



SUMITOMO RECOMMENDED PROCEDURE

SRP SP-F05-019

Instructions for Installing the PrecisionFlex™ Pre-Stubbed Extended Length Cable Patch Panel Kit

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1.0 General

1.1 These instructions detail the configurations, installation and operation of the PrecisionFlex™ Pre-Stubbed Patch Panel Kits.

1.2 Purpose: The PrecisionFlex™ Pre-Stubbed Extended Length Cable Patch Panel Kit offers fast installation time and Sumitomo Electric Lightwave (SEL) guaranteed specifications by supplying a termination panel complete with 600' 800' or 1000' pre-installed and pre-terminated 288 ribbon fiber cable, with LC connectors, break-out kits and routing, and LC adapters. The PrecisionFlex™ Pre-Stubbed Patch Panel Kit is used with standard 19" rack-mount applications.

1.3 The PrecisionFlex™ Pre-Stubbed Patch Extended Length Cable Panel comes packaged with cable, panel and all necessary components to facilitate quick installation and usage (Figure 1).

1.4 PrecisionFlex™ Pre-Stubbed Extended Length Cable Patch Panel Kit Components

1.4.1 PrecisionFlex™ patch panel and rack mounting brackets (Figure 2).

1.4.2 Pre-terminated RRJK, 288 fiber extended length cable (with LC connectors) (Figure 3).

1.4.3 Installed cable compression fitting and compression fitting mounting bracket (Figure 4).

1.4.4 45 degree cable support elbow (PETG tubing) and compression fitting (Figure 5).

1.4.5 Break-out kits with routing (Figure 6).

1.4.6 LC adapter faceplate (Figure 7).



Figure 1
Packaged 2RU PrecisionFlex™ Pre-Stubbed Extended Length Cable Patch Panel and Components



Figure 2
PrecisionFlex™ Patch Panel, and Rack Mounting Brackets



Figure 3
Pre-terminated Extended Length RRJK Cable with LC Connectors

1.4 PrecisionFlex™ Pre-Stubbed Extended Length Cable Patch Panel Kit Components (Continued).

1.4.3 Compression fitting mounting bracket (Figure 4).

1.4.4 45 degree cable support elbow (PETG tubing) and compression fitting (Figure 5).

1.4.5 Break-out kits with routing (Figure 6).

1.4.6 LC adapter faceplate (Figure 7).

1.4.1.7 PrecisionFlex™ Pre-Stubbed Extended Length Cable Patch Panel Kit Components List (included in packaging).

Item	Pre-Stubbed Panel Kit Component	Item	Pre-Stubbed Panel Kit Component
1	PrecisionFlex™ Patch Panel with Rack Mounting Brackets	5	Break-out Kits with Routing
2	Pre-terminated Extended Length RRJK, 288 fiber cable with LC Splice-On Connectors	6	LC Adapters
3	Cable Compression Fitting and Bracket		
4	45 Degree Cable Support Elbow (PETG Tubing)		



Figure 4
Compression Fitting Mounting Bracket



Figure 5
Compression Fitting and 45° Support Elbow

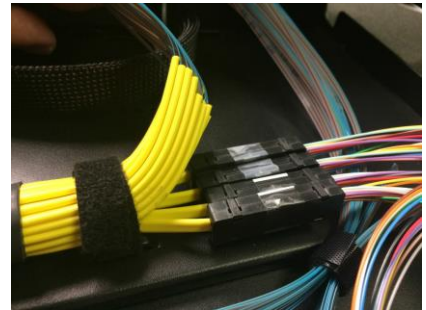


Figure 6
PrecisionFlex™ Pre-Stubbed Break Out Kit and Routing



Figure 6
PrecisionFlex™ Panel, RRJK Cable, Break-Out Kit, Routing, LC Connectors and LC Adapter Faceplate

2.0 Safety

2.1 PrecisionFlex™ Pre-Stubbed Extended Length Cable Patch Panel installation: Handle and secure panel per procedure to prevent potential drop hazard.

3.0 Reference Documents

Acceptance Testing Data Sheets.

