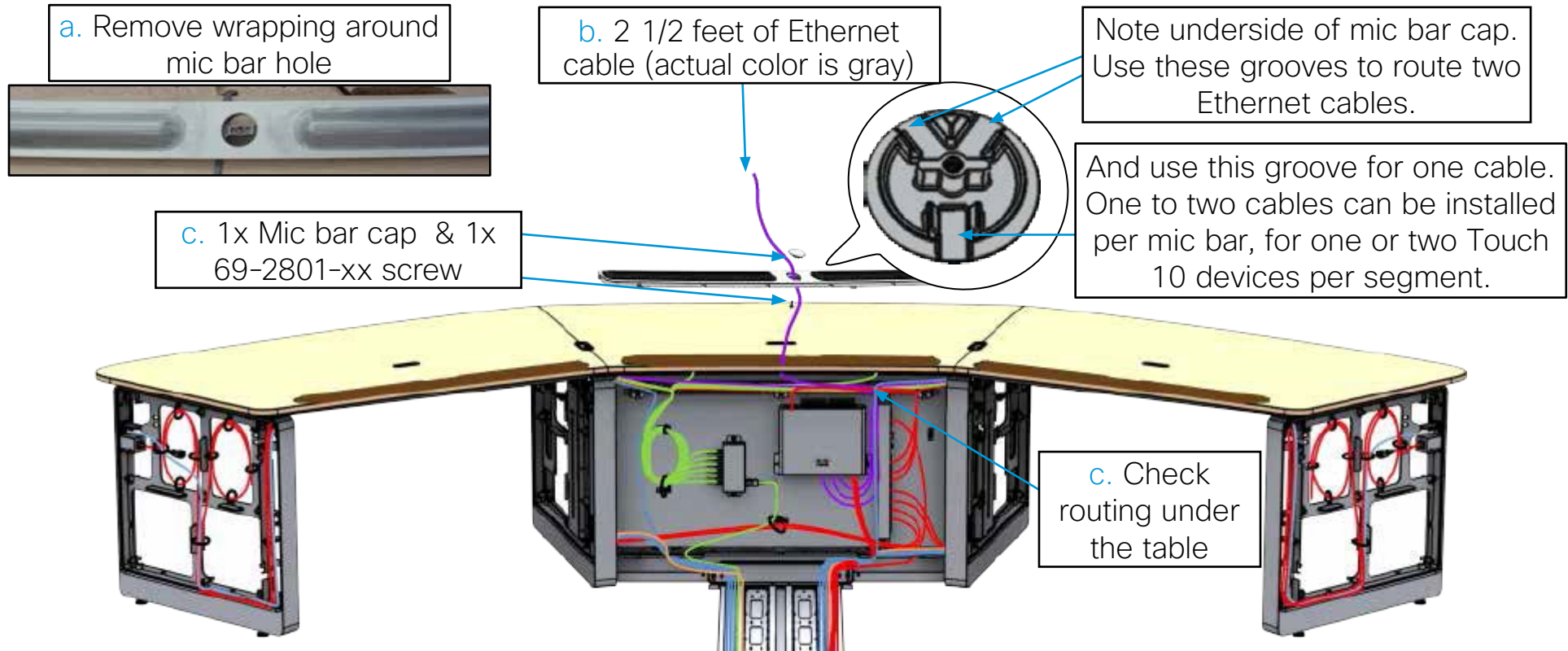
- 1 a. Lower the Mute Button Assembly 74-12200-xx to the mute button hole on the table top assembly. b. Route the mute button cable through the openings underneath the tabletop to the mic bar hole. c. Secure the Mute Button Assembly with the 2x M4 x 12mm screws 69-2801-xx. d. Adjust the screws so that mute button is flush with top surface of Table Top Assembly. e. Repeat for each Mute Button Assembly.



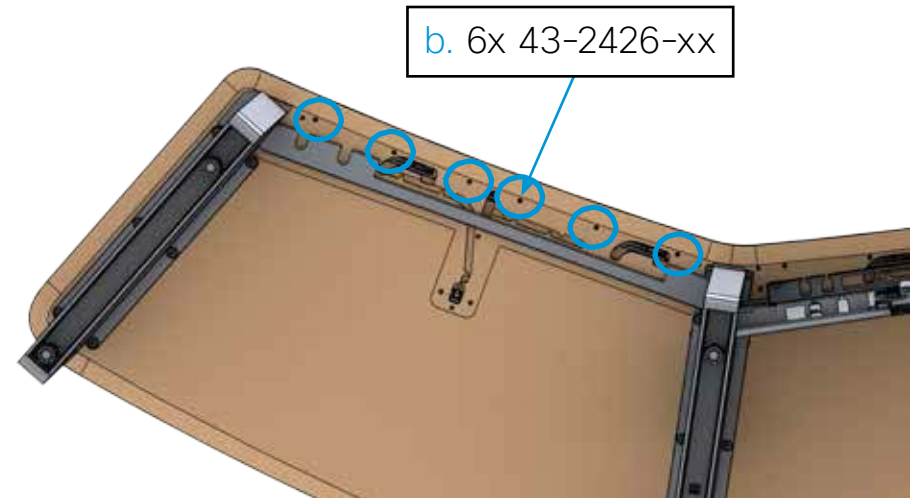
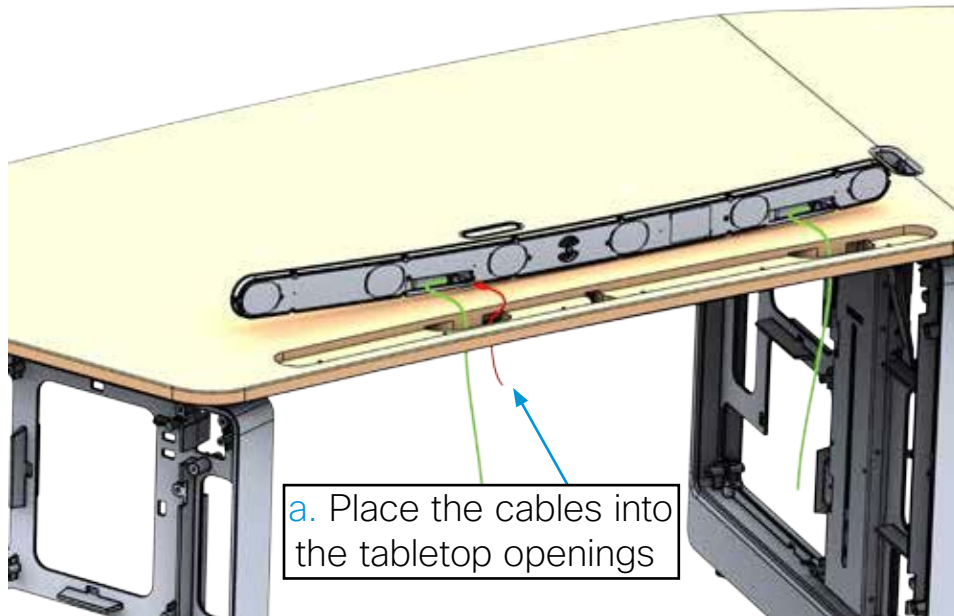
2 Prepare the microphone (mic) bar assemblies. **a.** Remove the mic bars and mic bar caps from the cartons. **Do not throw away the small round microphone caps that attach to the center of the microphone bars.** Connect the mini-DisplayPort Cables (two for each mic bar) to the connectors on the bottom of the mic bar 74-12199-xx. **b.** Connect the cables from the mute button to the mic bar. **c.** Gently rest the connected mic bar upside down on the table. **d.** Repeat this step for each mic bar. **e.** Loop excess cable in the cable management assembly as shown. **NOTE FOR IX5200 SYSTEMS ONLY:** Three mic bars have a red plastic covering and have a red sticker on the underside - use these for the second row and **DO NOT** install these on the first row.



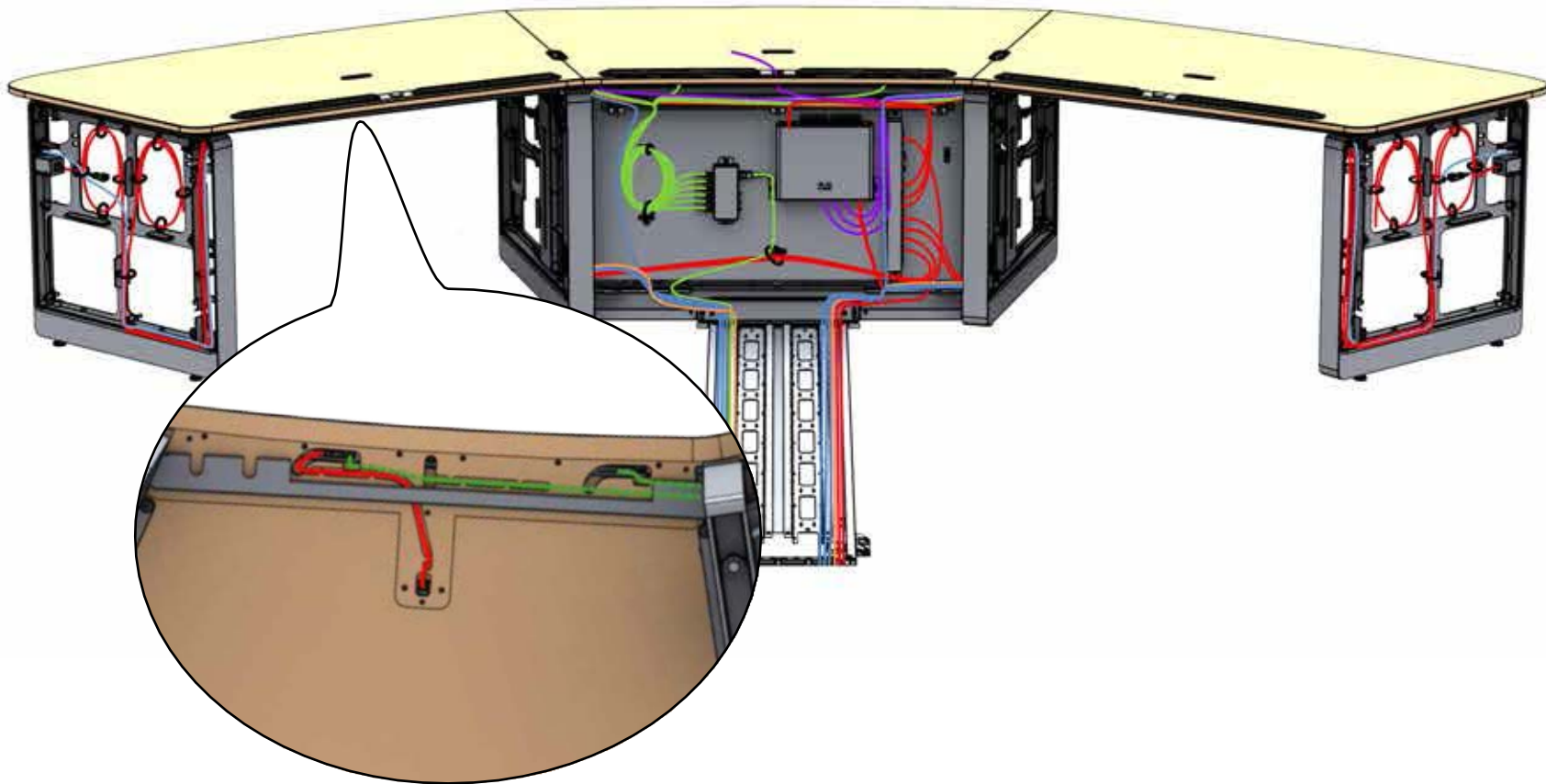
3 Prepare the Ethernet cables for the Touch 10 devices. **a.** Remove the protective film around the center of the mic bar. **b.** Take the Ethernet cable(s) (either one or two cables, depending on the number of Touch 10 devices per segment) from the PoE switch in the front row table and pull them through the holes in the center of the microphone bar until there is approximately 2 1/2 feet (76.2 cm) of free cable through the mic bar hole. **c.** Attach the microphone bar plug (separately packaged with the mic bar) to the mic bar using 1x M4x12mm screw 69-2801-xx. **d.** Ensure that the cables are routed under the table so that they will not be pinched when the cosmetic panels are installed. Use Velcro straps as required. **e.** If your system uses additional Touch 10 devices, repeat steps a. through c. for the right and left mic bar; otherwise, attach the cap to the left and right mic bars without inserting a cable.



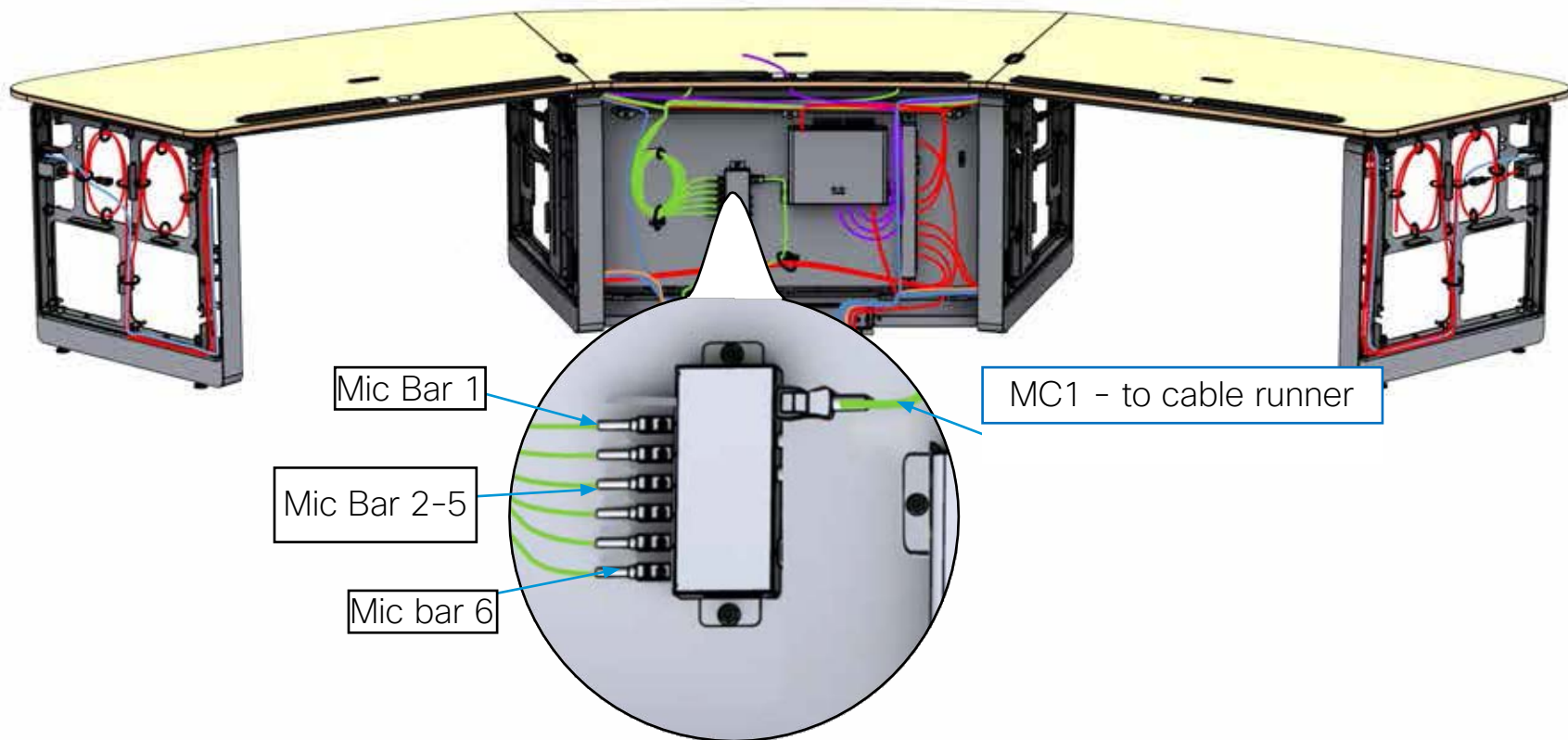
4 Install the mic bars into the table. **a.** Lower the mic bar assembly towards its recess on the tabletop and pass the mini-DisplayPort cable through the openings in the table top assembly. Make sure that the wire between the mic bar and the mute button uses the routing as shown in Step 1.b. **b.** Secure the Mic Bar Assembly to the Table Top Assembly by inserting 6x M4 x 12 mm screws 69-2801-xx from the underside of the table top assembly. **Do not use a power driver for these screws.** **c.** Repeat this step for each mic bar assembly.



- 5 Route the Mini-DisplayPort cables underneath the table towards the center of the structure.



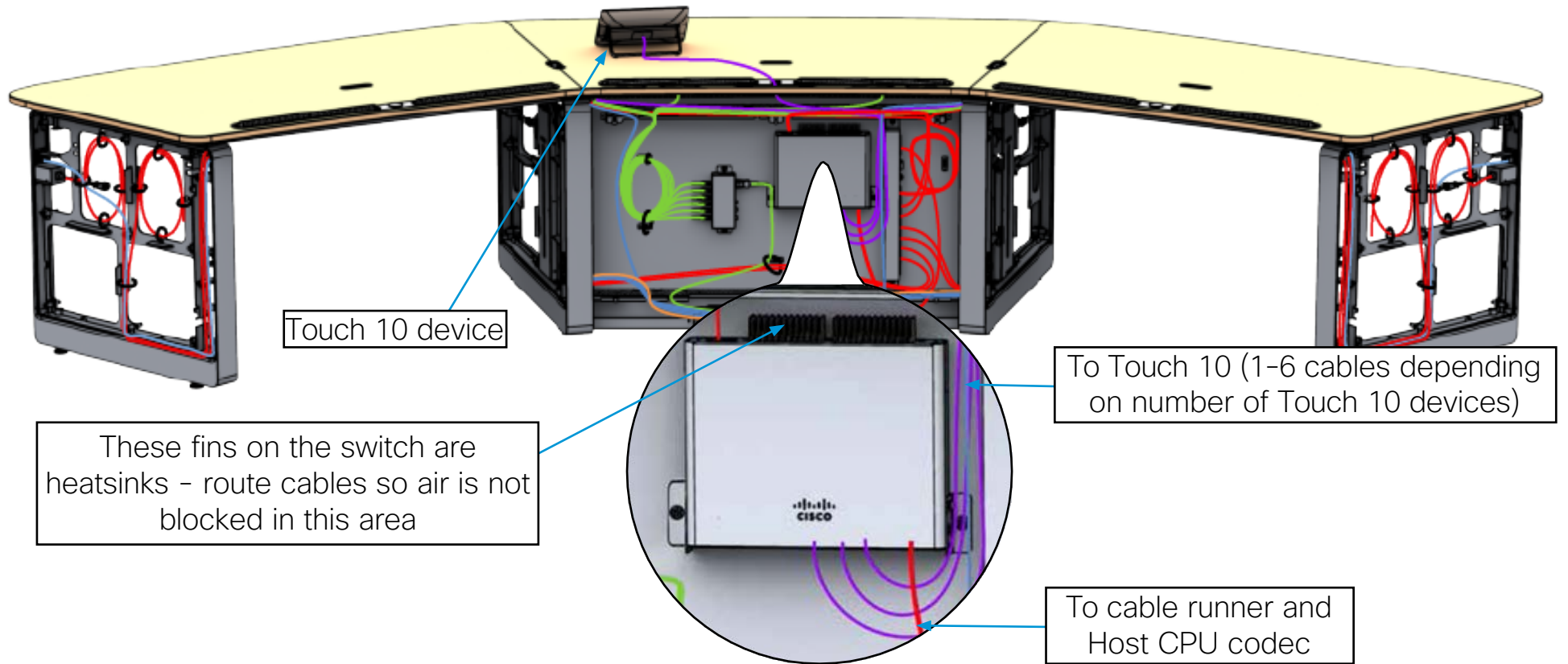
- 6 Check the connections for the 6x mini-DisplayPort cables between the mic bar and the microphone connector (MC). Use Velcro cable wraps as needed to secure cables. Ensure that the cables are held inside of the structure so as they are not pinched when the cosmetic panels are installed.



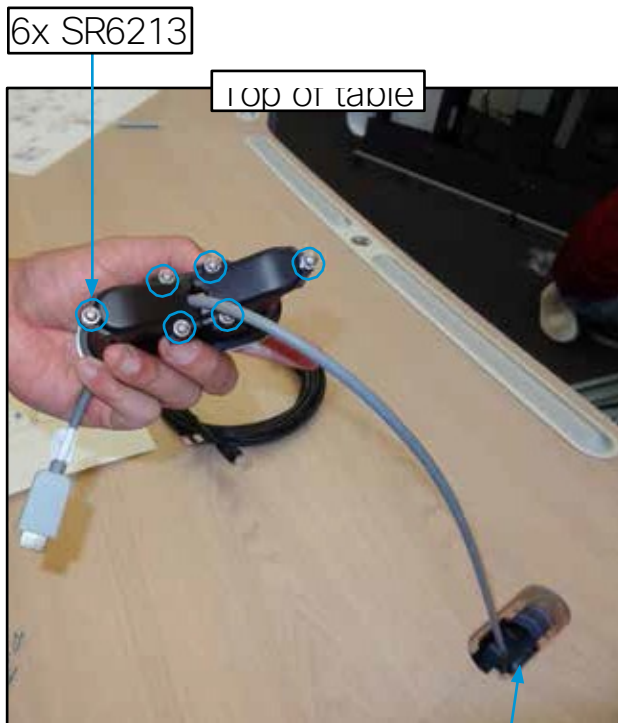
7 Connect the Cisco TelePresence Touch 10 device(s) to the PoE switch in the first row table. Use velcro cable wraps as needed to secure cables and ensure that the cables are held inside of the structure so they are not pinched when the cosmetic panels are installed.

Notes:

- You can install up to six Touch 10 devices (one per participant).
- Route the cables above the switch so that a minimum amount of hot air is blocked around the heatsink.

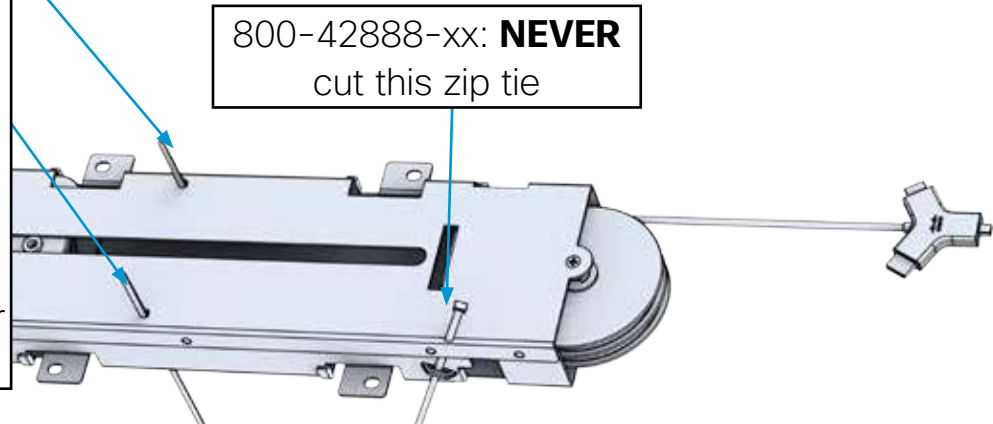


8 Install the presentation cups to the table tops. **a.** Lean the 2x cable retractors 800-42888-xx against the two inside table legs, 1 per table leg (do not place in the table leg yet). **b.** Insert the triple-headed presentation cable from the cable retractor through the presentation hole in the table and into the cup 800-43264-xx. Connect the cup pieces using 6x M3 screws SR6213. Note: If there is not enough free play in the cable, cut the two zip ties (and ONLY these zip ties) as shown in the illustration. **c.** Place the cable and the cup into the cup base in the Table Top Assembly. **d.** Secure the cup to the table using 4x M3 thumbscrews SE2587. **e.** Repeat this procedure for the other cable cup.



Presentation hole in table

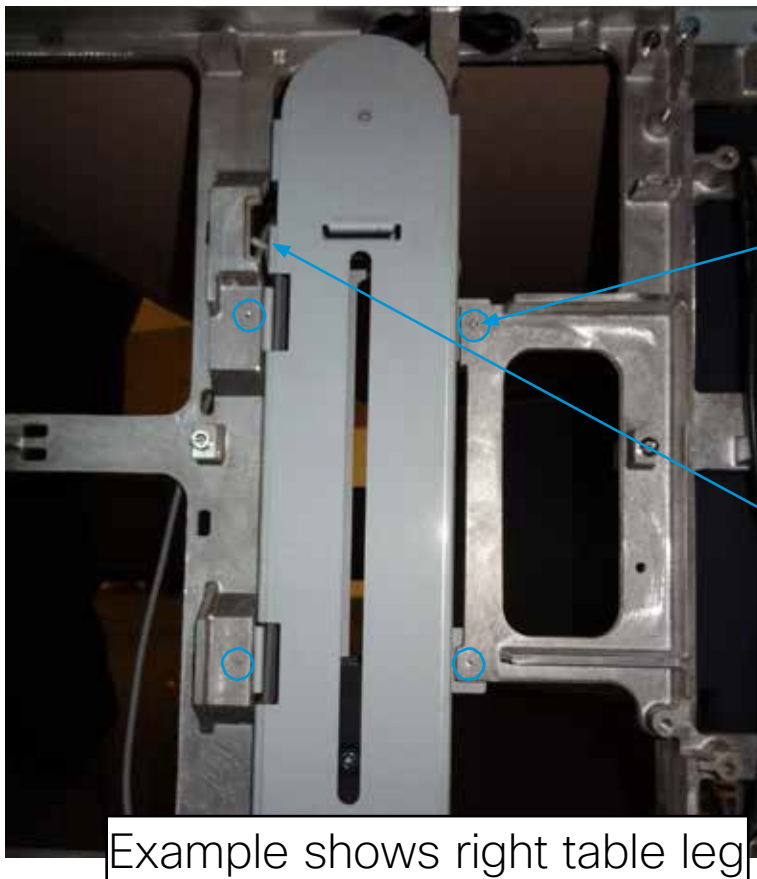
800-42888-xx:
Cut these zip ties
before installation
if there is not
enough free play
to insert the
cable into the
presentation cup;
otherwise cut after
installation



Underside of table

4x SE2587

9 Install the cable retractors into the table. **a.** Place the retractor into the table from the right side of the right-center table leg, and attach it using 4x M3x12mm screws 48-2091-xx. **b.** Repeat on the left side for the left cable retractor using 4x M3x12mm screws. **d.** If you did not do so before, cut the two zip ties for the cable retractor. Route the other presentation cable end through the cable runner to the Host CPU codec.

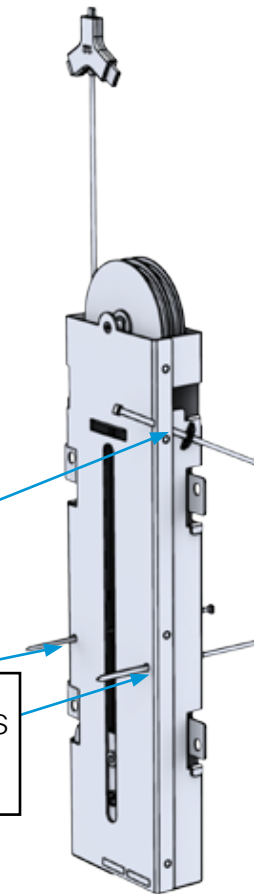


Example shows right table leg

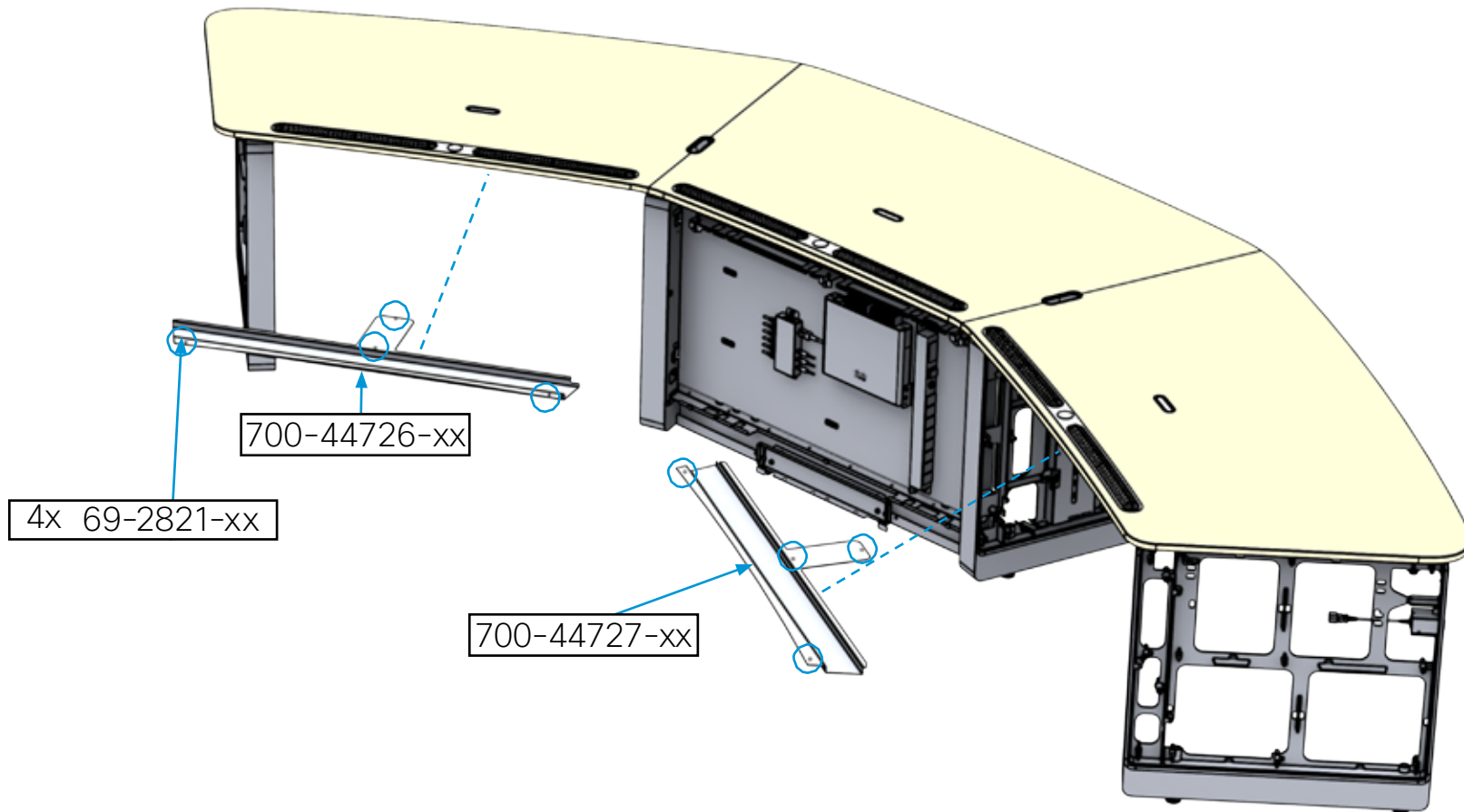
4x 48-2091-xx
(installed from
other side)

Retractor: **NEVER**
cut this zip tie

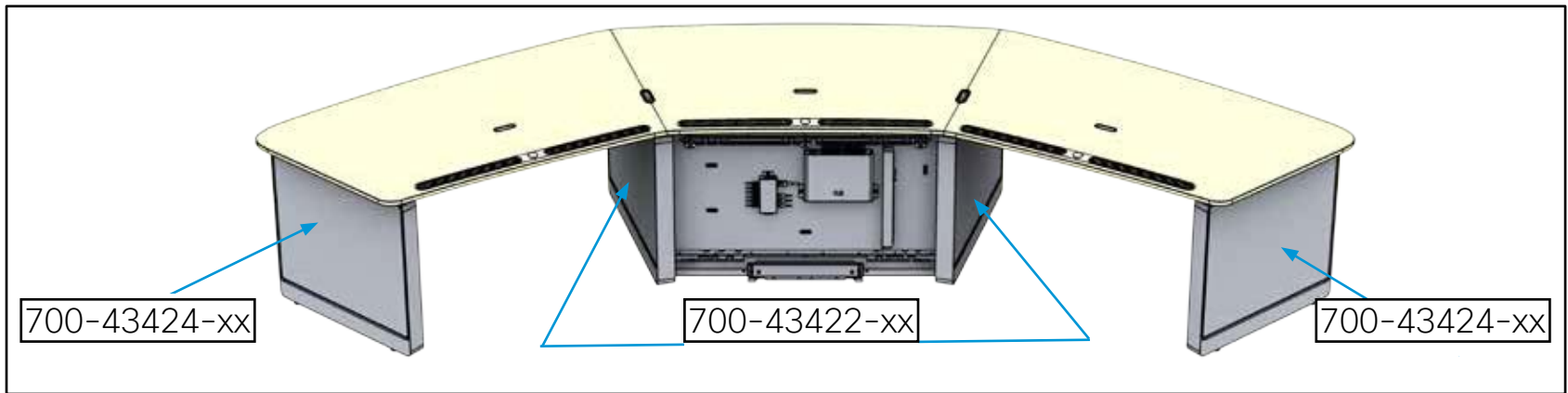
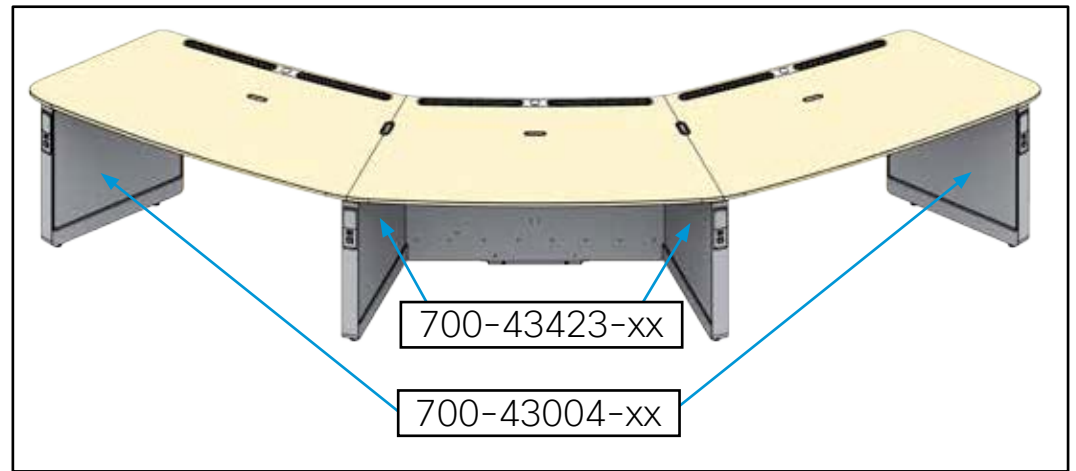
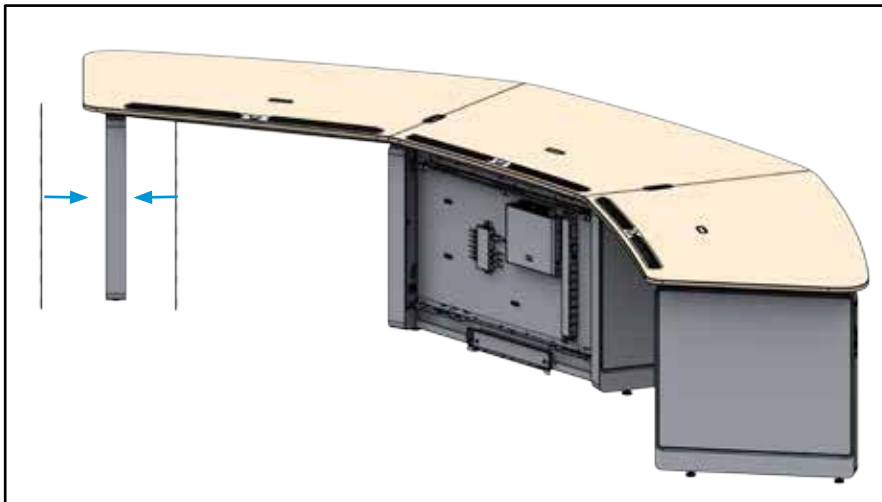
Retractor: Cut these zip ties
if you did not cut them yet



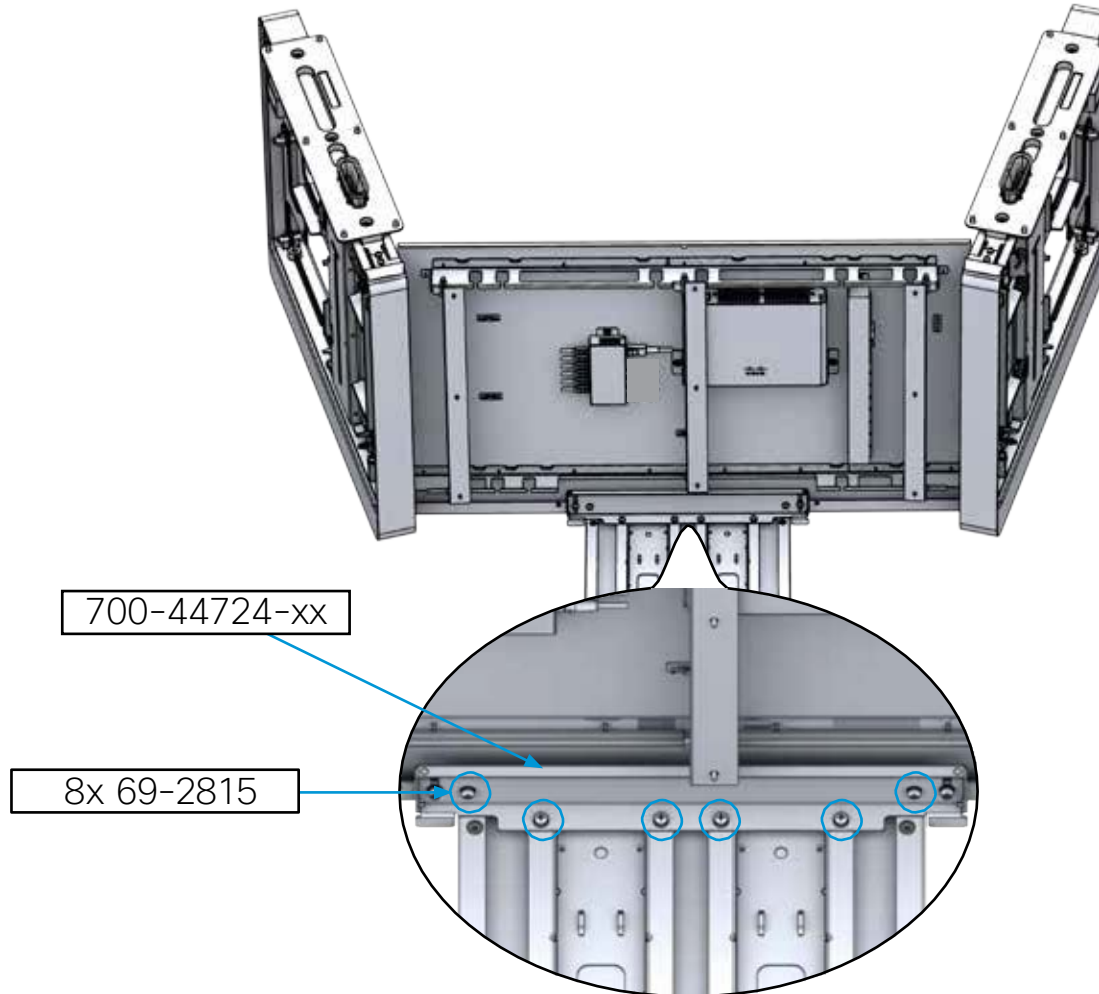
10 Install the left and right cable side/mute button covers (right 700-44726-xx, left 700-44727-xx) to the underside of the tabletop assemblies using 8x M4x10mm black screws 69-2821-xx (4 for each side).



