

SUMITOMO RECOMMENDED PROCEDURE**SRP SP-F04-042****FIELD TERMINATION KIT PROCEDURE FOR
FT06FBK 900µm SUB-UNIT KIT**

<u>PARA.</u>	<u>CONTENTS</u>
1.0	General
2.0	Safety Precautions
3.0	Reference Documents
4.0	Equipment / Tools Required
5.0	Preparing the Fiber Bundle
6.0	FT06FBK Field Termination Kit
7.0	Assembling the FT06FBK Field Termination Kit

SUMITOMO ELECTRIC LIGHTWAVE CORP.

201 S. Rogers Lane, Suite 100, Raleigh, NC 27610

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

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

1.1 This procedure describes the standard techniques for installing FutureFLEX Air-Blown Fiber (ABF) 6-fiber bundles into a FT06FBK, Field Termination Kit with 900µm sub-units / colored-coded tubes.

1.2 Field Termination Kits are used at locations where fiber bundles containing 250µm fibers are to be terminated and connectorized at fiber optic patch panels, switches, or transmitter / receiver locations with splice on connectors.

2.0 Safety Precautions

2.1 The use of safety glasses is strongly recommended during this procedure.

3.0 Reference Documents

3.1 Sumitomo Recommended Procedure, *FutureFLEX Fiber Bundle Stripping Procedure*, SRP SP-F04-006.

4.0 Equipment / Tools Required

The following equipment, tools, and materials are required to complete this procedure:

4.1 FT06FBK Field Termination Kit with 900µm sub-units

4.2 Adhesive Tape

4.3 measuring tape

4.4 Appropriate clean work surface / table

4.5 cutting tool (scissors or

4.6 wire strippers (10 – 20 AWG positions)

5.0 Preparing the Fiber Bundle

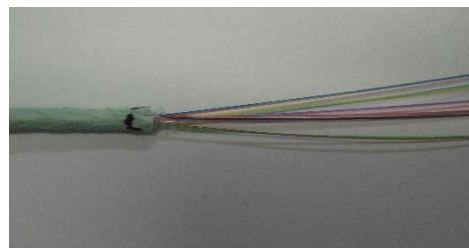
5.1 Provide at least 6" – 10" of additional fiber sub unit strip-length beyond the actual fiber length required. SEL's FT06FBK Field Termination Kit has an approximate 24" buffer tube length. Therefore, the 6-fiber sub unit should be stripped back at least 30" – 34".

5.3 Refer to SRP SP-F04-006 for detailed fiber bundle stripping procedures and techniques on how to remove the outer foam jacket, access sub-unit ripcords, and remove inner nylon jackets.

5.4 Once the fiber bundle has been stripped, install the 2mm bushing over the PEF jacket and secure it to work surface with adhesive tape.

5.5 Separate and organize fiber bundle strands and assemblies. At the point where the strands exit the nylon sub-unit, carefully arrange them so they are not crossed and carefully separate them along their entire length. (**See Fig. 1 & 2**)

Figure 1



5.5.1 06-fiber bundle contains one (1) nylon sub-unit of 6 fibers. each in the following color-order sequence:

Tube	Color
1	Blue
2	Orange
3	Green
4	Brown
5	Slate
6	White

Figure 2

6.0 FT06FBK Field Termination Kit

6.1 FT06FBK Field Termination Kit consists of a Base Unit, Cover Unit, one (1) Breakout Unit Assembly block and 3 blank blocks. A 2mm bushing is also provided. **See Fig 3.**

6.2 Base Unit cavity holds four (4) stackable Breakout Unit Assemblies.

6.3 Breakout Unit Assemblies consist of four(4) rectangular black plastic break-out blocks, one with 6 color-coded 900µm OD tubing installed and three (3) blank blocks.

6.3.1 In the appropriate holes for each of the 6 colors, the fiber strands are threaded through the block into the tubes, by color.

6.4 The 2mm bushing secures the 6-fiber bundle in the Base Unit to avoid pullout. This is for the FB06 series of fiber bundles. Each FB06 has a single sub-unit with 6 fibers.

6.5 Cover Unit snaps onto Base Unit to secure Breakout Unit Assembly and bushing and protect exposed bare fibers.



Figure 3

FT06FBK Field Termination Kit Components

Base Unit Specifications

Dimensions (in.): 2.25" L x 1.0" W x 0.6" H
 Material: ABS Plastic
 Color: Black
 Logo: FT##FBK

Cover Unit Specifications

Dimensions (in.): 2.25" L x 1.0" W x 0.6" H
 Material: ABS Plastic
 Color: Black
 Logo: Sumitomo Electric

Tubing Specifications

Dimensions: mm / (in.):
 ID: 0.50mm +/- 0.05mm (0.020 +/- 0.002)
 OD: 0.90mm +/- 0.05mm (0.035 +/- 0.002)
 Length: Approximately 24 inches