4.0 Tools Required Table (Figure 7)

	Tool	Use
1	Phillips Head Screw Driver	Mounting the Patch Panel Attaching Cable Compression Fitting Bracket
2	Scissors or Cutter	Cutting Tie Down Wraps

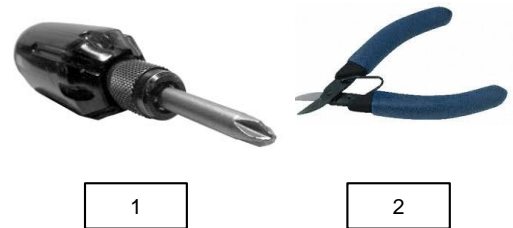


Figure 7
Tools Required



Figure 8
Packaged Kit

5.0 Installing the PrecisionFlex™ Pre-Stubbed Patch Panel Kit

5.1 Position the entire packaged kit (Figure 8).

5.1.1 Determine which rack the PrecisionFlex™ pre-stubbed patch panel will be placed in.

5.1.2 Position the entire packaged kit next to the panel's intended rack destination.

*Note: Place the packaged kit on a "Lazy Susan" type device to facilitate uncoiling the cable.

5.1.3 Remove the packaged kit's box cover top and foam layers.



Figure 9
Packaged Components

5.2 Uncoil the 288 ribbon fiber cable.

5.2.1 Cut all tie downs securing the cable.

5.2.2 Locate the non-terminated ribbon fiber, cable end.

*Note: The non-terminated cable end will be capped and located on the top and outside layer of the coiled cable.

5.2.3 Use two techs to uncoil the cable, ensuring it is loop free.

5.2.4 Determine the destination (a splice rack) of the non-terminated end, and uncoil it to that location.

*Note: The cable's pathway must use industry standards to ensure required support for this indoor cable.

5.3 Install the PrecisionFlex™ Pre-Stubbed Patch Panel mounts into any 19-inch EIA-310 universal hole spacing rack, using the rack mounting brackets, and the 12-24 screws provided.

**Note: The rack mounting brackets are pre-mounted to the patch panel. The brackets can be adjusted in 1 inch increments forward, or backward, depending on desired positioning in the rack.

5.3.1 Remove the patch panel from the protective plastic bag.

*Note: One tie down will be sticking out of the rear door of the patch panel. Do not cut it at this time (Figure 10).

*Note: A compression-fitting mounting bracket is attached to the rear right side of the patch panel.

*Note: Adjustable rack mounting brackets are attached to either side of the patch panel.

5.3.2 Cut the tie down that secured the patch panel to the protective cardboard base (attached to the panel's bottom) (Figure 11).

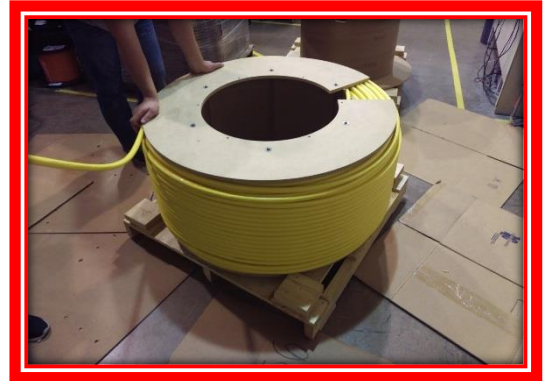


Figure 10
Tie Down Protruding From Patch Rear

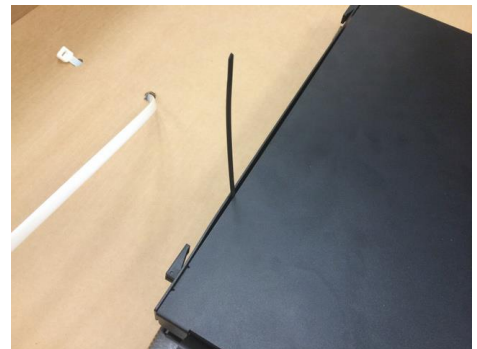


Figure 10
Tie Down Protruding From Patch Rear



Figure 11
Tie Down Securing Patch Panel

5.3.3 Slide the interior shelf to the rear.

5.3.3.1 Disengage (pull outward and hold) two spring plungers located at the front and either side of the patch panel (Figure 12).

5.3.3.2 Move the shelf rearward 1" and then release both spring plungers.

5.3.3.3 Continue rear shelf movement until the shelf locks into rearward position #1 (the spring plungers will slide into holes in the panel's sides, stopping further shelf movement until disengaged again).

