

ECX – 4U QUICK START GUIDE

BELDEN

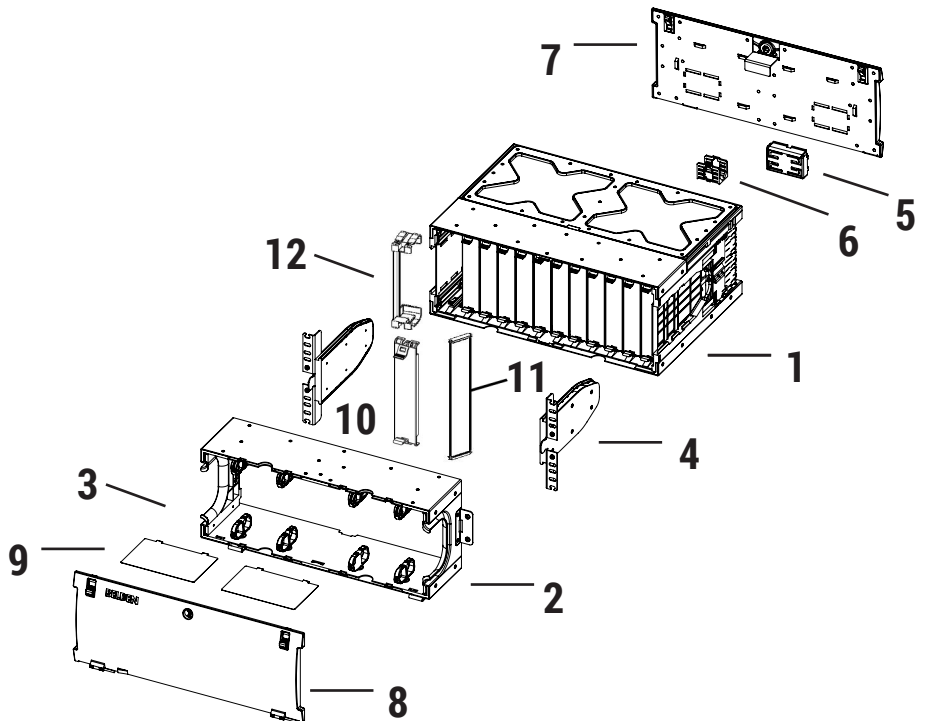
ES: Visite nuestra pagina web www.belden.com para obtener el guía de instalación en español.
FR: Veuillez visiter notre site web au www.belden.com pour obtenir le guide d'installation en français.

Carton contents

1. Rear housing (1X)
2. Front housing (1X)
3. Management clips (16X)
4. Rack mounting bracket (2X)
5. Internal strain relief (2X)
6. Intermediate strain relief (1X)
7. Rear door (1X)
8. Front door (1X)
9. Label card (2X)
10. Blank Frames (12X)
11. Plastic Clipping Link.
12. Frame brace support (12X)
13. Hardware kit (not shown)

Hardware kit contains:

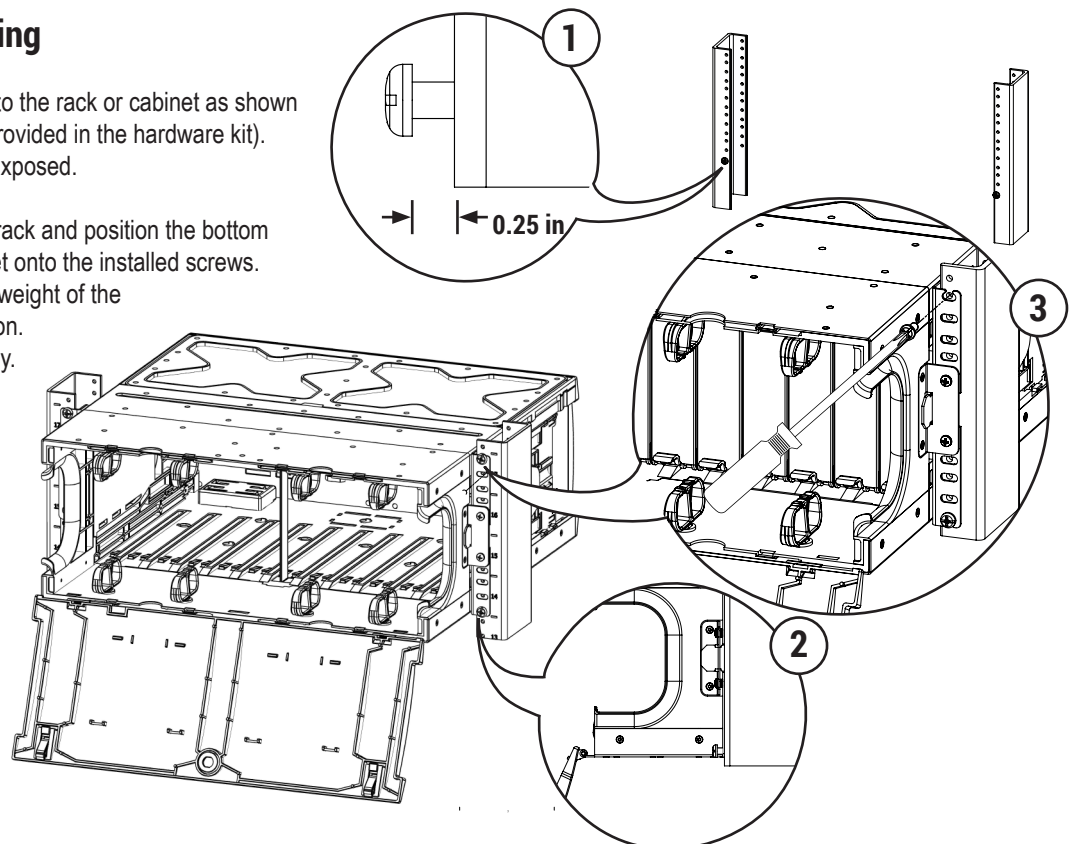
- External strain relief (2X)
- Intermediate strain relief (1X)
- Cable tie 4in (12X)
- Cable tie 7 ½ in (4X)
- Velcro cable tie 8 in (8X)
- I.D label (2X)
- #12-24 machine screw Phillips (4X)
- #10-32 machine screw Phillips (4X)



Mounting the ECX housing

- 1** Insert the bottom screws into the rack or cabinet as shown (#12-24 or #10-32 screws provided in the hardware kit). Leave ¼ inch of the screw exposed.
- 2** Install the housing into the rack and position the bottom slots of the mounting bracket onto the installed screws. These screws will carry the weight of the housing during the installation. Tighten the 2 screws in firmly.
- 3** Install the top two screws and tighten all the screws in firmly.

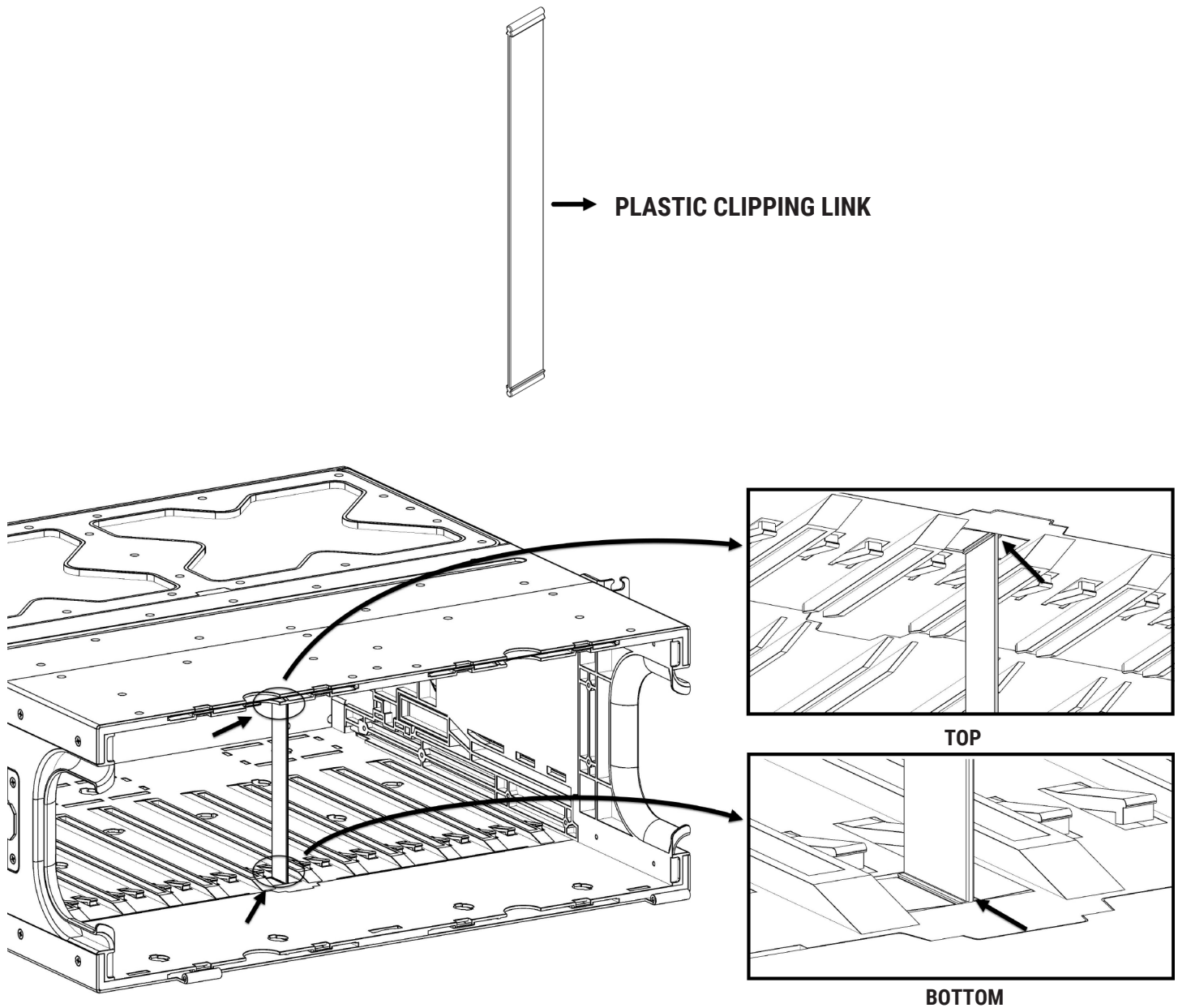
IMPORTANT: If the 4U horizontal panel tends to bend down, refer to next pages (2 & 3) for more information on the panel adjustment.



