

Figure 1

1. INTRODUCTION

This instruction sheet covers the termination of singlemode and multimode Circular LC Plug Kit 1828618-[], and the installation of Receptacle Kit 1828619-[] or 1985193-[] to a panel. See Figure 1.

The sealed plug and receptacle assemblies shown in Figure 1 are used in industrial Ethernet networks, cellular antennae, and FTTX applications that require protection from various environmental factors such as temporary water immersion and/or exposure to debris.

The sealed circular LC connector accepts tactical cable, with a 4.5mm - 7.5mm outside diameter and a pair of 2.0mm jacketed subunits.

Plug Kit 1828618-[] contains a plug assembly with cable fitting, duplex clip, two eyelets, two LC connector assemblies, and protective covers. See Figure 1.

Receptacle Kits 1828619-[] and 1985193-[] include a receptacle assembly, a panel gasket, and a panel nut. See Figure 1.

Read these instructions thoroughly before starting the assembly.

NOTE



Dimensions in this document are in metric units. Figures and illustrations are for reference only and are not drawn to scale.

The following are required for the assembly of the connector:

- PRO-CRIMPER* 58532-2 Hand Tool Assy
- Die Set 58424-1
- 19mm wrench
- 19mm torque wrench (N-m or in-lbs)
- Strip Template 1985203-1
- Cable stripping tool
- Sharp Scissors 501014-1
- Instruction Sheet 408-8675 and fiber optic connector termination tooling.

2. ASSEMBLY PROCEDURE

2.1. Assembly of the Plug Connector

1. Slide the plug assembly over the fiber jacket as shown in Figure 2.
2. Using a pen, mark the outer jacket at the 60mm breakout length as shown in Figure 3.
3. Working in sections, slit and remove the outer jacket to the breakout mark.



Figure 2

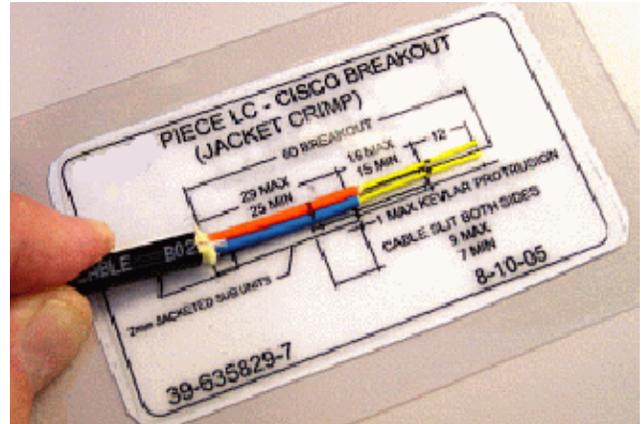


Figure 6



Figure 3

4. Using shears, cut the strength members and filler flush with the jacket. See Figure 4.

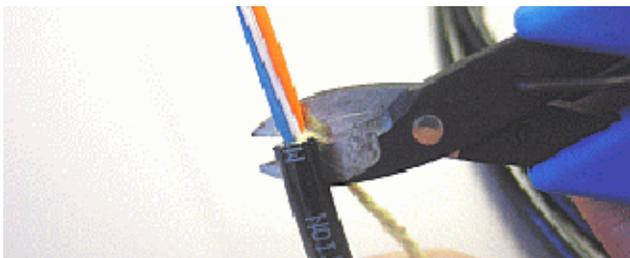


Figure 4

5. Using the template, mark both the 2.0mm jacketed subunits at the 27mm mark and the 8mm cable slit mark. See Figure 5.

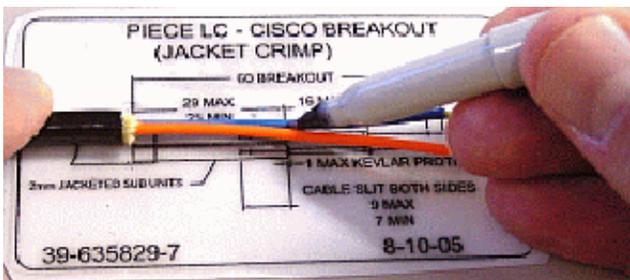


Figure 5

6. Remove the jacket of each subunit to the 27mm mark with a strip tool.

7. Using a strip template, mark each 900 μ m buffer at 15.5mm as illustrated in Figure 6.

8. Using a sharp scissors, carefully cut two slits (8mm long) on each jacket. See Figure 7. Using a buffer stripper, strip off the buffer in at least three pieces. Using a clean, lint-free cloth (soaked in alcohol), remove any residue from the fiber.

