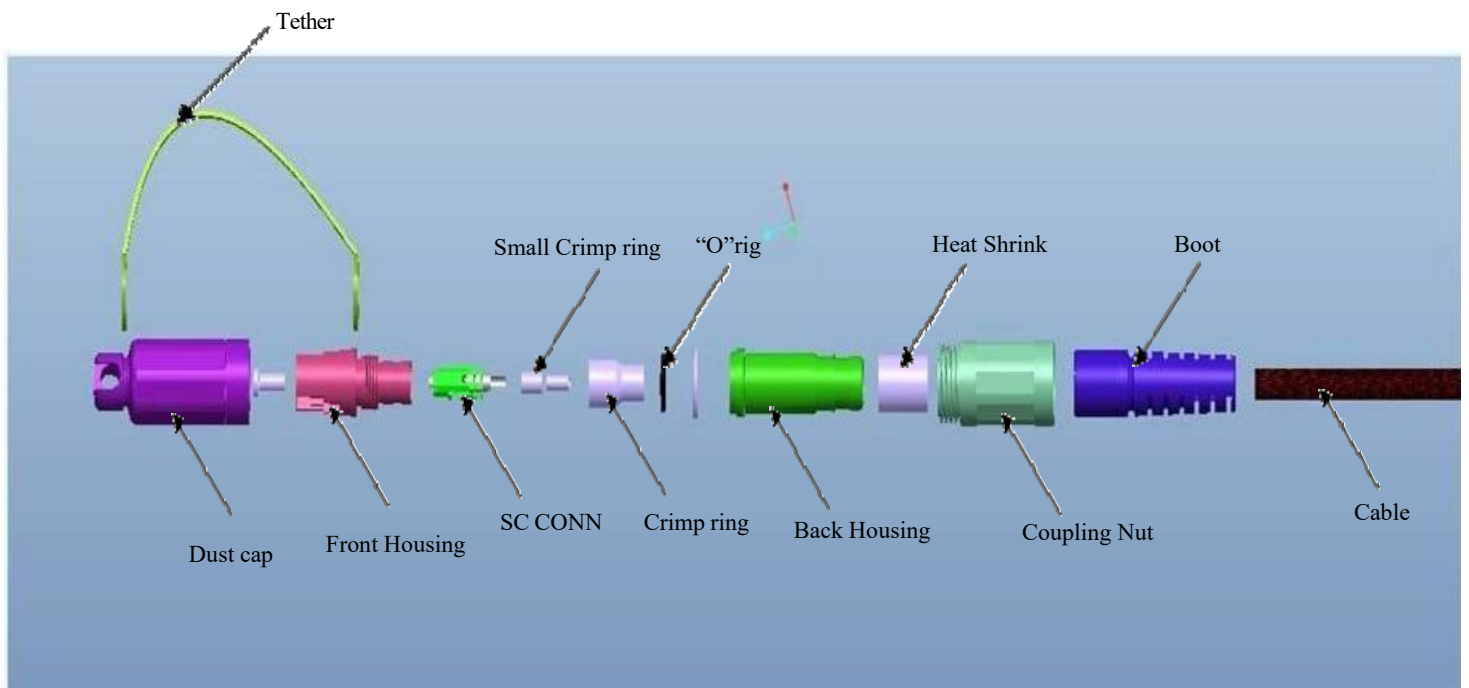


## H-CONN Plug and Round Cable Termination and Assembling Instruction



### 1. Tools

927-2440-47	Strip template for H-Connector plug with round cable
CT927-00613	Crimp die for H CONN plug and 7.0mm jacket cable
CT927-00694	Crimp die for H CONN plug and 5.0mm jacket cable
701-062:	Pneumatic Crimp tool
CT927-00706	Fixture tool for H-Connector plug assembly
CT927-00760	Simi-Auto assembling push tool for H-CONN plug
CT927-00759	Tether assembling tool
954-1104-5-T	SC/APC Modified Coupling Sleeve
F113SC	Tri-bond F113SC Epoxy.
958-6001	H-Connector adapter

