SST (SUPER SMALL TRANSITION) FIELD-INSTALLABLE RIGID FANOUT KITS AND BREAKOUT KITS

Components for the Rigid Fanout Kit and Breakout Kit include:

1. Gland Assembly (Tread Lock-nut, Washer, Nut)
2. Housing
3. Furcation Kit with Tubes and Manifold (Fanout Kit Part Numbers begin with “SSTS00”)
4. Breakout Kit with Mesh and Manifold (Breakout Kit Part Numbers begin with “SSTBB00”)

Table 1 – Cable Preparation Length

FURCATION LENGTH OF KIT	FITTING	CABLE PREPARATION LENGTH
40 in.	Rigid	60 in.
80 in.	Rigid	100 in.
120 in.	Rigid	140 in.

INSTRUCTIONS FOR THE RIGID FANOUT KIT AND BREAKOUT KIT

NOTE – For illustration purposes, the images in this document alternate between the Fanout Kit and Breakout Kit components; but the procedures are the same.

1. Cable Preparation Length

Using **Table 1** above, determine the correct cable preparation length based upon the kit furcation length and fitting type being used, and *mark the cable outer jacket* measuring from the termination end. If additional fiber length exiting the tubes/mesh is required for the application, add the additional length to the measurements in Table 1.

2. Cable and Kit Preparation

A. If provided, remove the nut from the gland assembly, this is not required for kit assembly. Leave the flexible washer on the gland assembly.

B. Slide the gland assembly and then the housing on the cable past the specified preparation length mark (**Figure 1**).

Then remove the measured length of cable jacket as per the cable manufacturer’s instructions.

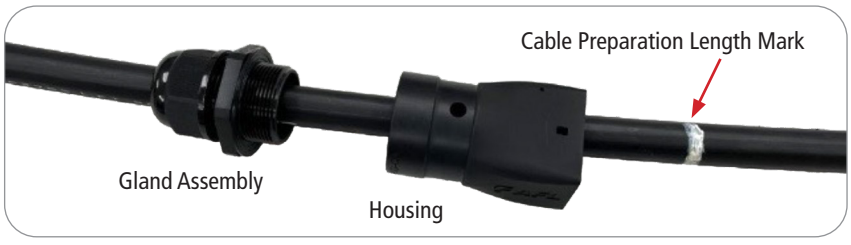

Figure 1

INSTRUCTIONS FOR THE RIGID FANOUT KIT AND BREAKOUT KIT (cont.)

3. Installing the Fibers Into the Furcation Manifold

A. Prior to preparing the fibers for insertion into the furcation manifold, if able, it is recommended to securely tape the manifold to a flat surface in either a vertical or horizontal position (**Figure 2**) or into a vice to make threading easier.

B. Carefully fanout each fiber sub-group in order based off the desired fiber grouping per tube/mesh (**Figures 3a and 3b**). **NOTE** – tape can be used at the end of the fibers to enable ease of routing through the manifold and tubing/mesh (**Figure 3c**).

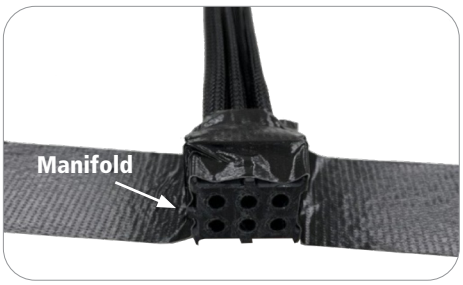

Figure 2

Figure 3a – Fibers with band markings

Figure 3b – Fibers in string binder groups

Figure 3c – Taping fiber ends

C. Insert each fiber sub-group into the manifold for routing into the individual fanout tubes/breakout mesh (**Figure 4a**) until the fiber emerges from the end.

When multiple fiber sub-groups need to be routed through the same fanout tube/breakout mesh, tape the leading end of the fiber bundles (including string binders) together so they can be inserted simultaneously to prevent kinking or binding of fibers within the tube/mesh (**Figure 4b**).

