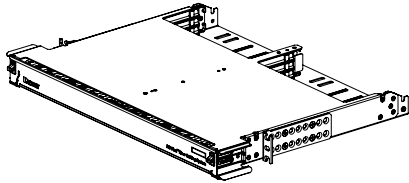
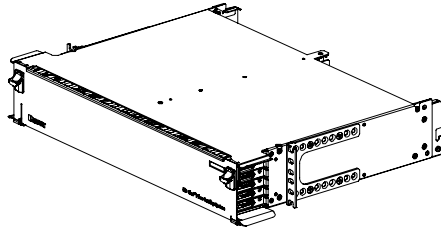


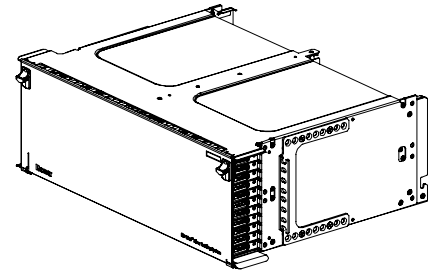
Note: HD Flex Enclosures are compatible with HD Flex Fiber System Components. HD Flex may not be compatible with other systems and is not recommended.



FLEX1U**



FLEX2U**



FLEX4U**

** = 04, 06, OR 12

CONTENTS:

1 - ENCLOSURE
20 - Tak-Tys, 6" pcs.

8 - #12-24 x 1/2" screws
8 - M6 x 1.0 x 15mm screws

1 - Fiber Caution Label
1 - Laser Warning Label

8 - Pan-Ty Cable Ties

WARNING: UNMATED CONNECTORS MAY EMIT INVISIBLE LASER RADIATION. DO NOT LOOK DIRECTLY INTO THE END OF THE CONNECTOR. DO NOT INSPECT WITH MAGNIFYING DEVICES. MAINTAIN DUST CAPS ON UNMATED CONNECTORS.

CAUTION:

Fiber optic cable is sensitive to excessive pulling, bending, and crushing forces. Consult the manufacturer's cable specification sheet for the specific cable in use.

Follow TIA/EIA-568-A, 569, 606, and 607 installation guidelines where applicable.

Care should be taken when opening or closing a fully loaded drawer in order to protect the fiber components.

ASSEMBLY VIEW (FLEX4U** shown)

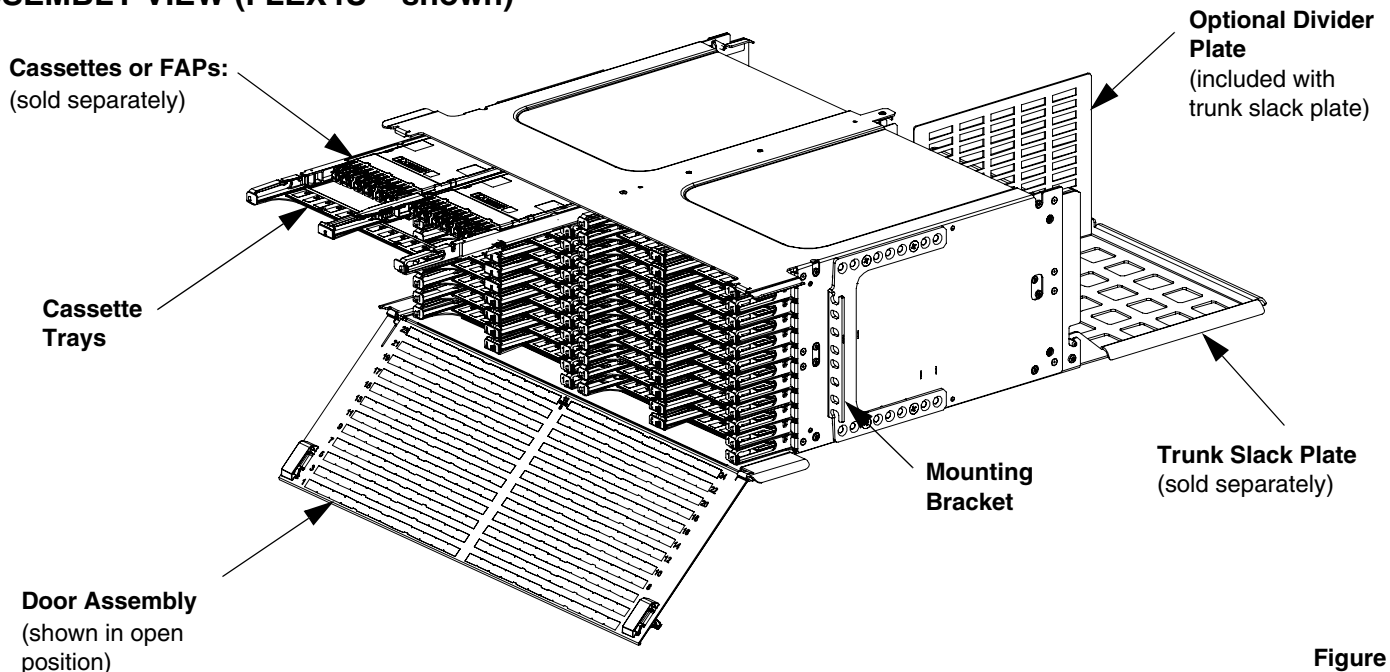


Figure 1

Preparation and Rack Mounting

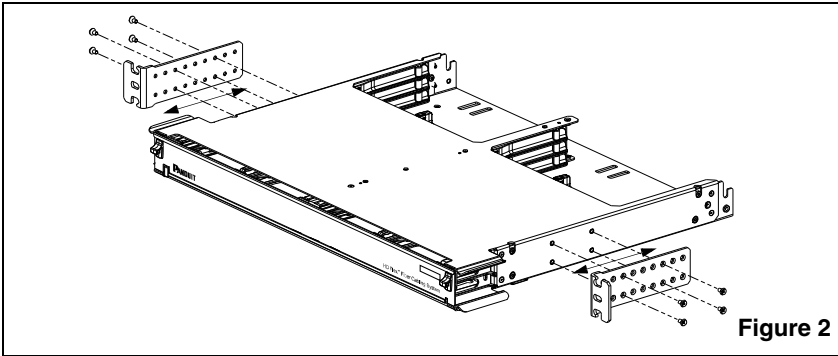


Figure 2

If desired, mounting brackets can be adjusted to change the position of the front of the enclosure relative to the equipment rails. Brackets are adjustable in 0.50" increments.

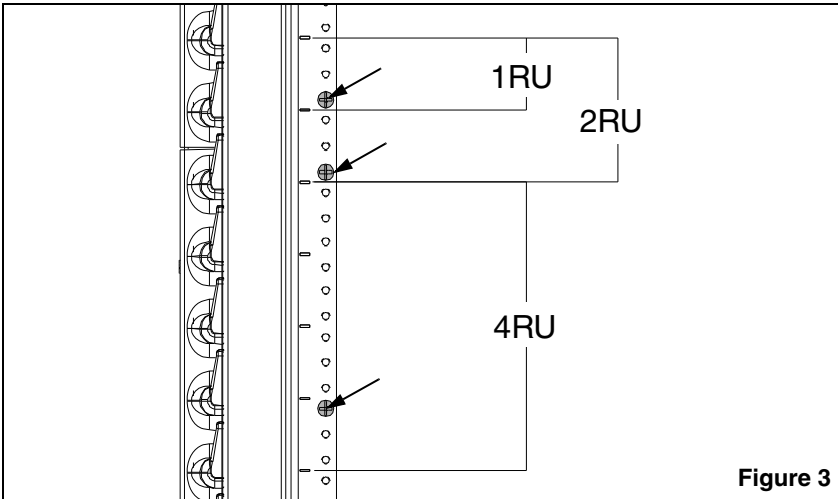


Figure 3

If RU space is open above enclosure location, partially install two screws, one on each side of the rack. These partially installed screws will assist in mounting the enclosure to the rack.

- For the FLEX1U** & FLEX2U** pre-install two screws in the bottom hole location of the rack position desired.
- For the FLEX4U** pre-install two screws in the top hole location of the bottom most RU in the rack position desired.

If RU space is not open above enclosure location, do not pre-install screws. Place enclosure into position and secure with a minimum of four screws.

** = 04, 06, or 12

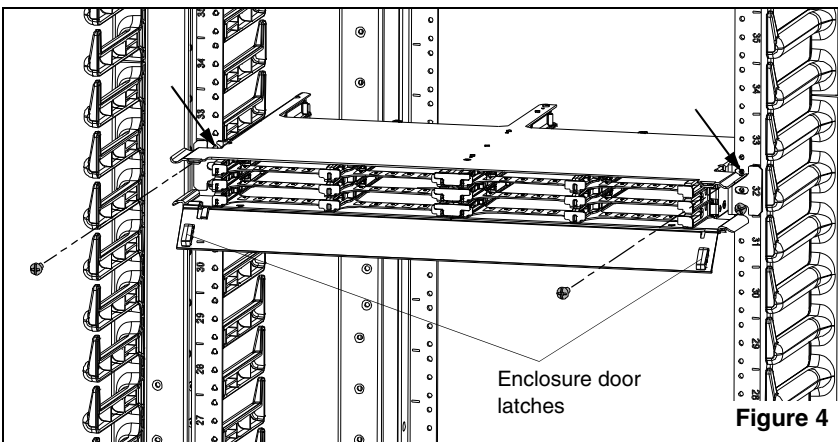


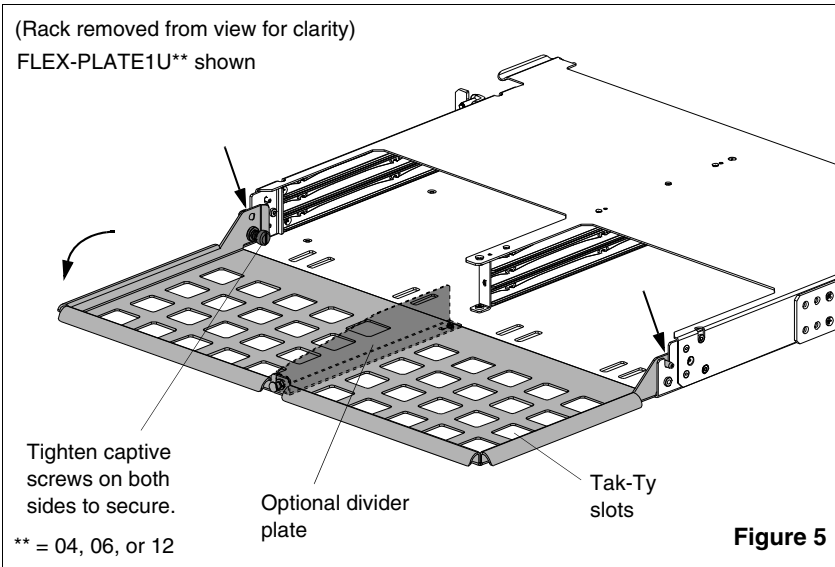
Figure 4

For the pre-installed screws mounting method, place enclosure into rack from the front and allow enclosure mounting brackets to rest on the partially installed screws.

