Installation Guide

In-Line Splice with Pluggable Drop FTTx Distribution Enclosure

2-Port Drop 964-99999-11047

4-Port Drop 964-99999-11048

8-Port Drop 964-99999-11049

This instruction covers Amphenol Fiber Optic Products Part numbers:

2-Port Drop 964-99999-11047

4-Port Drop 964-99999-11048

8-Port Drop 964-99999-11049

Introduction

Amphenol's rugged In-Line AMT design combines the versatility of a splice closure with the convenience of a pluggable MST. It features up to eight pluggable drop ports and an easily accessible splice and storage compartment.

The fully sealed design enables fast, reliable drop connections while ensuring complete separation between construction and subscriber fibers. The securable main splice area offers ample storage for fiber tubes or ribbons, a well-organized fiber raceway, and removable splice trays for streamlined fiber management.

With IP68-rated ingress protection and dual-side cable entry points, the closure is ideal for aerial, pedestal, wall, or underground vault installations. The integrated cable seals allow drop-in cable installations, eliminating the need for time-consuming component sizing.

Suitable Cable Types

		Fiber Count	Minimum Size (in mm)	Maximum Size (in mm)
Feeder Cable	Non-Armored or Armored Cable OSP	Up to 72f	9.6mm diameter	15.0mm diameter
	Ribbon Cable	Up to 144f		
Lateral/Drop Cables	Flat Drop Cable	Up to 4 Cables	3mm diameter	5mm diameter
	Round Drop Cable			

Recommended Tools

Flush cutter (Klein Tools D275-5) or equivalent

Cable Stripper (Ideal Industries Part Number 45-162)

Telecom Can Wrench (7/16” one side, 3/8” on the other)

Flathead #2 screwdriver

Round Cable Stripper (Ripley Miller RCS-114) or equivalent

Fiber Cable Sheath Cutter & Inner Duct Slitter (Petro Comm 10923) or equivalent

Coaxial Stripping tool (Ideal 45-164) or equivalent

Optional Tools:

5/16” nut driver or wrench – interior #10-32 screws for strength member securement and hose clamp anchoring hardware

1/4” nut driver – interior #8-32 screws for strength member securement main cable

7/16” nut driver – interior and exterior nuts for grounding post and pedestal mounting screws

3/8” nut driver – interior hex nuts for cable grounding kit

Other equipment and consumables

Fusion Splicer

Self-adhesive felt tape (ribbon cable applications only).

A silver and black Sharpie marker (models S-13628SIL and H-734BL) or equivalent

Enclosure Details

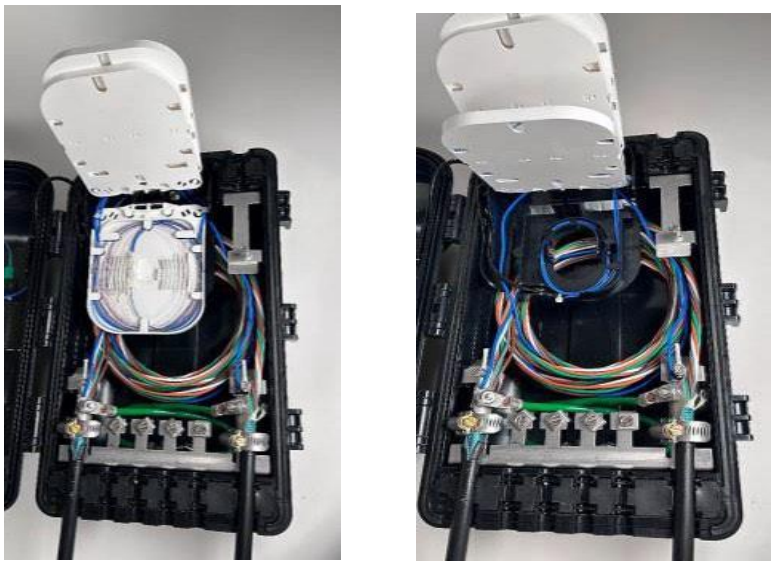
The In-Line AMT Distribution Enclosure has ample splice locations and over 3 meters of slack storage for unused fiber and subunits. The enclosure can act as a termination point or as a pass-through terminal based on network architectures in fiber- to-the-x (FTTx) deployments.

The enclosure is re-enterable. The cover and base are hinged.

Three latches, with a lockout feature, provide positive and secure access to the enclosure. Latches are positioned for easy service and maintenance but are also positioned so the box cannot be opened accidentally.

Available with 2, 4, or 8 HFOC receptacle ports. (Amphenol H-Connector)

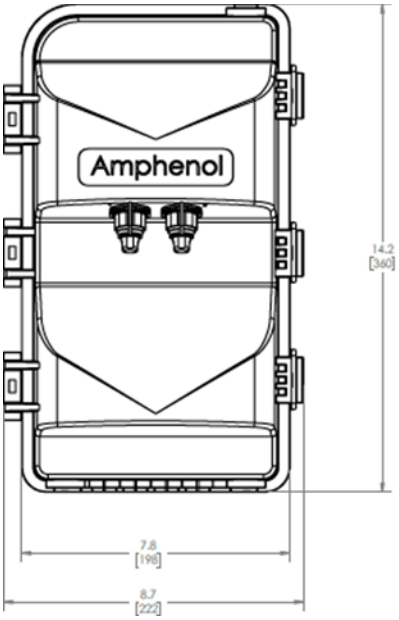
- Four fixed gel input ports for flat or round drop style cables.
- Three gel-sealed input ports for main feeder cable (inline or butt configuration)
- Units are shipped with three factory integrated splice trays and a fiber splice tray housing.
- Over 3 meters of slack storage is available beneath the fiber splice tray housing



