

TERMINATION PROCEDURE LIGHTCON™ LC (PC & APC) CONNECTOR EPOXY

I INTRODUCTION

This termination procedure is prepared for the LightCon™ LC 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™ LC 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.

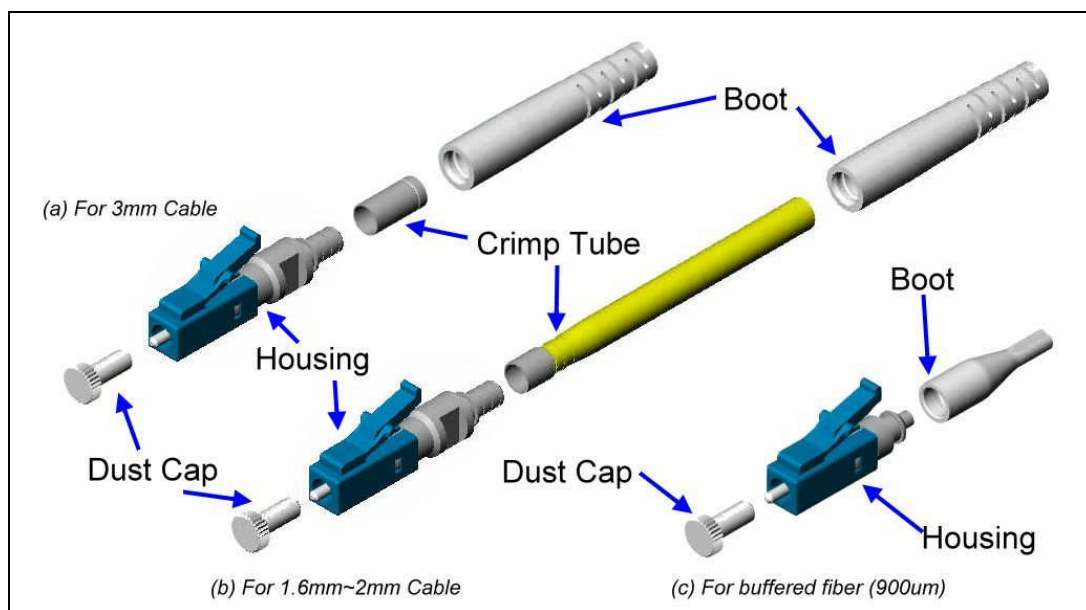


Fig 1

Step 1 Slide the Boot and Crimp Sleeve onto the Cable as shown in Figure 1. For 3mm Cable, use the metal Crimp Sleeve. For 1.6 – 2mm Cable use the Crimp Sleeve with Crimp Tube.

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 LC 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. For 1.6 – 2mm Cable, crimp the Crimp Tube with the .178"/3.25mm die cavity and use the heat gun to shrink the heat shrink portion of the Crimp Tube. For 3mm Cable, crimp the Crimp Sleeve with the .178"/3.25mm die cavity

Note: (a) In case of Buffered Fiber termination, skip this step.
(b) If the cable moves under the Crimp Sleeve after crimping, apply a small amount of epoxy on the end of the crimp sleeve and jacket to prevent movement.

Step 8 Slide the boot over the crimped sleeve.

Step 9 Allow 30-60 seconds for adhesive to cure.

Step 10 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 11 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 12 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 13 Repeat the previous step with 1µm and 0.1µm polishing film respectively.

Step 14 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 15 Clean the connector end-face with an alcohol dampened wipe. Install dust cap.