PANDUIT

864 Fiber Wall Mount Hyperscale Splice Enclosure
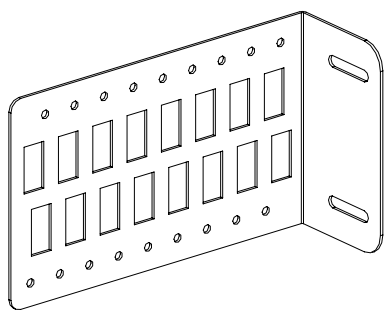
Part Number(s) : FWMHSSG-864
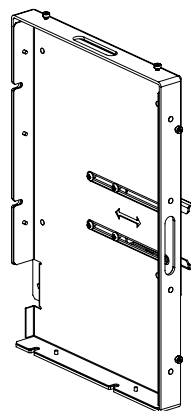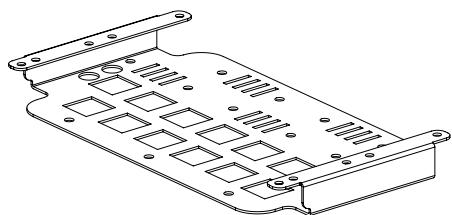
INSTALLATION INSTRUCTIONS
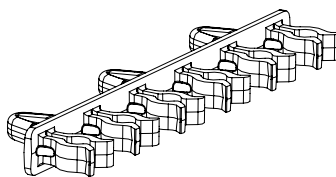
FWMHSSG-864

Components included:

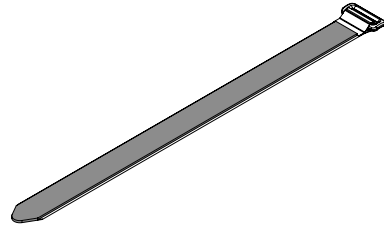Vertical Cable Guide
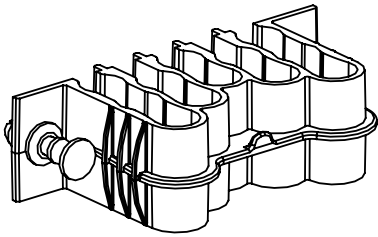QTY. 4

Work Tray
QTY. 1

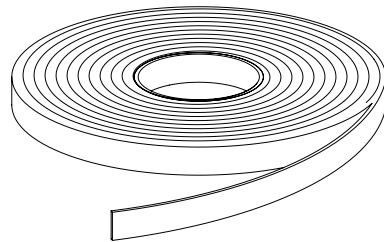Incoming Cable Plate
QTY. 2

Plastic Snap
QTY. 2

For Technical Support: www.panduit.com/resources/install_maintain.asp
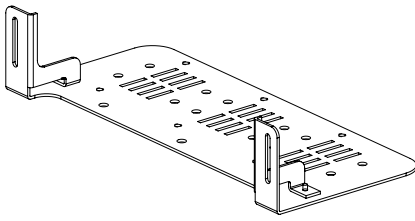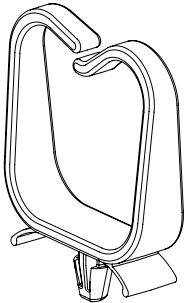
Incoming Cable Bracket
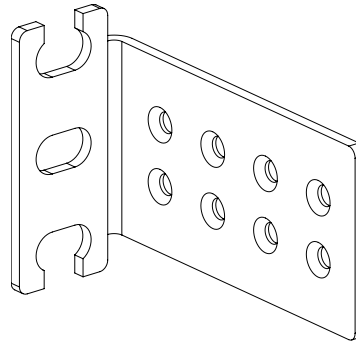QTY. 1

Hook and Loop Cinch Tie
QTY. 1

FLEX-CLIP12
Flex Clip
QTY. 4

TAK-TY
QTY. 15 FT

VWS106
Saddle Clip
QTY. 20

19" Rack Mounting Bracket
QTY. 6

(24) 4-40 Bracket Mounting Screws
(3) Bags of (4) #12-24 Screws
(3) Bags of (4) M6 Screws

Optional accessories not included in FWMHSSG-864:

-ACGK, Armored cable grounding
-FBKSL-M05-KIT, Fiber Breakout Sleeve
-SE25PSC-TR0, Fray Resistant Expandable Sleeving
-FWMHSS-ICAK, Incoming Cable Anchor Post
-FLEX-CM12C, HD Flex Rear Cable Manager
-FWMHSS*-GROUND, Grounding Kit
-FST48, HD Fusion Single Fiber Splice Tray Kit
-FST144R, HD Fusion Ribbon Fiber Splice Tray Kit
-FWMHSS - CG613 - Cable Gland 6mm - 13mm cable range
-FWMHSS - CG2135 - Cable Gland 21mm - 35mm cable range
-CTCN1X5 Cool Boot Cover & Cable Protection Bezel, 1.5"x5", Black
-CTGN1X5 Rectangular Cool Boot, 1.5"x5", Black
-FWMHSSG-PNKT288 Flexcore Patch Panel Kit

Tools required:

- Phillips screw driver
- Socket (11/32) for hex nuts

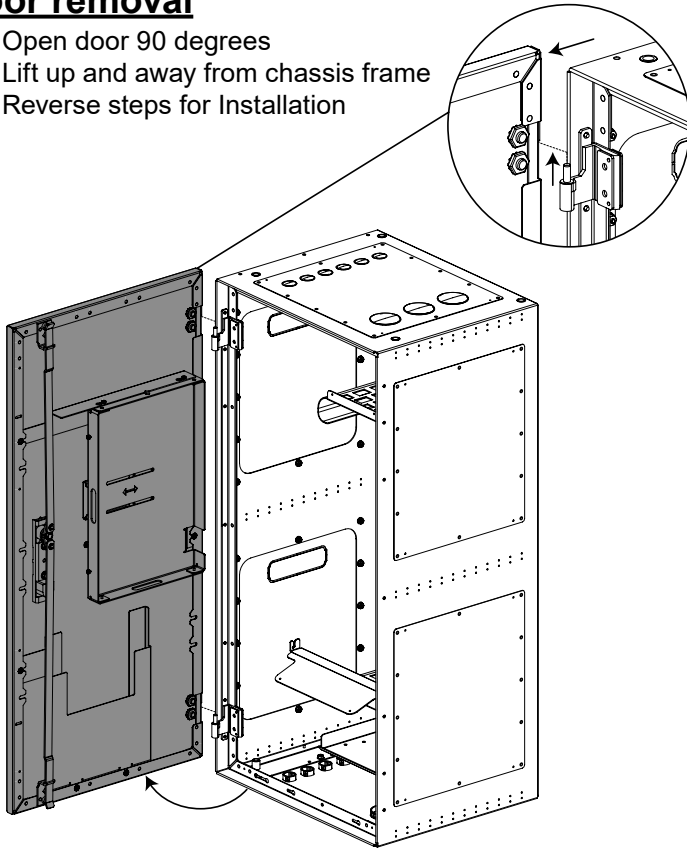*For Technical Support: www.panduit.com/resources/install_maintain.asp*

Table of Contents

Door removal

- Open door 90 degrees
- Lift up and away from chassis frame
- Reverse steps for Installation

Side Cover with CoolBoot

(2) Left side plates have optional 1.5" x 5" cutouts compatible with optional accessories such as:
CTCN1X5 Cool Boot Cover & Cable Protection Bezel, 1.5"x5", Black
CTGN1X5 Rectangular Cool Boot, 1.5"x5", Black

