



## Applications Engineering Notes

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Document Title	Operating Instructions for the US Conec Loose Fiber Ribbonizing Tool
Document Number	AEN-1408
Revision Number	2.0
Effective Date	August 2, 2017

## **THE USE OF SAFETY GLASSES FOR EYE PROTECTION IS RECOMMENDED**

### **1.0 Document Purpose**

This document describes the procedure for ribbonizing loose fibers using the US Conec loose fiber ribbonizing tool and ½” Scotch<sup>®</sup> 810 Magic<sup>™</sup> Tape.

### **2.0 Required Equipment and Materials**

- US Conec loose fiber ribbonizing tool
- 100 millimeter ruler or other measuring device
- Permanent marker
- ½” Scotch<sup>®</sup> 810 Magic<sup>™</sup> Tape
- New razor blade or Xacto<sup>®</sup> knife
- Isopropyl alcohol, 99.8% pure
- Lint-free wipes
- Tweezers
- Fiber optic side cutters

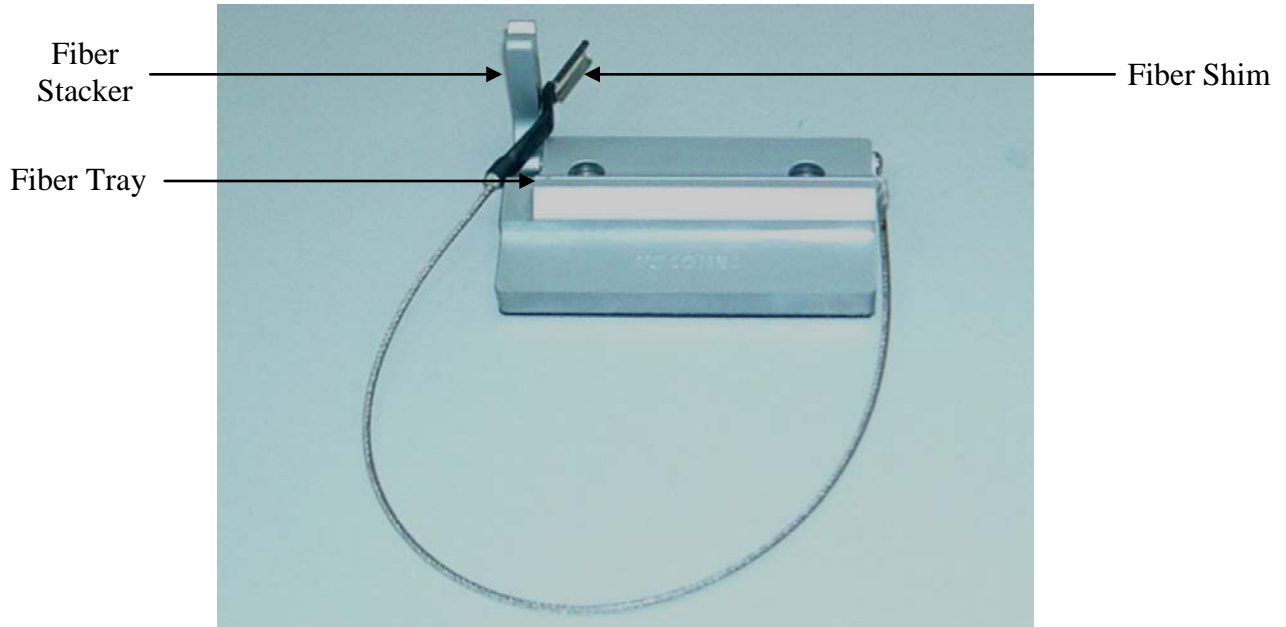
### **3.0 Ribbonizer Operating Instructions**

#### **3.1 Cable Preparation**

- 3.1.1 Prepare the cable for ribbonization according to the manufacturer’s instructions or for the termination type being used.

#### **3.2 Fiber Preparation**

- 3.2.1 Raise the ribbonizing tool’s fiber stacker into the vertical position and remove the fiber shim.



3.2.1

3.2.2 Clean all tool surfaces of contaminants with 99.8% pure isopropyl alcohol and lint free wipes. Pay particular attention to the fiber tray.

