

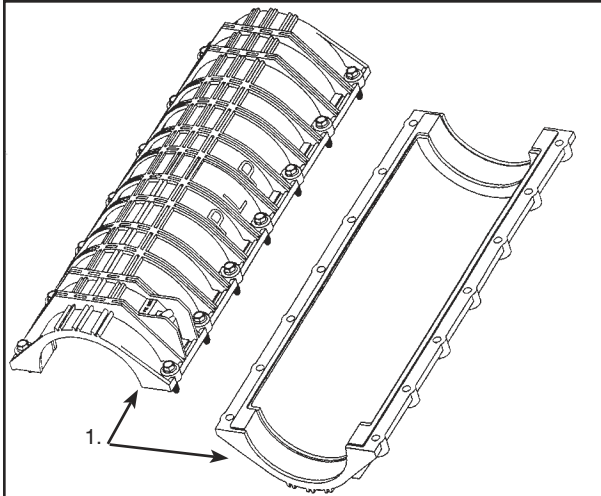
**COYOTE® CLOSURE  
 FOR UNDERGROUND, AERIAL, AND BURIED SPLICES  
 6.0" x 22" • 8.5" x 22"  
 (15.24 cm x 55.88 cm • 21.59 cm x 55.88 cm)**

Be sure to read and completely understand this procedure before applying product. Be sure to select the proper PREFORMED™ product before application.

*PLEASE NOTE:* For OPGW application, see procedure entitled, “OPGW Cable and End Plate Preparation for COYOTE® Closure” (SP2849).

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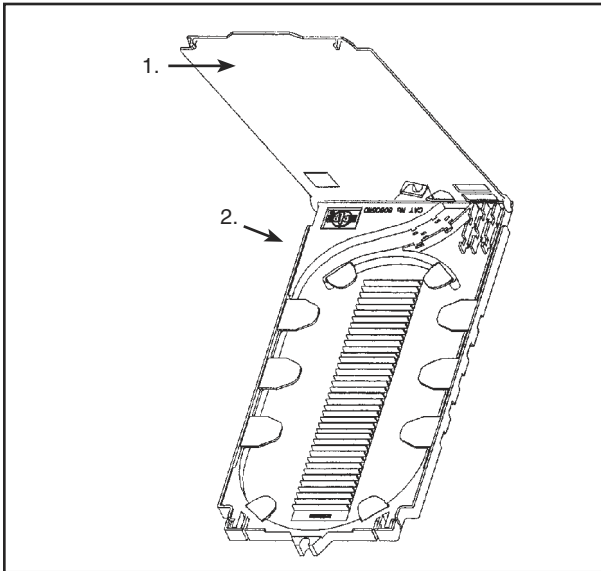
## 1.00 NOMENCLATURE



**FIGURE 1 - SHELL KIT**

1. Two COYOTE® Closure shell halves, neoprene gasket is applied at factory.

| PLP CATALOG NUMBER | COYOTE CLOSURE DIMENSIONS (CM) |
|--------------------|--------------------------------|
| 80805258           | 6.0" x 22" (15.24 X 55.88)     |
| 80805259           | 8.5" x 22" (21.59 X 55.8)      |

