

# CORNING

## **FC Fixed Key Connectors Termination Procedure**

**Series: 722-N1N0-0NN0N**

D	Update address and fax number	10/26/2018
C	Initial Release	
Version	Revision History Summary	Issue Date

**SERIES 722-N1N0-0NN0N  
FC FIXED KEY CONNECTORS  
TERMINATION PROCEDURE**

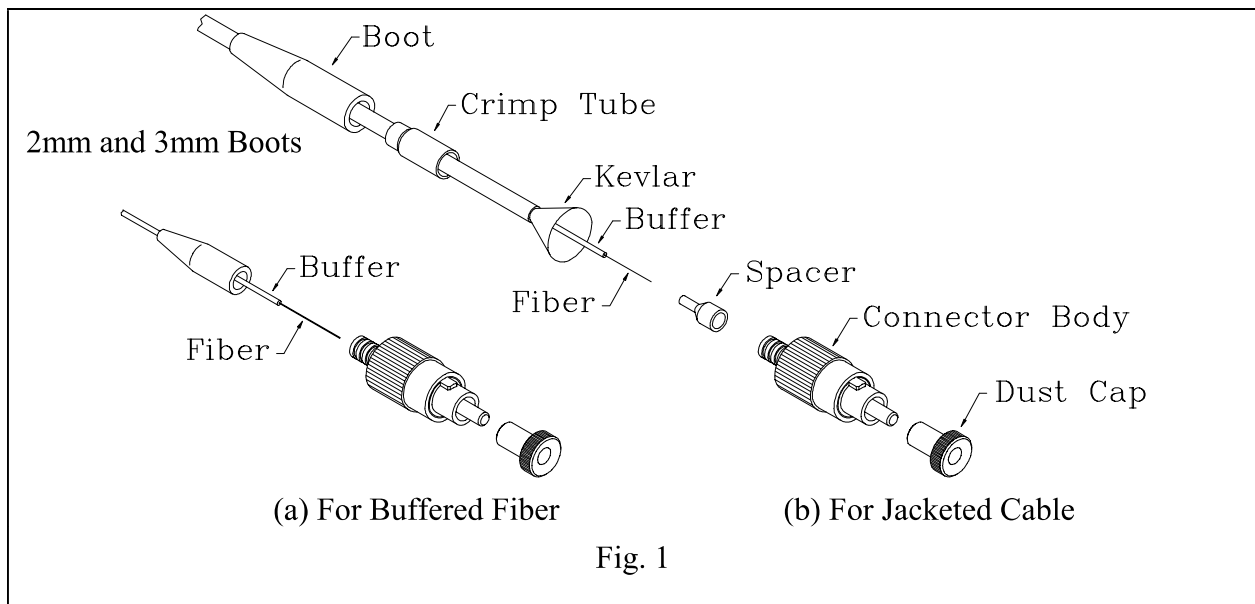


**I INTRODUCTION**

This termination procedure is for Series 722-N1N0-0NN0N FC/PC and FC/APC Fixed Key Connectors. Please read this procedure thoroughly before assembly. All tools and materials required are listed in Section III.