The enclosure door needs to be open to access all screw hole mounting locations. To open door, hold latches down and swing door open.

Install the remaining screws and tighten all to secure the enclosure. Use a minimum of four screws.

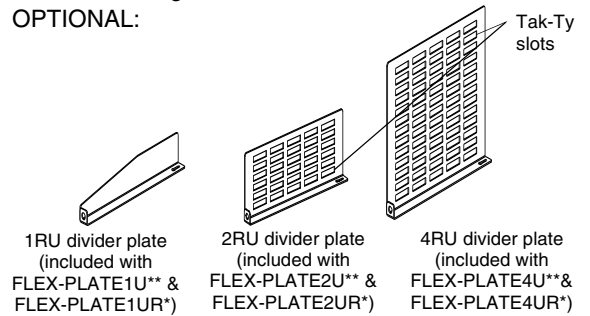
Enclosure Trunk Slack Plate Installation (sold separately)



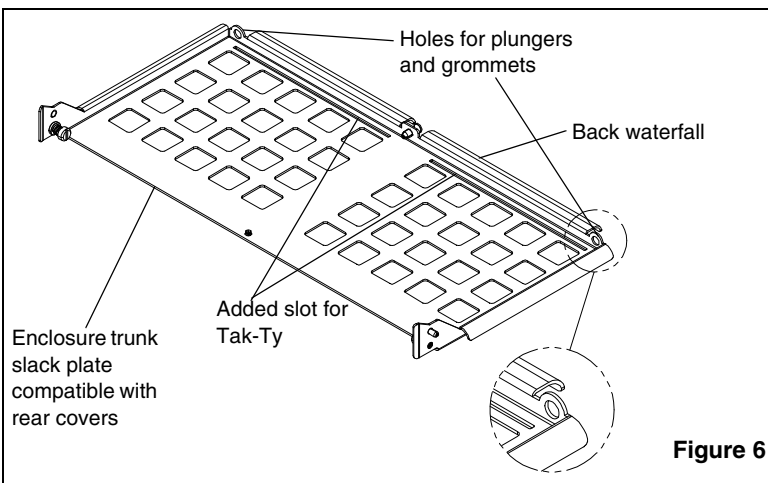
The enclosure trunk slack plate (sold separately as Panduit part no. FLEX-PLATE1U, FLEX-PLATE2U, and FLEX-PLATE4U) installs to the rear of the enclosure. Engage the pins on the plate into the slots on the enclosure and tilt down into place. Tighten captive screws to secure.

The trunk slack plate includes an optional vertical divider to aid in organizing and managing the cables. Divider plates are recommended for split routing. Do not use the divider if routing all rear cables to one side of the rack.

OPTIONAL:



Enclosure Rear Cover Installation



The enclosure rear cover kits (FLEX-PLATE*UR*) will include 3 pieces:

1. Enclosure trunk slack plate compatible with rear covers

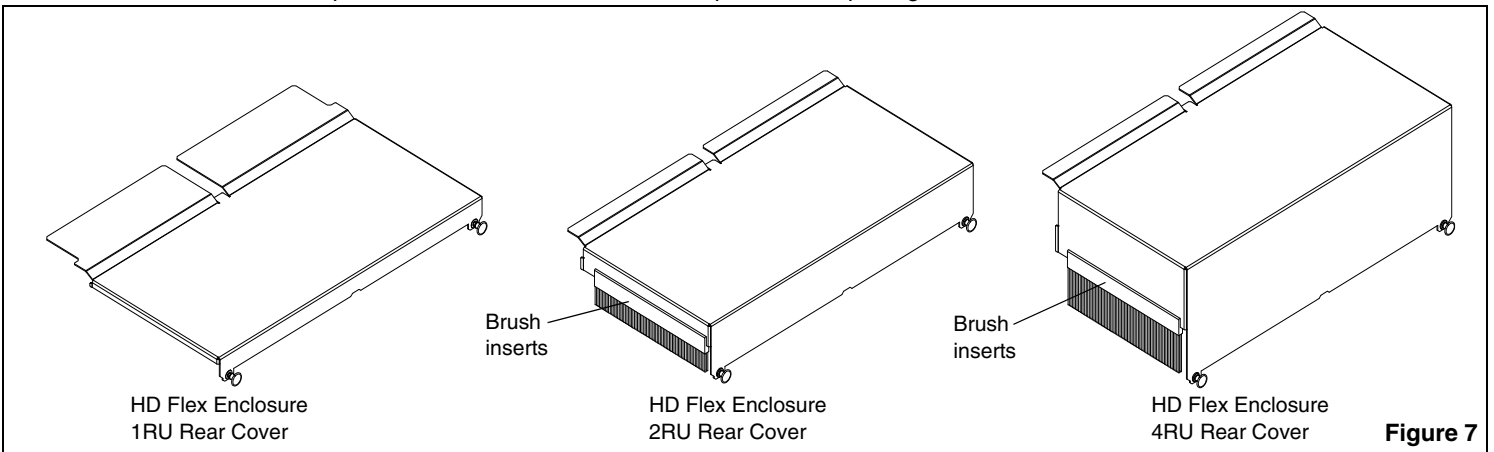
The enclosure trunk plate compatible with rear covers (See figure 6) is the same length as the trunk slack management plate sold in FLEX-PLATE*U. Features which differentiate it from the trunk slack management plate in FLEX-PLATE*U are as follows:

- Holes located on flanges to accept plungers and grommets used to fasten rear covers to trunk slack plate
- Slot added to trunk plate to be used as an extra Tak-Ty slot for holding down cable exiting the enclosure

The rear cover will sit on the back waterfall feature of the trunk management plate when properly installed. Instead of using a tie down point with the Tak-Ty wrapped around the back waterfall of the trunk slack plate, use the extra slot to create a tie down point and properly route the cables off the slack management plate.

2. Rear cover (1RU, 2RU, and 4RU options for FLEX-PLATE1UR*, FLEX-PLATE2UR* AND FLEX-PLATE4UR*)

The 2RU and 4RU rear cover options will have brushes installed to protect the opening where cable exits the rear cover.



3. Optional vertical divider (1RU, 2RU, and 4RU options) (explained previously).

*=W for white offering; no suffix for black offering

The enclosure plate compatible with rear covers can be installed in the same fashion as the enclosure trunk slack plate explained previously. Engage the pins on the plate into the slots on the enclosure and tilt into place. Tighten captive screws to secure. The 2RU and 4RU rear cover options will have brushes installed to protect the opening where cable exits the rear cover.