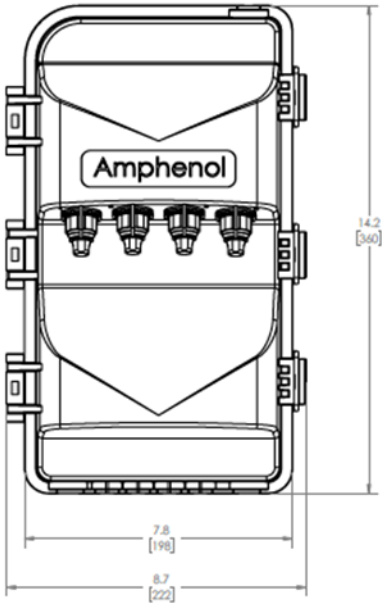
Shown with 72f Feeder Cable Installed

Drawings

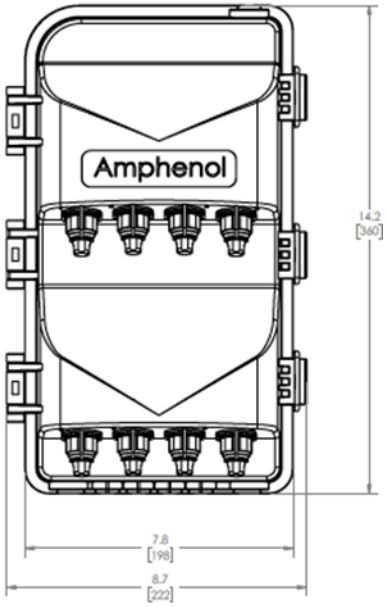
2-port

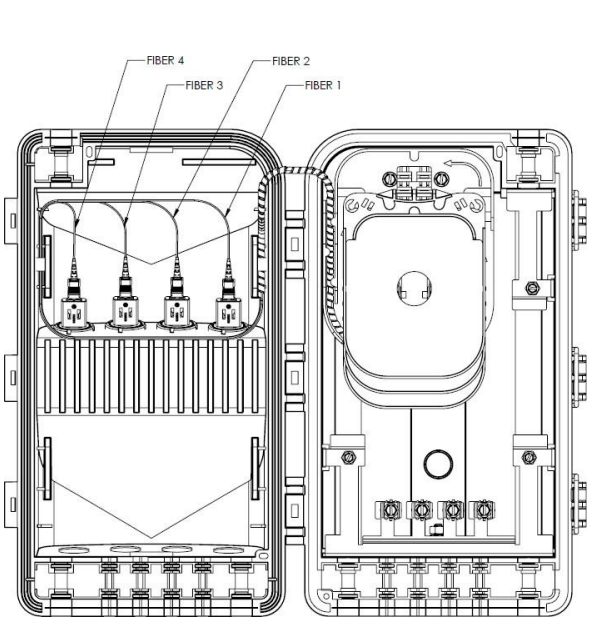


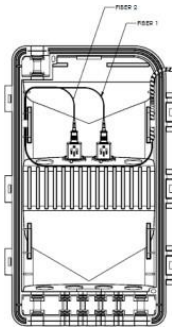
4-port

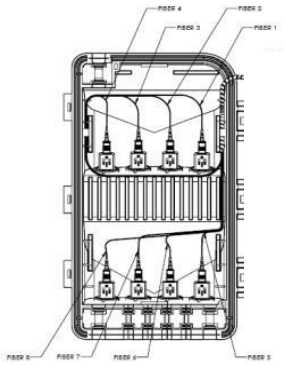


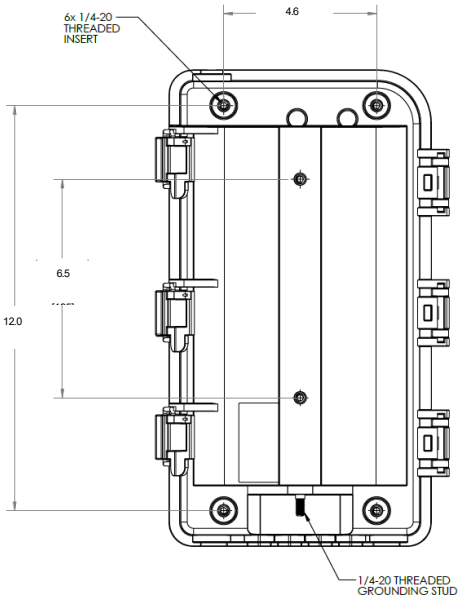
8-port

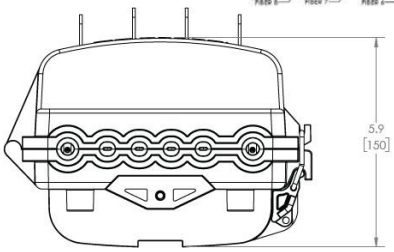


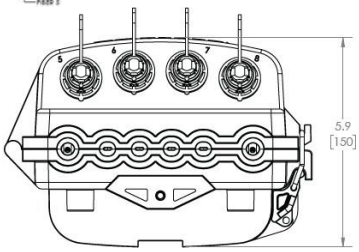


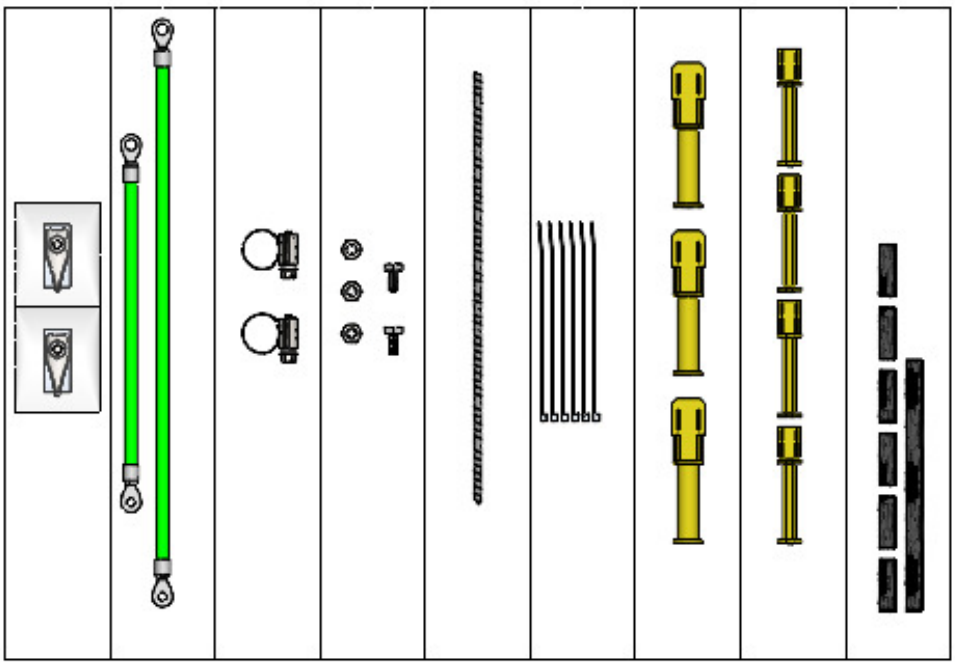












Item #1 2,3 4 5,6 7 8 11 12 9,10

Included with the In-Line AMT

ITEM NO.	DESCRIPTION	QTY.
1	GROUNDING KIT	2
2	GROUND WIRE ASSEMBLY 9", INLINE RE-ENTRY	1
3	GROUND WIRE ASSEMBLY 14", INLINE RE-ENTRY	1
4	HOSE CLAMP, WORM DRIVE, 13mm to 23mm 301 S.S.	2
5	NUT, HEX 1/4"-20, 18-8 S.S.	3
6	SCREW, HEX HEAD 1/4-20 X 1/2" LG 18-8 S.S.	2
7	SPIRAL WRAP, 3/16" O.D. X 1/8" I.D., X 11" LG, BLACK, PE	1
8	TIE, CABLE 4" SLIM	6
9	VELCRO, 0.39 X 1.25" LG	6
10	VELCRO, 0.39" X 6" LG	1
11	PLUG, FIBER, LARGE ROUND, INLINE RE-ENTRY	3
12	PLUG, FIBER, FLAT DROP, INLINE RE-ENTRY	4

Warning and cautions

Fiber optic cable is susceptible to damage from excessive bending, pulling or crushing forces. At every stage of the installation process ensure that fibers are free from unintentional cuts, nicks or bends to avoid potential fiber damage.

Do not proceed with work tasks, if at any time, safe working conditions might be compromised.

Installation Assumptions

The following assumptions have been made when writing the Installation Instructions:

The installation work site location is suitable and safe.

All cabinet types are grounded correctly and there is space for ground connections.

The person executing this Installation Instruction have been trained to complete all work satisfactorily.

