

RECOMMENDED Procedure

Sumitomo Electric Lightwave Corp.
Phone: 919-541-8100
 Toll Free: 800-358-7378
 Web: www.sumitomoelectric.com

Lynx-CustomFit Splice On-Connector (SOC)

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1.0 General

This document describes the procedure for installation of the Lynx-CustomFit Splice-On Connector 2mm & 3mm cordage solutions UPC & APC.

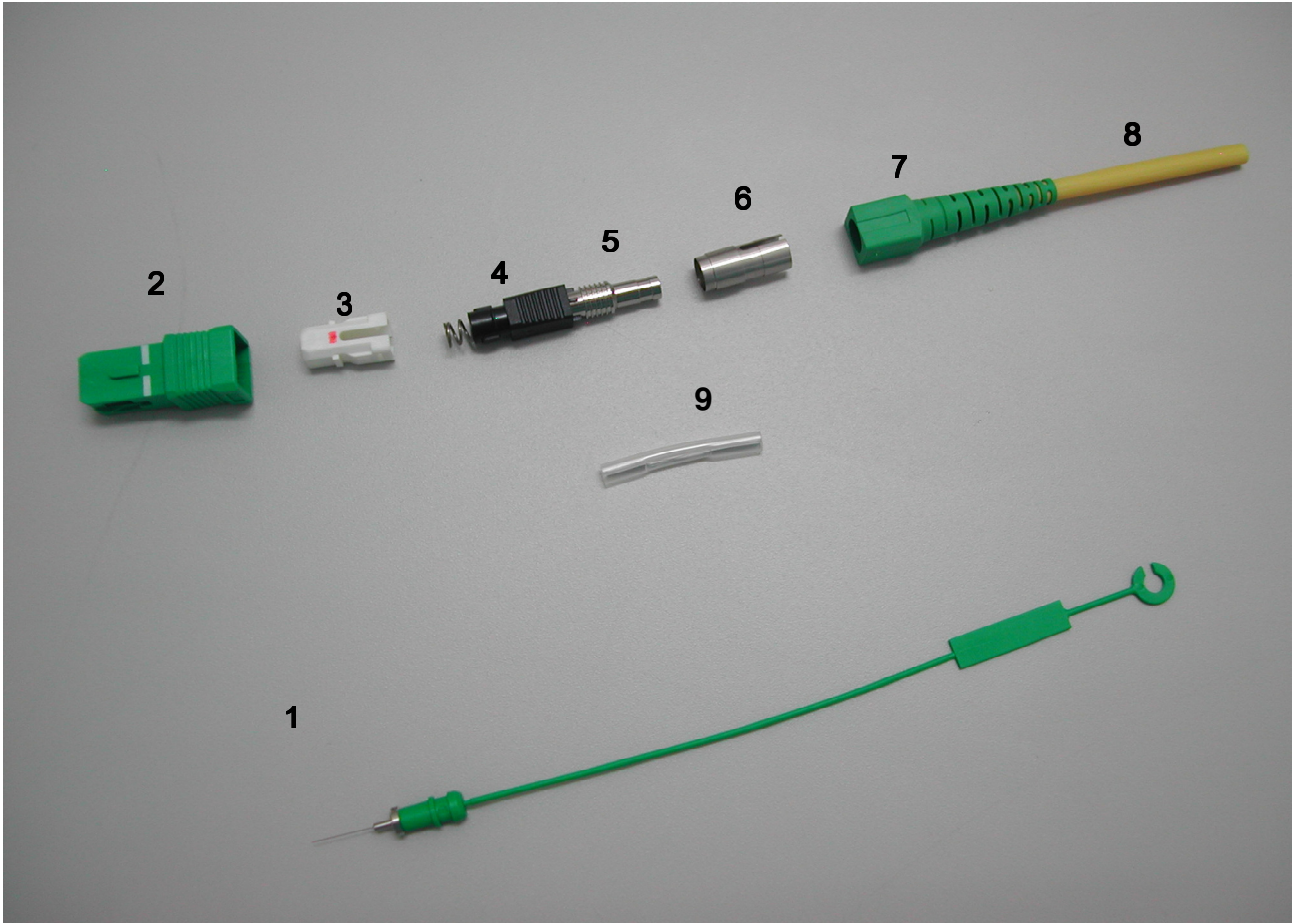
2.0 Safety Precautions

1. Please read and follow all fusion splicer manufacturers' recommended procedures concerning splicer operation and precautions.
2. Safety glasses should be worn when handling cleaved fibers. Cleaved fibers are sharp and can pierce eyes, skin or clothing.
3. Never look into the end of a microscope or optical cable connected to an operating optical output device. Laser radiation is invisible, and direct exposure can severely injure the human eye.
4. Alcohol is flammable, causes irritation and is harmful if swallowed or inhaled. Keep alcohol away from heat, sparks, skin, and avoid contact with eyes.