Since all covers are interchangeable, these plates can be moved to the right side, top or bottom of the Enclosure as needed.
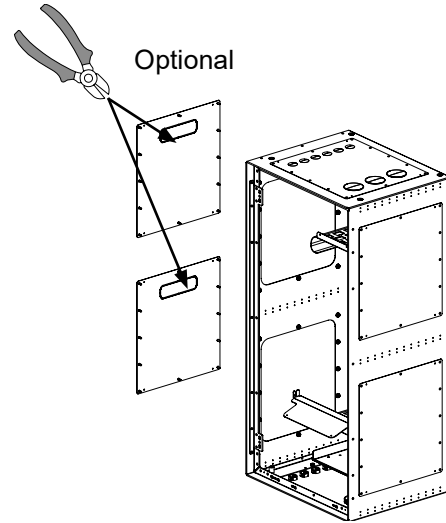
Optional

Top, Bottom and Side Cover removal

- Remove #8-32 lock nut from chassis frame
- Remove top, bottom or side covers
- Reverse steps for installation
- All plates (Top, Bottom, and Side) are interchangeable

Top Cover

#8-32
Lock Nut
12 Places

Side Cover

#8-32
Lock Nut
12 Places

Bottom Cover
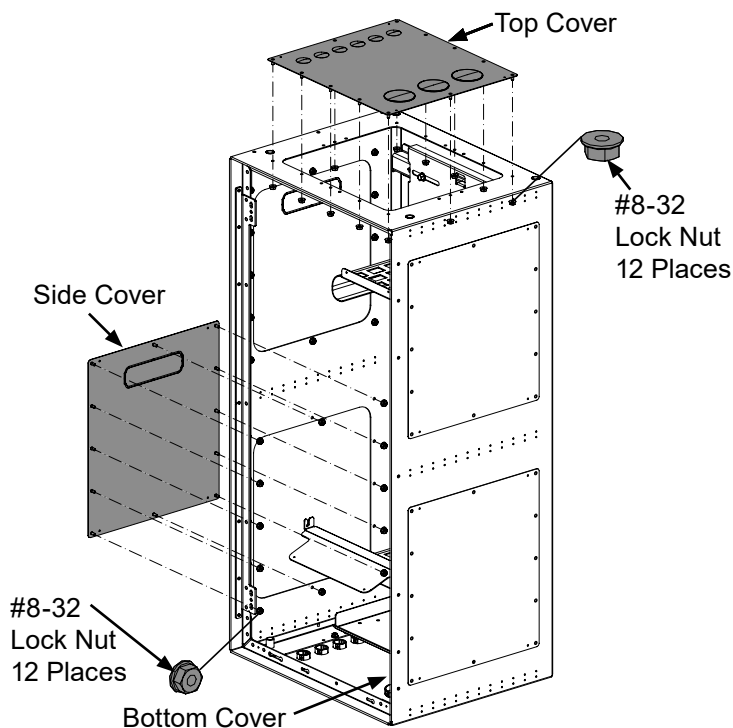
Plastic Locking Plug removal

- Pinch sides of plug
- Push toward outside of chassis frame
- Reverse steps for installation

Locking Plug
(2.0" Hole)

Locking Plug
(.88" Hole)

Locking Plug
(2.0" Hole)

Locking Plug
(.88" Hole)
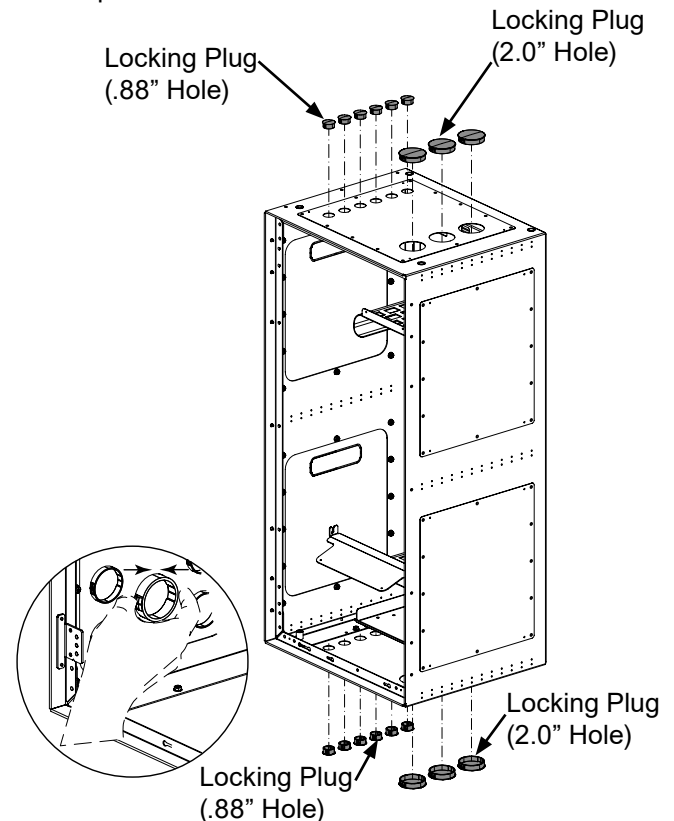
Work Tray removal and installation

- Loosen #10-32 x 1/2" Screw
- Slide work tray toward larger opening of key hole slot
- Work tray extender can be adjusted using (4) #10-32 x 1/2" Screws (Tighten before installing on frame)
- Install work tray on chassis frame engaging shoulder bolts into slot

Work tray extender
fully extended

(4) #10-32 x 1/2"
Panhead Machine
Screws

#10-32 x 1/2"
Panhead Machine
Screw
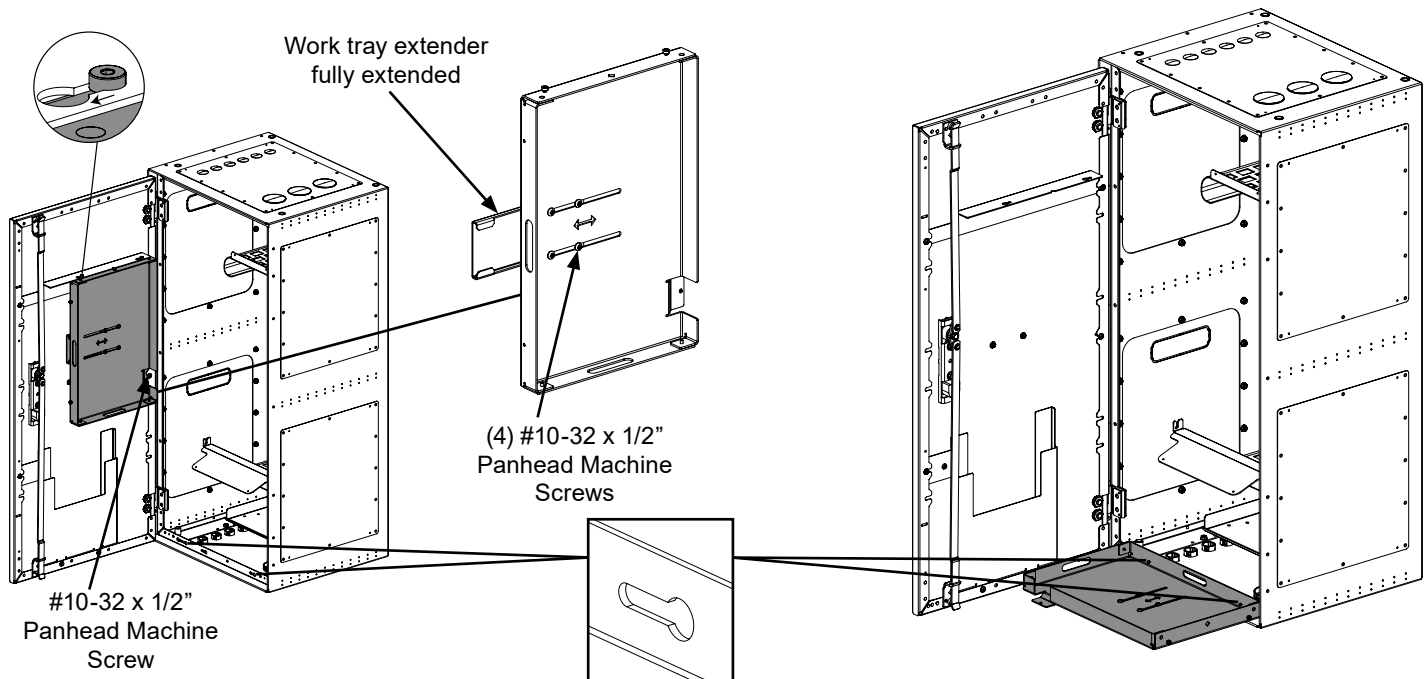
Mount Enclosure on the wall

- Mount enclosure to wall using the appropriate location guide on this page. Mounting hardware not included.
- Wall must be flat to prevent distortion of the enclosure when tightened to a wall. This could prevent the doors from aligning properly. If wall is not flat, shims may be required.