Installation site condition

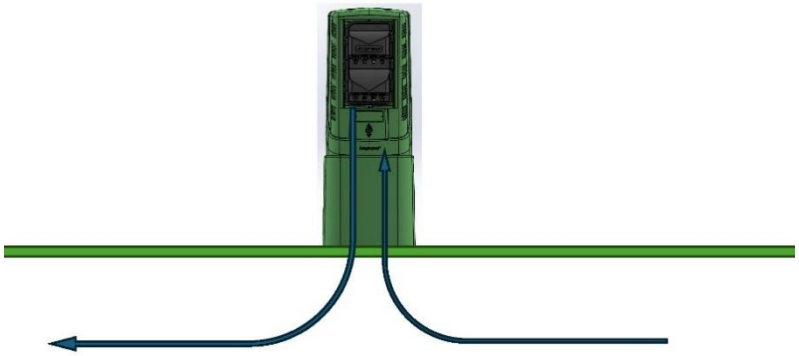
For safe and stable use, the product should be installed in a site satisfying the following conditions:

Install the product in a location where the fiber technician can easily access, connect and disconnect cables to the product.

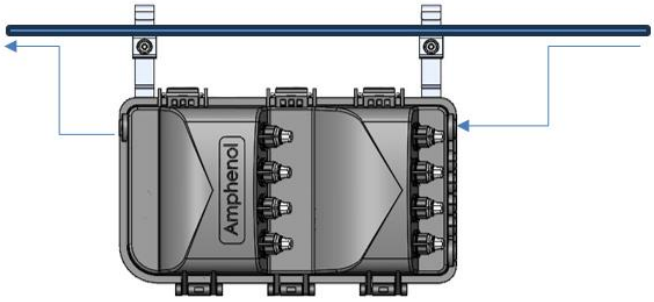
Installation Mounting Options

The In-Line AMT can be Pedestal Mounted or Strand Mounted. The illustrations below show the most common installations

In-line Configuration



Butt Configuration



In-line Configuration

Cable Preparation

Installation Options:

End Termination - one input cable only

Express - Window strip of either feeder or lateral drop cables with some fibers that pass-thru the enclosure without splices or connectors

Multiple cables – Mix of individual feeder and/or lateral cables

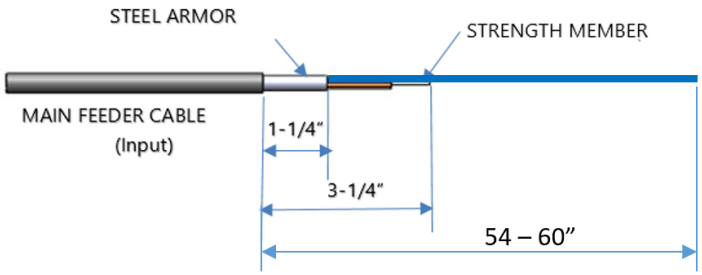
Note: It is recommended to follow the cable manufacturers instructions for stripping and preparing the optic cable when available. The following instructions show an example of an armored cable stranded fiber solution.

Single and Express - Mid Sheath Cable Prep

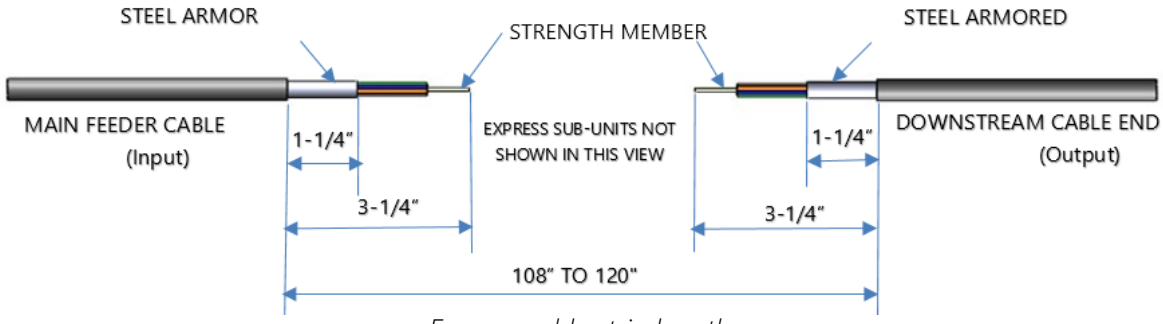
Determine the location the cable will enter the enclosure

Once you know where the cable end will be positioned, mark the location with a silver marker

Strip Lengths



Single end or lateral cable strip lengths



Express cable strip lengths

From the marked location, measure the appropriate length of the mid-span openinig and make another mark on the cable sheath

Use the round cable stripper and position over the mark(s) made on the cable sheath and twist tool around the cable until the outer sheath is cut.