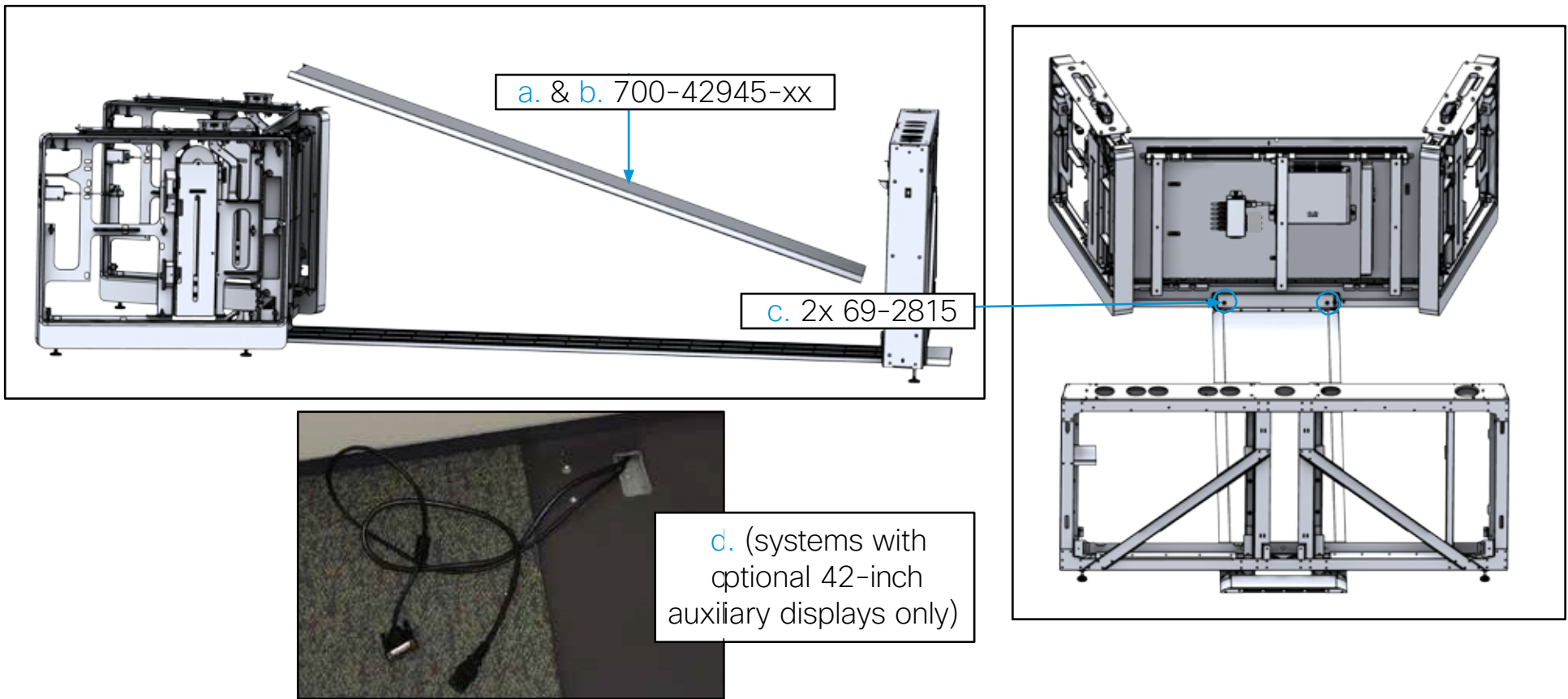
11 Install the 8x side panels to the leg assemblies. Wear the white gloves included in the accessory kit for this step. 700-43422 01 - outside of center-left and center-right leg. 700-43004-xx - inside of the outside legs. 700-43424-xx - outside of outside table legs, 700-43423-xx- inside of inside legs. Do not install the center panel 700-43425-xx at this time.



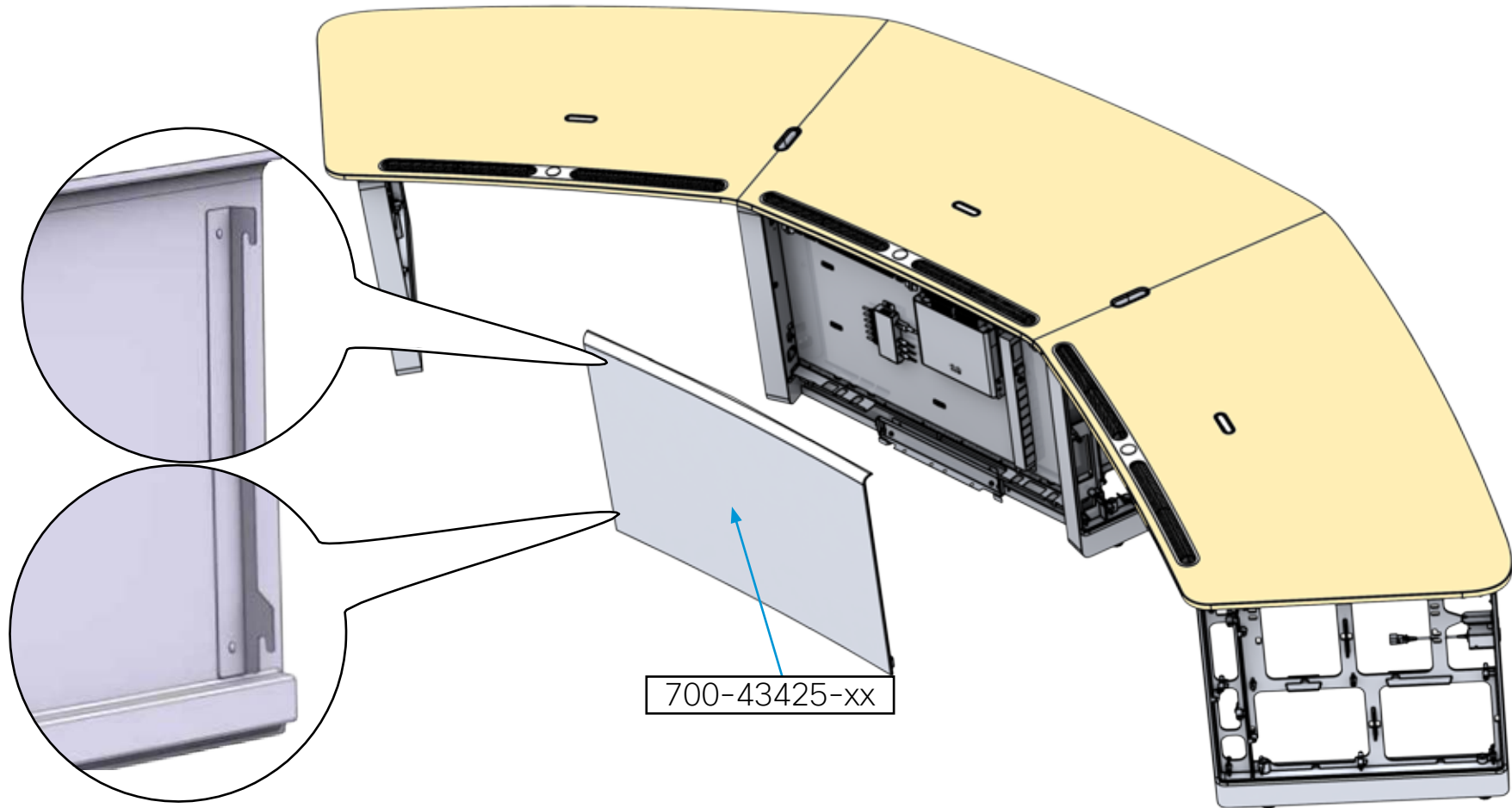
- 11 Install the cable runner retainer 700-44724-xx using 6x M6x10mm black screws 69-2815-xx.



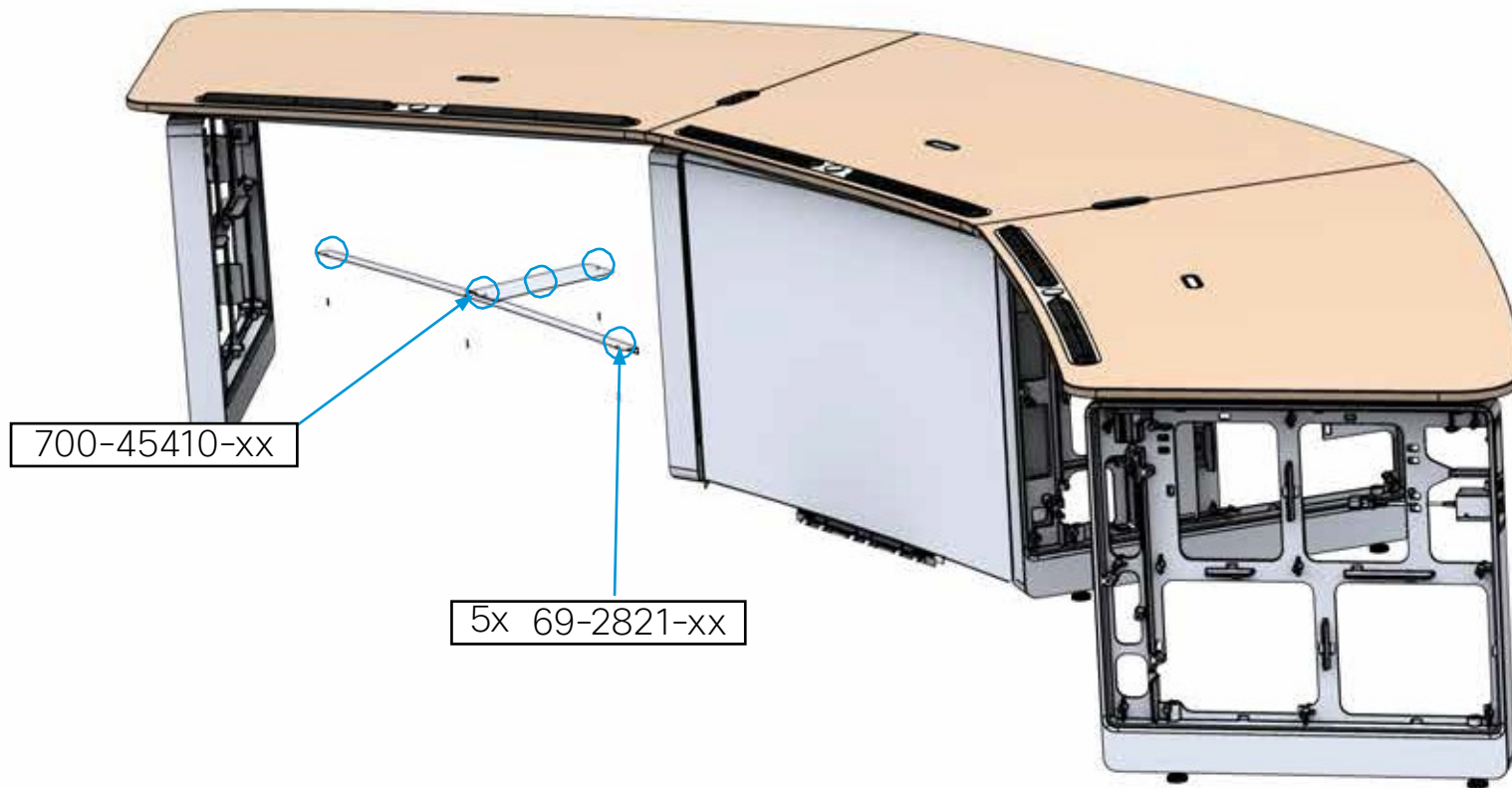
12 Install the cable runner cover. **a.** Take cable runner cover 700-42945-xx with holes pointed toward the table legs. Angle the cover towards the endpoint structure and engage the notches on the cover with the keylock features on the cable runner base. **b.** Lower the cover onto the cable runner, being careful not to mar or strike the display frame or the front row table top. **c.** Attach the 2x M6x10mm screws 69-2815-xx to secure the cap to the cable cover. **d.** If your system includes the optional 42-inch display, route the power and signal cables for the display through the hole in the runner.



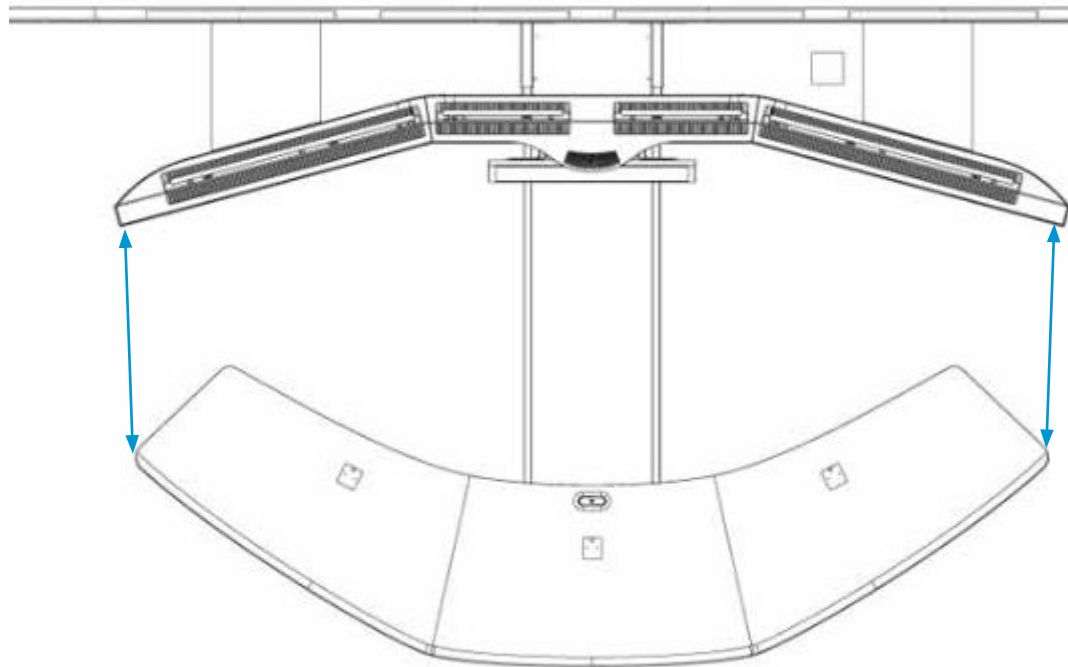
13 Install the front panel. Align the tabs located on the mounting rails on the inner side of the Front Panel 700-43425-xx to the slots located on the front cable management panel. Move the panel slightly up and over the legs, then move it into position.



- 14 Install and secure the cable center/mute button cover 700-45410-xx to the underside of the tabletop assembly using 5x M4x10mm black screws (69-2821-xx).



- 15 Measure from the sides of the table to the sides of the endpoint structure. Both sides should be aligned and even with the structure.
-



Installing the Second Row Table (IX5200 Only)

Required Parts

- 7x Table legs (1x far left leg 800-44198-xx, 1x far right leg 800-44197-xx, 5X inside legs 800-44200-xx)
 - 21x M8x16MM screws 69-2802-xx
 - 6x each Back row cable management assembly, left and right (3x 800-42717-xx and 3x 800-42715-xx)
 - 2x switches WS-C2960C-8PC-L
 - 4x switch bracket 700-44758-xx
 - 2x microphone connector (MCs) 800-40951-xx
 - 2x Power distribution units (PDUs) 74-8655-xx
 - 12x M6 nuts 49-100235-xx
 - 4x #10-32 pan head screws 69-2818-xx
 - 7x Metal trim pieces (700-103477-xx left corner, 700-103476-xx right corner, 700-45431-xx outside-left, outside right, and center, 700-45430-xx inside-left and inside-right)
 - Ethernet/Power modules:
 - o 12x Power/Ethernet connectivity modules (part varies by country)
 - o 7x Power/Ethernet connectivity cover 700-47772-xx
 - o 2x Power/Ethernet connectivity blanking plates 700-45421-xx
 - o 28x #4-40 nuts for power/Ethernet connectivity brackets
 - 62x M4x12mm screws 69-2801-xx
 - 30x M4 countersunk screw 69-2817-xx
 - 1x downspout kit (includes short round piece 700-46612-xx, long flat piece 700-46613-xx, 3x M4x10 screws 69-2817-xx, and 3x M6x10mm screws 69-2803-xx)
 - 6x Mute button assembly 74-12200-xx
 - 12x M6x10mm screws 69-2803-xx
 - 3x Microphone bars 74-12199-xx*
 - 3x Turnaround microphone bars 74-12552-xx*
- * The packaging includes the mic bar and the center cap. Do **not** throw the small round caps away.

Required Parts Cont'd

- Tabletops (700-45242-xx far right, 700-45239-xx far left, 700-103970-xx second from right, 700-103971-xx second from left, 700-45241-xx mid-right, 700-45240-xx mid-left)
- 20x Biscuit joiner, 700-23909-xx
- 10x Half moon bolt, M6X80MM, 51-6068-xx
- 10x Joint plate, 700-23345-xx
- 102x M8x16mm screws, black 69-2802-xx
- Mute button covers (3x 700-45426-xx, 3x 700-45427-xx)
- 24x M4x10mm black screws 69-2817-xx
- 14x leg PET panels (2x outside panels 700-43424-xx, 6x right inside panels 700-43426-xx, 6x left inside panels 700-43427-xx)
- 6x front panel covers (3x 700-43502-xx, 3x 700-43005-xx)
- Velcro cable straps 52-0449-xx as needed

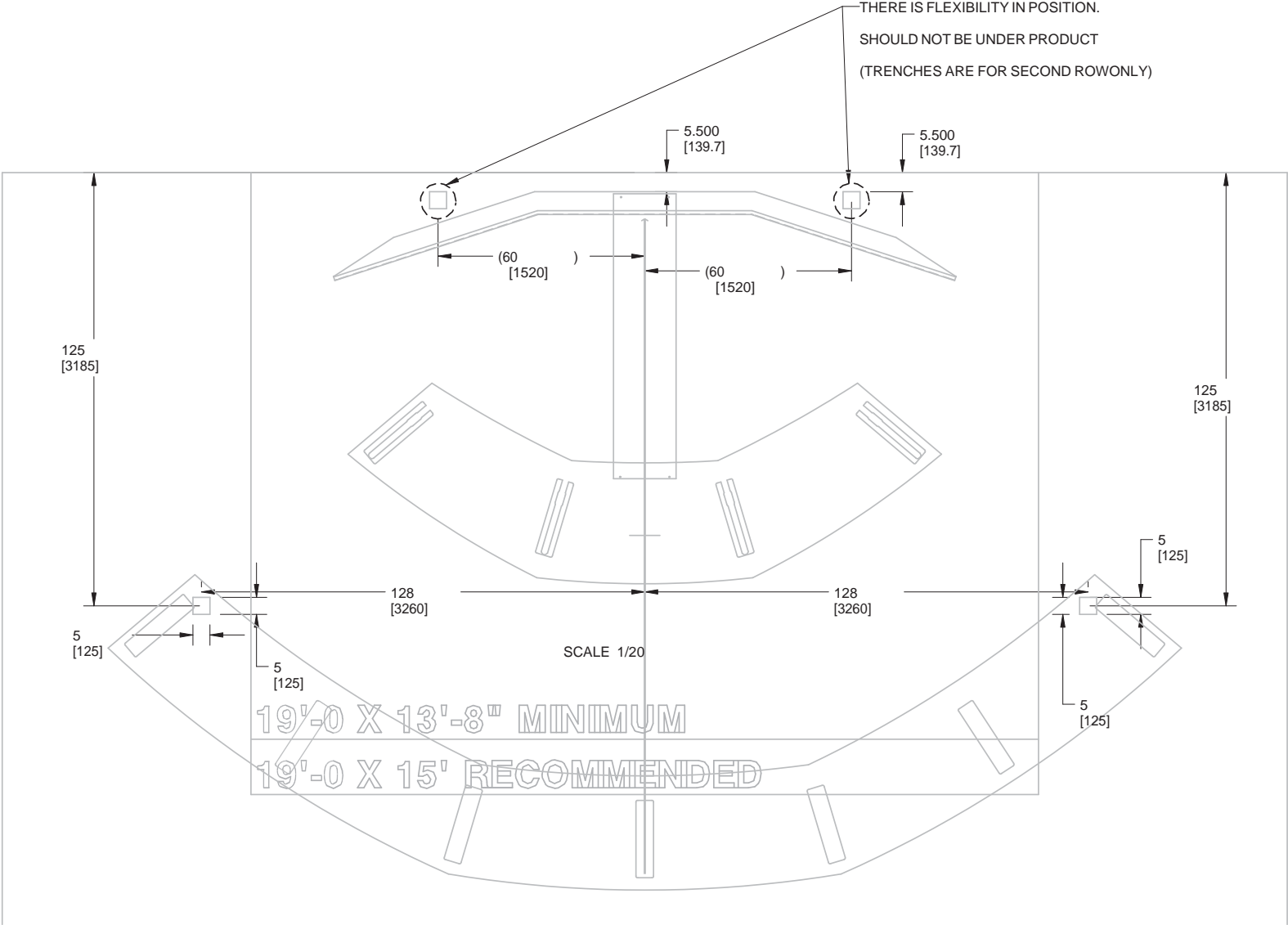
Required Tools

- o #4 and #2 Philips screwdrivers
- o 7mm & 10mm socket
- o 7mm Allen driver or wrench
- o 10mm ratcheting wrench or socket
- o Laser level

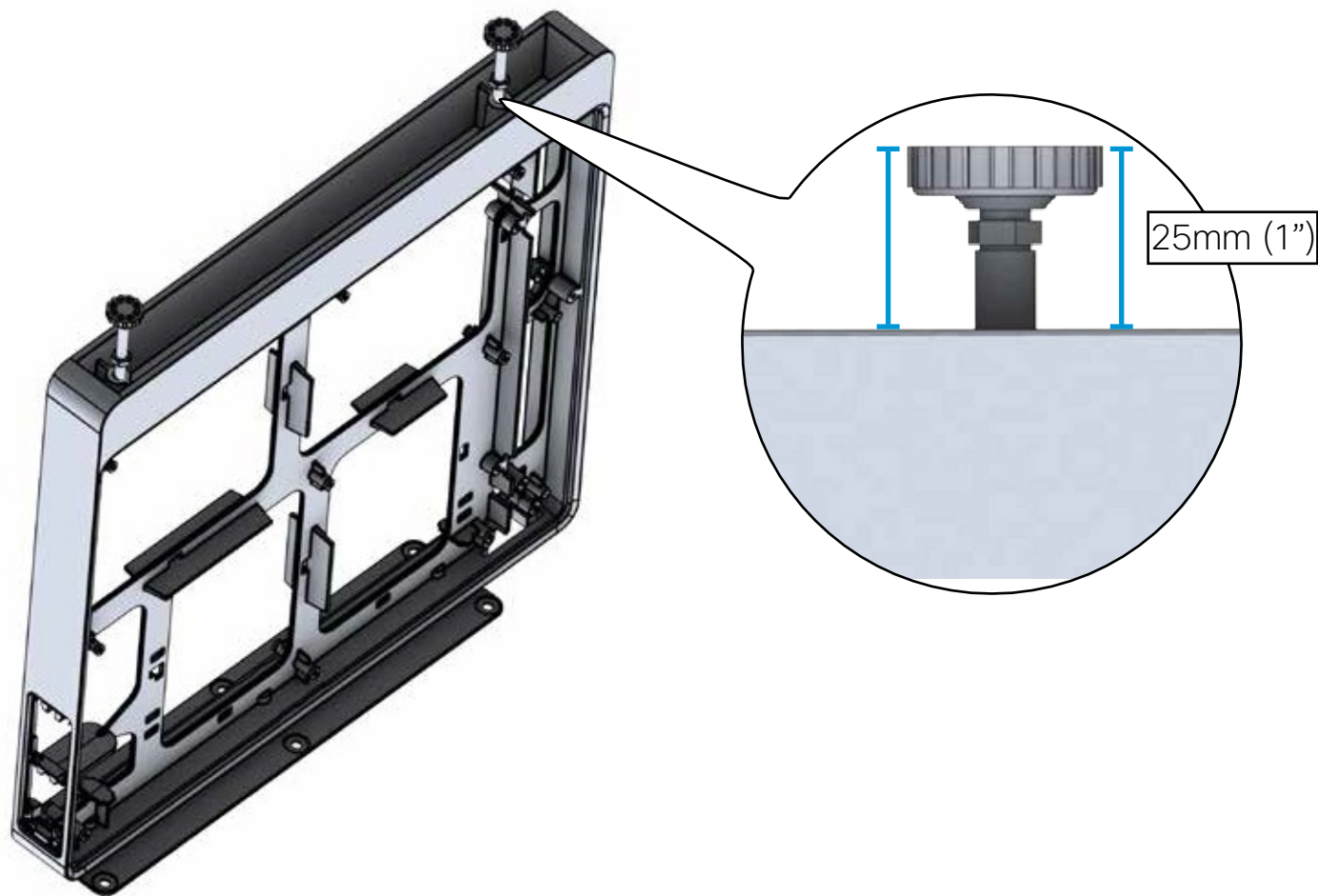
Required Cables

- 69-2833-xx cabling kit, includes the following subkits:
- 69-2670-xx, includes 2x Ethernet cables 37-1558-xx and 37-1534-xx, [EX2](#) and [EX3](#)
- 69-2672-xx, includes 13x Ethernet cables 37-1558-xx [C7-C18](#), [CX2](#)
- 69-2675-xx (mic bar and mute button), includes:
 - o 2x DisplayPort-to-DisplayPort cables, 12 meter, 37-1541-xx, [MC2](#) and [MC3](#)
 - o 12x Mini-DisplayPort-to-Mini-DisplayPort cables, 2.6 meters, 37-1542-xx, [A7-A18](#)
- 69-2677-xx, includes 3x Jumper Cord, 2 meter, 37-0994-xx

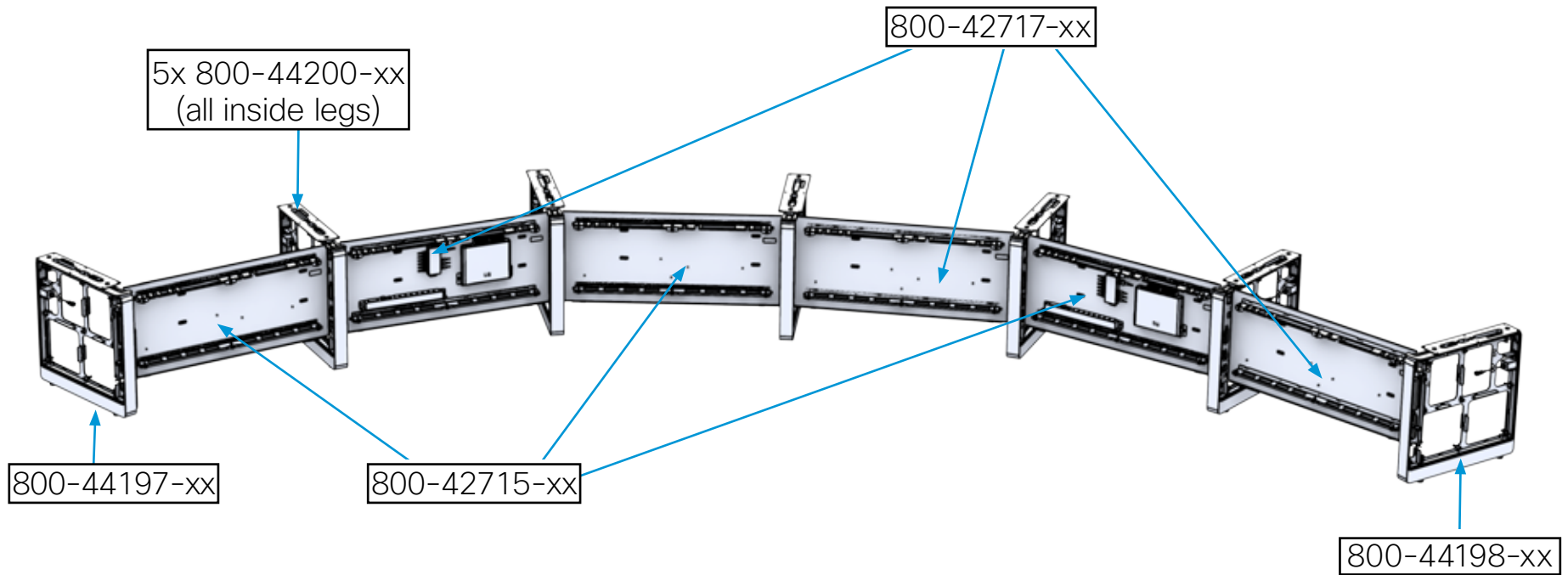
Preinstallation requirement: Plan for trenching for cables in the room using the following diagram.



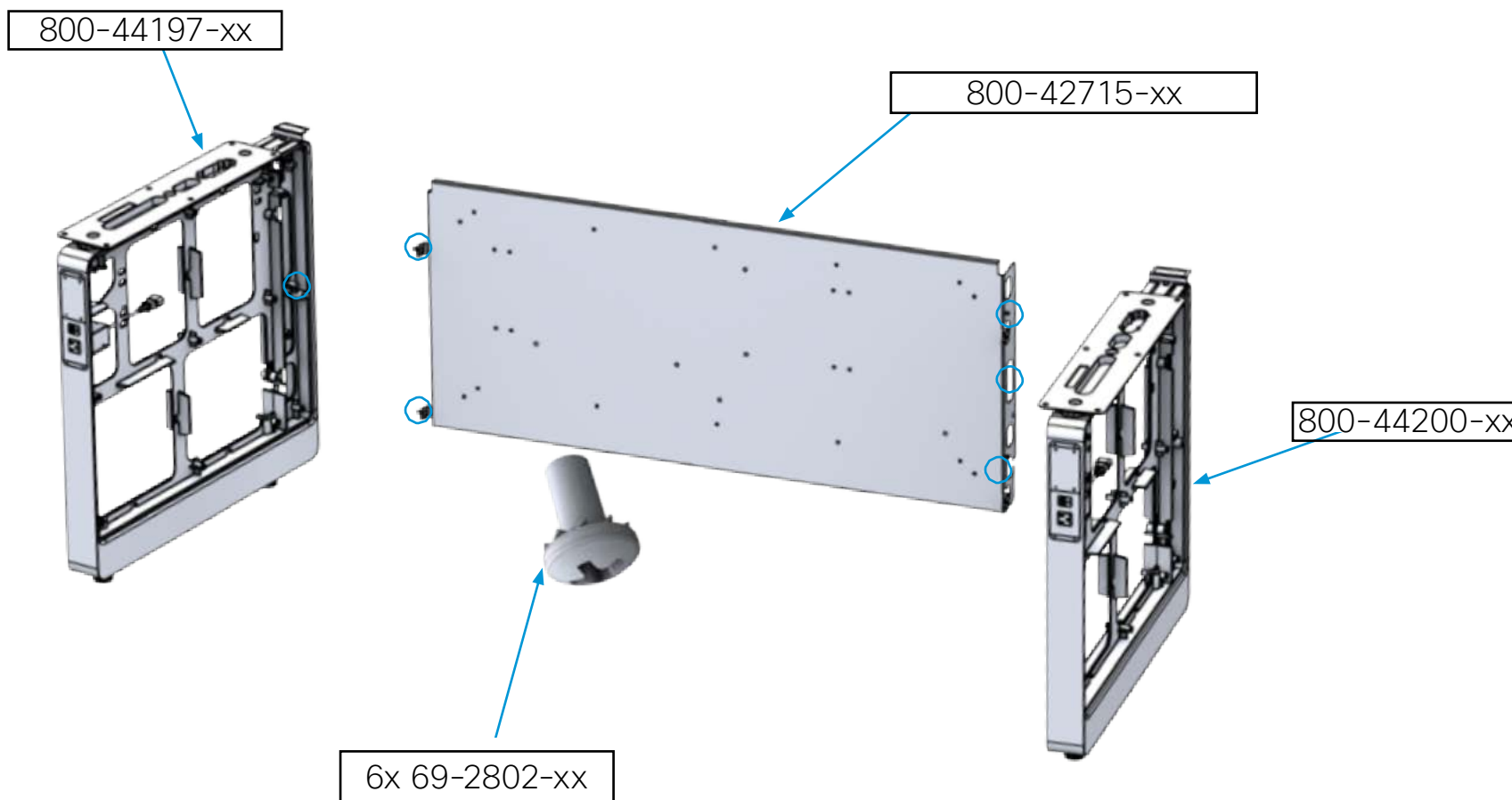
- 1 Turn the 7x table legs (1x far left 800-44198-xx, 1x far right 800-44197-xx, 5x inside legs 800-44200-xx) upside down. Adjust the levelers until there is 1 inch (25mm) between the bottom of the leg and the base of the foot.