3.0 Specifications

Fiber Type	SMF; MMF 50 & 62.5 μ m	
Coating Diameter	2mm and 3mm	
Connector Type	SC	
Polishing	UPC	APC
Insertion Loss	<0.30 dB	<.30 dB
Return Loss	>40 dB	>60 dB
Color	Blue	Green

4.0 SOC Components



	Component	
1	Ferrule	
2	Outer Housing	
3	Inner Housing	
4	Spring	
5	Rear Housing	
6	Crimp Ring	
7	Strain Relief (Boot)	
8	Protection Tube	
9	Fiber Protection Sleeve	

5.0 Required Tools

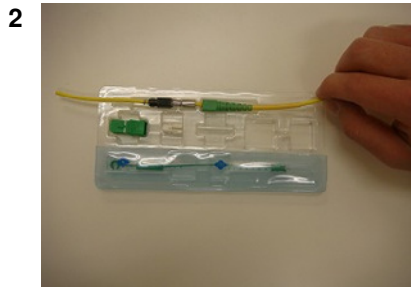


	Fusion Splicer
	Fiber Optic Cleaver
1	Sumitomo Electric SOC Crimp Tool
2	3mm or 2mm Cordage Slitter
3	Kevlar Snips
4	Fiber Optic Strippers
5	Connector Holder & Cordage Holder

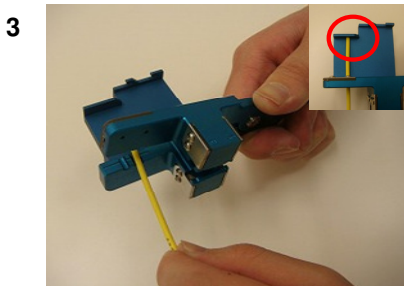
6.0 Procedure



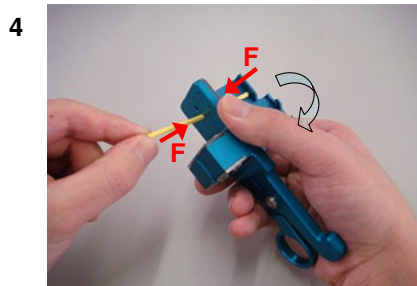
Remove housing-side covering from package.



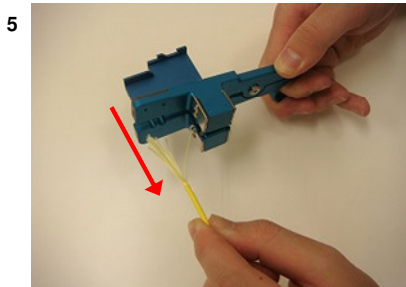
Insert the cordage through assembly parts.



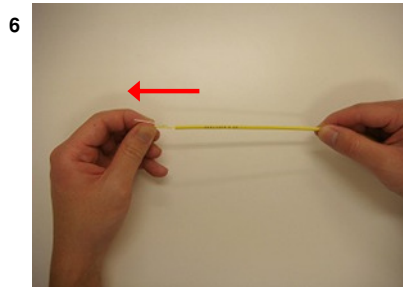
Insert cordage into appropriate groove (2mm or 3mm) of slitter using back of tool as stopping point.