12.7"

.35" DIA
Keyslot

24.0"
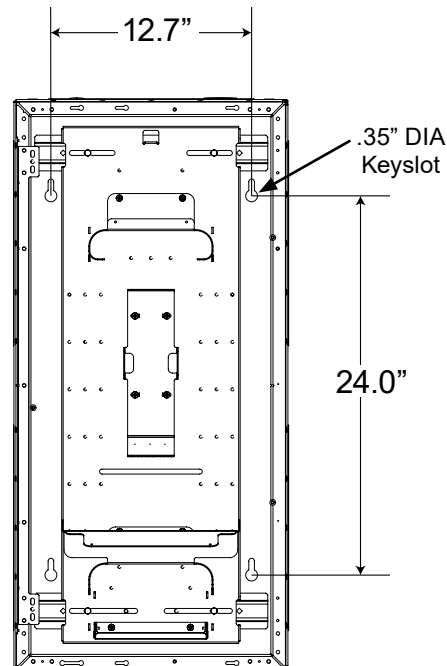
Internal Cable Management and Storage Tray component set up

The internal Cable Management components can be configured depending on application and cable entry points.

The backplate can be adjusted Side-to-Side, by removing the backplate screws and sliding the backplate to the desired location and reinstalling the backplate screws. The maximum adjustment span to either right or left is 1.6"

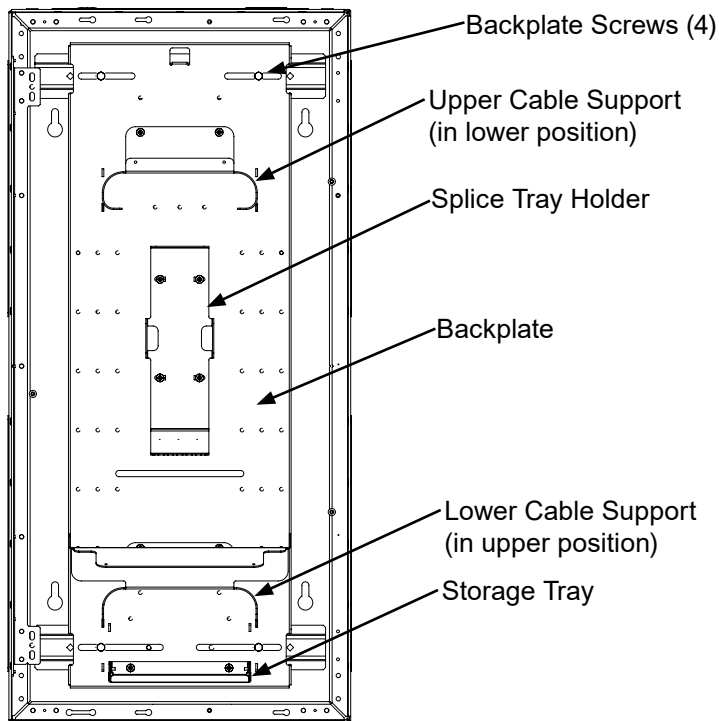The upper cable support can be installed in upper position to allow more fiber slack space.

To reposition the upper cable support vertically, remove the two mounting screws and install in the adjacent location.

Similarly, the lower cable support can be installed in the lower position to increase fiber slack space even more. To reposition the lower cable support vertically follow the steps described above.

Storage tray is factory installed in the lower position but can be repositioned upward to be closer to the lower cable support in its upper position.

If the lower cable support is adjusted to the lower position the storage tray must remain in its lower position as well.

Backplate Screws (4)

Upper Cable Support
(in lower position)

Splice Tray Holder

Backplate

Lower Cable Support
(in upper position)

Storage Tray

Center positioned cable management

Upper Cable Support
(in upper position)

Lower Cable Support
(in lower position)

Right positioned cable management
and Storage Tray

Lower Cable Support
(in lower position)

Storage Tray can
be repositioned
upward

Storage in lower
position

Lower Cable Support
(in lower position)
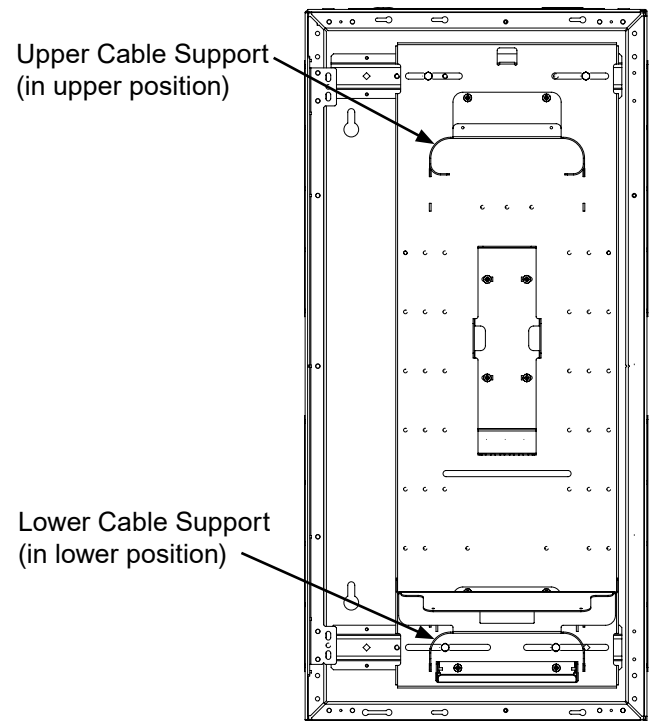
Storage Tray must
stay in its lower
position
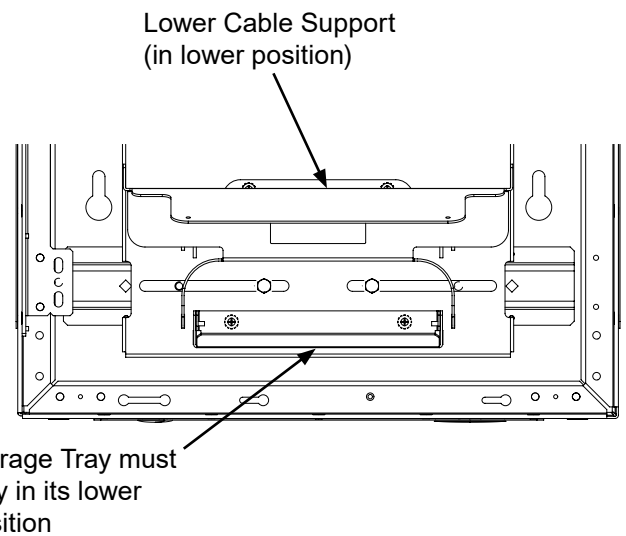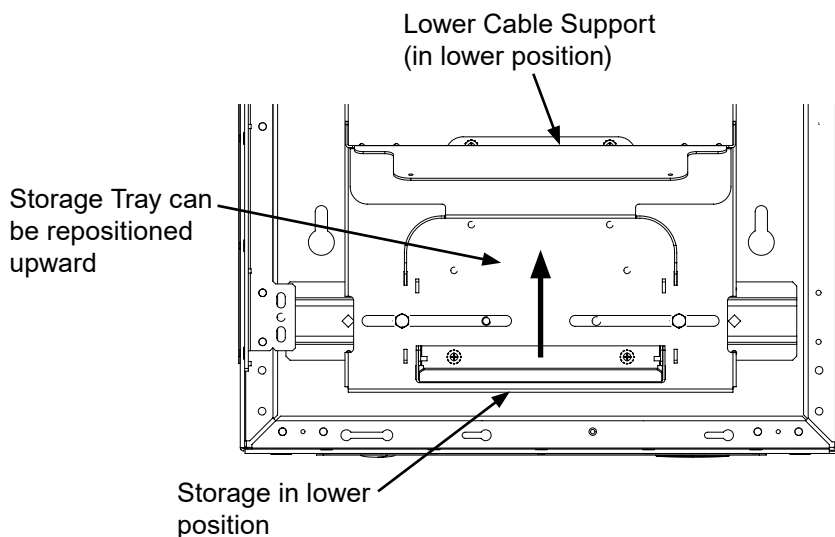
Up to four vertical cable guides (included) can be installed on each backplate using 10-32 screws and star washers (included). These brackets can be used to manage internal fiber using Tak-Ty or cable saddle clips (Included. Panduit part no: VWS106) Press one plastic snap into the splice tray holder as shown below. Second plastic snap provided with the enclosure is a backup part and it does not need to be installed.

