SUMITOMO RECOMMENDED PROCEDURE

SRP SP-F05-031
PrecisionFlex Pre-Terminated Patch Panel Installation

SUMITOMO ELECTRIC LIGHTWAVE

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

1.0 General

Please read and understand thoroughly the contents of this procedure before use. This procedure describes the required steps for installing Sumitomo's PrecisionFlex® Pre-Terminated Patch Panels.
Note: This procedure is the same for the 1RU-6RU versions.

2.0 Safety Precautions

Danger: Improper handling and/or ignoring the safety precautions may cause serious injury.

Warning: Improper handling and ignoring the following may cause injury or death.

- Do not rest or secure a patch panel on an unstable surface.
- Do not stand or walk on an inclined, angled or uneven surface while carrying.
- Always secure the product on a stable surface to prevent it from falling.
- Always ensure the standing work area is clear of clutter to avoid trips or falls.
- When working at an elevation be careful not to drop tools or hardware.

Caution: Improper handling and ignoring the precautions below may cause injury or damage to equipment and property.

- Use added caution when opening/shutting doors and covers to avoid pinching hands or fingers.
- Watch out for protruding objects when bending down or standing up near cabinet edges or corners they can be dangerous.
- Use caution when handling cables. Rigid cable may move unexpectedly and cause harm.

Request: Improper handling and ignoring the precautions below may prevent the utilization and functionality of the enclosure as intended or cause the suspension of work.

- Always maintain minimum cable bend radius.
- For the optical fibers, do not exceed the minimum bend radius of 30mm.
- For splicing of optical fiber, it is important to refer to the instruction manual provided with the splicing machine.

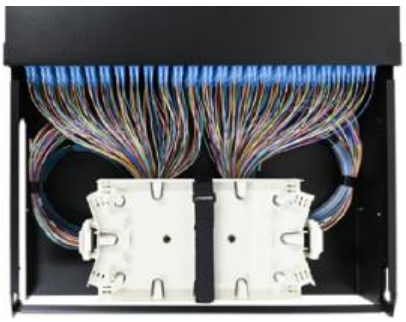
3.0 Tools Required

The following list defines the minimal set of tools and materials required to complete this procedure.

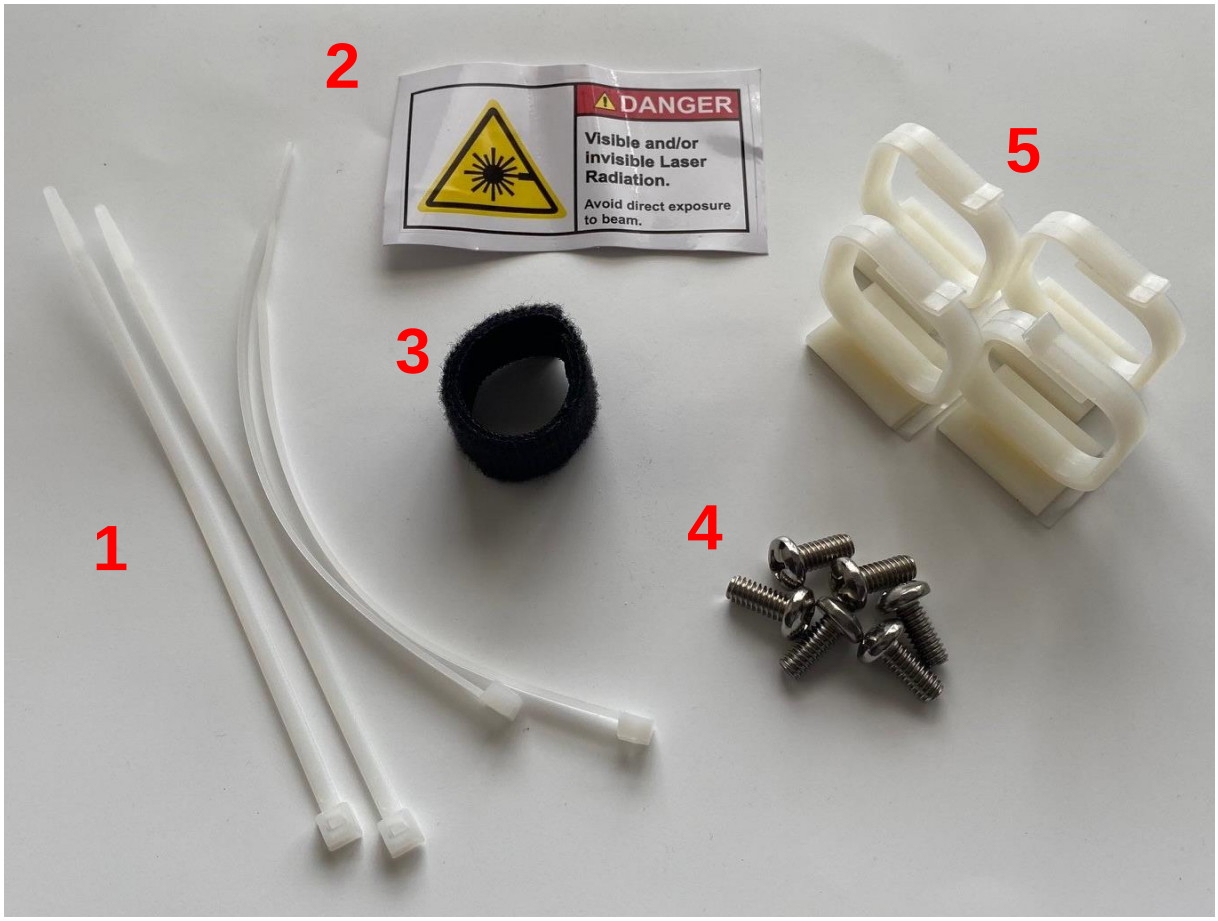
- Philips Head Screw Driver
- Ripley's RCS-114 / RCS-158 Cable Stripper
- UCTS-001 Tool
- Utility Knife
- Cable Cutter and/or Fiber Strippers
- Scissors
- Gloves
- Safety Glasses

