

## SUMITOMO RECOMMENDED PROCEDURE

### SRP SP-F05-041

#### Installation Procedure for 3RU Rack Mount Enclosure – Single Fiber Splice Version

<b>PARA.</b>	<b>CONTENTS</b>
1.0	General
2.0	Safety Precautions
3.0	Reference Documents
4.0	Tools & Procedure Required
5.0	Installation of 3RU Rack Mount Enclosure in Rack
6.0	Installation of the Cable Strain Relief Mounting Bracket
7.0	Installation of Single Fiber Cable



#### **SUMITOMO ELECTRIC LIGHTWAVE CORP.**

201 South Rogers Lane, Suite 100, Raleigh, NC 27610

(919) 541-8100 or 1-800-358-7378

[www.sumitomoelectriclightwave.com](http://www.sumitomoelectriclightwave.com)

SEL is a Member of the Sumitomo Electric Industries, Ltd. Group

*Sumitomo Electric Lightwave reserves the right to improve or modify these specifications without notice.*

## 1.0 General

Please read the complete procedure before attempting these installation steps. Keep this procedure for future reference.

## 2.0 Safety Precautions

This manual includes safe installation requirements that will help in avoiding injury to persons and damage to property. The meanings of indications and symbols are listed below.

### 2.1 Danger:

Improper handling and ignoring the precaution(s) may cause serious injury.

### 2.2 Warning:

Improper handling and ignoring the precaution(s) below may cause injury or death.

- Do not place the Rack Mount Enclosure on unstable surfaces.
- Practice safe carrying techniques to prevent slipping / falling injuries.
- When mounting this equipment, observe safe techniques to prevent injuries caused by falling parts and / or tools.

### 2.3 Caution:

Improper handling and ignoring the precaution(s) below may cause damage to equipment and property.

- Use added caution when opening / closing doors and covers to avoid pinching hands or fingers.
- Watch out for protruding objects when bending down or standing up near cabinet(s) or rack(s)

- Use caution when handling coiled / uncoiled cable. The process of uncoiling may place the cable in an unsafe high tension state.

### 2.4 Request:

Improper handling and/or ignoring the precautions below may prevent the proper utilization and function of the optical fiber / cable.

- Do not violate cable bend radii.
- Do not violate fiber bend radii.
- Prior to splicing optical fiber, please refer to the manufacturer's instruction manual.

## 3.0 Reference Documents

**SP-F04-006** Fiber Bundle Stripping Procedure

## 4.0 Tools & Procedure Required

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

1. Rack Mount Enclosure
2. Philips head screw driver
3. Tape Measure
4. Utility Knife
5. Electrician's Scissors
6. Marking Pen
7. Pliers
8. Anti-Cut Gloves
9. Safety Glasses
10. Multi gauge (10 to 20 gauge) wire stripper
11. FFK-025Kit150F 1/4" or FFK-038KIT150F 3/8" Furcation Kit (sold separately)(If applicable)



**FSPRM-03-K672SS**  
Rack Mount Splice  
Enclosure

## 5.0 Installation of Rack Mount Splice Enclosure in Rack

5.1 Remove the enclosure from the packaging

5.2 Predetermine the rack location and install the enclosure into the rack with the included mounting screws.



## 6.0 Installation of the Cable Strain Relief Bracket

6.1 Remove the bracket kit from the packaging.

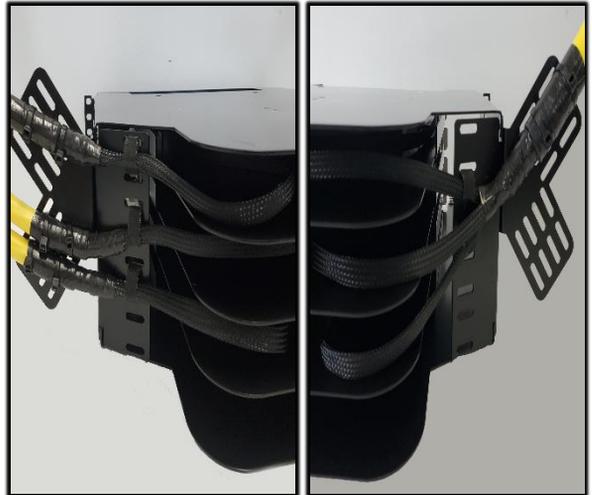
6.2 Bracket has three mounting locations on each side at the rear of the enclosure. One at the top side using top two holes, one using the middle two holes and one using bottom two holes to easily secure cable for fiber entry into the tray channels.