Installation of Plastic Clipping Link

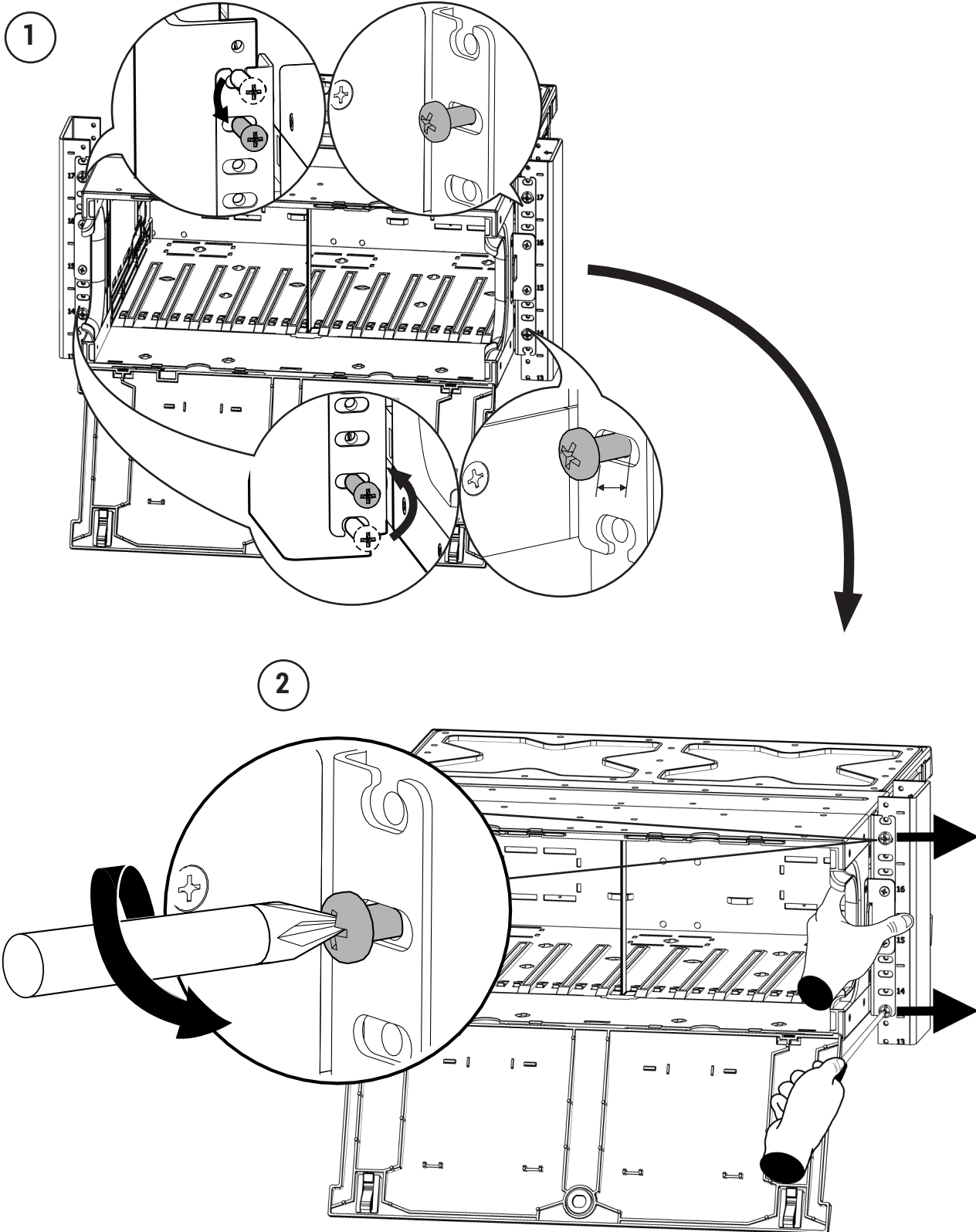
For a straightened enclosure, please use the provided plastic clipping link.

- 1 Align the Clipping link in the finger retaining slots on Top and Bottom.
- 2 Start by the top, push up the clipping link until it latches on the retaining fingers.
- 3 After the bottom, push down the clipping link until it latches on the retaining fingers.

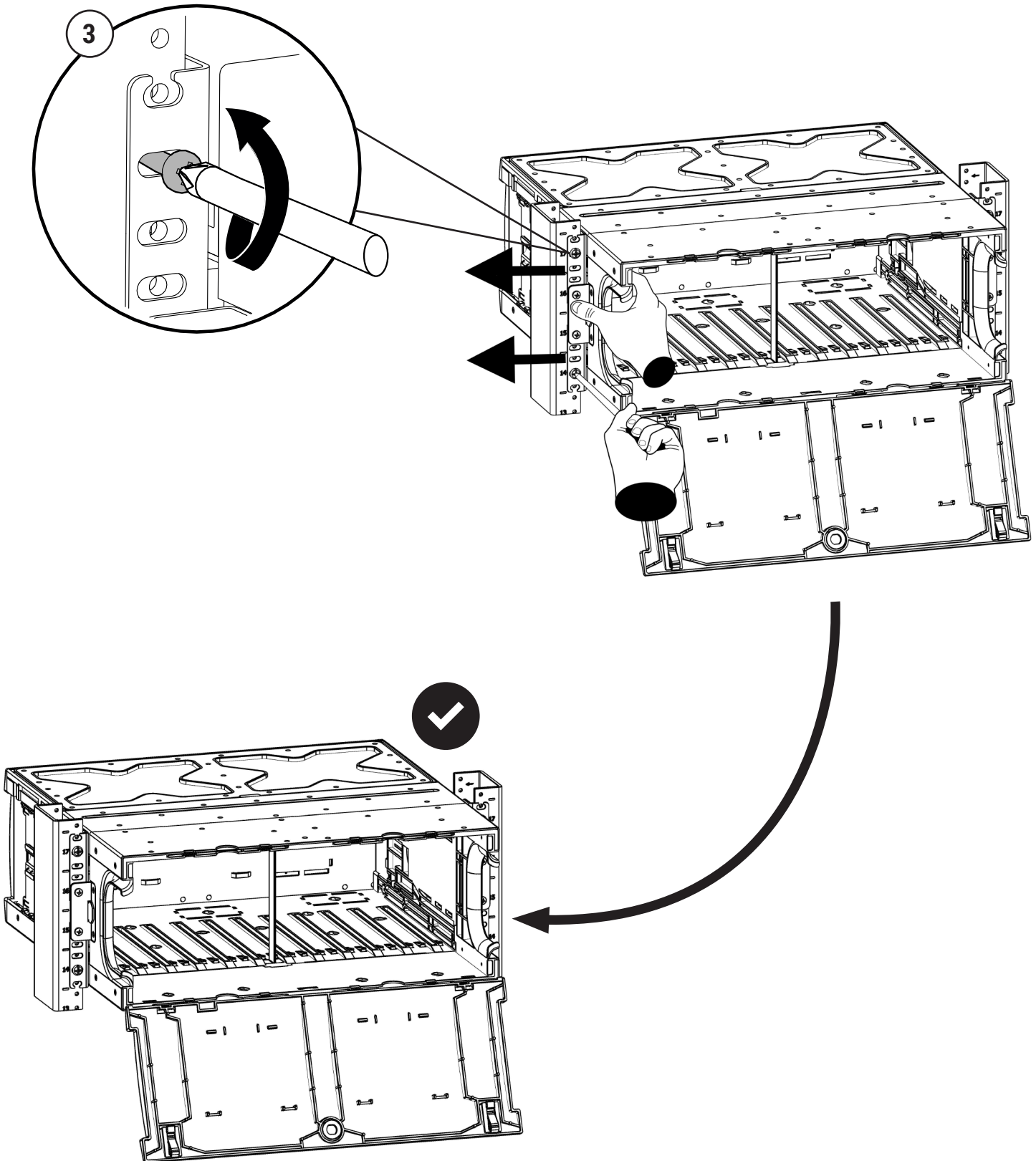


ECX 4U Panel adjustment

- 1 Relocate the brackets top & bottom screws as shown, without tightening them completely.
- 2 Tighten both screws on the right side while pulling the housing towards the right mounting rail.