Plastic snap
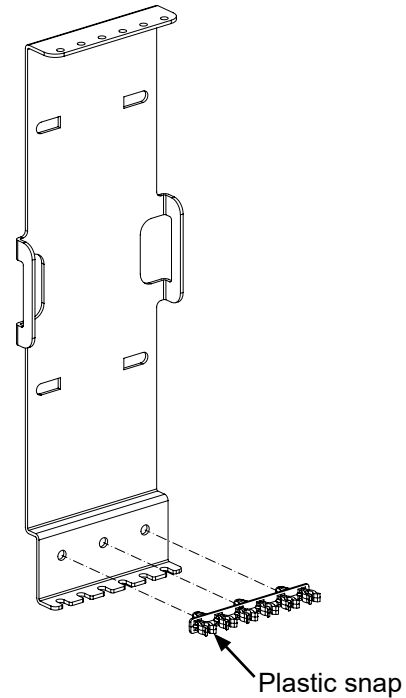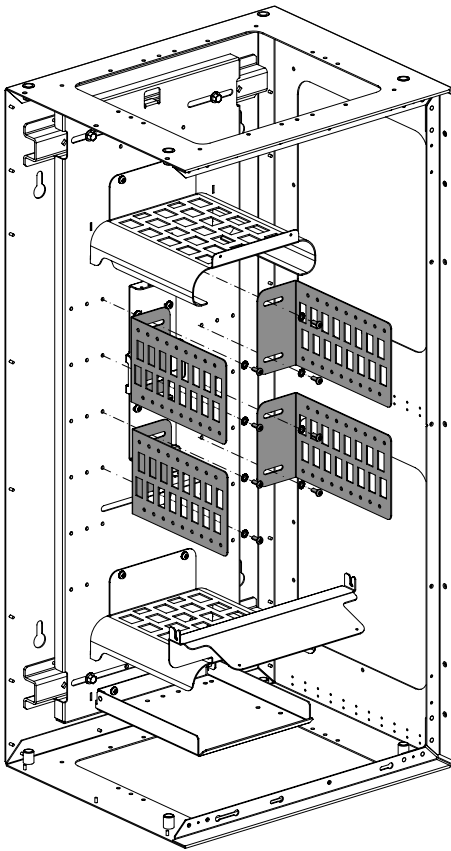
Incoming and outgoing Cable Management

Cable glands are to be used to secure incoming fiber cable to the enclosure. Circular cutouts in the top, and bottom cover plates are designed to fit cable glands. The cable glands listed below are sold separately:

| Panduit Part Number	Cable Range	Required Cutout Diameter
FWMHSS-CG613	6 – 13 mm (1/4" – 1/2")	22.5 mm (7/8")
FWMHSS-CG2135	21 – 35 mm (13/16" - 1 3/8")	51 mm (2")

The enclosure is supplied with cover plates with 22.5mm, and 51mm cutouts. To install a cable gland, remove the plastic plug and replace with a cable gland. For large incoming cables, the Incoming Cable Plate should be aligned with the incoming cable, at a sufficient distance from the cable gland to allow ample work space. Install the Incoming Cable Plate using the mounting nuts of side or top/bottom cover plates. Strip off the outer cable jacket to expose at least 20 feet of fiber to route within the enclosure (for typical routing diagram, as shown on page 10) and the splicing trays. Tighten the cable gland near the cut end of the cable jacket as shown. Remove the buffer tubes, leaving 2-3 inch stubs.

It is recommended that fiber inside the enclosure is broken down into subunits of up to 144 ribbonized fibers or 48 single fibers. The fibers in each subunit should be protected using a breakout sleeve, (Panduit part number: FBKSL-M05-KIT), or bulk expandable sleeving, (Panduit part number: SE25PSC-TR0) (Both sold seperately). Tape the ends of each grouping of fibers to prevent individual fibers from poking through the protective sleeve. Feed the bare fiber in groupings into the protective sleeving, until the sleeving should reaches the end of the buffer tube. Pull the sleeving over the buffer tube, with a ½ inch overlap. Secure the sleeving to the buffer tube with heat shrink tubing (not included). If breakout sleeves are used, the FLEX-CLIP12 (included) should be installed in the Incoming Cable Plate, and the transition tube snapped into the FLEX-CLIP12. If bulk expandable sleeving is used, the sleeving can be attached to the square cutouts in the Incoming Cable Plate using Tak Ty. An Incoming Cable Anchor Post (Panduit part number: FWMHSS-ICAK) can be attached to the Incoming Cable Plate to strain relief the cable central strength member. Additional Incoming Cable Plates can be purchased if needed (Panduit Part number: FWMHSS*-ICP)