5.3.4 Open the panel's rear door.

*Note: The rear door is attached to the panel's shelf.

*Note: Two rear horizontal plunger levers are attached to the rear door and secure the door closed.

5.3.4.1 Pull the tips of the two rear horizontal plunger levers back and out to unlock them.

5.3.4.2 Pull the (now free to move) door back and down to open.

*Note: Cable with a compression fitting assembly (a compression fitting, a 45 degree elbow, etc.) are now in view. This assembly is attached and secured by a tie down (mentioned in note found in section 1.3.1) to a bridge lance on the rear of the panel shelf (Figure 13).

5.3.5 Detach the compression assembly from the panel shelf bridge lance by cutting the securing tie down.

5.3.6 Untangle (if needed) and position the assembly towards the assembly mounting bracket (located on the right-side, rear of the patch panel).

5.3.7 Secure the compression assembly to the compression fitting mounting bracket and tighten the compression fitting into place.

*Note: The 45 degree elbow will extend into the side patch panel opening.



Figure 12
Patch Panel, Front / Top View
With One Spring Plunger
Highlighted



Figure 13
Tie Down Protruding
From Patch Rear

5.3.8 From the rear of the patch panel, slide the panel shelf back into the panel.

5.3.8.1 Disengage (pull outward and hold) two spring plungers located at the front and either side of the patch panel.

5.3.8.2 Move the shelf forward 1" and then release both spring plungers.

5.3.8.3 Continue forward shelf movement until the shelf locks (the spring plungers will slide into holes in the panel's sides, stopping further shelf movement until disengaged again) and positioned completely inside of the patch panel.

5.3.9 Close the panel's rear door.

5.3.9.1 Lift the rear door just enough to have room to unlock its horizontal plunger levels (pull the tips of the two rear horizontal plunger levers back and out to unlock them).

5.3.9.2 Pull the door up and forward to close.

5.3.9.3 Lock down the horizontal plunger levers.

5.4 Mount the Patch Panel into the rack (Figure 15).

5.5 Splice the non-pre-terminated ribbon cable end in the splice rack.

5.5 Test all 288 pre-terminated LC connectors, fibers and spliced ribbons per cable to verify and ensure loss budget compliance.

5.6 Report results to SEL.



Figure 14
Patch Panel, Front / Top View
With One Spring Plunger
Highlighted

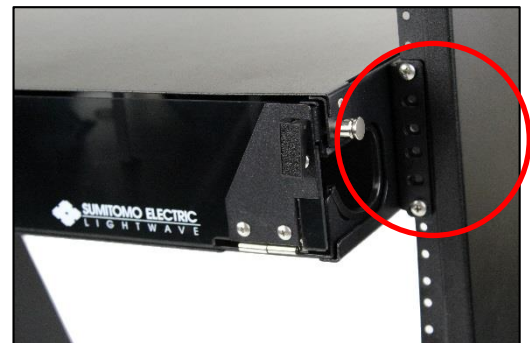


Figure 15
Mounted Patch Panel

6.0 PrecisionFlex™ Panel Operation

6.1 Doors

The patch panel doors protect and allow access to the panel shelf and any hardware mounted in the panel shelf.

6.1.1 Open Front or Rear Doors.

6.1.1.1 The front door is opened by first raising the vertical plunger levers up to unlock, then pulling the door back and down to open.

6.1.1.2 The rear door is opened by first pulling the horizontal plunger levers out to unlock, then pulling the door back and down to open. (Figures 16 - 17).

6.1.2 Remove Front or Rear Door

6.1.2.1 Open and release plunger levers to open door.

6.1.2.2 Arch / bow the front door, then slide it to the left until free from its hinges.

6.1.2.3 Slide rear door to the left until free from its hinges.

Rear door removed (Figure 16)

6.1.3 Place Front or Rear Door

6.1.3.1 Arch / bow front door, align hinges with patch panel shelf pins, then slide front door to the right until hinge and pins are fully connected.

6.1.3.2 Align rear door hinges with patch panel shelf pins, and then slide rear door to the right until hinge and pins are fully connected.

6.1.3.3 Close the doors by rotating them up and forward. Secure the door close by aligning the plunger levers to the plunger level eyelets, and closing down the levers.



