SUMITOMO RECOMMENDED PROCEDURE

SRP SP-F05-030

Installation Procedure for 3RU Rack Mount Enclosure

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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 or ribbon bend radii.
- Prior to splicing optical ribbon fiber, please refer to the manufacturer's instruction manual.

3.0 Reference Documents

SP-F02-039 Pliable Ribbon Outdoor/Indoor Riser LSHF Cable Preparation
SP-F02-039 Pliable Ribbon Outdoor/Indoor Riser LSHF Cable Preparation

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. UCTS-001 Universal Central Tube Slitter
11. Ripley's RCS-114 or RCS-158 Cable Stripper

FSPRM-03
Rack Mount Splice Enclosure

5.0 Installation of Rack Mount Splice Enclosure in Rack

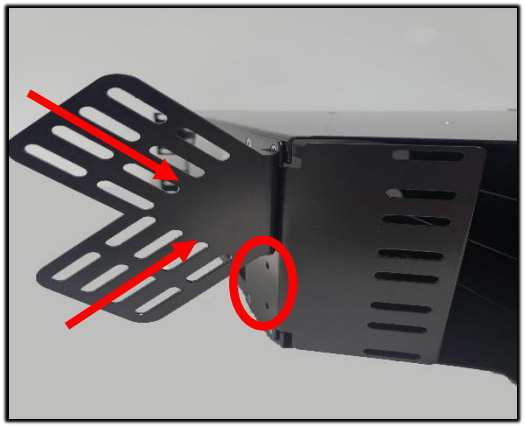
5.1 Remove the enclosure from the packaging

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.

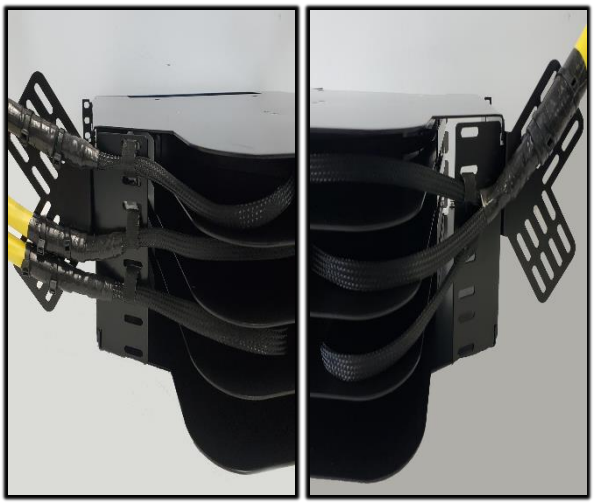
6.2 Bracket has three mounting locations on each side at the rear of the enclosure. One at the top side using top two holes, one using the middle two holes and one using bottom two holes to easily secure cable for fiber entry into the tray channels.



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 Ribbon Cable

Approximately 70 inches (minimum) of exposed ribbon 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 Ribbons.

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.

7.3 Safely remove the marked length of jacket, the strength elements, the rip cords, leaving 1 ½ inches of central (buffer) tube, all without damaging the ribbon fibers.

7.4 Cable Entry Procedure

This procedure involves opening a window in the cable jacket at the desired distance from the cable end, exposing and then cutting the strength elements and central (buffer) tube, then sliding the central (buffer) tube, strength elements and jacket off, exposing the ribbons. Refer to step by step instructions below.

7.4.1 Measure and mark the appropriate length of cable jacket to be removed.

7.4.2 Using the Ripley's RCS-114 or RCS-158 Cable Stripper, ring cut the jacket once at the mark and again approximately 6 inches towards the cable end.

7.4.3 Using the Ripley's RCS-114 or RCS-158 Cable Stripper, make one longitudinal cut along the jacket between the two ring cuts. Using pliers, remove the jacket exposing the strength elements. (Figure 1).

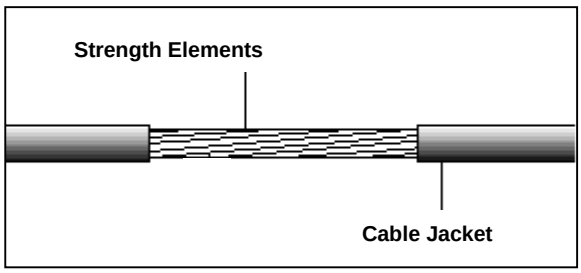


Figure 1

7.4.4 Midway along this exposed window, cut the strength elements with electrician scissors to expose the central (buffer) tube underneath (Figure 2).

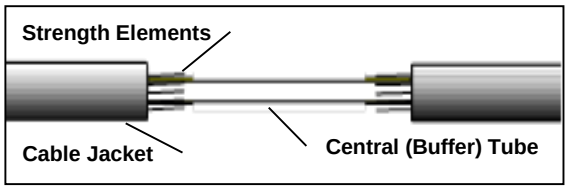


Figure 2

Note: This cable construction contains no metallic elements, therefore grounding is not required.

7.4.5 Using a standard buffer tube remover, coaxial cutter or UCTS-001 tool, ring cut the central tube leaving the appropriate length at the cable end (1 ½ inches). Score the tube, cutting ~3/4 of the way through the plastic. Avoid cutting completely through the plastic as this may damage the optical fiber ribbons. Bend the tube gently at the score to cleanly separate the tube at the cut.