For Technical Support: www.panduit.com/resources/install_maintain.asp
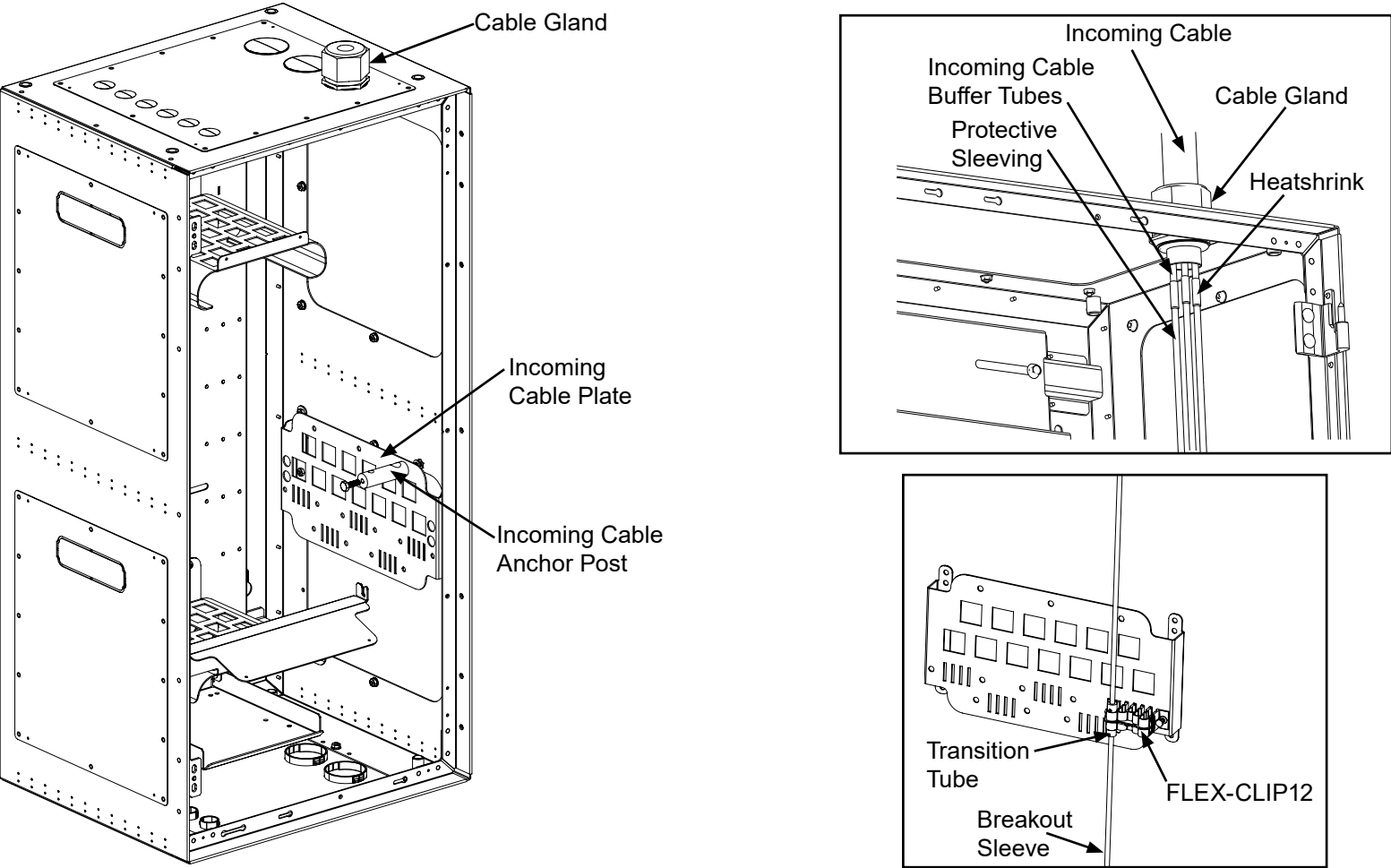
Depending on the application, the incoming cable bracket can be used in place of the incoming cable plate The Incoming Cable Bracket should be attached using the mounting nuts of top/bottom cover plates to which the cable gland is mounted.

Incoming
Cable Bracket

Cable Gland
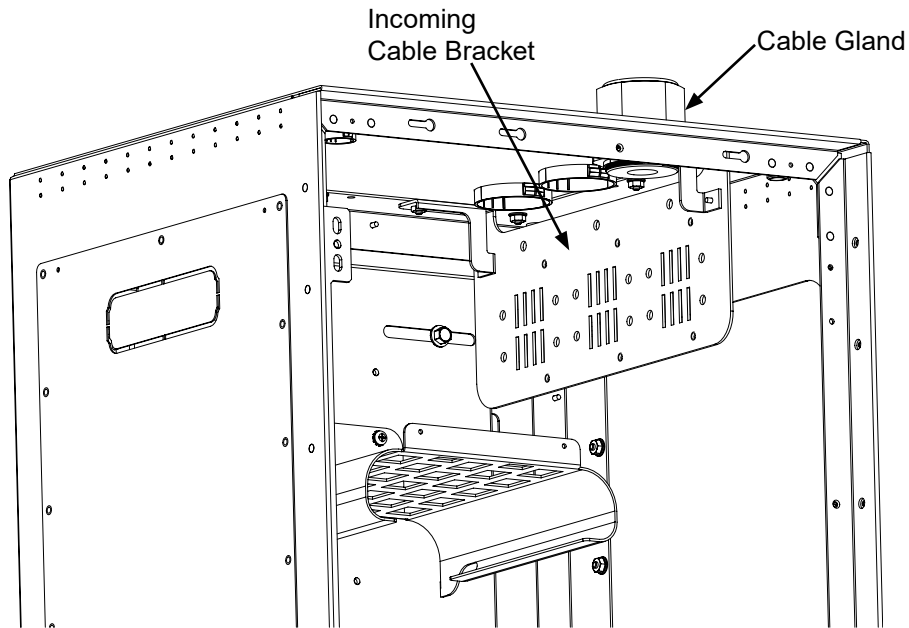
Incoming Cable Bracket with sleeves

If breakout sleeves are used, the FLEX-CLIP12 (included) should be installed in the Incoming Cable Bracket, and the transition tube snapped into the FLEX-CLIP12. If bulk expandable sleeving is used, the sleeving can be attached to the rectangular cutouts in the Incoming Cable Bracket using Tak Ty. An Incoming Cable Anchor Post (Panduit part number: FWMHSS-ICAK) can be attached to the ¼" holes in Incoming Cable Bracket to strain relief the cable central strength member. To secure a larger number of cables, the Panduit Universal Cable Managers (Panduit Part number: FLEX-CM12C, not included) can be added to the Incoming Cable Plate. Additional Incoming Cable Brackets can be purchased if needed (Panduit Part number: FWMHSS*-ICB).

Universal Cable
Manager

FLEX-CLIP12

FLEX-CLIP12
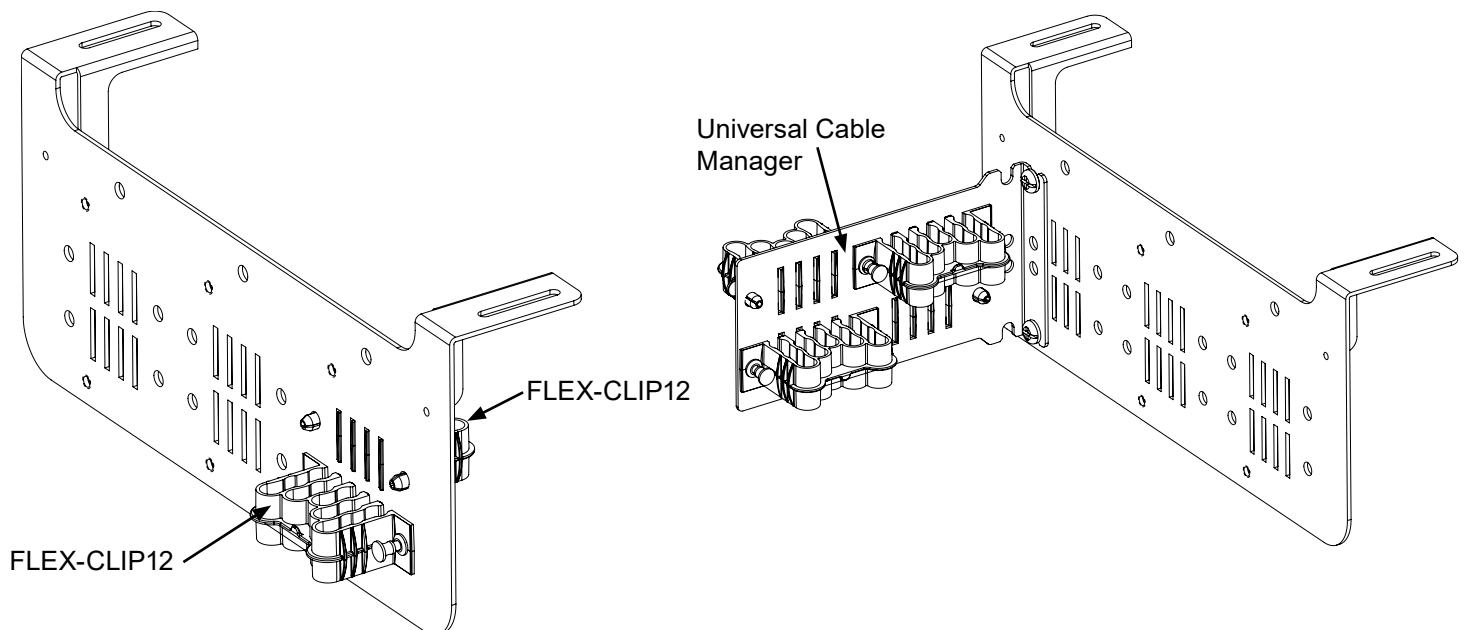
Subunitized cables

The subunitized cable routing will differ depending on the incoming cable entry location, but it should be supported by the upper and lower cable supports, as shown in the diagram below. The Red solid lines represent incoming cable and the green dashed lines represent outgoing cable. The cables should be secured to the cable supports using Tak Ty. Cable should be attached to the vertical cable guides only on straight vertical runs and be routed on the inside of the vertical cable guides. Cable should never be bent around the edges of the vertical cable guide. Incoming cable plates (included) can also be used to secure cables using Tak Ty.

