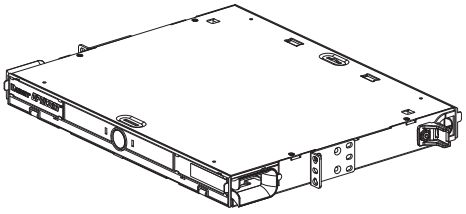
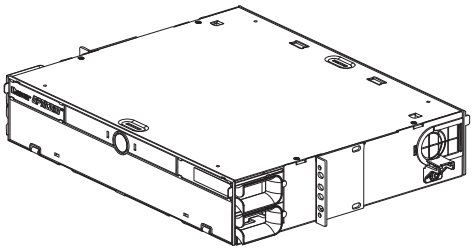
Opticom Rack Mount Fiber Enclosures

Part Numbers: FRME1U, FRME2U

INSTALLATION INSTRUCTIONS **FS002D**



FRME1U



FRME2U

Contents - (#) indicates FRME2U quantity

- 1 - ENCLOSURE
- 2 - MOUNTING BRACKETS
- 4 - #10-32 x 5/16" SCREWS
- 4 - #12-24 x 1/2" SCREWS
- 4 - M6 x 1 SCREWS
- 1 - #10-32 x 3/8" SCREW
- 3 - #10-32 HEX NUTS
- 1 (2) - CABLE ENTRY GROMMET(S)
- 1 - STRAIN RELIEF BRACKET
- 2 (4) - BEND RADIUS CONTROL CLIPS
- 2 (4) - NYLATCH PLUNGERS
- 2 (4) - NYLATCH GROMMETS
- 2 (3) - ADHESIVE BACKED MOUNTS
- 3 - ADHESIVE BEVEL ENTRY CLIPS
- 2 - SLACK SPOOLS
- 2 (3) -TAK-TYS, 6" pcs.
- 4 - CABLE TIES, PLT2S-M0
- 1 - CAUTION LABEL
- 1 - LASER WARNING LABEL

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 CAP 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-568A, 569, 606, and 607 installation guidelines where applicable.

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

ASSEMBLY VIEW showing Fiber Adapter Panels (FAPs) - sold separately.