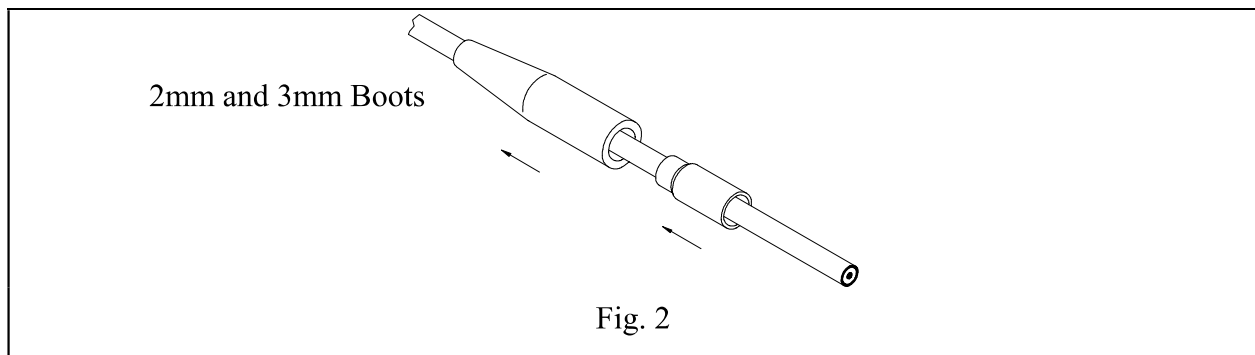
**II DESCRIPTION**

Fig. 1 shows the structure of Series 722 FC connector, which consists of Connector Body, Spacer, Crimp Tube, Boot, Dust Cap and Key Ring. Follow the following steps to make cable assembly.



**Step 1** Slide Boot and Crimp Tube onto the cable shown in Fig. 2.

*Note: In case of Buffered Fiber, do not use Crimp Tube and Boot. Use Rubber Boot instead.*



**Step 2** Use jacket stripper to cut cable jacket and Kevlar to cut the strength member (Kevlar). See Fig. 3 for the correct dimensions or use the FC Dimension Template.

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*Note: In case of Buffered Fiber termination, skip this step.*

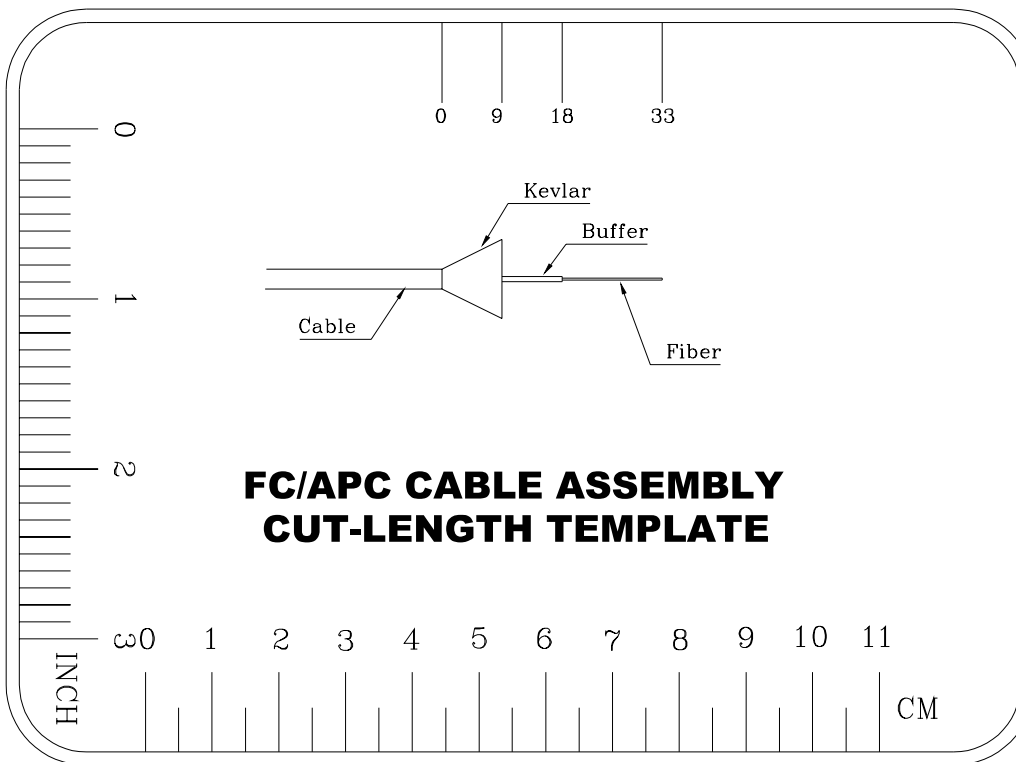
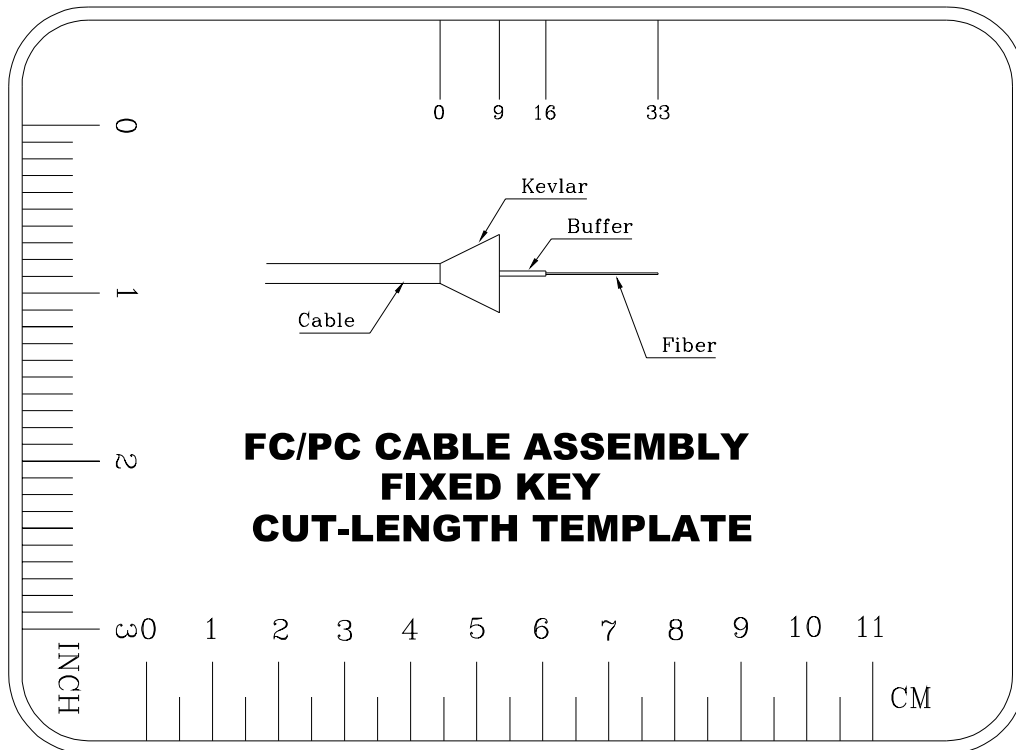


