

RECOMMENDED Procedure

Sumitomo Electric Lightwave Corp.
Phone: 919-541-8100
Toll Free: 800-358-7378
Web: www.sumitomoelectric.com

SP-F01-014 Self-supporting Figure-8 Drop Cable Midspan Access, Issue 2

Contents	Page
1.0 General.....	1
2.0 Safety Precautions	1
3.0 Reference Documents	1
4.0 Tools Required.....	2
5.0 Cable Preparation.....	2
6.0 Buffer Tube Entry	3-4

1.0 General

For some applications, being able to access a fiber from the middle of a cable without disturbing the other fibers is necessary. This technique is called Mid-Span access. This procedure describes the steps in performing a Mid-Span access in FTTP Aerial Drop Cables.

The self-supporting Figure-8 Drop cable, intended for FTTP aerial drops to customer premises, contains up to 12 optical fibers. The color-coded fibers are protected inside a gel filled loose buffer tube. A black flame retardant indoor/outdoor PE jacket covers both the cable core and a 3.0-mm steel messenger.

2.0 Safety Precautions

The use of safety equipment is strongly recommended during the cable preparation procedure. This includes the use of protective clothing and eye wear.

3.0 Reference Documents

SP-F01-012 FTTH Aerial Drop Cable Prep Guidelines

4.0 Tools Required

The following tools and materials are required to complete this procedure.

1. Sheath Knife
2. Dry Rag
3. Shears
4. Buffer Tube Remover (Blue Coax Cutter)
5. Cotton Gauze Pads
6. Isopropyl Alcohol
7. Gloves
8. Safety Glasses

5.0 Cable Preparation

5.1 Measure and mark the appropriate length of the window to be opened in the cable for the particular application.

5.2 With the utility knife separate the steel messenger from the cable core. (Figure 1)

Note: To create enough slack in the cable it may be necessary to separate the messenger 12 to 16 inches longer than the measured window.



Figure 1

5.3 With the utility knife, ring cut the cable jacket at both marks.

5.4 Remove the outer jacket material between the ring cuts by using the sheath knife and shaving the jacket along the strength members (fig 2). Trim back jacket material and remove. Leave the strength member long enough for securing per the recommendations of the closure manufacturer.



Figure 2

6.0 Buffer Tube Entry

6.1 For accessing individual fibers in a buffer tube without cutting other fibers in that tube, a tube mid-span entry needs to be performed. Otherwise, cut the buffer tube and fibers with the electricians' scissors and use the standard procedure to remove the buffer tube from either end with the buffer tube removers.

6.2 To enter the buffer tube without cutting the fibers, a special tool for slitting the tube is necessary. Sumitomo recommends the use of a Pocket Tube Shaver. Measure the buffer tube diameter to determine which size tool to use. For general reference, the table below can be used.

Sumitomo Cable Fiber Count	Pocket Tube Shaver
1-12	3.0 mm

Table 1

6.3 Following procedures from the tool manufacturer provided with the tool, open an access window in the side of the buffer tube. Make a window only as large as necessary for routing the fibers in the splice tray. Leave some buffer tube on the fibers for routing to purposes within the closure.

NOTE: A Pocket Tube Shaver uses a blade to take a slice out of the side of the buffer tube, exposing the uncut fibers (fig-3).

HELPFUL HINTS: Sumitomo recommends keeping the buffer tube straight as possible when using the shaver. Proper adjustment of the shaver's blade depth with the provided gauge tool is essential for a successful tube mid-span access.

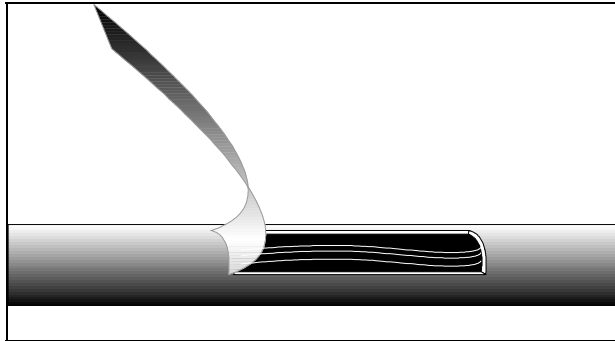


Figure 3

6.4 Using a thin spatula, pull the fibers out of the shaved buffer tube. Locate the fiber(s) of interest and cut if necessary.

NOTE: At this time, the shaved portion of the buffer tube can be cut away exposing all of the fibers or can be left to house the un-cut fibers.

6.5 The Mid-Span access procedure is complete. Follow closure assembly procedures or other procedures to finish installing the cable. Lay un-cut fiber in a splice tray and route the un-cut buffer tubes within the closure.