7.4.6 Carefully slide the tube, strength elements and jacket off to fully expose the ribbon fibers (Figure 3).

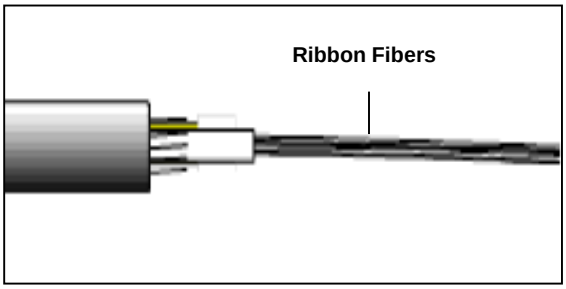


Figure 3

7.4.7 Separate the exposed ribbons into needed groups depending on the number of fibers being routed to each splice tray.

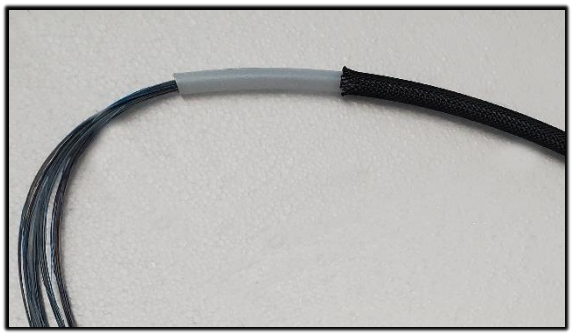
NOTE: *Untangle the ribbons throughout this step and group them accordingly and label.*

7.4.8 Use the supplied sock furcation kit. The supplied sock material is black but colored sock material may be used if desired.

7.5 Installing Cable into 3RU Enclosure

To install the ribbons 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.

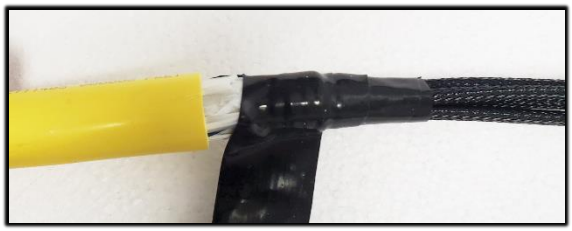
7.6 Insert the first group of ribbons into the furcation sock.



7.7 Once the ribbons have exited the furcation sock, gently pull the tube out of the sock and off of the ribbons.

7.8 Repeat this process for all groups of ribbons and label them accordingly.

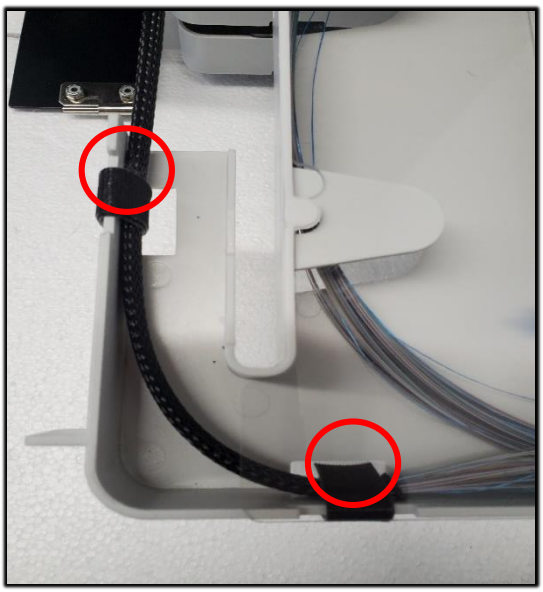
7.9 Once all ribbon groups are completed secure furcation socks to the central tube with electrical tape.



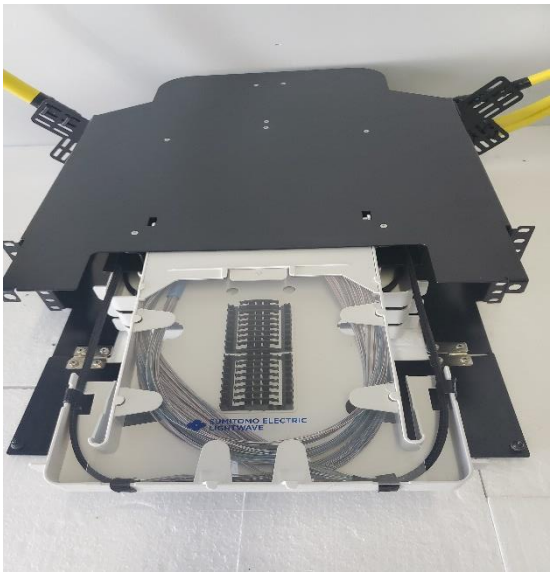
7.10 Next, secure the entire cable end with rescue tape provided in furcation kit.

7.11 Secure the cable or cables to the stain relief brackets located at the rear of the 3RU.

7.12 With the splice tray fully extended into the down position, slide the sock and ribbons from the backside of the 3RU beside of the splice tray in the tray channel until it reaches the entry point on the splice tray. Secure sock in the two positions with Hook & Loop straps.



7.13 Neatly organize the fiber ribbons into the splice trays. Splice trays have a capacity of 432 fibers each, for a total of 1728 fibers for the 3RU Rack Mount Enclosure. After both entrance & exit cables are installed the ribbons are now ready for fusion splicing.



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