4.0 Panel and Accessories

4.1 PrecisionFlex® Pre-Terminated Patch Panel



4.2 Included Accessories for a PrecisionFlex Pre-Terminated Patch Panel.



1. **Tie Wraps (4)**
2. **Caution Label**
3. **Hook and Loop Strap**
4. **1/2” Pan Head Screws (6)**
5. **Cable Management Clips (4)**
6. **Cable Entry Port Cover (not pictured)**

5.0 Installation of Panel into Rack

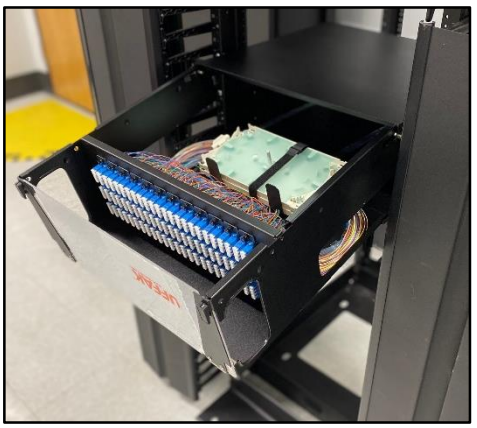
5.1 Remove the panel from the packaging.

5.2 Predetermine the rack location and install the panel into the rack with the included ½" Pan Head Screws.

Panel Mounted to rack using large screws

5.3 Open the Front faceplate by pulling up on both Latches (front sides).

5.4 Pull the latching pins on both sides to allow the shelf to extend out. The panel will tilt downward when fully extended. The shelf can also be removed by pulling the latching pins when fully extended.

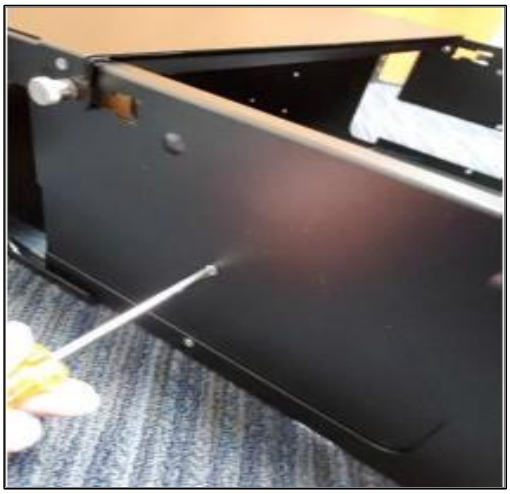


Panel shelf tilted downward

Panel shelf removed

5.6 Cable Entry Port Cover Installation.

On the Non-Cable Entry side of the shelf
Install the Port Cover using existing 3/8” screws.