6.3 The bracket allows for cables to enter from the top side or bottom side of the enclosure.

6.4 Attach the bracket base to both sides of the 3RU using the provided hardware and predrilled mounting holes.

**NOTE:** Brackets will be installed on the left and right side, for both entrance and exit cables.



## 7.0 Installation of Single Fiber Cable

Approximately 70 inches (minimum) of exposed fiber is needed for each cable. For each cable mounted onto the strain relief bracket this will allow for enough slack for the splice tray to be fully extended into the drop down position. There will also be 36 inches of fiber available for each splice tray.

### 7.1 Exposing the Cable's Fibers

It is recommended to follow the standard procedures (SRP) provided by the manufacturer for the specific fiber optic cable being used.

**NOTE:** Use a long flat surface for this step.

7.2 Measure and mark the calculated length of cable jacket that is to be removed (about 70 inches).

7.3 Safely remove the marked length of jacket, the strength elements and the rip cords, all without damaging the fibers. Exposing fibers.

#### 7.4 Installing Cable into 3RU Enclosure

A furcation sock is only required for installation in the situation the fiber's do not have protection when installing the cable. To install the fibers into the sock, first place a piece of tubing provided in the furcation kit and cut (approximately 30 inches long) into the transition sock cut (approximately 30 inches long). 30 inches of slack fiber will allow the splice tray to be fully extended to the down position.

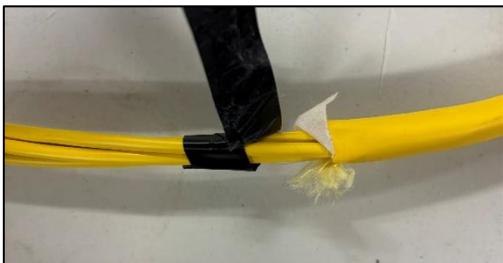
7.5 Insert the first group of fibers into the furcation sock.



7.6 Once the fibers have exited the furcation sock, gently pull the tube out of the sock and off of the fibers

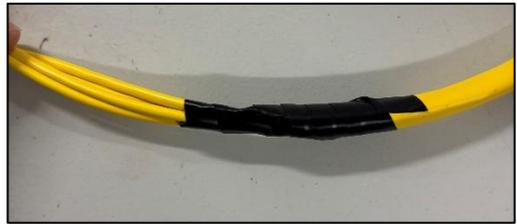
7.7 Repeat this process **if** a sock is being used for all groups of fibers and label them accordingly.