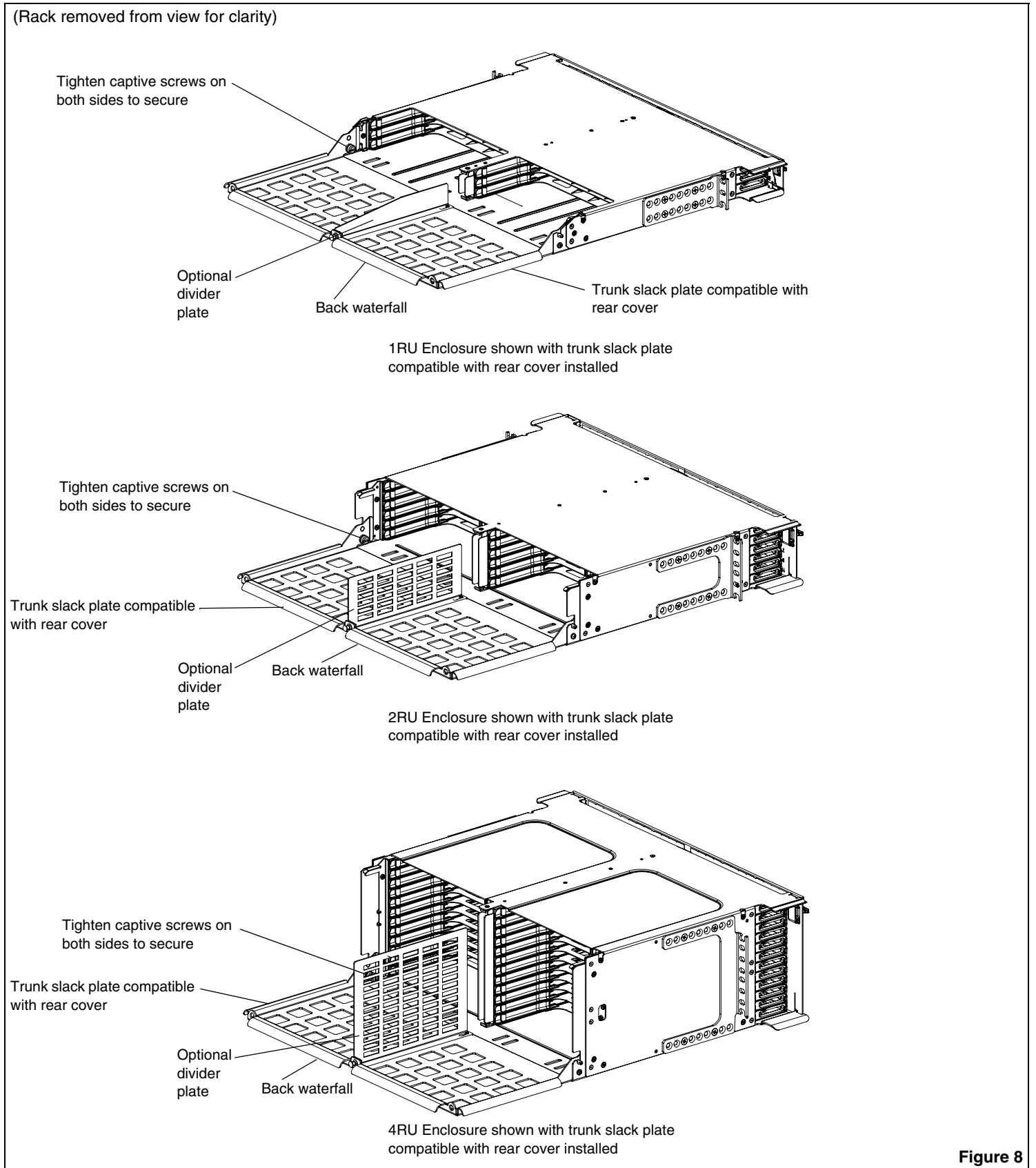
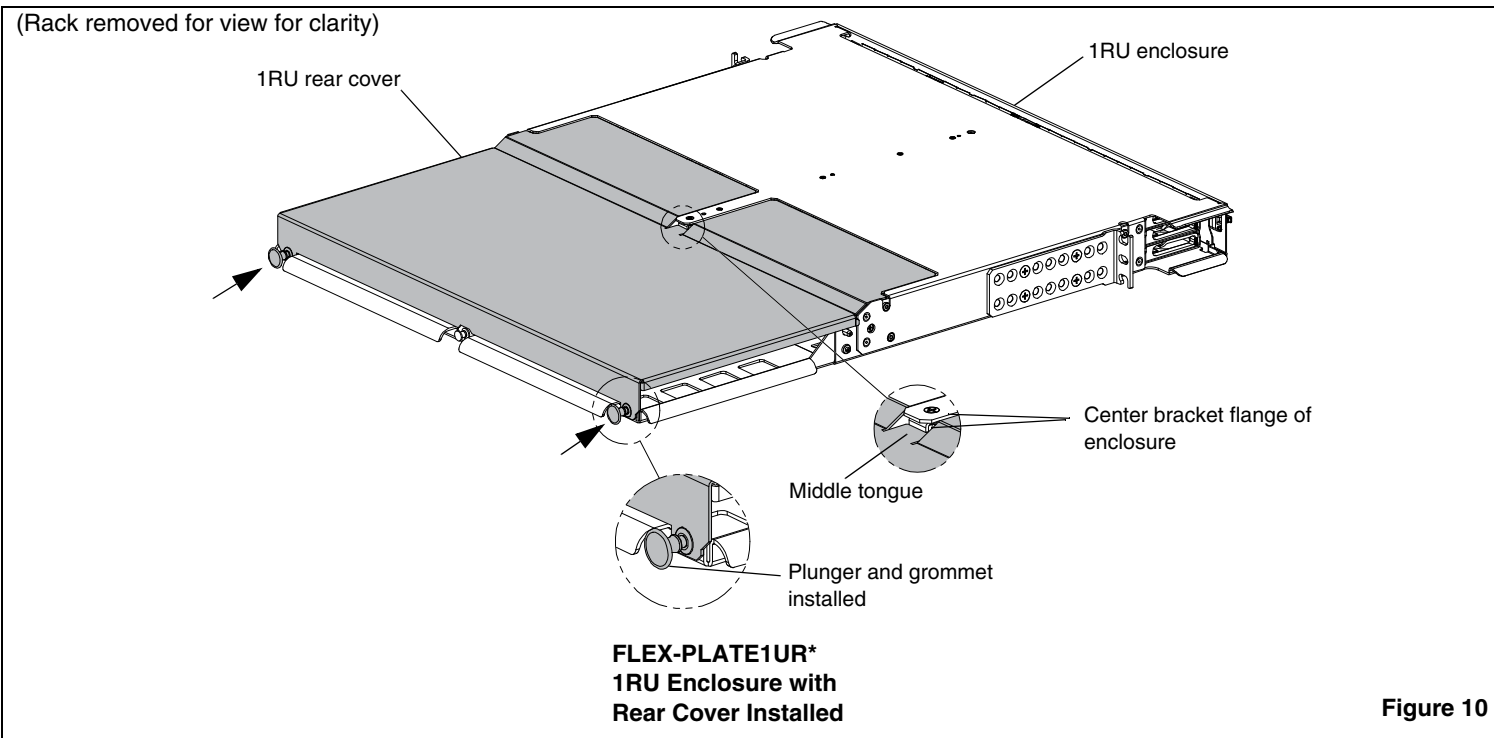
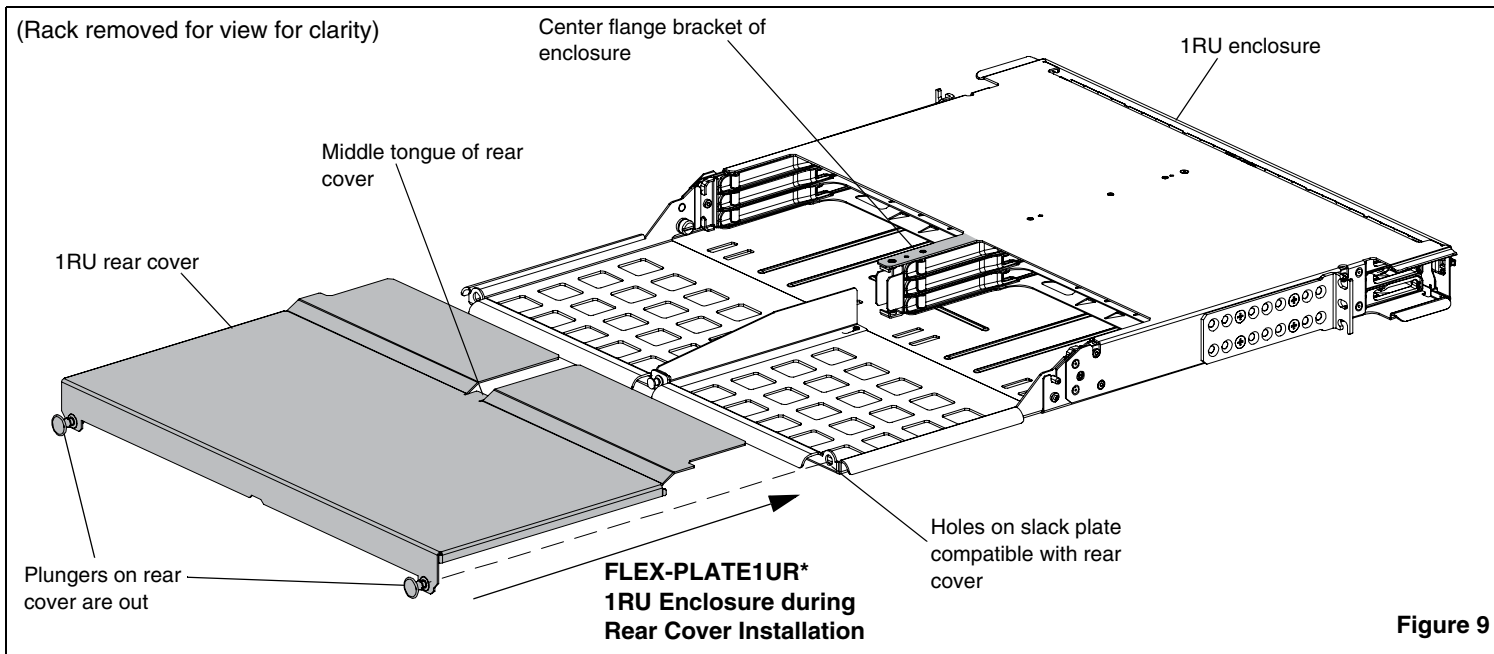