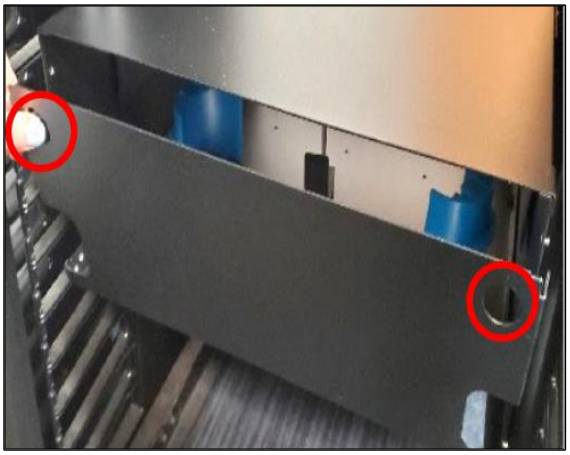


Cover (included) installed for non-cable entry side

6.0 Cable Entry Housing Installation

6.1 Install the Patch Panel back into the rack and slide the Tray all the way back until it stops.

6.2 Remove back cover for easier access (see below). This must be done after the panel is secured in the rack.



Remove back cover by pulling back on tabs on back cover near circular cutouts.

6.3 Remove the left and right screws from the housing cover and lift up on the cover to remove it from the housing base.

6.4 Attach the Cable Entry Housing base to the side of the panel using the provided hardware and pre-drilled mounting holes. **Figure 1** shows list of compatible cable entry housings for each PrecisionFlex Patch Panel.

NOTE: *It can be installed on either the left or right side, depending upon which side is being used for cable entry.*

Item Number	Rack Unit	Cable Range	Braided Tubes Per Set	Compatible Items
FTK-0288	2RU	0.71-0.98 in (18-25 mm)	2	FT02L06; FT02H24; FTLO6ST; FT02H24ST
FTK-0576	3RU 4RU	0.787-1.02 in (20-26 mm)	4	FT03L09; FT03H36; FT04L12; FT04H48; FT04L12ST; FT04H48ST
FTK-0576-2RU	2 x 2RU	0.875-1.26 in (22-32 mm)	4	FT02L06; FT02H24; FT02L06ST; FT02H24ST
FTK-0864	3 x 2RU	0.875-1.26 in (22-32 mm)	6	FT02L06; FT02H24; FT02L06ST; FT02H24ST

Figure 1: Cable Entry Housings

7.0 Installation of Cable

The lengths of exposed ribbon fiber should be calculated, factoring in the location of the PrecisionFlex Patch Panel and the amount of slack ribbon fiber required in the splice trays.

7.1 Expose the cable's ribbons.

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

7.2 Install the cable entry housing cover the cable.

7.3 Measure and mark the calculated length of cable to be removed.

7.4 Safely remove the marked length of jacket, strength elements, the rip cords, and the central (buffer) tube, all without damaging the ribbon fibers.

7.5 Access the Cable
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.

7.5.1 Measure and mark the appropriate length of cable jacket to be removed (typically 8 – 10 feet).

7.5.2 Using the Ripley's RCS-114 or RCS-158 Cable Stripper, ring cut the jacket once at the mark and again approximately 12 inches towards the cable end.

7.5.3 Using the Ripley's RCS-114 or RCS-158 Cable Stripper, make two longitudinal cuts along the jacket 180° apart, between the two ring cuts. Using pliers, remove the two jacket halves exposing the strength elements. (Figure 2).

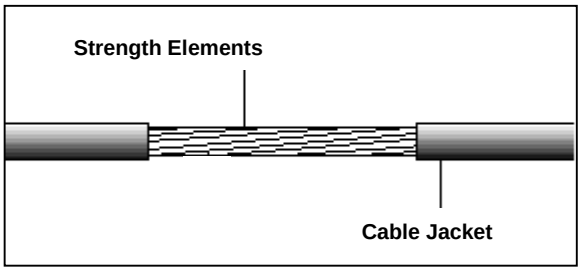


Figure 2

7.5.4 Midway along this exposed window, cut the strength elements with electrician scissors to expose the central (buffer) tube underneath (Figure 3).