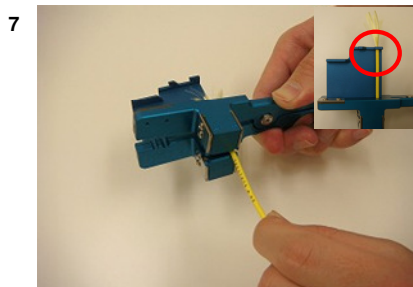
Spin the slitter while holding the cordage creating a ring cut.



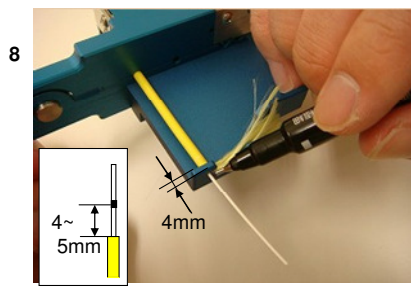
Pull the cord to remove the outer jacketing.



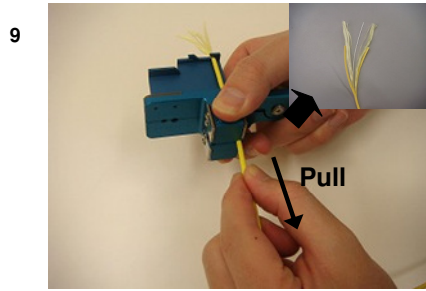
Pull the Kevlar to remove excess slack inside cord.



Insert cordage into appropriate groove (2mm or 3mm) of slitter using the back of tool as the stopping point.



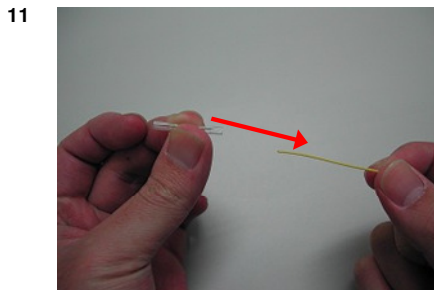
Using the back of the tool as a gauge, mark the fiber. This mark represents the ending strip point and reference point for the fiber holder edge.



While holding the tool, pull the cordage slitting the jacket in the process.



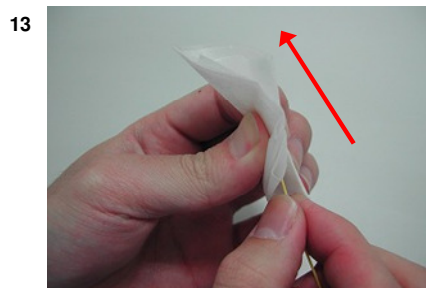
Fold the Kevlar and sheathing back.



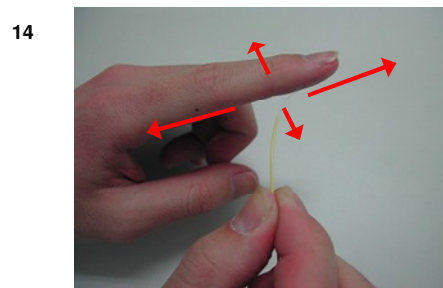
Insert the fiber through the fiber protection sleeve.



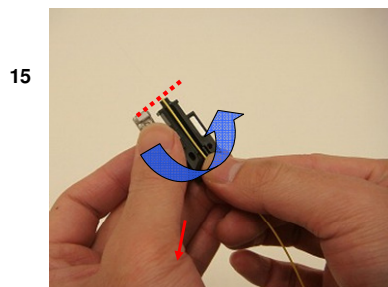
Strip the fiber coating to the marked point.



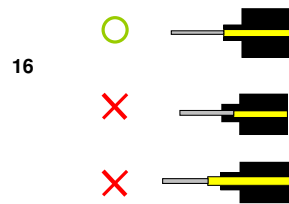
Clean the fiber.



Check for fiber breaks by gently snapping the end.



Set the fiber into the holder curl side down.



The 900 micron coating should be even with the edge of the fiber holder.