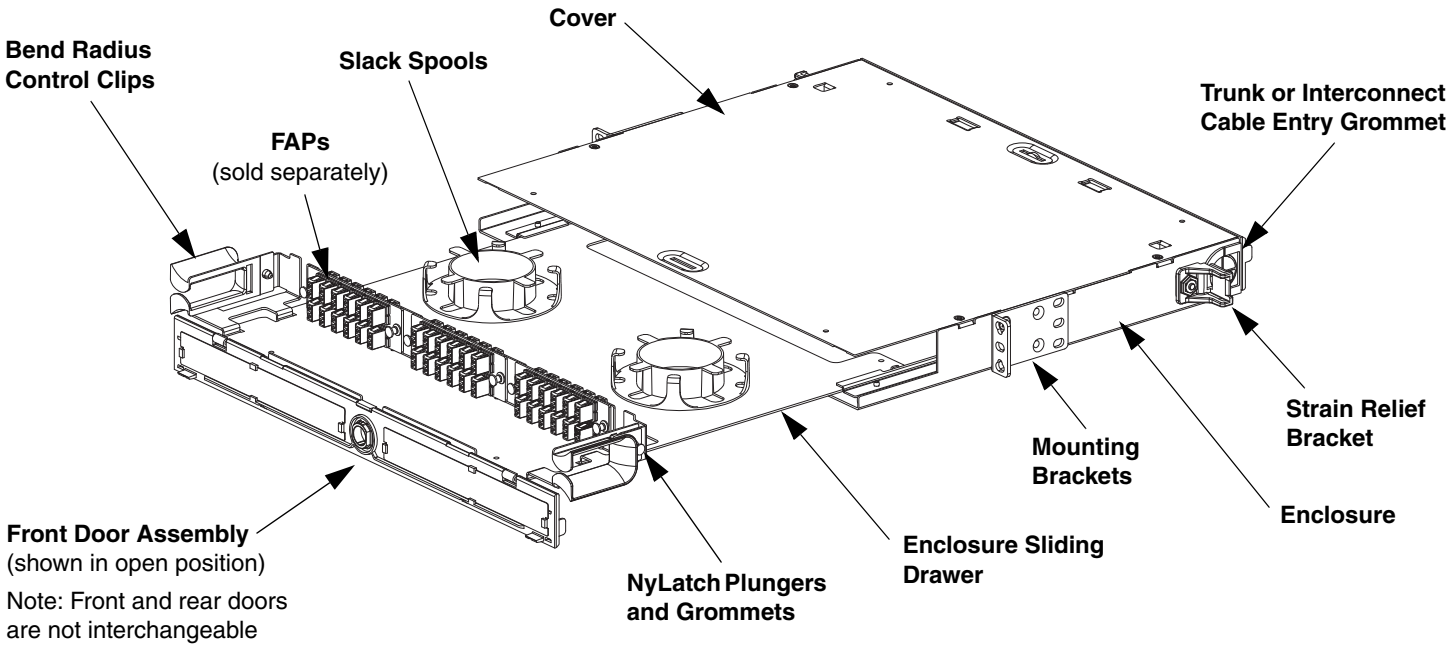


Figure 1

For Technical Support: www.panduit.com/resources/install_maintain.asp

Preparation and Rack Mounting

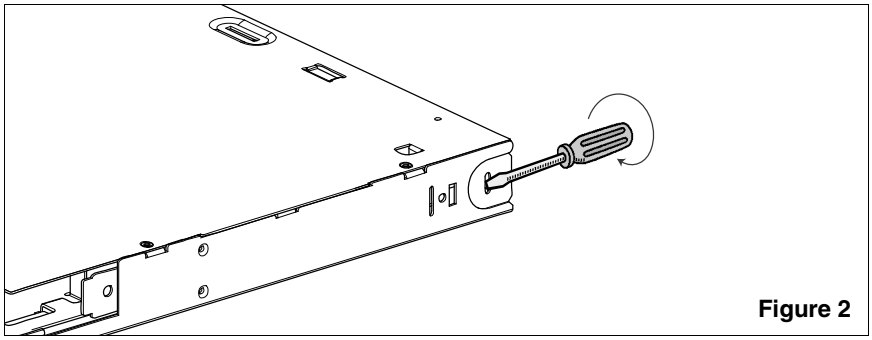


Figure 2

Determine where the cable will enter the enclosure. Carefully remove the knock-out so as not to damage the surrounding sheet metal. DO NOT install the grommet at this stage. Grommet will be installed after the enclosure is mounted to the rack.

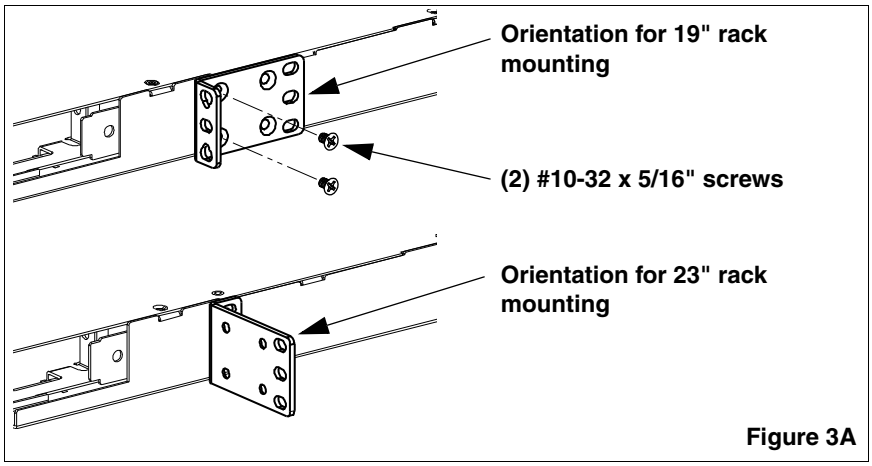


Figure 3A

Determine the proper orientation for the mounting brackets according to rack size being used.

Install mounting bracket to the enclosure using (2) #10-32 x 5/16" screws. Repeat for other side.

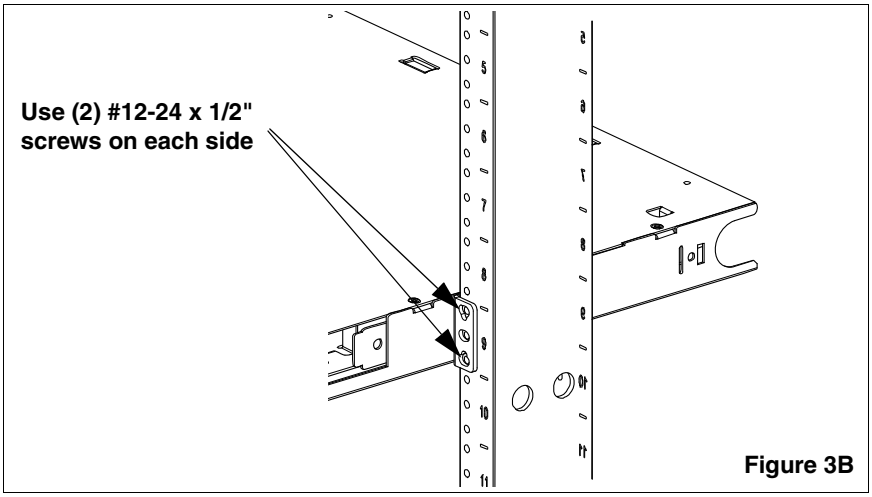


Figure 3B

Place enclosure mounting brackets at desired position on the rack. Mount the enclosure to the rack using (4) #12-24 x 1/2" screws.