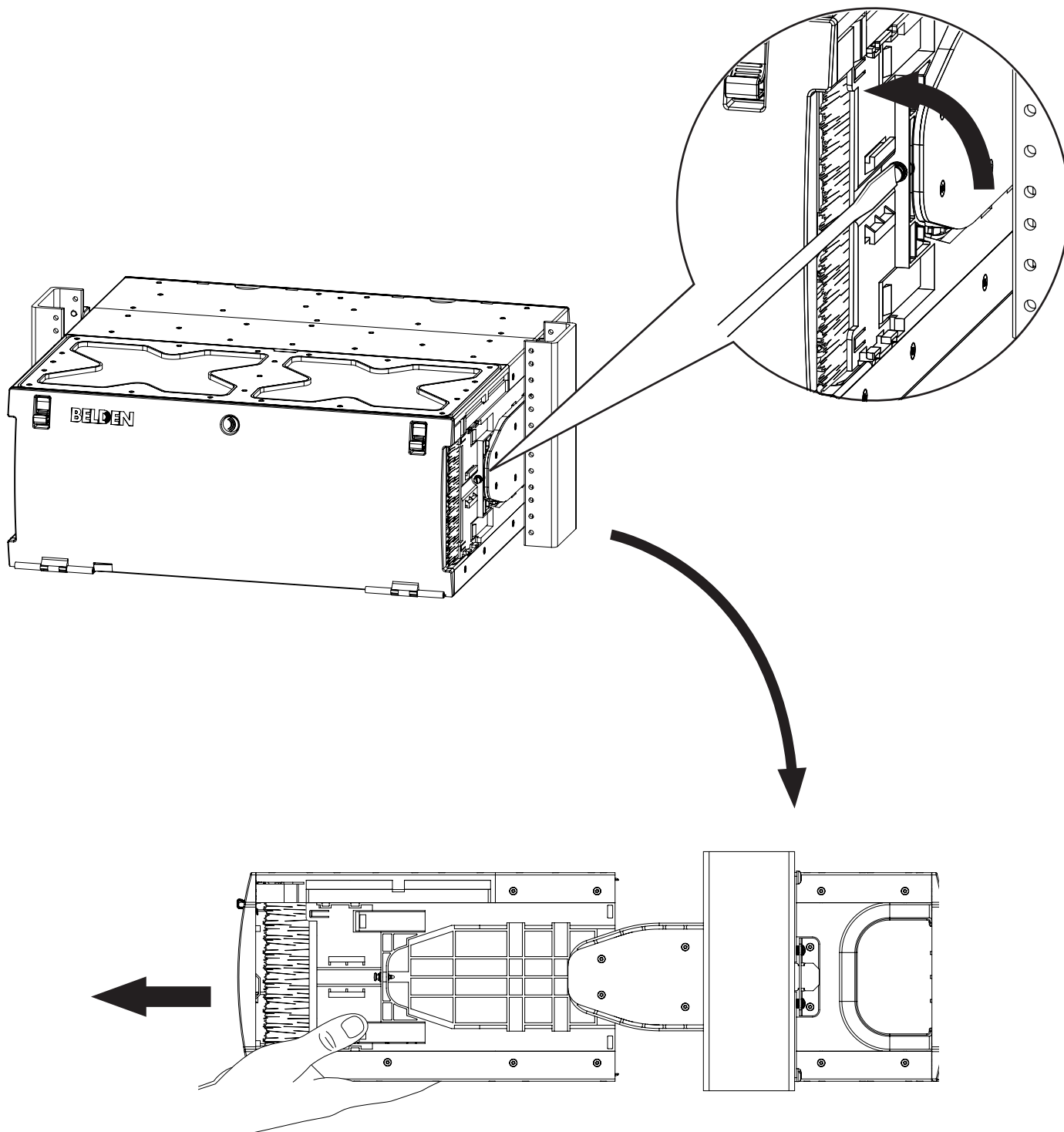


3 Repeat the same procedure shown at the previous page (**step 2**) for the left side..



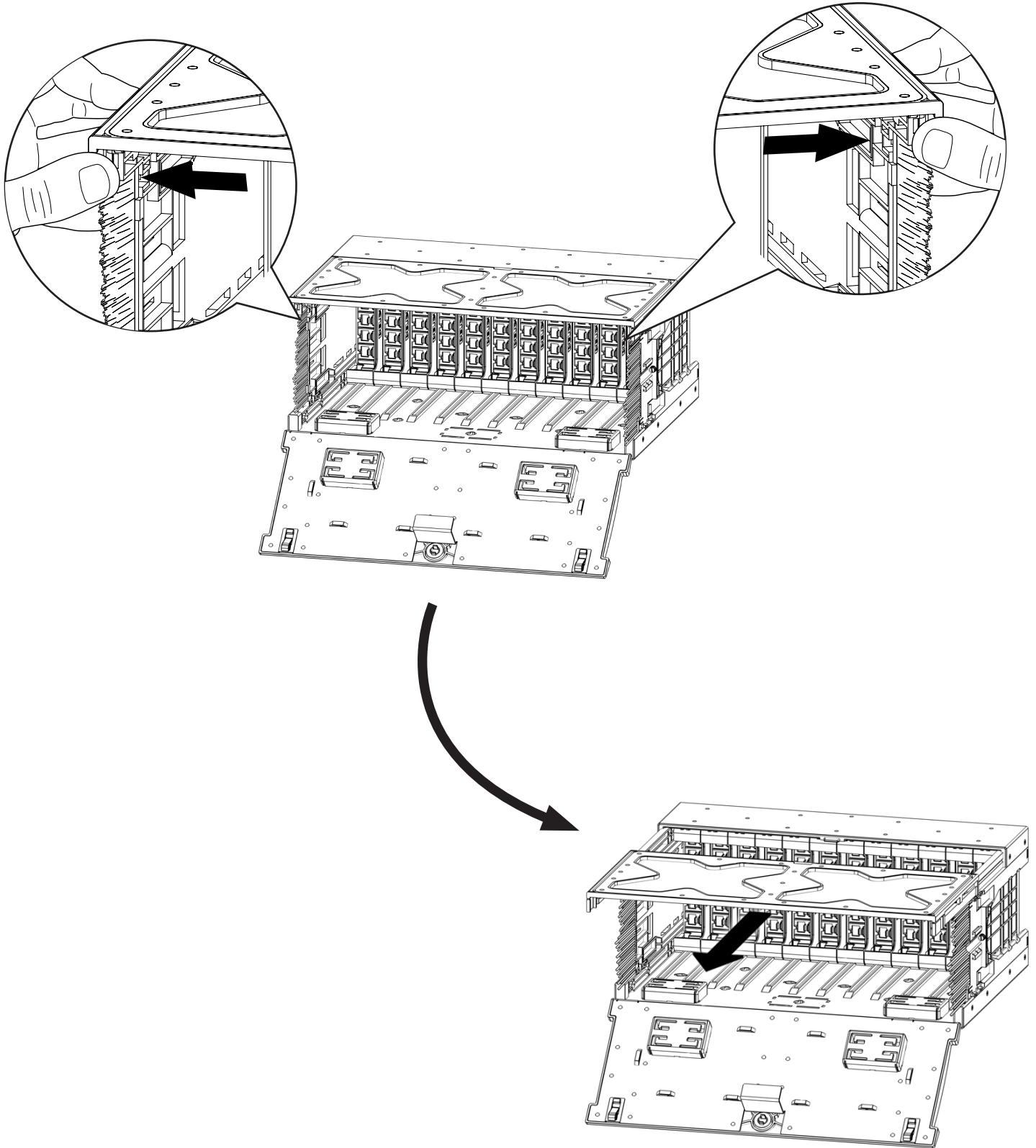
Removing the rear housing

Unscrew the quarter-turn on both sides and remove the rear housing.



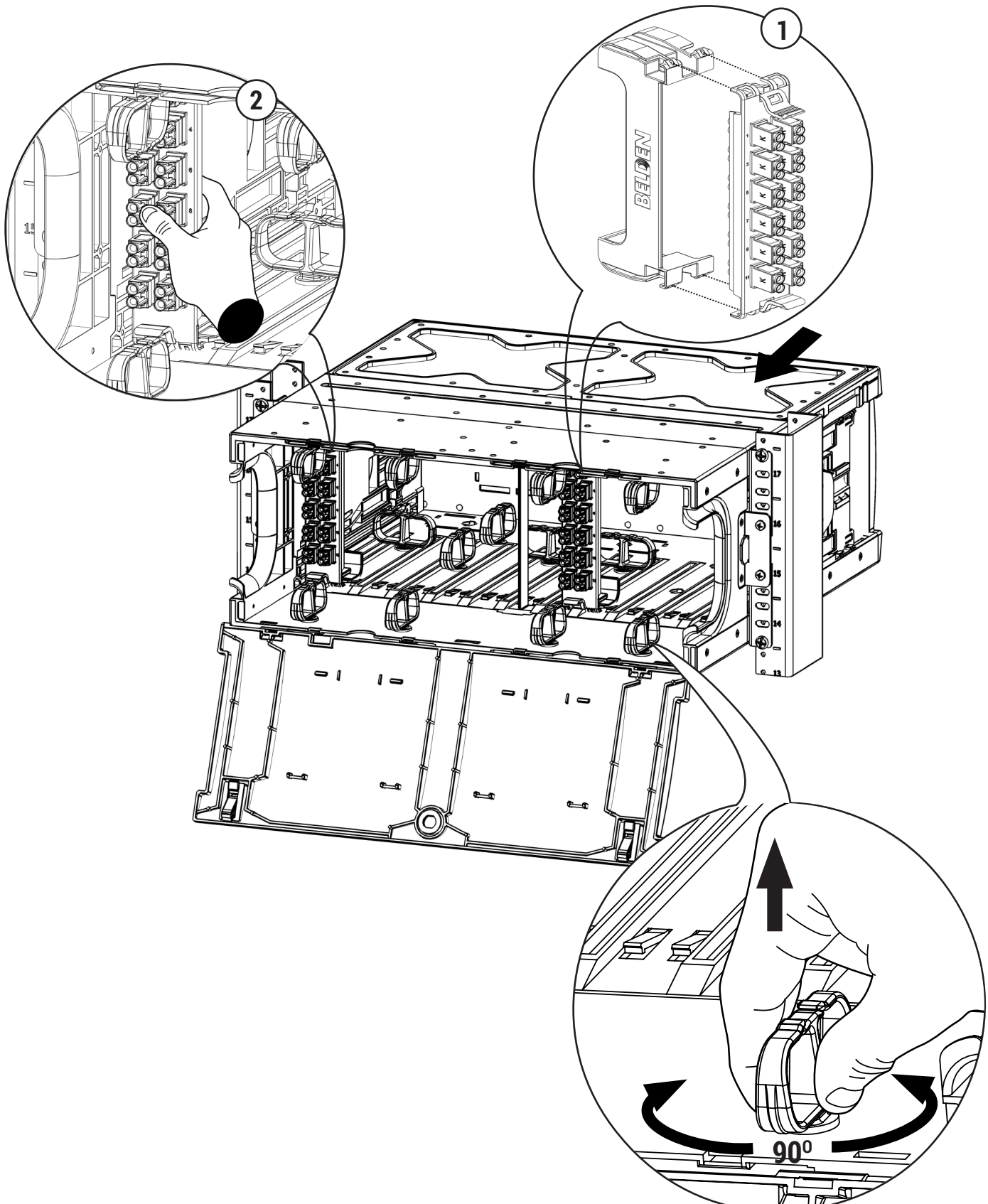
Removing the cover

Unlock the cover by pressing both tabs outwards simultaneously and by pulling slightly.



Installation of brace support.

- 1 Place the frame into the frame brace support. If the management clip is in the way, remove it by turning it in 90 degrees.
- 2 Install the desired frame as shown. (Frame + Frame brace support)



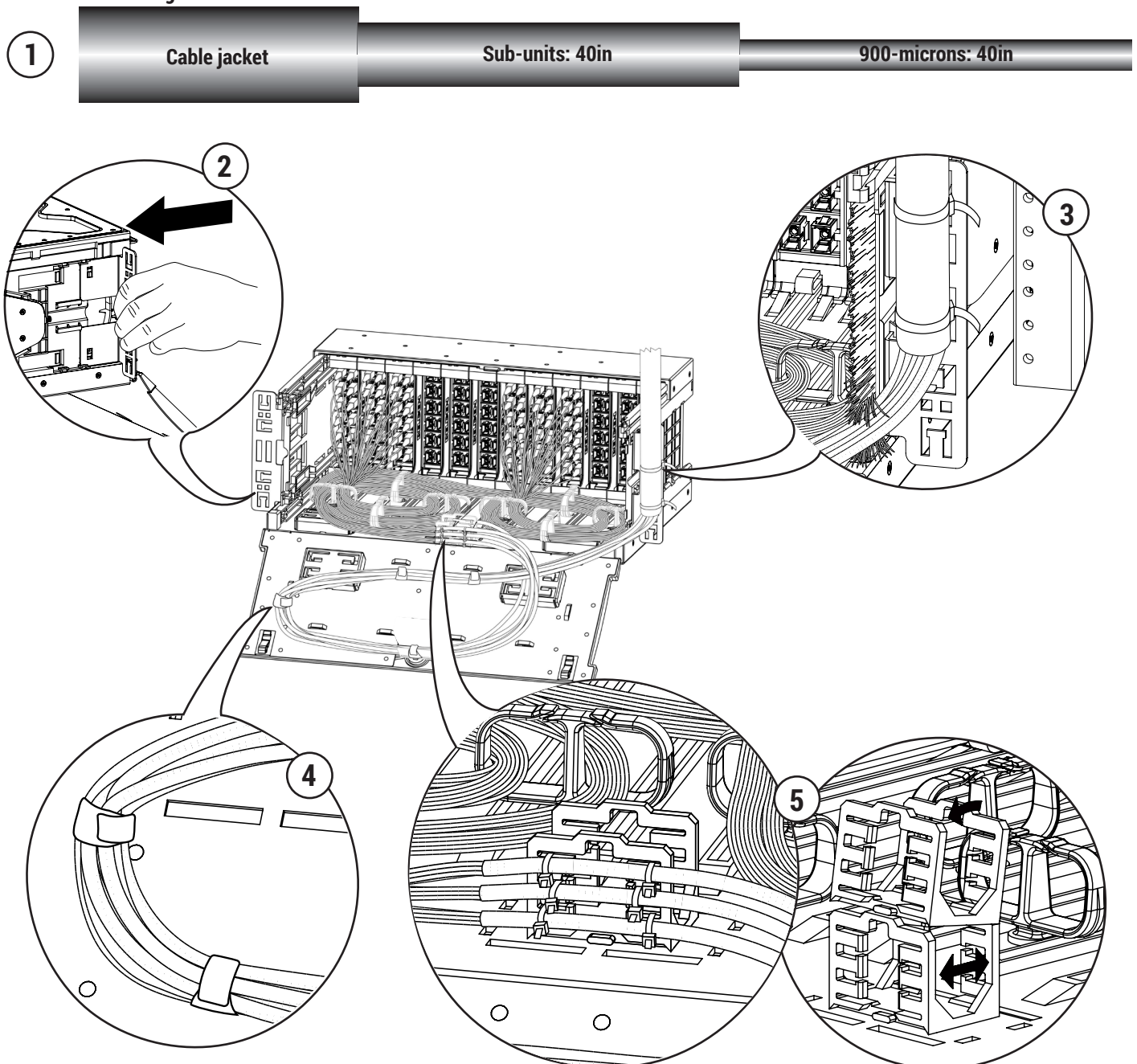
Installing distribution cable for field termination

IMPORTANT: Please take note that this is the recommended procedure. Management clips can also be installed on the removable top cover.

- 1 Prepare the cable in the following manner: leave 40in of sub-unit and another 40in of 900-micron fiber.
- 2 Slide the external strain relief into the appropriate slot.
- 3 Secure the distribution cable to the external strain relief with the provided cable tie (7½in).
- 4 Loop and secure the sub-units to the door using the attachment points and the provided Velcro cable ties.
- 5 Secure the end of the sub-units to the intermediate strain relief by using the provided cable tie (4in).