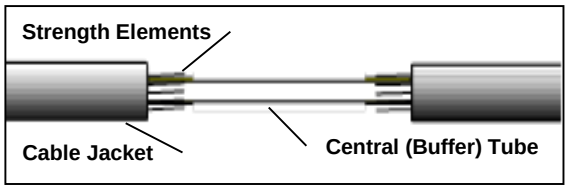


Figure 3

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

7.5.5 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 (typically 2-4 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.

7.5.6 Carefully slide the tube, strength elements and jacket off to fully expose the ribbon fibers (Figure 4).

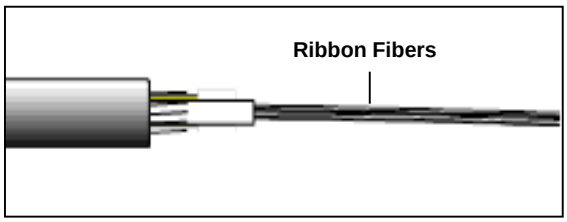


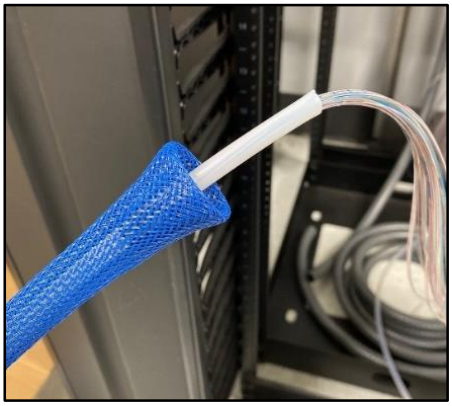
Figure 4

7.5.7 Separate the exposed ribbons evenly into groups by the number of transition socks included with the cable entry housing. Tape the ends of the ribbons for each group together.

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

7.6 To install the ribbons into the sock, first place a piece of tubing into the transition sock.

7.7 Insert the first group of ribbons into the tubing.



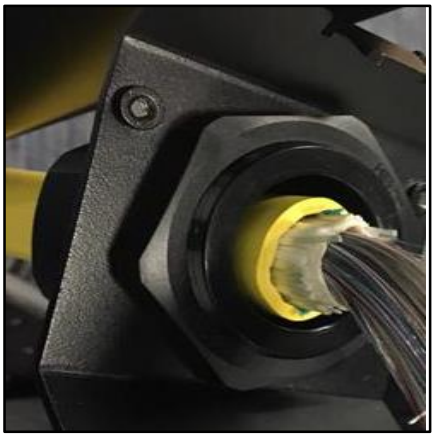
7.8 Once the ribbons have exited the tubing, gently pull the tube out of the sock and off of the ribbons.

7.9 Repeat this process for the second group of ribbons

7.10 Route the socks and ribbons through the cable entry housing base and into the back of the Patch Panel.

7.11 Position the cable jacket end into the gland and tighten the gland.

NOTE: *If cable diameter is too small for gland to properly secure, the cable can be wrapped with double rubber tape and then secured in gland.*



7.12 Reassemble the cable entry housing cover back onto the base.

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7.13 Route, splice, and neatly organize the socks in the back of the Patch Panel.
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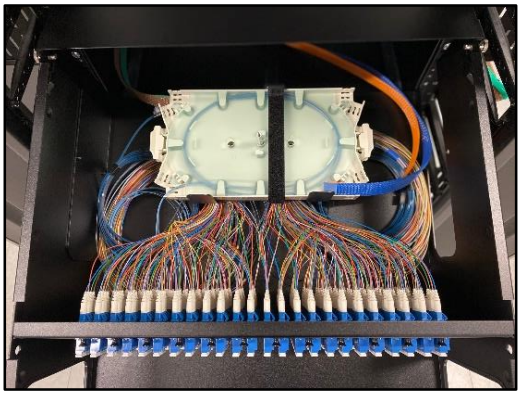

7.14 Slide the shelf back into panel.