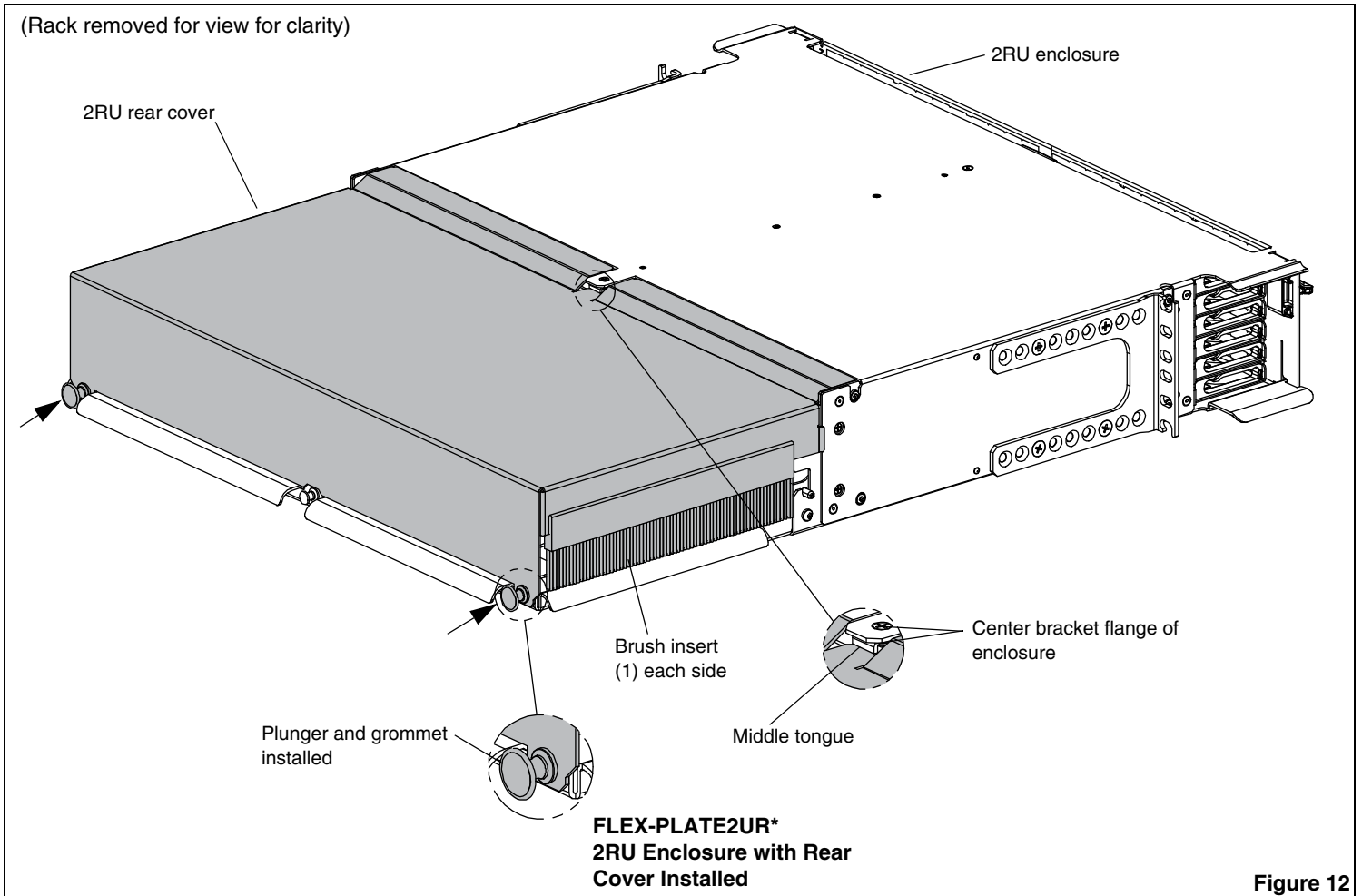
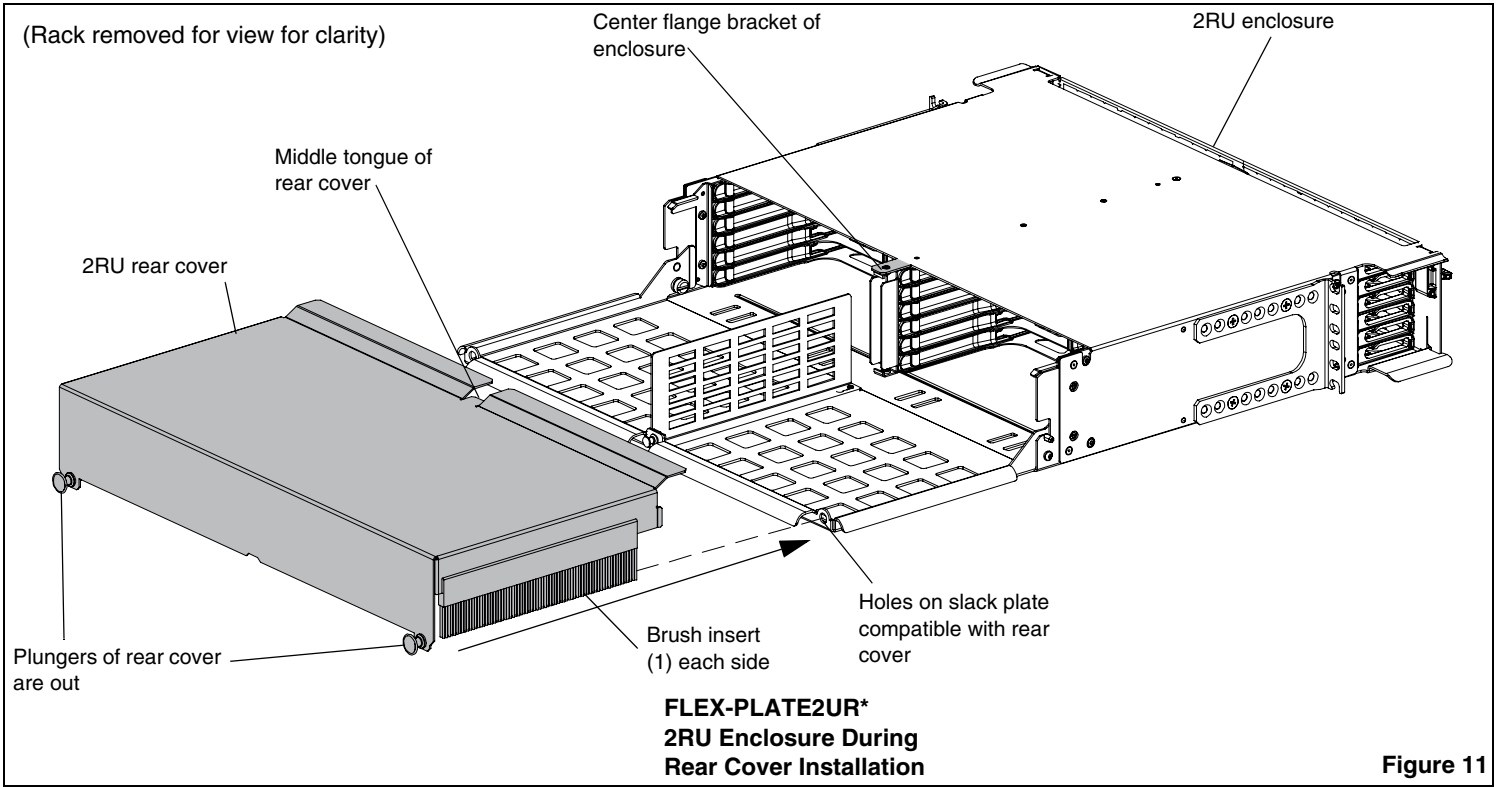