Use (4) M6 x 1 screws if mounting to a metric rack.

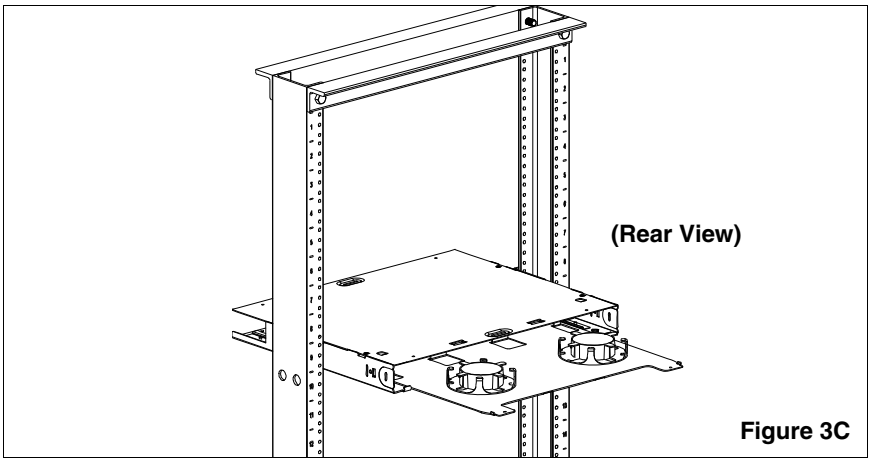


Figure 3C

Enclosure is accessible from the rear for mounting of slack spools, Fiber Optic Splice Modules (FOSMs) and other equipment.

Grommet Cutting Diagram

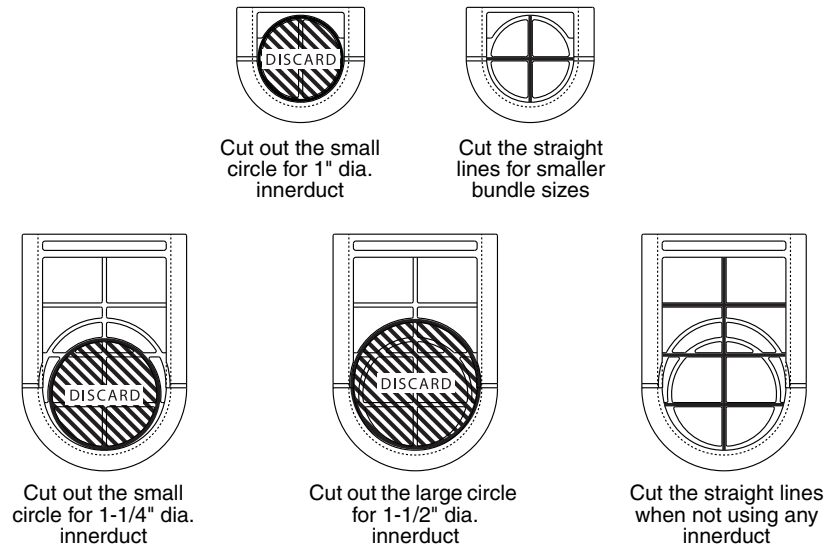


Figure 4A

After the enclosure is mounted to the rack, determine the size of the innerduct (if any) that will be used to bring the cable into the enclosure. Prepare grommet according to the proper cutting diagram to the left.