Be careful not to twist or wrap the fiber bundles around each other during this process.

It is recommended to start the first sub-group at the bottom left of the manifold and work from left to right within the row, then upward when each row is complete (**Figure 4a**).

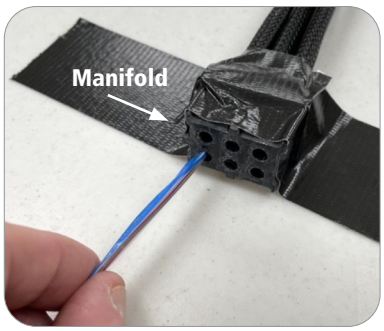

Figure 4a – Manifold taped to flat surface

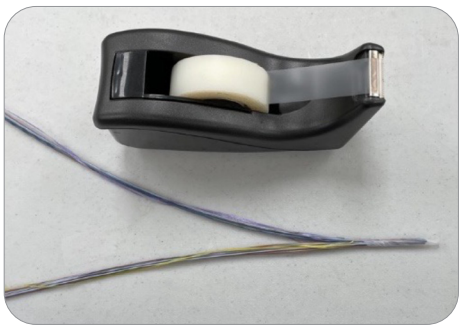

Figure 4b – Taped fiber ends

INSTRUCTIONS FOR THE RIGID FANOUT KIT AND BREAKOUT KIT (cont.)

D. Once all the fiber bundles have exited the tubes/mesh, mark and identify each with the labels provided in the kit.

E. Remove the manifold if it was secured to a surface or vice in **step 3A**. Next gently pull on the fiber bundle ends (**Figure 5a**) to carefully slide tubes/mesh along the fibers to bring the manifold and the housing together (**Figure 5b**). Leave 1-2 inches of fiber visible between the manifold and the end of the housing, do not yet join the housing to the manifold (**Figure 5b**).

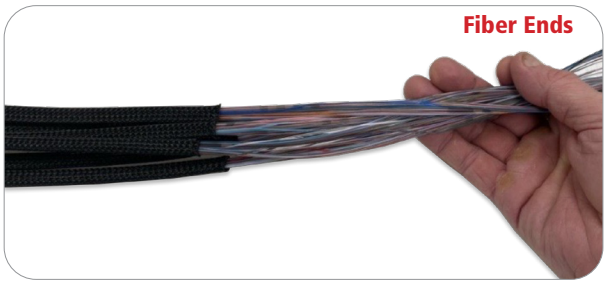

Figure 5a

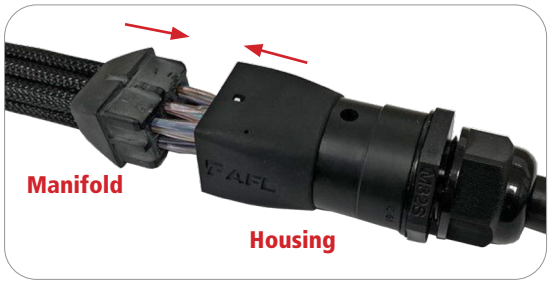

Figure 5b

F. Slide the gland assembly (placed on the cable jacket in **step 2B**) up the cable jacket so that the end of the cable jacket aligns with the end of the gland assembly opposite the tread lock-nut (**Figure 6a**). **NOTE** – do not tighten the gland tread lock-nut to the cable jacket yet.

Next screw the gland assembly "to" the housing being careful not to twist the fibers, and then secure the gland assembly to the cable outer jacket by screwing the tread-lock sealing nut until it is fixed securely on the cable(**Figure 6b**).

Ensure the gland is fixed tightly on the cable so no slippage will occur.