Figure 8

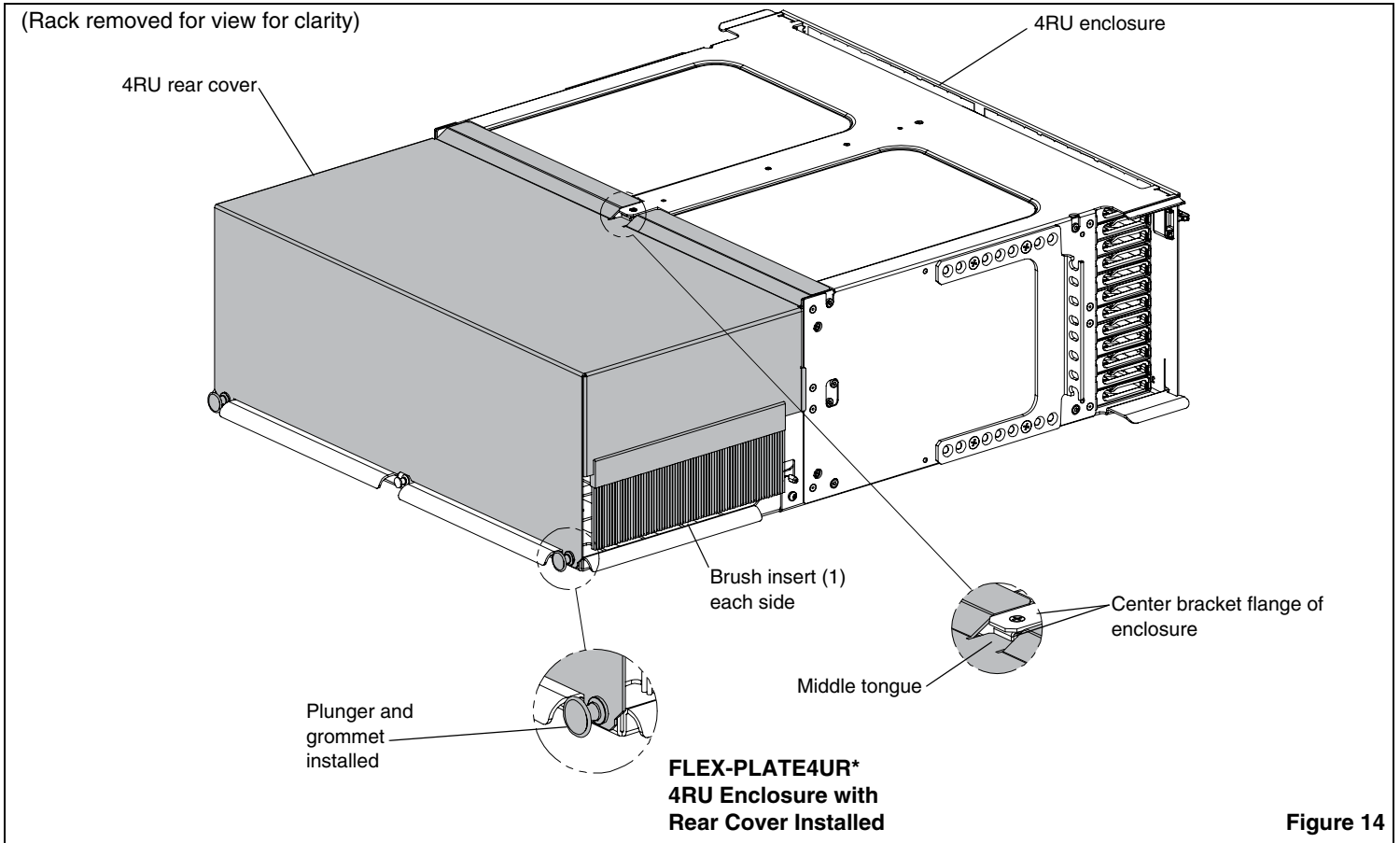
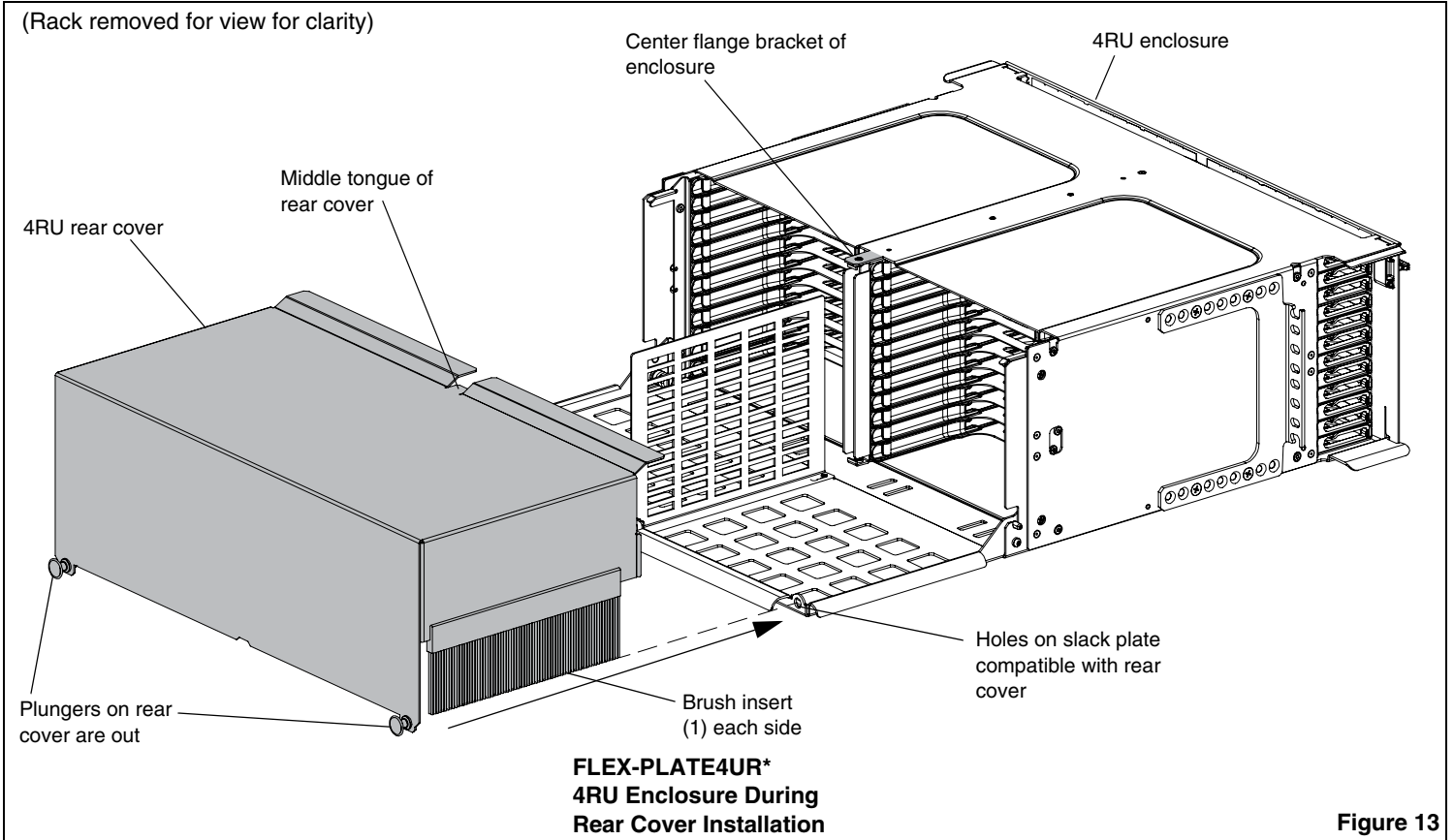
To install the respective rear cover, slide the rear cover over the installed slack plate. Fasten the rear cover to the slack plate by depressing the plungers after they have been inserted into the holes on the slack plate compatible with the rear cover. The middle tongue on the rear cover must be situated underneath the center flange bracket on each enclosure to ensure collect installation



*=W for white offering; no suffix for black offering

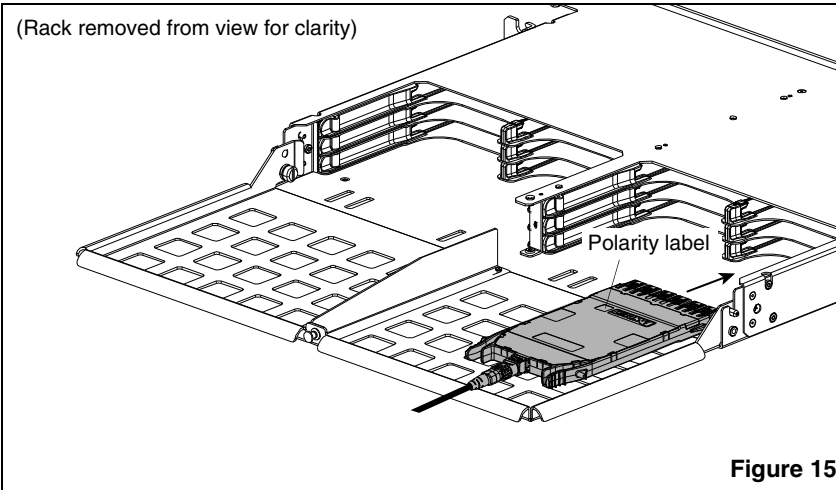


*=W for white offering; no suffix for black offering



*=W for white offering; no suffix for black offering

Cassette Installation (sold separately)



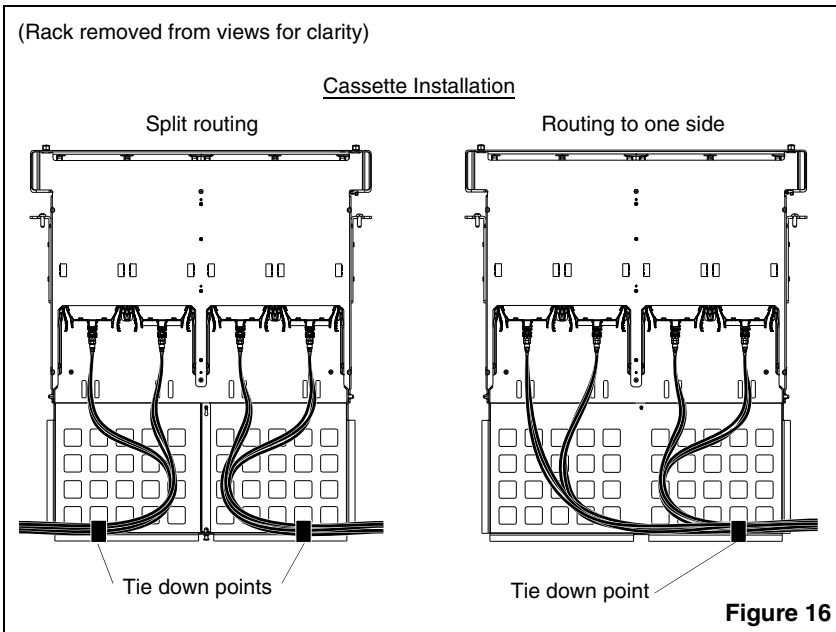
Note: Prior to cassette installation, make sure door on front of enclosure is closed.

First, attach trunk cabling to the rear port of the cassette or FAP to be installed. Note the polarity label on the cassette and orient properly as needed. Cassettes should be installed one at a time starting with the bottom most slot on the right, as shown. To install cassettes, insert into slot and push forward until it clicks into place.

Populate the entire row across from right to left before moving to the next row above. Repeat process until all desired slots are filled.

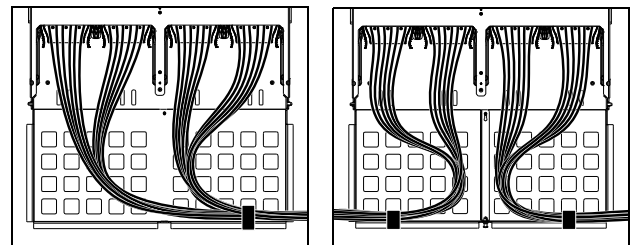
Part No.	QTY
FLEX1U04	18
FLEX1U06	12
FLEX1U12	6
FLEX2U04	36
FLEX2U06	24
FLEX2U12	12
FLEX4U04	72
FLEX4U06	48
FLEX4U12	24

Chart to the left shows number of cassettes or FAPs that can be installed per unit.

