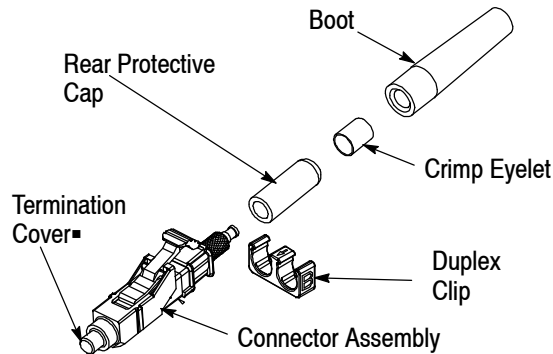


STOP!

Don't Connect Unless You Inspect!



▪ Connector kit is shipped with these installed onto the connector assembly. Keep them in place until ready for use.

Figure 1

1. INTRODUCTION

This instruction sheet describes the installation of LightCrimp Plus LC Connectors (Figure 1) to 2.0-mm loose-jacketed, 900 μ m-buffered fiber.

Please read these instructions thoroughly before starting terminations.

Reasons for revision can be found in Section 7, REVISION SUMMARY.

2. DESCRIPTION

Each LightCrimp Plus LC Connector consists of a termination cover, a rear protective cap, the main connector assembly, the crimp eyelet, and the boot. Refer to Figure 1 to see these items.

3. SAFETY PRECAUTIONS



To avoid personal injury, ALWAYS wear eye protection when working with optical fibers. NEVER look into the end of terminated or unterminated fibers. Laser radiation is invisible but can damage eye tissue. NEVER eat, drink, or smoke when working with fibers. This could lead to ingestion of glass particles.

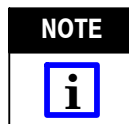


Be very careful to dispose of fiber ends properly. The fibers create slivers that can easily puncture the skin and cause irritation.



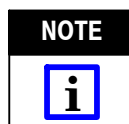
DO NOT use damaged tools. Replace them with new components.

4. REQUIRED TOOLS AND MATERIALS FOR ASSEMBLY



Related instruction sheets are listed in parenthesis.

- Micro-Strip Tool 492109-3 - 0.008 in.
- Combination Strip Tool 1278947-1 (408-4577)
- Cable Holder Assembly 2064540-1 (Used only to terminate connector with cover installed.)
- LightCrimp Plus LC, SC, and Splice Die Set with Crimping Tool 2064603-1 (consists of Die Set 1985766-1 and LightCrimp Termination Handle -- PRO-CRIMPER III Hand Tool -- 2064431-1)
- Cleave Tool 1871696-1 (408-10086)
- Fiber Optic Inspection Microscope Kit 1754767-1
- Microscope Adapter, 1.25 mm Ferrule 1754765-1
- Open Ended Wrenches 1278422-1
- Cable Slitting Tool 2064453-2
- Alcohol Wipe Packet 501857-2
- Reagent-grade isopropyl alcohol and lint-free cloths
- Shears (KEVLAR cutting) 1278637-1
- Cable Clamp 1278625-1



Termination tools can be found in kits 1754845-1 and 1754845-2.

5. ASSEMBLY

5.1. Preparing the Fiber

1. Slide the boot over the jacket as shown in Figure 2. Place a clamp approximately 200 mm [8 in.] from the end of the cable -- behind the boot (depending on the type of cable used).



Figure 2

2. Place the cable into the cable channel on the cable holder and mark it at the first and second slots as shown in Figure 3.

NOTE

Important: When terminating to zip cord cable, be sure to mark both strands at the same time. This is required to assure maximum cable retention performance.

Mark the Cable

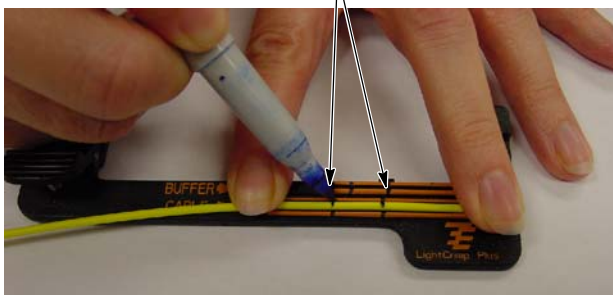


Figure 3

3. Use the combination strip tool to cut the jacket at the first mark from the cable edge and remove the jacket. See Figure 4.



Figure 4

4. Use shears to cut the strength members flush with the jacket. See Figure 5.



Figure 5

5. Slide the cable into the slitting tool until the second mark is aligned with the blades as shown in Figure 6. Squeeze the handles and pull to slit the jacket.