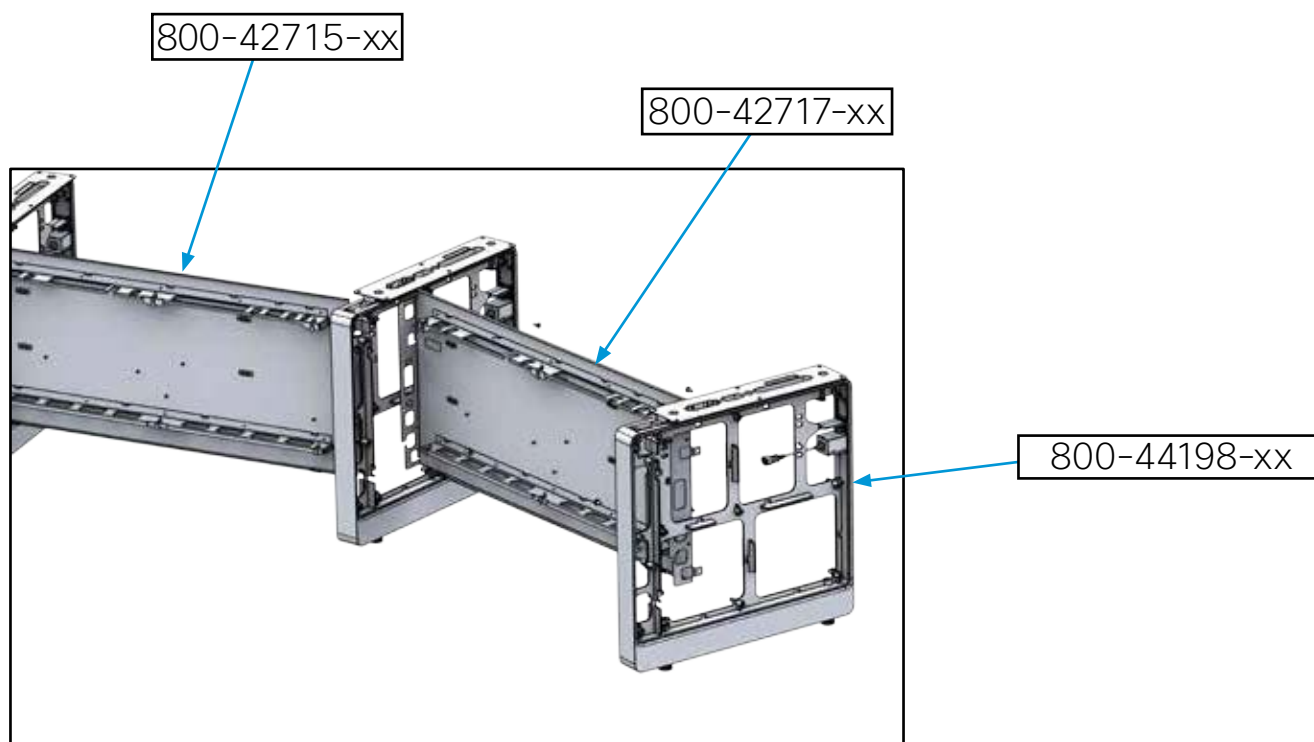
2 Make a note of the table legs and assemblies used for the cable management panels that go between the legs, and be sure to assemble these panels in the correct order. **NOTE:** This is shown from the front, so right and left are reversed.



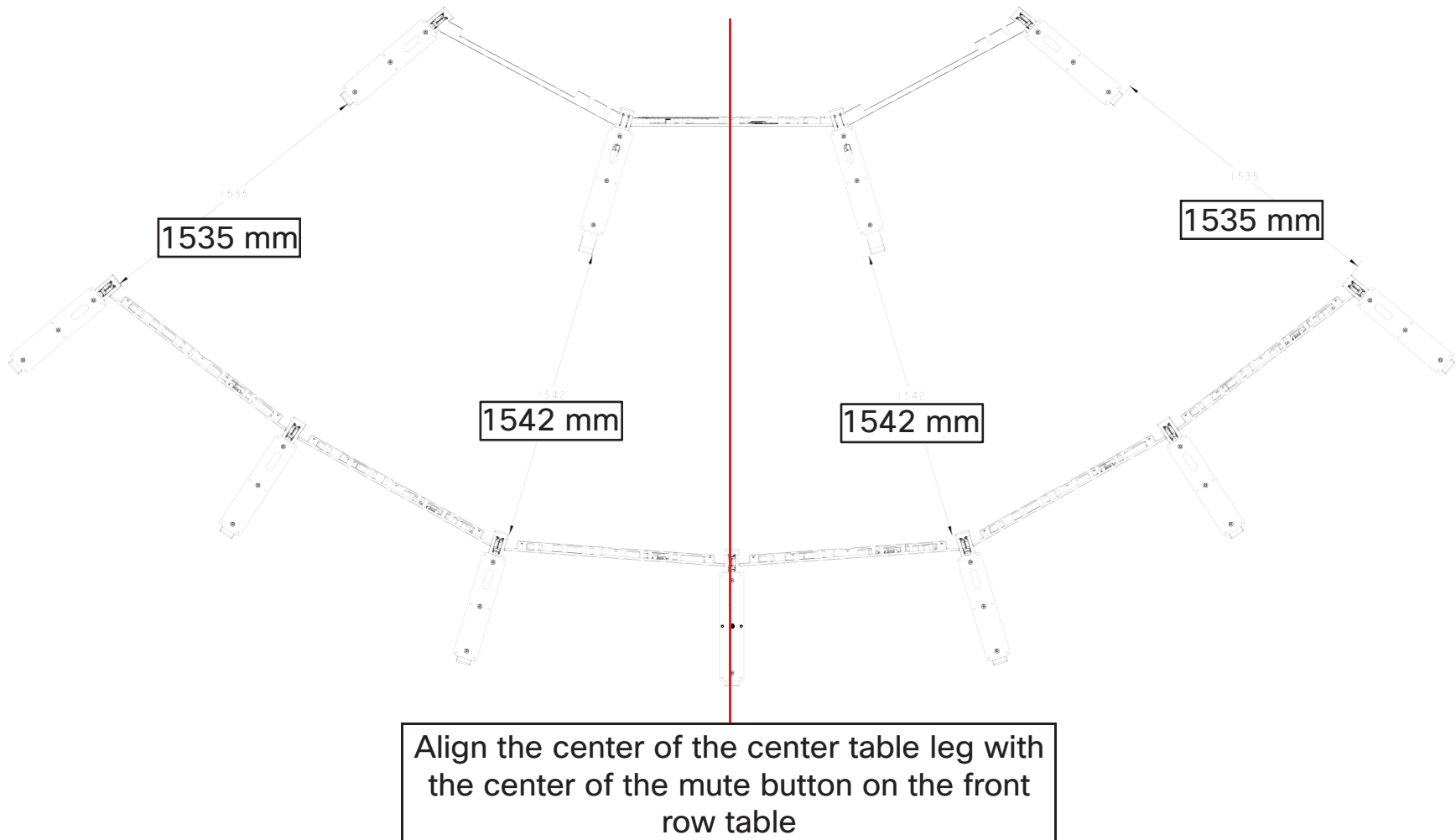
3 Connect the far-right cable management assembly 800-42715-xx to the far-right table leg 800-44197-xx and the second-from right table leg 800-44200-xx by inserting 6x M8x16mm screws 69-2802-xx into each leg.



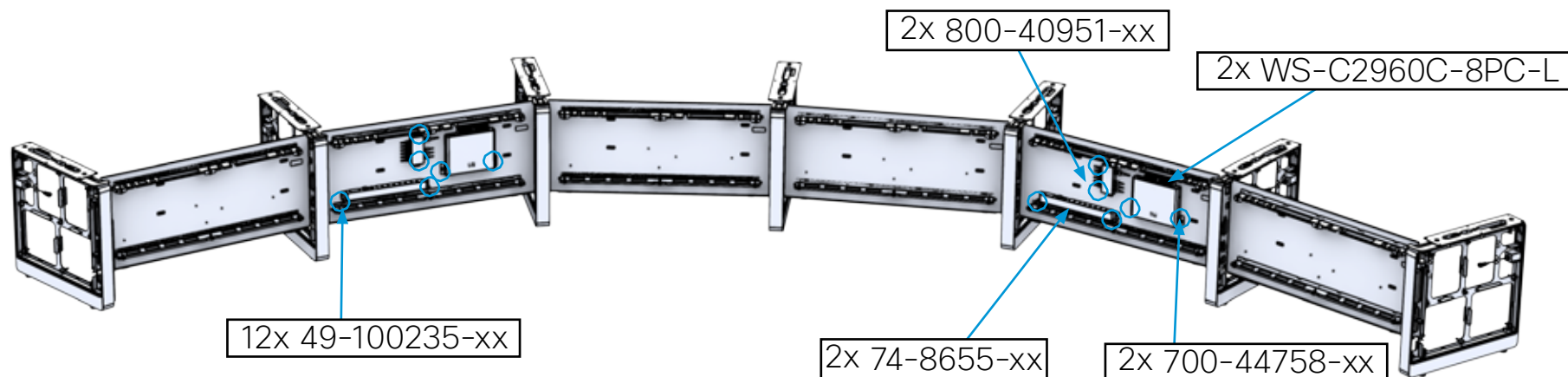
4 Continue to build the table from the right to the left, alternating cable management assemblies and using the same attachment procedures. Save the far-left table leg 800-44198-xx until the very last step.
Tip: Keep the structure centered behind the first row table, and use the measurements in the next slide to keep it the correct distance from the first row table.



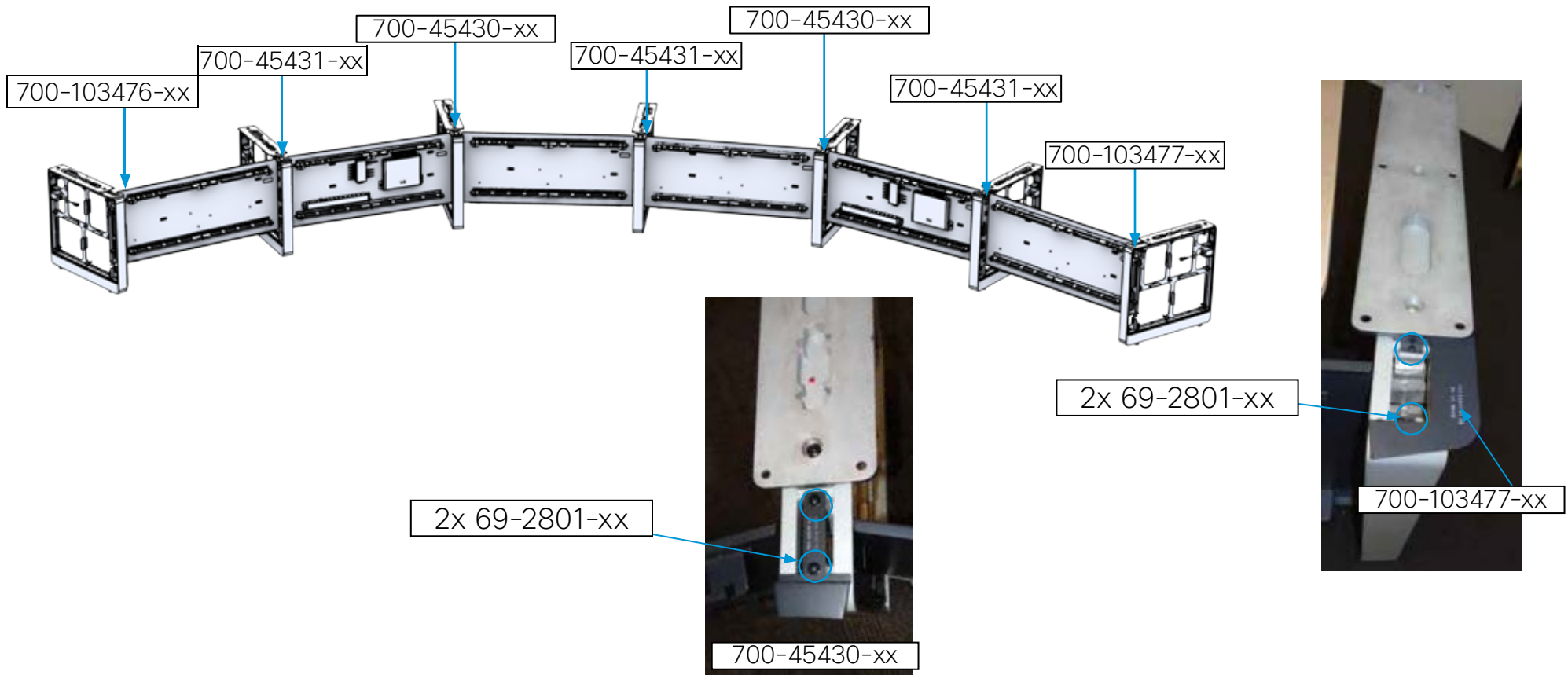
- 5** Measure the distance between the 1st and 2nd row table legs and center the system relative to the front row.



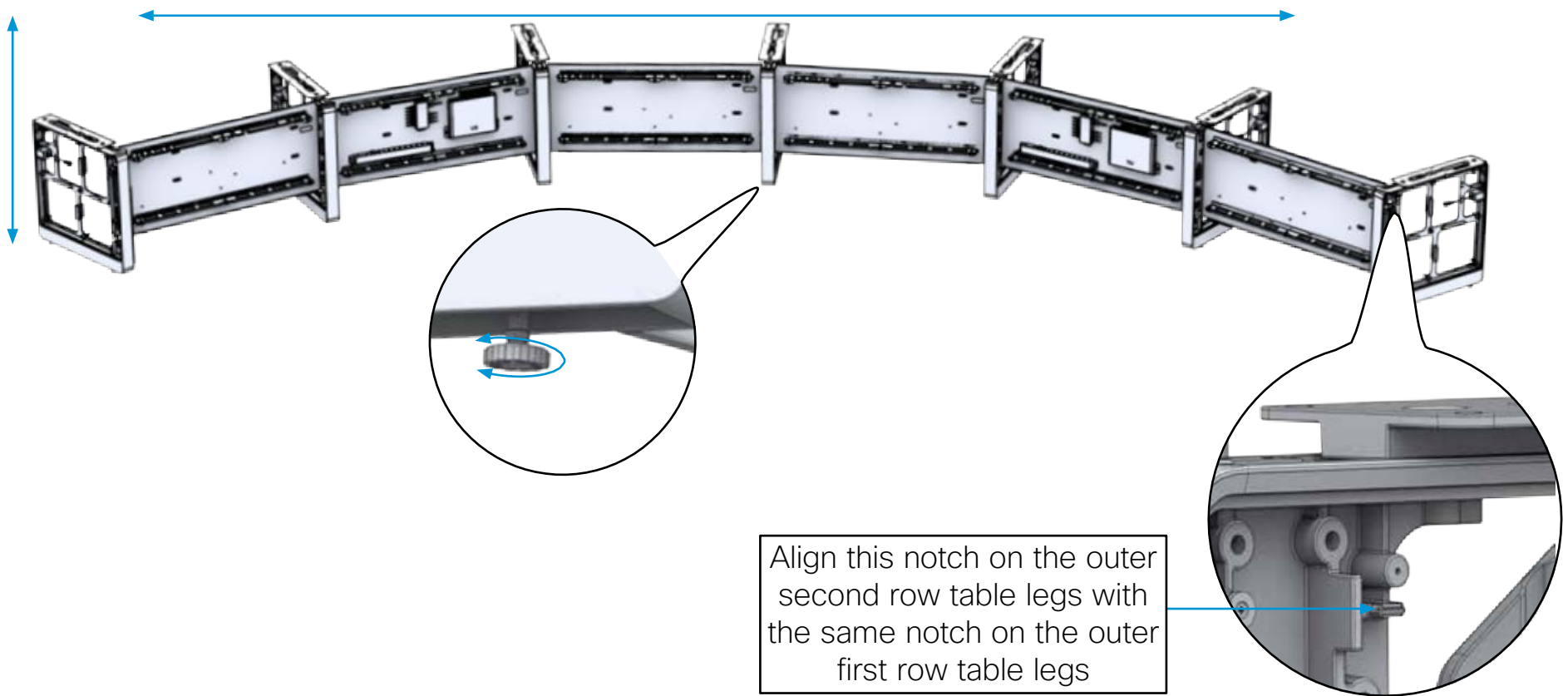
- 6 Install the 2x switches WS-C2960C-8PC-L, 2x MCs 800-40951-xx, and 2x PDUs 74-8655-xx. **a.** Connect the 2x switch bracket 700-44758-xx to the switch with 2x 10-32 screws 69-2818-xx. **b.** Attach the 2x switches, 2x MCs, and 2x PDUs to the structure using 12x M6 nuts 49-100235-xx.



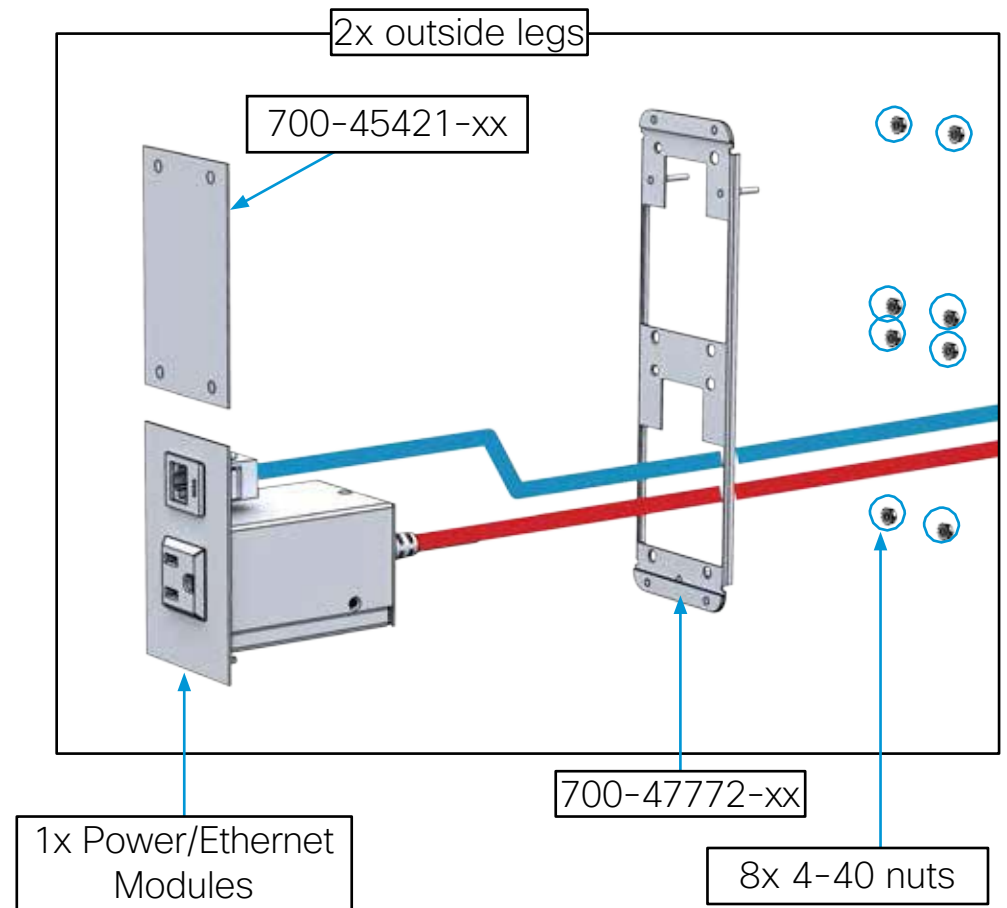
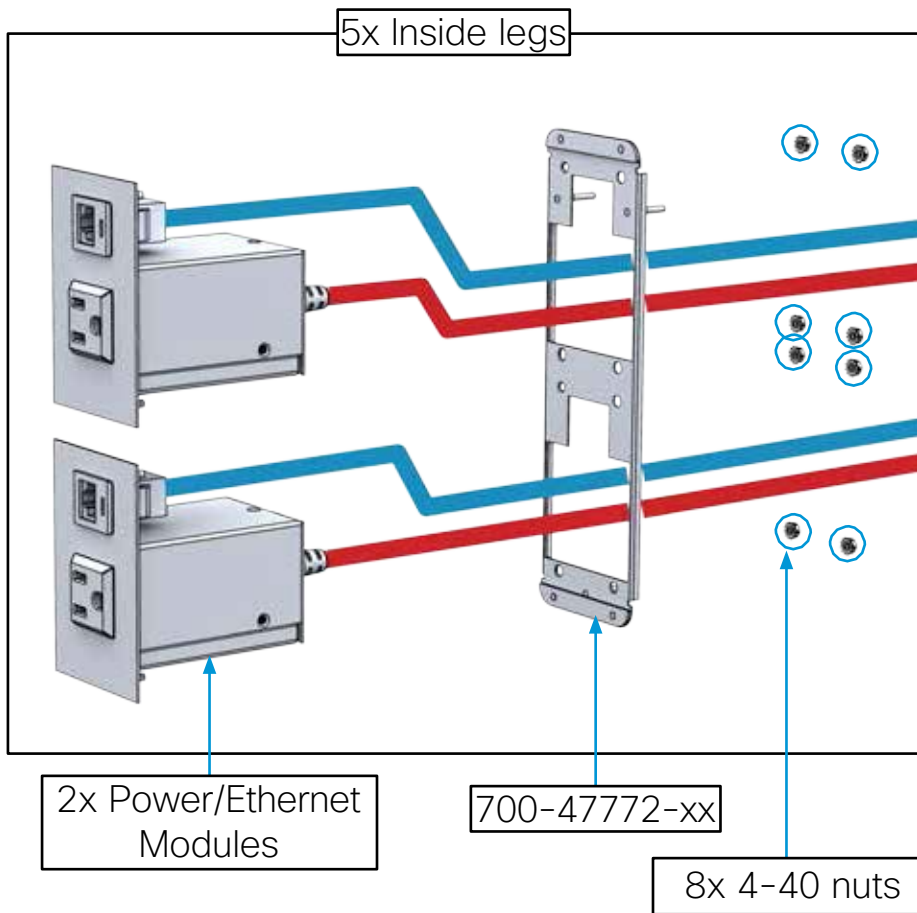
7 Install the metal trim pieces onto the outside table legs (700-103477-xx left corner, 700-103476-xx right corner, 700-45431-xx outside-left, outside-right and center, 700-45430-xx inside-left and inside-right) using 14x M4x12mm 69-2801-xx screws. **NOTE:** This drawing is shown from the front - left and right are reversed.



- 8 Check the level in the vertical and horizontal axis using a laser level. Use the leveling feet to raise or lower the legs. Check the height of the second row relative to the first row by removing the outer panels on the first row table legs and aligning the horizontal notches on the outer first and second row table legs.

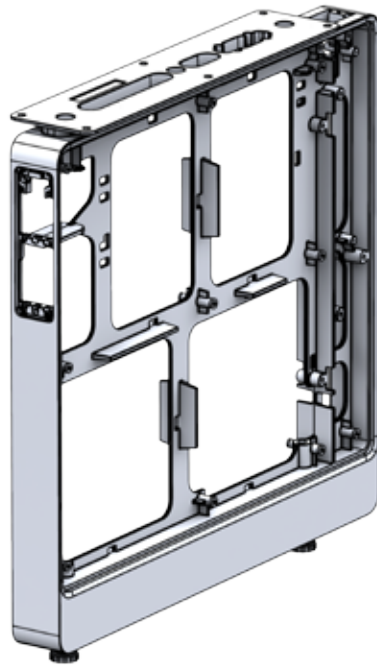
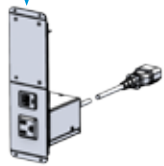


9 Assemble the power outlets to the outlet covers. **a.** Take the 12x Power/Ethernet connectivity modules (part number varies by country) and assemble them to the 7x Power/Ethernet connectivity cover 700-47772-xx using the 4-40 nuts included with the power/Ethernet module. **b.** Use 2x blanking plates 700-45421-xx for the two outside legs as shown.

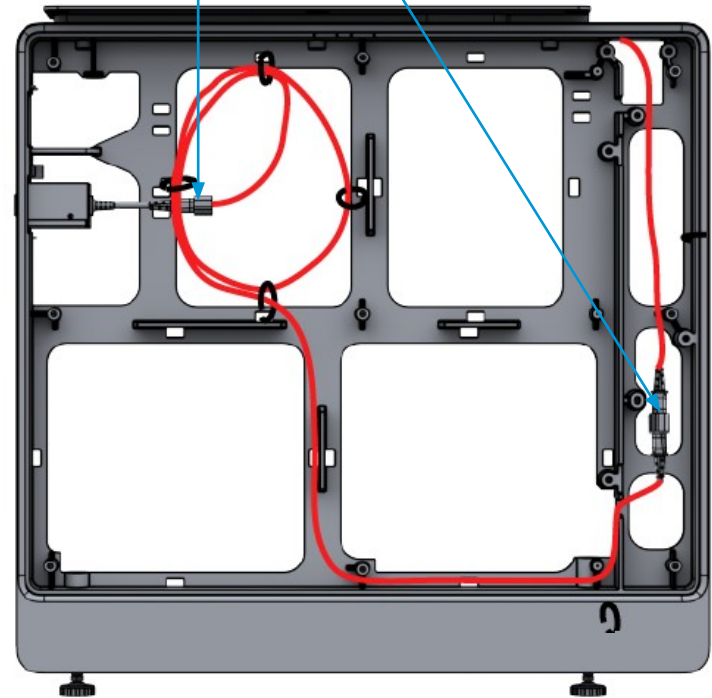


- 10 Install the 7x power/Ethernet connectivity modules to the table legs. Install 3x #4-40 nuts to the studs and tighten the nuts. Insert the modules with one outlet and one blanking plate into the two outside table legs. **Add one additional jumper cable to each table leg (to facilitate any replacement procedure).**

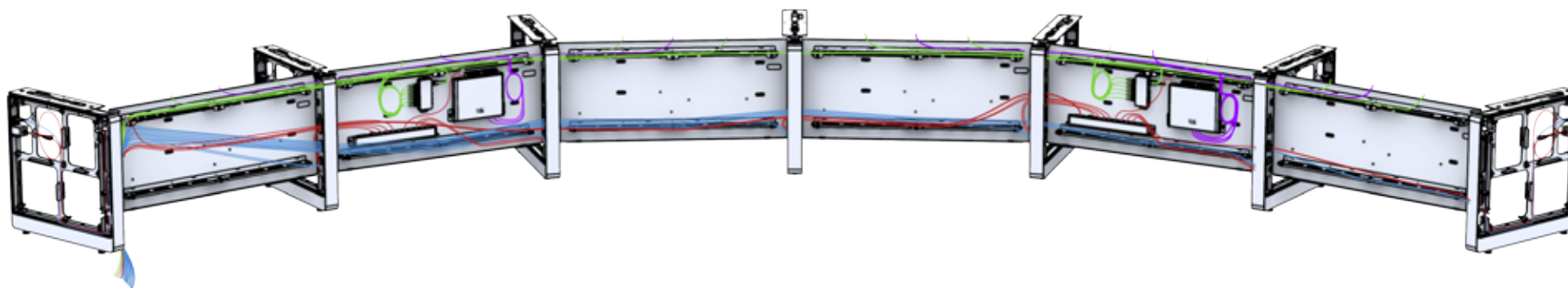
Assembled power/Ethernet connectivity modules



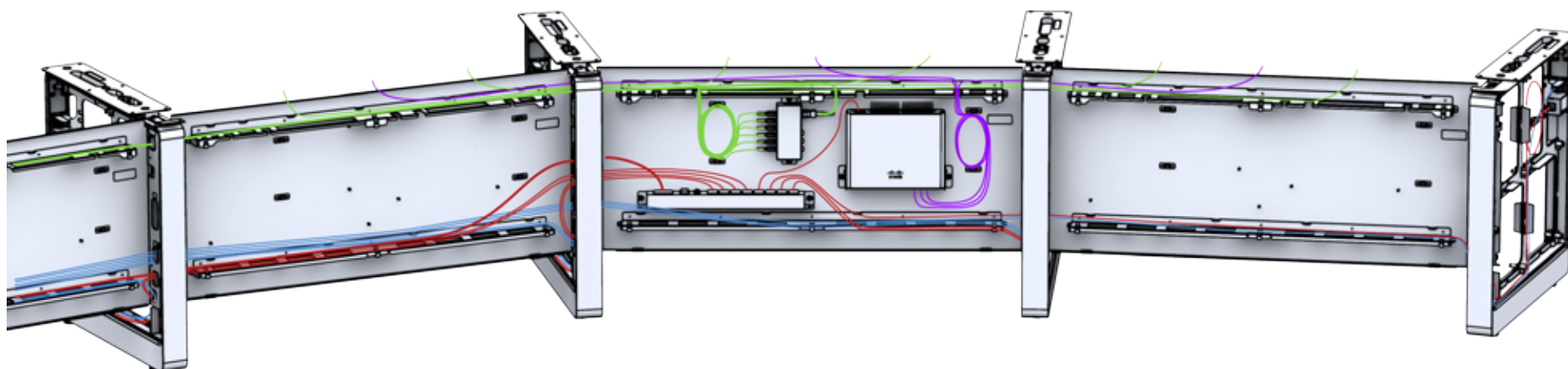
Insert extra jumper cable and route behind power connector - note jumper connections



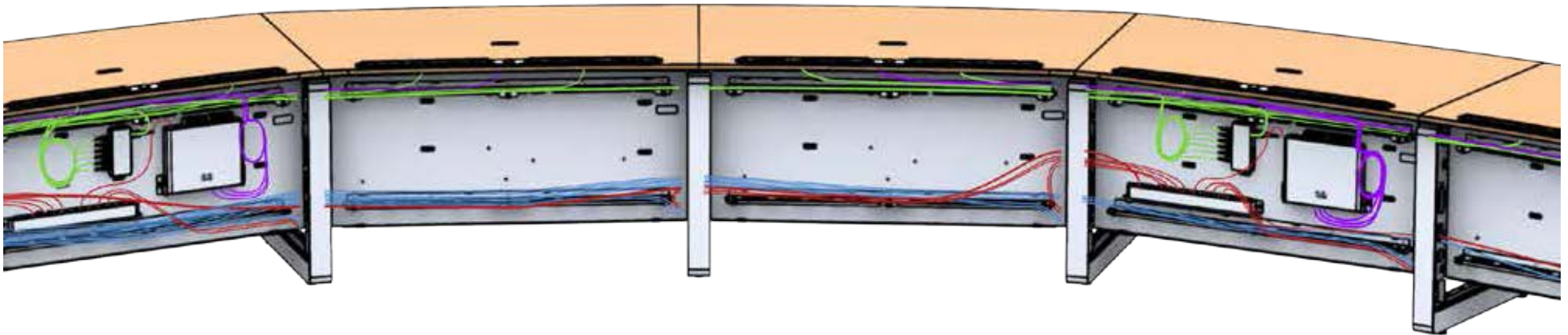
- 11 Perform all cabling for the second row, including the following:
- Mute button cables
 - Mini-DisplayPort cables for the mic bars. **Note:** Use the correctly-numbered cables for the mic bars and match the cable numbering to the numbering on the MCs. Use the cabling diagram for complete information.
 - 12x Ethernet cables for the 12 Ethernet participant laptop connections
 - 12x power cables for the 12 power connections for participants
-