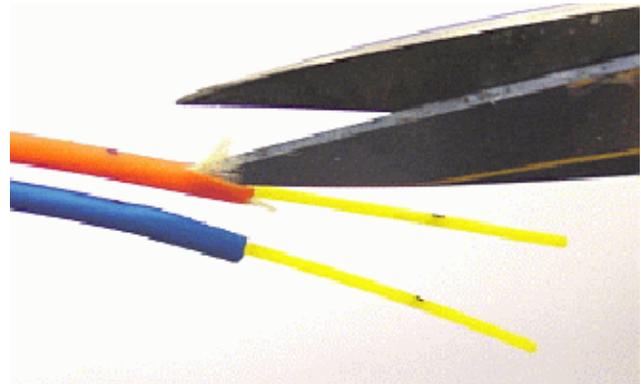


Figure 7

9. Carefully fan back the jacket and strength members, then slide the eyelet over the strength members as shown in Figure 8.

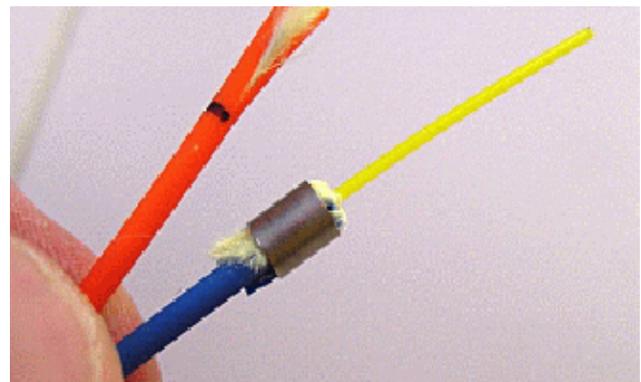


Figure 8

10. After the fiber has been inserted into the connector ferrule, carefully slide the eyelet rearward to unfurl the slit jacket and strength members. Uniformly distribute the aramid and position the slit jacket over the rear body.

NOTE

Refer to Instruction Sheet 408-8675, Sections 3.4 and 3.5 for epoxy instructions.



11. While holding the connector, push the eyelet forward, as shown in Figure 9.

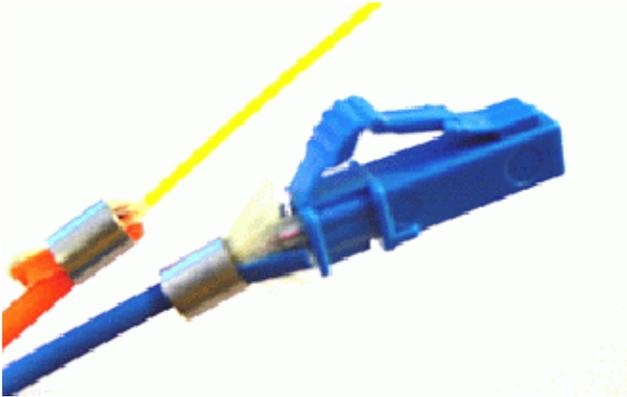


Figure 9

NOTE

Properly position the eyelet before crimping. See Figure 10.



Figure 10

12. Using PRO-CRIMPER hand tool and crimping die set 58424-1, crimp the eyelet onto the strength members and jacket.

NOTE

Refer to Instruction Sheet 408-8675 Sections 3.7, 3.8, and 3.10 for epoxy curing, cleaving and polishing instructions.



13. Snap the connectors into the duplex clip as shown in Figure 11.

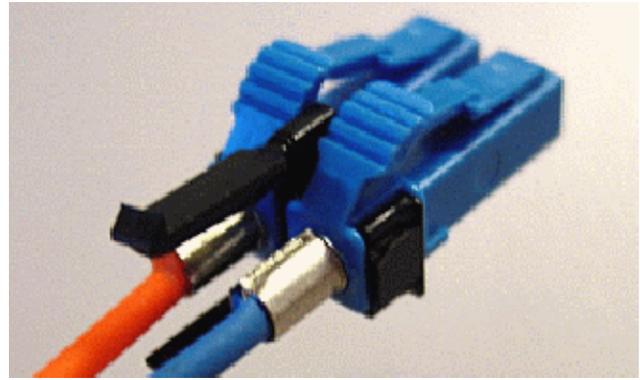


Figure 11

NOTE

Be sure to observe the correct fiber polarity.



