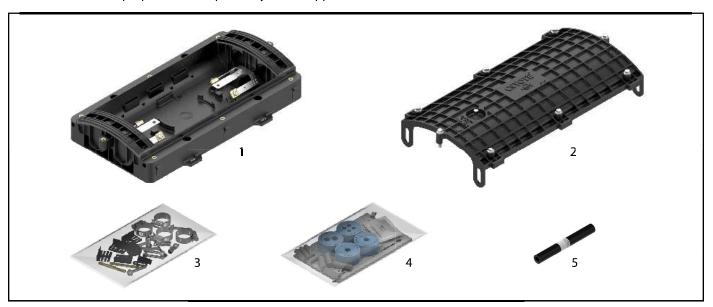
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### **INSTALLATION INSTRUCTIONS**

FS150

# In-Line Closure

Be sure to read and completely understand this procedure before applying product. Be sure to select the proper Panduit Splice Tray before application.



### NOMENCLATURE

- 1. Base with End Caps Standard Base Shown (1)
- 2. Cover (1)
- 3. Small Parts Bag (1)
- 4. Grommet Kit Includes 4 Grommets (1)
- 5. Torque Limiting Tool Included in Flame Retardant Closure Kits Only (1)

### TOOLS REQUIRED

- 3/8" & 7/16" Can wrench or socket wrench
- Side Cutters
- Snips
- Fiber optic cable opening tools
- Utility knife
- Pliers

Splice Tray Capacity Chart for In-Line Closures (sold separately)					
Description	Image	Splice Type	Max Trays per Closure	Closure Max Splice Capacity	
Short Low Profi <b>l</b> e Splice Tray (24ct)		Single Fusion	4	96	
Short Deep Profile Splice Tray (40ct)		Single Fusion	2	80	
Short Deep Profile Splice Tray (144ct)		Ribbon/Mass Fusion	2	288	

Part Number	Description
ROFCI1810BR	In-Line Closure, Hermetically Sealed

Grommet Chart for In-Line Closures				
Cable Range Inches (mm)	Description	lmage	Slitting Location	
.40"60" (10 - 15mm)	1-entry grommet	100000		
.60"85" (15 - 22mm)	1-entry grommet	A STATE OF THE STA		
.85" - 1.0" (22 - 25mm)	1-entry grommet			
1.0" - 1.25" (25 - 32mm)	1-entry grommet			
.42"60" (11 - 15mm)	2-entry grommet		69	
.250"312" (6 - 8mm)	4-entry grommet		45	
.30"43" (8 - 11mm)	4-entry grommet	100 J	45	
.50"60" (13 - 15mm) .125"25" (3 - 6mm) and flat drop	4-entry grommet		N/A	
.125"25" (3 - 6mm) and flat drop	6-entry grommet		1	
.42"60" (11 - 15mm) .125"25" (3 - 6mm) and flat drop	7-entry grommet		5	
.093"125" (2 - 3mm)	8-entry grommet			
.125"25" (3 - 6mm) and flat drop	8-entry grommet		N/A	

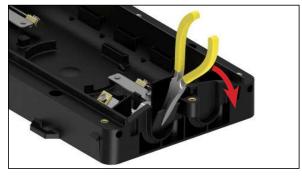
### **Base Preparation**

Step #1 Remove the end plate caps from the base.

Step #2 Determine which cable port tabs will need to be removed from the base and score the edges of each tab several times with a utility knife.



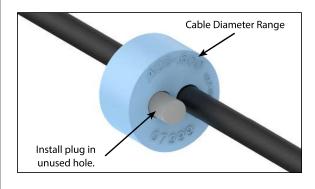
Step #3 Remove each tab by pulling the tab outwards from the base with pliers.



## Feed & Branch Cable Preparation

Measure the cable to determine the diameter and hole location to use in the grommet.

Step #5 If using cut cable, insert the cable through the grommet. If your application requires express/balloon/ring cut cables, see Step 7 for the grommet slitting procedure.