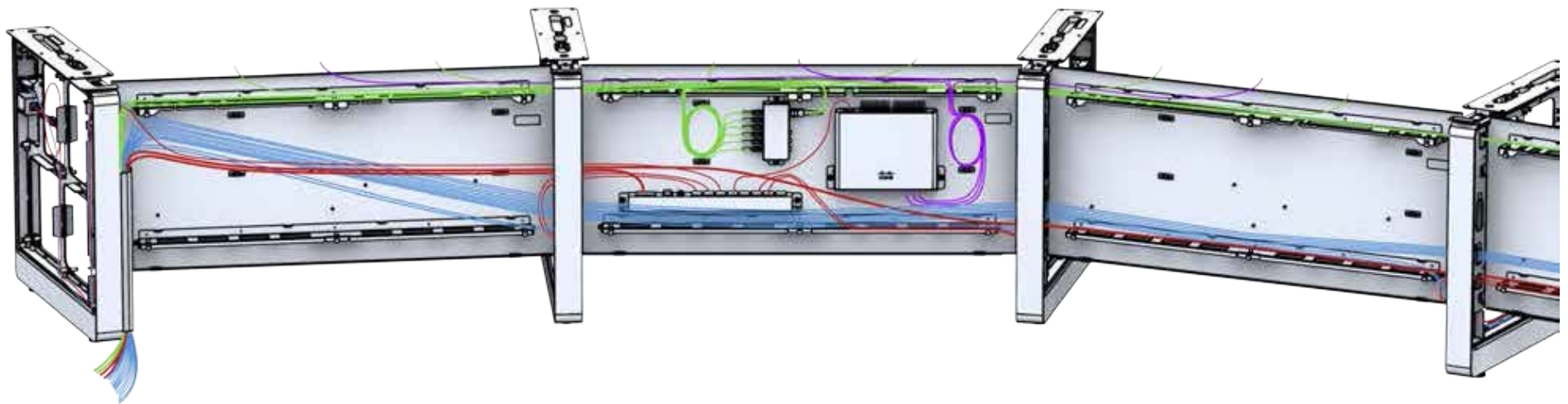
Cable Routing, Left



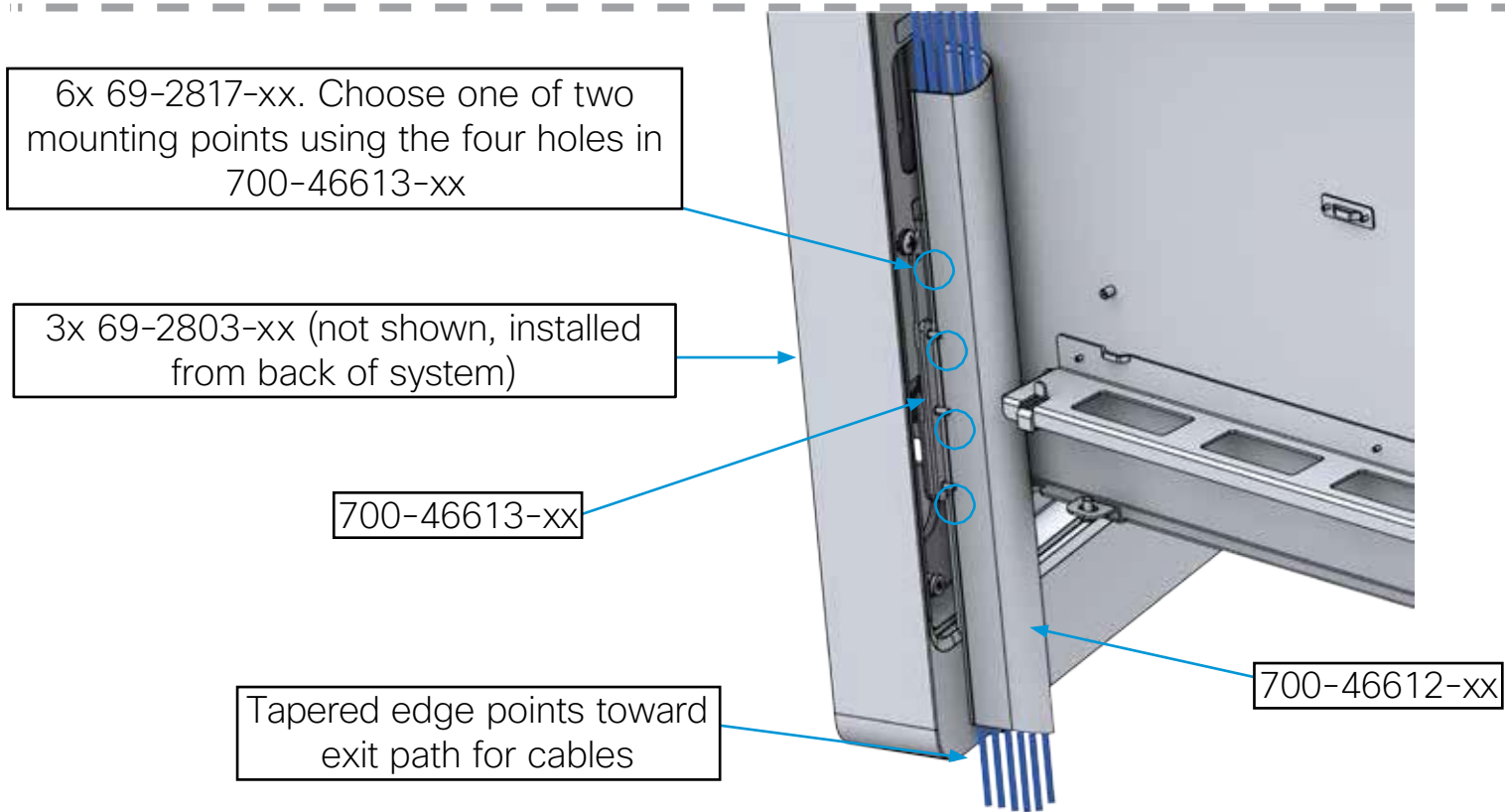
Cable Routing, Center



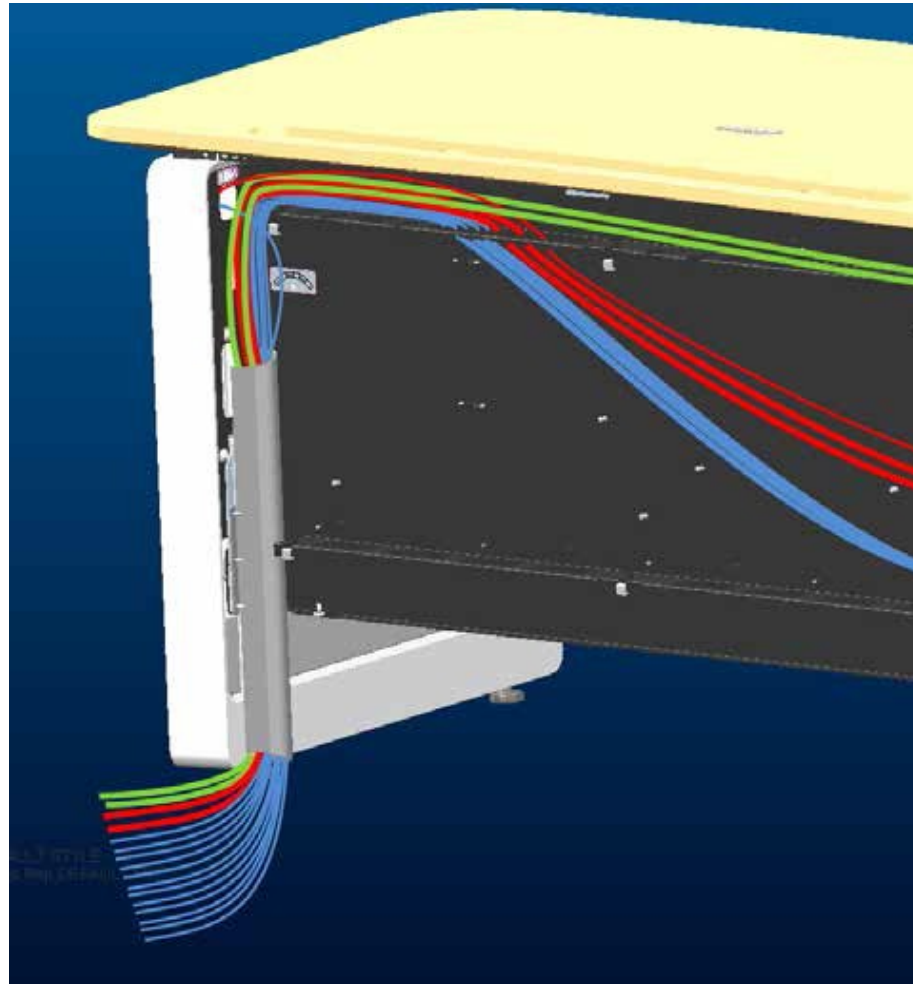
Cable Routing, Right



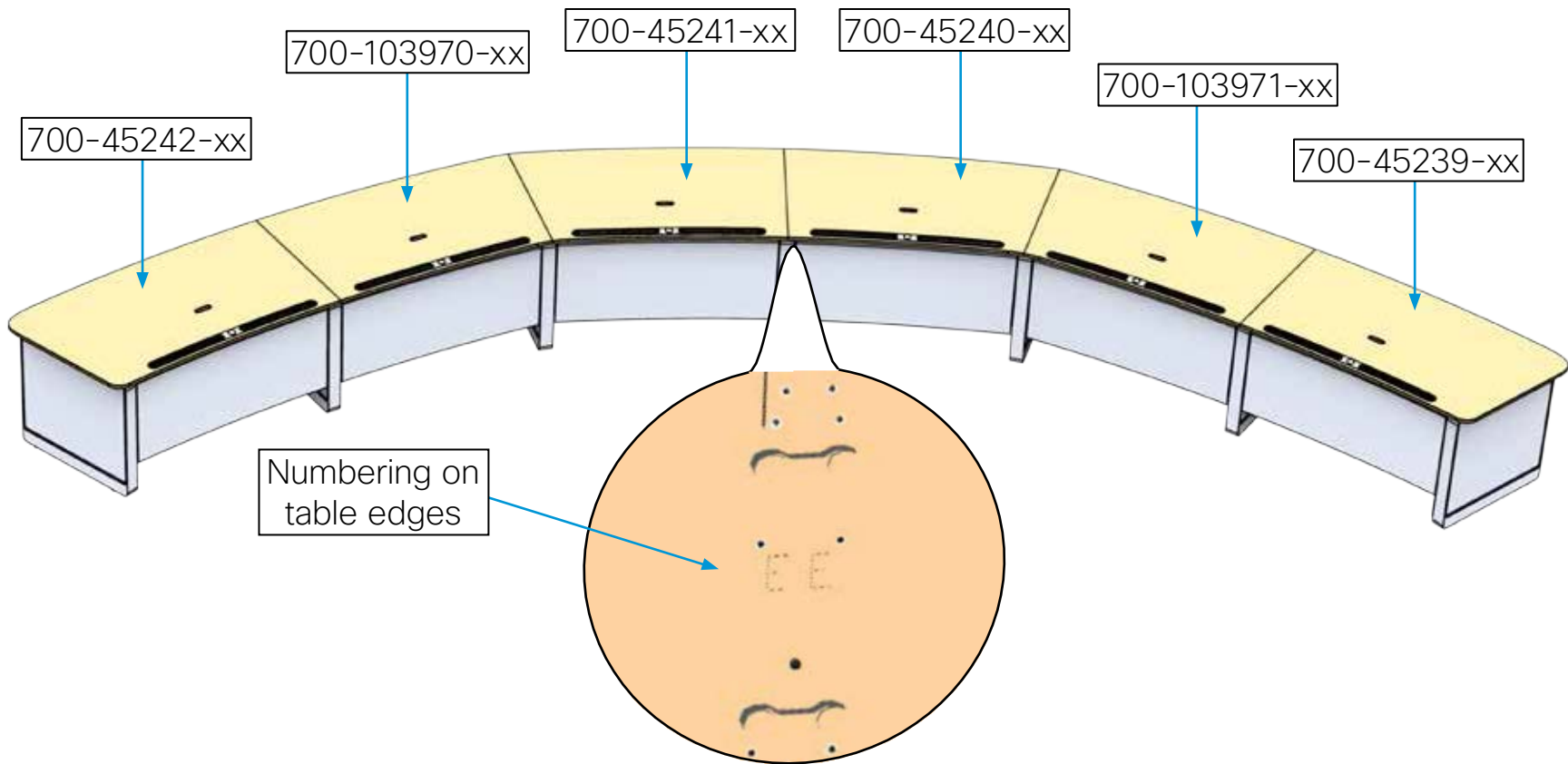
12 Determine the exit point for the cables (on the right or the left of the system). Bundle the cables into the short round piece of the downspout 700-46612-xx from the left or right exit point. Connect this piece to the long flat piece 700-46613-xx using 6x M4x10mm screws 69-2817-xx. Then connect the assembled downspout to the far-right or far-left table leg using 3x M6x10mm screws 69-2803-xx. **Note:** There are four holes in 700-46613-xx in which 700-46612-xx may be mounted. If the round piece is too close to the floor, slide it up and use the top three holes. **Tip:** Install the downspout so that the tapered area points toward the exit path for the cables. **Note:** If you use non-standard trenching between the endpoint structure and the second row table, be sure that all cables can reach their intended electronic components from one side of the table. If you have difficulty, two cable downspout sets are provided; you can route cables from both sides of the table.



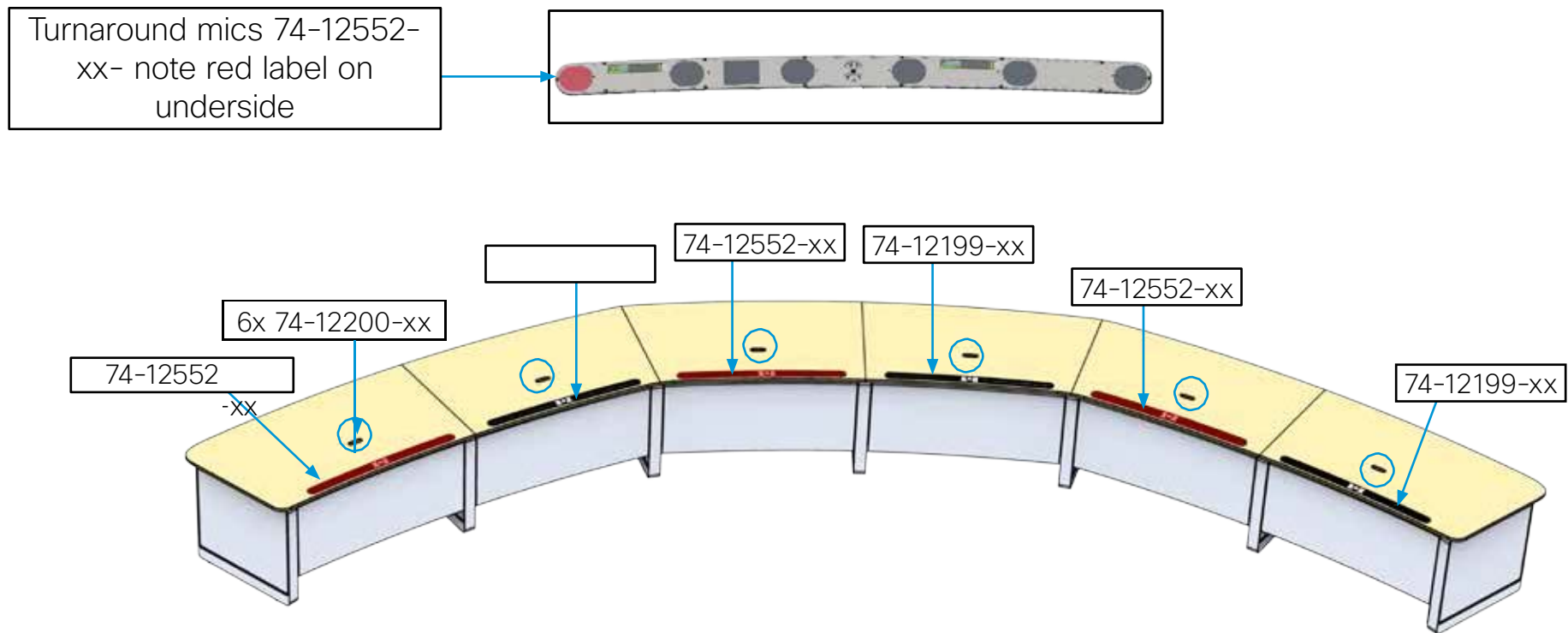
Cable Routing For the Downspout



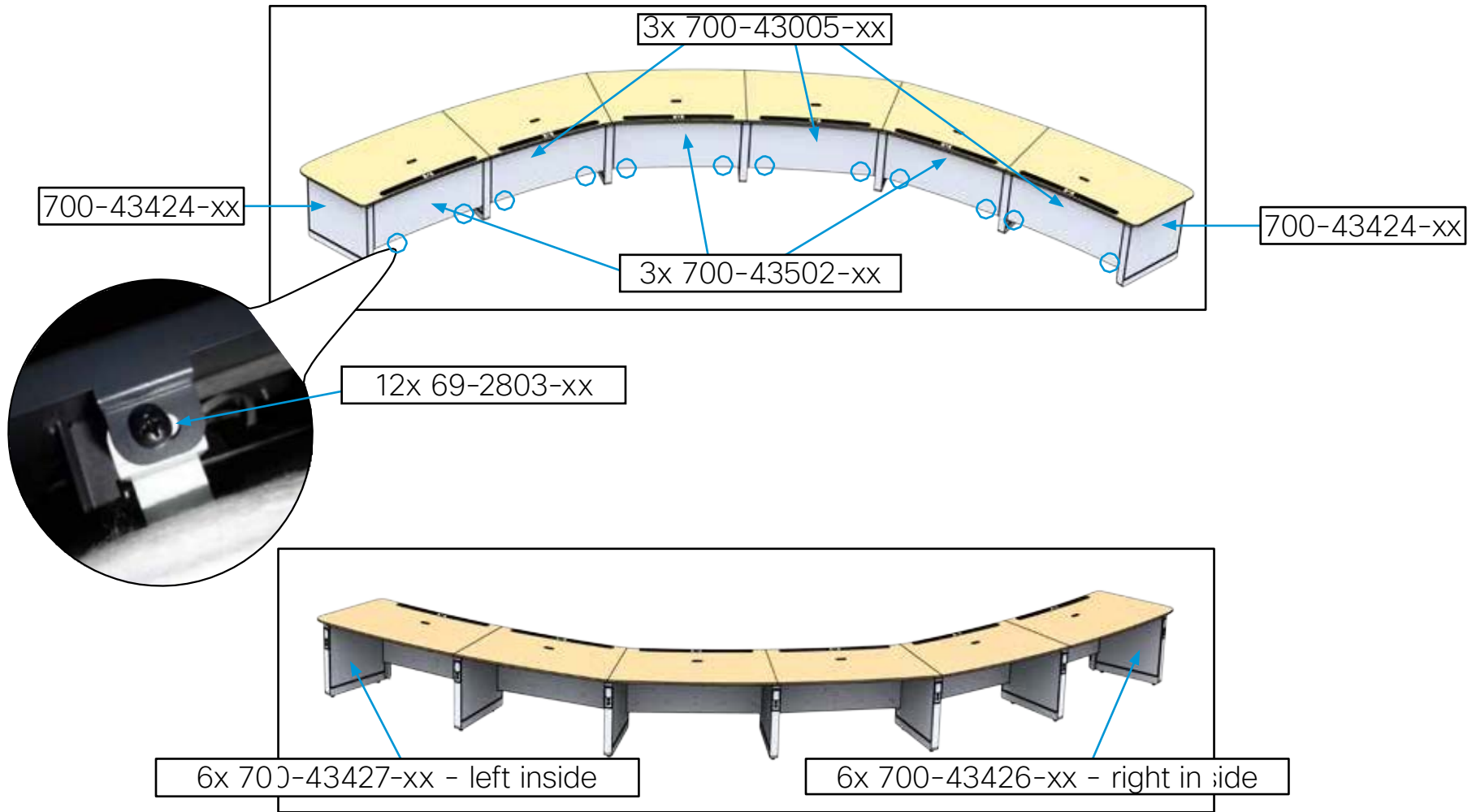
13 Install the table tops. Install the right three sections, then the left three sections, then put the sections together. Use the table joiners, half moon bolts, and joint plates, the same as the first row.
Tip: There are letters on the edges of the table. Match the letters on the underside of the tables to build the table correctly.



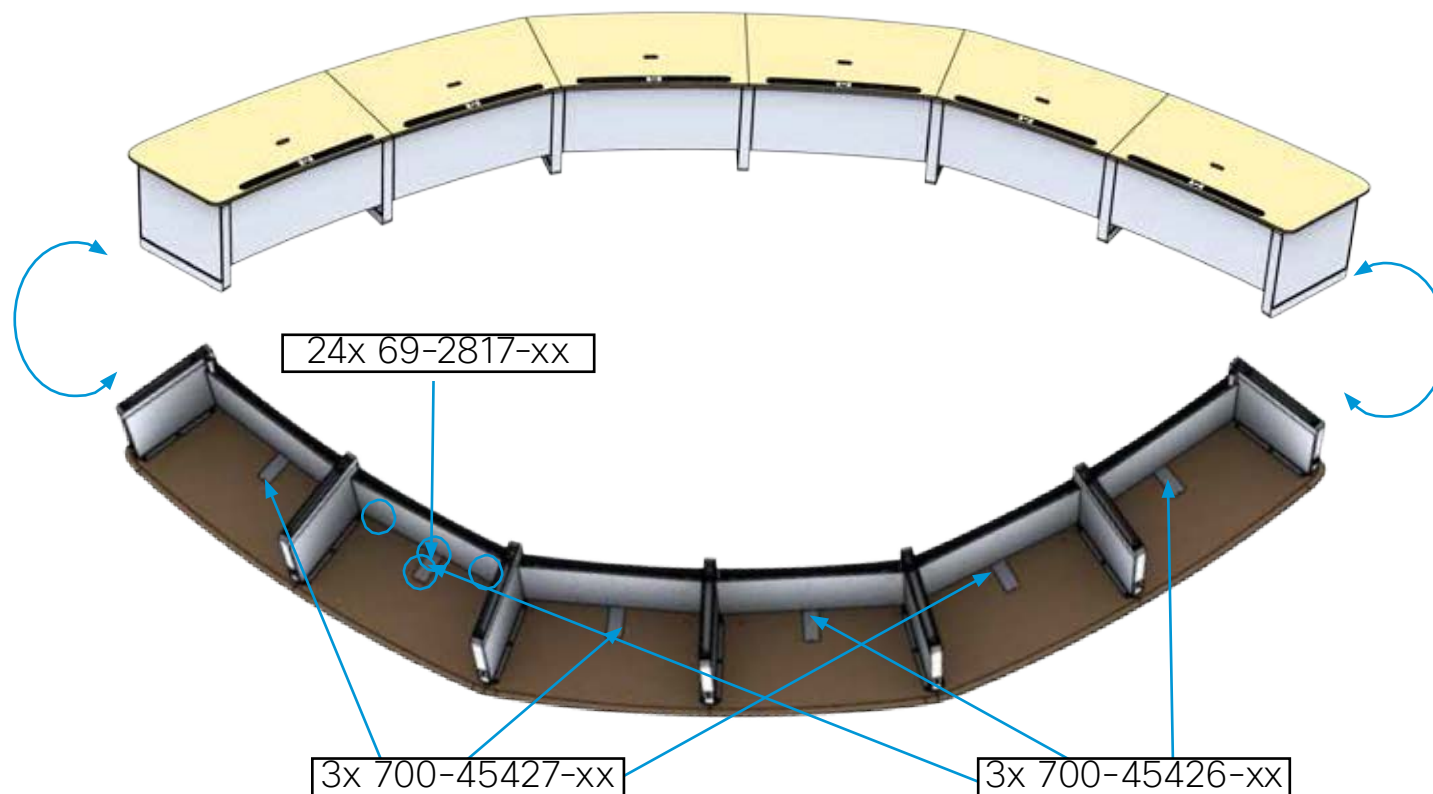
- 14** Install the 6x mute buttons 74-12200-xx and 6x microphone (mic) bars (3x 74-12552-xx and 3x 74-12199-xx) using 48x M4x12mm screws 69-2801-xx. See Chapter 13 for the steps. If your second row has Touch 10 devices, install them to switches now. Do not throw away the small round **microphone caps that attach to the center of the microphone bars**. Note that you **install 3x regular mic bars, and 3x turnaround mic bars. Turnaround mic bars have a red label on the underside.**



15 Install the leg PET panels and the front panel covers. Place the PET panels over the magnets on the side of the table legs until they stick into place. Secure the front panel covers to the cable management assemblies using 12x M6x10mm screws 69-2803-xx.

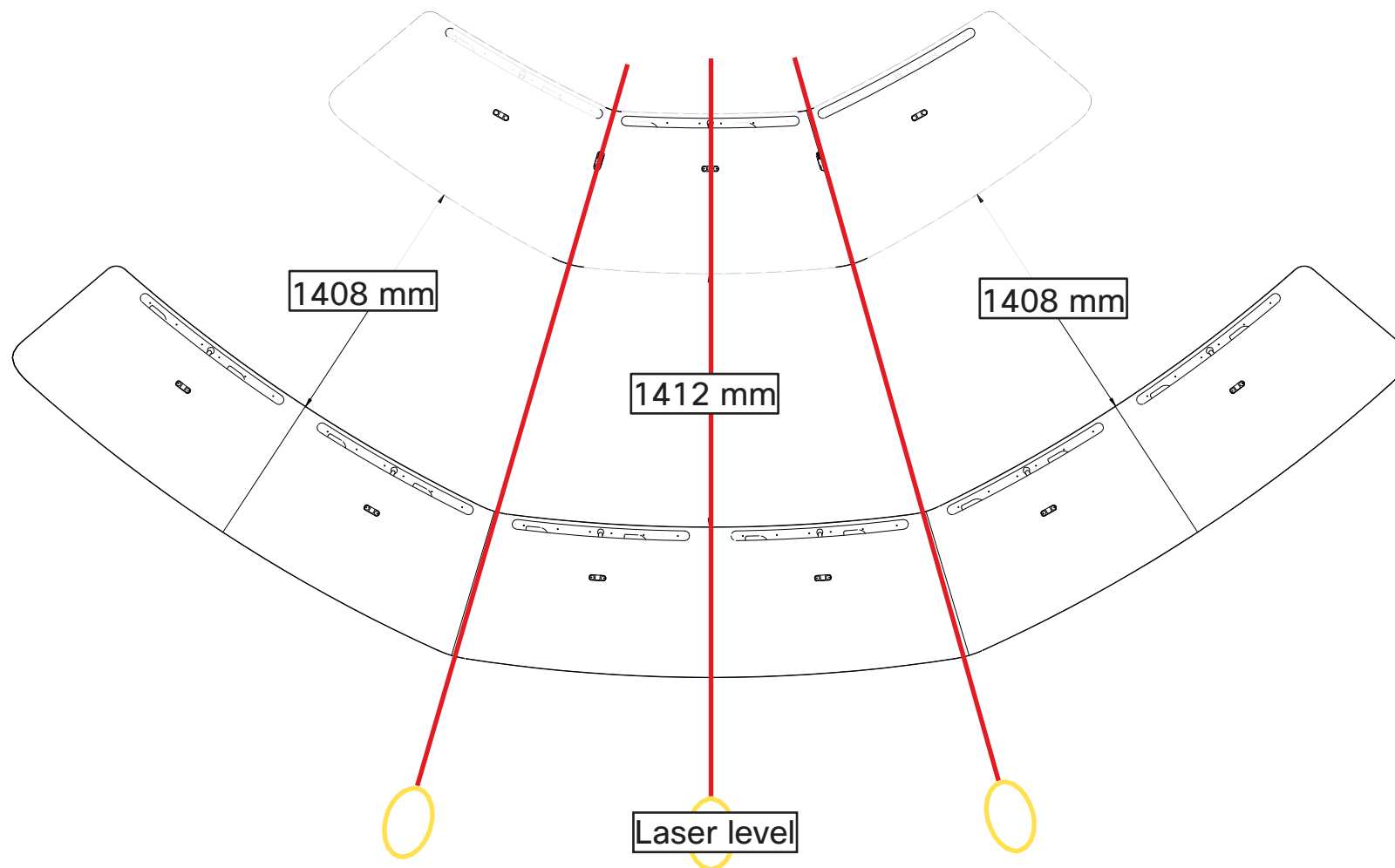


16 Attach the mute button covers to the underside of the second row table to the underside of the tabletop assemblies using 4x M4x10mm black screws 69-2817-xx for each cover.



Installing the Second Row Table (IX5200 Only)

17 Measure the distance between the 1st and 2nd rows and adjust the tables as required. Use a laser level down the center of the table, and the seams between the table sections, to line it up with the first row table. Perform a final height check and make sure that the first and second row tables are the same height.



Installing the Outer Structure Panels and Trim

Required Parts

3x upper cabinets (center 800-41092-xx, right 800-41093-xx, left 800-41094-xx)

2x upper trim joints 700-43281-xx

2x lower cabinet (right 800-41095-xx, left 800-41096-xx)

4x plastic washers for lower right and left cabinets 69-2842-xx

8x black M4x12mm long screw with external lock washer 69-2797-xx

1x each bottom trim pieces (800-42208-xx left, 800-41301-xx center, 800-41302-xx right)

Bottom trim joint assembly:

- o 2x 700-102967-xx (bottom trim plate)
- o 2x 700-47507-xx (narrow bottom trim joint)
- o 2x 700-47506-xx (medium bottom trim joint)
- o 2x 700-47505-xx (wide bottom trim joint)
- o 2x M4 nuts 69-2793-xx

18x black M4x12mm long screw with external lock washer 69-2797-xx

1x horizontal display trim (includes 1x trim 800-42131-xx, 2x pin 700-47278-xx, and 2x clip 52-100131-xx)

1x each top and bottom fascia (74-12905-xx top, 74-13021-xx bottom)

Camera lens hood 800-43478-xx

4x rear PET plastic panels: left 800-41100-xx, right 800-41099-xx, top 800-41097-xx and bottom 800-41098-xx

Rear cable runner cover 700-43380-xx

Required Tools

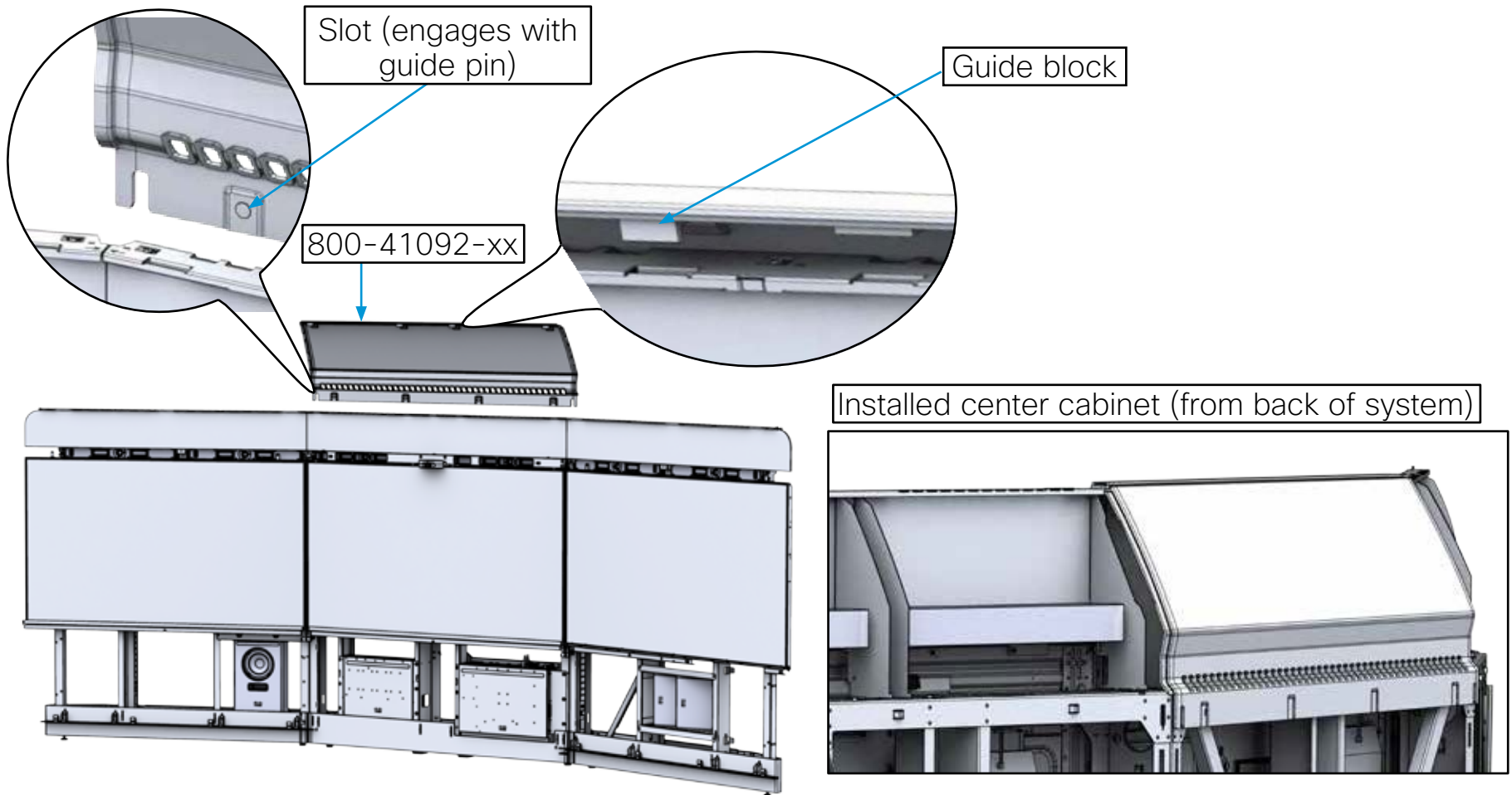
#2 Phillips Driver

Spirit level

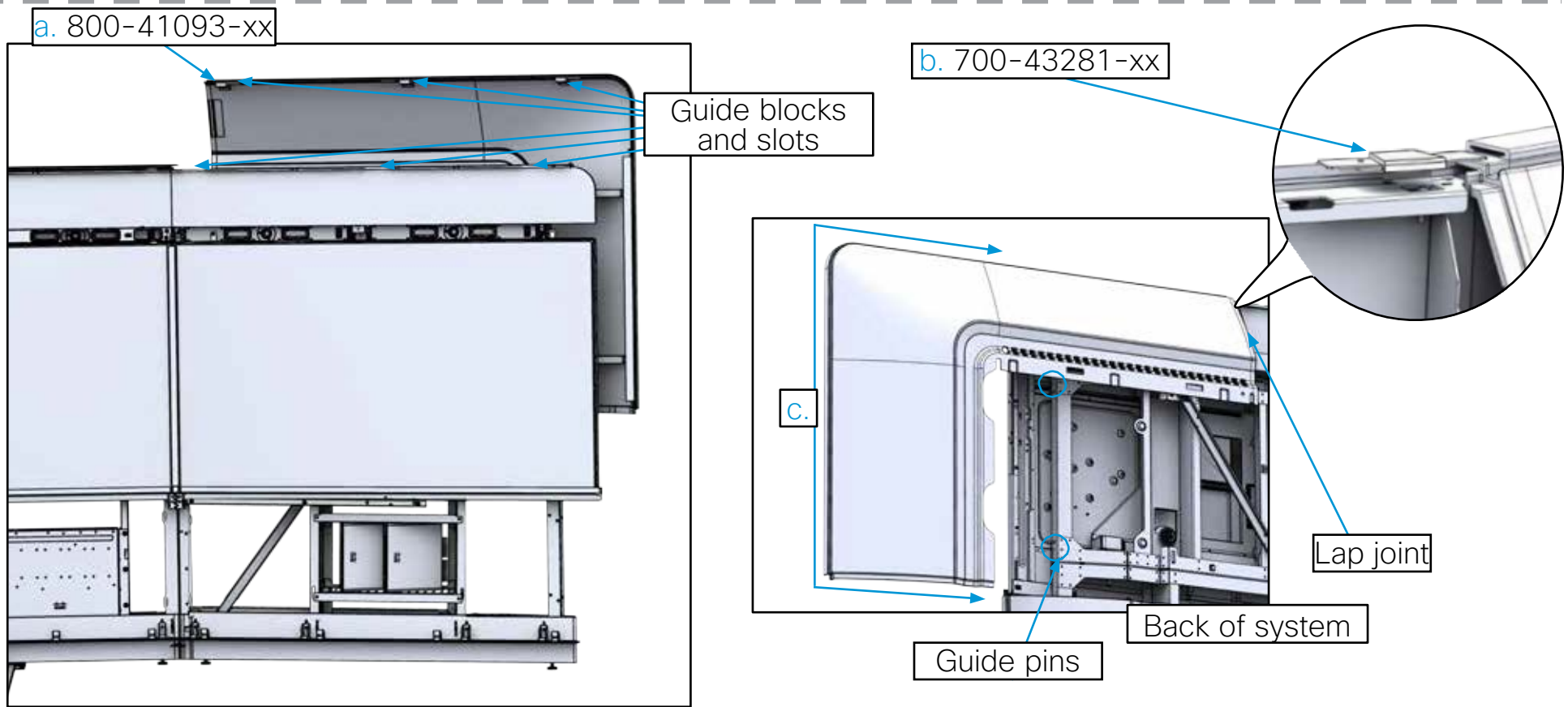
White gloves 69-2795-xx (for handling the top and bottom fascia and rear PET panels)



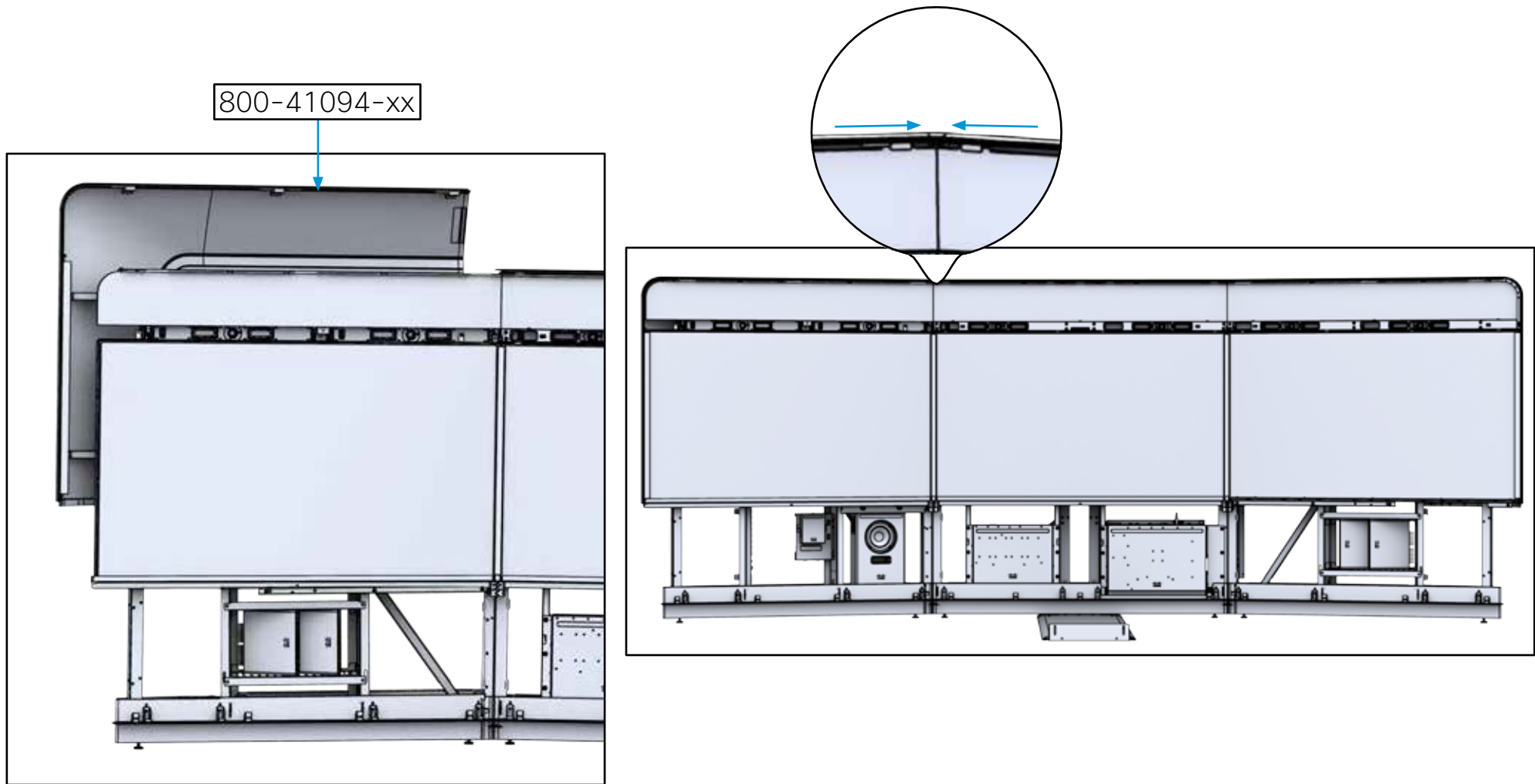
- 1 Install the center cabinet 800-41092-xx.** **a.** Make sure that there is no space between the displays, and push them together if required. **b.** Lift the center cabinet over the frame and lower the cabinet down onto the center horizontal cross bar. **c.** Line up the guide blocks pointing down from the cabinet into the horizontal cross bar. **d.** Reach back behind the center cabinet to make sure the guide pin sticking out of the frame is fully engaged in the slot in the cabinet and the magnets are mated to the frame.



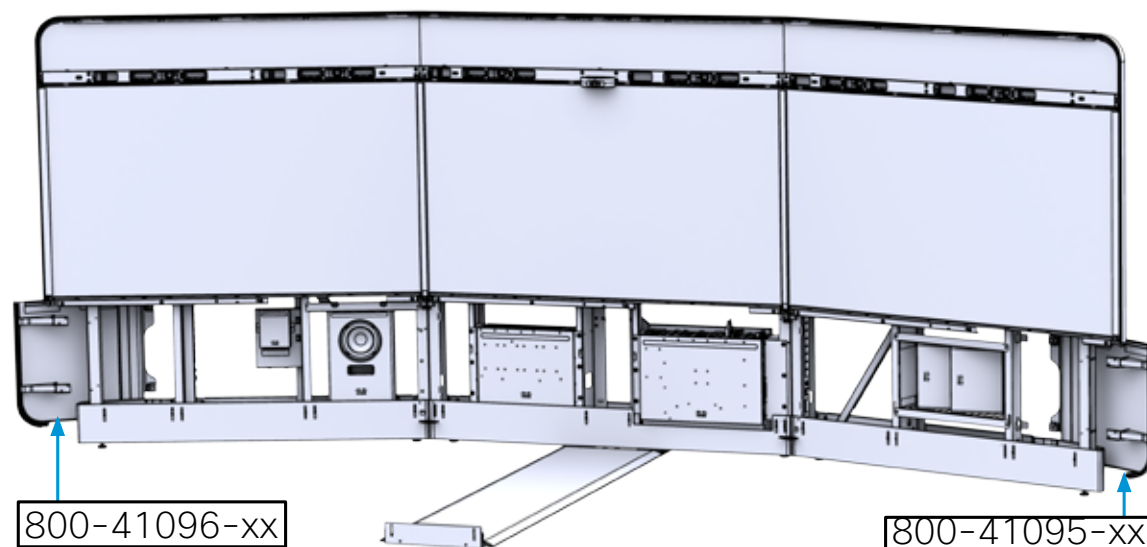
2a Install the upper left and upper right cabinets. **a.** Lower the right cabinet 800-41093-xx onto the horizontal cross bar, fitting the guide blocks of the cabinet into the slots in the cross bar. Make sure the cabinet is as far to the outside as possible to allow installation of the trim joint. **b.** Place the trim joint 700-43281-xx into the right and center cabinet aluminum extrusions. **c.** Slide the cabinet towards the center and engage the guide pins on the side of the frame with the notches in the cabinet. **Tip:** Reach under the cabinets to feel the notches in the cabinet that match with the guide pins in the frame. If the cabinet does not install correctly, check the following areas: 1. The trim joint is connecting to the trim. 2. The guide pins in the frame align with the notches in the cabinet. 3. The lap joint overlaps correctly between the side and center cabinets.