Vertical Cable Guides

Incoming Cable Plates

Short loop of slack
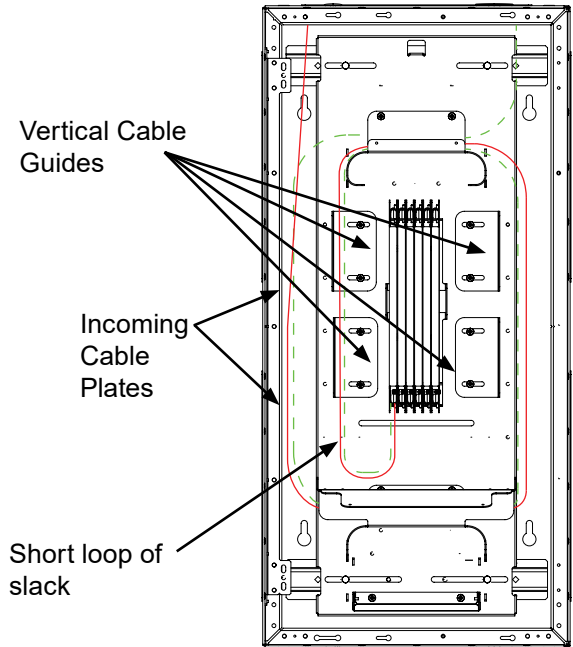
FWMHSSG-864

Splice Tray installation

Install Splicing Trays (Panduit Part number: FST48, FST144R not included) into storage position by first inserting the upper pin into the hole of the splice tray holder, then snapping the lower pin into the plastic snap holder. Up to 24 splicing trays can be installed into each splice tray holder. Follow Panduit instructions FS143 for splice tray fiber installation. The fiber should enter the splice tray near the lower pin with a short loop of slack which should be secured to the vertical cable guides using tak ty or saddle clips (included). Hook and Loop cinch tie (provided) can be used to cinch splice trays together. Place splicing tray labeling cards in the door pocket.

Hook and Loop Cinch Tie

Secure Fiber near Lower Pin
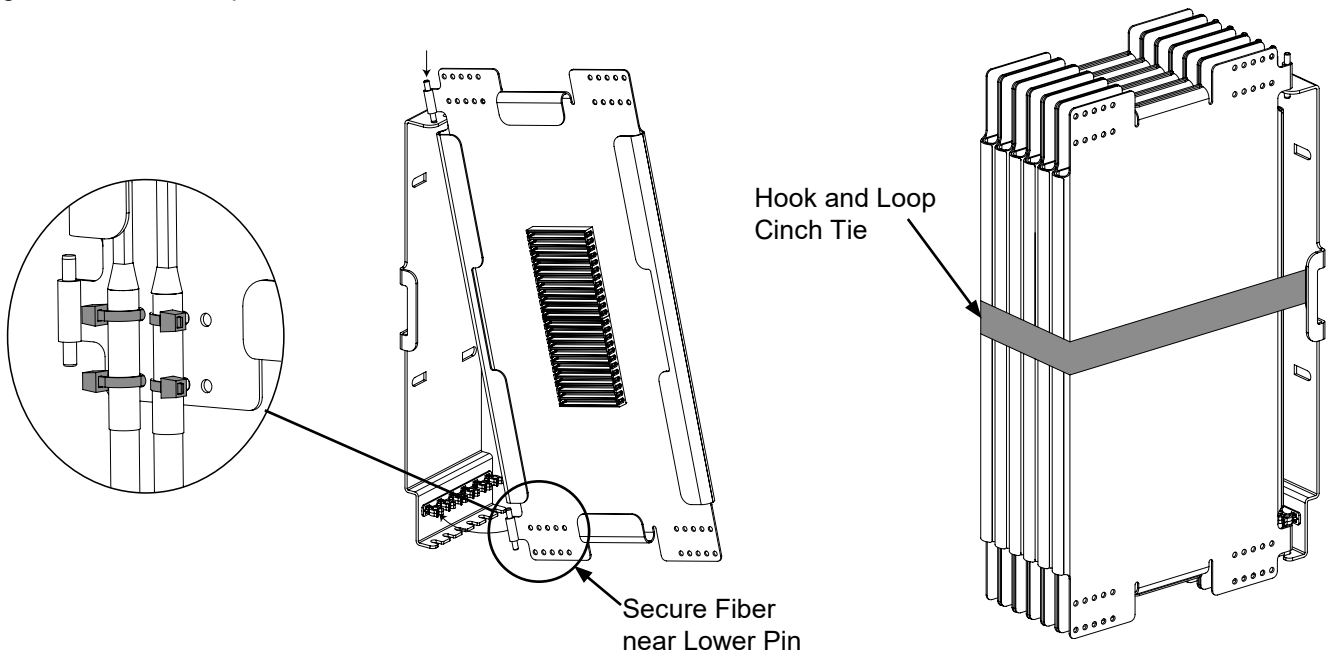
Splice Tray Work surface

The front part of the lower cable support serves as a tray work surface. Slip the pins of the splicing tray into the J-slots in the lower cable support to hold the splice tray in place.
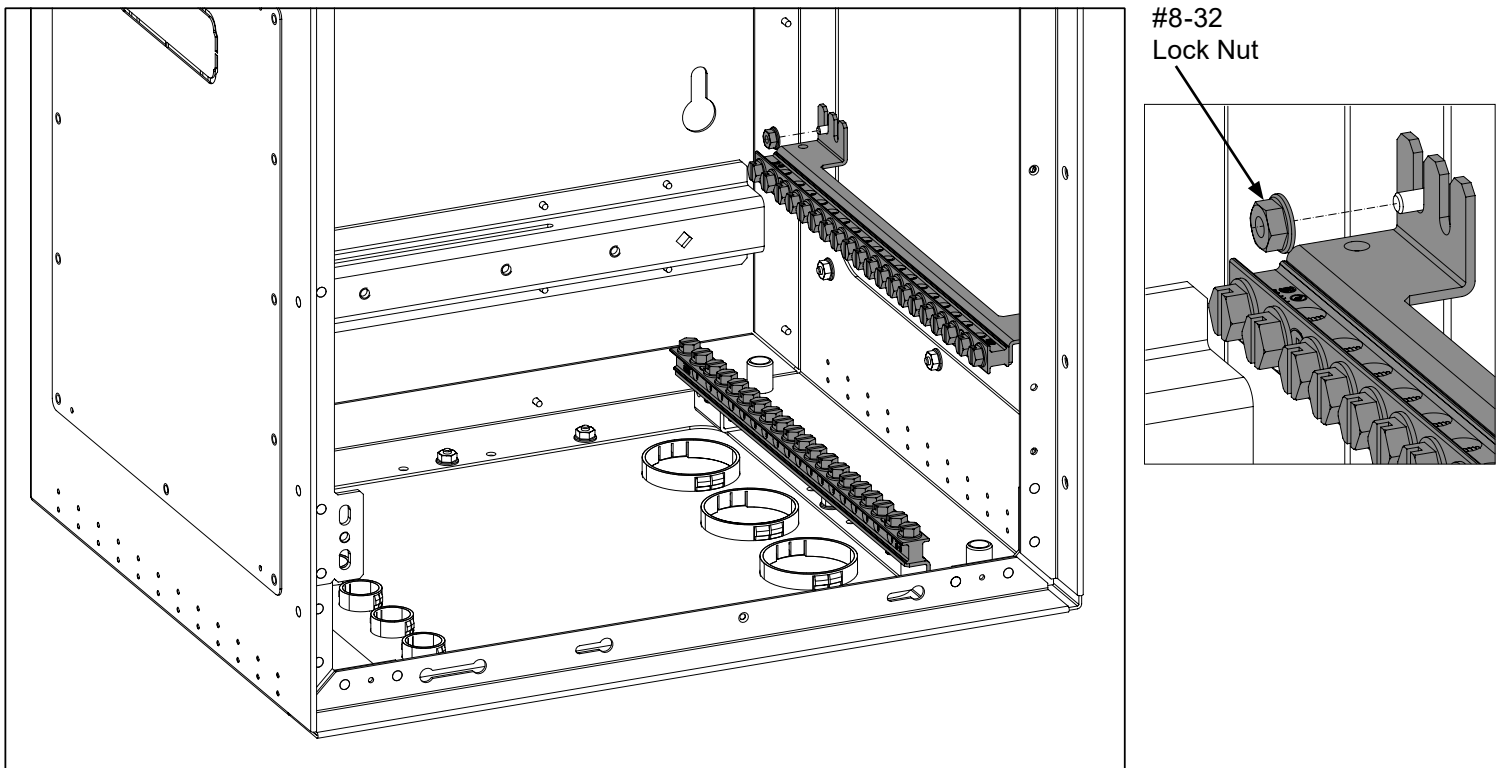