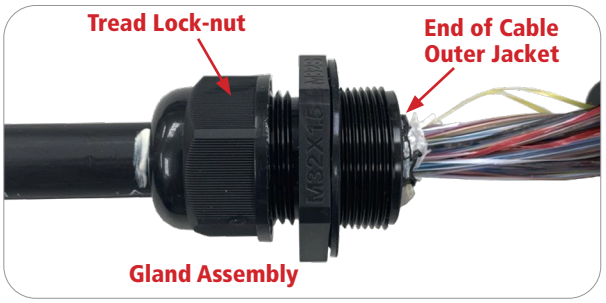

Figure 6a

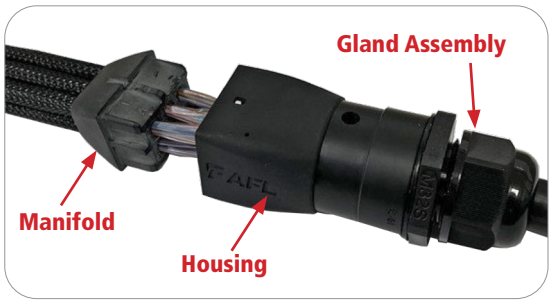

Figure 6b – Gland Assembly joined to Housing

INSTRUCTIONS FOR THE RIGID FANOUT KIT AND BREAKOUT KIT (cont.)

4. Joining the Manifold and Housing

Move the manifold toward the housing by holding the fiber ends that have exited the tubes/mesh and slide the manifold along the fibers toward the housing.

Ensure no fiber slack or twist is created at the housing-manifold junction which could create fiber macro-bends inside the housing.

Join the housing to the manifold (**Figure 7a**) taking care to orient the housing so the three notches inside the housing align with the three protrusions on the tube manifold (**Figures 7b and 7c**).

Snap the housing and manifold together, an audible click will indicate engagement.

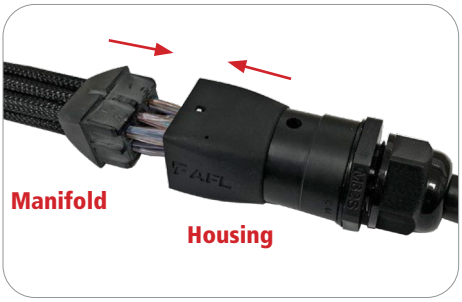

Figure 7a

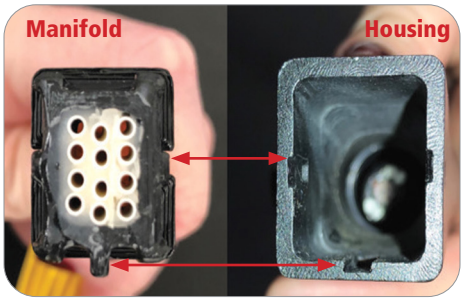

Figure 7b

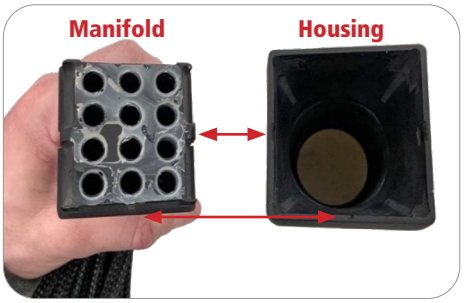

Figure 7c

5. Completed Assembly

The fanout/breakout kit is now fully assembled (**Figures 8 and 9**).

Figure 8

Figure 9

6. Fiber End Preparation

As the last step, gently pull all fiber ends exiting the fanout/breakout tubes to ensure there are no bends inside the tubes/mesh.

Remove the last 3 inches of fiber exiting the tubes/mesh to remove any tape or fiber that may have been damaged during the preparation process.

There should now be at least 12-14 inches of bare fiber exposed from the of the tubes/mesh, if additional fiber length exiting the tubes/mesh is required for the application, add the additional length to the measurements in Table 1.

The sub-unitized fibers may now be dressed and terminated as per the application.