

# FireFly Series “D” Fiber Optic Closure Description and Installation

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### 1. General

**1.01** The FireFly Series “D” is a complete watertight “dome” closure system for organizing and protecting loose tube or ribbon, fiber optic splices. Two flexible splice trays provide a sufficient fiber bend radius to splice 24 fibers in an extremely compact configuration. Ninety-six fiber cable may enter and exit the closure while from 1 to 24 fiber drops may be spliced to exit the closure through the 5' sealed cable exit holes.

**1.02** The FireFly Series “D” closure is completely watertight and may be used for underground, aerial, vault or wall mount applications.

**1.03** The FireFly Series “D” closure may be used for cut and uncut fiber applications.

### 2. Packaging - Component Parts

**2.01** A FireFly Series “D” closure kit includes all the components necessary for creating a watertight environment for the organization and protection of fiber optic splices.

<sup>1</sup> - Five entry/exit holes are for drop cables while the sixth hole is used for entry/exit of bonding/grounding hardware.

- 2.02** One complete FireFly Series “D” closure kit includes the following components. (Figure 2-1)
- A. Dome with air valve.
  - B. Base, gasket and organizer tray assembly.  
(Kit for 12 splices includes 1 organizing tray and 2 adhesive backed splice holders.)  
(Kit for 24 splices includes 2 organizing trays and 4 adhesive backed splice holders.)

- C. Five compression fit caps with five large entry grommets and five small entry grommets.
- D. Clear splice wrap with Velcro® cinch strap.
- E. Splice Sleeves (Kit for 12 splices includes 13 splice sleeves.)  
(Kit for 24 splices includes 25 splice sleeves.)
- F. Cable Ties (24)
- G. Hex Key

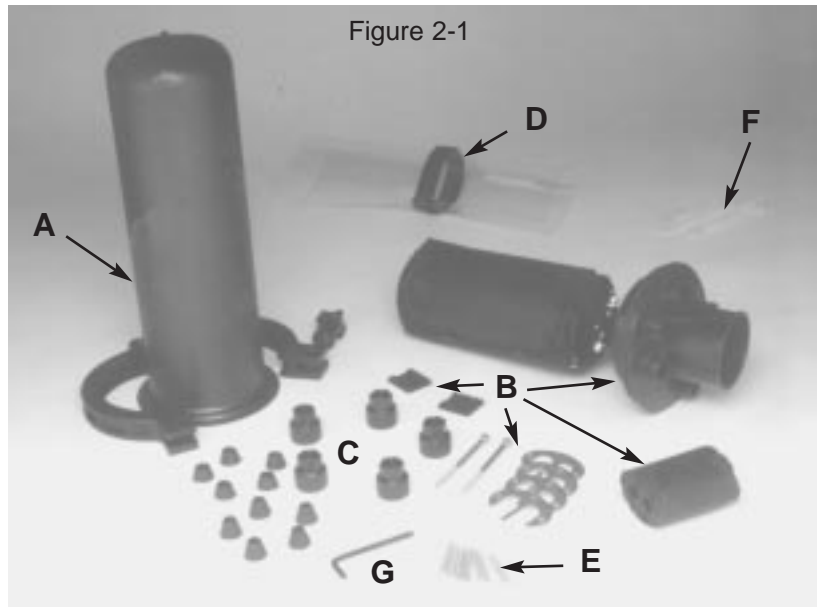


Figure 2-1

### 3. Dimensional

**3.01** The FireFly Series “D” Closure is available in one size, with either a 13mm Ø or 15mm Ø two hole main cable compression fit grommets.

**3.02** See Figure 3-1 and Tables 1 and 2 for all outside dimensions and cable entry/exit hole specifications.

**Table 1**  
Dimensional Data

A	B	C	D
101.6mm	304.8mm	381.0mm	177.8mm

**Table 2**  
Endplate Configurations  
(hole diameters)

E	F
13mm	13mm
15mm	13mm

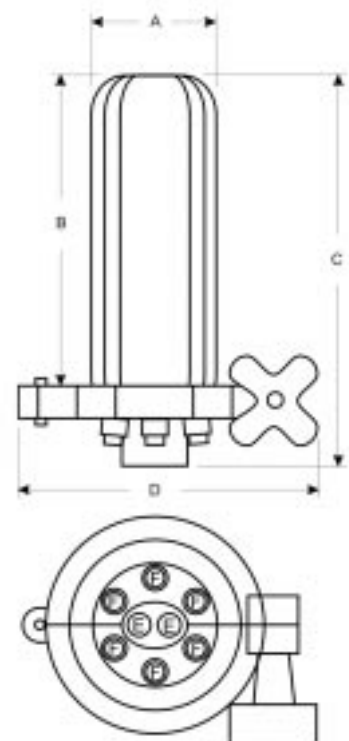


Figure 3-1

## 4. Cable Preparation

**4.01** Remove 48" (1220mm) of cable outer sheath per manufacturers recommended instructions. The installer is shown in Figure 4-1 using a cable sheath removal tool.