J SLOTS

Splicing Tray
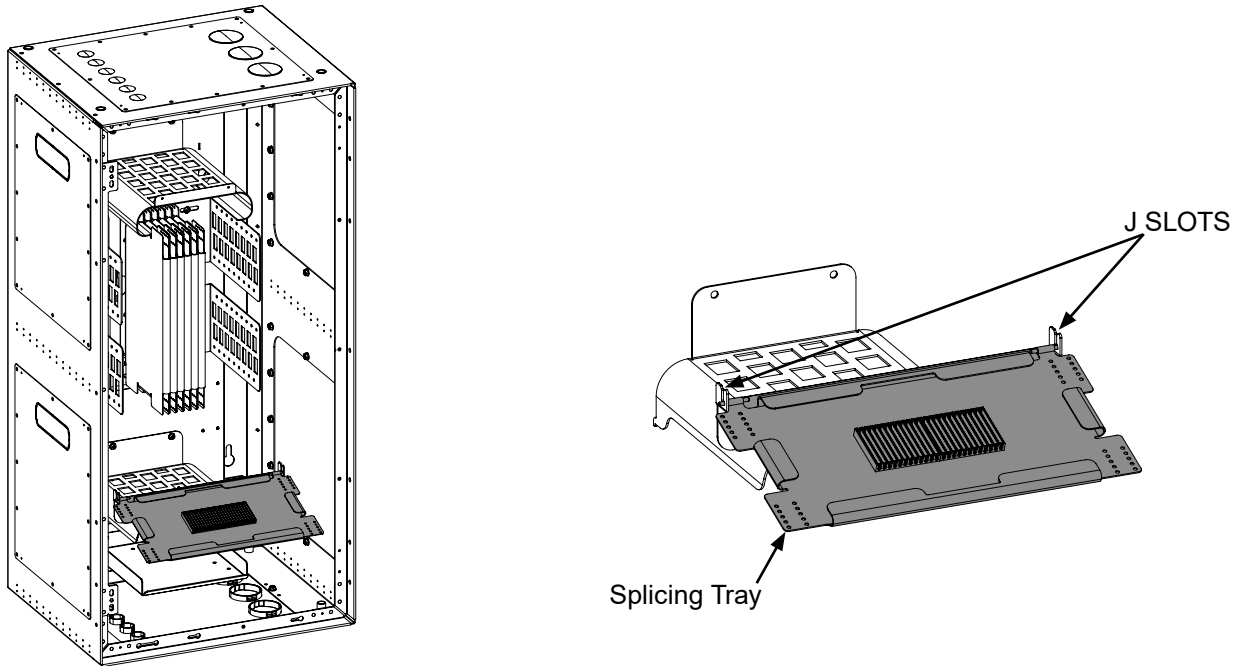
Grounding Kit installation

Remove (2) existing lock nuts and install grounding kit
Fasten #8-32 lock nuts to secure grounding kit to chassis
The grounding kit can be installed in multiple locations throughout the enclosure. A few examples are shown below.
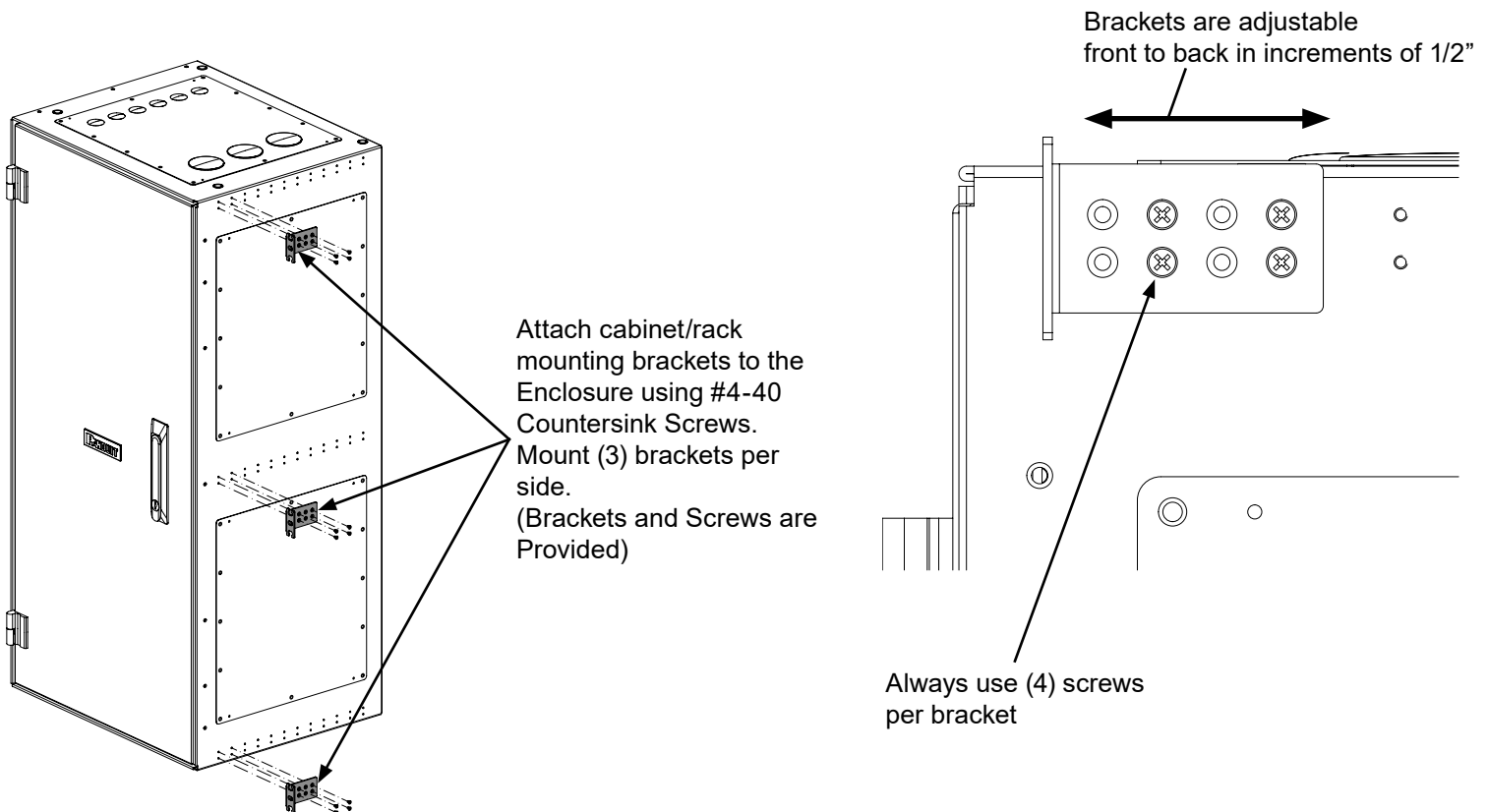

#8-32
Lock Nut

Enclosure ganging and overhead hanging

M10 threaded inserts can be used to hang enclosure, install leveling legs or install Panduit overhead
cable management accessories. Remove covers before ganging enclosures to provide cable pass thru between enclosures.