Note: The round cable stripper's blade may need to be adjusted as you only want to cut through the outer sheath of the cable to expose the Steel Armor or fiber sub-units.

Once you have the two end cuts made on the cable, use the flush cutters to create a small "V" notch in the cable sheath

Insert the Fiber Cable Sheath Cutter & Inner Duct Slitter into the notch and start cutting and removing the outer cable sheath.

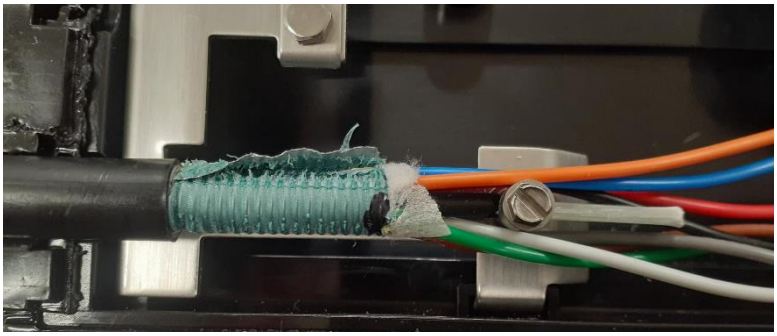
Continue using the Fiber Cable Sheath Cutter & Inner Duct Slitter until the entire length of armor or subunits have been exposed

For Armored Cable: Install Grounding and Bonding

Once the armor or subunits have been exposed, make a mark on the armor 1-1/4” from the edge of the outer sheath. Repeat this step for the opposite end

Using the flush cutter, begin to cut and peel open the armor to expose the fiber sub-units, fillers and strength member. Cut the armor at the previously made mark on each end.

Once sub-units have been exposed, cut strength members to the appropriate lengths.



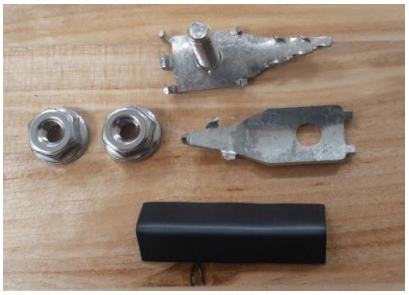
Install the Cable Bonding Clamp

Open the cable grounding kit and bend the black plastic insulator lengthwise down the center into a “V” shape

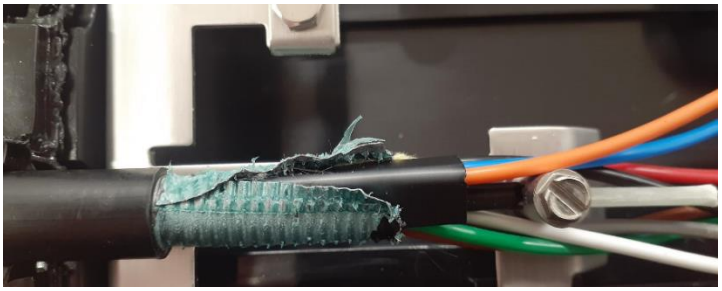
Once the strength member is secured, open the armor on cable with side cutter.

Grounding Clamp Assembly Kit

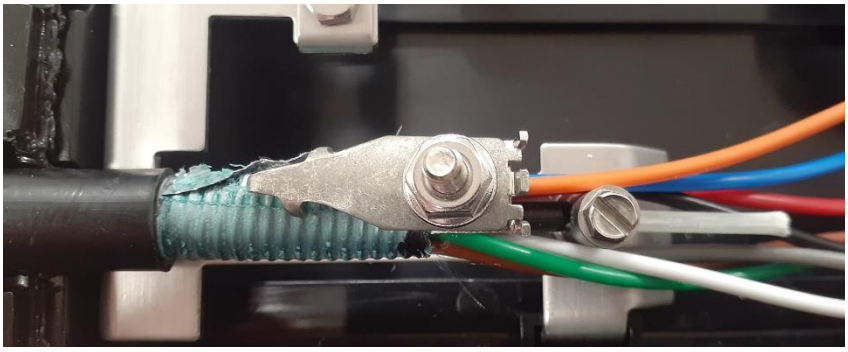
Shown with plastic insulator bent



Install the bent plastic insulator between the fiber sub units and the armored cladding.

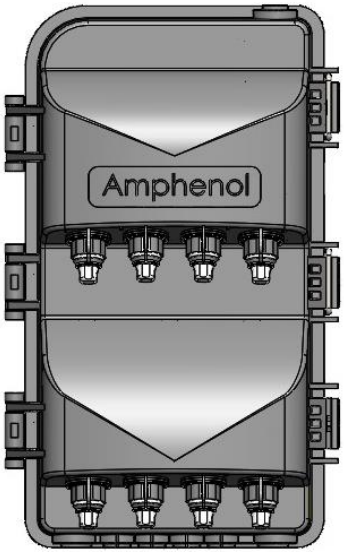


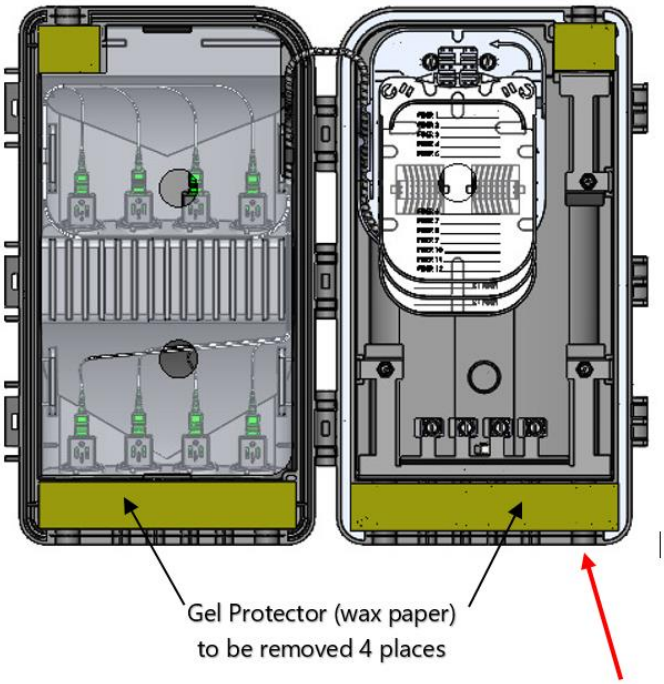
Install the grounding clamp and stud on to the cable between the plastic insulator and the cable armor. Bend the armor back around clamp and install the top grounding clamp over the armor, aligning with bottom clamp and secure with hex nut.