Step #6

Installing Figure 8 Style Cables and Cables with Tracer Wires

Remove the tracer wire or ground wire from the portion of the cable that will be positioned in the grommet and insert the cable into the grommet.

Cable with Tracer Wire

Not Correct Installation

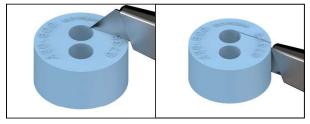
Figure 8 Style Cable

Not Correct Installation

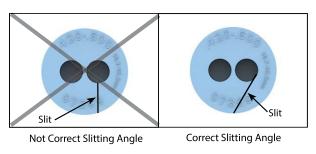
Correct Installation

Correct Installation

Step #7 Grommet Slitting – If slitting is required, lay the grommet on a stable flat surface. Position the utility knife with the cutting edge against the top surface and cut through the grommet. Consult the grommet chart on page 2 for slitting locations of all grommets.



Tip: Use a pen to sketch slitting lines on top surface of grommet prior to cutting.



Step #8 Prepare the feed, branch, and/or drop cable(s) for cut applications.

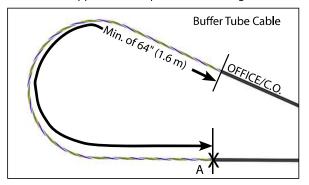
Min. of 64" (1.6 m)

Minimum Sheath Opening for Cut Cable Applications
64"

1.6 m

NOTE: Leave about 8" (203 mm) of the cable strength member.

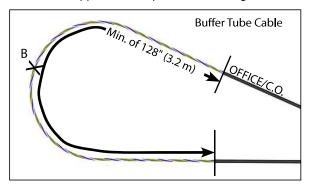
Step #9a Prepare the feed cable for mid sheath applications (Express/Balloon/Ring Cut).



For Applications Where Fiber is Dedicated to the Splice Point			
Configuration	Cut Location	Sheath Opening	
Unitube/Ribbon Expressed (Mid-Sheath)	Α	Min of 64" (1.6 m)	

NOTE: Leave about 8" (203 mm) of the cable strength member.

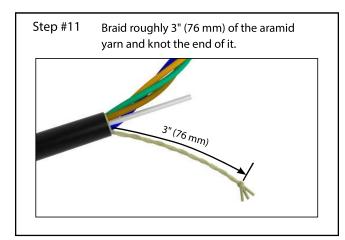
Step #9b Prepare the feed cable for mid sheath applications (Express/Balloon/Ring Cut).



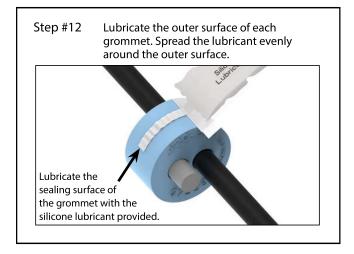
For Applications Where Fiber is NOT Dedicated to the Splice Point				
Configuration	Cut Location	Sheath Opening		
Unitube/Ribbon Expressed (Mid-Sheath)	В	Min of 128" (3.2 m)		

NOTE: Leave about 8" (203 mm) of the cable strength member.

Step #10 Trim the cable strength members 1.5" (38 mm) from the cable sheath opening.



### **Cable Grommet Installation**



Step #13a Position the grommets in the slots of the base.

Grommet Slit with the end plate seam.

Step #13b FOR IN-LINE APPLICATIONS

When only one cable port is being used at an end of the closure, install a grommet with plugs inserted in it, in the unused cable port. This will balance the load of the end plate cap.

NOTE: It is not necessary to break out the tab of the unused port.

**End Plate** 

Seam

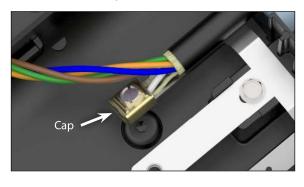


Step #14 Bend each leg of the cable restraint brackets upward until they contact the cable(s).