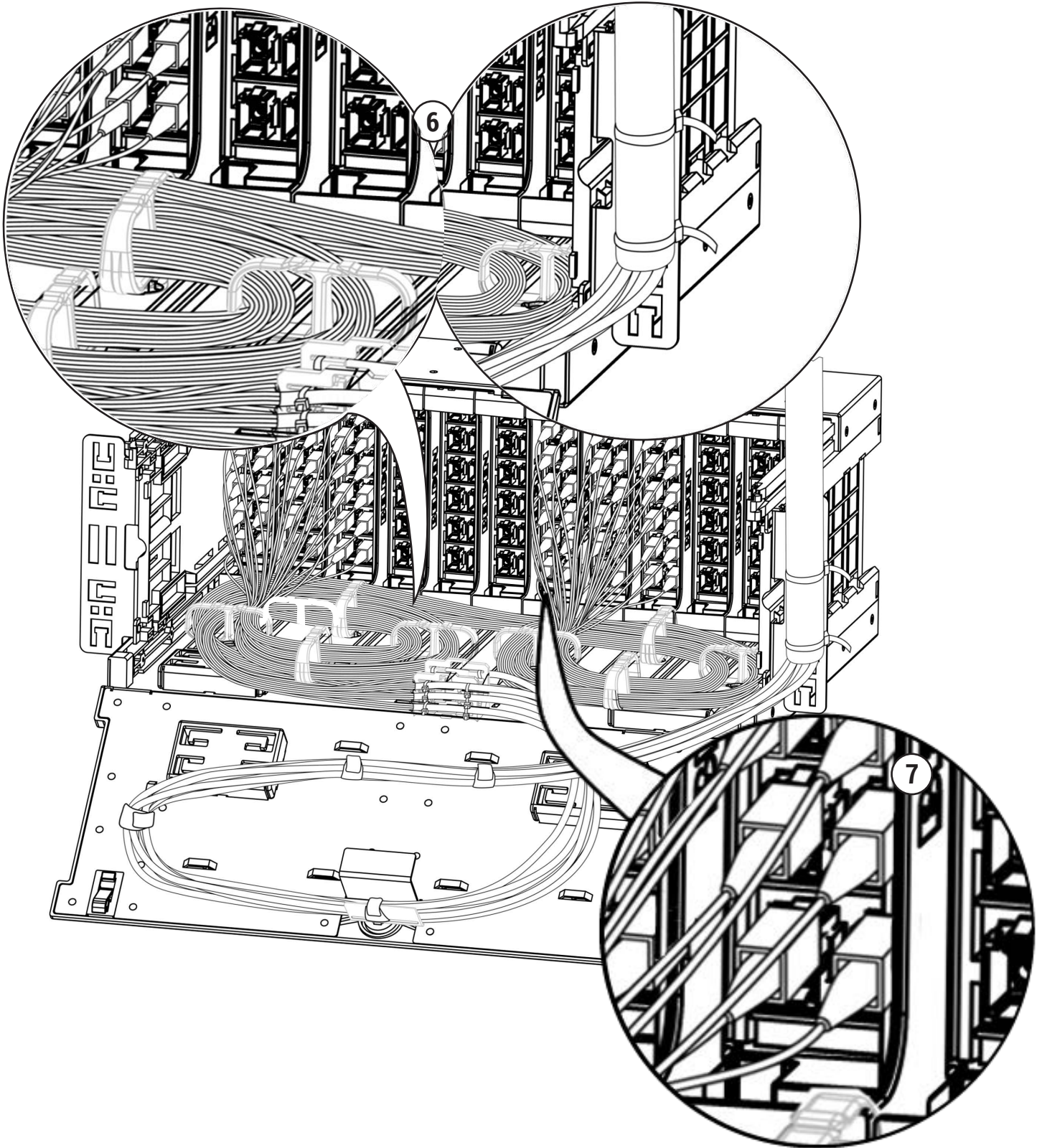
Note: intermediate strain relief can be stacked.

Caution: do not over-tighten the cable tie.



Installing distribution cable for field termination (continued)

- 6 Route the 900-micron fiber in the housing by utilizing the already installed management clips.
- 7 Install connectors in desired frame.



Installing OptiTuff cable assemblies for splice cassette

More than 24 OptiTuff cables (Horizontal entry):

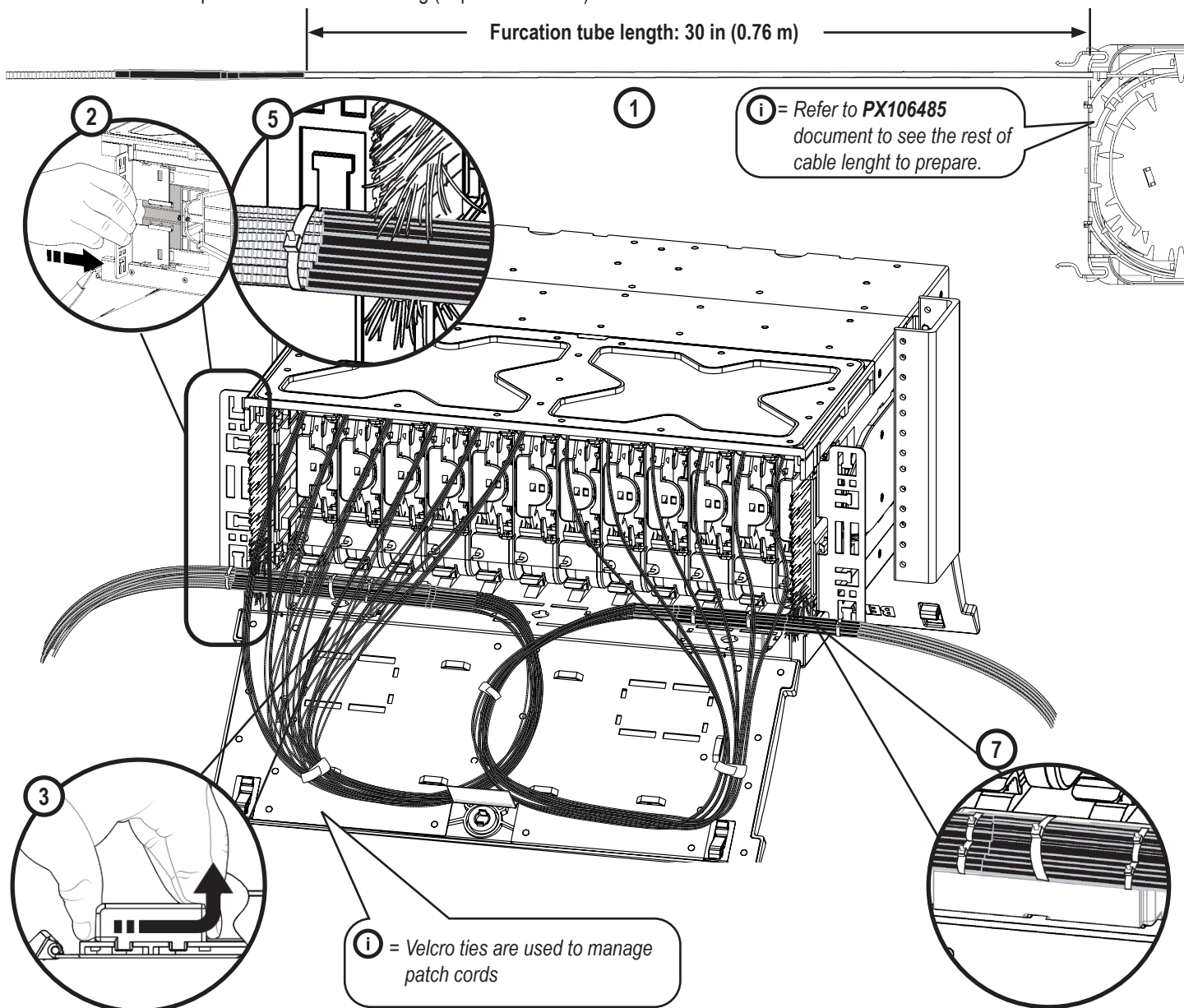
- 1 Leave 30 in (0.76m) of furcation tube at the end of the cassette.
- 2 Install the external strain relief in both entries of the rear housing.
- 3 In order to install the cassettes, the internal strain relief must be removed by pressing on the side and then pushing upward.
- 4 Slide in the cassettes to the desired position.
- 5 Secure half the OptiTuff cables to the external strain relief on each side with the provided 7 ½ in cable ties.
- 6 Divide the cables in bundles of 18 maximum to ensure the cables don't slip back and forth.
- 7 Re-install the internal strain relief and secure those bundles to it.

i = This document does not include instructions on how to prepare OptiTuff cable assemblies.

When grouping the cable assemblies, make sure the cable ties are only over the OptiTuff cables, heatshrink or not. (Never over the furcation tubes)

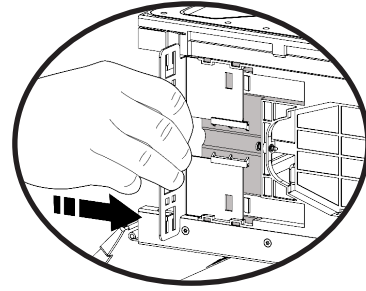
Due to the large amount of cables that enter through the rear housing, using the external strain relief allows the cable bundles to be completely secured and prevents lifting up the internal strain relief.

If some cassettes need to be removed to terminate more fibres, please take note that the cassettes that are close to both rear entries need to be pulled from the front housing (or patch-cord side).



Two OptiTuff cables or less per cassette :

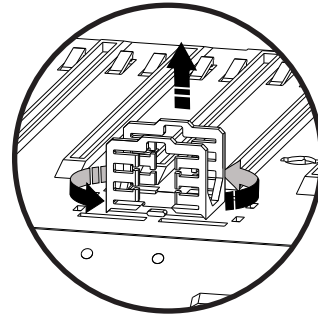
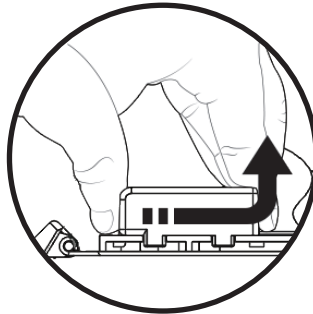
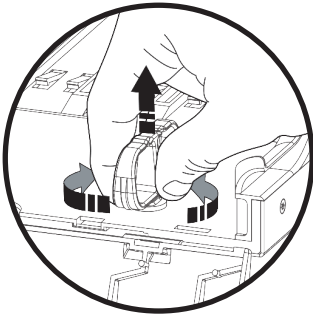
- 1 Install strain relief brackets on entry side: →
- 2 Leave 30 in (0.76m) of OptiTuff cables from the cassette to the strain relief bracket.



i = Place a pen mark 30 in from then attachment point

OptiTuff cables: 30 in (0.76 m)

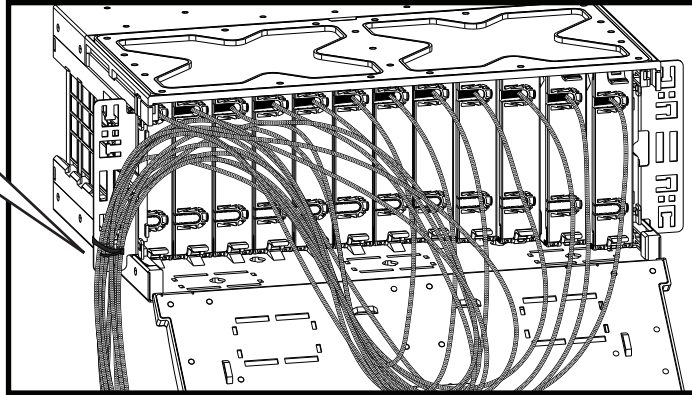
- 3 Secure the OptiTuff cables to the strain relief bracket with the 4 in cable ties.
- 4 Remove every type of cable management for clearance (Management clips, internal strain relief & intermeditate strain relief)



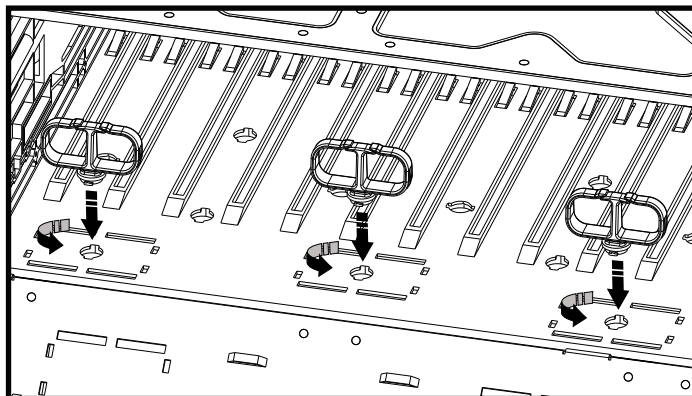
- 5 Start inserting the cassettes from cable entry side first.