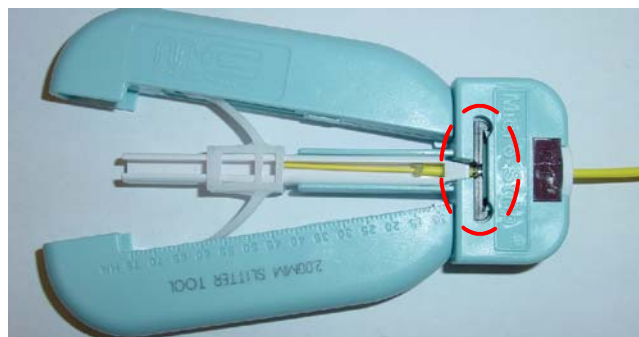


Figure 6

6. Fan back the jacket and strength members.

7. Slide the eyelet over the strength members as shown in Figure 7.

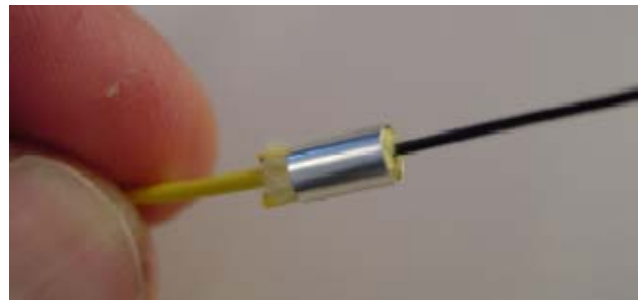


Figure 7

8. Place the buffer on the buffer channel of the cable holder. Mark the buffer at the two slots as shown in Figure 8.

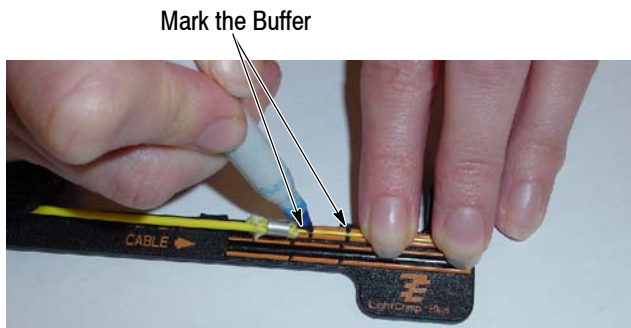


Figure 8

9. Use the combination strip tool to strip the buffer to the first mark. You should strip it in smaller sections multiple times.

10. Use a lint-free cloth (dampened with alcohol) to clean the fiber and remove any residue. Wipe AWAY from the buffer. If the fiber breaks, cut the buffer flush with the jacket and begin the “strip” process again, beginning with Step 2 in Section 5.1.

NOTE

Multiple wipes will ensure cleanliness and also tensile tests the fiber.

CAUTION

Do not lay cable down! Going directly to the next step will prevent the cleaned fiber from becoming contaminated.



Figure 9

5.2. Cleaving

1. Open the fiber clamp of the fiber optic cleaver. Press the button, and slide the carriage back (toward the fiber clamp). Then move the fiber slide back until it stops.

2. Place the stripped buffer into the slot so that the end of the fiber is at the 8-mm marking. See Figure 10.

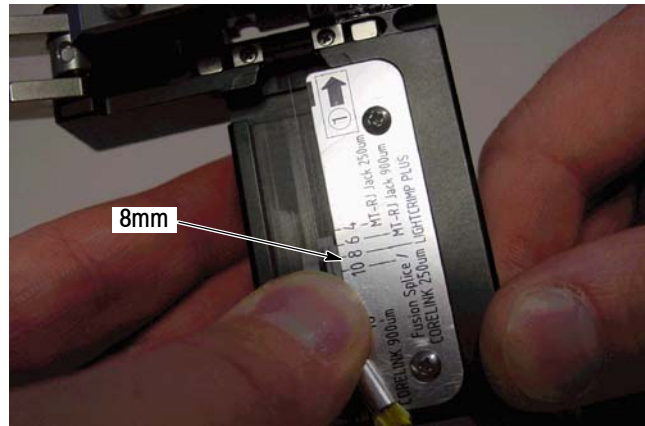


Figure 10

3. While applying pressure on the fiber, carefully slide the fiber slide forward (toward the carriage) until it stops. See Figure 11.



Figure 11

4. Gently close the fiber clamp and swiftly slide the carriage forward. DO NOT touch the button while sliding the carriage. See Figure 12.



Figure 12

CAUTION

Do not touch or attempt to clean the fiber after the cleave has been made.

5. Open the fiber clamp and move the fiber slide back until it stops.

6. Remove the cleaved fiber and properly dispose of the scrap fiber.

5.3. Crimping

1. Place the connector in the holder as shown in Figure 13.

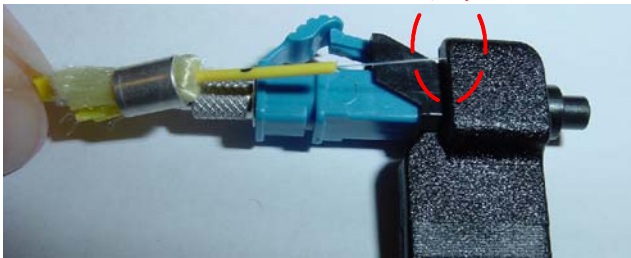


Figure 13

2. Clamp the jacket with the tip of the fiber positioned at the back edge of the holder.
3. Carefully insert the fiber into the back of the connector until the fiber bottoms against the internal fiber. Make sure that the remaining mark on the buffer enters the plunger

NOTE



It is VERY IMPORTANT that the prepared fiber bottoms and stays against the internal fiber! If the remaining mark does not enter the plunger or if the fiber does not seem to bottom against the internal fiber, gently pull back and re-insert the fiber into the plunger until you feel it bottom.