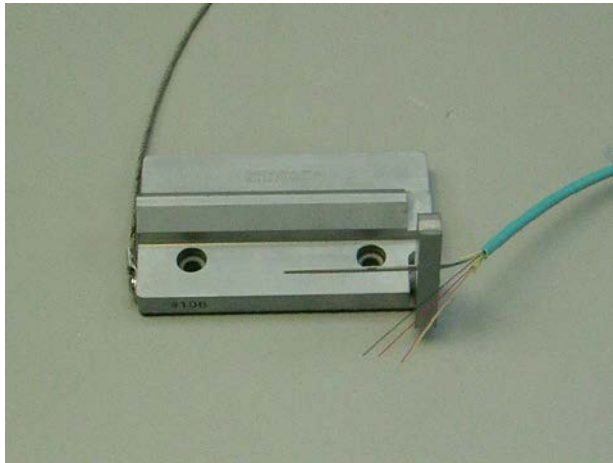


3.2.2

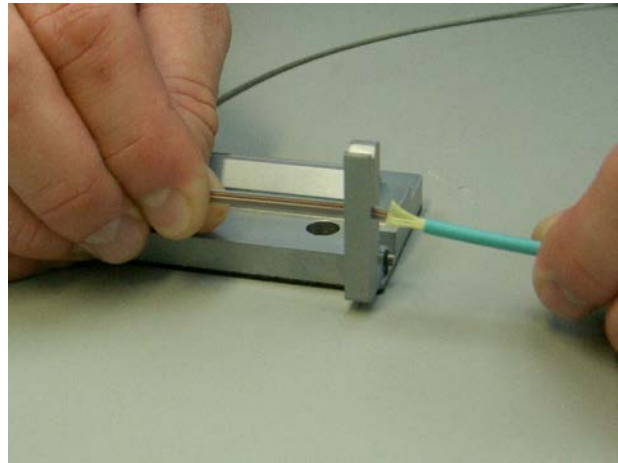
3.2.3 For standard polarity, place the loose fibers into the fiber stacker as shown in Table 1 below.

Fiber No.	Color	Fiber No.	Color	Fiber No.	Color
1	Blue	5	Slate	9	Yellow
2	Orange	6	White	10	Violet
3	Green	7	Red	11	Rose
4	Brown	8	Black	12	Aqua

