

CORNING

LC Slimpac3 Connector Termination Procedure



Version	Revision History Summary	Issue Date
B	Update address and fax number	2018/10/26
A	Initial Release	2012/06/11

I INTRODUCTION

This document describes the termination procedure of LC Duplex Slimpac3 Connectors. This connector is assembled with 3mm, 2.4mm or 2.0mm outer diameter cable which has two buffered fibers. Please read this procedure thoroughly before starting assembly.

II DESCRIPTION

Fig. 1 shows the structure of LC duplex Slimpac3 connector, which consists of Subassembly, Dust Cap, LC Subassembly with A or B mark each one, Upper Housing, Lower Housing, Back Housing, Crimp Tube with heat shrinking, and Boot. Follow the following steps to make LC Slimpac3 Cable Assembly.

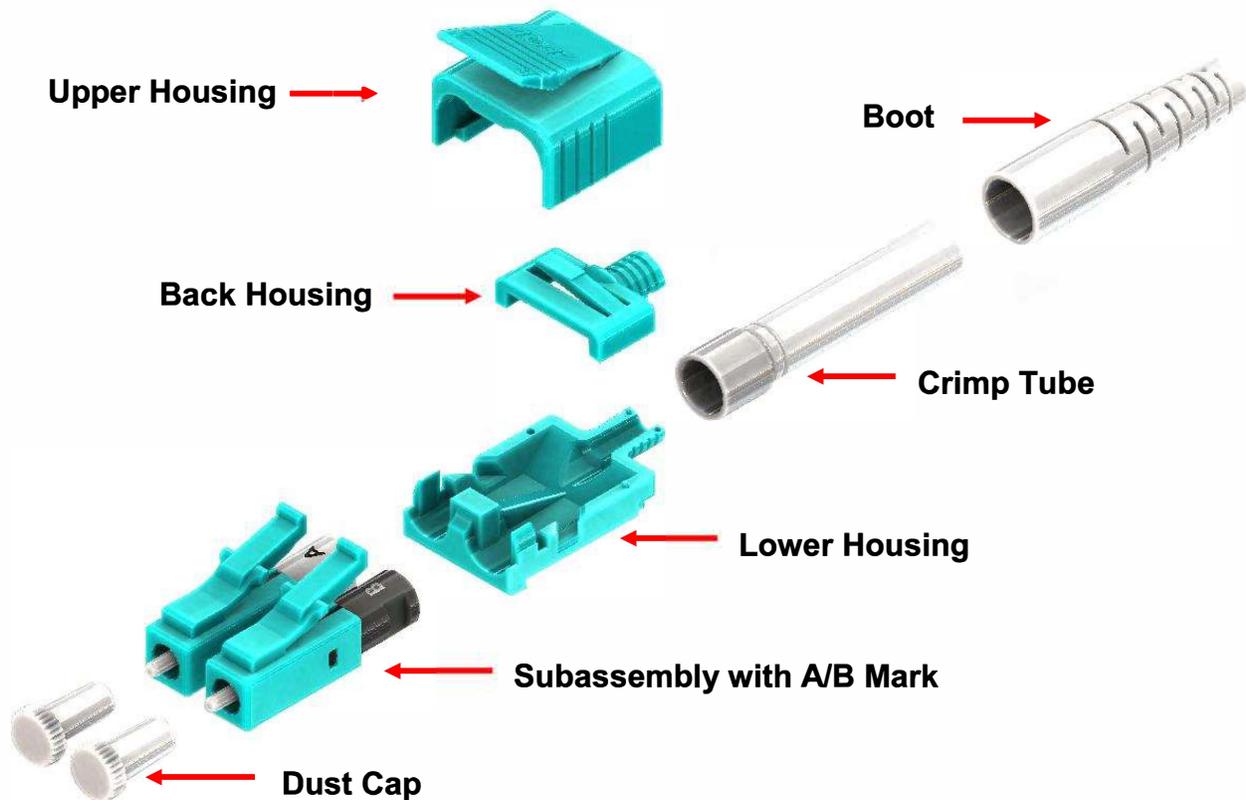


Fig 1

III ASSEMBLY PROCEDURE



Fig 2

Step 1 Slide the Crimp tube, Boot and onto the cable in the correct order and direction.