14. Place the connectors in the plug assembly as shown in Figure 12.

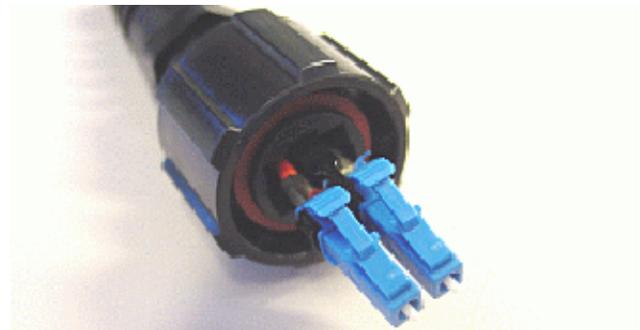


Figure 12

15. Depress both latches and push the connectors into the plug assembly until it bottoms. See Figure 13. You will hear an audible “click.”



Figure 13

16. Figure 14 shows properly positioned connectors. *Note that the latches are depressed.*



Figure 14

17. Using two 19mm wrenches, tighten the cable fitting to 0.68 -- 0.90 N-m [6.0 -- 8.0 -in-lbs]. See Figure 15.



Figure 15

18. The finished assembly should appear as shown in Figure 16.



Figure 16

2.2. Assembly of the Plug Protective Cover Assembly

1. Open the loop on the lanyard and slide it over the plug nut as shown in Figure 17.

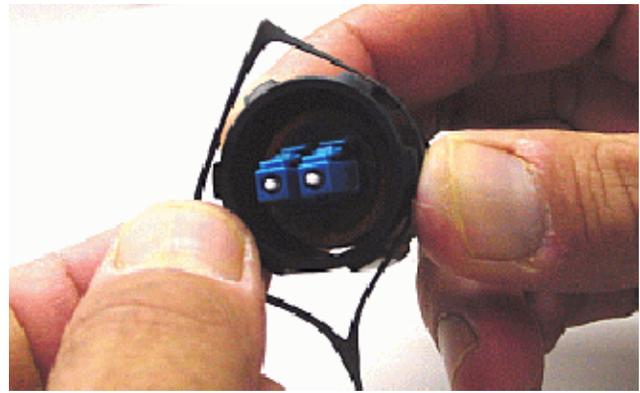


Figure 17

2. Push the loop past the nut until it snaps into the groove, as shown in Figure 18.



Figure 18

3. The properly installed protective cover should appear as shown in Figure 19.



Figure 19

2.3. Assembly of the Receptacle Kit

The recommended panel cutout is shown in Figure 20.

Recommended Panel Cutout
Maximum Panel Thickness: 3.18 mm [0.125 in.]

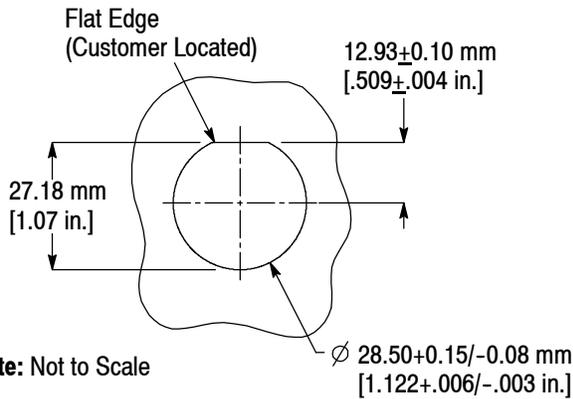


Figure 20

The receptacle assembly consists of the receptacle, a seal (panel gasket), and a panel nut. Refer to Figure 21 .



Figure 21

1. Insert the receptacle through the panel. See Figure 22.



It is important that the panel gasket is on the opposite side of the panel from the nut.

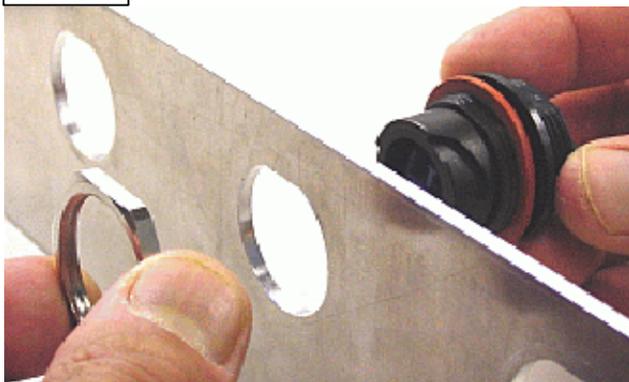


Figure 22

2. Tighten the nut to a torque of 2.26 N-m [20 in-lbs] using a 32mm wrench.

2.4. Assembly of the Receptacle Protective Cover

1. Install the receptacle as described in the previous paragraph.
2. Push the loop of the lanyard over the receptacle assembly until it snaps into the groove of the receptacle. See Figure 23.



Figure 23

The properly installed receptacle and protective cover should appear as shown in Figure 24.



Figure 24

3. REVISION SUMMARY

- Updated document to corporate requirements
- New logo