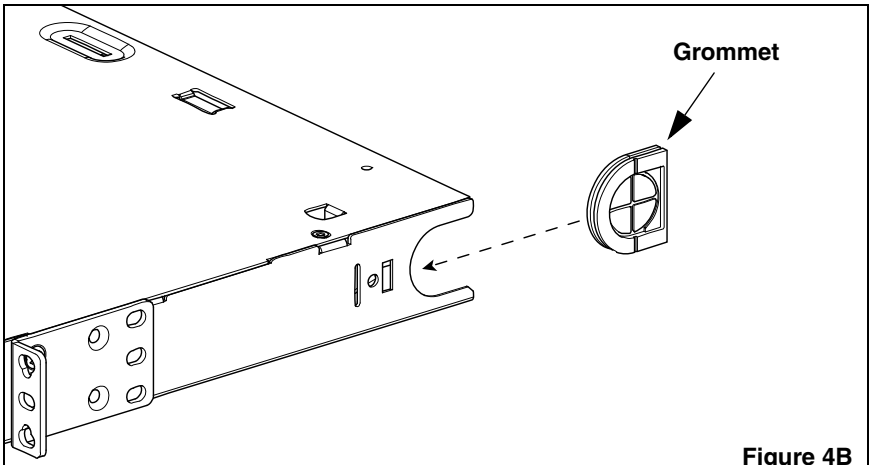
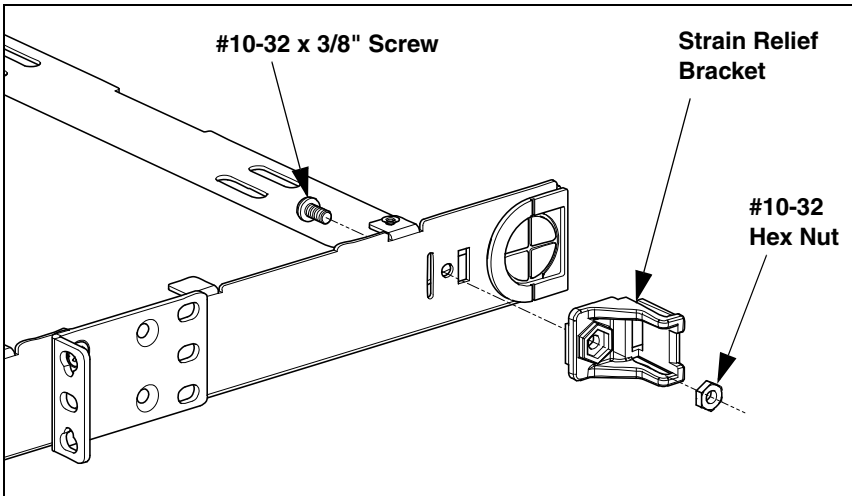


Figure 4B

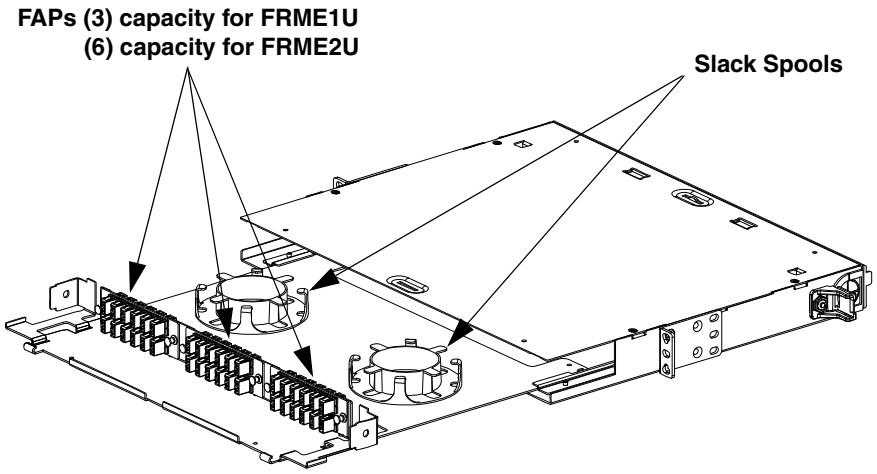


(cover not shown for clarity)

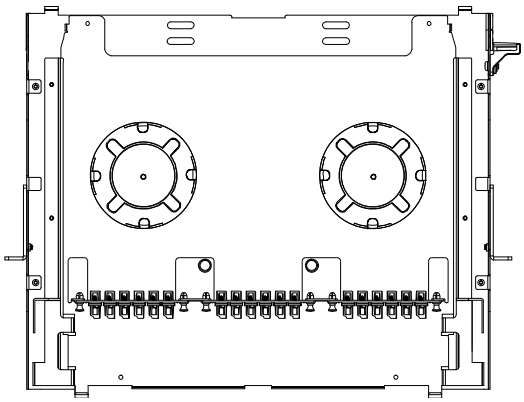
Figure 5

Install the strain relief bracket near where the cable will enter the enclosure. Secure with #10-32 x 3/8" screw and #10-32 hex nut.

Field Termination or Pre-Terminated Trunk Installation



Tray shown fully extended
(cables omitted for clarity)



Note orientation of spools
(cover not shown)