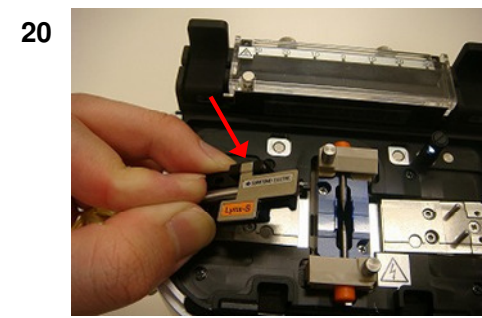
Set the fiber holder into the fiber cleaver.



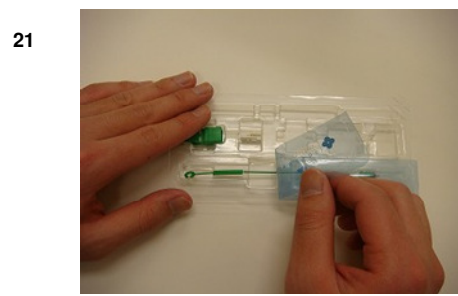
*Slide the front tip of the holder until it touches cleaver .



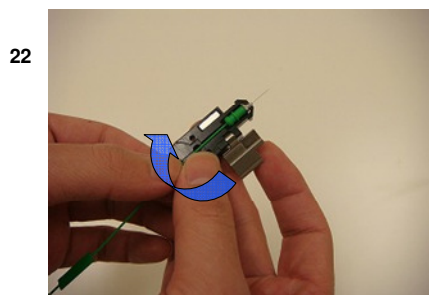
Close the cover of the fiber cleaver, cutting the glass fiber.



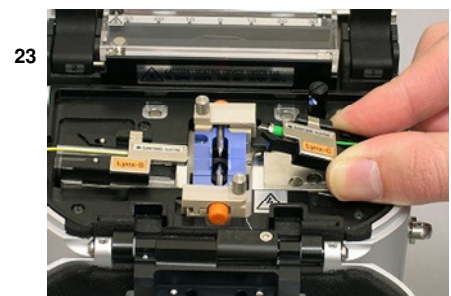
Place the holder in from behind the v-groove.



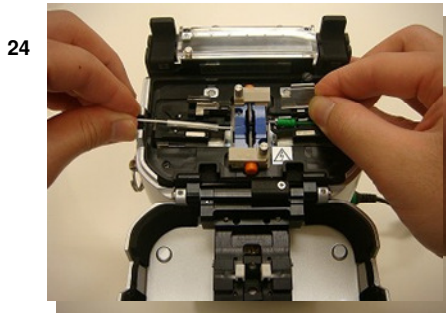
Remove the ferrule side covering of the package.
(Open just before using the ferrule subassembly.)



Insert the ferrule/fiber into holder and close the cover. Ensure that the glass fiber does not hit the holder.



Set the holder in from behind the v-groove.



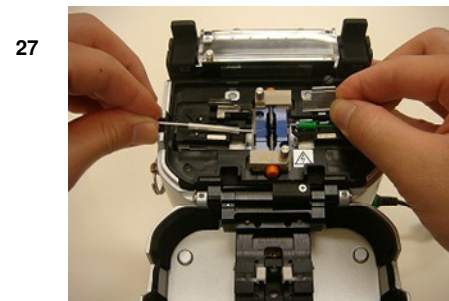
24 Close the splicer's hood.



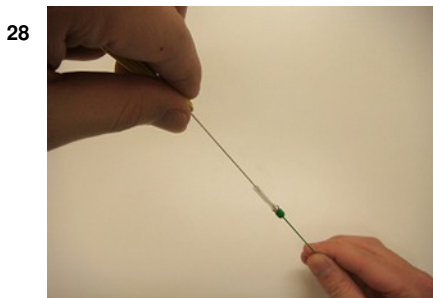
25 Ensure that the unit is set for single fiber splicing and 60mm sleeve setting.



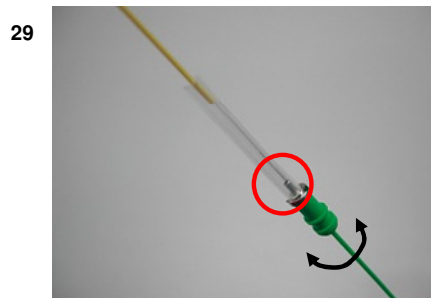
26 Complete the splice.