M10 Threaded Insert
(8) places

FWMHSSG-864

M10 Threaded Insert
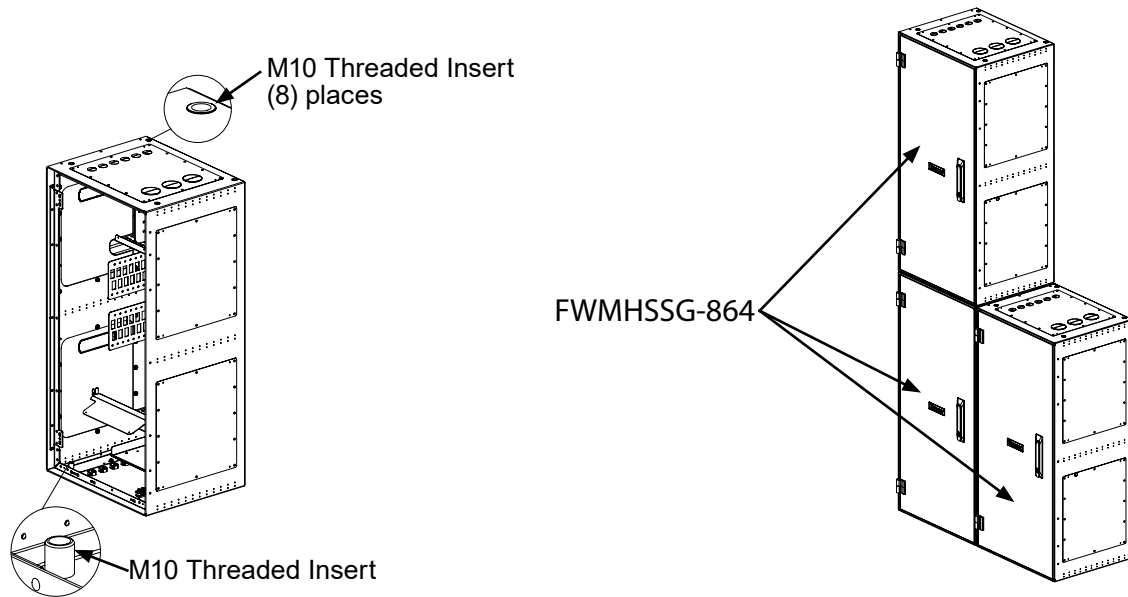
<u>This Fiber enclosure is mountable in a 19" EIA space in a cabinet or rack with universal EIA/CEA equipment mounting rails.</u>

Brackets are adjustable
front to back in increments of 1/2"

Attach cabinet/rack
mounting brackets to the
Enclosure using #4-40
Countersink Screws.
Mount (3) brackets per
side.
(Brackets and Screws are
Provided)

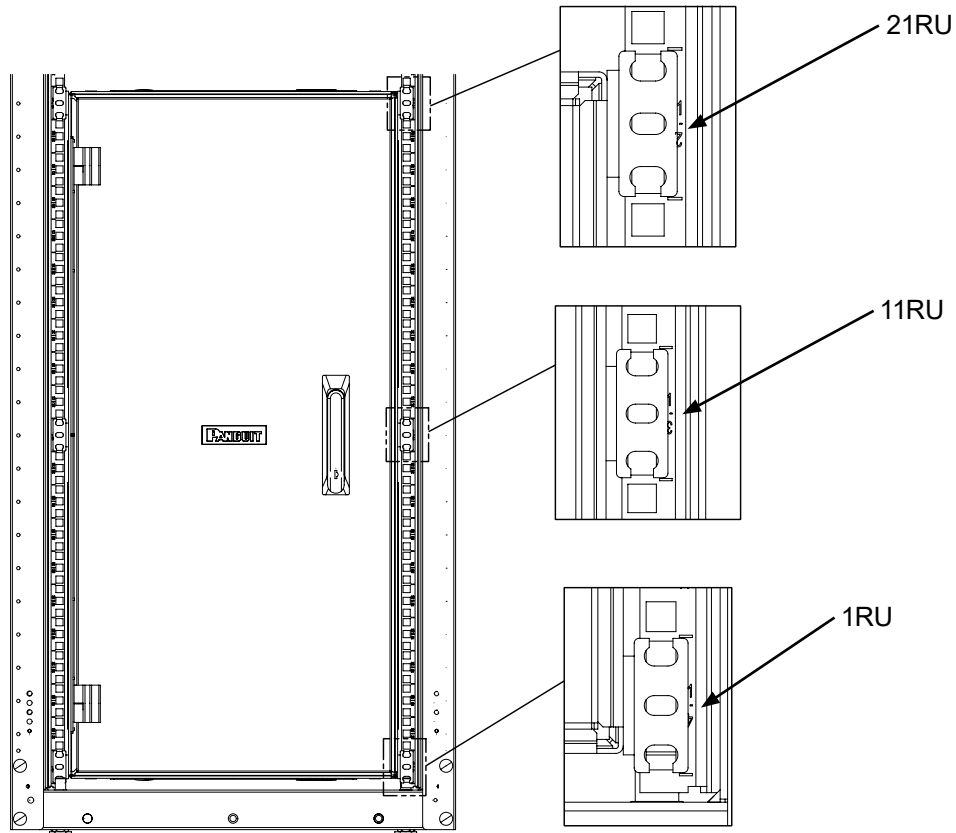Always use (4) screws
per bracket

Mounting Enclosure to bottom of rack

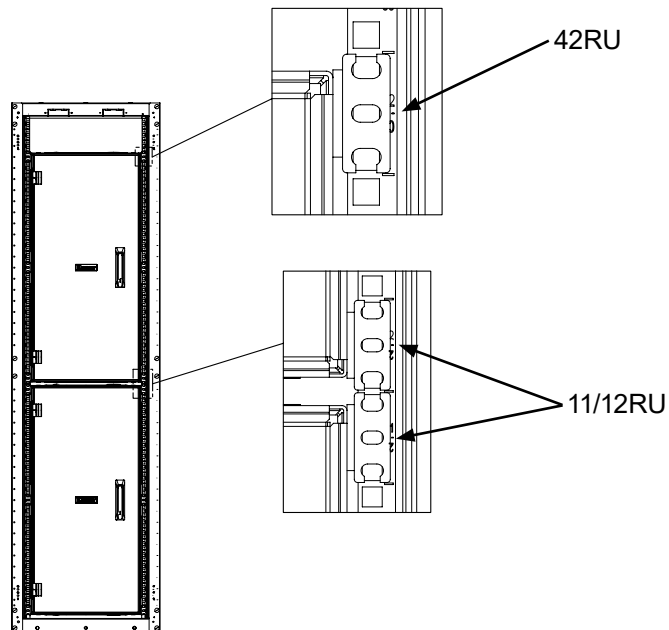Attach Enclosure with brackets to the universal mounting rails in RU number 01, 11, 21.
Use (2) mounting screws per bracket
(12) M6 and (12) 12-24 screws are provided for installation on variety of rails. Cage nuts are sold separately.

21RU

11RU

1RU

Mounting Enclosure to bottom and top of rack

Up to (2) Enclosures can be mounted inside a rack or cabinet occupying RU 01 thru 42.

42RU

11/12RU

REV. 00