942-99999-10387

45-120

927-1323

CT927-00762

927-1178

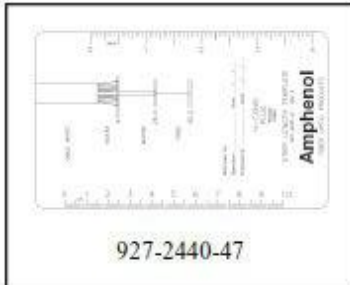
SC/APC Launch Jumper

Ideal 45-120 wire stripper

Miller FO103-S or other band of fiber stripper

12.6mm open-ended torque wrench

IDEAL stripper 45-164 cable jacket stripper tools



## 2.0 H-Connector Kit Components





### 3.0 Prepare components

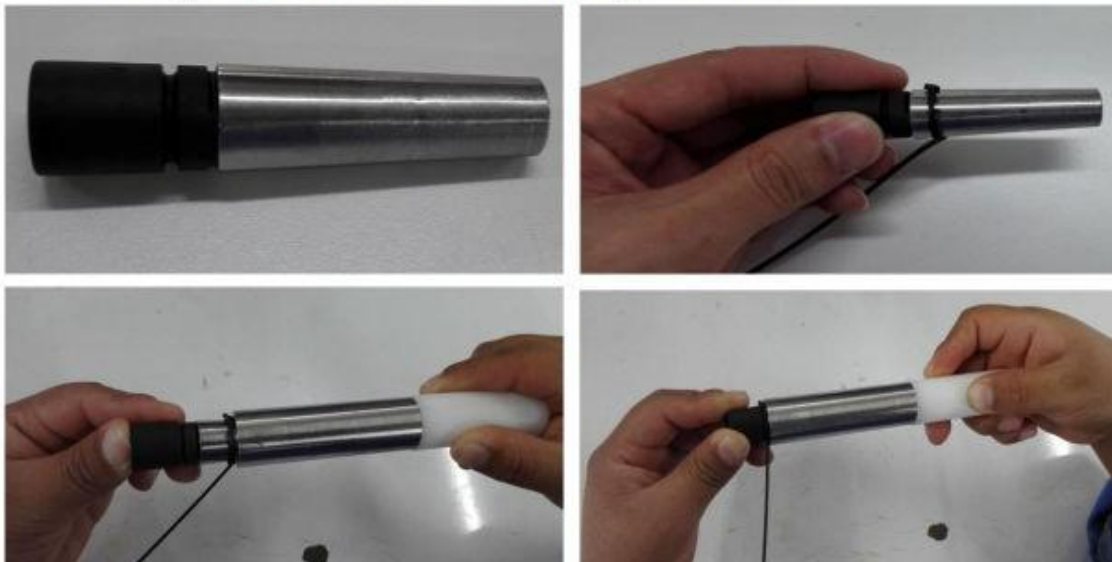
3.1 Load the O-ring 927-2820 (black) onto the front housing (958-1028).