Mechanical:

Max. Tensile Load: 45 Newtons / 10 lbs.
 Min. Bend Radius: 1.3 cm / 0.5 inch
 Crush Resistance: 52 N/cm Max. / 0.03 lbs/in
 Temp. Rating: -40°C - +85°C (-40°F - +175°F)
 Material: Thermoplastic Elastomer

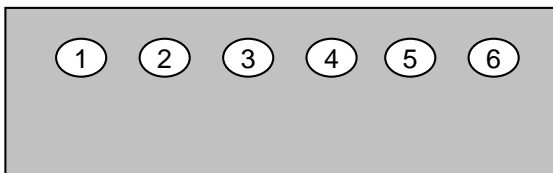
6.6 Breakout Unit Assembly tube colors and arrangement matches the ABF fiber bundle strand colors and arrangement. (See Fig. 4)

Figure 4

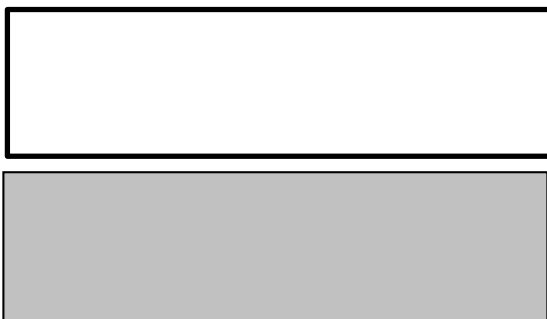
Tube	Color
1	Blue
2	Orange
3	Green
4	Brown
5	Slate
6	White

Sub-unit Fibers

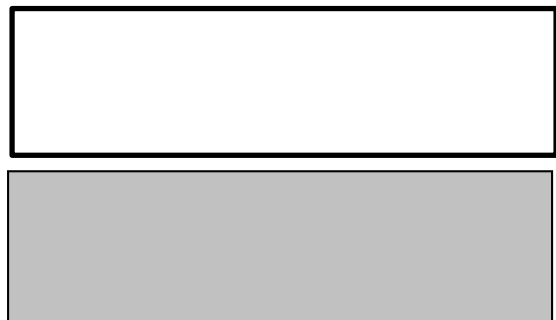
Block Position 1



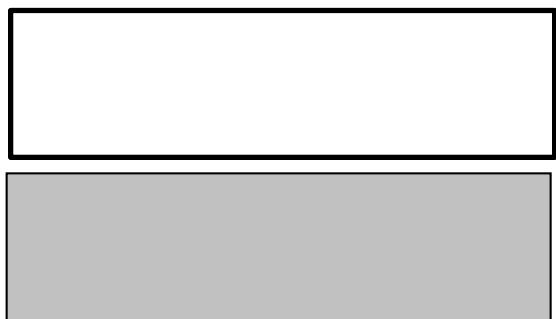
Blank Block Position 3



Blank Block Position 2



Blank Block Position 4



7.0 Assembling the Field Termination Kit

7.1 Prepare the sub unit and Breakout Assemblies first as in Figure 2.

7.2 Install the 2mm bushing onto the end of the stripped back PEF jacket.

7.3 Insert each fiber into its colored-coded tube. Begin with the blue strand first, followed by the orange, and so on until all 6 fibers are started into the Breakout Unit Assembly 900µm tubes. Work carefully, comb the fibers, and ensure strands are not crossed or twisted. **See Fig. 2.**

7.4 Once all the strands of the sub-unit are inserted into the tubing, carefully grasp and push all fibers through each Breakout Unit Assembly tubing as a group.

7.5 Install the block in position # 1 and the 3 blank blocks in positions 2 – 4. Install the bushing in the slot of the base unit then place the unit cover. **(see Fig. 5 & 6)**

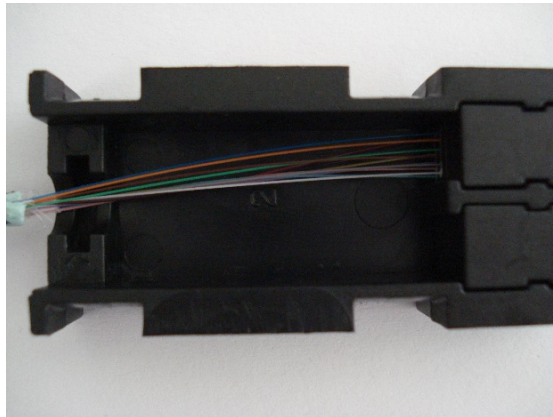
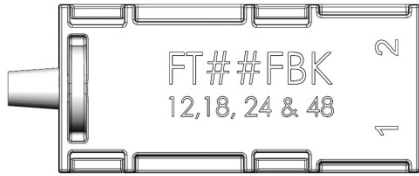