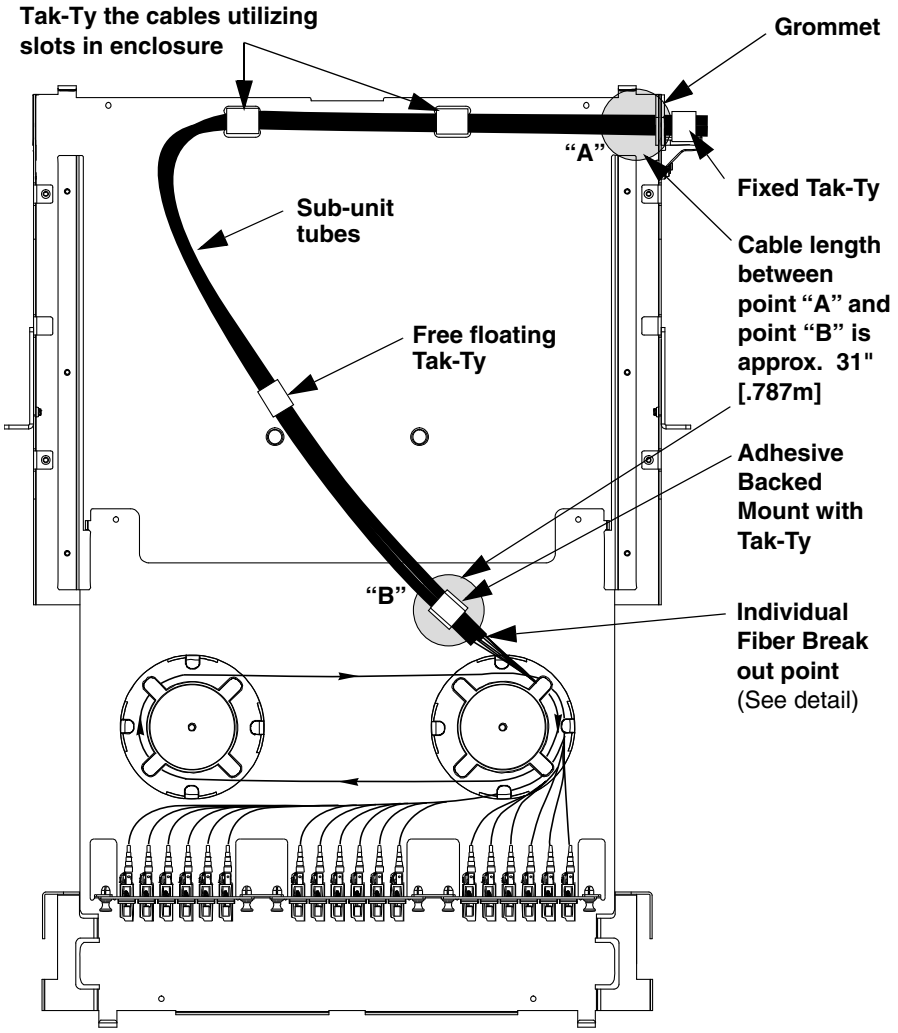
Figure 6A

Slack Spools may be mounted with adhesive backing only or securing with #10-32 hex nuts.

Punch a hole through the adhesive backing and place slack spools over #10-32 studs on the tray. Secure with #10-32 hex nuts. Note spool orientation.

Position FAPs between upright flanges as shown. Once mounted, fully seat NyLatches to secure.

Fully extend tray to ensure proper amount of slack is used.

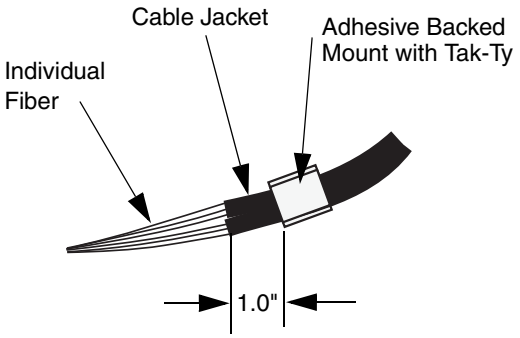


Drawer in extended position
(cover not shown)

Figure 6B

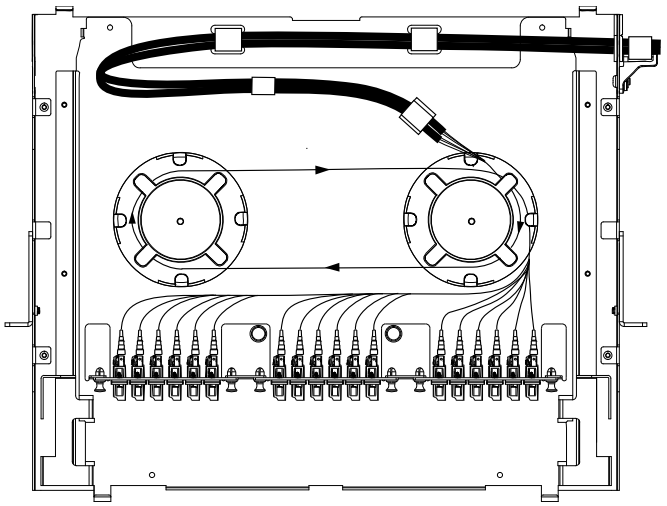
Route fiber through cable entry grommet as shown. Use enough cable length to ensure one complete loop of individual fibers around slack spools. Leave enough jacketed slack so when the drawer is fully extended the cables are not put under tension. DO NOT use so much slack that the drawer cannot be returned to its home position. (See Figure 6C)

Use Tak-Tys to secure fiber cords at the cable entry location and other points as shown.