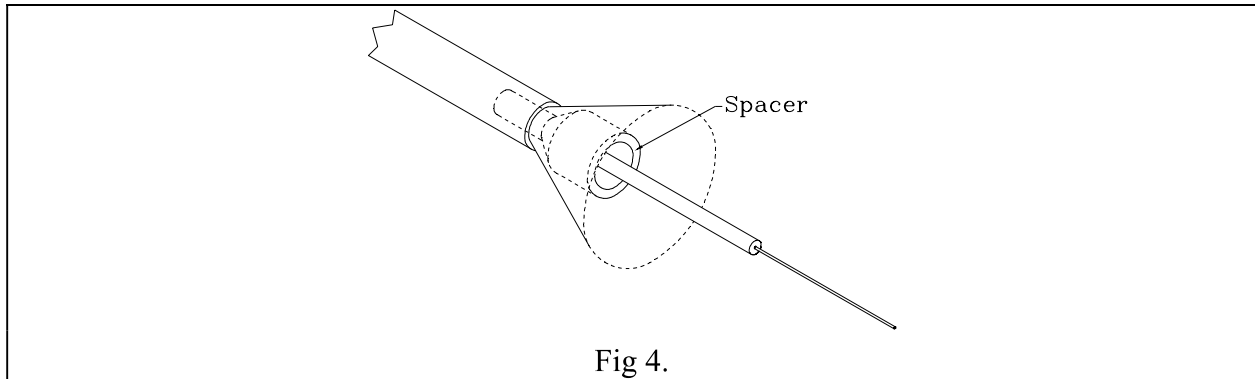
Fig 3

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**Step 3** Insert the Spacer carefully into the jacket of cable and push the Spacer all the way until it is stopped by the jacket, shown in Fig. 4.

