

## TERMINATION PROCEDURE LIGHTCON™ ST EPOXY CONNECTOR (AINFO-0003)

### I INTRODUCTION

This termination procedure is prepared for the LightCon™ SC Connectors. Please read this procedure thoroughly before starting assembly. All tools and materials required are listed in Section III.

### II DESCRIPTION

Fig. 1 shows the structure of the LightCon™ ST Connector, consisting of Connector Body, Crimp Sleeve, Boots, and Dust Cap. Connectors for different cables/fibers may vary slightly by boots or crimp sleeves. Follow the steps below to make cable assembly.

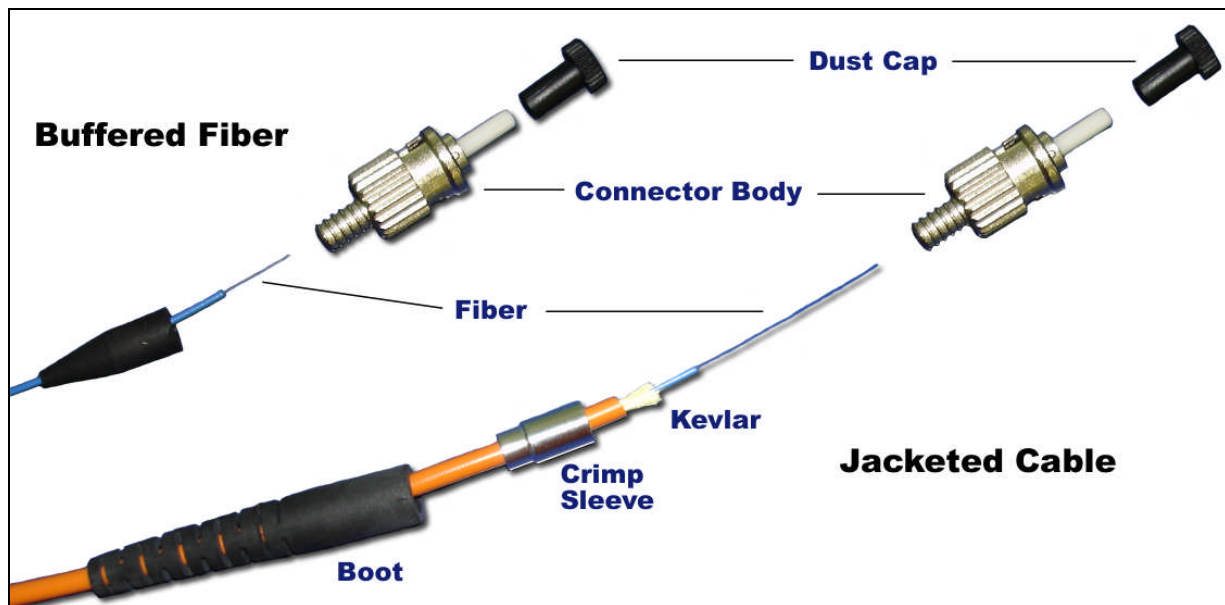


Fig 1

**Step 1** Slide the Boot and Crimp Sleeve onto the Cable as shown in Figure 1.

**Note:** Do not use Crimp Sleeve and boot for buffer fiber type. Use 900um type boot instead.

**Step 2** Mark and strip the fiber using ST Strip Template for correct dimensions. Use the Strip Tool to remove the cable jacket and cut the strength members (Kevlar) with the Kevlar Scissors.

**Step 3** Use the Strip Tool to remove the required length of buffer. Use alcohol and a lint-free wipe to clean the bare fiber.

**Step 4** Remove the divider from the epoxy bi-pack. Mix epoxy thoroughly, and dispense epoxy into syringe. Press plunger until all air leaves the syringe and epoxy starts to exit the needle.

**Step 5** Insert the syringe tip into the rear of the connector until it bottoms with the ceramic ferrule.

**Step 6** Insert the bare fiber carefully into the epoxy-filled connector. Slightly rotating the connector will help the fiber to pass through the ferrule easier.

**Note:** (1) The 900um buffer must bottom with the ferrule inside the connector.

**Step 7** Slide the Crimp Sleeve over the Kevlar and connector body. Crimp the Crimp Sleeve twice with the crimping tool. Crimp the large end of the Crimp Sleeve with the .178" die cavity. Crimp the small end of the crimp sleeve with the .128 die cavity.

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

(b) Use die cavity 0.128"/3.25mm when a 2mm Crimp sleeve is applied.

**Step 8** Slide the boot over the crimped sleeve.

**Step 9** Place cure adapter on connector ferrule and place in oven. Cure for 10 minutes at 248°F/120°C.

**Step 10** Remove the cured connector from oven and allow to cool for 2 minutes. Remove cure adapter.

**Step 12** Use the fiber scribe to cleave the protruded fiber at the point where the fiber and epoxy bead meet. Gently pull the fiber until the fiber separates.

**Note:** (a) Cleave again if fiber does not pull away easily.

**Step 13** Use a wipe dampened with alcohol to clean the polishing pad and polishing tool. Place the 5µm polishing film on the polishing pad. Place the polishing tool on the 5µm film. Put the connector into polishing fixture and polish.

**Note:** Polishing Machine manufacturers offer different polishing procedures. Please refer to the polisher manuals for proper polishing process. This polishing procedure is for reference only.

**Step 14** Polish the end of the connector by applying light pressure on the connector and move the polishing fixture in a Figure-8 motion until the polishing traces caused by protruded fiber to disappear.

**Step 15** Repeat the previous step with 1µm and 0.1µm polishing film respectively.

**Step 16** Clean the connector end and use a microscope to inspect the end-face of the connector. No epoxy, crack or scratch should be visible.

**Step 17** Pull the connector housing over the connector body and make sure it snaps in place.

**Step 18** Clean the connector end-face with an alcohol dampened wipe. Install dust cap.

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