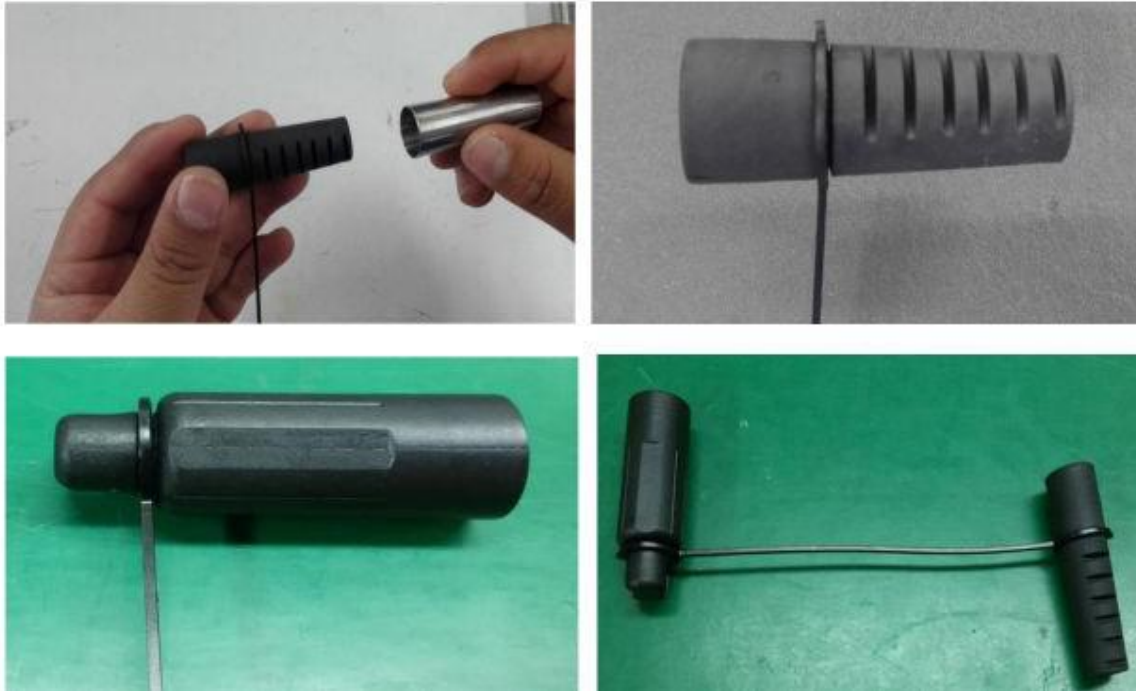
O-ring 927-2820 (black)

3.2 Assemble the tether strap (958-1020-01) on boot (958-1032) with the tool CT927-00759, and then put the other side of tether on dust cap (958-1031-0). See picture below for the orientation of dust cap and boot.

#### Warning: Check the Boot and Dust Cap orientation







#### 4.0 Cable Preparation

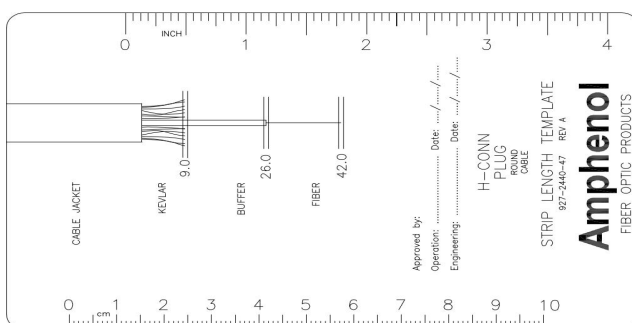
4.1 Insert component: Insert sub-assembly boot, heat shrink tube (927-1901-12-015), coupling nut, rear body and crimp ring onto the cable, the large side should be towards the terminated cable side.