2b e. Repeat for the upper left cabinet 800-41094-xx. f. Adjust the cabinets so that there are no gaps between the upper cabinets and the trim joints, and make sure that the cabinets are fully seated into the structure. **Tip:** If you cannot eliminate the gaps, make the gaps even on both sides.

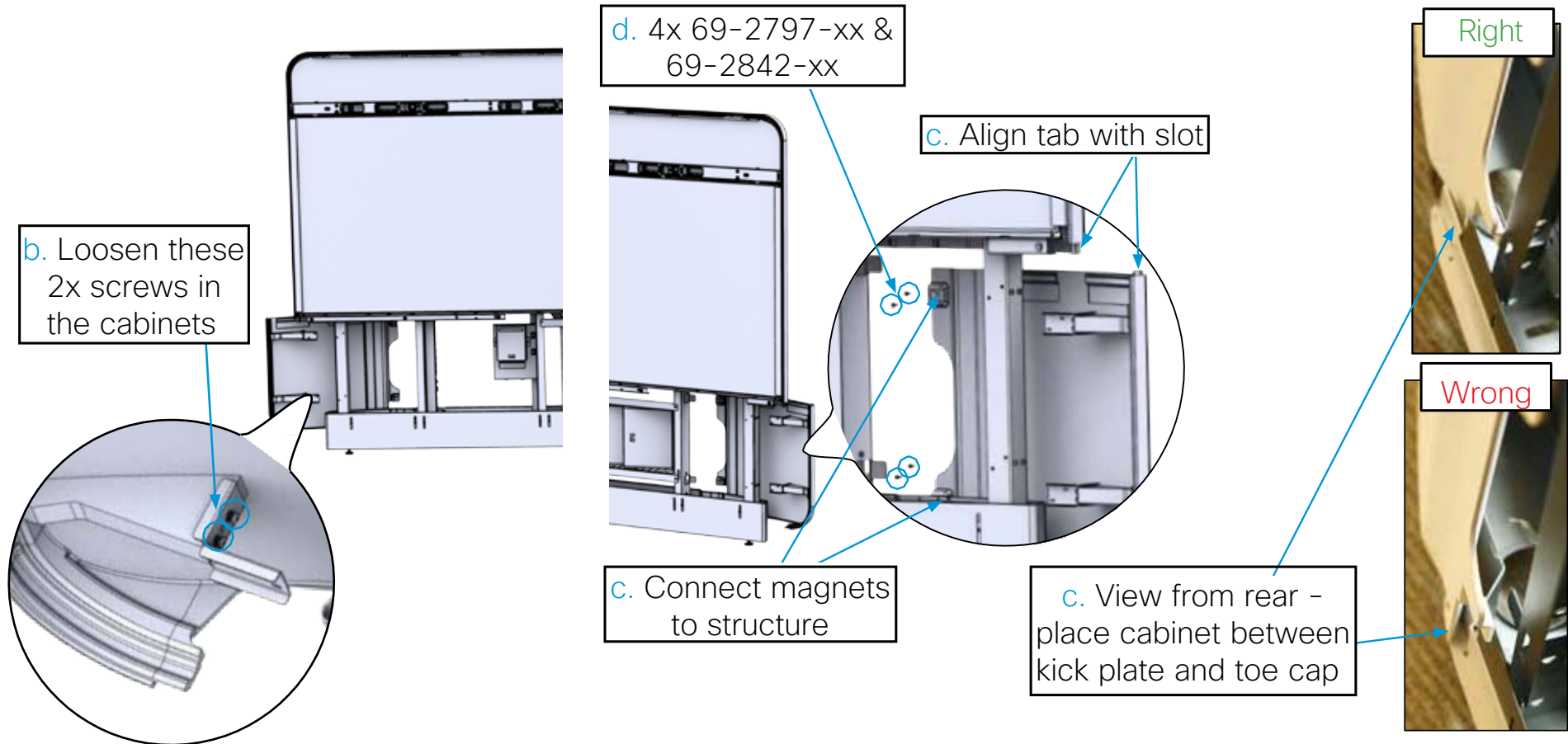


3a Install the lower corner cabinets (800-41096-xx left, 800-41095-xx right).

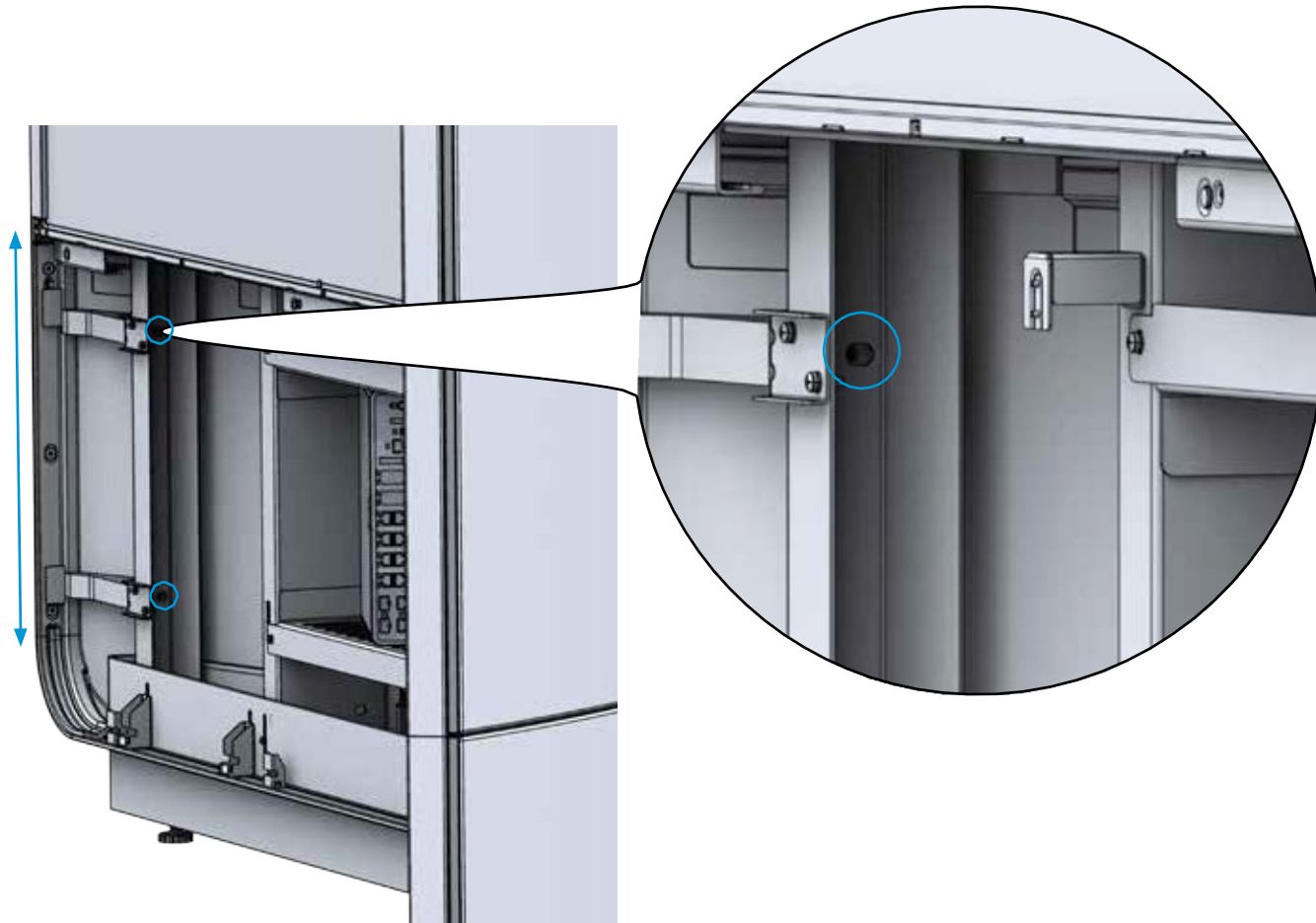


Installing the Outer Structure Panels and Trim

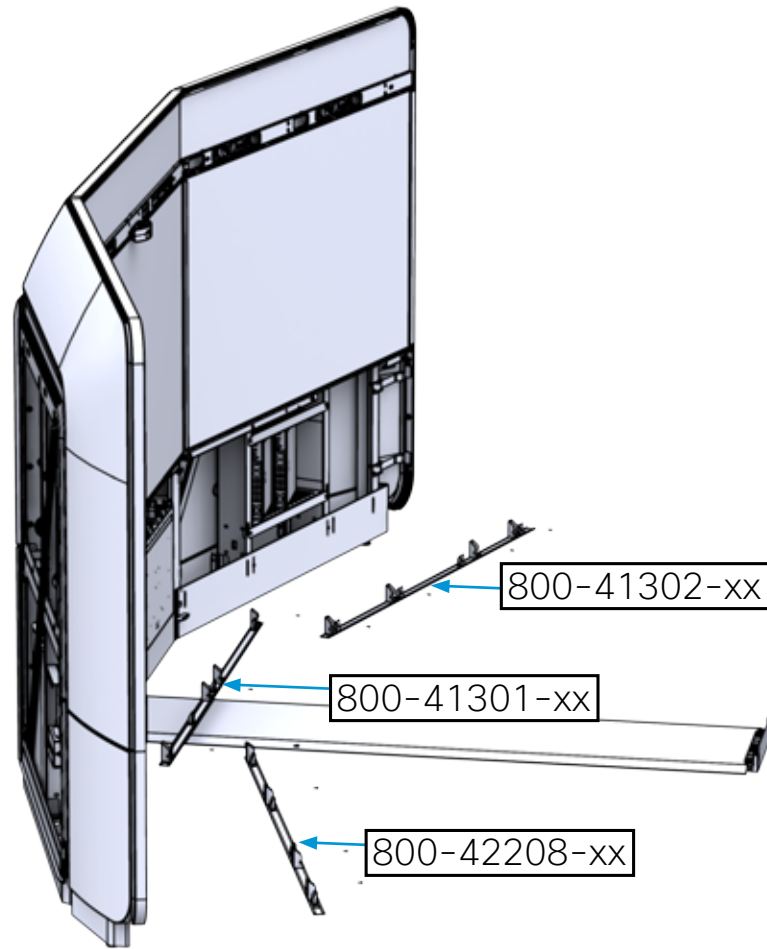
3b b. Loosen, but do not remove, the 4x black M4 X 16mm screws on the lower cabinet sheet metal brackets 800-41095-xx (2x screws for each side) so that there is some movement in the bracket.
 c. Place the lower cabinets into position. Fit the tab with the trim in the upper cabinet. Place the lower part of the cabinet between the kick plate and toe cap so that the two magnets on the cabinet attach to the endpoint structure.
 d. Place a plastic washer 69-2842-xx over 8x black M4x12mm long screws 69-2797-xx, then install the screws with washer through the cabinet brackets and into the endpoint structure. Do not use a power driver to tighten these screws. Tighten them so that some movement of the cabinet is allowed but it can hold its position.



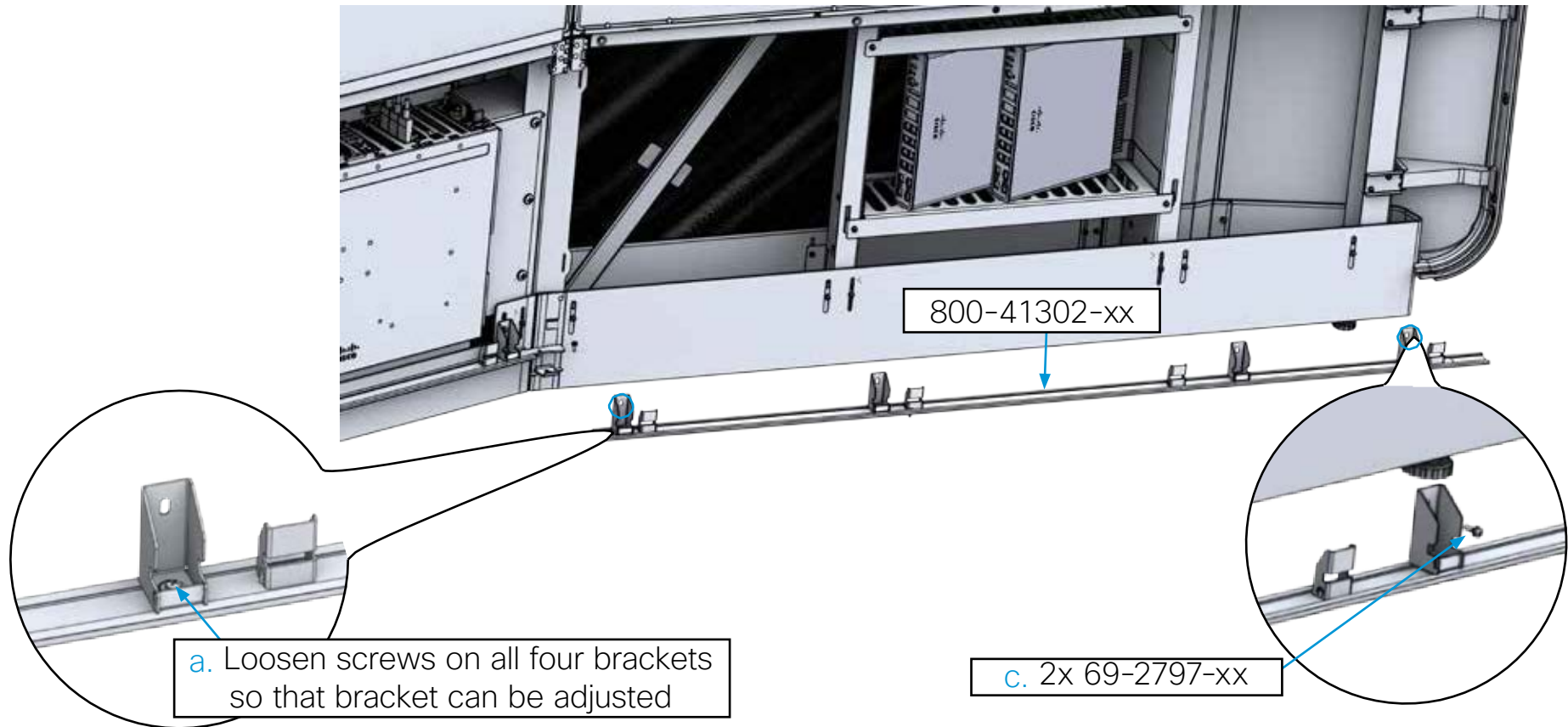
3C Place a level on the front of the lower cabinets to align the cabinets both vertically, and to line them up with the displays. After you complete this alignment, tighten the 4x screws (2x in each place) shown in the circles in the illustration. Note that these screws are hidden.



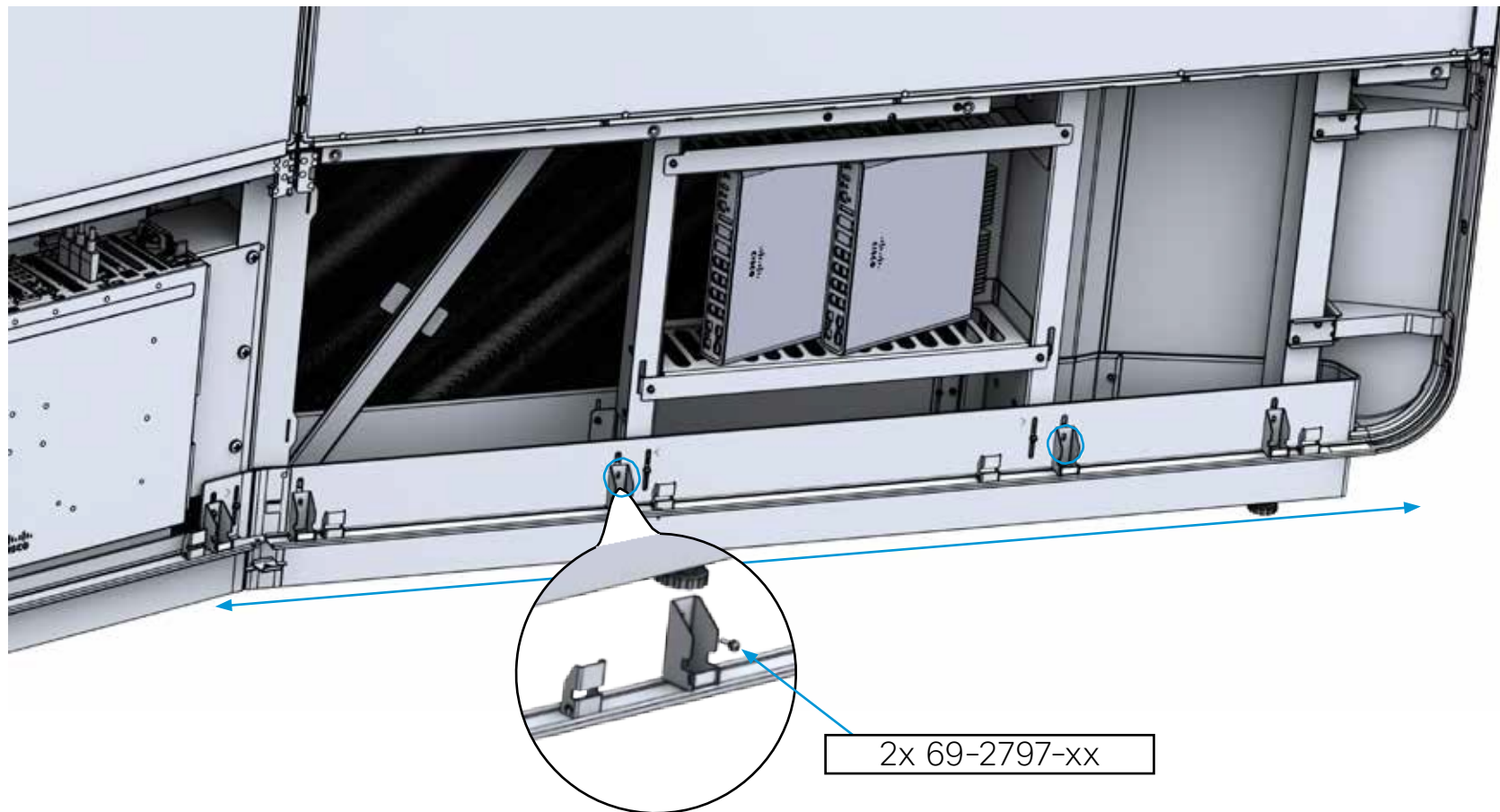
4a Install the bottom trim pieces.



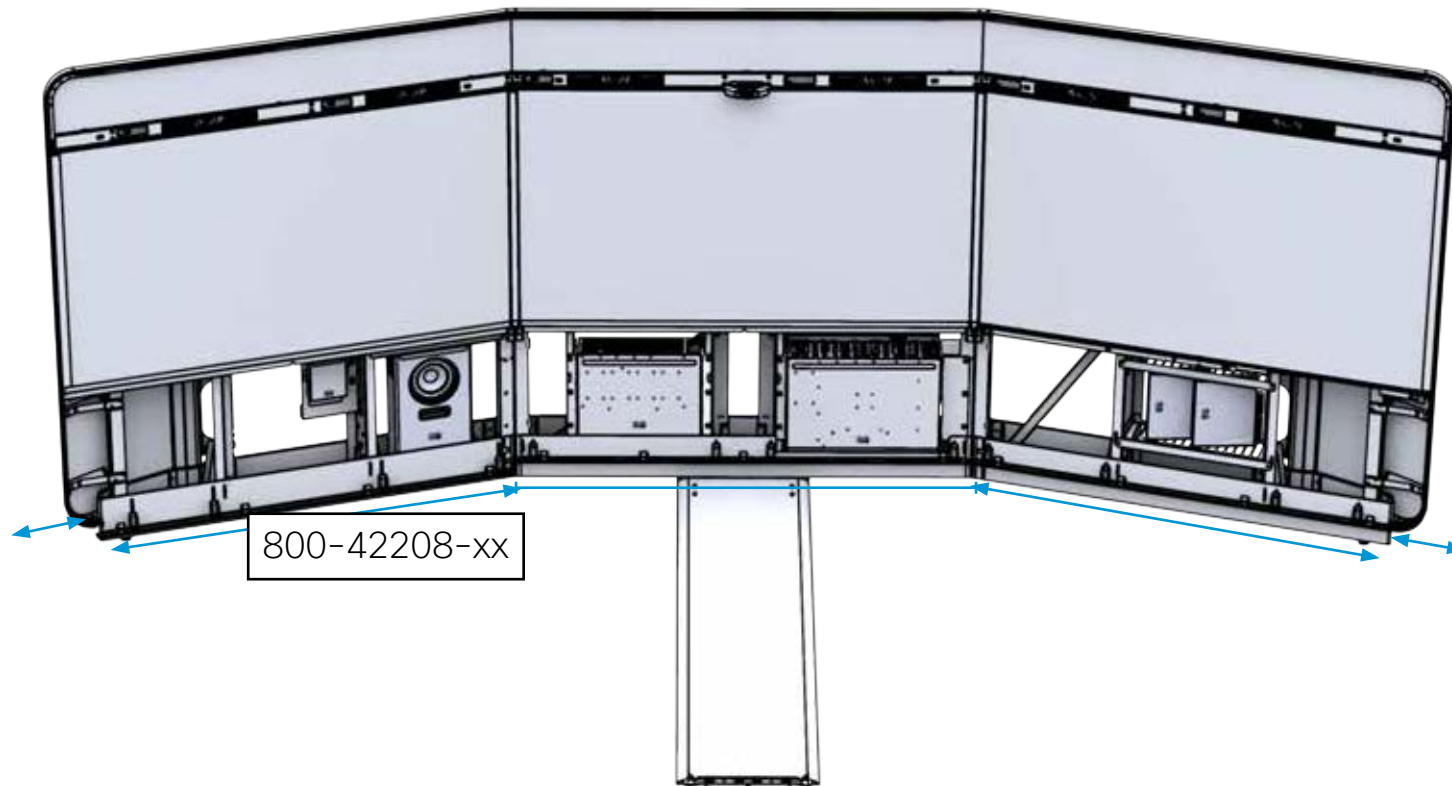
4b **Install the right bottom trim piece 800-41302-xx.** **a.** Loosen the Phillips screws on the four brackets on the trim piece so that the bracket can move easily, but cannot lift off the flat trim piece. **b.** Align the right side bottom trim assembly to the cabinet, lifting up from below to align with the metal trim that is already assembled to the bottom cabinet. **c.** Install, but do not overtighten, 2x Black M4 X 12mm screw with external lock washer 69-2797-xx at the far right and left of the bottom trim.



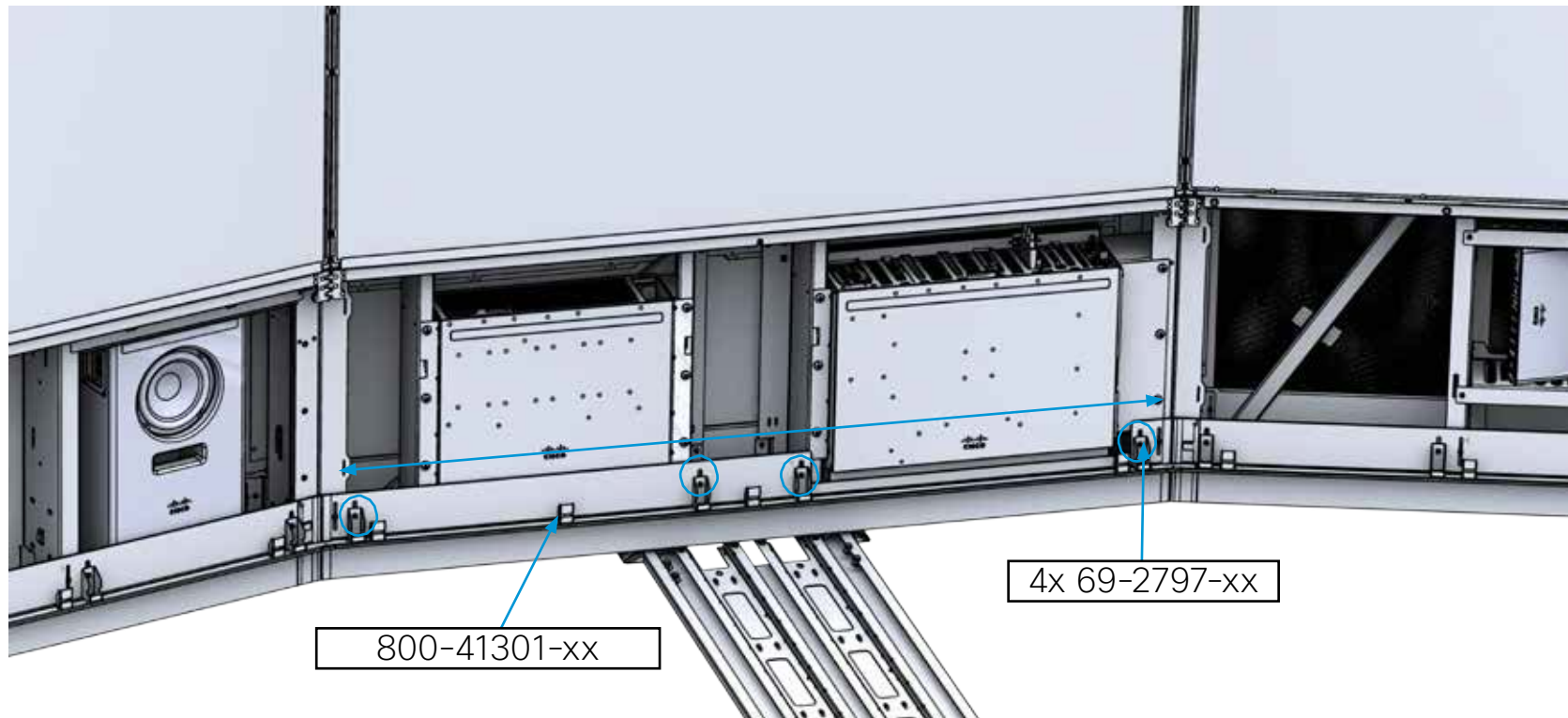
4c d. Level the bottom right trim assembly with a spirit level. e. Add 2x additional Black M4 X 12mm screws 69-2797-xx and tighten the 4x screws. **Note:** The trim is very flexible. Take care during installation that it does not move or bend in the middle, thus throwing off the level.



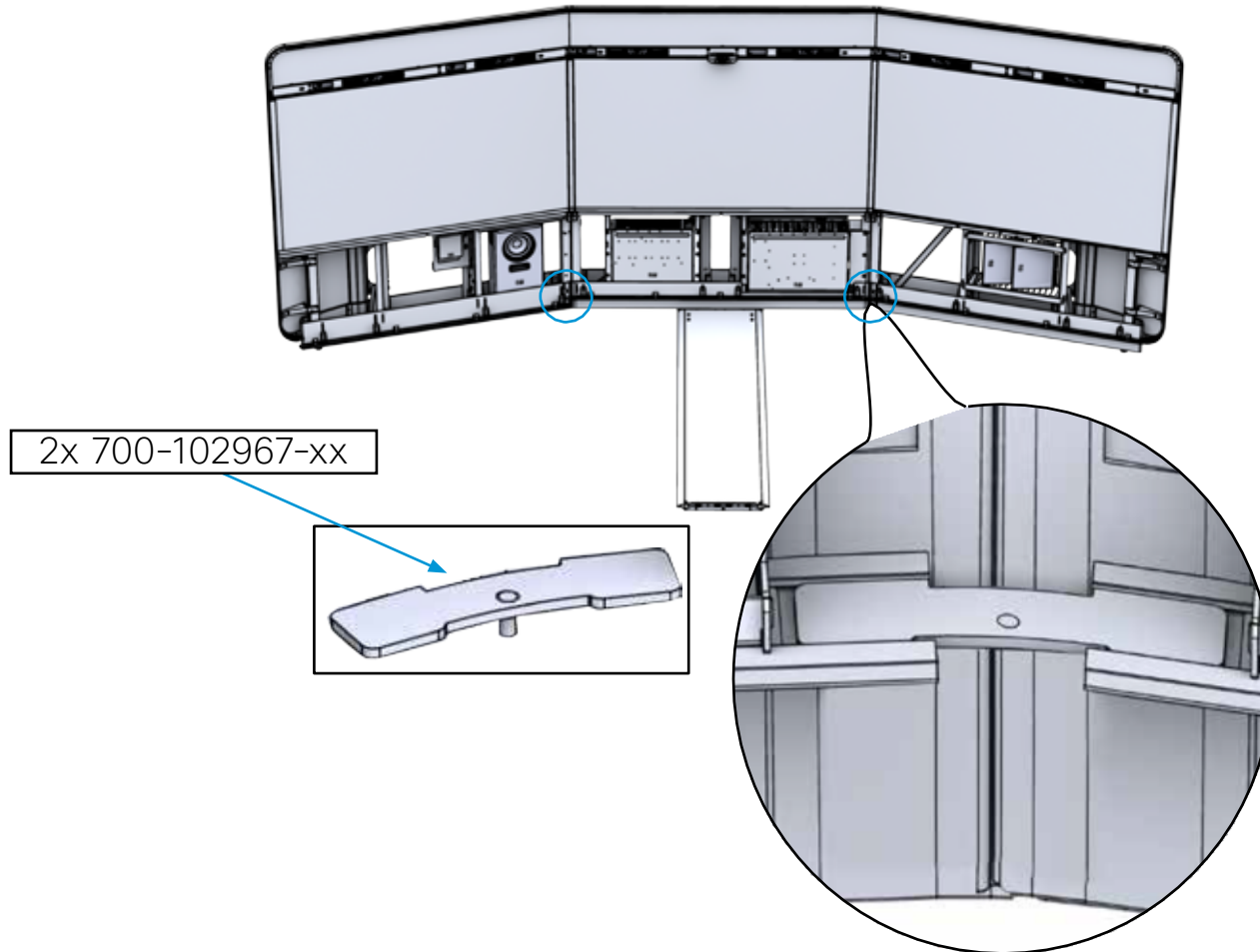
4d Install the left side trim piece 800-42208-xx by using the same procedure as you did for the right trim piece. After assembly, level and align the left and right trim pieces. Slide the trim pieces outward (to the sides) to close the gap with the trim on the lower cabinets.



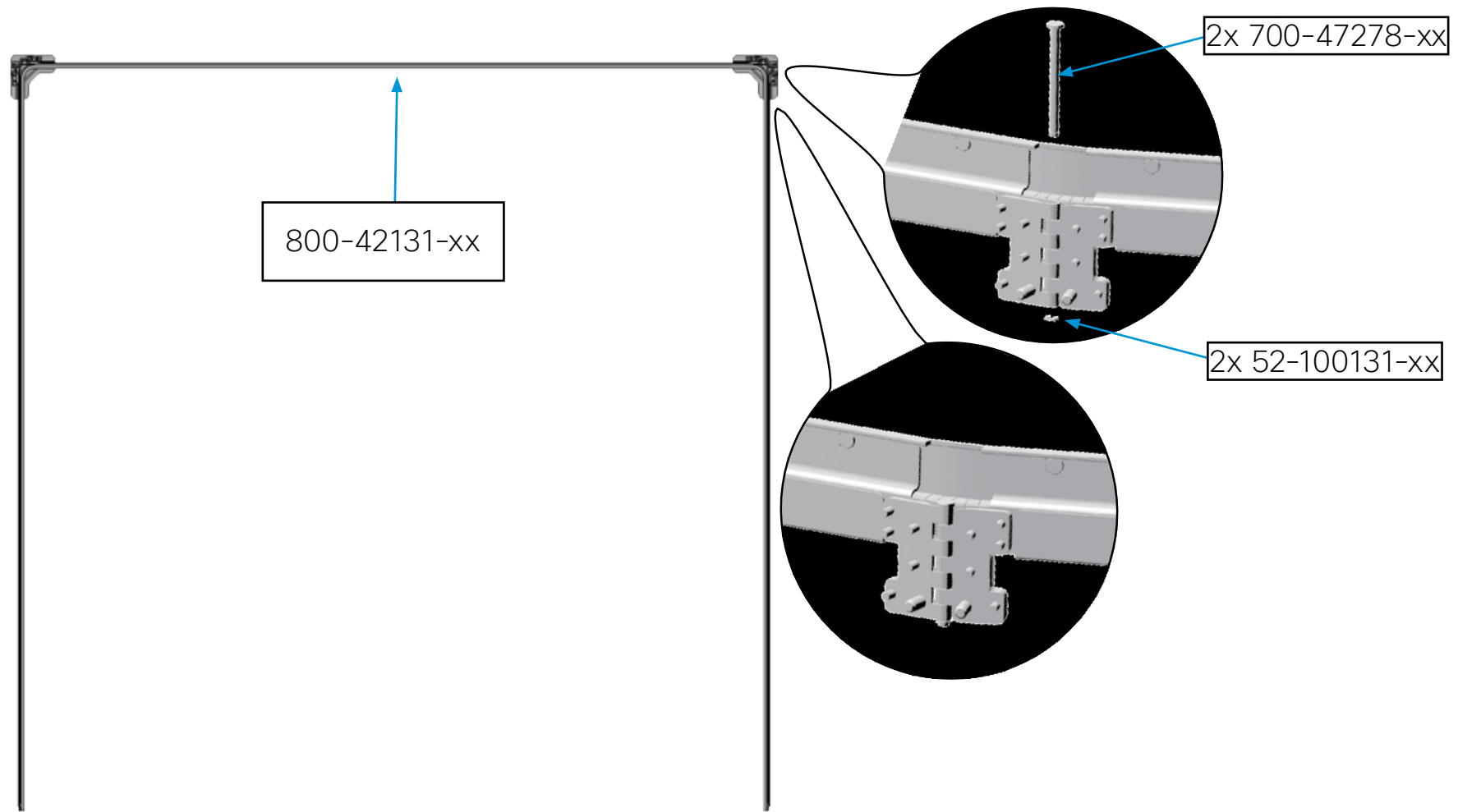
4e Install the center bottom trim piece 800-41301-xx by raising it upward. Verify that it is level with the left and right bottom trim assemblies using the spirit level. Install and tighten 4x Black M4 X 12mm long screws with external lock washer 69-2797-xx. Tighten all trim pieces.



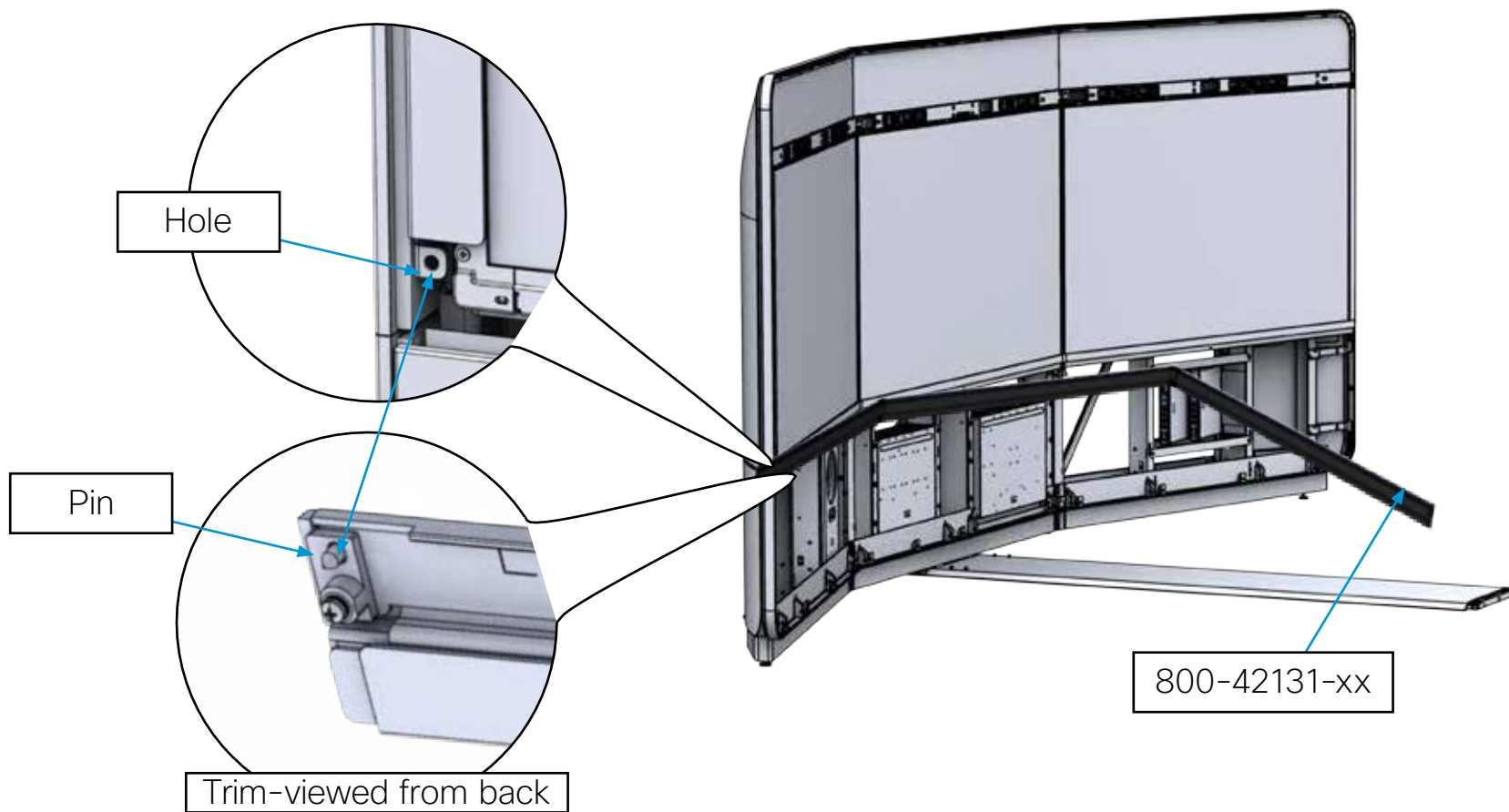
- 5** Insert the **2x bottom trim plates** 700-102967-xx (one between the left and center trim assembly, and one between the right and center trim assembly) into the trim assemblies.