i = Make sure the cables enter through the top of the cassettes, whether your cable entry is top or bottom, left or right.

i = Pen mark



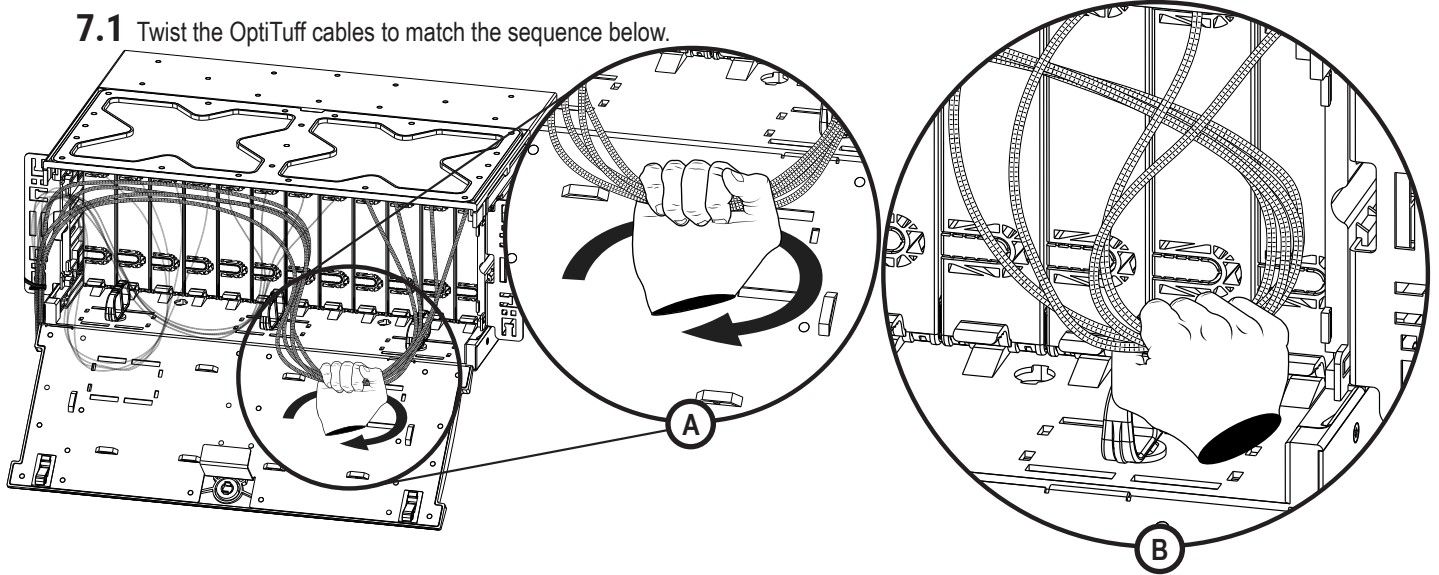
- 6 Re-install cable management clips to these 3 areas:



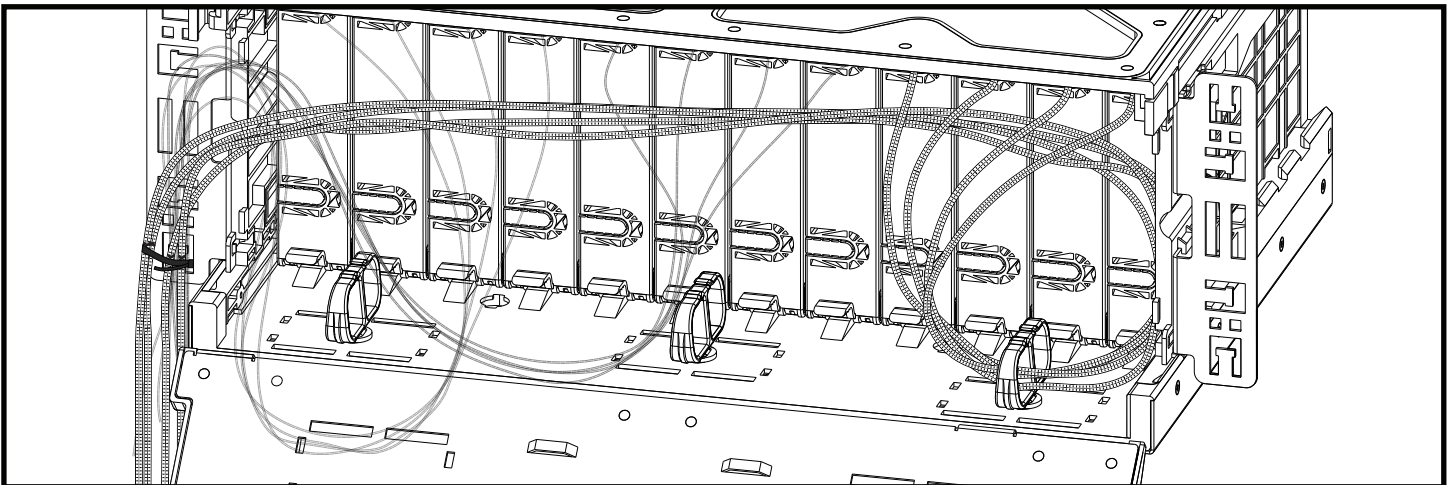
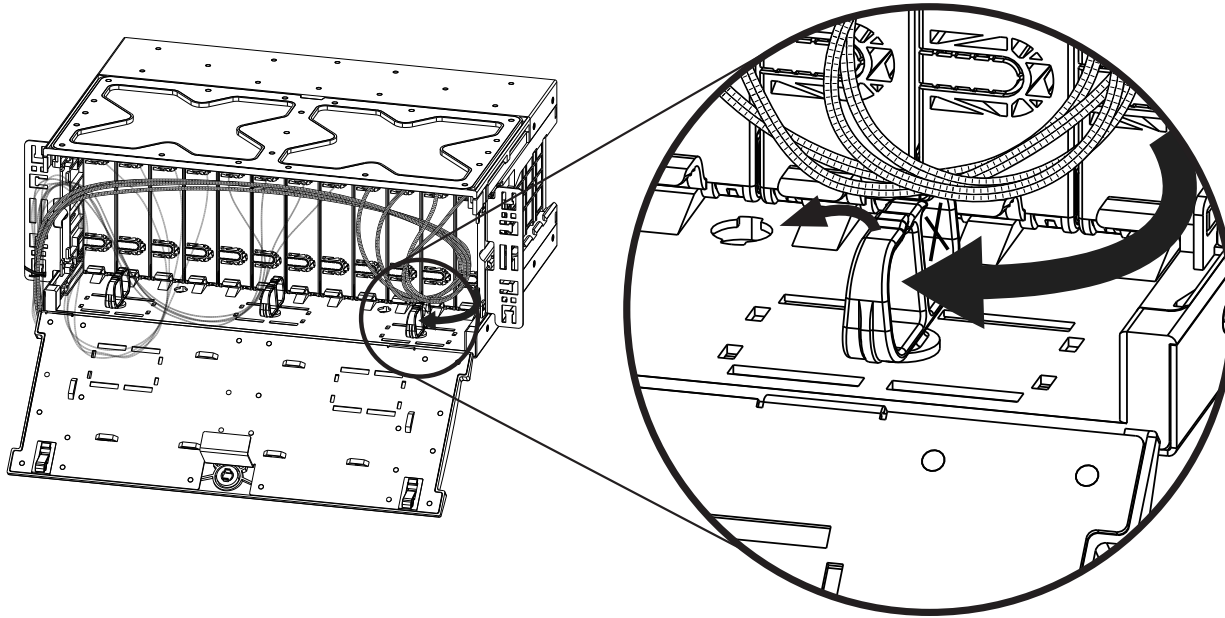
7 To cable manage this OptiTuff configuration, start routing the 4 cassettes farthest away from your cable entry.

i = The entry side shown at steps 7, 8 and 9 is for reference only. This OptiTuff option can be installed on the right or left side