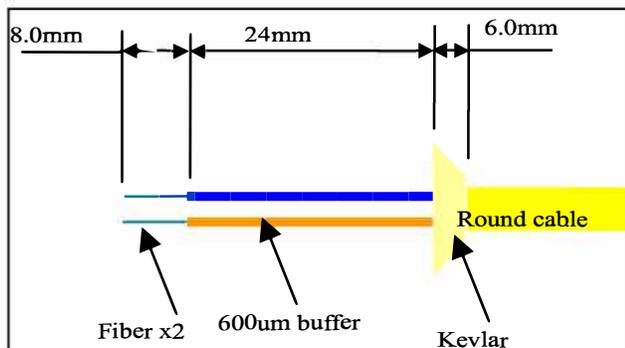


Fig 3

Step 2 Use jacket stripper to cut cable jacket 38mm. Next, cut the kevlar and fiber to a length of 6.0mm and 8.0mm using the kevlar and fiber cutter



Fig 4

Step 3 Have the epoxy ready according to the manufactures instructions and put part of the mixed epoxy into a small container. The rest of epoxy should be stored in the freezer for latter use.

Note: Apply a couple of drops of the epoxy to the inside of subassembly by using a needle or syringe.

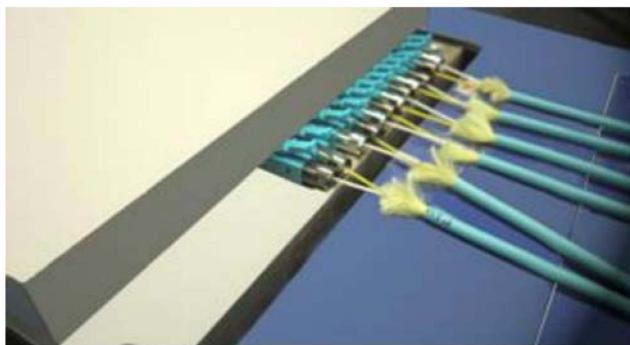


Fig 5

Step 4 Carefully mount the connector subassembly onto the curing fixture, and cure it. The heating temperature is 120°C for 20 minutes.

Note: During the curing, the cable should remain horizontally to avoid any bending which can cause micro-bending loss after assembly.