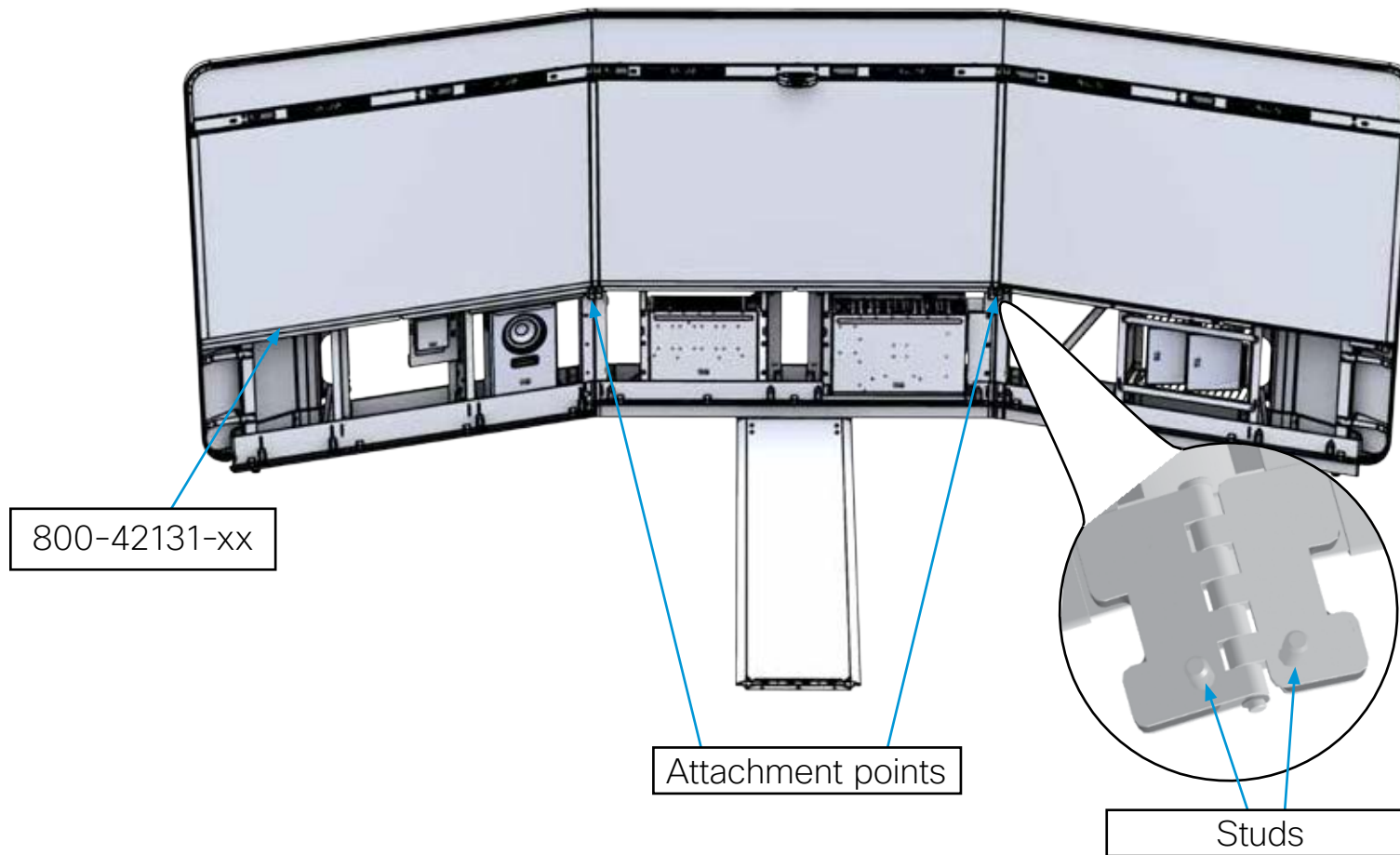
6a Install the **horizontal display trim** 800-42131-xx. Remove the foam from the corners of the packaging and connect the metal hinges of the horizontal display trim using the 2x pin 700-47278-xx and 2x clip 52-100131-xx (1 on each side).



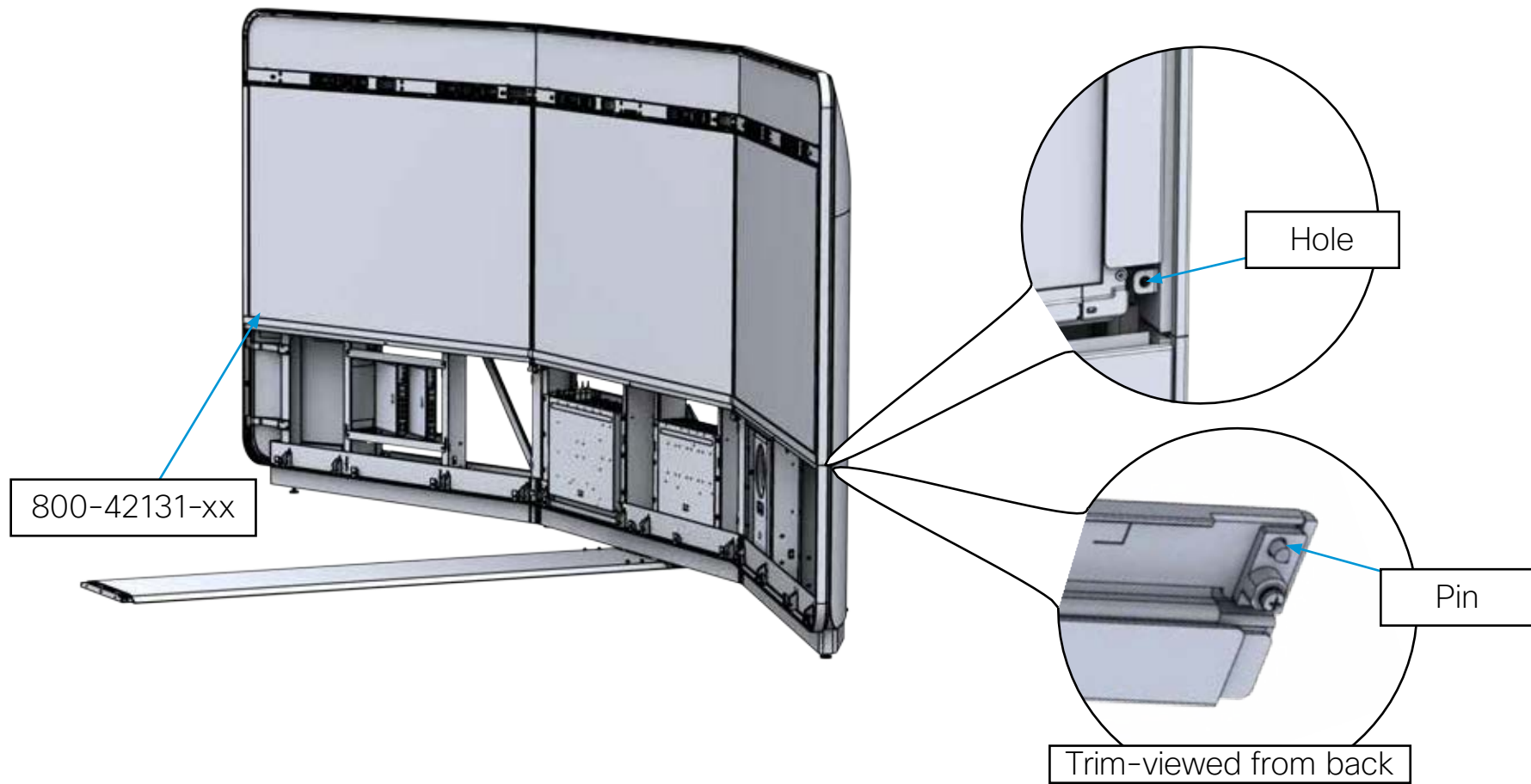
6b **Caution:** Use two people for this procedure. The rubber trim is fragile and must be handled with care to prevent tearing or permanently damaging the trim. Partially unfold the trim, and place the pin on the left of the trim into the hole on the left side of the endpoint structure.



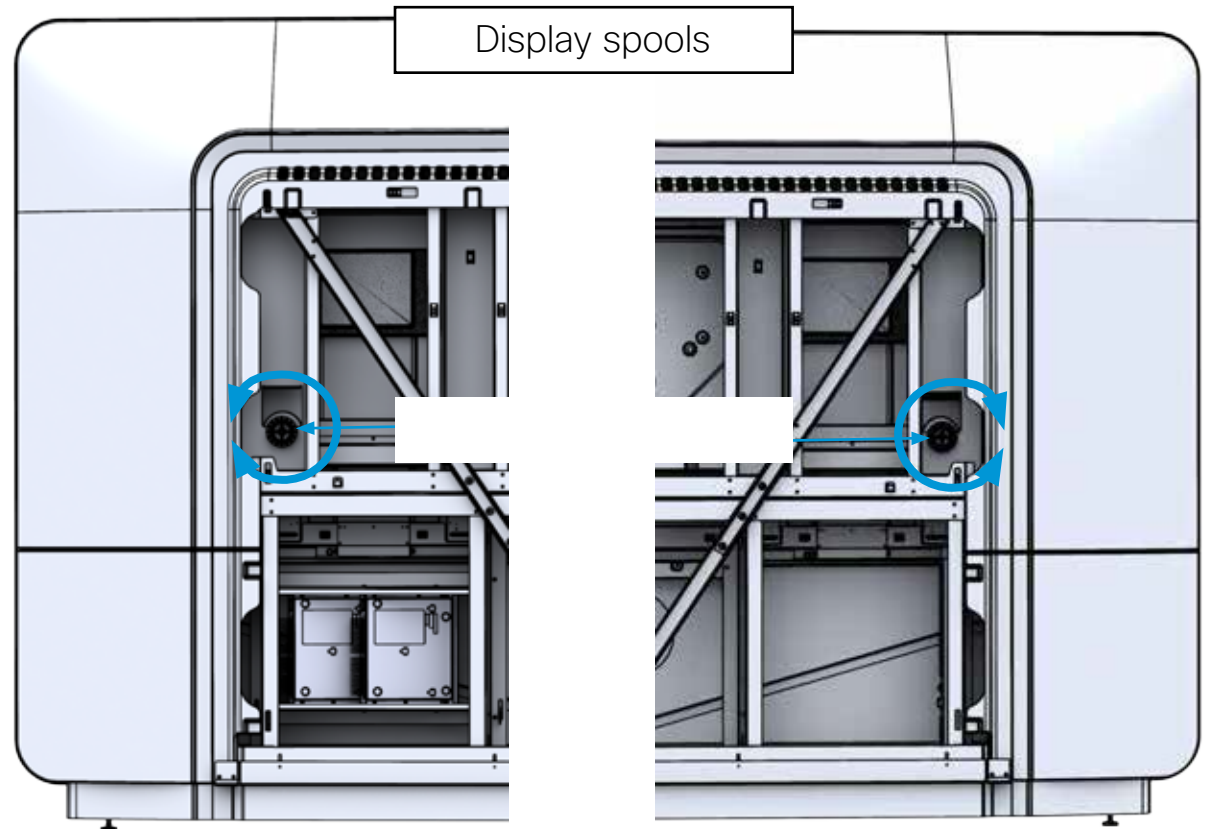
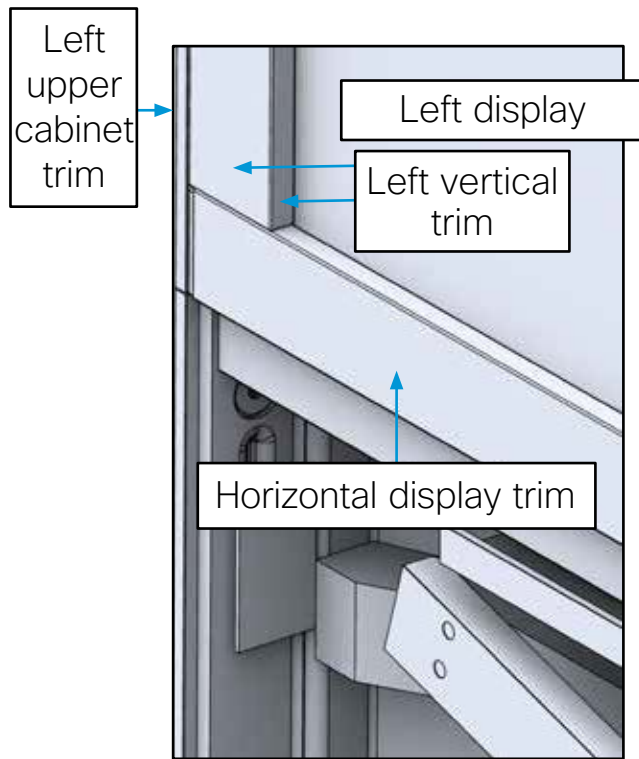
6c Still using two people, connect the pins in the trim to the hole between the left and center displays until the studs, magnets, and Velcro attach, then attach the trim to the Velcro, magnets, and studs between the center and right displays.



6d Place the pin in the horizontal display trim into the hole in the endpoint structure. Adjust the trim until both sides are even.



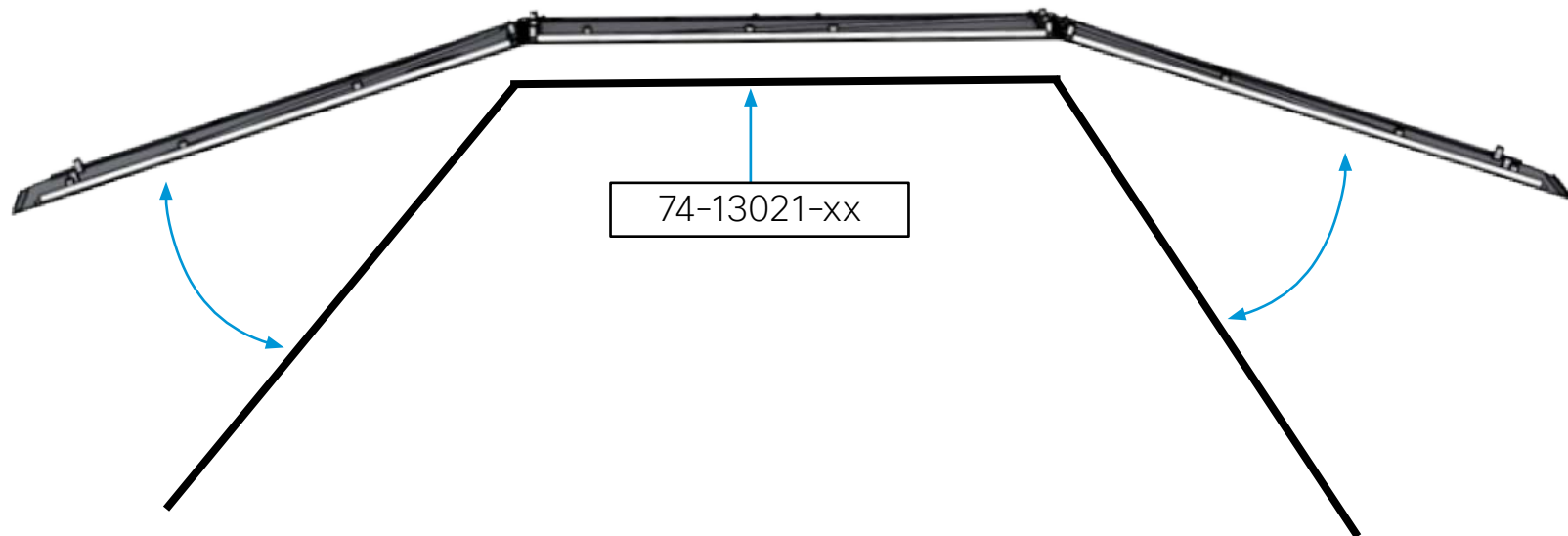
7 Align the display to the cabinet trim. Rotate the spools on the lower back of the displays to align the upper cabinet trim with the horizontal display trim and display on the side (vertical) axis. Perform this alignment for both the left and right displays.



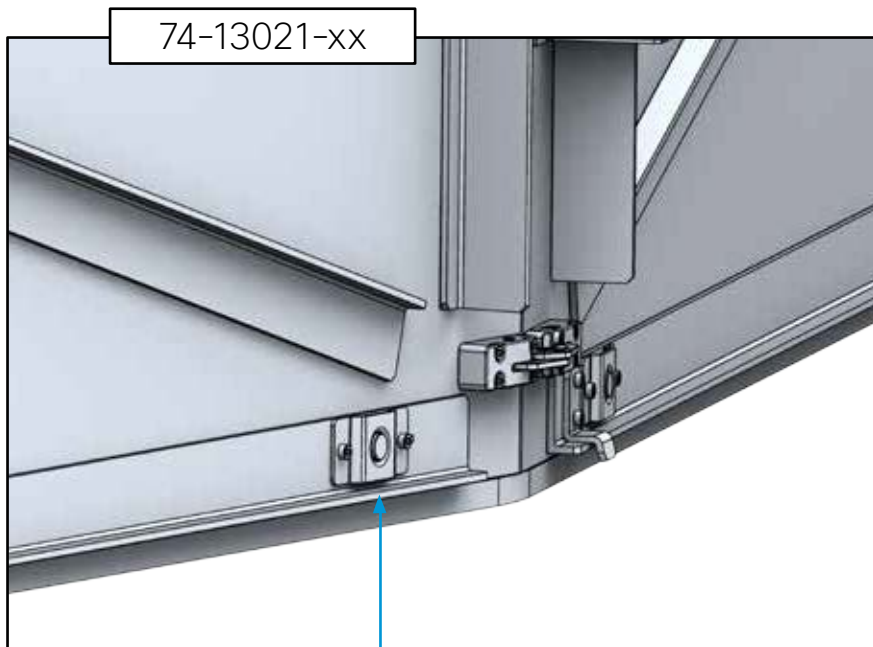
8a **Install the bottom fascia 74-13021-xx.** Use two people and wear the gloves that are included with the accessory kit for this procedure. **a.** Lay the fascia on the ground between the display structure and the table structure and move the sides of the bottom fascia towards the table. This procedure aids in stability while you assemble the bottom fascia, but still allows you to swing the fascia sides back to the display structure.

a.

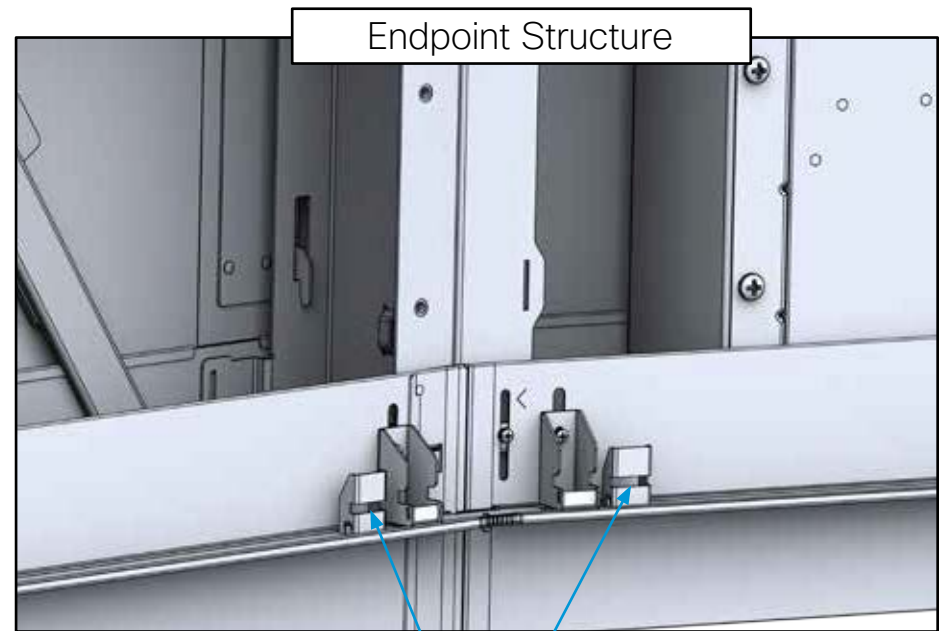
View from top of system



8b Note the fascia alignment points in the display structure: The alignment lip that runs along the bottom and sides of the bottom fascia, and the brackets with frame slots in the endpoint structure.

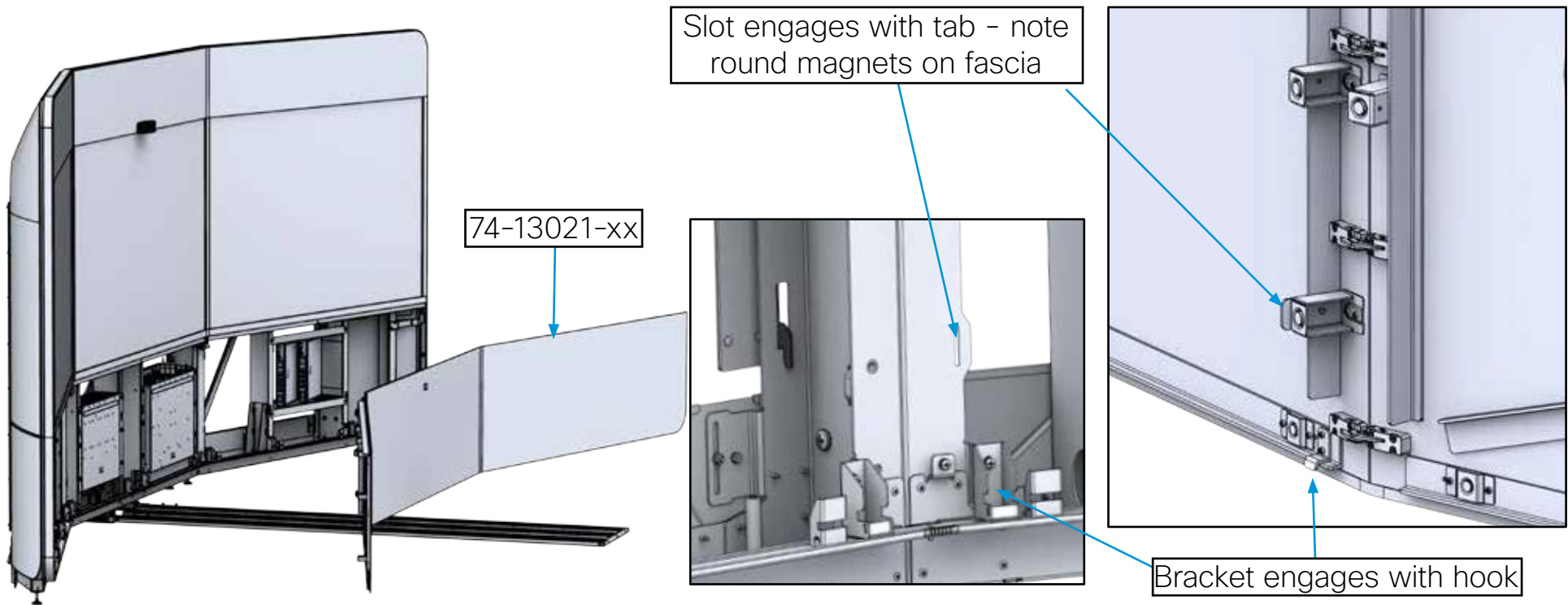


Vertical alignment lip in bottom fascia

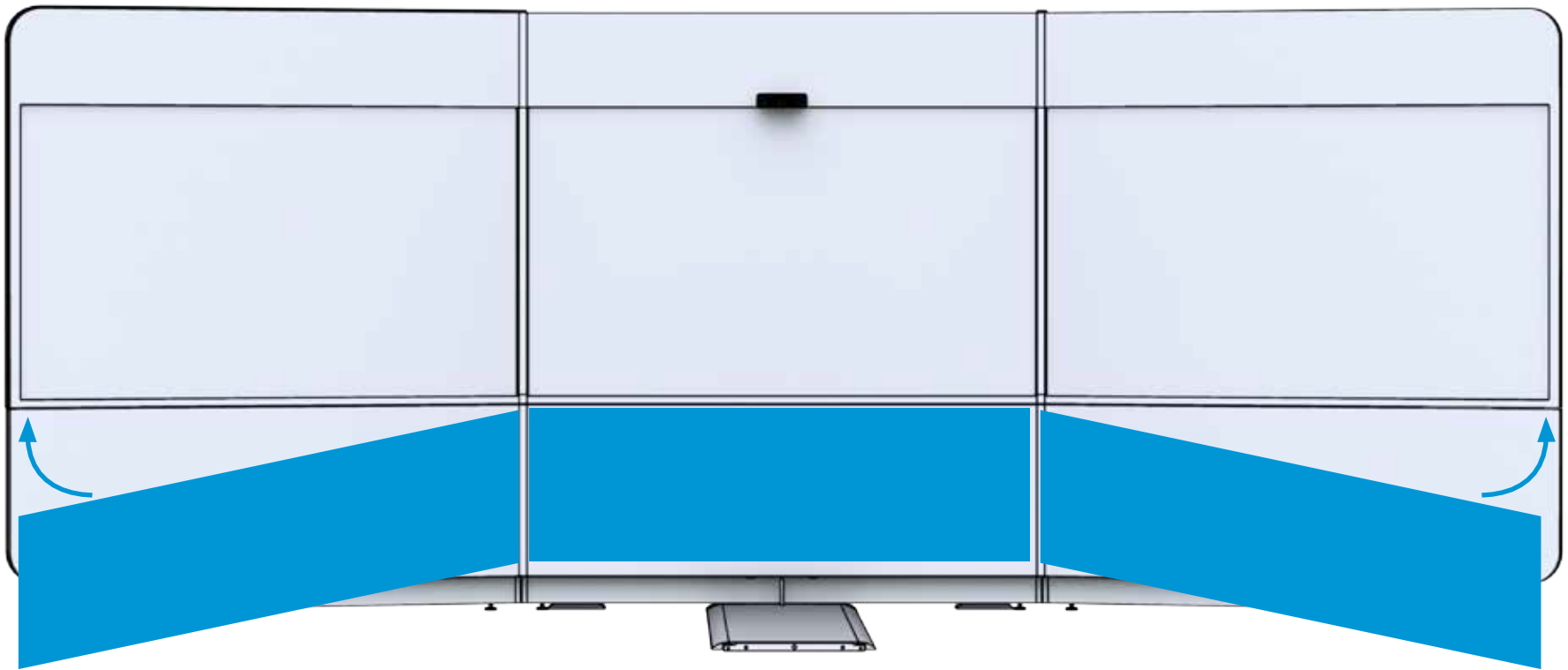


Frame slots for alignment lip and magnets in bottom fascia

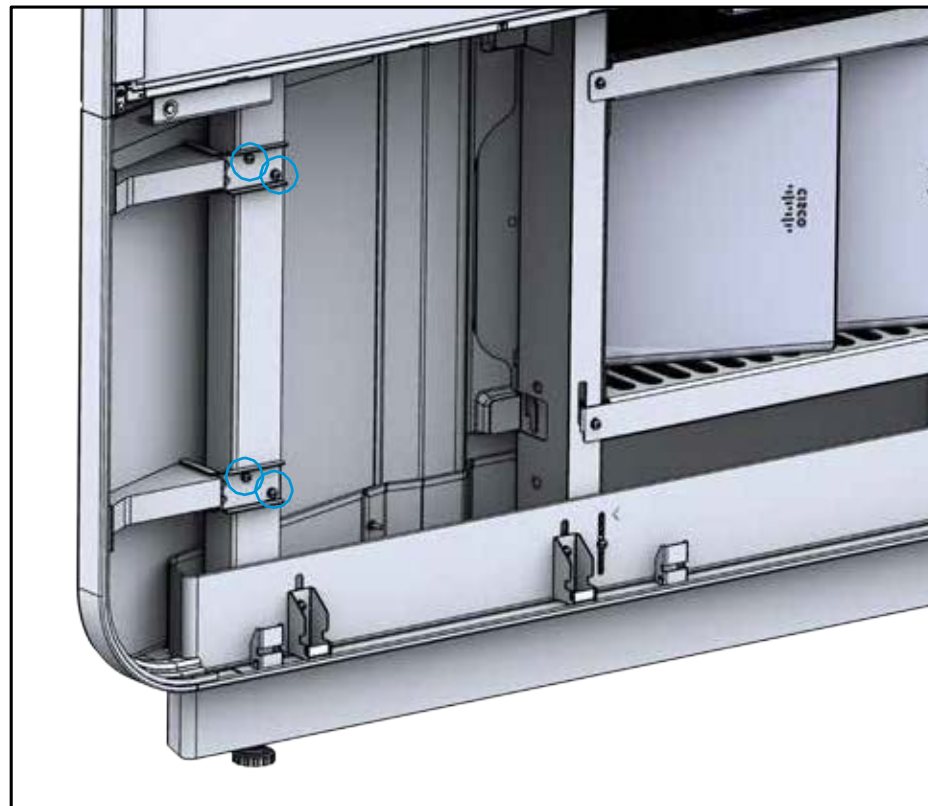
8c b. Rest the hooks (3x) in the bottom fascia into frame slots on the display structure, rotating the bottom fascia up into position. c. While leaving the fascia only partially unfolded, insert the alignment tabs in the left-center of the bottom fascia into the slots in the center display structure to position the bottom fascia in the horizontal direction. As the tabs find the slots and fully engage into the display structure, you can feel and hear the magnets in the fascia attach to the structure.



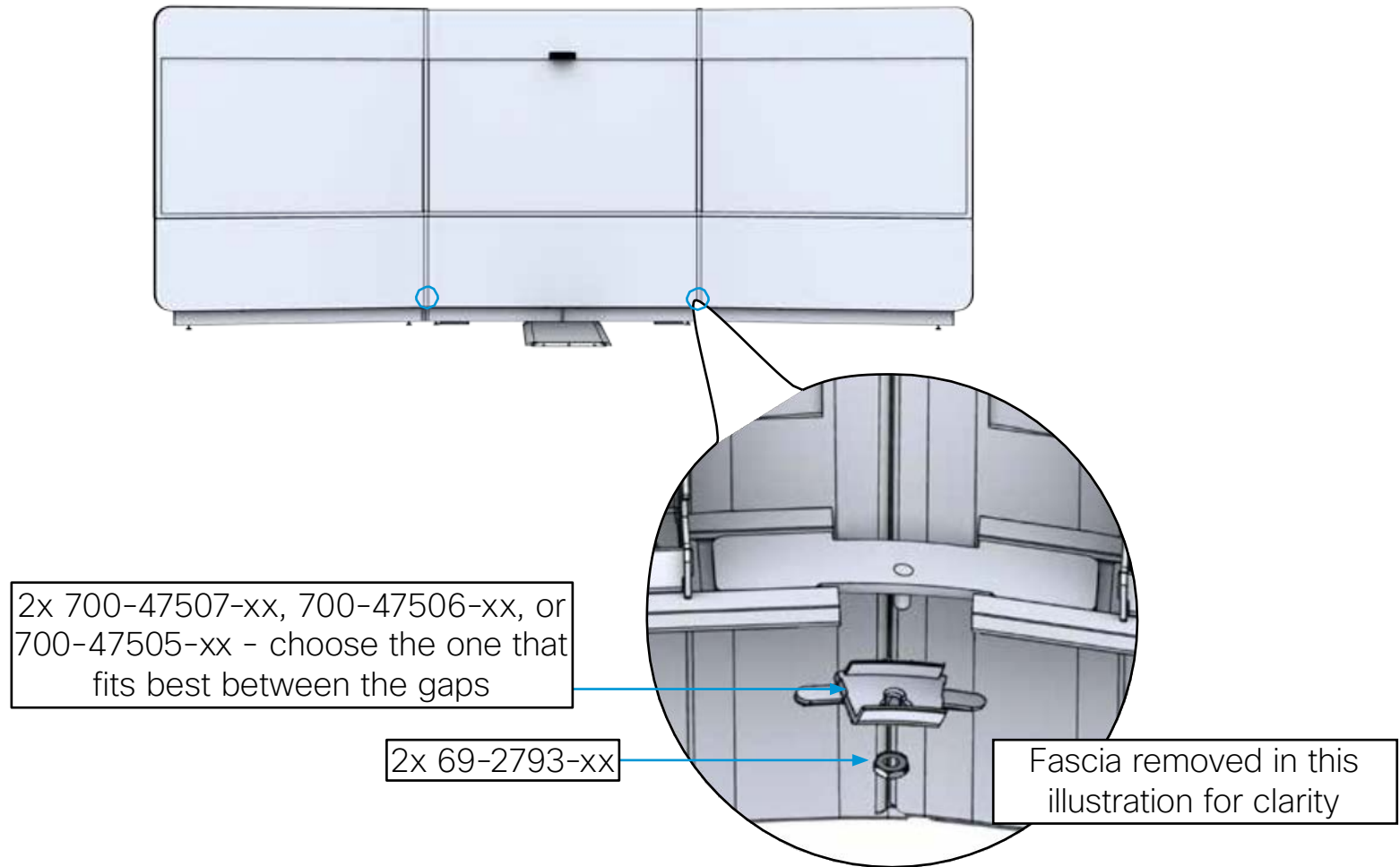
- 8d d. Unfold the bottom fascia, one side at a time, and insert the tabs in the side receiving slots until the magnets in the fascia engage with the display structure.



- 9 Perform final alignment of the lower outer panels. While still wearing gloves, pull the corners of the fascia out and move the lower cabinet(s), if required, to fit with the fascia and the trim pieces connecting to it. The aluminum trim should look seamless around the perimeter of the system, and any gaps should be minimal and uniform. The four circled screws with plastic washer should provide adequate movement without loosening the screws. Tighten the screws and replace the fascia after final adjustment.

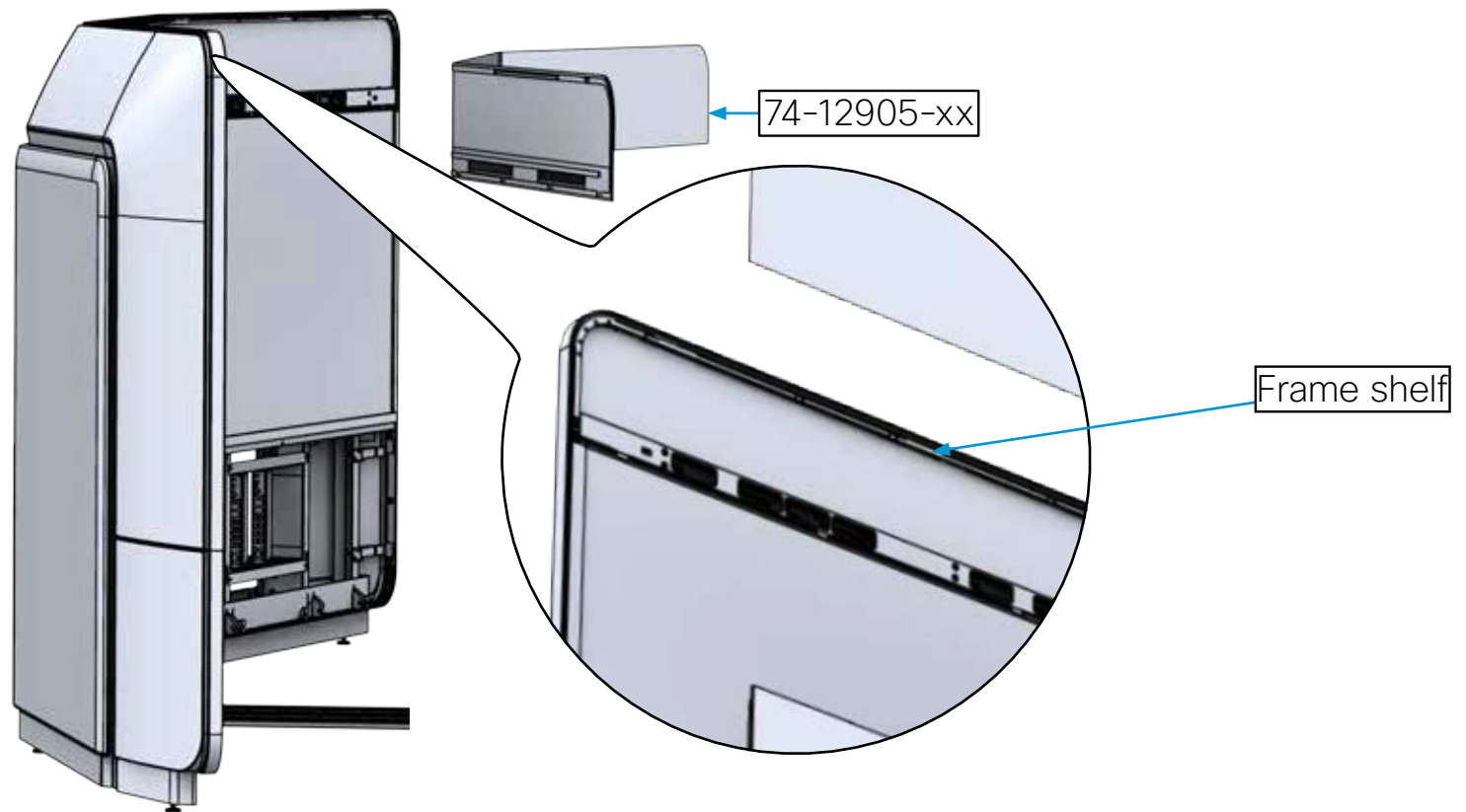


1C Reach under the fascia and test-fit the 2x bottom trim joints between the lower right and lower left trim assemblies. Use the trim joint that fits best (narrow 700-47507-xx, medium 700-47506-xx, or wide 700-47505-xx) to match the gap between the trim assemblies. Secure with 2x M4 nuts 69-2793-xx. You can mix and match the trim joints (for example, wide on one side and narrow on the other side) to accommodate for varying gaps. You do not need to remove the fascia to attach the trim joints.