Note: The grounding clamp will pinch the outer armor when installed correctly

Install the Feeder Cable





Open the 3 latches on the In-Line AMT

Lift and pull to open the cover, exposing the inside

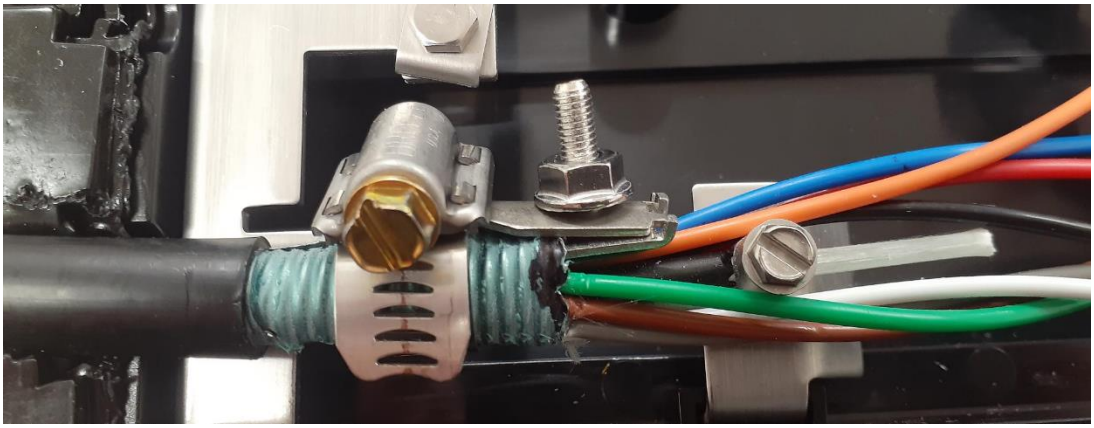
Remove Gel Protector (4 places) and discard. Enclosure will not water seal properly without removal!

Once Gel Protector is removed, place cable in position noted above

Loosen #8-32 screw, insert strength member of cable into the hole on the strength member tie down, and secure screw. Tighten and secure screw.

Unscrew the hose clamp and allow to spring open

Install hose clamp under the main support bracket and around the grounding clamp assembly. Tighten the hose clamp screw until cable is rigidly mounted. While securing hose clamp, ensure fibers and sub-units are not pinched.

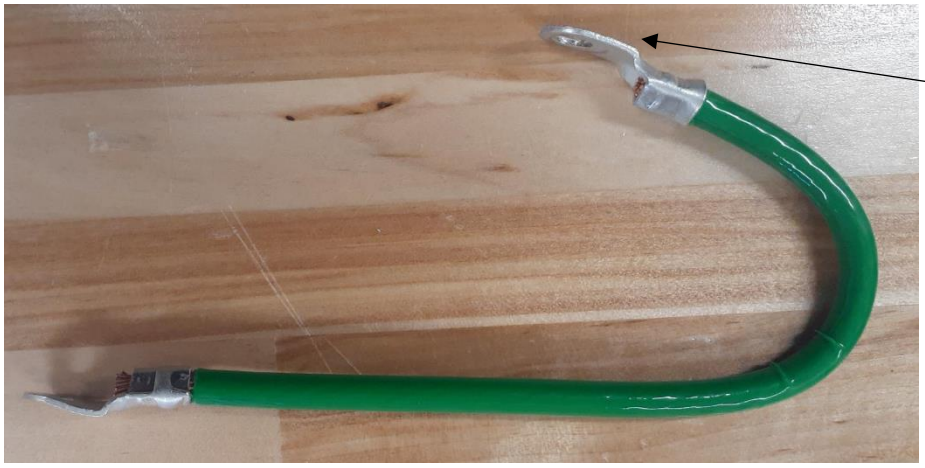


For Armored Cable Installation:

Locate the 9” and 14” ground wire that were supplied with the kit.

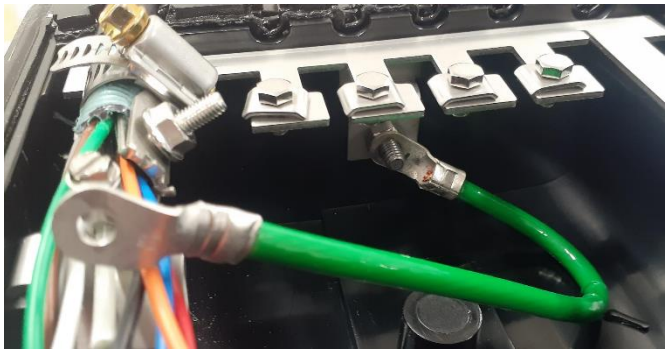
The ground cables have a smaller (#10) and larger (1/4”) ring terminal. The larger ring is to be connected to the enclosure and the smaller is connected to the cable bonding kit.

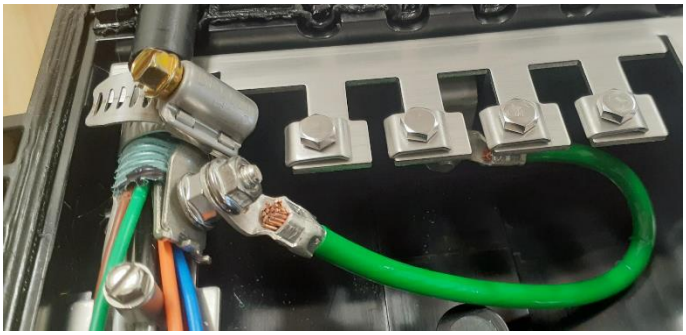
Bend the shorter, 9” ground wire, as shown below to aid installation. The dimensions of the bend are not critical and will be adjusted during installation.



Install 9” ground wire (1/4” ring terminal) to the internal ground stud on the In-Line AMT

Install the hex nuts on the ground stud and the grounding clamp assembly.