Figure 4-1

**4.02** Expose central strength member and cut 3" (75mm) from cable sheath butt. (Figure 4-2)

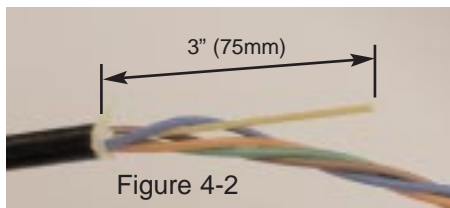


Figure 4-2

**4.03** Wipe cable sheath clean and remove any jell present on buffer tubes.

## 5. Grommet Installation

**5.01** Insert cables into grommet through slits. (Figure 5-1)



Figure 5-1

**5.02** Allow 3/4" (19mm) to protrude through the closure side of the grommet. (Figure 5-2)

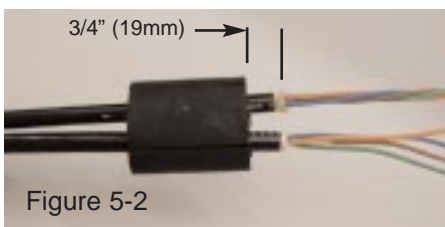


Figure 5-2

**5.03** Install grommet compression plate and screws (do not tighten). (Figure 5-3)



Figure 5-3

**5.04** Install grommet assembly in dome base. Position grommet to expose equal amounts of the grommet on the inside and outside of the dome base. Tighten with an Allen key (included in kit). (Figure 5-4)



Figure 5-4

**5.05** Secure central strength member between serrated washer and central strength retention bracket. (Figure 5-5)

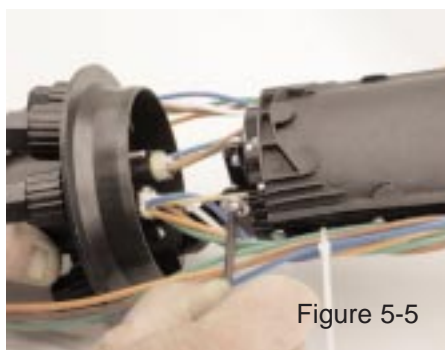


Figure 5-5

## 6. Buffer Tube Management

**6.01** Loop incoming tubes over the top of the tray assembly and secure tubes to the side of the tray with tie wraps. The tie wraps are threaded through the tabs on the side of the tray assembly. Before final tightening of the tie wraps, place the closure dome housing next to the base assembly and

check for sufficient clearance for installation of the dome (See Figure 6-1). Overall height for buffer tube organization is 12" (305mm) measuring from dome base.

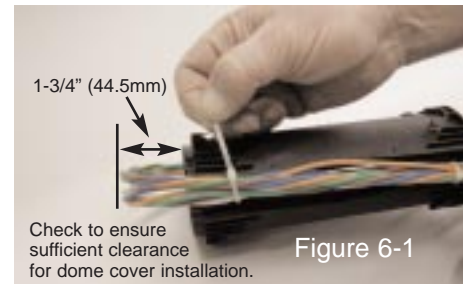


Figure 6-1

**6.02** Loop tubes to be spliced around the bottom of the tray assembly. Fibers to be spliced in the tray on the opposite side must be fed between the tube mounting bracket and the cables entering the closure. (Figure 6-2)