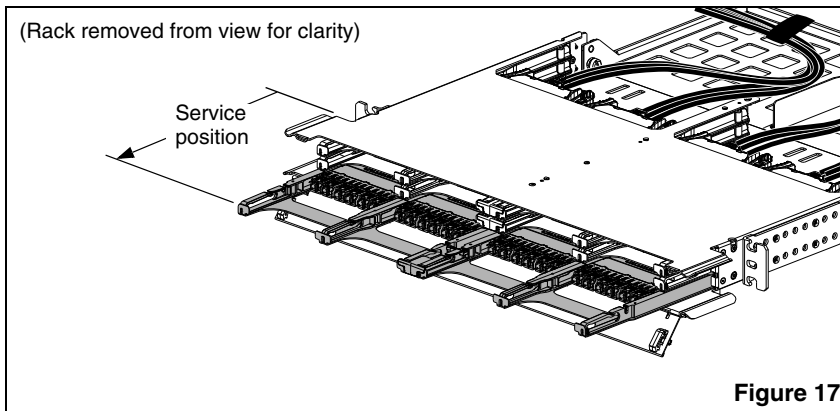


Create a slack loop for all incoming trunk cable. Slack is required to allow movement of the trays from the front of the enclosure. For split routing, allow a minimum of 28" of slack from the rear of the cassette to the tie down point. When routing cables all to one side, allow a minimum of 32" of slack from the far side of the enclosure to the tie down point. Use Tak-Tys to secure trunk cables to the cable slack plate or vertical cable manager as needed. Test trays to make sure they move freely after routing cable and adjust if necessary.

FAP Installation

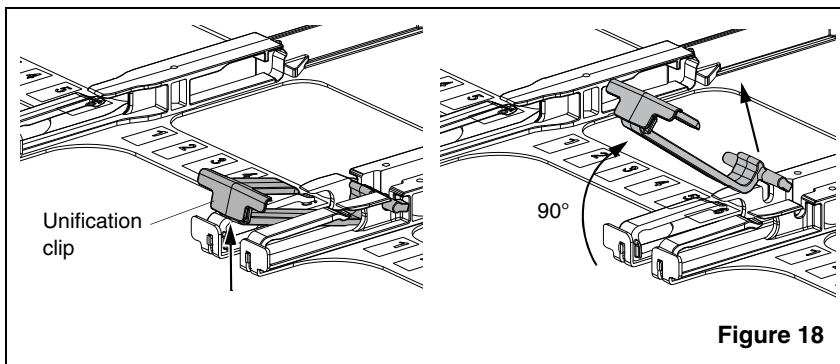


Patch Cord Installation (sold separately)



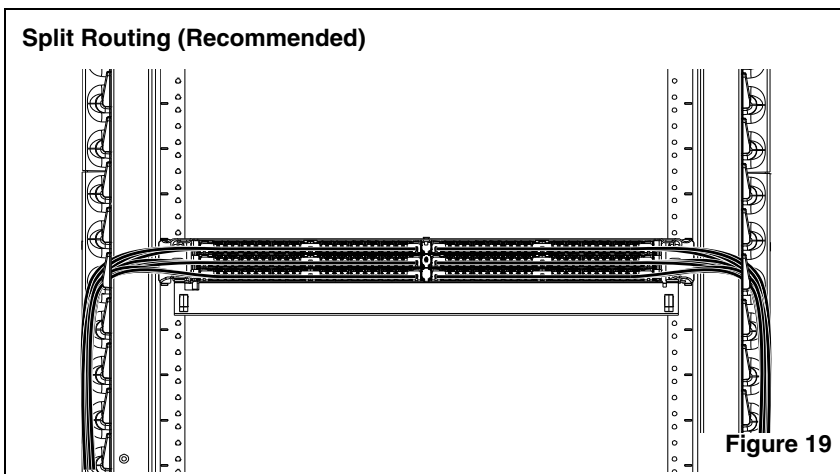
Patch cable is installed from the front of the enclosure. Open enclosure door to expose cassettes. Pull bottom tray out slowly until it clicks into the first stop position, the service position.

Cassettes are compatible with LC Uniboot patch cords.

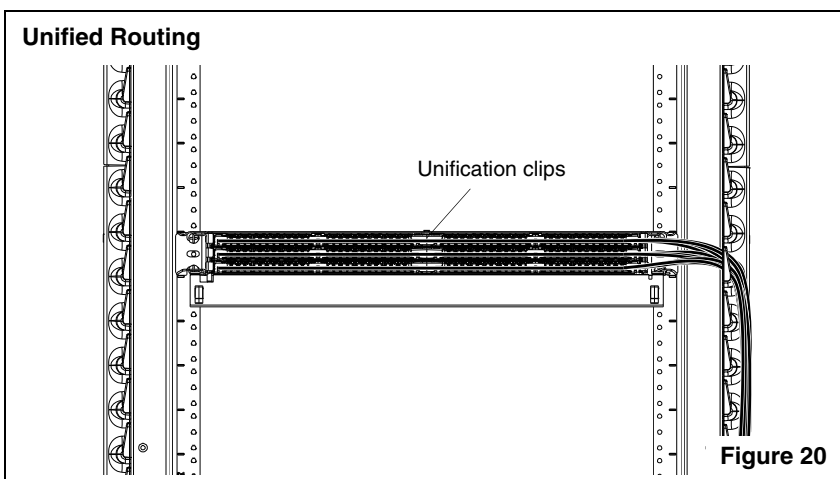


Panduit recommends split routing for patch cable. For split routing, the unification clip must be removed to allow each side of the tray to move independently.

To remove the clip, lift up on the front of the clip, rotate upward 90°, and lift out. Discard or set aside for future use as needed. To re-install clip, reverse the procedure.

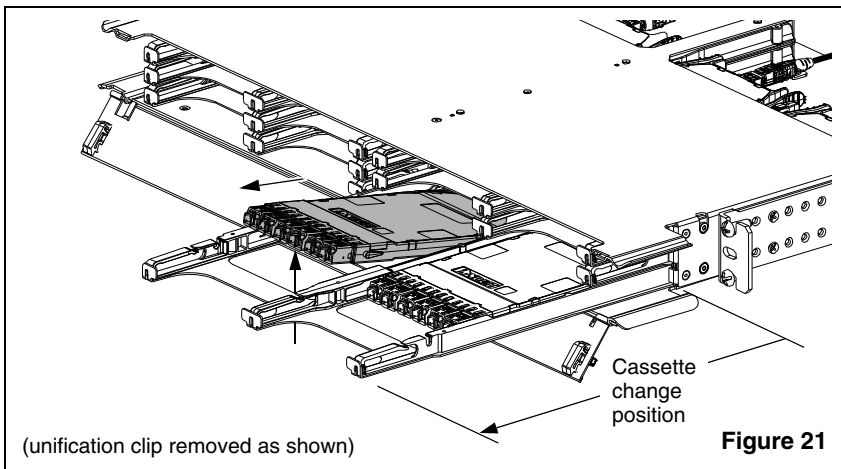


Install patch cords into the front of the cassettes working from left to right starting with the bottom most row. Populate each row across before moving to the next row above. Repeat process until all patch cabling is installed.



For unified routing (all cables routed to one side) leave unification clips installed.

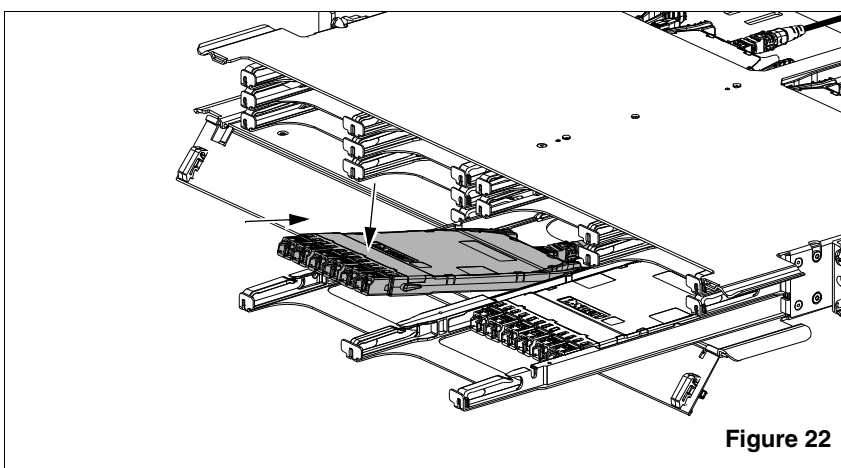
Cassette Replacement or Migration to MPO FAP



Cassettes can be removed from the front of the enclosure as needed for replacement or migration.

Open door and slide tray out slowly until it clicks into the second stop position, the cassette change position.

Disconnect patch cords from the front of the cassette. Lift cassette up from the front to disengage it from the tray and remove.

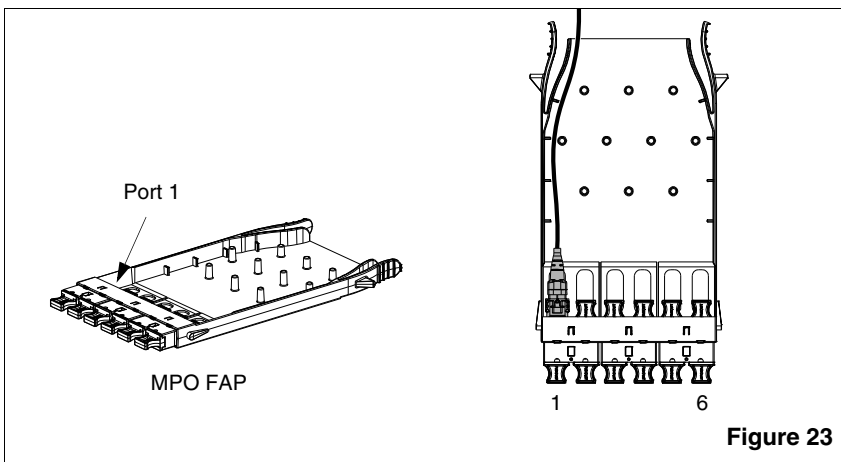


Disconnect trunk cable from the rear of the cassette and connect it to the rear of the replacement cassette.