Table #1: Standard Ribbon Fiber Color Order Chart

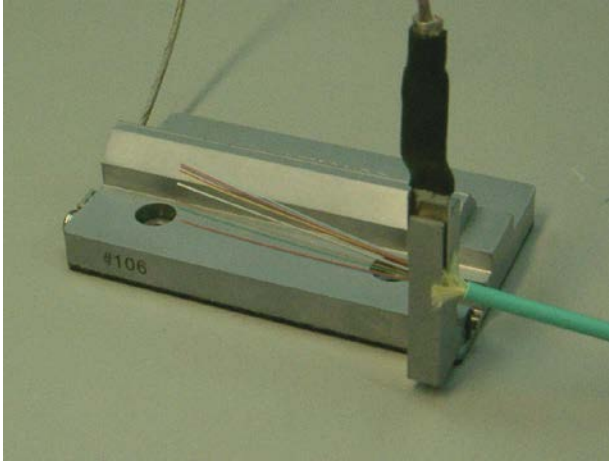


3.2.3a

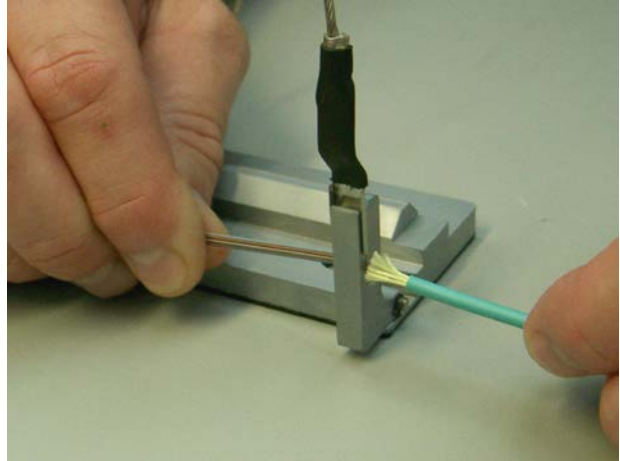


3.2.3b

3.2.4 Carefully slide the shim into the stacker, leaving a small gap between the shim and the “top” fiber in the array.



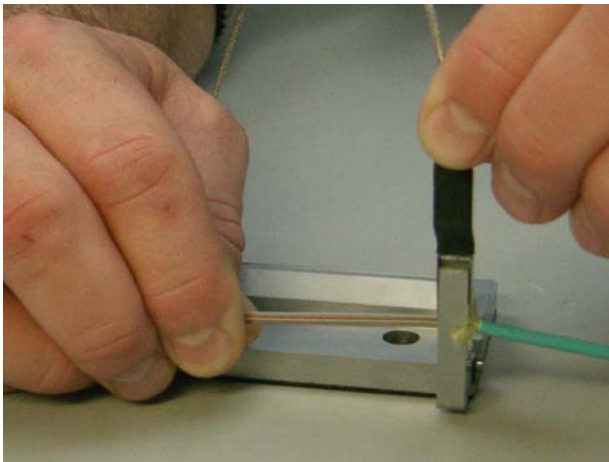
3.2.4



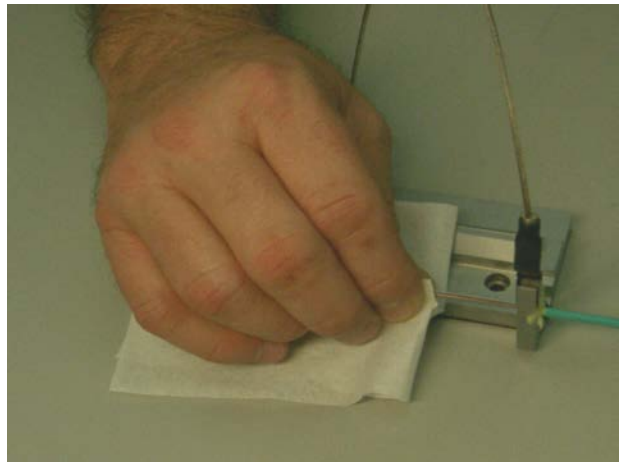
3.2.5

- 3.2.5 Gently slide the fibers from right to left and back several times to allow the fibers to settle into position as they exit the jacket. Pull the fibers so that the end of the jacket is snug against the opposite side of the stacker.
- 3.2.6 Push the shim down until it contacts the top fiber in the stacker and compacts the fibers into a ribbon.

*NOTE: Pushing the shim down too firmly will cause over-compacting of the fibers resulting in fiber crossover and possible damage to individual fibers.*



3.2.6



3.2.7

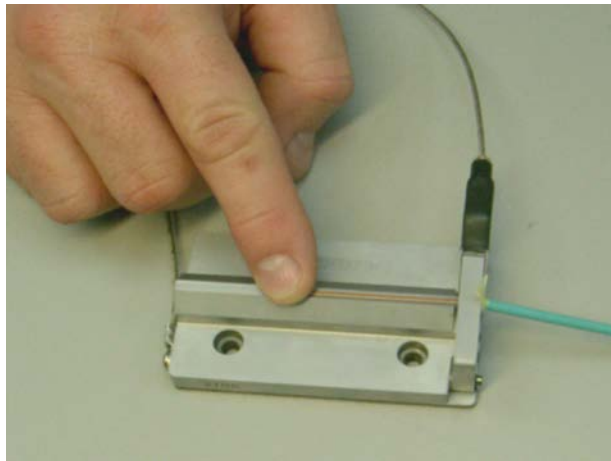
3.2.7 Thoroughly clean the fibers with 99.8% pure isopropyl alcohol and lint-free wipes. Use caution to not break fibers.

3.2.8 Position the fibers into the fiber tray.

3.2.8.1 Rotate the stacker down to the horizontal position.

3.2.8.2 Gently slide your finger along the fiber tray in the direction of the opposite end of the tool, aligning the fibers in the proper order in the tray.