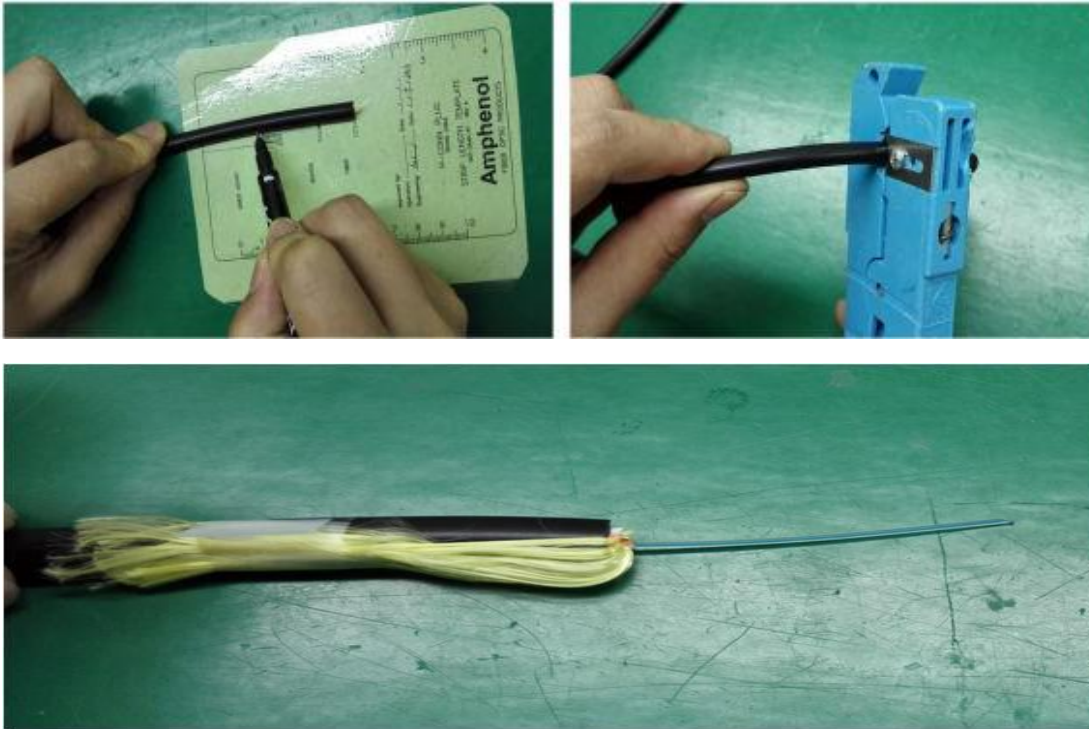
**Warning: Check the Boot, Coupling Nut and Rear Body orientation**

#### 4.2 Cable stripping

4.2.1 Mark the cable jacket per the strip template 927-2440-47, and strip the jacket from the cable (approximately 42mm). Pull the Kevlar backward and secure it on the cable jacket. "Non-residue tape" should be used to hold the Kevlar.



Template 927-2440-47 (Check the scale before use)



4.2.2 Mark and strip the loose tube per Stripping Template 927-2440-47. (Note: Some connectors do not allow insertion of the loose tube. In this case, build up a 900um buffer by removing loose tube, and inserting the 900um fanout tube. Then strip the 900um fan out tube per the 927-2440-47 Stripping Template.)



4.2.3 Check the fiber length again per the strip template 927-2440-47.



**Warning: Keep the strip length within the tolerance lines.**

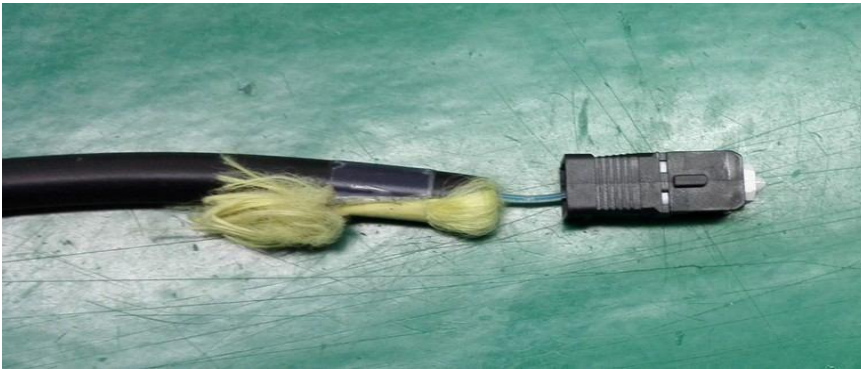
## 5.0 Termination and polishing

5.1 Prepare the epoxy and terminate the SC/APC II connector. If the cable has a subunit (2mm or 3mm), crimp SC connector onto the subunit jacket. The picture below only shows termination of an SC connector to a loose tube or 900um buffered cable.