Fiber Break out Detail

Be sure adhesive backed mount is positioned to secure the jacketed trunk cable. DO NOT secure individual 900µm buffered fibers



Drawer in home position
(cover not shown)

Figure 6C

Fiber Optic Splice Module (FOSM) Installation - sold separately

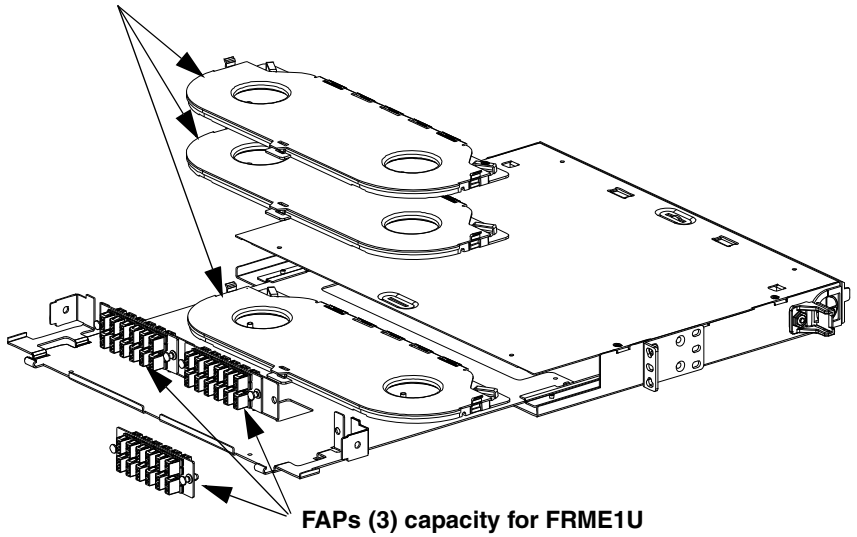


Figure 7A

Place first FOSM over #10-32 studs on sliding tray and secure with #10-32 hex nuts. Remaining FOSMs are stacked on top of each other and snap in place.

Position FAPs between upright flanges as shown. Once mounted, fully seat NyLatches to secure.