*NOTE: Repeat as necessary until the fibers are lying smoothly in the tray.*

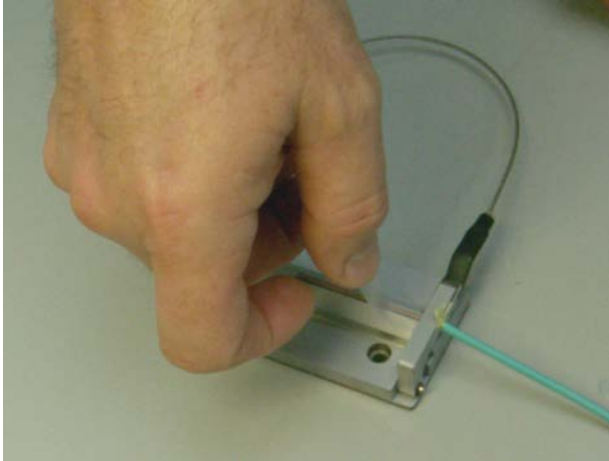


3.2.8.2

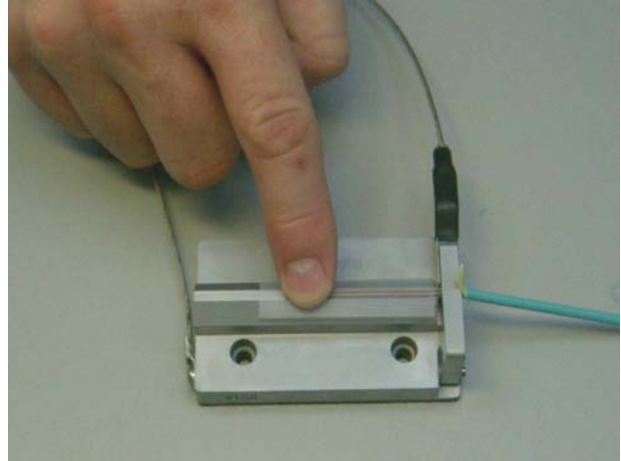
#### 4.0 Fiber Ribbonization

4.1 Cut a piece of Scotch<sup>®</sup> 810 Magic<sup>™</sup> Tape approximately 60 mm long.

4.2 Apply the tape to the tray, covering the fibers and securing them into position. Keep the tape approximately centered along the tray. Lightly slide your finger along the tape as it covers the fibers aligned in the tray.



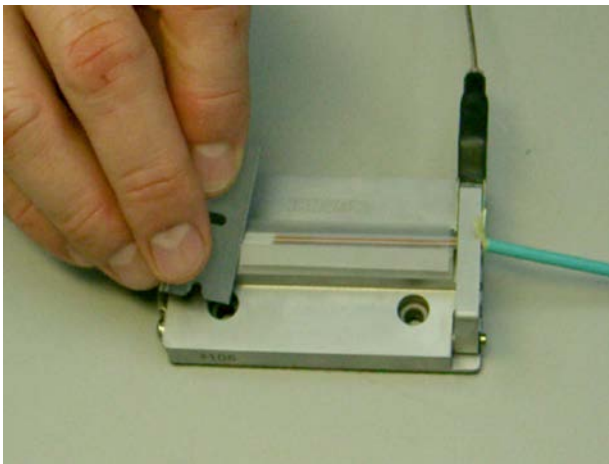
4.2a



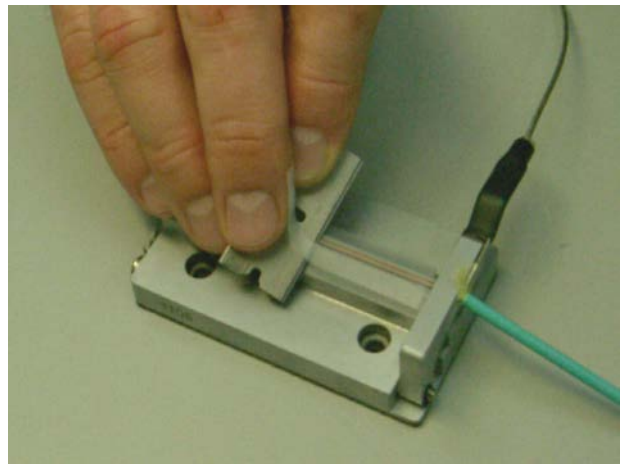
4.2b

**CAUTION:** *Make sure the fibers remain in the proper order during this step. Attention is required to ensure fibers do not cross.*

- 4.3 Place a new razor blade or Xacto<sup>®</sup> knife against the outside of the tray at the end opposite the stacker. Hold the blade at an approximate 45° angle to the edge of the tray.