5.2 Curing epoxy.

5.3 Assemble the SC/APC Modified coupling sleeve (954-1104-5-T), and polish SC/APC connector.



5.4 Check the fiber and ferrule end face after polishing.

## 6.0 H-Connector plug assembly

6.1 Remove the SC coupling sleeve.



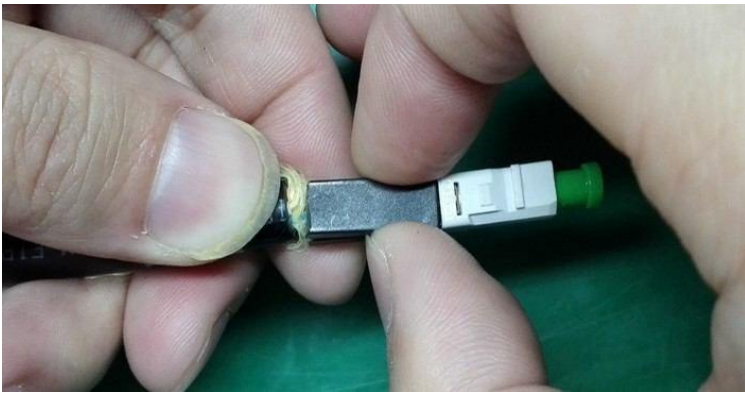
6.2 Assemble crimp stopper.

6.2.1 Put the 900um fiber into the groove of crimp stopper, put the SC connector to make the ear of rearbody lying in the slot in front of crimp stopper.





6.2.2 Put the other half of crimp stopper to cover the fiber and rearbody, make sure the fiber lie in groove, then press together of the crimp stopper.



Warning: Be careful do not damage fiber when assembling.

### 6.3 Push the crimp stopper into the front housing

6.3.1 Assemble the stopper, put SC sub-assembly and stopper into the front housing manually, until the white SC frame against the front housing.

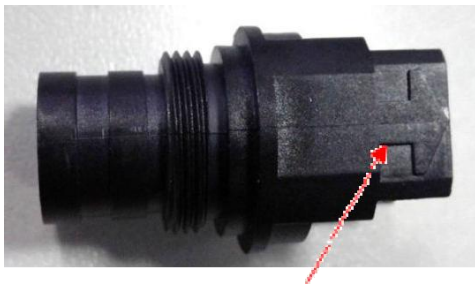


Take care direction of front housing, align the chamfer on SC frame and front housing, and make sure they face in the same direction before assembling.



Chamfe

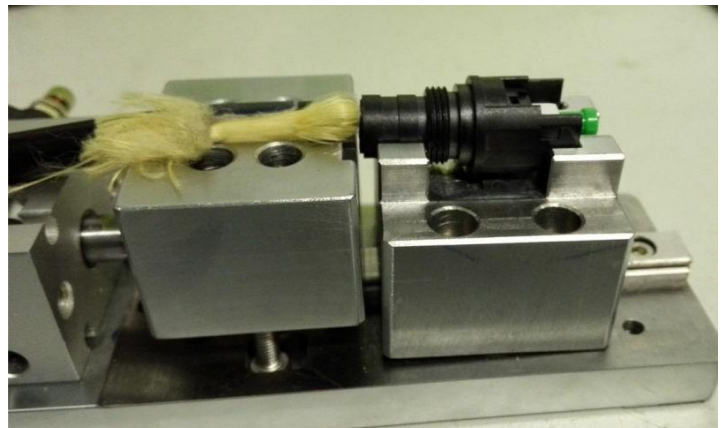
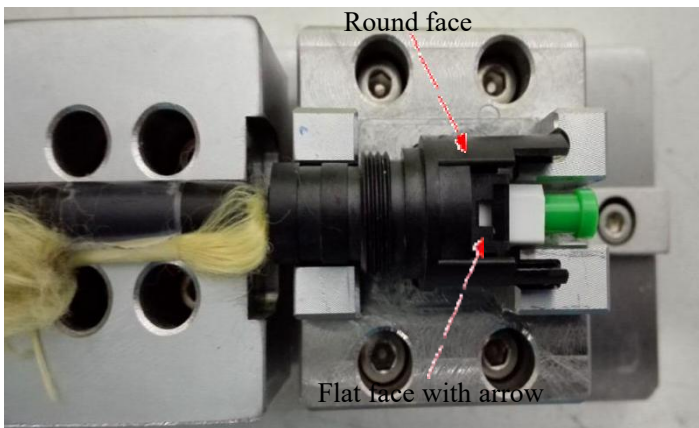
6.3.2 Use the Semi-auto push tool to push the SC sub-assembly connector into the front housing. Put the front housing on fixture body, take care the orientation. The front housing should fully lie in the guide groove of fixture. Put the cable on the cable groove of pusher. See figure below.