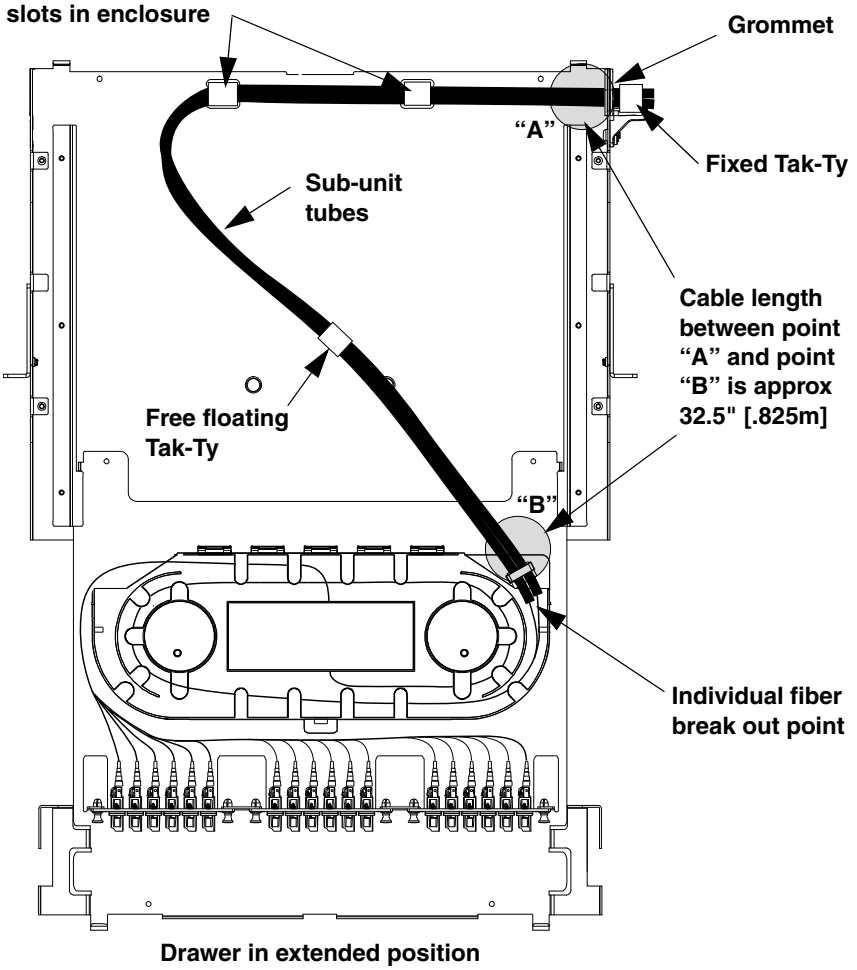


Figure 7B

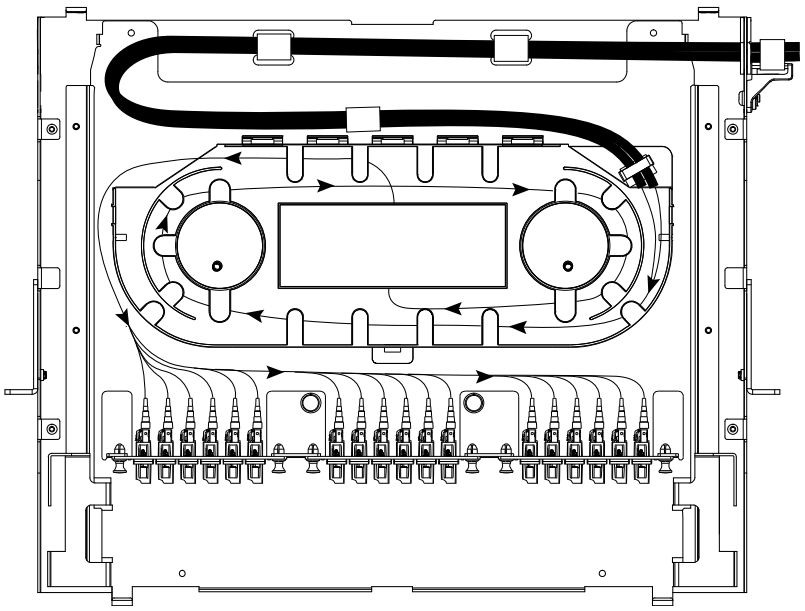
Route fiber through cable entry grommet as shown. Use enough cable length to ensure one complete loop of individual fibers around FOSM slack spools.

Route 900µm buffered fiber from the trunk cable and splice to pigtail per instructions in FS001*, "FOSM Opticom Fiber Optic Splice Module Installation Instructions."

Leave enough jacketed slack so when the drawer is fully extended the cables are not put under tension. DO NOT use so much slack that the drawer cannot be returned to its home position. (See Figure 7C)

Use Tak-Tys to secure fiber cords at the cable entry location and other points as shown.

* Denotes revision letter.



Drawer in home position
(cover not shown)

Figure 7C

Bend Radius Control Clip Installation

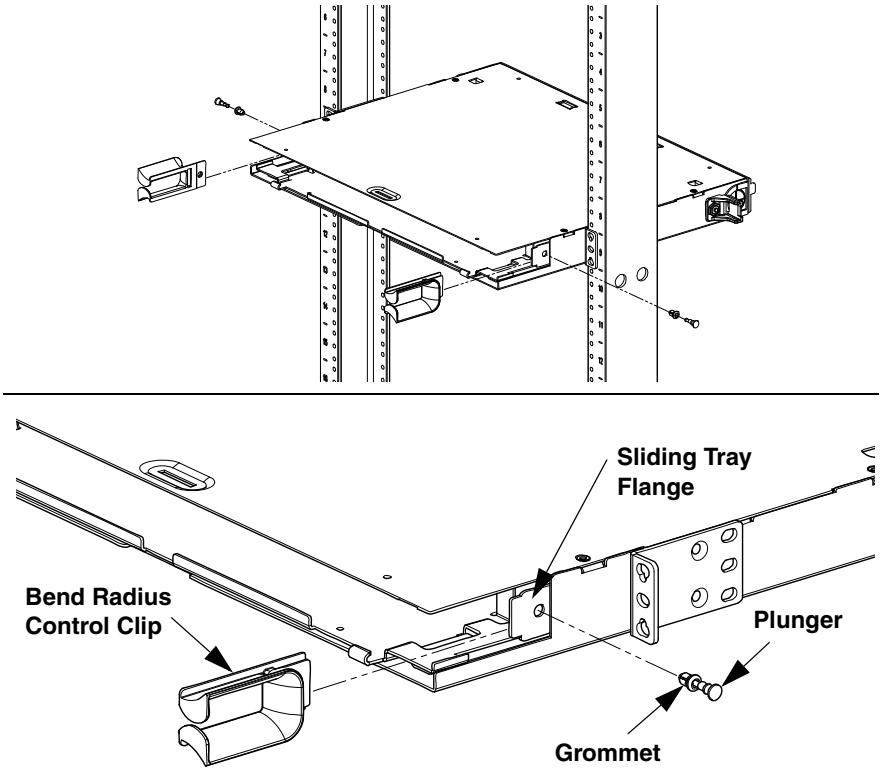


Figure 8A

Install plunger into grommet, but do not fully seat. Slide bend radius control clip over the sliding tray flange as shown.