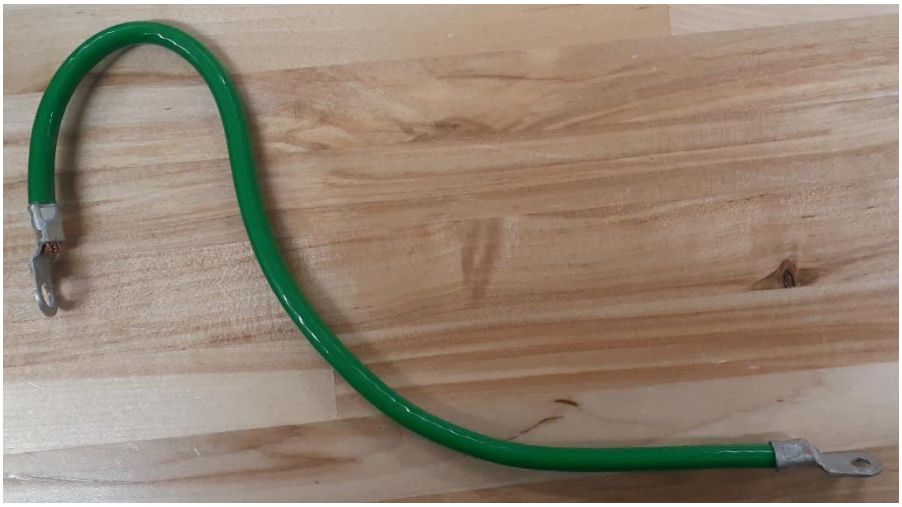




Note: A second grounding assembly is only needed if you have an outgoing armored cable

For an armored In-Line (Strand Mounted) AMT, a second ground wire is required.

Bend the longer, 14" ground wire, as shown below to aid installation. The dimensions of the bend are not critical and will be adjusted during installation.



Install grounding kit per previous steps and secure with hose clamp. Tighten hose clamp until cable is rigidly mounted and secure.

For non-armored cable:

For a non-armored pedestal mounted In-Line AMT, dress your sub-units under the fiber splice tray holder and secure downstream cable end with hose clamp.

Install hose clamp under the main support bracket and around the armored cladding of the cable. Tighten the hose clamp screw until cable is rigidly mounted.

Fiber storage and routing

Locate which fiber sub-unit from the cable you want to use in the network installation.

Make a mark at the midpoint of the sub-unit with a marker

Using the Flush Cutter cut the fiber and the sub-unit at the mark

Measure 39" from the edge of the cable, and mark the sub unit accordingly.

Repeat the above step for both the input side of the cable and the downstream side of the cable.

Note: Do not strip the sub-unit to expose the fibers now. This step will come later

Remove extra splice trays for easy cable management

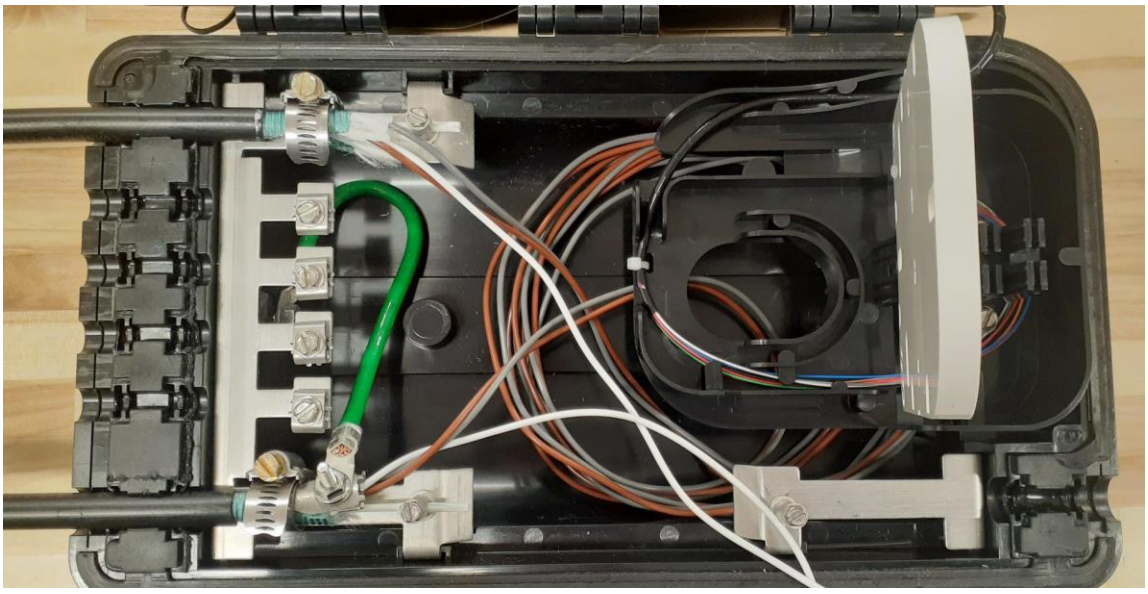
Open the top splice tray as shown above, holding the sides of the tray, pull up to remove

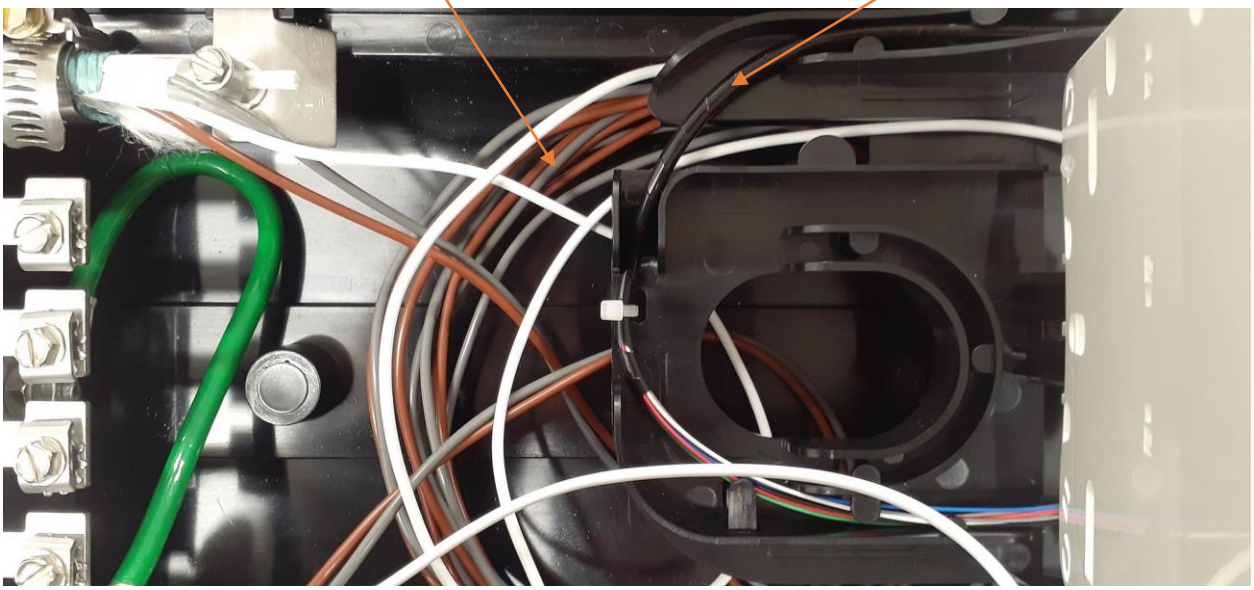
Repeat this step for the middle splice tray