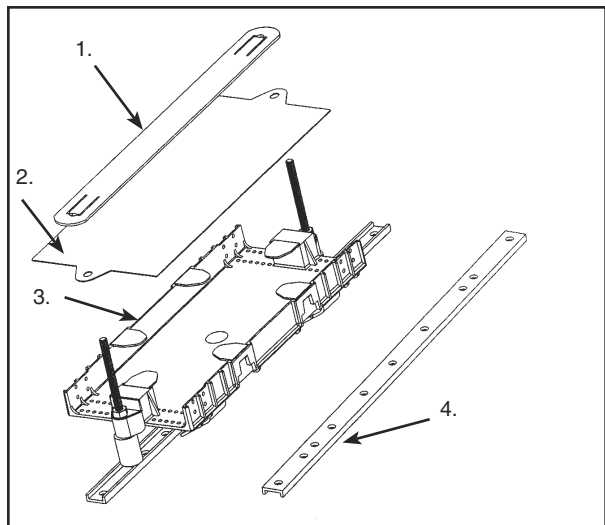


**FIGURE 2 - SPLICE TRAY KIT**

1. Cover
2. Tray
3. Splice Count Label (not shown)
4. Tie Wraps (not shown)
5. Felt Strips (not shown)

| PLP Catalog Number | Splice Tray                                        | Splice Capacity |
|--------------------|----------------------------------------------------|-----------------|
| 80805110           | Single Fiber Tray                                  | 36              |
| 80805509           | Blank Tray                                         | 36              |
| 80805514           | Blank Tray with Three Elastomer Splice Blocks      | 36              |
| 8001127            | Low Profile Tray                                   | 12 per block    |
| 8001130            | Low Profile COYOTE Blank Splice Tray               | blank           |
| 80805146           | Ribbon Fiber Mechanical/Fusion Tray                | 144*            |
| 80805510           | Blank Ribbon Tray                                  | 144*            |
| 80805515           | Blank Ribbon Tray with Two Elastomer Splice Blocks | 144*            |
| 8003381            | Elastomer Splice Block Kit - 3 per kit             | 12 per block    |

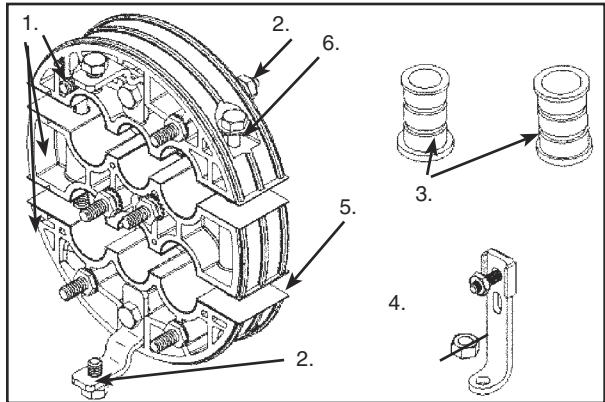
\*Based on mass fusion splices; 96 for mass mechanical.



**FIGURE 3 - UNITUBE TRANSITION COMPARTMENT KIT**

1. Splice Tray Hold Down Strap
2. Cover
3. Transition Compartment
4. Torque Bar

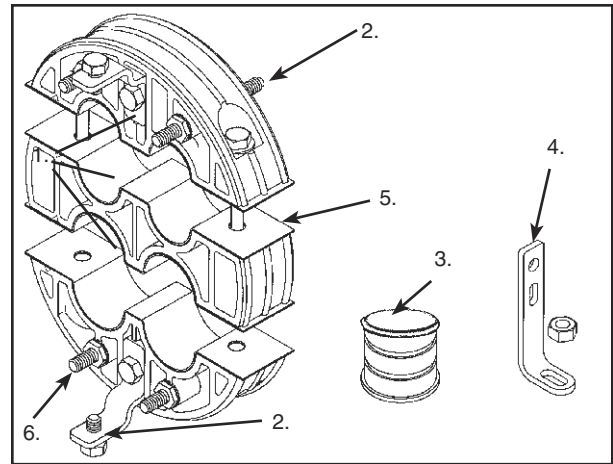
| PLP Catalog Number | Description                                                            |
|--------------------|------------------------------------------------------------------------|
| 80805112           | 6.0" x 22" (15.24 CM x 55.88 CM) Unitube Transition Compartment Kit    |
| 80805113           | 8.5" x 22" (21.59.24 cm x 55.88 cm) Unitube Transition Compartment Kit |