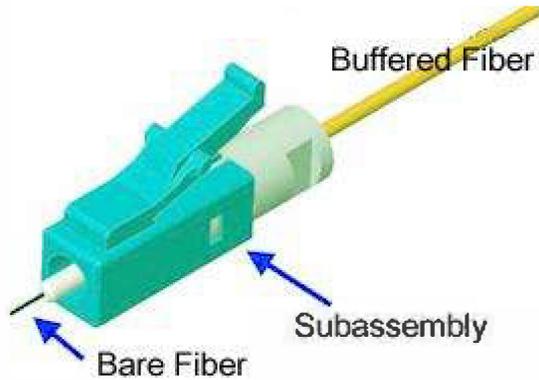


Fig 6

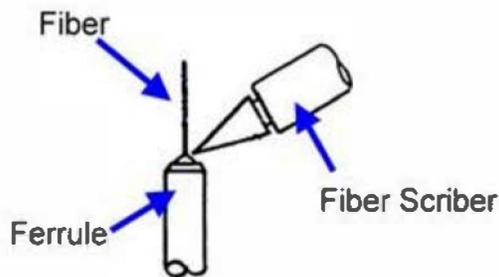


Fig 7

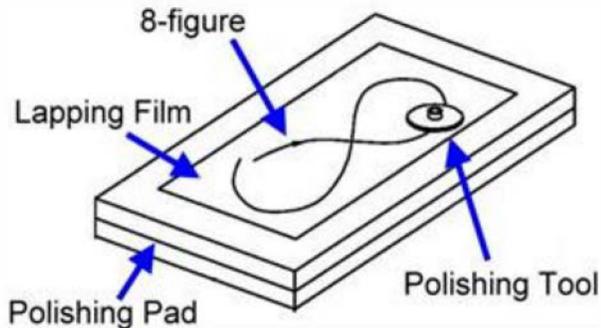


Fig 8

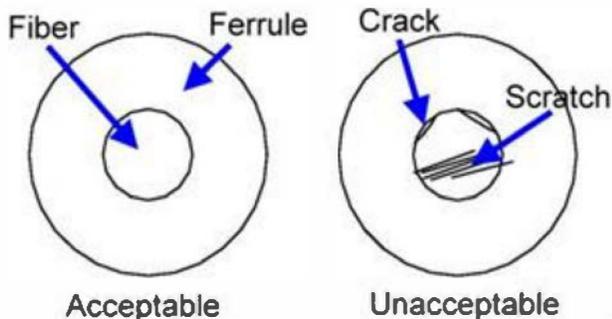


Fig 9

Step 5 Insert fiber carefully into the epoxy-filled subassembly. Slightly rotate the subassembly will help the fiber to get through the ferrule.

Note: Slide the fiber gently in and out of ferrule to form the epoxy bead on the end of ferrule. Or, apply a drop of epoxy on the ferrule end face to form the epoxy bead around fiber.

Step 6 Remove the fixture from the connector subassembly after epoxy is fully cured. Use a fiber scriber 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.

Step 7 Use alcohol and lens wiper to clean the polishing pad and polishing tool and place a 16 μm lapping film on the polishing pad and mount the connector onto suitable polishing fixture.

Step 8 Polish the end of connector by applying light pressure on the connector and move the polishing jig by an 8-figure motion until the polishing traces caused by protruded fiber disappear.

Step 9 Repeat the previous step with a 9μm, 3μm, 1μm and 0.3μm lapping film respectively.

Step 10 Clean connector end and use a X200 microscope to inspect the end surface of the connector. No adhesive, crack and scratch should be visible.

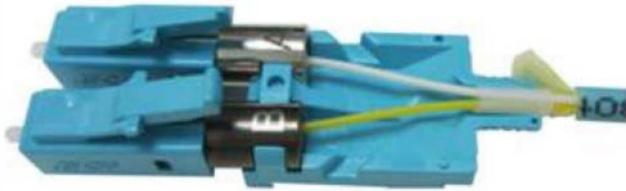


Fig 10

Step 11 Assembly, the LC A/B mark CONN., inserted to the Lower Housing of end.(Fig.10)



Fig 11

Step 12 The Upper Housing inserted to Lower Housing of end.



Fig12

Step 13 Then the back housing inserted where is 45 ° from the local to the Back Housing push and close together with the Lower Housing.



Fig13

Step 14 Push the Crimp Tube onto the Lower Housing of end body backend.



Fig 14

Step 15 Crimp the Crimping Tube by the LC Slimpac3 crimping tool. The hexagonal die dimension is 4.52mm.



Fig 15

Step 16 Use heating gun to heat the shrinking tube.

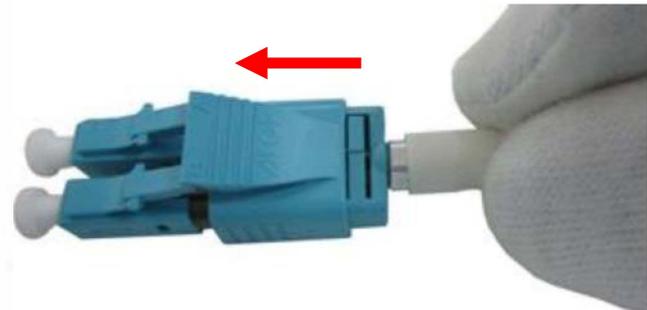


Fig 16

Step 17 Slide the Boot onto the Inner Housing body end.



Fig 17

Step 18 The finish good is as fig 17.

IV Required Tools and Materials

Note: Most Tools and Consumable material are standard and can be purchased through its own manufacturers or distributors.

TOOLS
JACKET STRIPPER
KEVLAR CUTTER
BUFFER STRIPPER
FIBER SCRIBER
KNIFE
MICROSCOPE X200
CRIMPING TOOL
POLISHING TOOL(LC)
POLISHING PAD
HEAT BLOWER
CONSUMABLE ITEMS
EPOXY (EPO-TEK 353ND)
SPIRAL TUBE
LAPPING FILM 16 μm
LAPPING FILM 9 μm
LAPPING FILM 3 μm
LAPPING FILM 1 μm
LAPPING FILM 0.3 μm
LENS WIPER
SYRINGE