Figure 16
Rear Door Closed, Horizontal Plunger Levels Open



Figure 17
Rear Door Open

6.2 Sliding Shelf

6.2.1 Front Operations

6.2.1.1 Move Sliding Shelf to 1st Stop Position (Figure 18)

First disengage (pull out and hold) 2 spring plungers (the spring plungers are attached to the front and side of the panel shell), then slide the shelf forward. Release spring plungers so that they engage (drop into holes located on the panel shelf) the 1st stop position (figure 14). This function secures the panel shell into position, and allows for ease of access through the panel's front.



Figure 18
Closed Position With Right-Side Spring Plunger Highlighted

6.2.1.2 Move Sliding Shelf to Tilt Position (Figure 19)

First disengage spring plungers to slide shelf forward to 1st stop position. Then disengage the spring plungers again to slide shelf forward to tilt position. This function secures the panel shell into position, and allows for ease of front access to the panel shelf.



Figure 19
1st Forward Stop Position

6.2.1.3 Remove Sliding Shelf from Panel (Figure 20)

Disengage spring plungers to slide shelf forward to 1st stop position. Disengage the spring plungers to slide shelf to tilt position. Disengage the spring plungers a final time to remove the shelf from the patch panel.



Figure 20
Tilt Position

6.2.2 Rear Operations

6.2.2.1 Move Sliding Shelf Rearward

Disengage spring plungers and then move shelf to desired rearward position. The cable-less shelf can be removed completely from the rear.

****Note:** Rearward movement is limited once cables (rear) and cable assemblies (front) are attached.



Figure 21
Sliding Shelf Removed from Patch Panel

6.3 PrecisionFlex™ Pre-Stubbed Patch Panel
Accessory Package (Figure 22)

6.3.1 PrecisionFlex™ Pre-Stubbed Patch Panel
Accessory Items Table

Item #	Item	Description	2RU
1	Caution Label	Laser Caution Label	1
2	Large Screws	Rack Mount Screws, 12 x 24	6
3	Small Screws - Faceplate	6-32 x 1/4" Philips Flat Screw, Used With Faceplate	10
4	Short Screws, Large	Used to attach Compression Fitting to the Panel (8-32 x 3/16" Pan Head Screw, 18-8 Stainless Steel)	2
5	Adhesive Clips	Used to Manage Break-out Assemblies	4
6	Velcro – Small	Used to Manage Break-out Assemblies	2
7	Velcro - Large	Used to Manage Break-out Assemblies	2
8	Port Identification Labels	Port Identification Labels	1
9	Parts List Document	Parts List Document	1

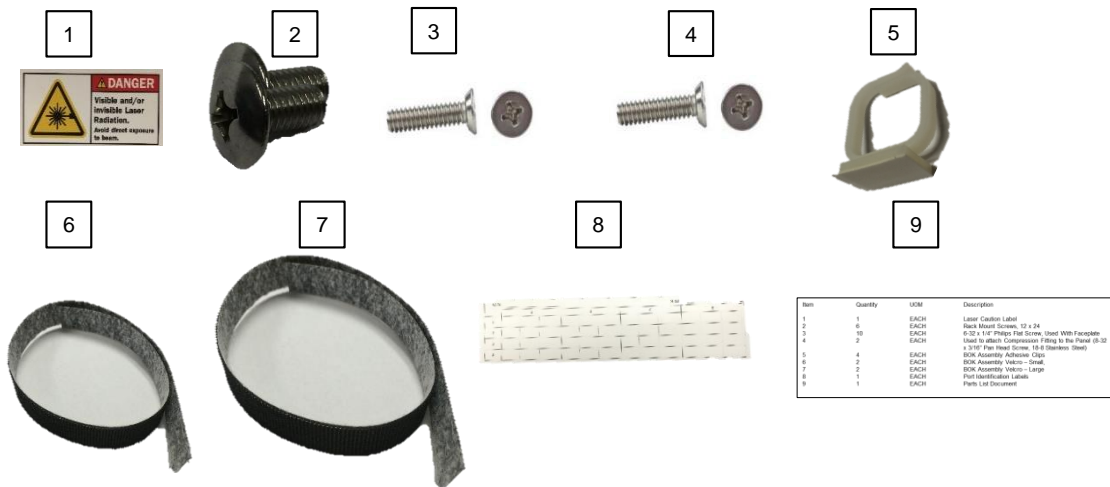


Figure 22
Patch Panel Package Accessories