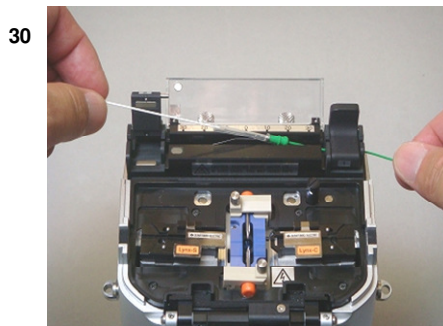
27 Open the ferrule holder. Remove the fiber from the splicer while maintaining tension on assembly to prevent bending.



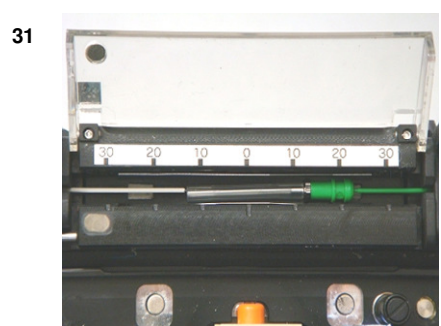
28 Move the protection sleeve into position adjusting the sleeve by slanting the fiber.



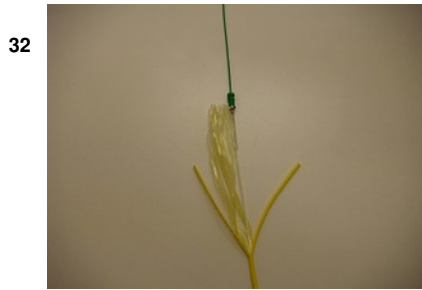
29 Do not twist the ferrule subassembly or fiber. Sleeve should cover metal flange.



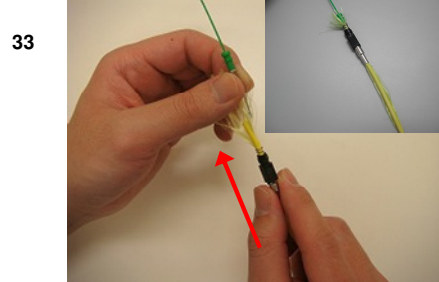
30 Center fiber protection sleeve inside heater and complete the heat cycle.



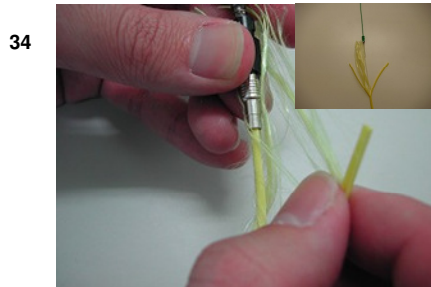
31 After completion of heater cycle allow the assembly to cool for at least 1 minute before removing.



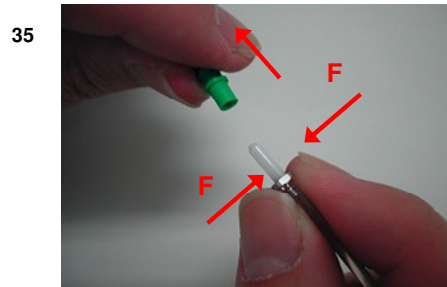
32 Remove the tape from the outer sheath of the cordage and spread Kevlar.



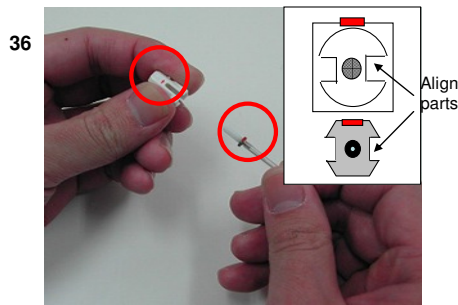
33 Separate the crimp ring then slide the spring and the rear housing up until they touch the back of the Ferrule Subassembly.