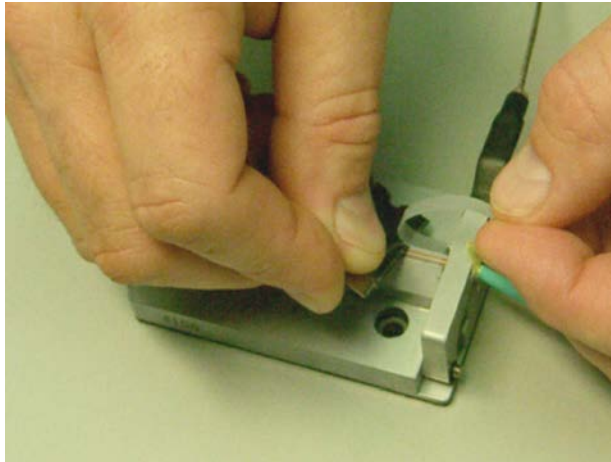
4.3



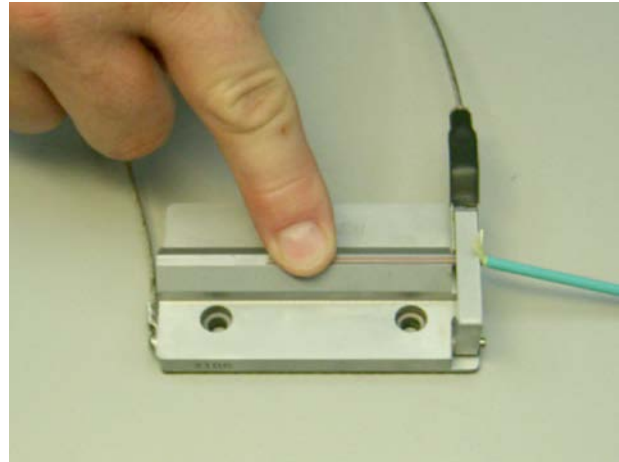
4.4

- 4.4 Carefully slide the blade along the edge of the tray to remove the excess tape. Pull the tape away from the tray with your other hand as the blade is moved. Attention is required to ensure the tape is cut as closely as possible against the edge without fiber damage.

4.5 Repeat steps 4.3 and 4.4 for the other side of the ribbon.



4.5

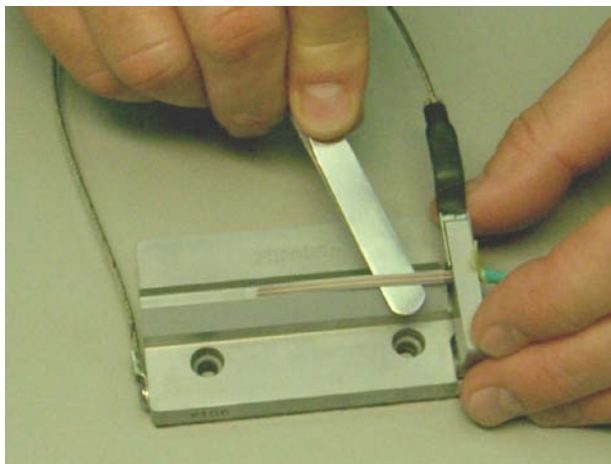


4.6

4.6 Slide your finger across the ribbon lying in the tray. Repeat several times, increasing pressure with each pass.

4.7 For multi-leg cables (24, 48, or 72 fiber units), number the ribbonized fiber ribbon (1, 2, 3, 4, or A, B, C, D, etc.) before removing it from the fiber tray.

4.8 Slowly rotate the stacker to the vertical position while gently sliding the end of the tweezers under the ribbon in order to remove it from the tray.



4.8a



4.8b

4.9 Remove the shim from the stacker and gently remove the fiber ribbon.



- 4.10 Measure and trim the ribbon to the required length using ONLY fiber optic side cutters.



4.10

- 4.11 Follow the connector manufacturer's recommended termination procedure for complete connector installation.

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