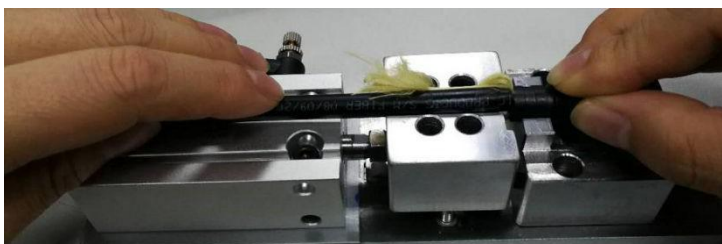
The face is flat and with Arrow



The face is round and without icon



6.3.3 Hold the cable and front housing in place by hand, step on the foot pedal and the pusher will push SC sub-assembly and stopper into the front housing.





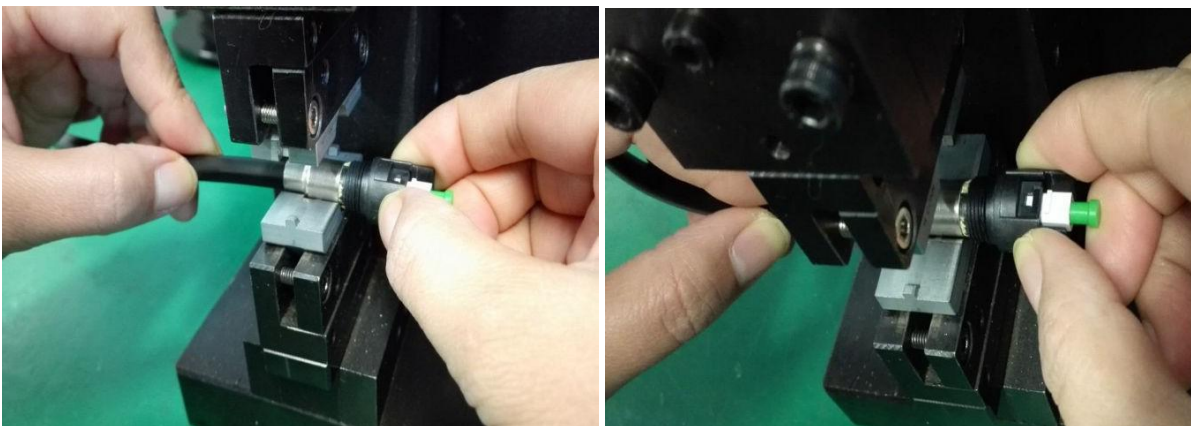
6.3.4 Remove the foot to reset the pusher, take the cable and front housing out from the tool.



6.4 Mark and cut the Kevlar per the strip template, approximately 12mm from the break out edge. Distribute the Kevlar evenly and push the crimp ring over the Kevlar and to the back of the front housing



6.5 Install the crimp die into the crimp machine. Crimp the ring with the die CT927-00613 for 7.0mm OD jacket cable. For 5.0mm round jacket cable, use the die CT927-00694.



Warning: The orientation of the crimp and front housing is critical.



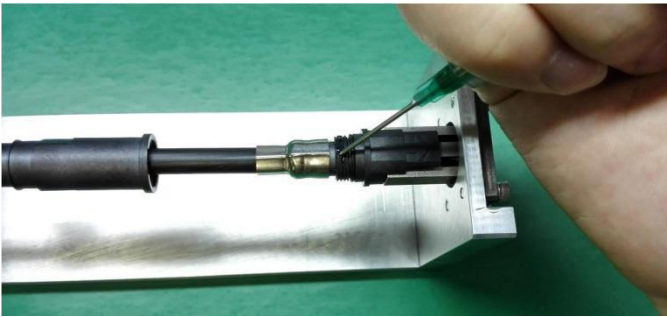
## 6.6 Assemble the rear body

6.6.1 Secure the front housing with the tool CT927-00706, pull cable straightly and press the clamp to hold the cable. This will prevent the cable from rotating during assembly.