If the remaining mark will not enter the plunger, the fiber must be re-stripped.

4. Slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully. Slowly close the handles until you hear two clicks from the ratchet.
5. With the connector assembly in the cable holder, position the termination cover in the upper cavity of the front die and the knurled rear body in the upper cavity of the rear die. See Figure 14.

CAUTION



The arrows marked on the front die indicate the direction that the termination cover must be pointing when the connector is positioned in that cavity. For proper placement, and to avoid damage to the fiber, observe the direction of the arrows.



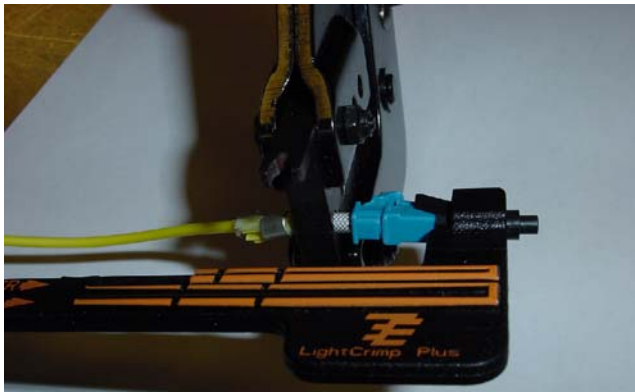
Figure 14

6. Gently push the buffer toward the connector assembly to make sure that the fiber is still bottomed, then slowly squeeze the tool handles together with both hands until the ratchet releases. Allow the handles to open fully, and remove the connector from the dies. See Figure 15.

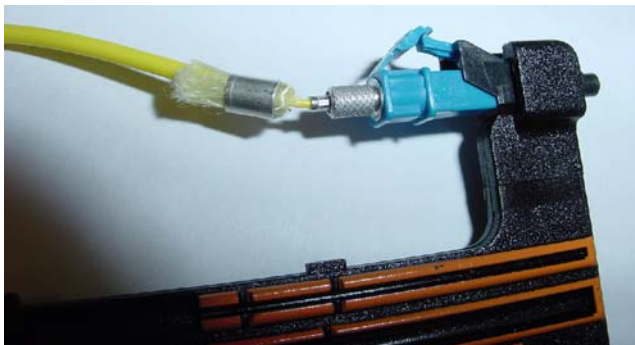


Figure 15

7. Position the back of the connector assembly in the cavity of the front die with the knurl against the edge of the groove in the die and the termination cover pointing in the direction of the arrow.
8. Slowly squeeze the tool handles together until the ratchet releases. Allow the handles to open fully, and remove the connector assembly from the die. See Figure 16.
9. Pull back the eyelet and fan out the jacket and strength members over the connector knurled body. See Figure 17.



(Shown While Performing the Crimp)



(Shown After the Crimp) is Complete

Figure 16



Figure 17

10. Push the eyelet over the jacket and strength members. The KEVLAR strength members and jacket should protrude as shown in Figure 18

NOTE



Excess KEVLAR fiber and jacket may be trimmed with a shears (1278637-1), if desired.



Figure 18

11. Position the connector in the die (as shown in Figure 19) and squeeze the tool handles.

12. Unclamp the jacket and slide the boot onto the back of the connector. See Figure 20.



Figure 19



Figure 20

The finished termination should appear as shown in Figure 21.

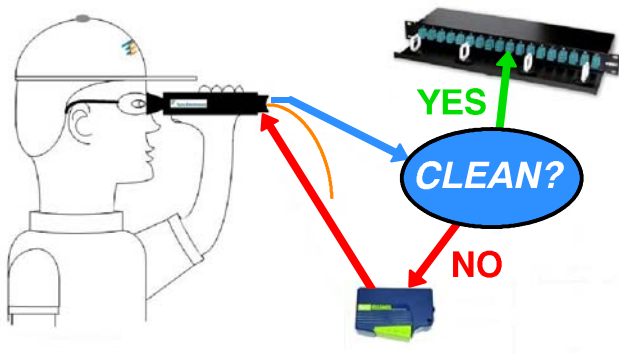


Figure 21

Inspect the finished connector before terminating.

STOP!

Don't Connect Unless You Inspect!



DANGER: Never View Active Fiber Signals

7. REVISION SUMMARY

- Removed alternate termination method;
- Removed table in Figure 1
- Updated format to current corporate requirements

6. AVAILABLE AIDS

- Professional Fiber Optic Connector Inspection Kit 2064651-[] (Instruction Sheet 408-10263)
- Fiber Optic Cleaning and Inspection Guide 2064710-1 (on compact disc)

More information can be found at:

- www.ampneconnect.com/foguide; or
- www.tycoelectronics.com/documents.