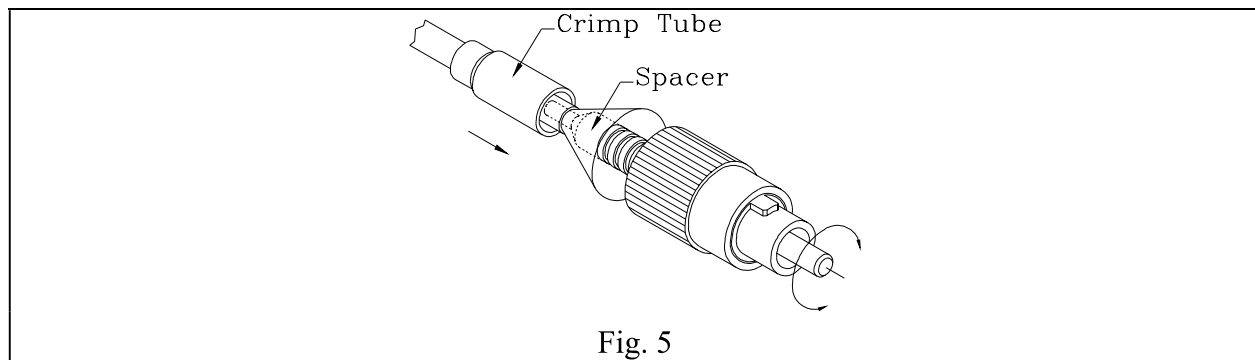
*Note: In case of Buffered Fiber termination, skip this step.*



**Step 4** Use buffer stripper to remove the require length of buffer and use alcohol and lens wiper to clean the bare fiber. See Fig. 3 for the correct dimensions or use the FC Dimension Template.

**Step 5** Apply a couple of drops of the prepared epoxy into the Connector Body with syringe or needle. Slide the fiber gently in and out of ferrule, or apply a drop of epoxy on ferrule end face to form the epoxy bead around fiber.

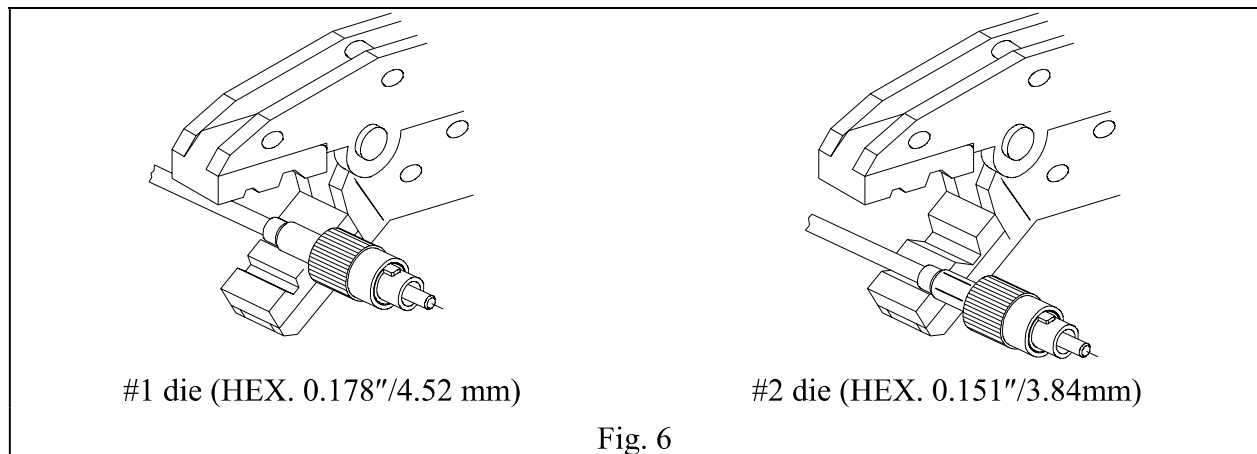
**Step 6** Insert bare fiber carefully into the epoxy-filled connector. Slightly rotating the connector will help the fiber to get through the ferrule. Slide the fiber gently in and out of ferrule until epoxy appears. Slide Crimp Tube over Kevlar and connector body shown in Fig. 5.