Push grommet/plunger through bend radius control clip and sliding tray flange holes. Fully seat plunger into grommet to secure.

Repeat for other side.

Bend radius control clips must be installed to retain the front door.

Patch Cord Installation

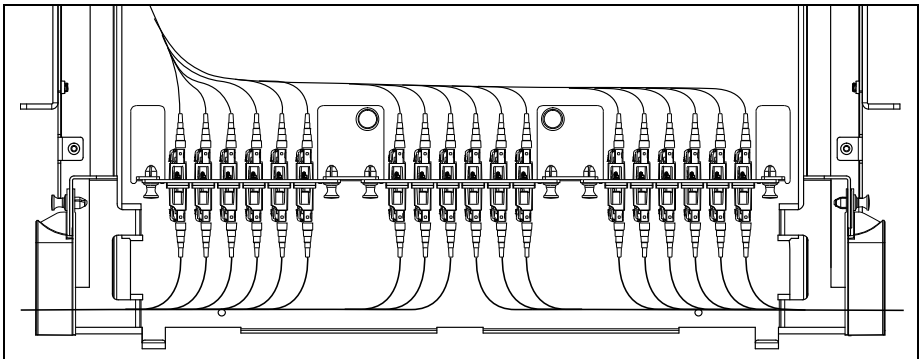


Figure 9

Install patch cords into FAPs routing through bend radius control clips and maintaining proper patch cord bend radius.

Door Attachment

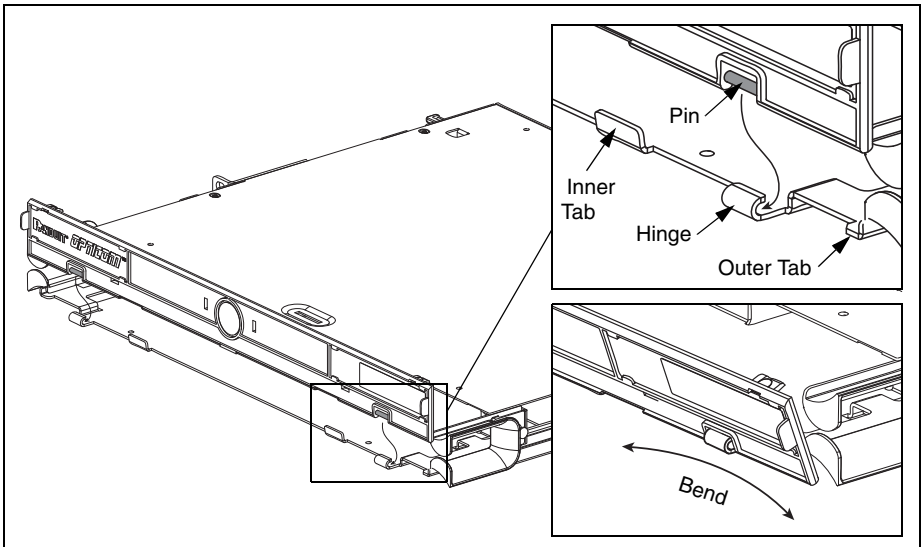


Figure 10

Install the front door as follows. Install the rear door in a similar manner.

Position the door so that it rests on top of the hinge and up against the inner and outer tabs.

Bend the bottom of the right side of the door until the pin drops into the hinge. Repeat for the left side.

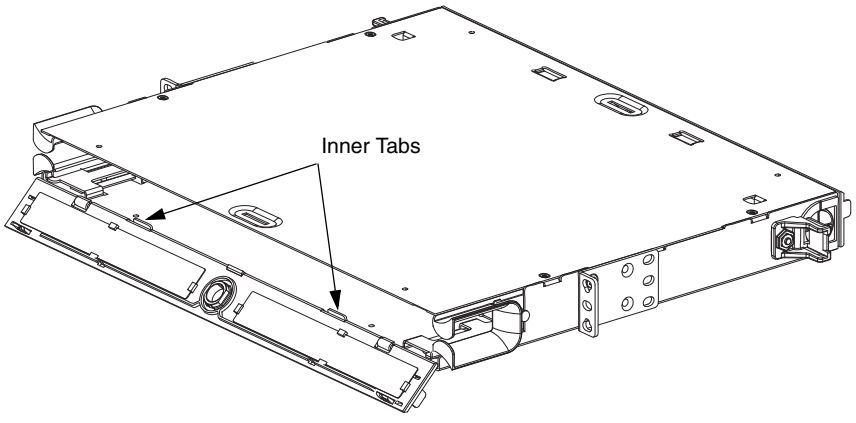


Figure 11

The final door position should be on the outside of the inner tabs.

If the door is installed properly it will open and close freely.

Attach Laser Warning Label and Caution Label where they are clearly visible.