Installing the Outer Structure Panels and Trim

11a **Install the top fascia 74-12905-xx.** Use two people and wear the gloves that are included with the accessory kit for this procedure. **a.** Begin to unfold, but do not fully unfold, the top fascia. Align the camera cutout in the fascia with the camera, and place the top fascia over the camera. Engage the alignment lip of the fascia to the receiving slots above the center display, and make sure that the magnets connect the fascia to the frame. **b.** Align the top fascia vertically. The upper lip of the top fascia rests in the sheet metal shelf in the display frame that is created by the horizontal cross bars.

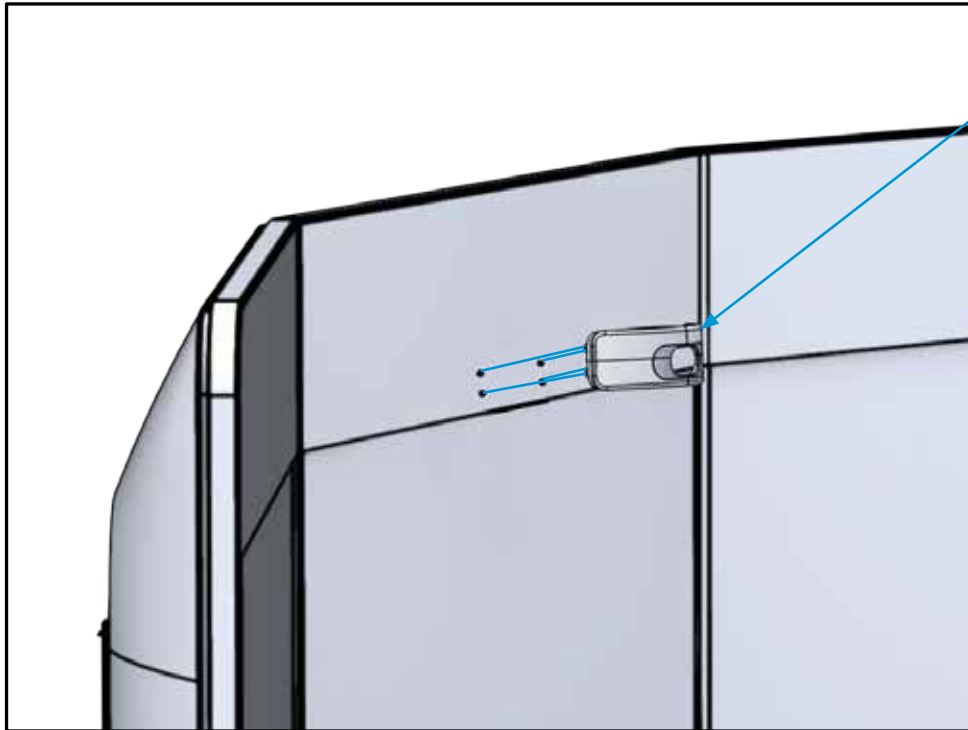


Installing the Outer Structure Panels and Trim

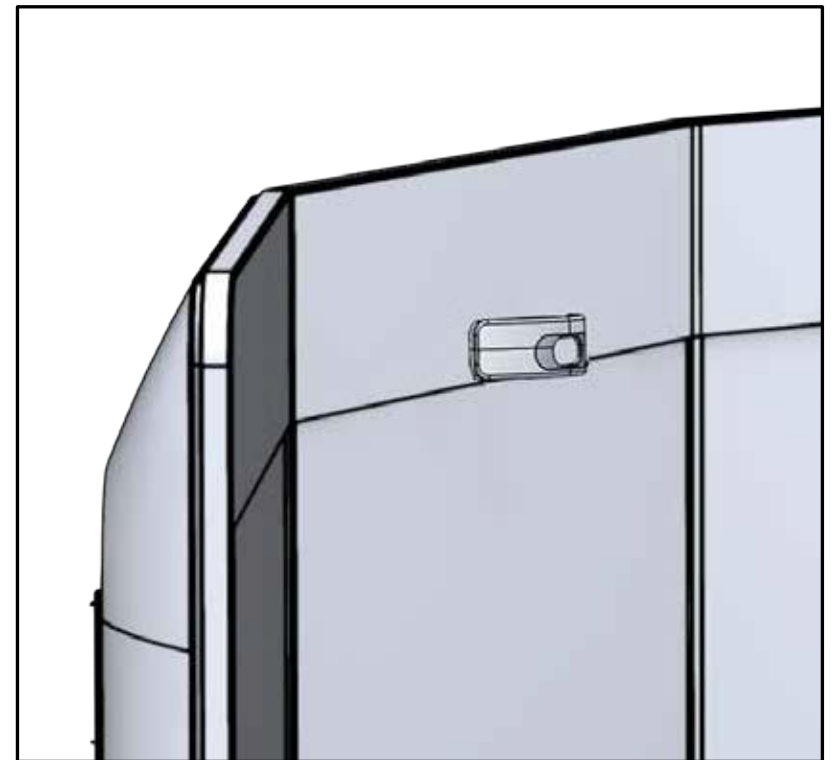
- 11b** c. Unfold the top fascia one side at a time, engaging the magnets and sheet metal tabs with the upper alignment points in the fascia.



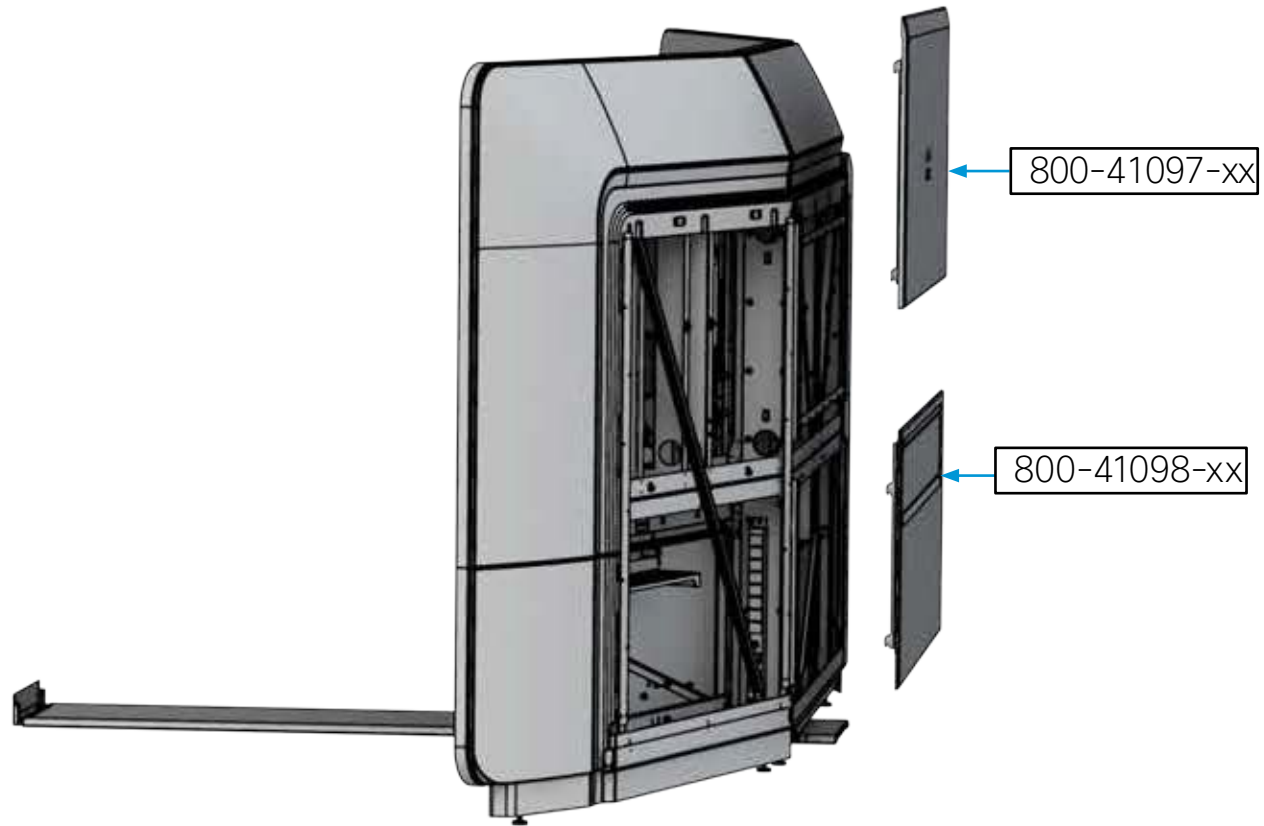
- 12 Install the camera lens hood 800-43478-xx around the camera by placing it into the holes in the upper fascia and the endpoint structure.



800-43478-xx

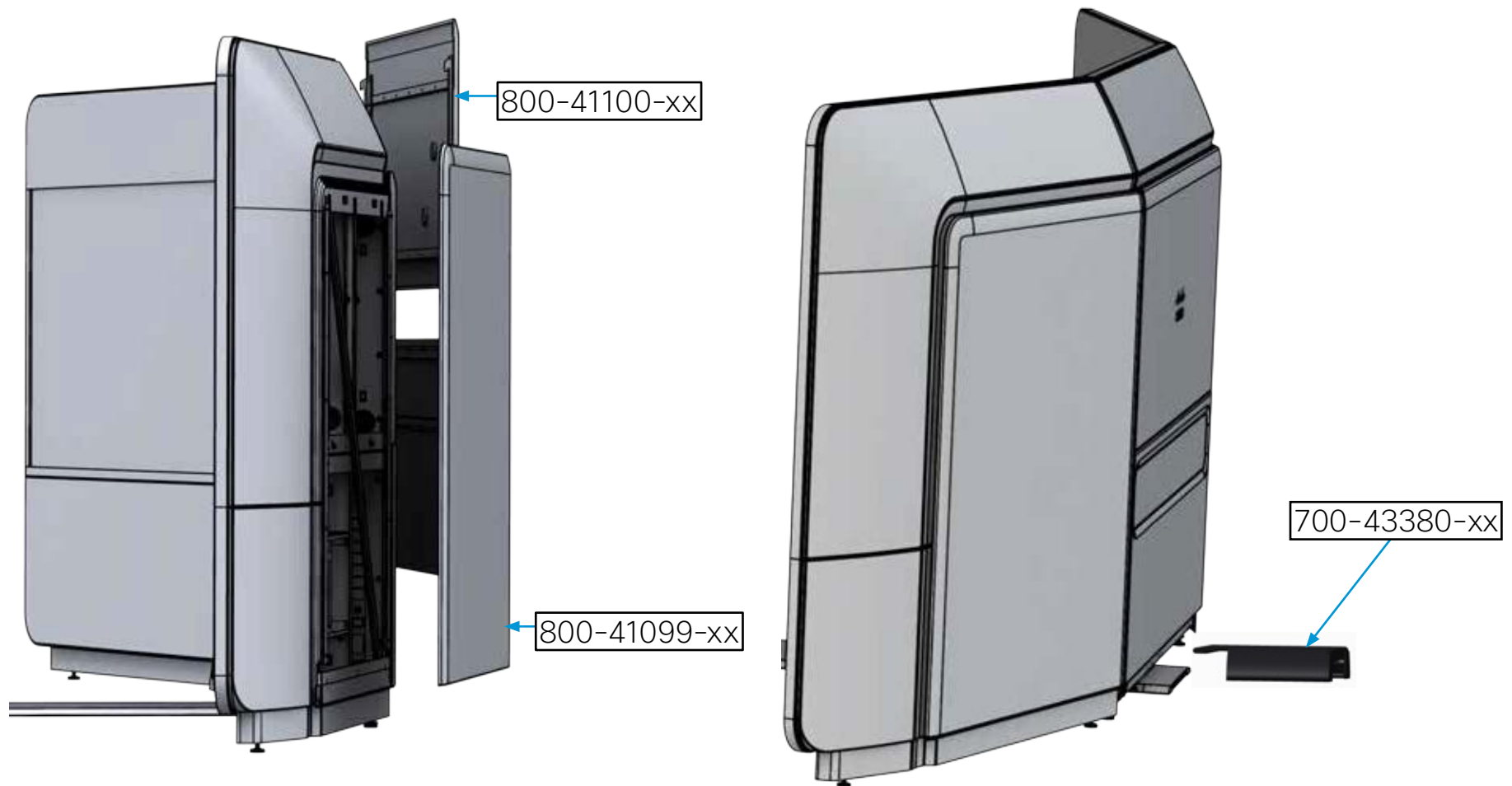


13 Install the top and bottom center PET panels. Wear gloves during this procedure. **a.** Install the bottom center PET panel 800-41098-xx. This procedure can be done by one person if there is enough space between the panels and the wall; if not, two installers are required. Engage the sheet metal hooks in the panel to the slots in the frame and gently press downward to make sure that the panel is fully seated. **b.** With an assistant, install the top center PET panel 800-41097-xx, engaging the sheet metal hooks in the panel to the slots in the frame and making sure that the panel is fully seated.



Installing the Outer Structure Panels and Trim

- 14** c. While still wearing gloves, install the right PET panel 800-41099-xx, and left PET panel 800-41100-xx, using the same procedure you used for the center PET panels. Then place the rear cable runner cover 700-43380-xx over the rear of the cable cap, noting the pins on the rear part of the cover.



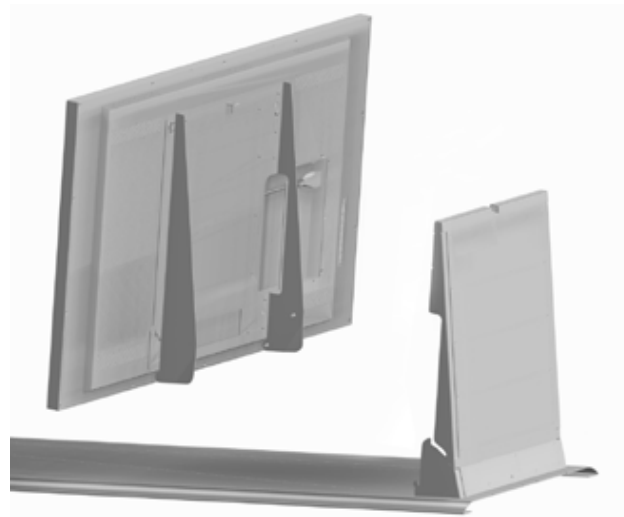
Installing the Optional 42-Inch Auxiliary Display

Required Parts

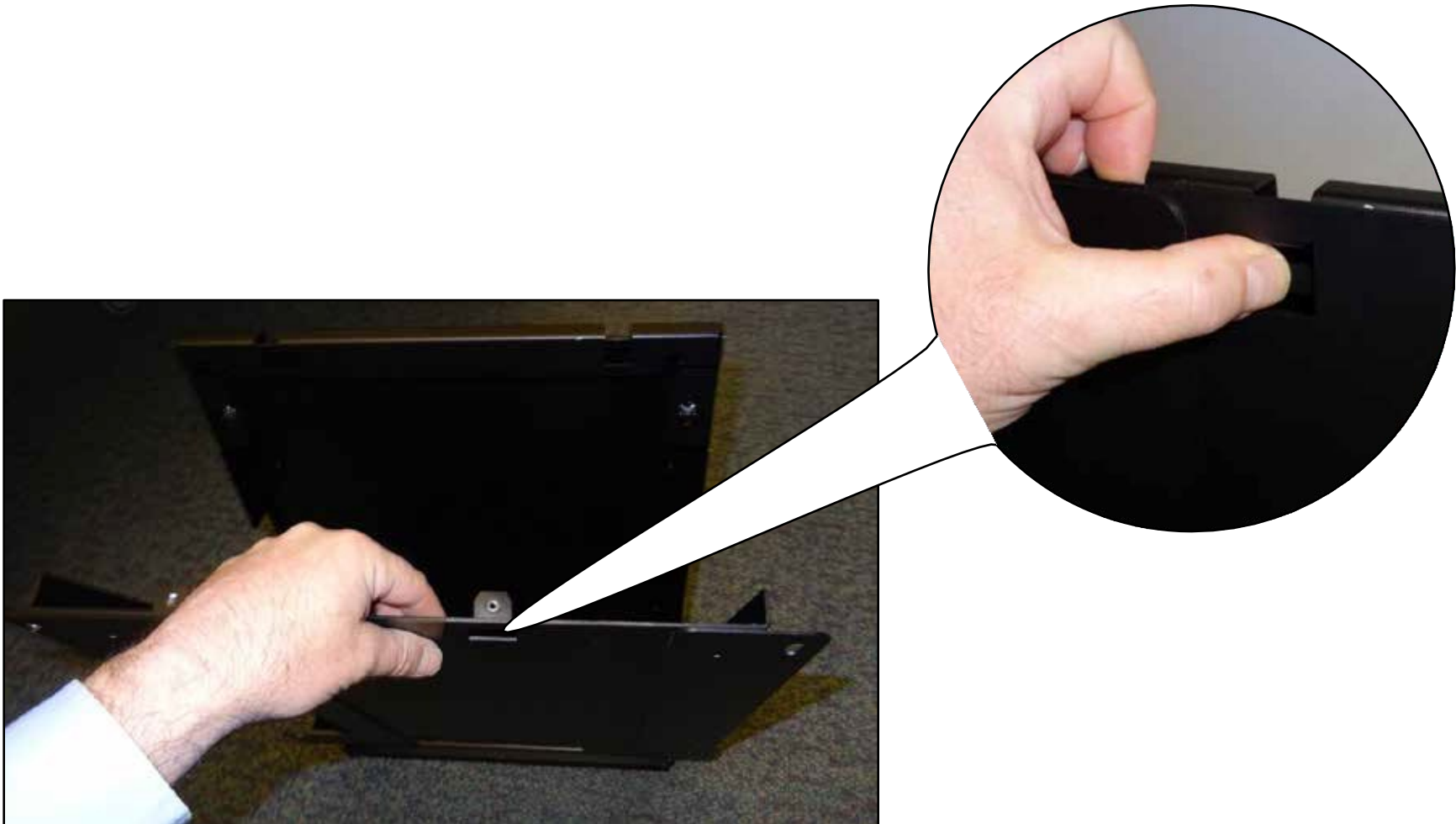
- o 42-inch display, 43-100147-01
- o 42-inch display bracket, 700-47588-xx
- o 8x M6x16mm screws, 69-100199-xx
- o Optional: 1x M4x12mm screw (not included)

Required Tools

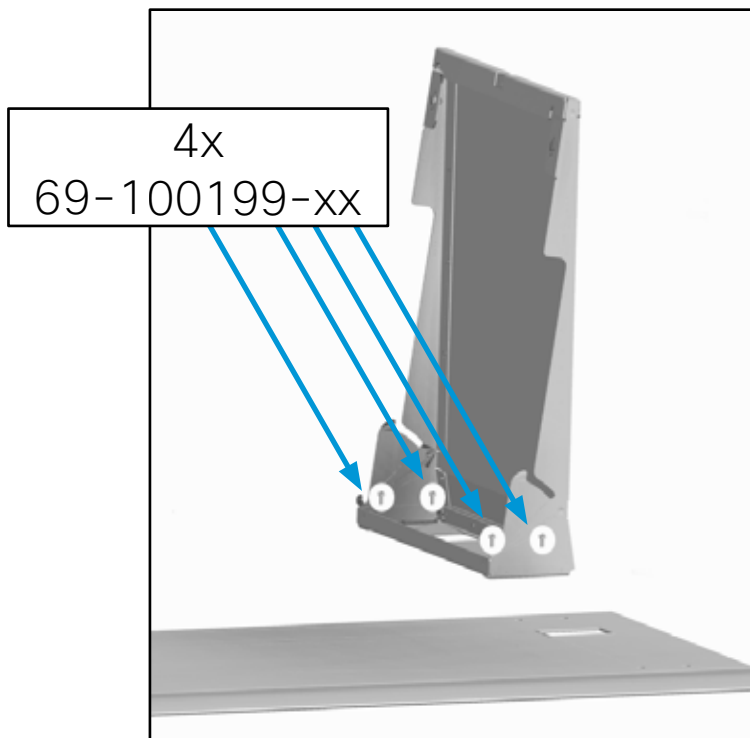
- o #3 Phillips Driver
- o “Stubby” (short) #3 Phillips driver, or Phillips driver with ratcheting wrench



- 1 a. Remove the display bracket 700-47588-xx from its packaging. b. Lay the bracket on the ground, and lift the side with tab upward and outward to separate the two pieces. **Tip:** there is a hole in the top of the bracket, press in this hole with your thumb to separate the two pieces. Some force may be required.



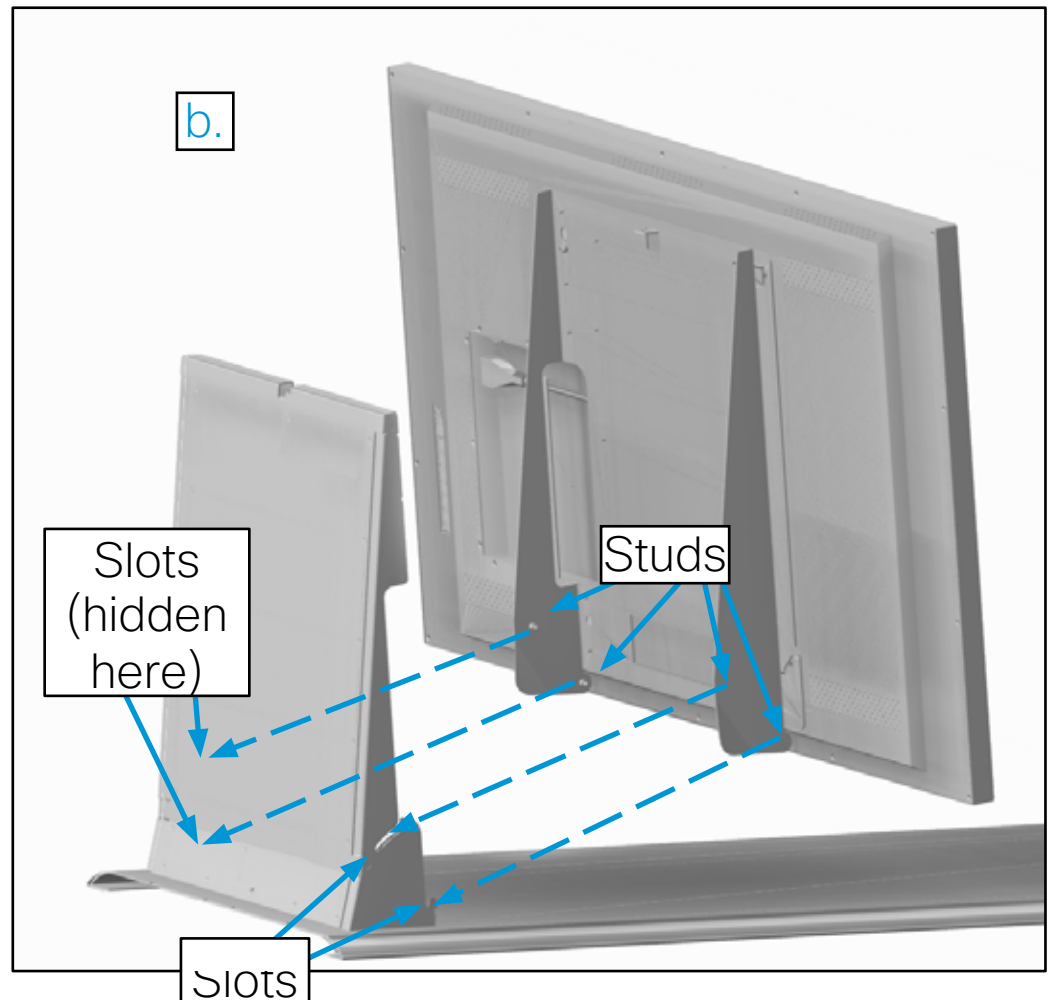
- 2 Connect the lower half of the bracket piece to the cable runner using 4x M6x16mm screws 69-100199-xx. Note the cables running through the hole in the bracket. Take care not to mar the lower fascia or the cable runner.



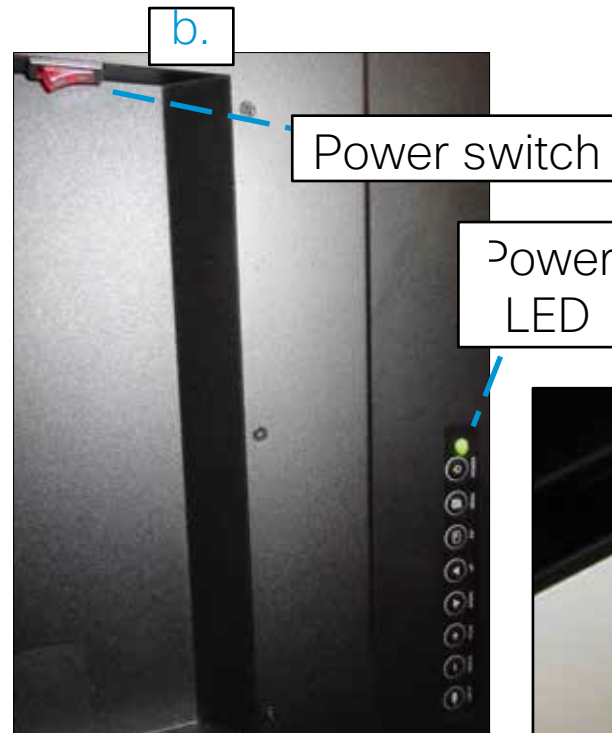
- 3 Remove the display from its packaging, and install the other half of the bracket onto the rear of the display using 4x M6x16mm screws 69-100199-xx.



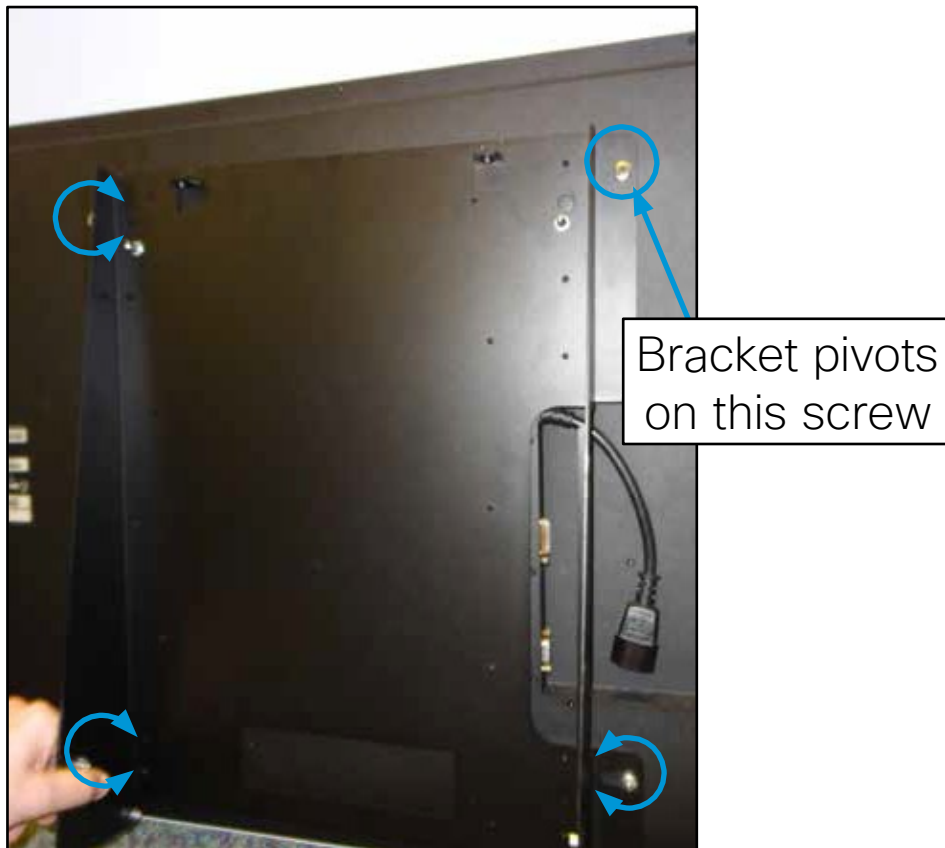
- 4 a. Move the cables away from the display bracket. b. Carry the display with the bracket to the bracket you attached to the cable runner, and slide the display bracket onto the cable runner bracket. Be careful to not mar the cable runner. **Tip:** there are four metal studs (two on each side) that protrude from the display bracket. Make sure that the studs go into the two slots on each side of the cable runner bracket.



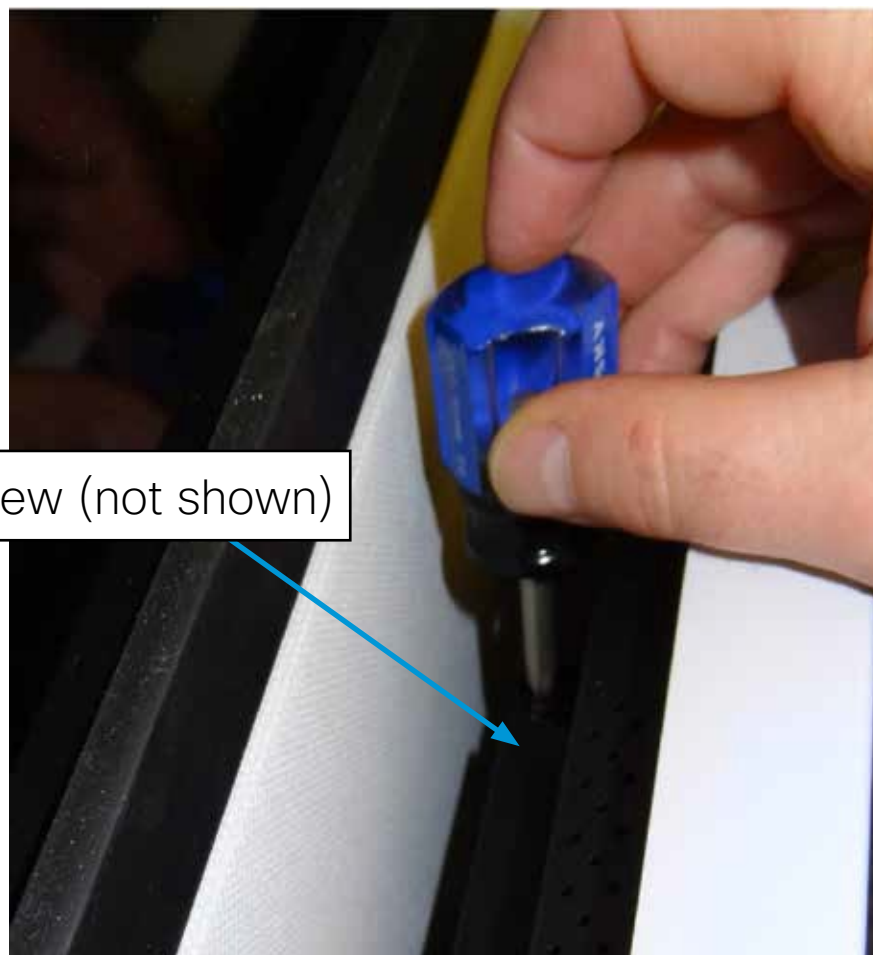
- 5 a. Connect the power and DVI cables to the display. b. Turn the power switch (near the cable connections) for the display to the On position, and watch for the power LED to turn green, then blinking amber. c. Rock the display and bracket backwards until the tab in the display bracket joins with the slot in the cable runner bracket.



- 6** Level the display in relation to the fascia and the rest of the system. Rock back the display to separate the two pieces (some force might be required). Loosen the four screws that hold the display to the display bracket. The display pivots on the top right screw. Rotate the display and tighten the screws after the display is level. Note the use of a “stubby” screwdriver. A Phillips driver and a ratcheting wrench may also be used.



- 7 Optional: Attach an M4x12mm screw (not included) to join the brackets together.



M4 screw (not shown)

Installing the Seismic Bracket

Required Parts

Seismic Bracket Kit 69-100167-xx, including:

- o 6x drill template 78-100395-xx
- o 6x anchor bracket 700-46833-xx
- o 2x 1/2-inch drill bit 51-101126-xx (Kit # 69-100214-xx)
- o 2x 3/8-inch drill bit 51-101125-01 (Kit # 69-100214-xx)
- o 12x 3/8 x 2.75 inch Strong-Bolt 2 51-101201-xx (Kit # 69-100257-xx)
- o 12x 3/8 x 1.5 inch drop-in anchor 51-101122-xx (Kit # 69-100210-xx)
- o Anchor setting tool 51-101124-01 (Kit # 69-100234-xx)
- o 12x 3/8 x 1 inch hex head cap screw 48-101180-xx (Kit # 69-100209-xx)
- o 24x 3/8 inch washer 48-100249-xx
- o 4x reinforcing bracket 700-46832-xx (Kit # 69-100213-xx)
- o 24x M8x16mm screws 48-3012-xx (Kit # 69-100208-01)
- o 12x 3/4 inch hex nut 49-100247-xx (Kit # 69-100212-xx)
- o 12x 3/4 inch washer 49-100246-xx (Kit # 69-100211-01)

Required Tools

- o #3 Phillips Driver
- o Power drill
- o 1 1/8 inch or 29mm open-end or box-end wrenches or adjustable wrenches
- o Torque wrench with 75 foot-pound (102 N-m) or greater capacity
- o 9/16 inch or 15mm socket
- o Measuring tape
- o Compressed air source (canned compressed air is acceptable) to clean the holes after drilling

Note: Installing the seismic brackets adds time to the overall installation. Be sure to budget additional time when planning and preparing the overall installation of your system.