Step #15 Position the cable strength member under the cap of the cable restraint bracket. Wrap the braided aramid yarn around the screw and under the cap, then tighten the cap down.



Step #16 Secure the cables to the cable restraint brackets with the hose clamps provided.



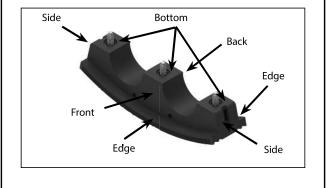
# **End Plate Cap Installation**

Step #17 Screw the hex head cap bolts into each end plate cap.





Step #18 Lubricate the end plate caps with the silicone lubricant that is provided on the areas indicated below.



Step #19a Install the end plate caps in the pockets of the base. Tighten the bolts of each end plate cap evenly until the end plate cap is fully sealed.

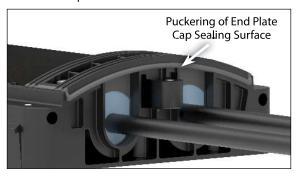
NOTE: DO NOT USE POWER TOOLS TO TIGHTEN THE BOLTS.





NOTE: When both cable ports are not being used at an end of the closure, it is not necessary to install grommets under the blank end plate cap.

Step #19b Check to see if the end plate caps are fully seated. The caps will be fully seated when the sealing surface puckers.



# **Buffer Tube Routing**

Install the tie down clips in the bottom of the base and route the expressed buffer tubes of the feed cable under the clips as shown below.

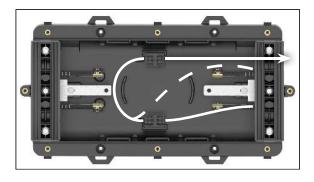
Tie Down Clips

Step #21 Route the feed buffer tube(s) with the fibers to be spliced under the tie down clip as shown below.

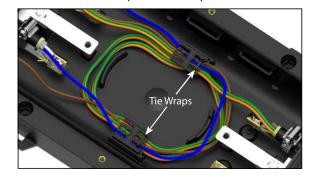
Step #22 Route the branch/drop buffer tube(s) under the tie down clips as shown below.



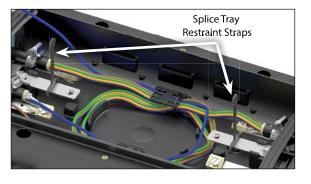
OR



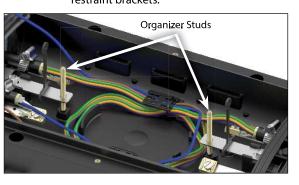
Step #23 Secure all the buffer tubes under the tie down clips with tie wraps.



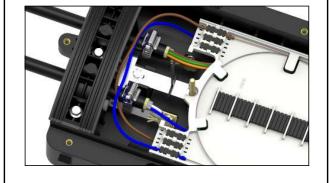
Step #24 Install the splice tray restraint straps onto the cable restraint brackets.



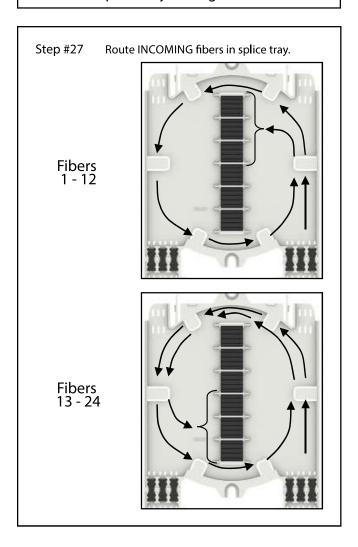
Step #25 Install the organizer studs into the cable restraint brackets.

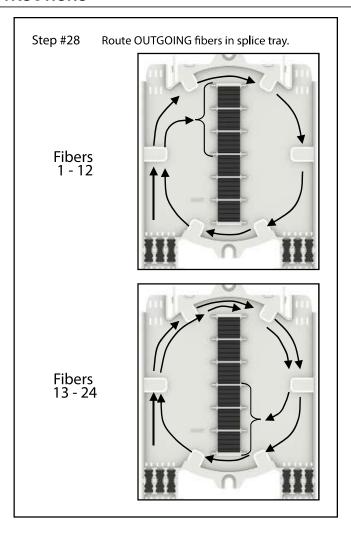


Step #26 Place the splice tray onto the organizer studs and route the buffer tubes to the splice tray.