7.1 Twist the OptiTuff cables to match the sequence below.

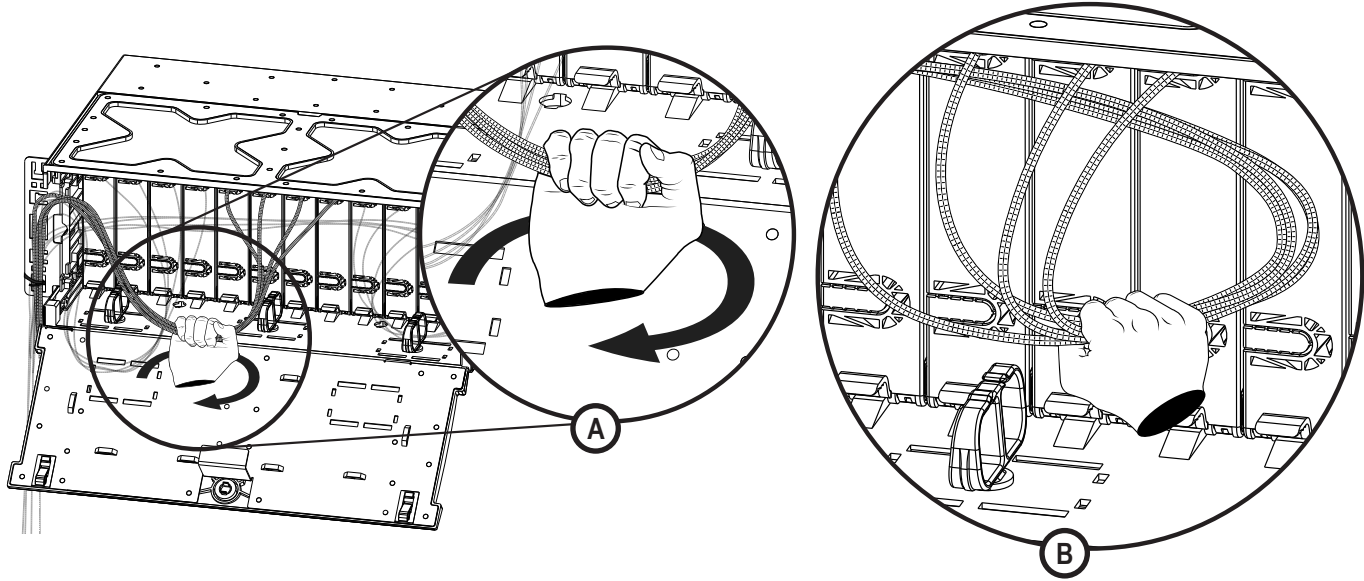


7.2 Place the bottom portion of the loop into the front part of management clips like indicated.

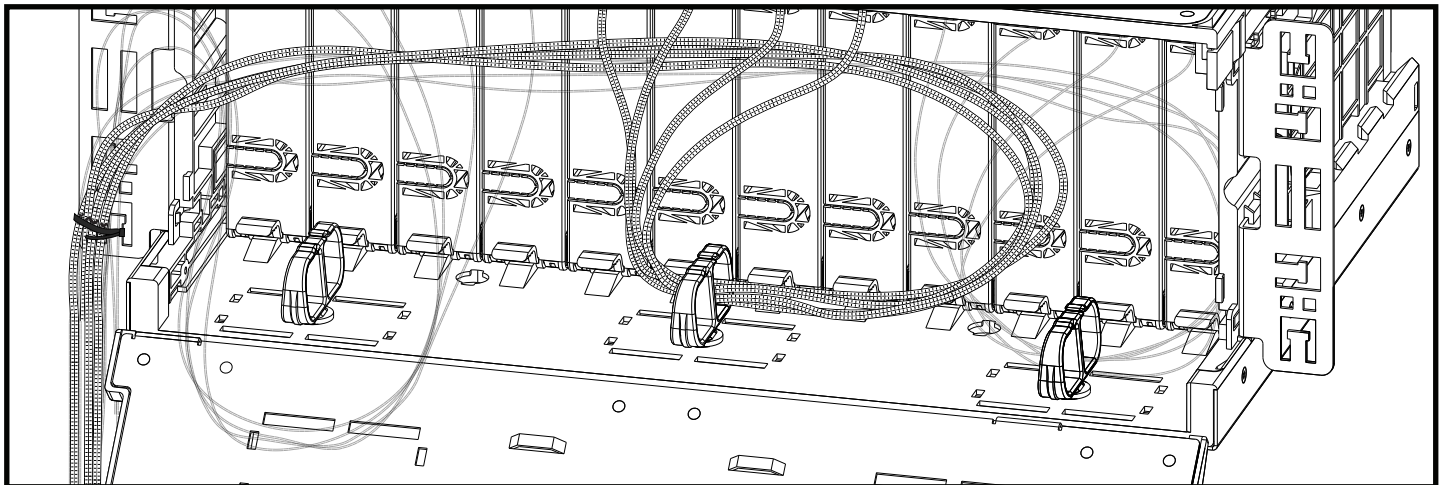
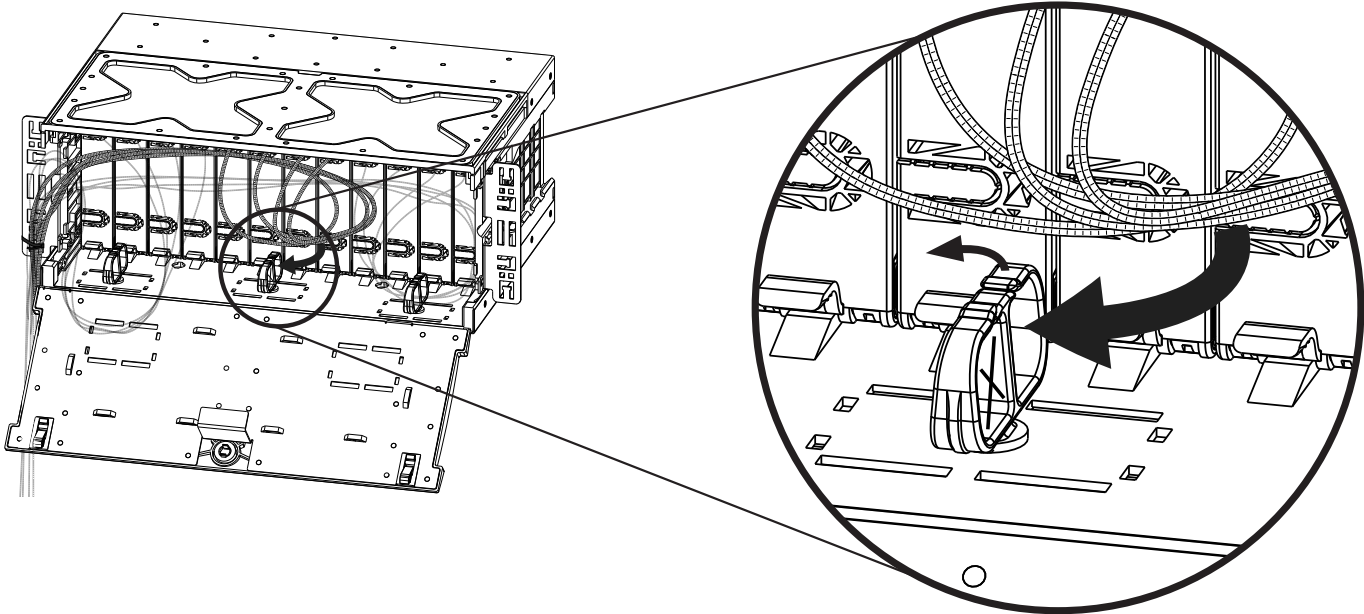


8 Start routing the 4 cassettes in the centre.

8.1 Twist the OptiTuff cables to match the sequence below.

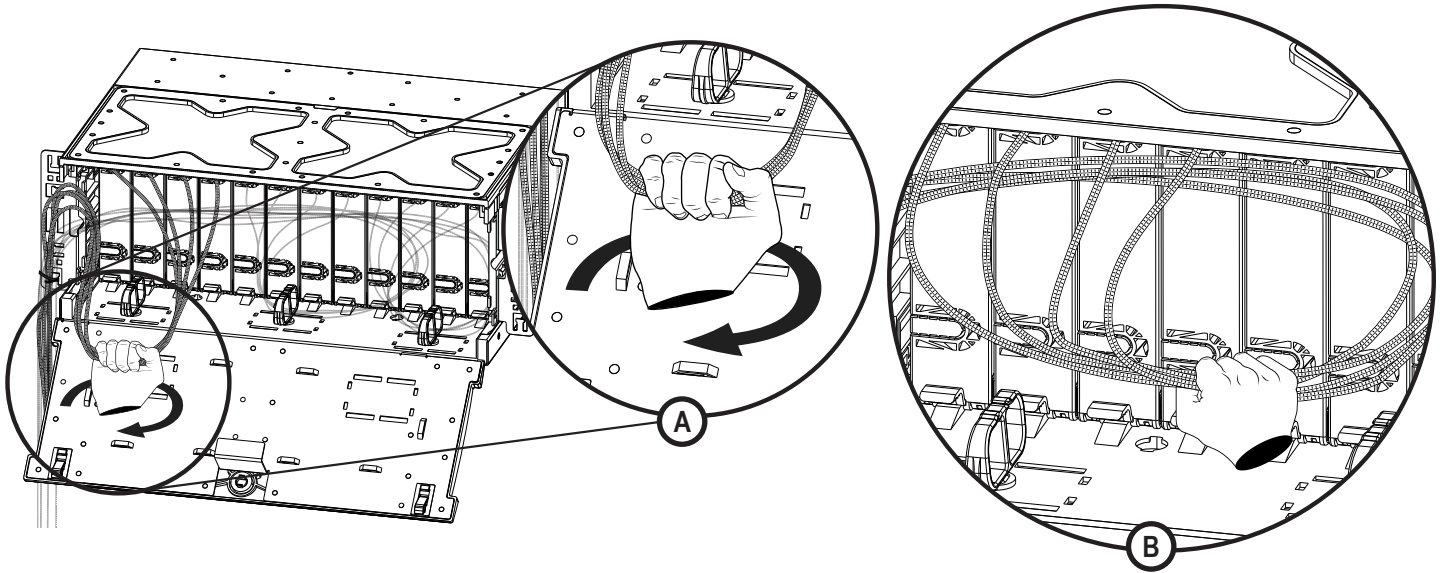


8.2 Place the bottom portion of the loop into the indicated management clip.

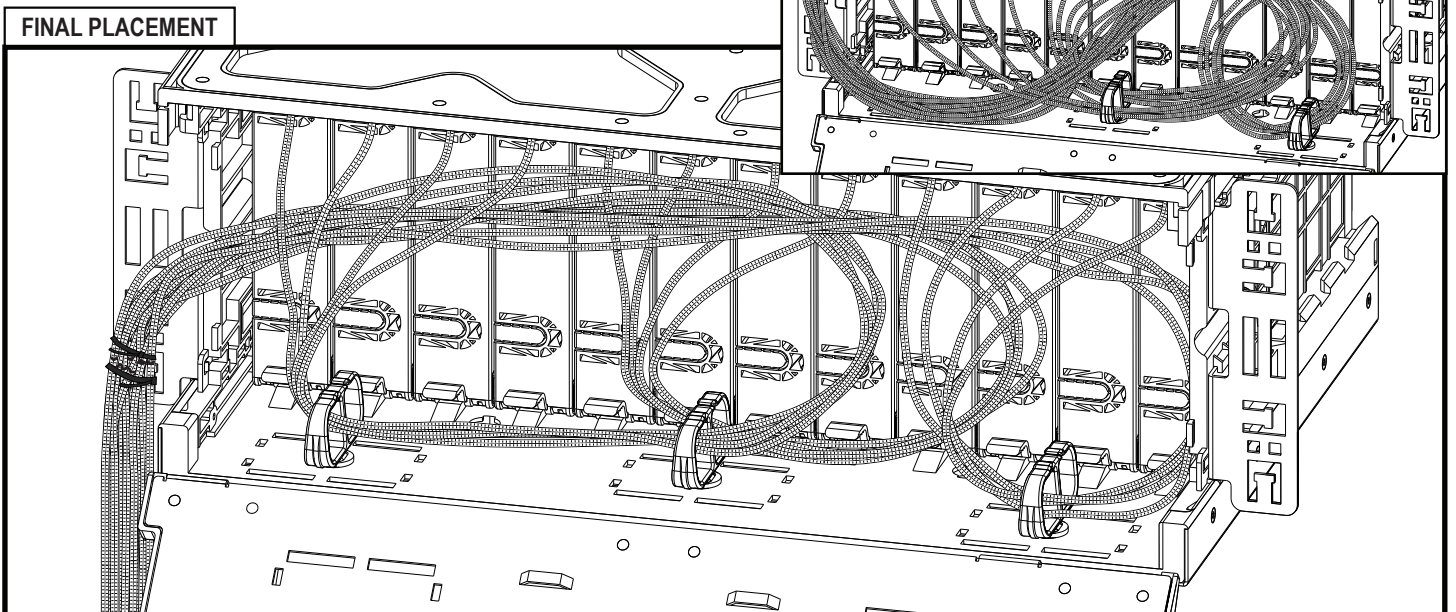
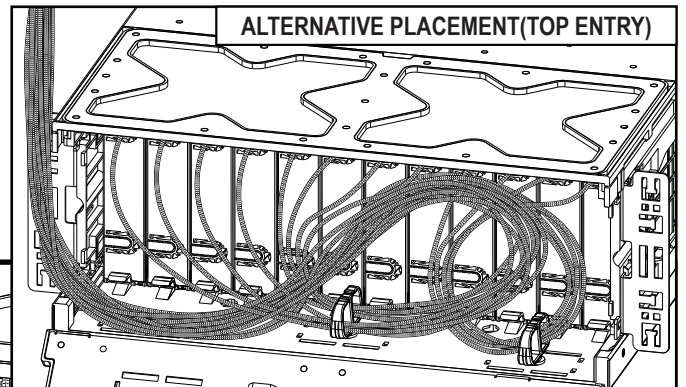
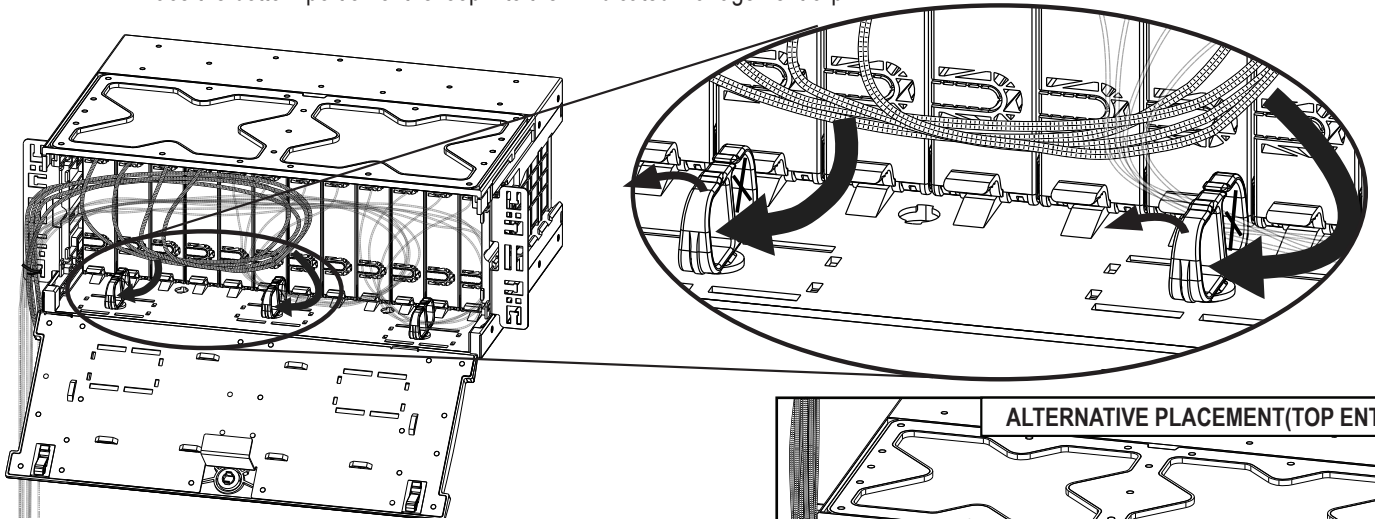


9 Start routing the 4 cassettes closest to entry.

9.1 Twist the OptiTuff cables to match the sequence below.



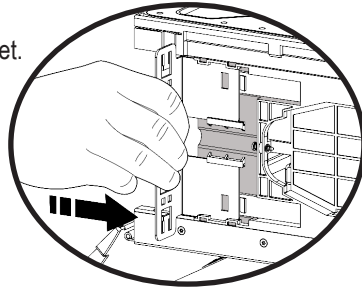
9.2 Place the bottom portion of the loop into the 2 indicated management clip.