Warning: Do not overstretch the cable.

6.6.2 Apply Tra-bond F113SC epoxy over the external threads of the front housing. The epoxy needs to fully cover the first cycle of the thread.



6.6.3 Screw on the rear body by hand until it covers the black O-ring and it cannot be rotated anymore. Use the torque wrench to fully tighten the rear body to the main housing; set the torque to 1 Nm.

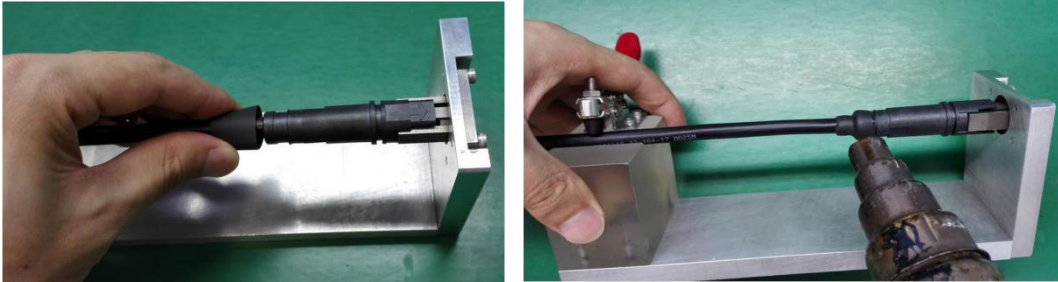


Warning: Do not overtighten the component.

6.7 Apply a round of hot melt (3M 3792-TC or equivalent) at the end of rear body and cable.

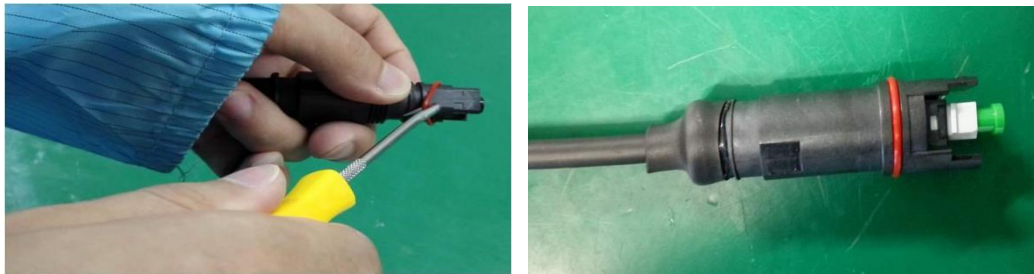


**6.8** Slide the heat shrink tube over the end of the rear body and shrink it fully until an epoxy ring appears at the edge of the heat shrinktube.



Warning: Do not overheat the cable jacket.

**6.9** Remove the connector from the fixture and load the O-ring 958-1027 (red) onto the front housing by hook.



**6.10** Wait until the heat shrink tube cools down, then slide the coupling nut over the rear body, and push the boot over the shrink tube and rear body.



**6.11** Put on the H-Connector dust cap and screw it tight onto the coupling nut.





## 7.0 Testing

### 7.1 IL & RL testing

IL & RL must be performed 100% for each cable assembly.

7.1.1 Prepare launch cable and adapter, the launch cable connector type depends on the test meter. For VIAVI MAP 200, the launch cable should be



FC/APC-SC/APC launch cable



H-CONN adapter

7.1.2 Connect FC/APC of launch cable to switch output channel, and connect SC/APC side of launch cable to OPM detector, set reference for IL&RL.



7.1.3 Connect SC/APC of launch cable and H-CONN plug with adapter, put the other side of test cable to the OPM detector, measure the IL and RL.