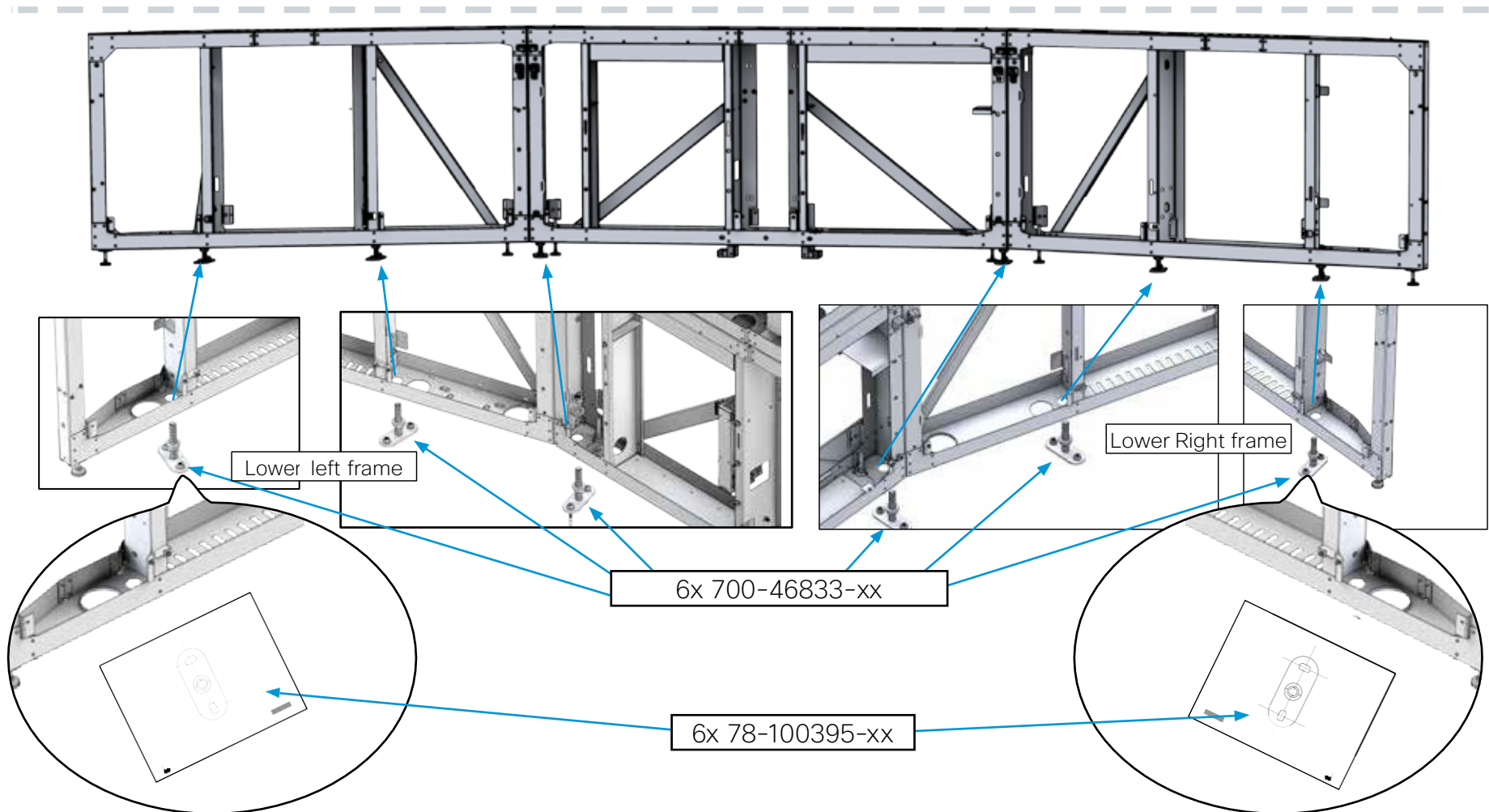
THE SEISMIC BRACKETS HAVE BEEN DESIGNED TO MEET THE REQUIREMENTS IN THE INTERNATIONAL BUILDING CODE (IBC) 2012 and CALIFORNIA BUILDING CODE (CBC) 2013. IT IS CRITICAL THAT THE SEISMIC BRACKETS ARE ANCHORED IN ACCORDANCE WITH ALL NATIONAL, REGIONAL AND LOCAL BUILDING CODES, AND YOU MUST ENSURE THAT YOU USE THE CORRECT ANCHOR TYPE FOR THE SURFACE ON WHICH THE PRODUCT WILL BE MOUNTED. THE SUPPLIED ANCHORS ARE ONLY SUITABLE FOR CERTAIN SURFACES. PLEASE READ THE INSTALLATION GUIDE VERY CAREFULLY AND WORK WITH A LICENSED DESIGN PROFESSIONAL AND FACILITIES OR BUILDING MANAGER. CISCO DISCLAIMS ALL RESPONSIBILITY FOR ANY DAMAGE RESULTING FROM FAULTY ANCHORING OF THE SEISMIC BRACKETS.

The seismic brackets, when installed as directed, are IBC 2012 and CBC 2013 code compliant and can be installed at any site with an $S_{ds}=2.5$ and $z/h=1$ for the following installation conditions:

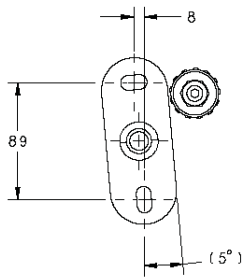
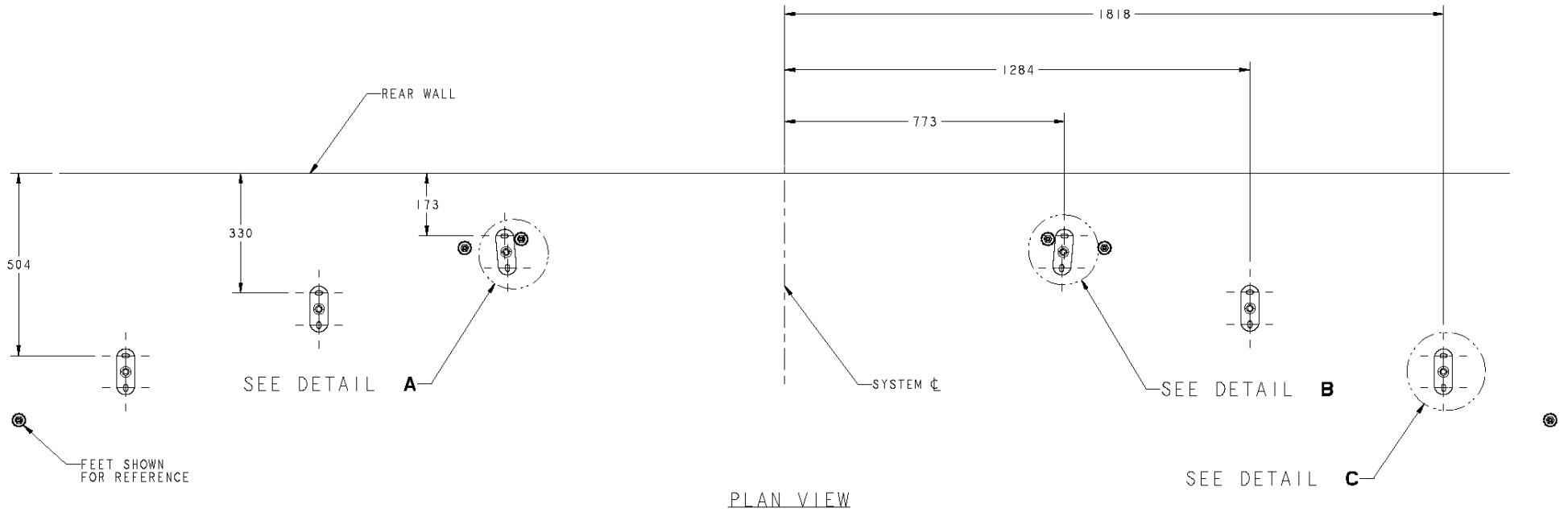
- **Slab on Grade:** Use 3/8" diameter Simpson Strong-Bolt 2 with an embedment depth of 2" (5.08 cm) at a concrete compressive strength of 3,000 psi (20.7 MPa) or greater with a slab thickness of 3.5" (8.85 cm) or greater in each of the (12) anchorage attachment locations.
- **Top of Concrete over Metal Deck Floor or Roof:** Use 3/8" diameter Simpson Strong-Bolt 2 with an embedment depth of 2.75" (6.99 cm) at a concrete compressive strength of 3,000 psi (20.7 MPa) or greater with a slab thickness of 4.5" (11.4 cm) or greater in each of the (12) anchorage attachment locations.

Note: We also ship a drop-in anchor (51-101122-xx) as an alternative method to secure the seismic brackets to the floor. While installations using these anchors will not be IBC or CBC code compliant, they are included for installations where using the Strong-Bolt 2 is not feasible.

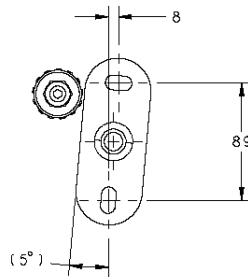
- 1 Mark the drilling locations for the anchor brackets. **a.** Assemble the lower display frames and place the frames into their final installation position in the room. **b.** Place the 6x drill templates 78-100395-xx on the floor under the holes shown in the illustration, then place the 6x anchor brackets 700-46833-xx over the templates and into the holes in the frame. **c.** Align the templates with the anchor brackets and tape the templates to the floor so they do not move. **d.** Remove the anchor brackets and display frames, leaving the templates.



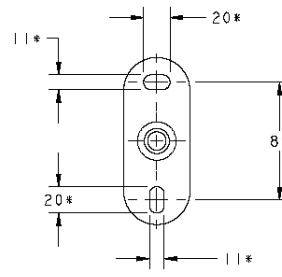
Anchor Bracket Drilling Location (not to scale)



DETAIL A
SCALE 0.5



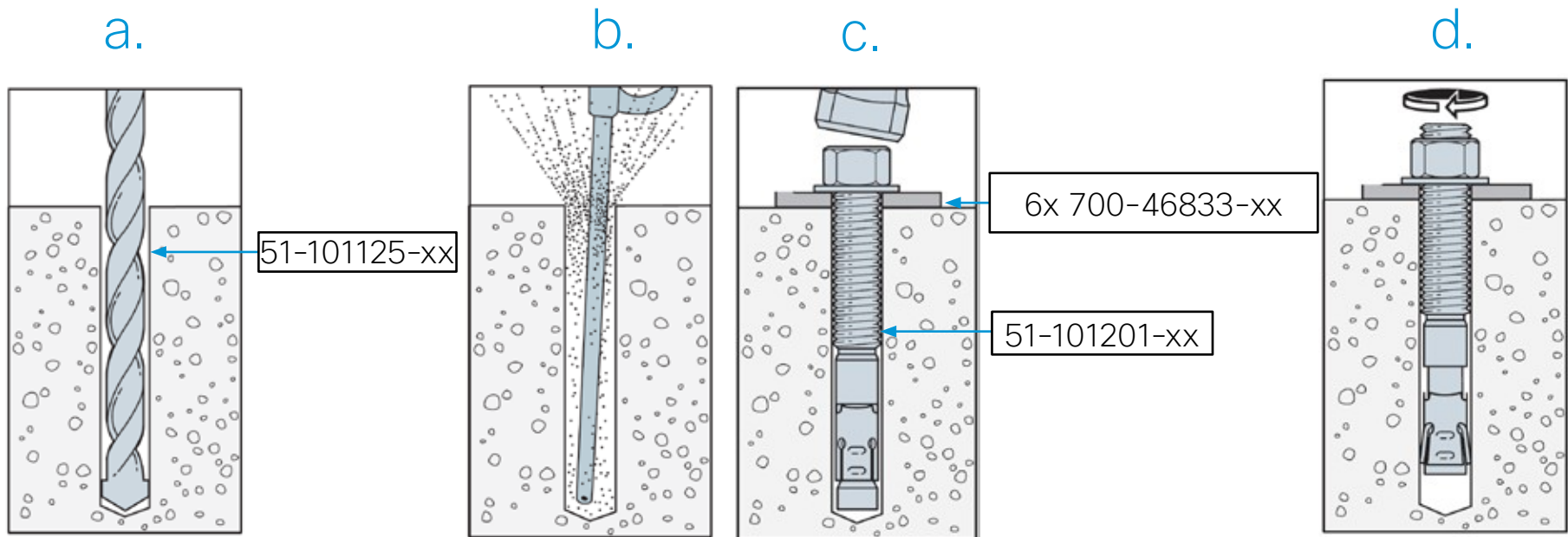
DETAIL B
SCALE 0.5



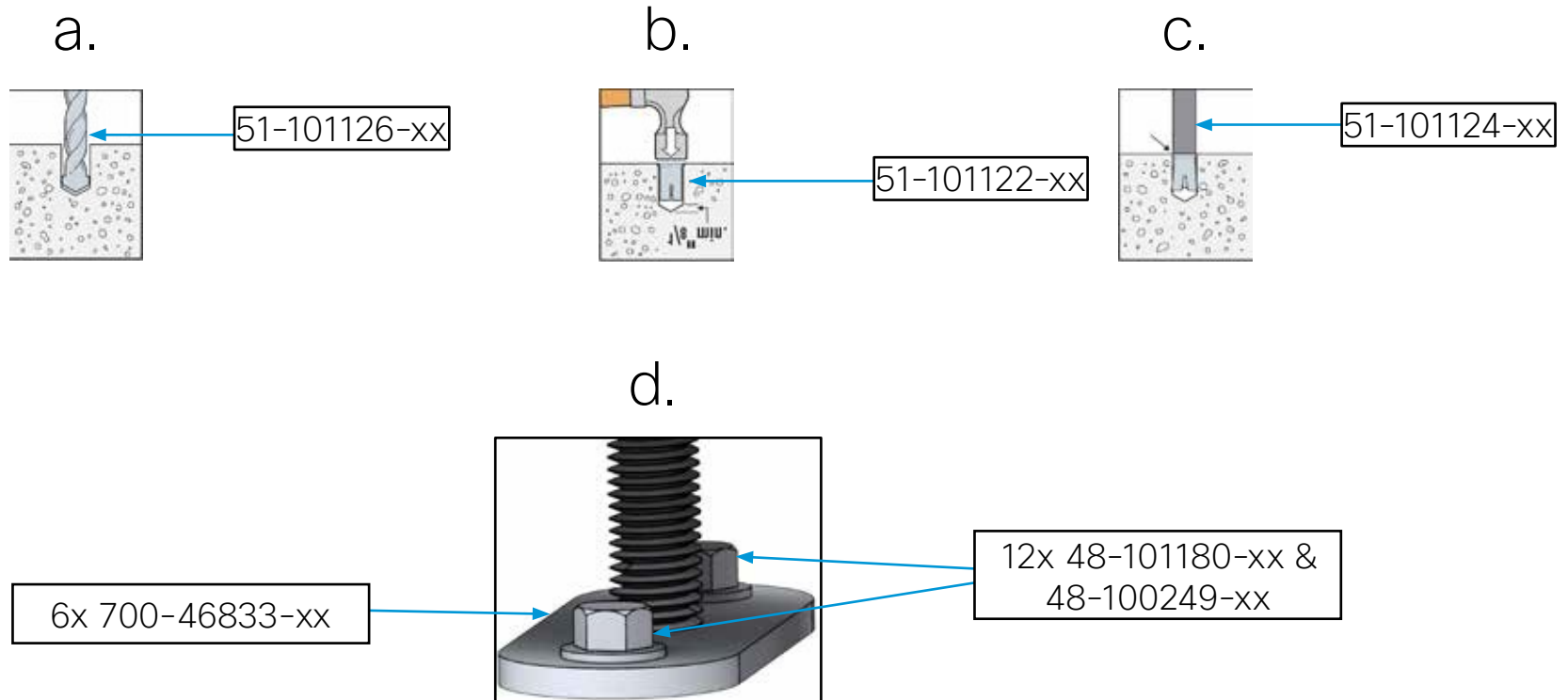
DETAIL C
SCALE 0.5
TYPICAL 4 PLACES
*DIMENSION TYPICAL FOR ALL BRACKETS

- 2 Perform one of the steps on the following pages, depending on the type of anchor you use (Strong-Bolt 2 or drop-in anchor).

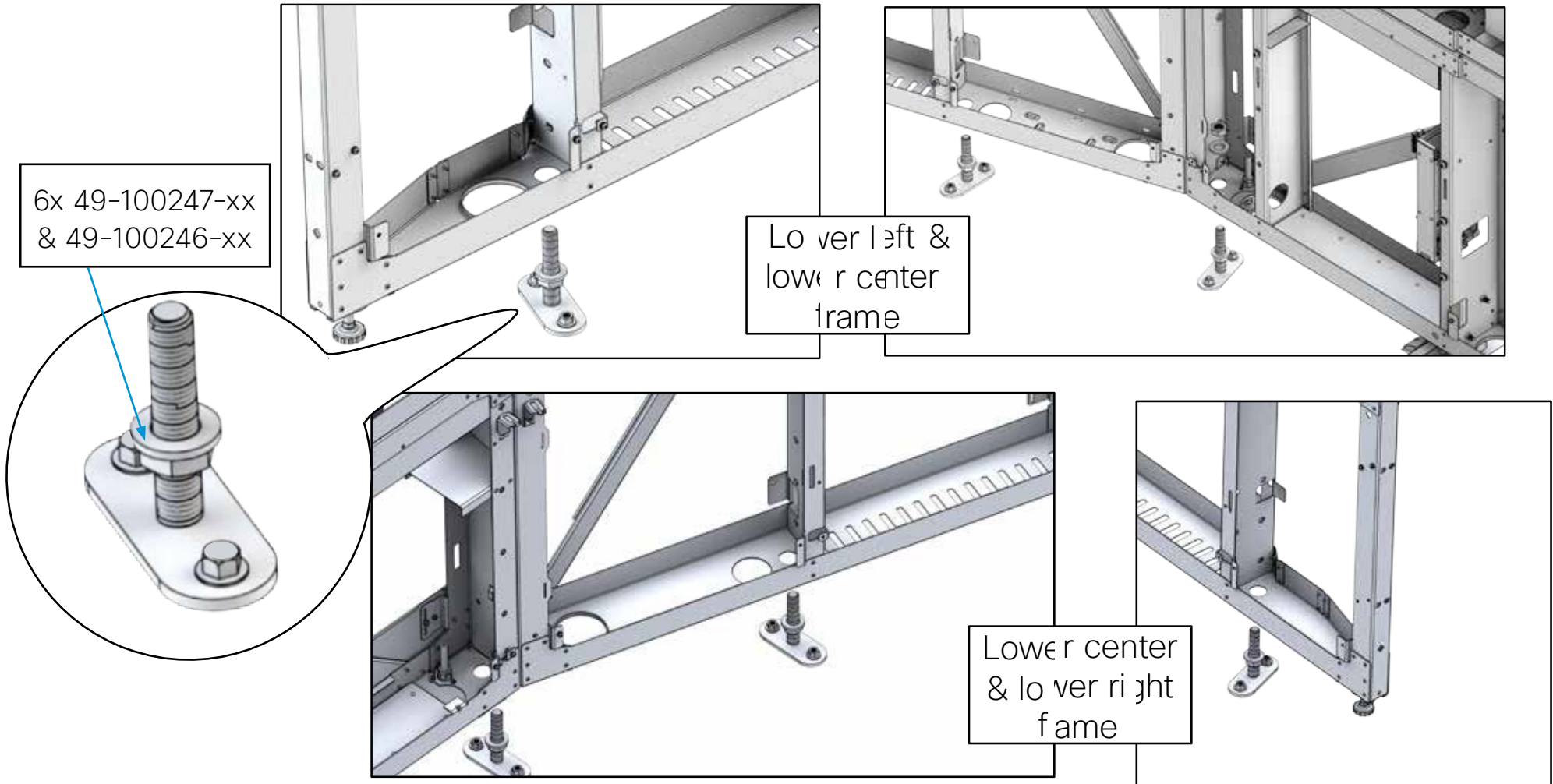
Strong-Bolt 2 procedure: Do not use an impact wrench to set or tighten the Strong-Bolt 2 anchor. **Caution:** Oversized holes in the base material will make it difficult to set the anchor and will reduce the anchor's load capacity. **a.** Drill a hole in the base material using 3/8-inch drill bit 51-101125-01. Drill the hole to the depth required for the installation condition (see page C-2 for requirements and work with a licensed design professional and building or facilities manager to evaluate these requirements). Remove the drill templates. **b.** Blow it clean using compressed air. Overhead installations need not be blown clean. Alternatively, drill the hole deep enough to accommodate minimum hole depth and dust from drilling. **c.** Assemble the anchor with nut and washer so that the top of the nut is flush with the top of the anchor. Insert the anchor through the 700-46833-01 bracket slot and drive into the hole until washer and nut are tight against the bracket. Note that you torque these bolts to an installation torque of 30 ft/lb (40.7 n-m) later in this procedure.



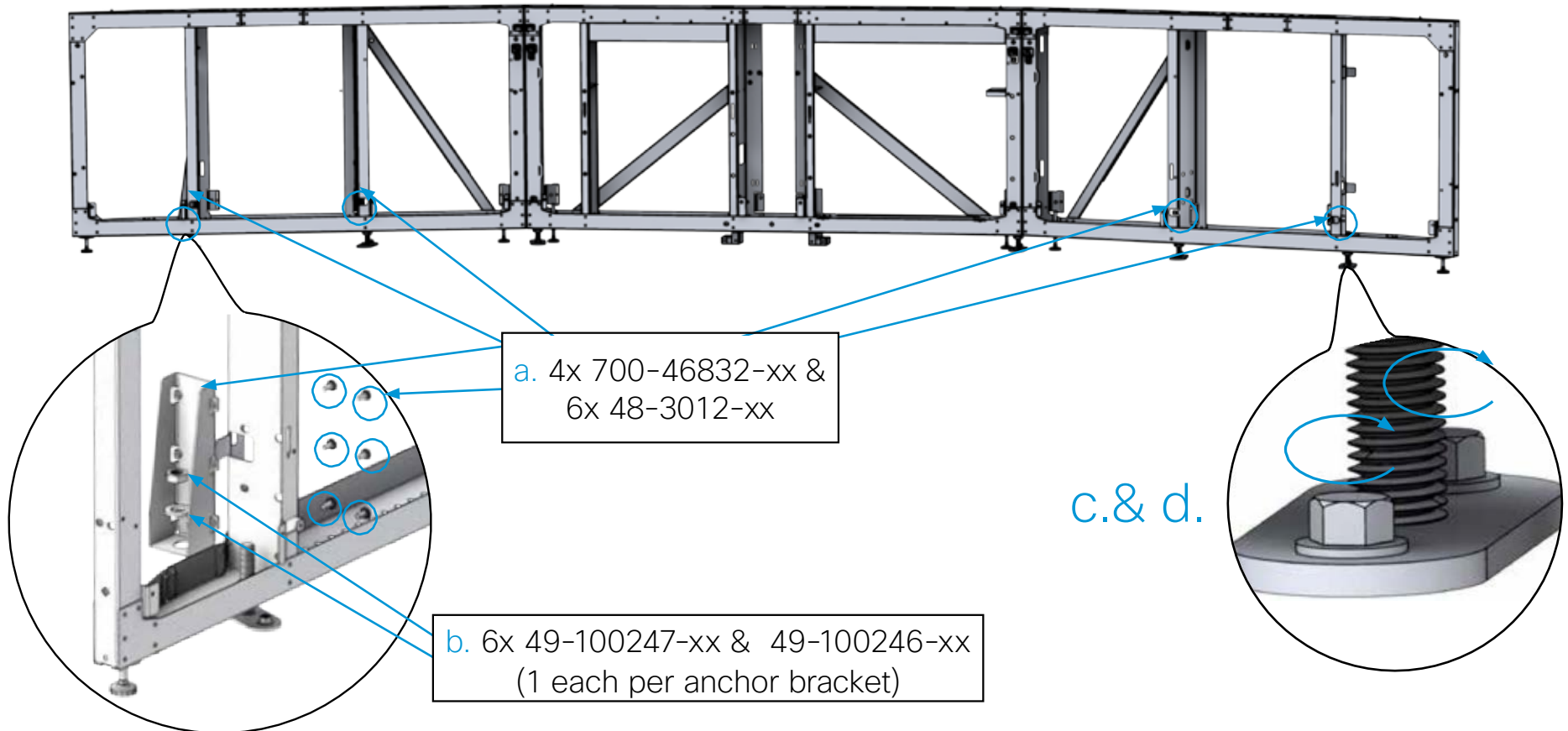
Drop-in anchor procedure: **a.** Drill a hole using the 1/2-inch drill bit 51-101126-xx a minimum of 1 5/8 inches (41mm) deep, then blow the hole clean using compressed air. Remove the templates. **b.** Insert the anchor into the hole until the top of the anchor is flush with the surface. **c.** Using the anchor setting tool 51-101124-xx, drive the anchor into the ground until the shoulder of the setting tool makes contact with the top of the anchor. **d.** Place the anchor brackets 700-46833-xx over the anchors, then insert the 12x 3/8 x 1-inch hex head cap screws 48-101180-xx with washers 48-100249-xx into the anchors. Leave the cap screws loose at this point.



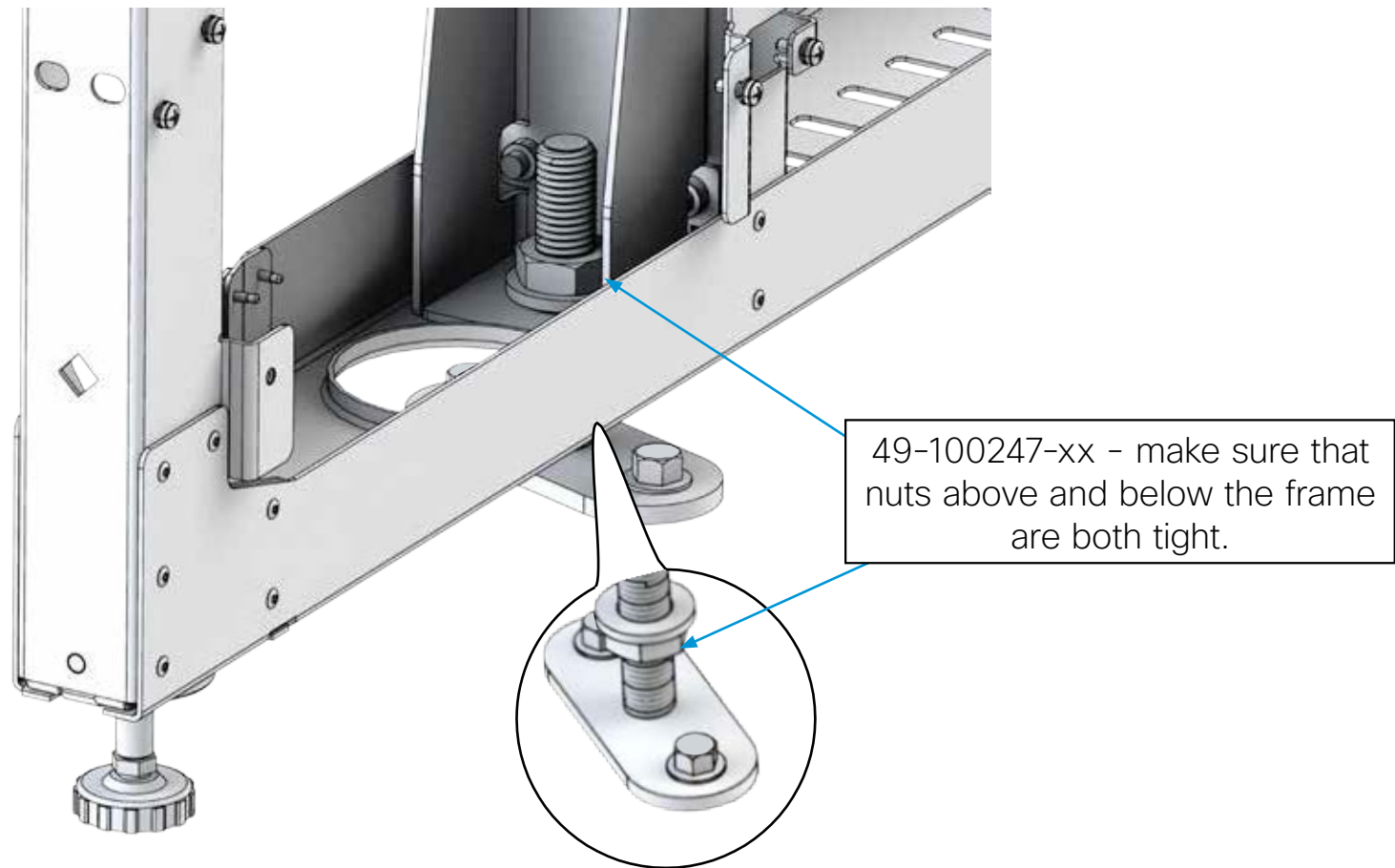
- 3** a. Thread a 3/4-inch hex nut 49-100247-xx with washer 49-100246-xx onto each anchor bracket. Screw them down enough to provide vertical clearance for the frame. b. Place the lower frames over the anchor brackets.



4 a. Attach 4x reinforcing brackets 700-46832-xx to the display frames using 6x M8x16mm screws 48-3012-xx per bracket. Tighten the screws using a #3 Phillips driver. b. Install 1x washers 49-100246-xx and 1x hex nut 49-100247-xx for each bracket. Leave the nuts loose at this point. They will be tightened after the displays have been installed and the system is plumb. c. Tighten the 12x bolts (for Strong-Bolt 2 installations) or screws (for drop-in anchor installations) that connect the brackets to the floor with a 9/16-inch (15mm) wrench. Repeat for the remaining 5 brackets. d. **Strong-Bolt 2 only:** Tighten the bolts to an installation torque of 30 ft/lb (40.7 n-m).



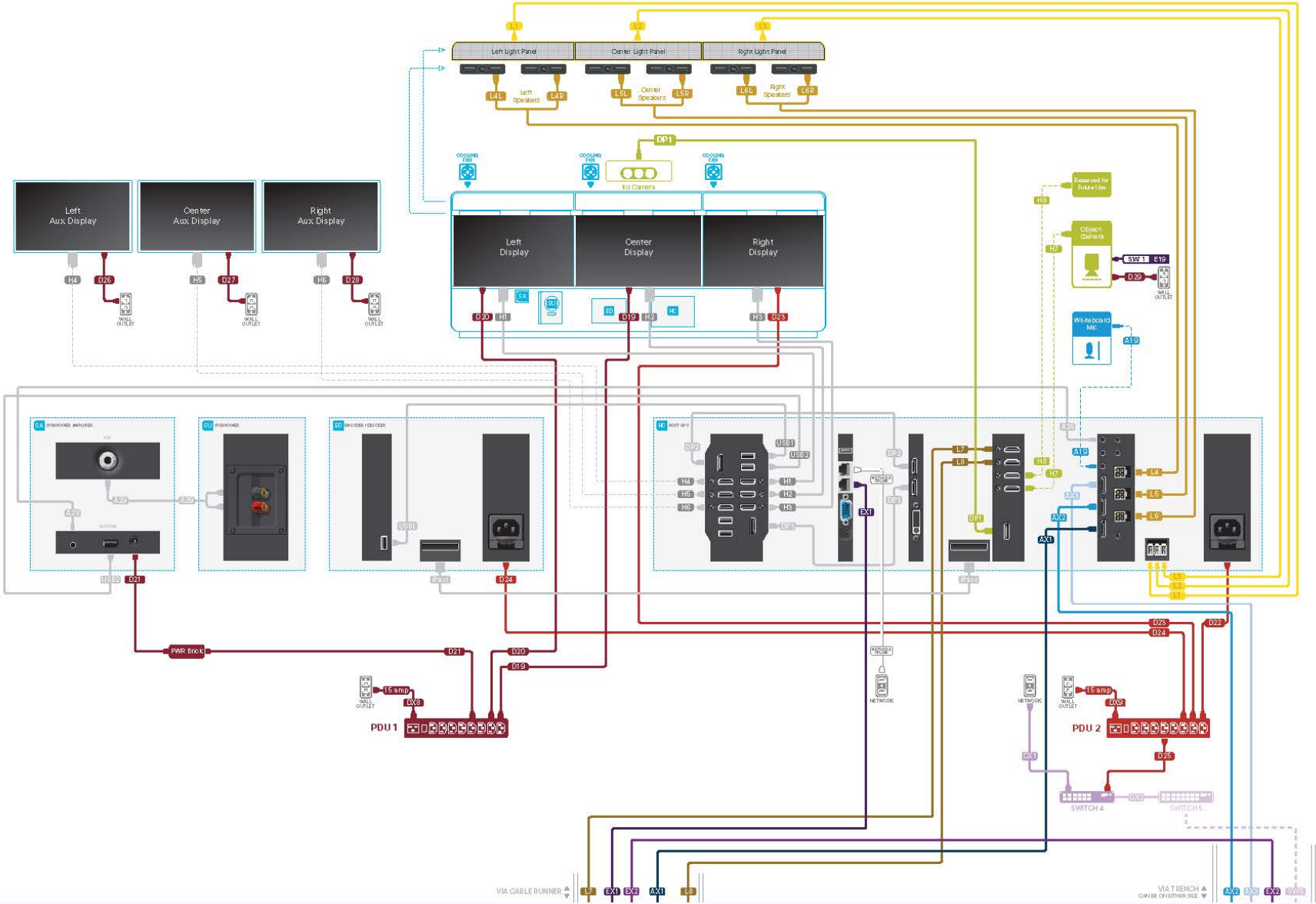
- 5 After the display frames are level and plumb, tighten the 3/4 inch nuts using two 1 1/8-inch (29mm) wrenches or adjustable wrenches. Make sure that the nut under the frame is tight as well.



Cable Routing Diagrams

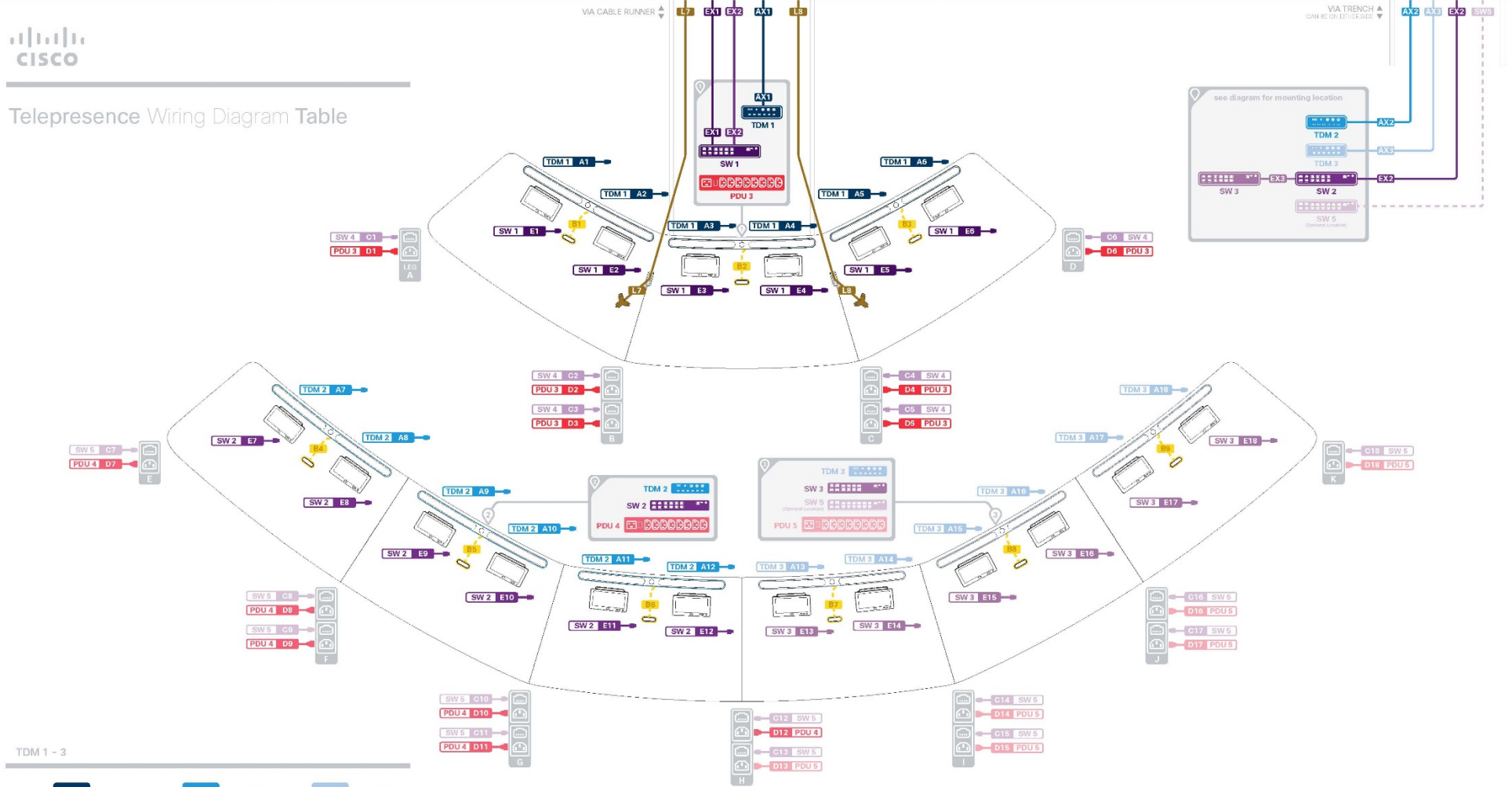
This chapter includes the cable routing diagrams for the system.

Cable Routing Diagrams

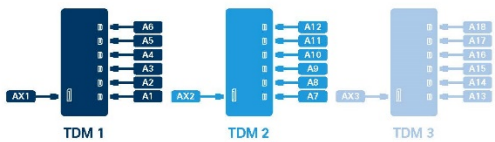




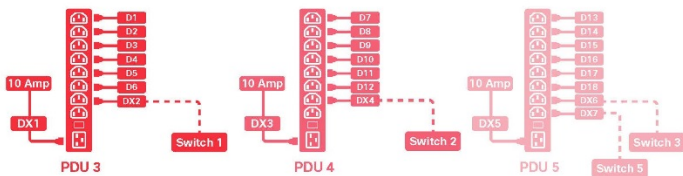
Telepresence Wiring Diagram Table



TDM 1 - 3



PDU 3 - 5 *Follow Diagram For Correct Load Balancing Per PDU*



SWITCHES 1 - 5