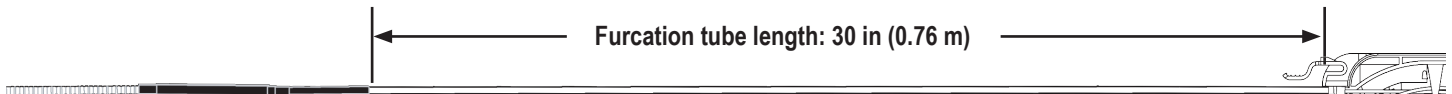
Two fibers per OptiTuff (Vertical entry) (using transition kit AX106696-697):

i = We will illustrate how to Attach 72x OptiTuffs on one side of the ECX 4U enclosure. For a total quantity of 144x OptiTuffs you need to install 72x on each side. 2 fibers per OptiTuff cable. This solution requires the OptiTuff to be prepared with the appropriate Belden transition kit.

1 Insert Strain Relief bracket.



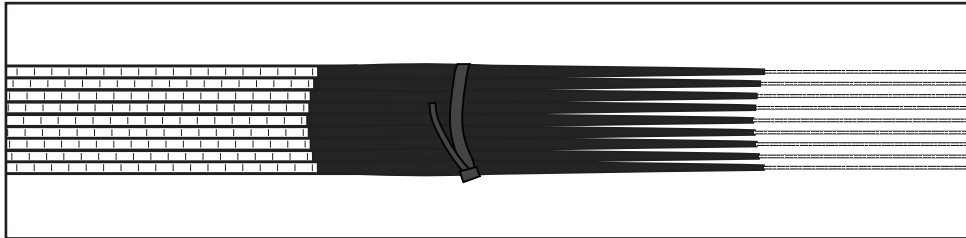
2 Leave 30 in (0.76m) of furcation tube at the end of the cassette.



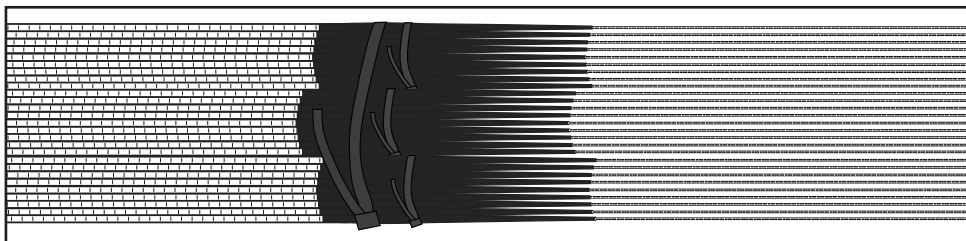
i = Refer to **PX106485** document to see the rest of cable length to prepare.

3 Attachment of the OptiTuff cables need to be equally distributed into smaller sub-bundles of 18 maximum;
Ex: 72x OptiTuff => 4x Sub-bundles of 18x OptiTuff ; 48x OptiTuff => 4x sub-bundles of 12x OptiTuff.

3.1 Prepare each sub-bundles and secure by tightly wrapping a cable tie (4 in cable tie) on the Heat shrunk OptiTuff portion.

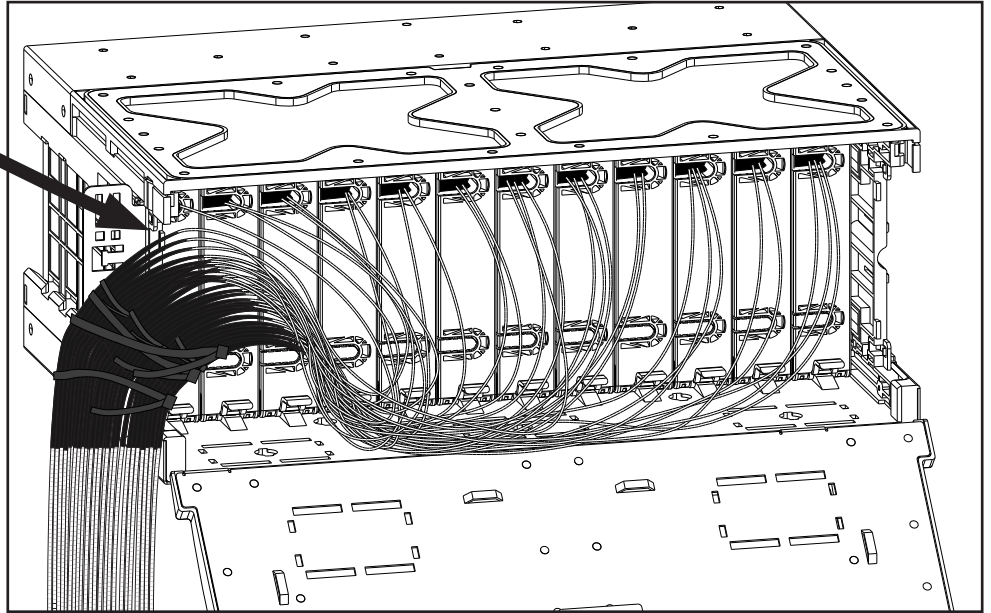
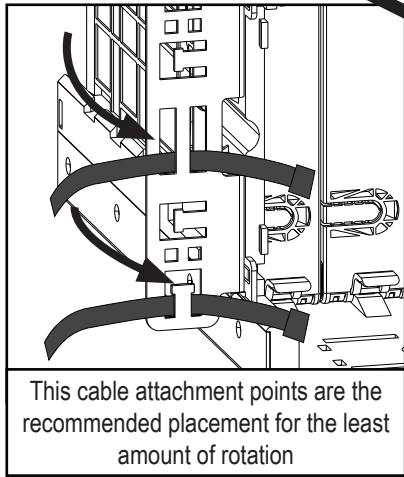


3.2 Secure the sub-bundles together using a cable tie (7 ½ in cable tie) on the Heat shrunk OptiTuff portion.



3.3 Secure the assembled bundles using two cable ties (7 ½ in cable ties) onto the external Strain relief bracket.

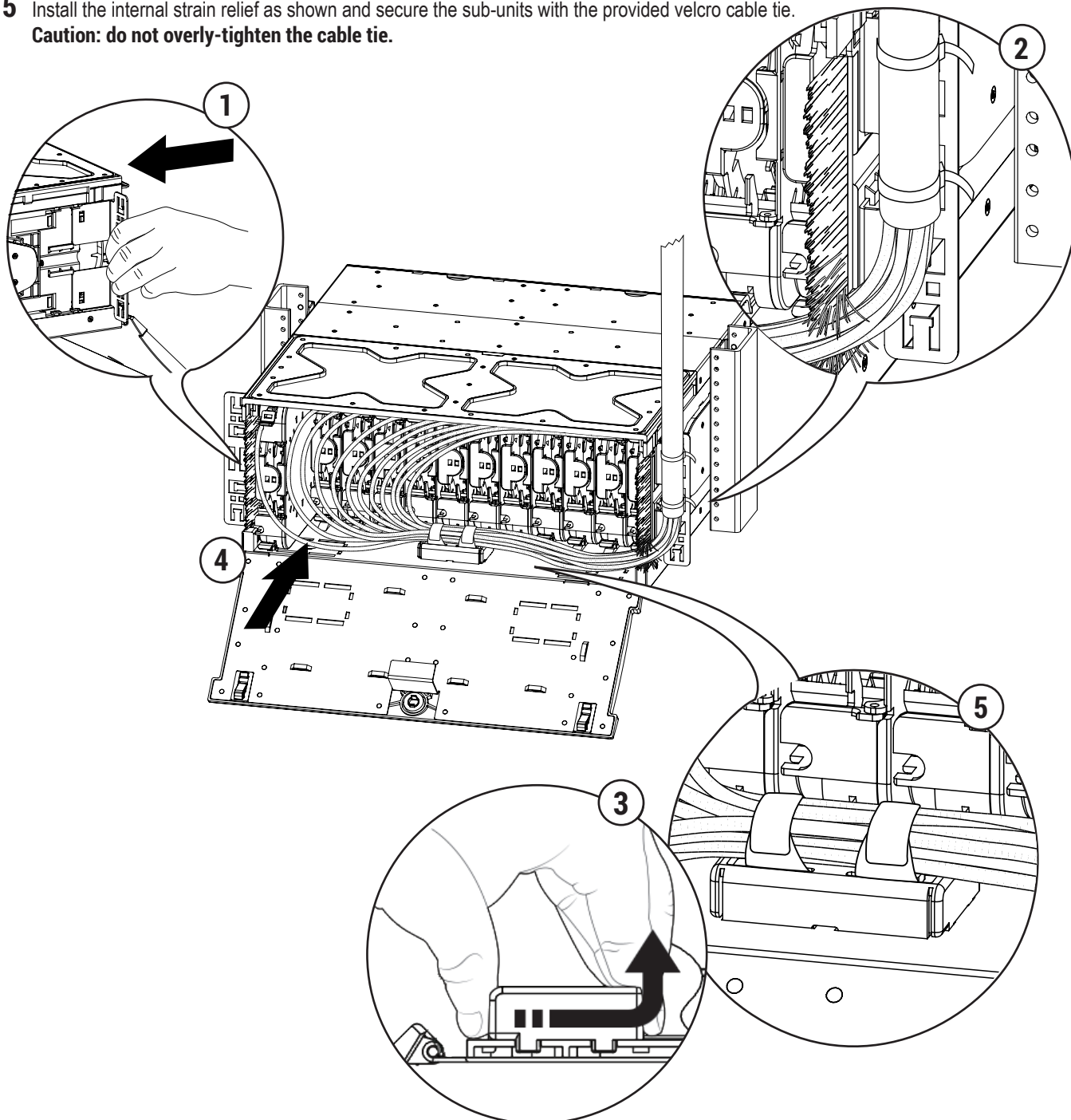
i = Make sure the furcation tube is fully inside the enclosure, no furcation tube shall be visible when the enclosure is closed.