Re-install cassette or MPO FAP opposite the way it was removed. Align the rear of the cassette or MPO FAP in the tray first, push inward until the cassette stops, then press down gently on the top of the cassette, near the front/center, until it clicks into place.

Re-attach patch cords (for cassette changes) and push tray back into the enclosure to the home position.

Note: Tray resistance is intended to support cassette during patch cord installation. This resistance must be overcome to return tray to the home position.



If migrating to an MPO FAP, connect the MPO trunk cable to left most position, port 1.

Rail Removal and Installation

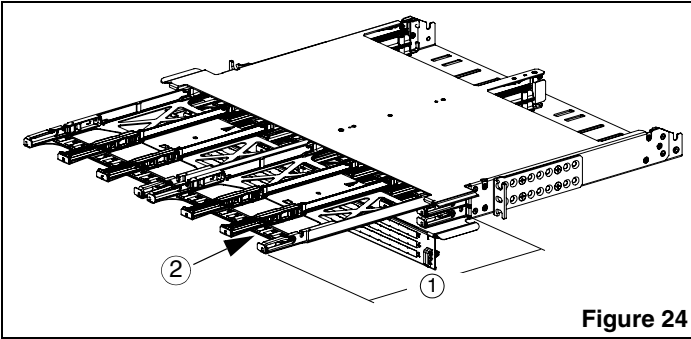


Figure 24

1. Pull tray out to cassette change position.
2. Remove adhesive port labels.

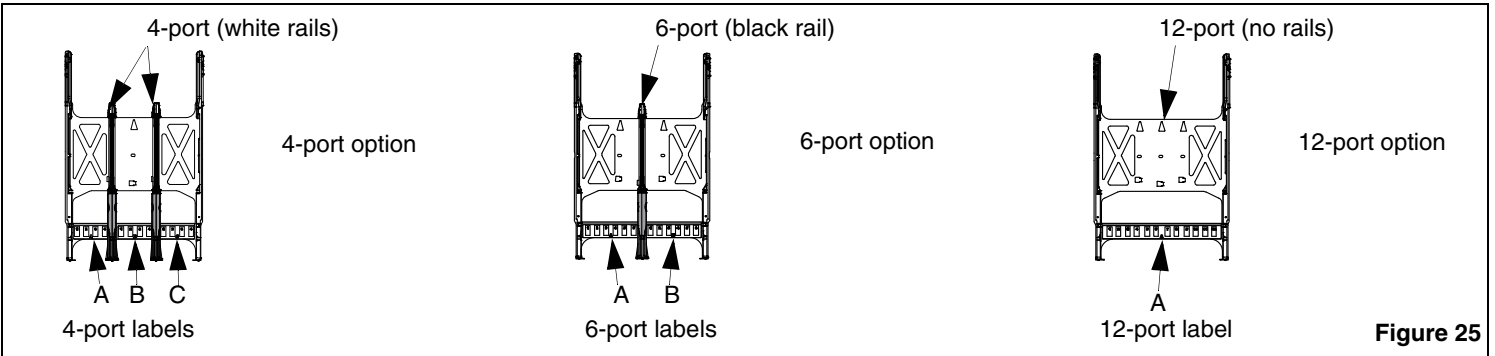


Figure 25

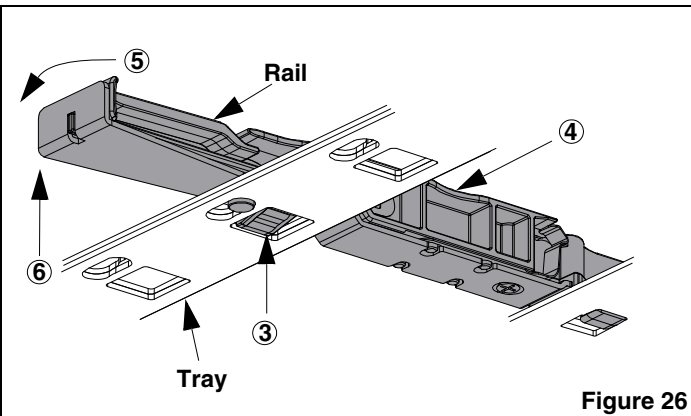


Figure 26

RAIL REMOVAL STEPS (See Figure 26)

3. Depress latch upward from underneath.
4. Grip by finger rail grips.
5. Push rail to the left.
6. Lift rail up and away from enclosure.

RAIL INSTALLATION STEPS (IF APPLICABLE) (See Figures 27 and 28)

7. Hold the bottom of the tray while installing the rail to the tray.
8. Engage triangular rail latch feature A into triangular opening B in tray.
9. While holding finger rail grips, install round rail feature C into slot opening D.
10. Push rail to the right to engage latch.
11. Verify central rail latch feature E is engaged.
12. Apply applicable port I.D. labels as needed.
13. Push tray back into the enclosure to the home position.

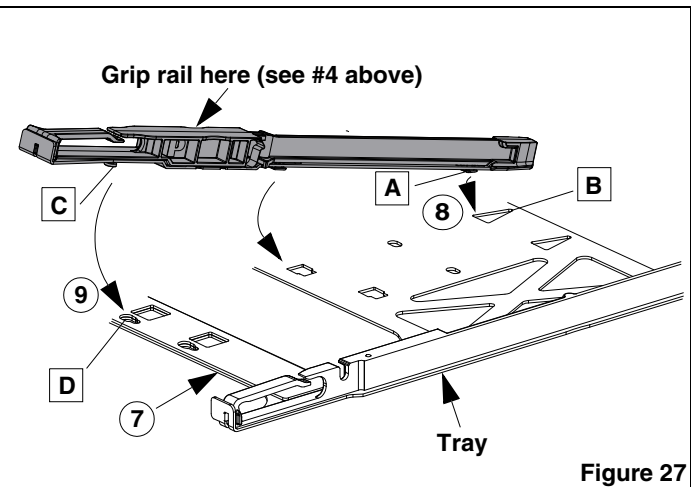


Figure 27

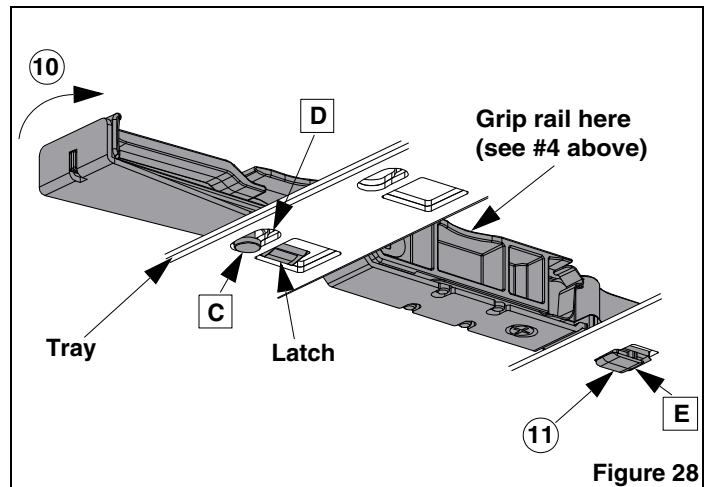
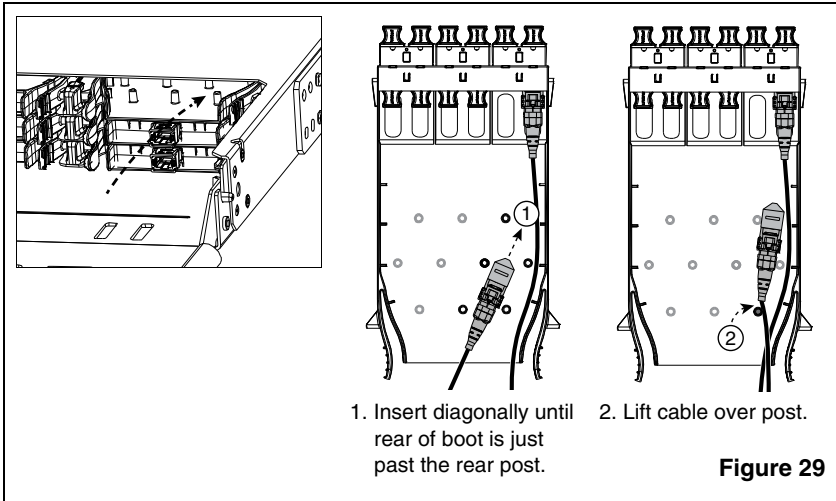