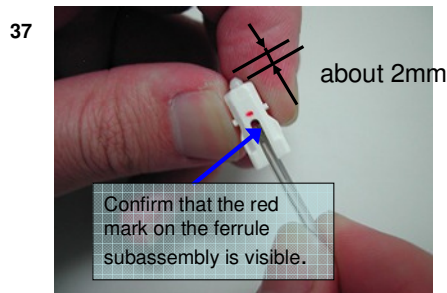
34 Pull the Kevlar and sheathing out from the rear housing.



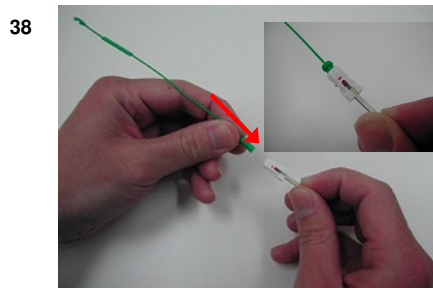
35 Holding the metal screw of the fiber stub, remove the dust cap without pulling on fiber protection sleeve.



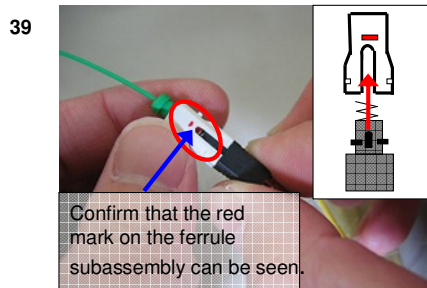
36 The ferrule should fit inside the key when using APC connectors align the red marks with each other.



37 Loosely press the ferrule subassembly into the notched housing.

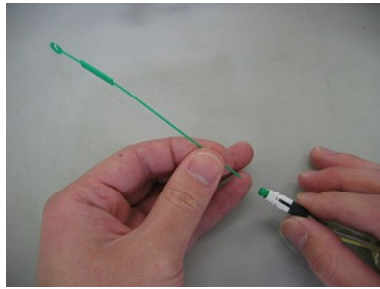


38 Gently press the dust cap onto the ferrule. The dust cap is being used as a temporary holder.



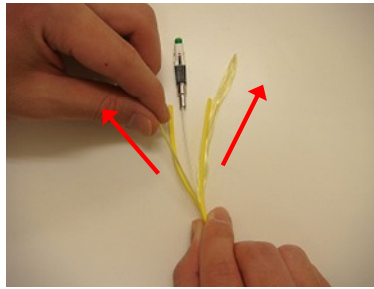
39 Align the groove and slide the inner housing over the rear housing until the components lock together.

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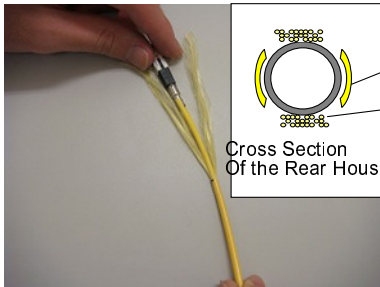
Snap the string from the dust cap.

41



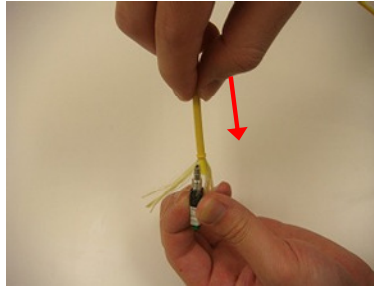
Divide the Kevlar into two tight bundles.

42



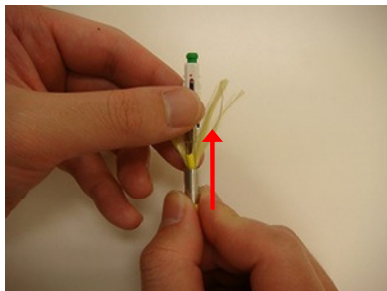
Spread the sheath and Kevlar around the rear housing.

43



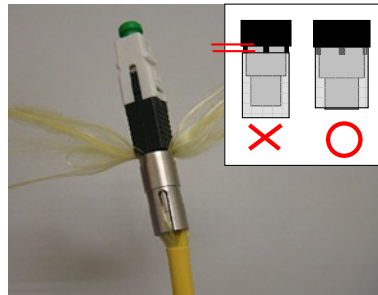
While maintaining the position of the sheath and Kevlar, slide the protection tube down 1/4 inch above rear of housing.