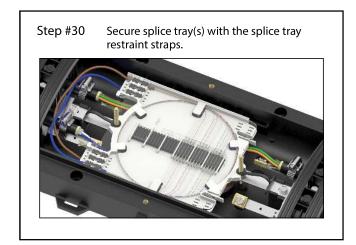


# Splice Tray Management





Step #29 Splice the incoming fibers to the outgoing fibers per your accepted company practice.



### **Cover Installation**

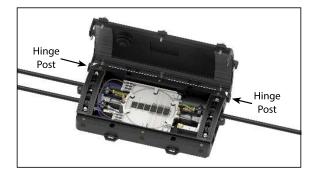
Step #31 Lubricate the cover gasket with the silicone lubricant provided.

Apply Lubricant Here

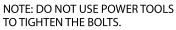
Apply Lubricant Here

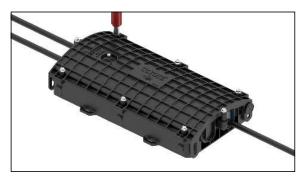
Step #32 Attach the cover to the base with the hinge posts.



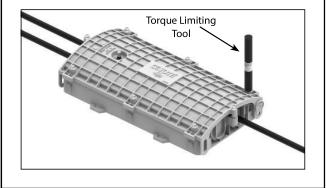


Step #33 Secure the cover to the base by hand tightening the hex head bolts.

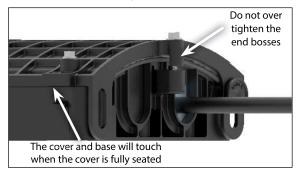




NOTE: The torque limiting tool must be used to tighten the hex head bolts of a flame retardant closure cover.



Step #34 Retighten all of the bolts to ensure the cover is fully seated on the base.



NOTE: The torque limiting tool must be used to retighten the hex head bolts of a flame retardant closure cover.

## Flash Test Procedure

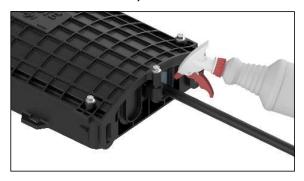
Step #35 Remove the cap from the air valve of the cover.

Step #36 Pressurize the closure up to a maximum of 5 psi.

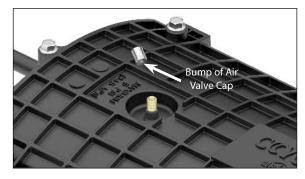




Step #37 Spray all of the sealing surfaces of the closure with soapy water to determine if there are any leaks.

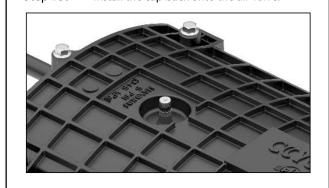


Step #38 Release the pressure in the closure using the bump on the top of the air valve cap.





Step #39 Install the cap back onto the air valve.



## **SAFETY CONSIDERATIONS**

This application procedure is not intended to supersede any company construction or safety standards. This procedure is offered only to illustrate safe application for the individual. FAILURE TO FOLLOW THESE PROCEDURES MAY RESULT IN PERSONAL INJURY OR DEATH.

Do not modify this product under any circumstances.

This product is intended for use by trained technicians only. This product should not be used by anyone who is not familiar with, and not trained to use it.

When working in the area of energized lines, extra care should be taken to prevent accidental electrical contact.

For proper performance and personal safety, be sure to select the proper size product before application.

To ensure proper performance, product should be stored in cartons under cover and handled carefully.

For Instructions in Local Languages and Technical Support:



E-mail: techsupport@panduit.com Phone: 866-405-6654