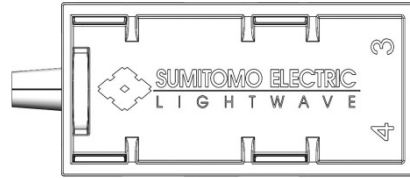
Figure 5

Fiber Strands in Color-Order inserted into Breakout Unit Block,

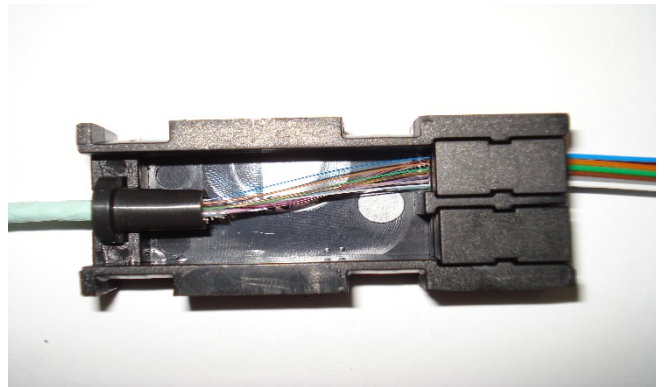
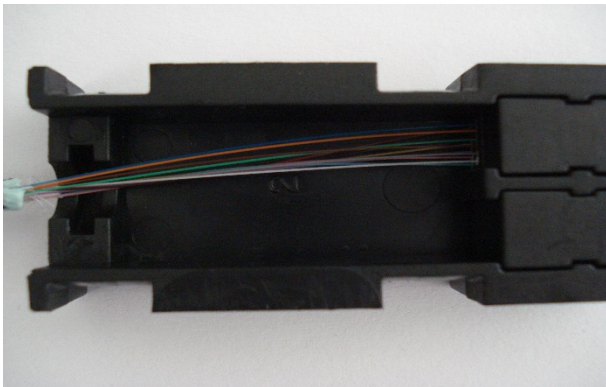
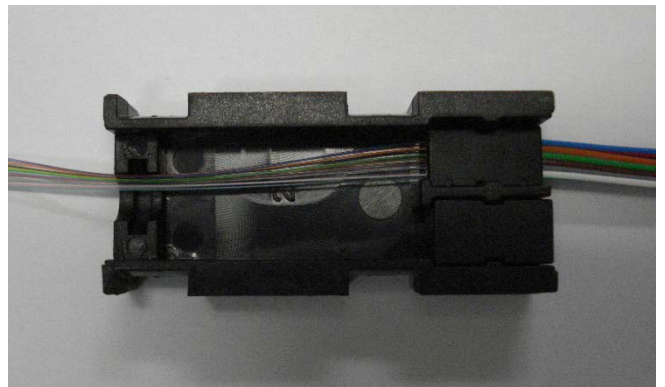
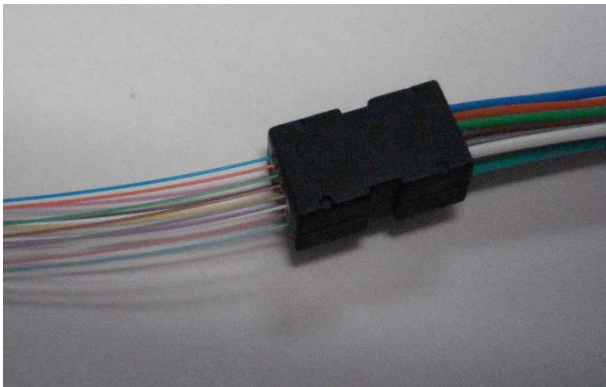
Figure 6



Breakout Assembly Cover



Breakout Assembly Base Unit



7.7 Once all fibers are inserted into Breakout Unit Assemblies re-confirm that fiber strands are not crossed or twisted over each other between the end of the nylon jackets and the Breakout Unit Assembly block. Crossed fibers may cause additional optical attenuation due to macro-bending. (Our new units are longer than our previous units to allow more length between the PEF jacket and the assembly blocks which makes it less likely to cause attenuation issues.) If fibers are crossed, they should be carefully removed from the Breakout Unit Assembly tubes, straightened out, and re-installed.

7.8 Carefully place the Breakout Unit Assemblies into the Base Unit cavity. to maintain correct color-order sequence. **See Fig. 6.**

7.9 Carefully push all the fibers as a group into Breakout Unit Assemblies until ends of the PEF jacket and inner nylon jackets are even with or just past the inside of the 3 mm bushing.

7.11 Complete the FT06FBK Field Termination Kit assembly by snapping Cover Unit onto Base Unit. **see FIG. 7**



Figure 7
Fiber Bundle Foam & Nylon Jackets
Even With or Just Forward of 2 mm bushing