7.8 Once all fibers are completed secure furcation socks to the central tube with electrical tape.

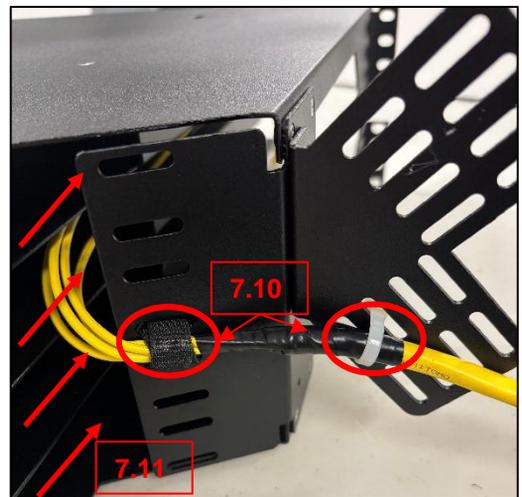


7.9 Next, secure the entire cable jacket end and subunits with rescue tape/electrical tape

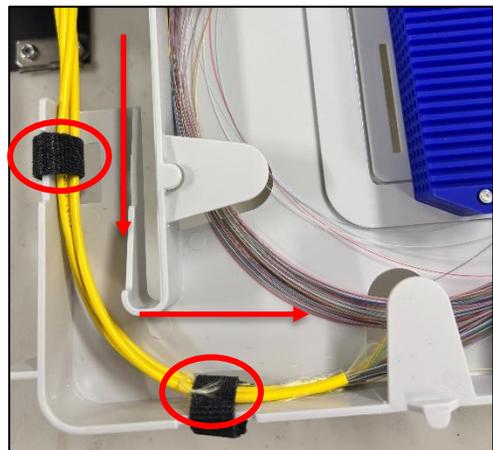
**NOTE:** No furcation sock is used in the above image due to fibers being protected in subunits



7.10 Secure the cable or cables to the strain relief brackets located at the rear of the 3RU shown below:



7.11 With the splice tray fully extended into the down position, slide the chosen fiber subunits from the backside of the 3RU to the splice tray in the tray channels until it reaches the entry point on the desired splice tray. Secure cables sheaths in the two positions with Hook & Loop straps. See images above and below:



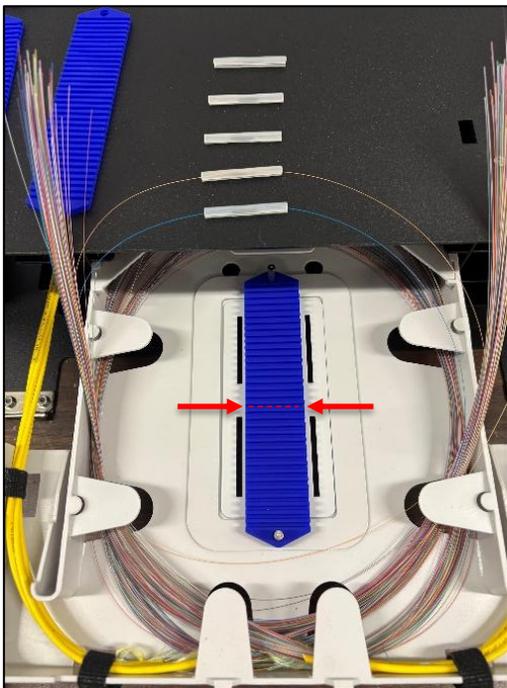
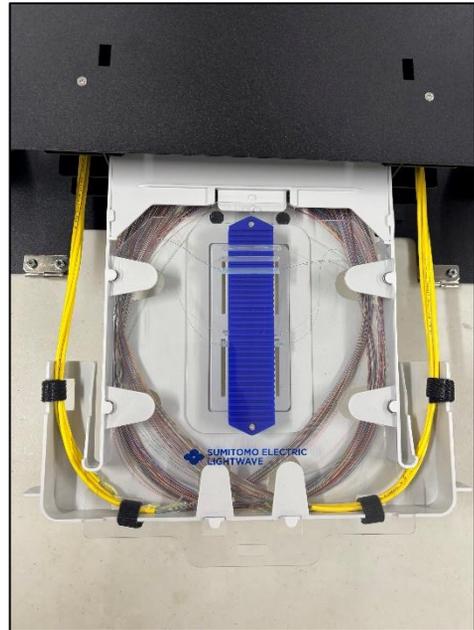
**7.12** Neatly organize the fibers into the splice trays. The four splice trays have a capacity of 168 fibers each, for a total of 672 fibers in the 3RU Rack Mount Enclosure. Each tray contains 5 single splice holders that are removable. After both entrance & exit cables are installed the single fibers are now ready for fusion splicing.

**7.13** Remove the lid from the top of the tray and remove all, but the last rubber blue single splice holder at the bottom (5 stacked in total per tray).

**7.14** Begin with the lowest splice holder. Insert sleeved-fusion spliced connections into each slot in the individual splice holder.

**7.15** Repeat for each splice holder starting from the bottom, stacking on top of the previous holder until tray is filled or all splices are completed

**7.16** Splice the fibers and place the sleeved connection into the grooves of the splice holders. Slide lid over splice tray when finished. Repeat steps for next splice tray.



**FTHFC-IMST168SS**

**7.17** Completed enclosure after all cables are routed to the splice trays.