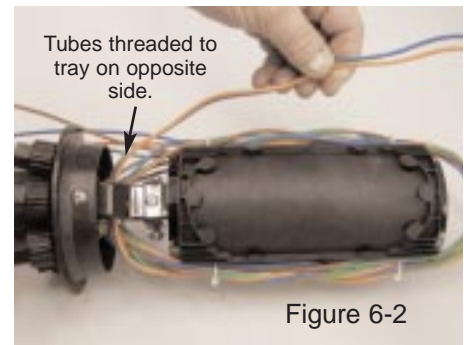


Figure 6-2

**6.03** Isolate one tube to be spliced, cut and remove outer tube to expose fibers. (Figures 6-3 & 6-4)

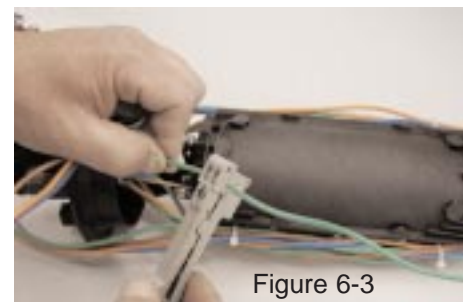


Figure 6-3

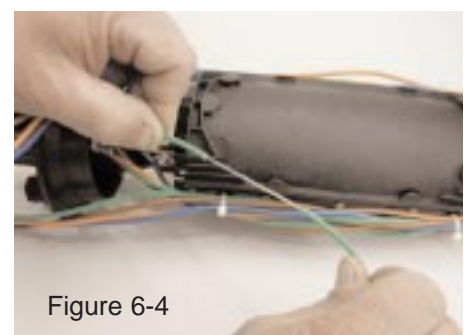
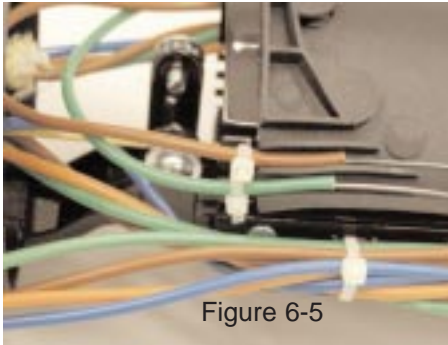


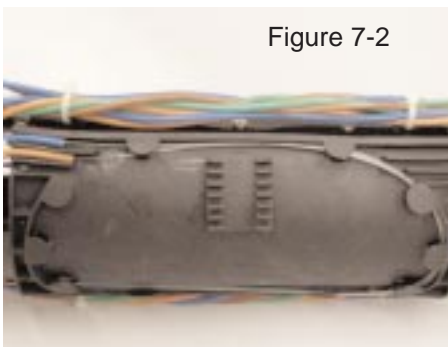
Figure 6-4

**6.04** Tubes to be spliced are secured to tray assembly with tie wraps. Place excess fiber around perimeter of tray for storage. (Figure 6-5)



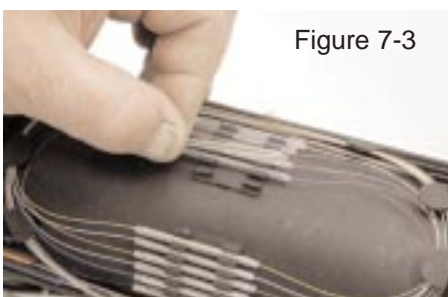
## 7. Preparation for Splicing

**7.01** Remove paper backing from splice holders and place in tray as shown. Leave space for stored fiber to pass between the splice holder and the outside of the tray. (Figure 7-1 & 7-2)



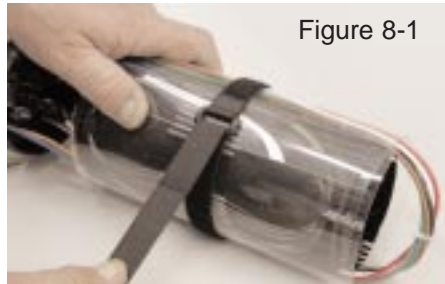
### 7.02 Splice fibers per local practice.

Install splice sleeves in the splice sleeve holders. (Figure 7-3)



## 8. Installation of Dome

**8.01** Wrap tray assembly with clear wrap and secure with Velcro® strap. (Figure 8-1)



**8.02** Install gasket on dome base. (Figure 8-2)



**8.03** Slide dome over tray assembly. (Figure 8-3)



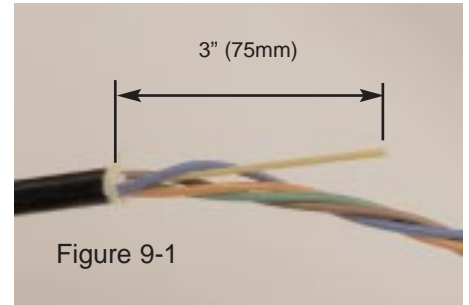
**8.04** Tighten thumbscrew to secure clamp and make a watertight seal between closure base and dome. (Figure 8-4)