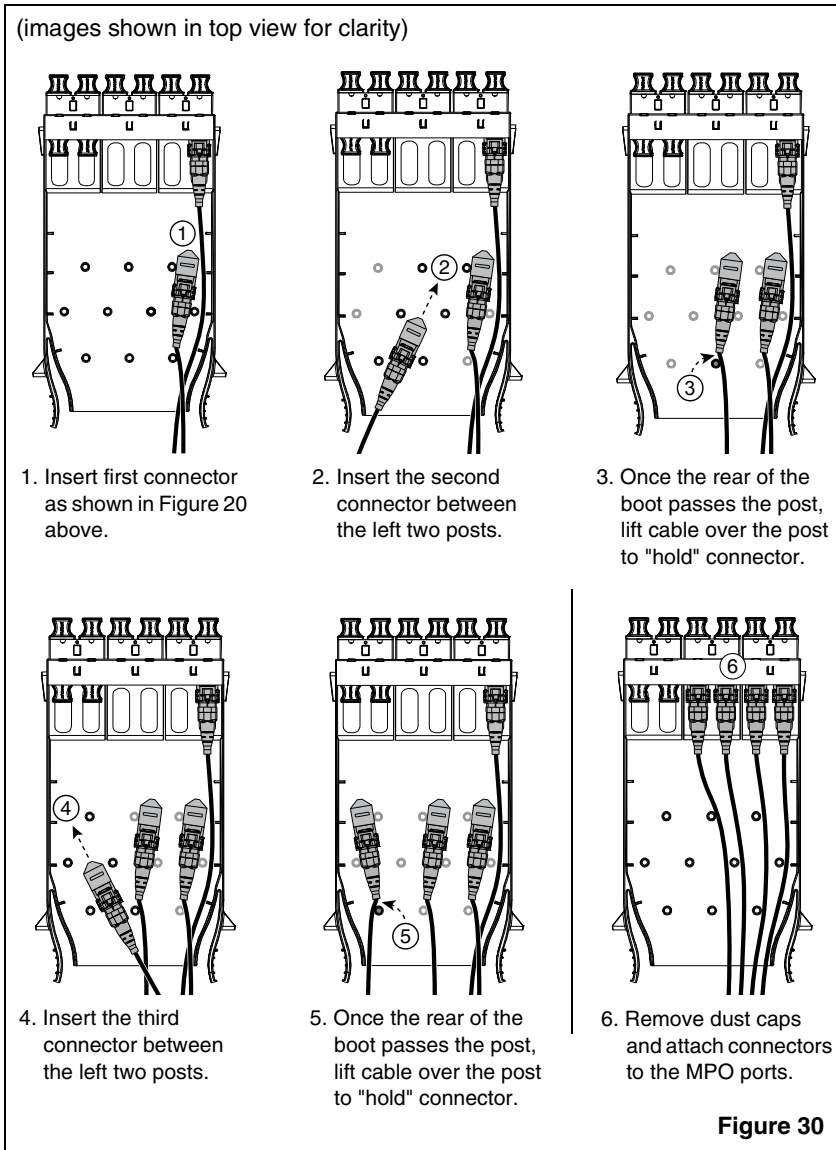
Figure 28

Installing Additional MPO Trunks



From the rear of the enclosure, select the FAP to add additional MPO trunk cables to. Insert the MPO connector into the rear of the FAP diagonally between the posts. Push connector in until the rear of the boot just passes the rear post and lift the cable over the post to “hold” the connector in place.

Move to the front of the enclosure and pull open the tray containing the FAP with the “held” MPO trunk cable to the cassette change position (as shown in Figure 21). Remove the dust cap and connect the MPO to the appropriate port on the FAP. Return tray to the home position.



FAP can accommodate “holding” up to 3 MPO connectors at a time. Follow the steps in Figure 30.

Once all connectors are held in place, move to the front of the enclosure and pull open the tray containing the FAP to the cassette change position (as shown in Figure 21). Remove dust caps and attach the MPO connectors to the appropriate ports (Step 6 in Figure 30). Return tray to the home position.

Labeling

Labeling options for the HD Flex Fiber Enclosures allow for identification to follow the EIA 606-B labeling standards. Panduit labels, used in conjunction with Panduit Easy-Mark Labeling Software, simplifies label creation and allows for ease of editing and label replacement when necessary. The labeling location in the upper right corner of the enclosure door, as shown in Figure 31, is used for identifying the enclosure within the cabinet or rack. Panduit label part #C125X030FJJ fits in this area.

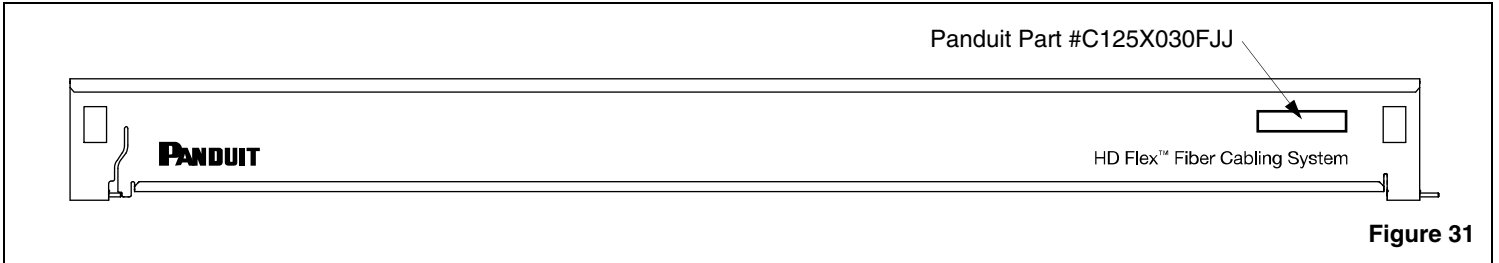


Figure 31

The labeling layout for the 1U enclosure is shown in Figure 32 below for typical application. Panduit label part# C061X030FJJ can be used for single port identification, Panduit label part # C125X030FJJ for 2-port application, Panduit label part # C252X030FJJ for 4-port application, and Panduit label part # C379X030FJJ for 6-port identification.

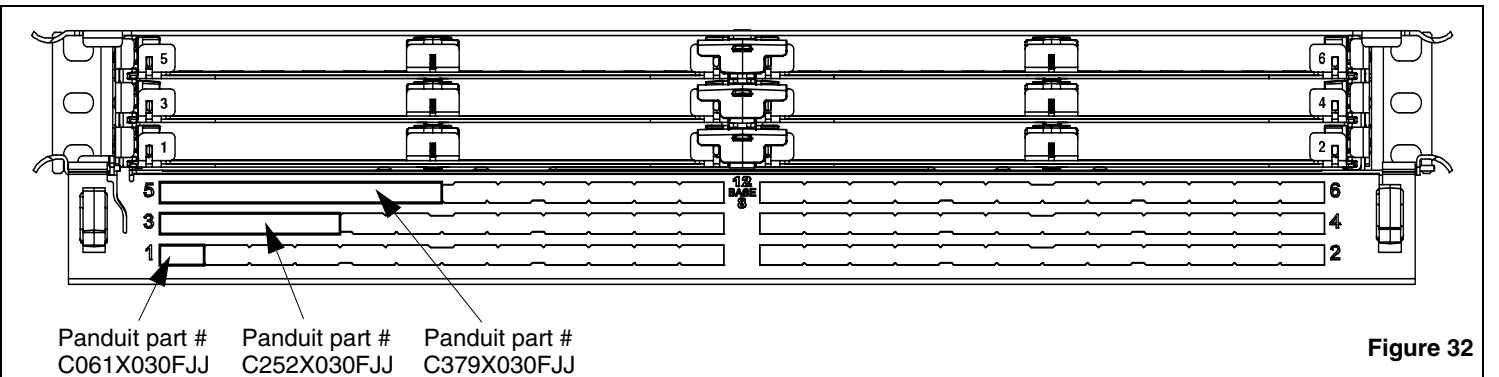


Figure 32

The label on the inside of the front cover coincides with the port and tray labeling as shown below in Figures 33 & 34. Trays 1 and 2 are the lowermost trays (the layout shows ports 1 - 24 on the first two trays).

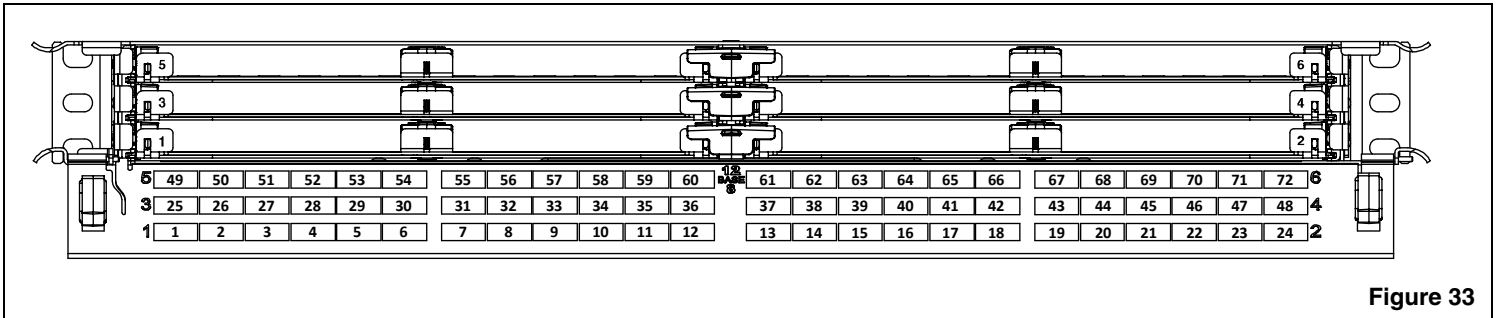


Figure 33

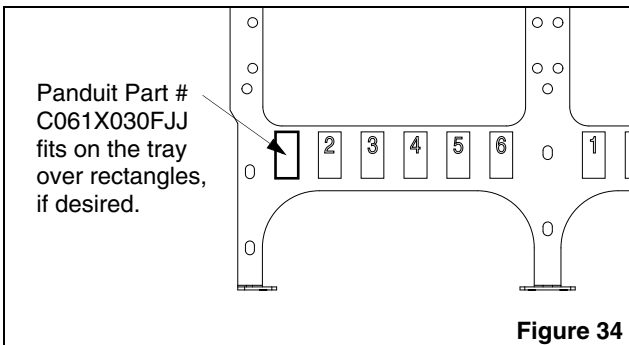


Figure 34

Panduit Label Part Numbers

Part Number	Description
C061X030FJJ	White, adhesive polyolefin label, 1-port identifier
C125X030FJJ	White, adhesive polyolefin label, 2-port identifier
C252X030FJJ	White, adhesive polyolefin label, 4-port identifier
C379X030FJJ	White, adhesive polyolefin label, 6-port identifier
PROG-EMCCD3	Easy-Mark Labeling Software (CD-ROM)
PROG-EM2GO	Easy-Mark Labeling Software (USB Flash Drive)

For Instructions in Local Languages and Technical Support:
www.panduit.com/resources/install_maintain.asp



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