44



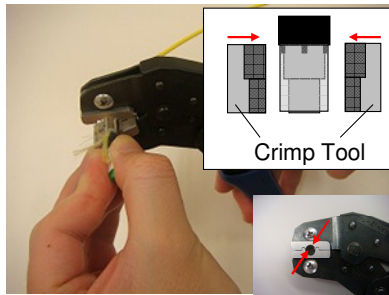
Slide the crimp ring over the protection tube keeping sheath and Kevlar split.

45



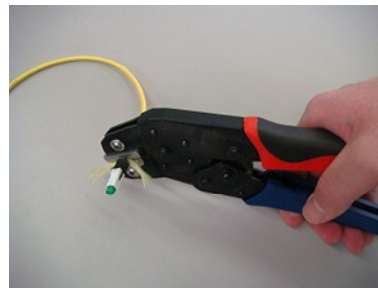
Slide crimp ring until it touches rear of rear housing.

46

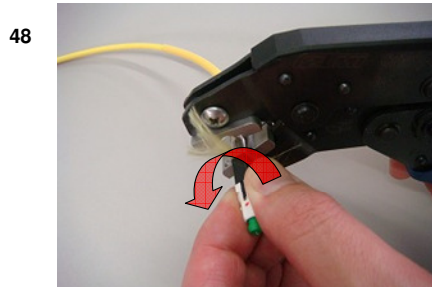


The larger diameter of the crimp tool (noted by red dot) should face the rear housing.

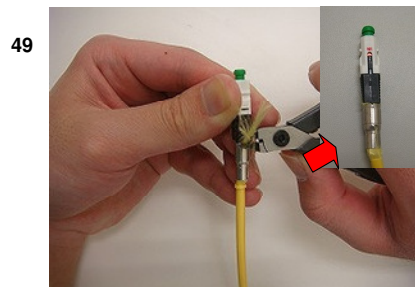
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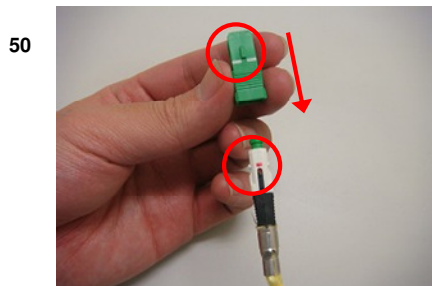
Crimp the crimp ring with the crimp tool. Be careful not to crimp the black part of the rear housing.



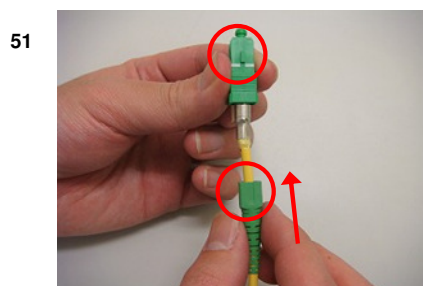
Rotate the connector by 90 degrees, and crimp again.



Cut off the excess Kevlar using snips.



Put the outer housing over the inner housing. Align the notch of the outer housing with the notch of inner housing.



Align the boot with the notch of the outer housing. Slide the rear boot until it stops.



Complete

7.0 Connector Cleaning

Sumitomo Electric recommends keeping the dust cap installed to maintain cleanliness and to prevent end-face damage before installation.

Sumitomo Electric recommends at a minimum following a simple wet dry connector cleaning procedure. The procedure will require using a lint free wipe in conjunction with 99% pure isopropyl alcohol being used as a cleaning solvent. Dampen a small area of

the wipe with alcohol. Starting on the dampened side of the wipe, move the connector end-face from the wet area to the dry area in a single motion. Rotate the connector 90 degrees and repeat the process on clean section of the wipe.

Caution-

Isopropyl Alcohol is dangerous if taken internally.

Isopropyl Alcohol is flammable and should be kept away from heat, sparks and open flames.