On the bottom tray, remove the clear plastic cover by inserting your finger into the center hole, bend the cover and pull from splice tray to remove

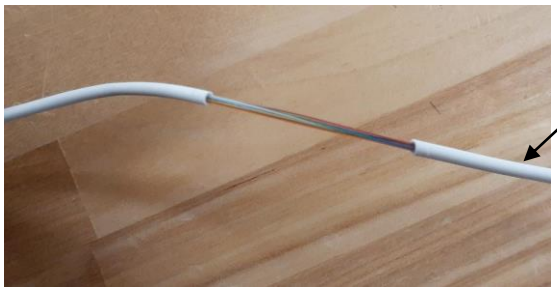
Note: The bottom splice tray will have a 1x2, 1x4, or 1x8 splitter pre-installed depending on the part ordered.

Route sub units that will not be used for the installation and position into the slack storage area beneath the main fiber splice tray holder

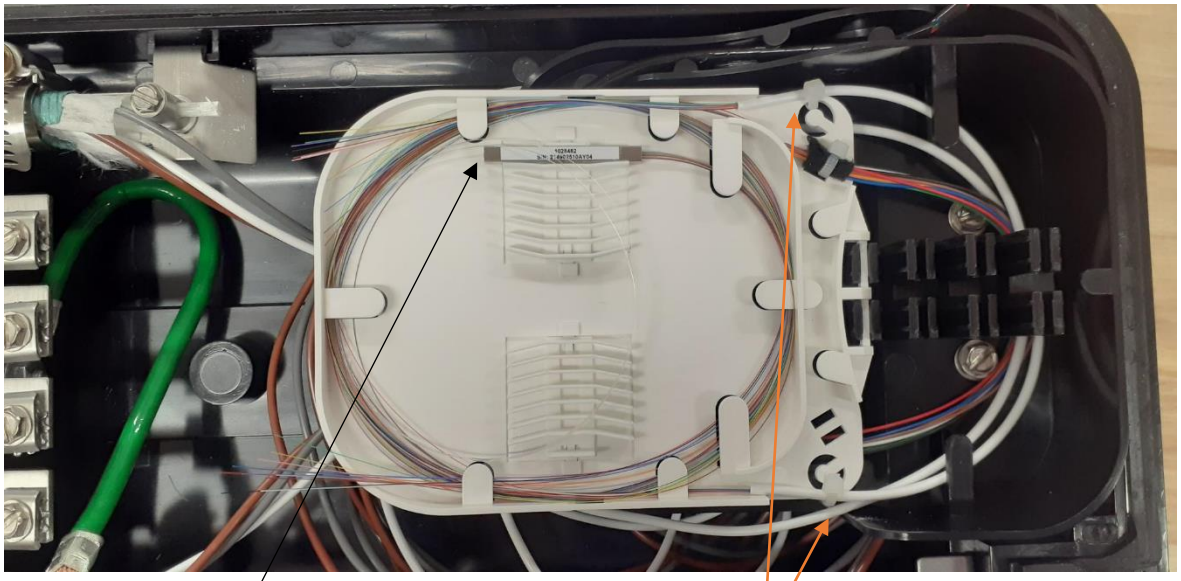




Using the Coaxial stripping tool, place the tool at the previously made sub-unit mark and cut the fiber sub-unit

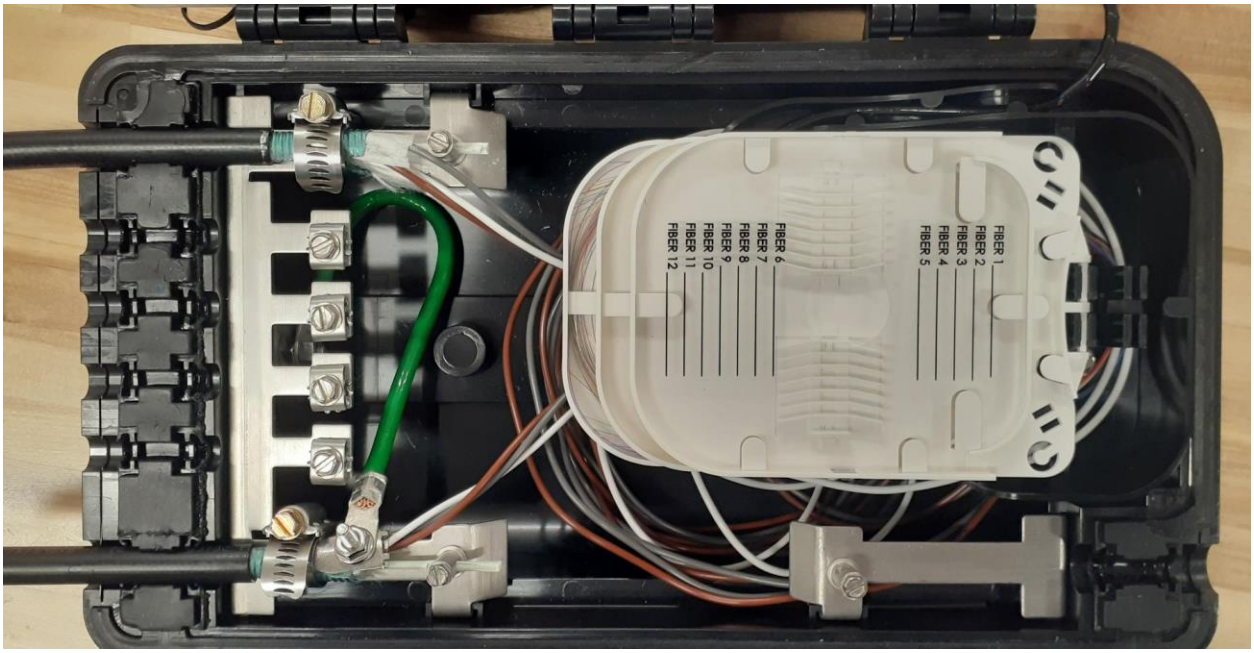


Install wire ties from accessory kit into locations as shown below and route fibers into bottom tray