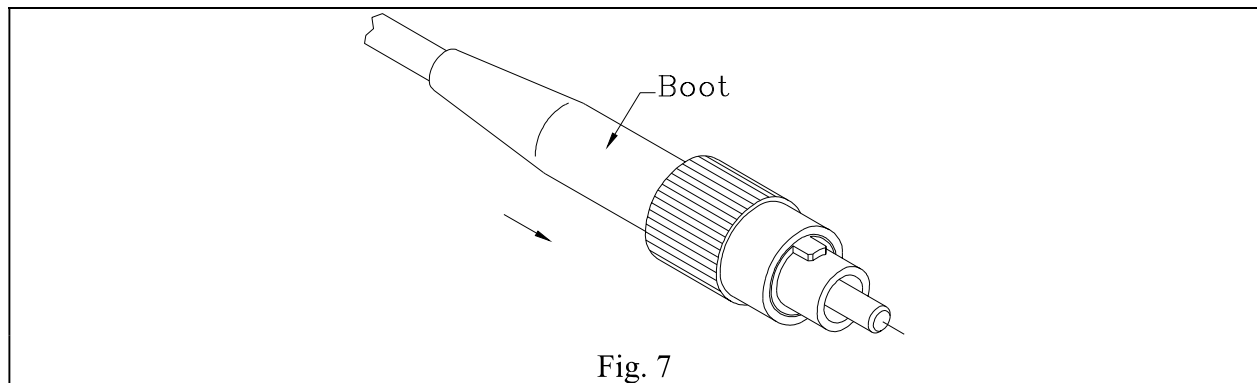
**Step 7** Crimp the Tube twice by the Crimp Tool. Crimp the large end of Crimp Tube with #1 die first and the small end of Crimp Tube with #2 die afterward, as shown in Fig. 6.

*Note: (a) In case of Buffered Fiber termination, skip this step.*

*(b) #2 die is HEX 0.128"/3.25mm when a 2mm Crimp tube is applied.*



**Step 8** Slide the boot over the crimped tube as shown in Fig. 7.



**Step 9** Carefully mount the connector onto the curing fixture. Place the connector into curing oven to cure epoxy.

**Step 10** Remove the fixture from the connector after epoxy is fully cured. Use a fiber scribe to score the protruded fiber slightly at the point where the fiber and epoxy bead meet. Gently push the tip of fiber until the fiber separates.

**Note:** (a) Do not break the fiber directly when the fiber is scored.

(b) Fiber shall be scored again if fiber is not break by light push on the tip of fiber.

**Step 11** Use alcohol and Lens Wiper to clean the Polishing Pad and Polishing Tool and Place a 5 $\mu$ m Polishing Paper onto the Polishing Pad and mount the connector onto the Polishing Tool.

**Step 12** Polish the connector with 8-figure motion until the tip of the ferrule turn light blue(vary the pressure as necessary).

**Step 13** Repeat the previous step with a 1  $\mu$ m and a 0.3  $\mu$ m polishing papers respectively.

**Step 14** Clean the connector and use a X100 Microscope to inspect the end surface of the connector.

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*Note: Polishing Machine manufacturers offer different polishing procedures.  
Please refer to polishing machine manuals for proper polishing process.*

**III REQUIRED TOOLS AND MATERIAL**

*Note: Most tools and Consumable material are standard and can be purchased through distributors.*

TOOLS
JACKET STRIPPER
KEVLAR CUTTER
BUFFER STRIPPER
DIMENSION TEMPLATE(FC)
FIBER SCRIBER
MICROSCOPE X100
CRIMPING TOOL(ST, FC, SC)
POLISHING TOOL(FC)
POLISHING PAD
CONSUMABLE ITEMS
EPOXY
POLISHING PAPER 5 $\mu$ m
POLISHING PAPER 1 $\mu$ m
POLISHING PAPER 0.3 $\mu$ m
LENS WIPER
SYRINGE