## 9 Installation of Uncut Loop

**9.01** Remove 24" (610mm) of cable outer sheath per cable manufacturer's instructions.

**9.02** Expose central strength member and cut 3" (75mm) from cable butt on each end. (Figure 9-1)

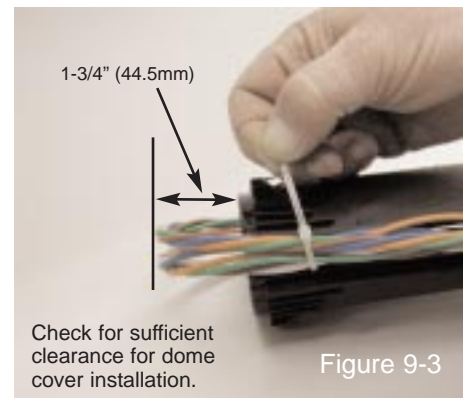


**9.02** Form loop and gently push through oval port. (Figure 9-2)



**9.03** Install grommet as shown in steps 5.01 through 5.04.

**9.04** Secure tubes to side of tray with tie wraps. Before final tightening of the tie wraps, place the closure dome housing next to the base assembly and check for clearance between the looped fibers and the top of the dome. (Figure 9-3)



## 10. Installation of Fiber Drop or Branch Cable

**10.01** Remove screw cap from sealed cable entry/exit hole adjacent to fiber that is to enter the closure. Knock plastic insert free from inside of entry/exit hole with a screwdriver and light taps with a hammer. (Figure 10-1)



Figure 10-1

**10.02** Place grommet on cable sheath 1" (25mm) from cable butt. (Figure 10-2)

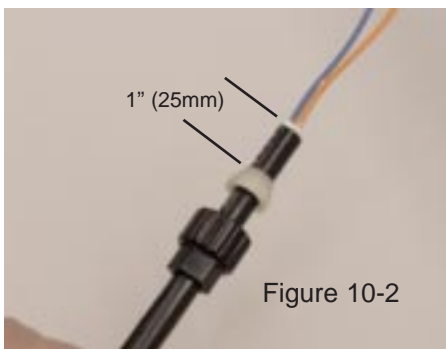


Figure 10-2

**10.03** Insert cable through port and tighten screw. (Figure 10-3)



Figure 10-3

**10.04** Mark tube to be spliced, cut and remove tube to expose fibers. (Figure 10-4)

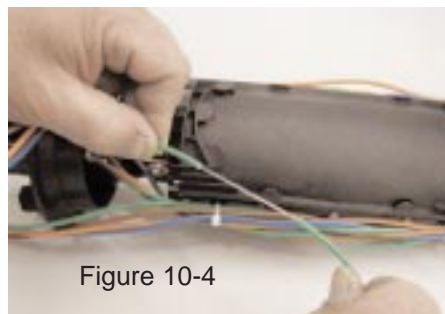


Figure 10-4

**10.05** Secure tubes to be spliced to fiber splice tray with tie wraps. Excess fiber may be stored by looping tube group around the perimeter of tray. (Figure 10-5)

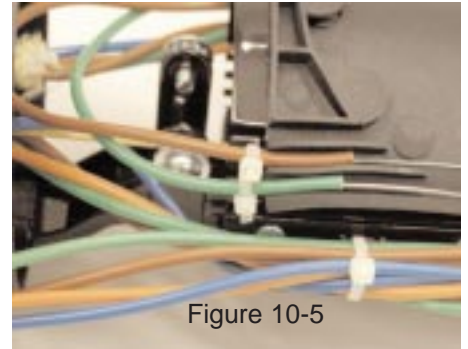


Figure 10-5

## 11. Accessory Kits

- 11.01** Bonding and Grounding Kit
- 11.02** Tray Kit (Converts FireFly "D" Closure from a 12 splice to 24 splice unit.).
- 11.03** Central Strength Member Retention Kit.
- 11.04** Drop Cable Entry Kit (6 cables).
- 11.05** Strand Mount Kit
- 11.06** Pole Mount Kit.
- 11.07** Wall Mount Kit.

## 12. Bulk Items

- 12.01** Adhesive Backed Soft Fiber Tray (10/box).
- 12.02** Cable Ties (100/bag)
- 12.03** Single Fusion Splice Sleeves 40mm (50/bag).



**Western Pacific  
Telecommunications**

20706 South Main Street, Carson, California 90745 U.S.A.  
Telephone: 310-538-6845 • Facsimile: 310-538-8510  
www.wptele.com • e-mail: info@wptele.com

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