Installing distribution cable for splice cassette installation

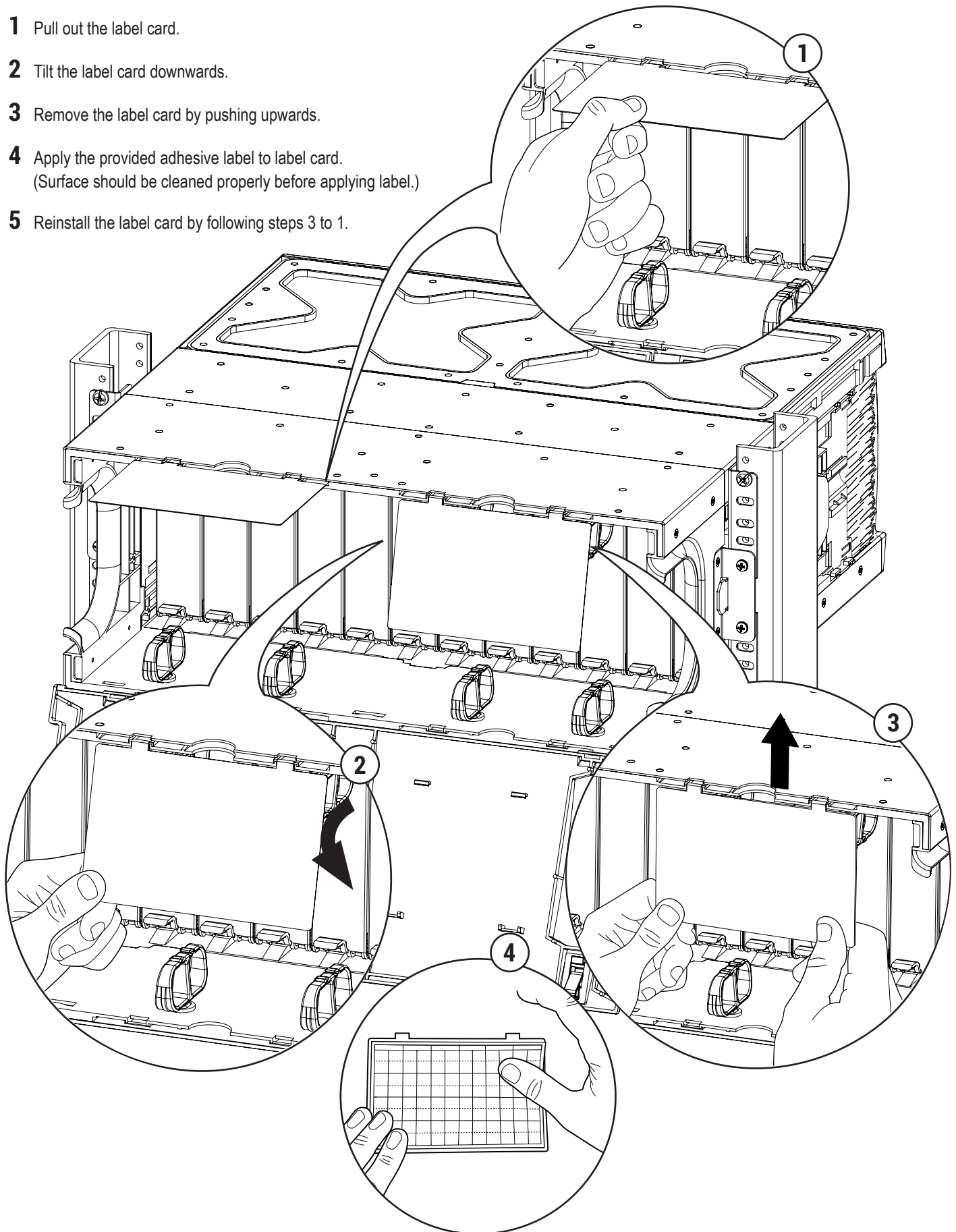
IMPORTANT: Please take note that this is the recommended procedure for the cassette installation. This installation guide does not include how to route the fiber inside the cassette. For further information regarding the splice cassette, please read the cassette installation guide or visit our website at www.belden.com.

- 1 Slide the external strain relief into the appropriate slot.
- 2 Secure the distribution cable to the external strain relief with the provided cable tie (7½in).
- 3 In order to install cassettes, the internal strain relief must be removed by pressing on the side and pushing upwards.
- 4 Slide cassette into desired position.
- 5 Install the internal strain relief as shown and secure the sub-units with the provided velcro cable tie.
Caution: do not overly-tighten the cable tie.



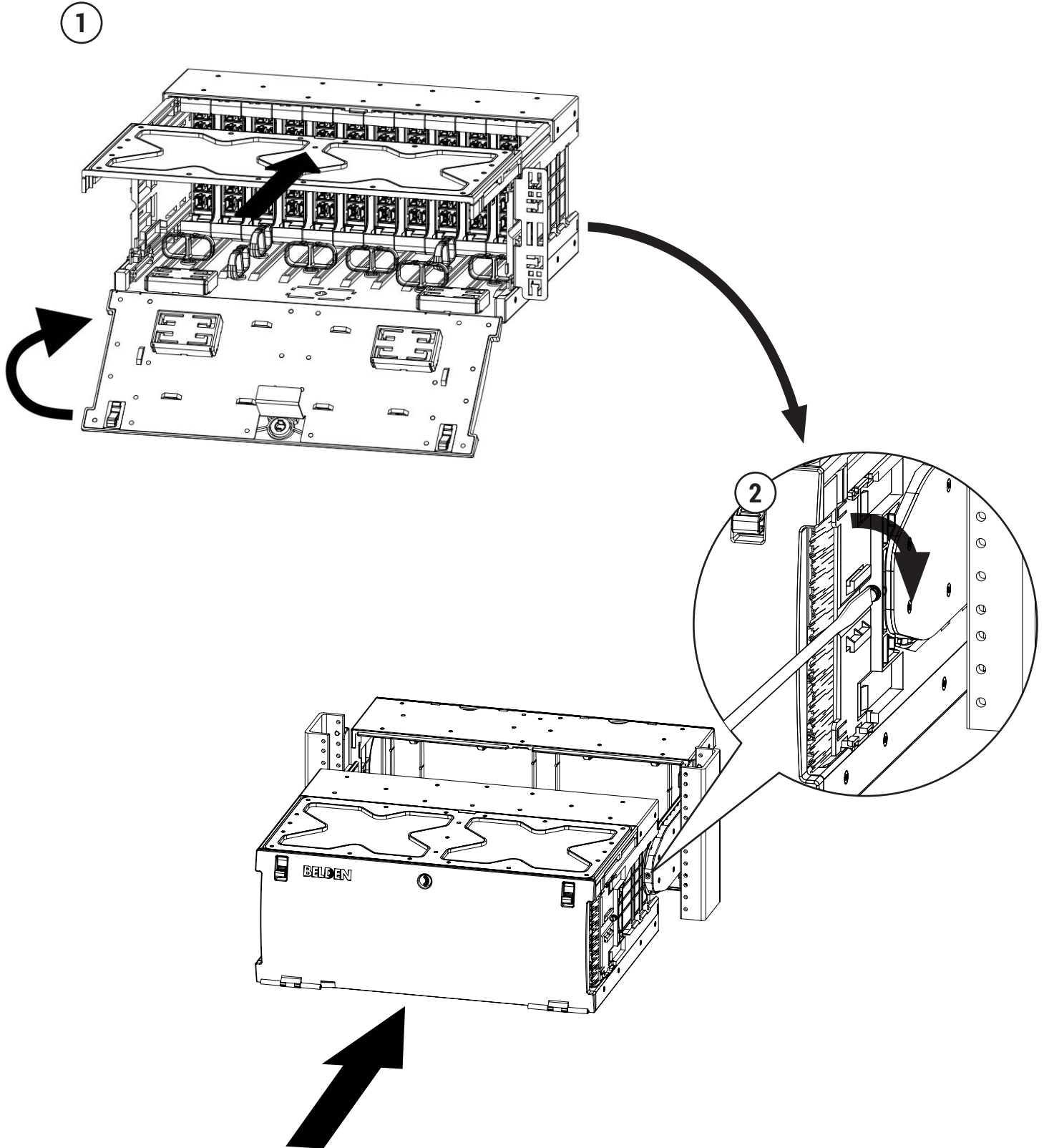
ECX labelling

- 1 Pull out the label card.
- 2 Tilt the label card downwards.
- 3 Remove the label card by pushing upwards.
- 4 Apply the provided adhesive label to label card.
(Surface should be cleaned properly before applying label.)
- 5 Reinstall the label card by following steps 3 to 1.

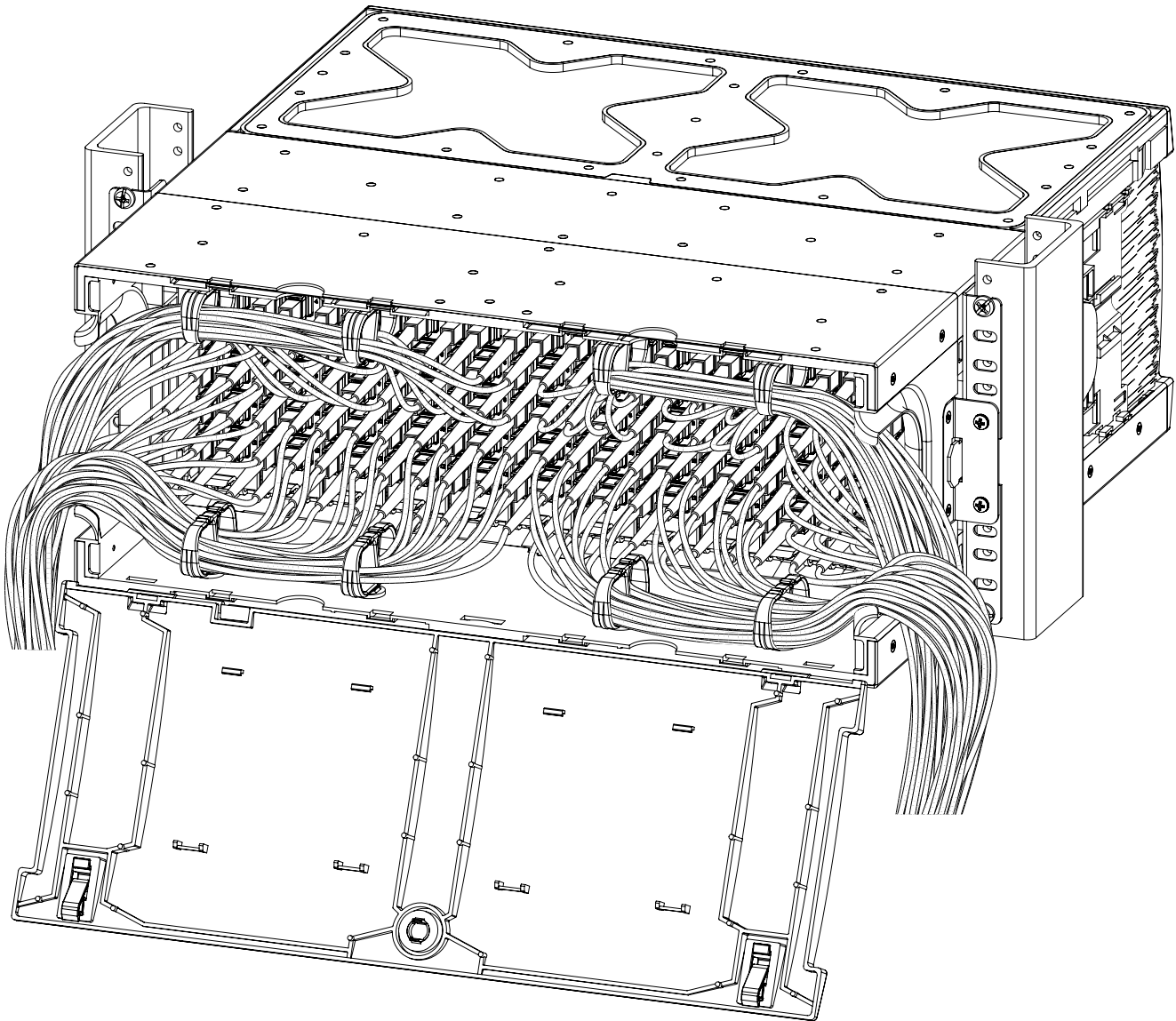


Reinstalling the rear housing

- 1 Reinstall the cover (if removed) and close the door.
- 2 Insert the patch panel onto the rack by aligning both rack mounting brackets with the rear housing. (Secure the rear housing by locking the quarter-turn fastener on both sides.)



Proposed patch cord management



ECX RACKMOUNT HOUSING: 4U - QUICK START GUIDE

PX106482 - EN REV D

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