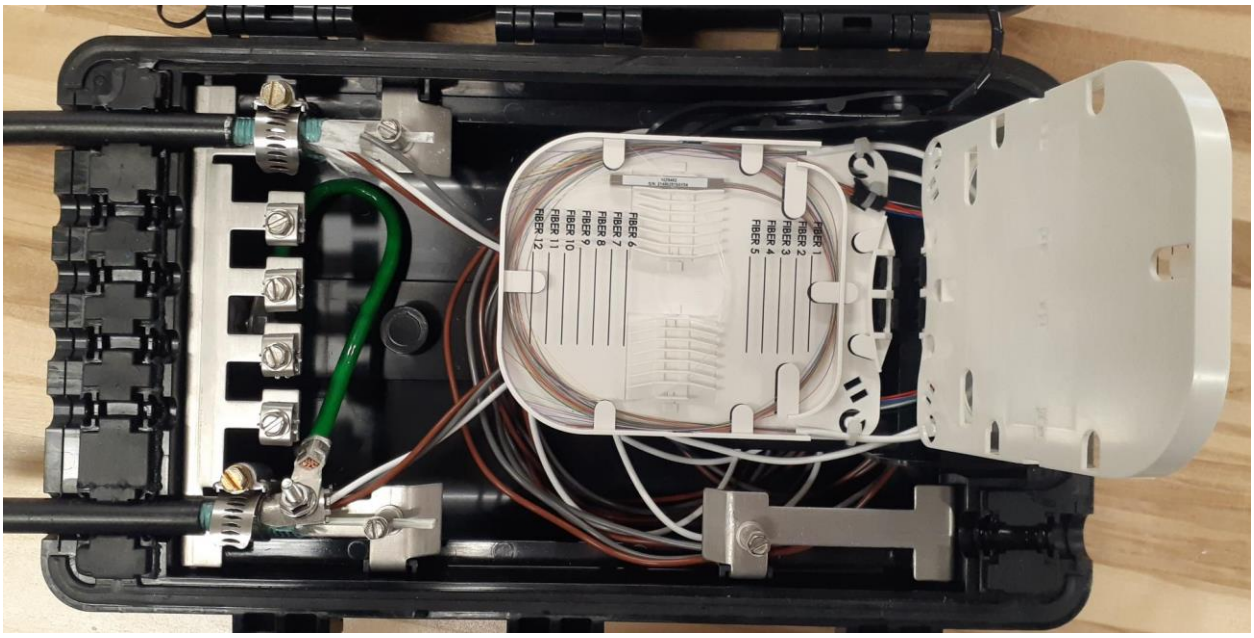


Install fusion splice sleeves as network design dictates.

After fusion splices are installed, install fiber splice tray cover ensuring no fiber extends outside the fiber tray by inserting your finger into the hole and bending slightly, insert the tab on one side of the cover into the slot in the tray and push the other side into the opposite slot.

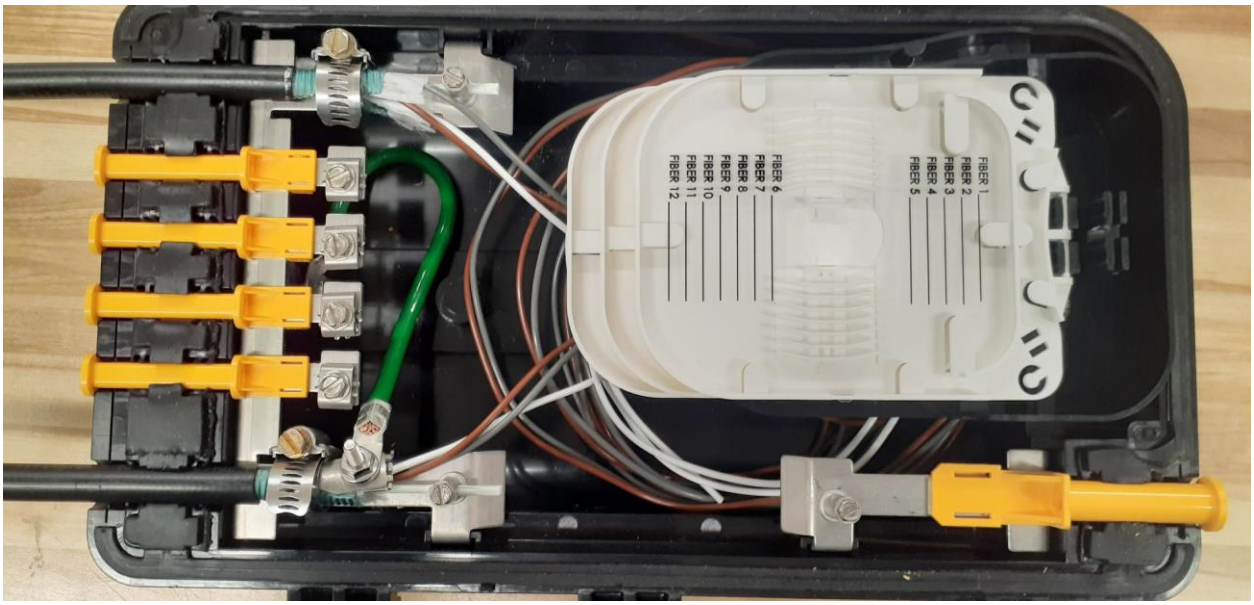


Install remaining two splice trays with their covers, if no other fiber are needed, by pushing the tray back into the tray holder base and closing the tray.



Note: it is recommended that you install the bottom splice tray and sub-units first and work your way to the middle and then the top fiber tray. Route the fiber sub-units as previously described for any other fibers being installed into the other trays.

Install the yellow Port plugs from accessory kit into all unused fixed gel entry and exit points. Port plugs will snap into brackets on both ends.



Close cover and secure the 3 latches. Cable ties, lockout tags or other solutions can be used to 'secure' the closure to prevent further access

The installation is now complete.