**FIGURE 4A - THREE-SECTION SIX PORT END PLATE KIT**

1. End Plate Sections
2. Torque Bar Brackets (2)
3. Plugs (5)
4. "L" Brackets (2)
5. LOCK-TAPE™ Sealant (factory-applied)
6. Internal Ground Inserts (6; factory-installed)
7. COYOTE Cable Mea-SURE™ Tape (not shown)

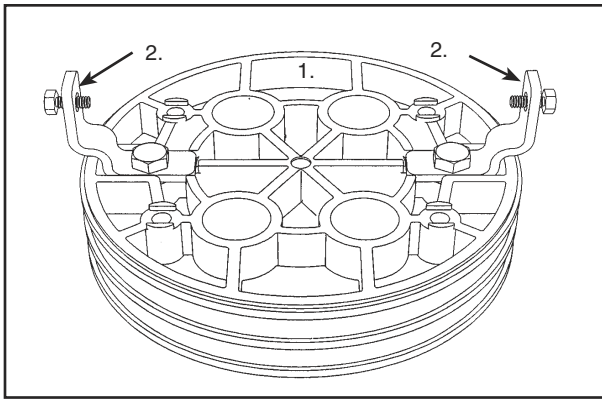
| PLP Catalog Number | Description                                                                                        |
|--------------------|----------------------------------------------------------------------------------------------------|
| 80805105           | Three-Section Six Port End Plate Kit                                                               |
| 80806037           | 3/4" plugs (2)                                                                                     |
| 80806180           | 7/8" plugs (2)                                                                                     |
| 8003371            | Future Cable Port Kit for 7/8" port (.56 max cable diameter)                                       |
| 8003291            | Future Cable Installation Kit                                                                      |
| 8003289            | Future Cable Port/ Installation Kit (includes cat. no. 8003371 and cat. no. 8003291 for 7/8" port) |



**FIGURE 4B - THREE-SECTION FOUR PORT END PLATE KIT**

1. End Plate Sections
2. Torque Bar Brackets (2)
3. Plugs (5)
4. "L" Brackets (2)
5. LOCK-TAPE™ Sealant (factory-applied)
6. Internal Ground Inserts (4; factory-installed)
7. COYOTE Cable Mea-SURE™ Tape (not shown)

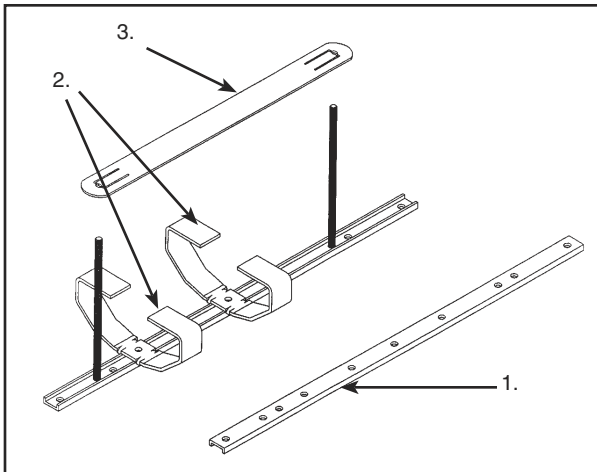
| PLP Catalog Number | Description                                                                                          |
|--------------------|------------------------------------------------------------------------------------------------------|
| 80805739           | Three-Section Four Port End Plate Kit                                                                |
| 8003407            | Future Cable Port Kit for 1" port (.81 max. cable diameter)                                          |
| 8003409            | Future Cable Port Kit for 1-1/4" port (1" max. cable diameter)                                       |
| 8003291            | Future Cable Installation Kit, only                                                                  |
| 8003408            | Future Cable Port/ Installation Kit (includes cat. no. 8003407 and cat. no. 8003291 for 1" port)     |
| 8003410            | Future Cable Port/ Installation Kit (includes cat. no. 8003409 and cat. no. 8003291 for 1-1/4" port) |
| 80806038           | 1" plug (2)                                                                                          |
| 80806181           | 1-1/4" plugs (2)                                                                                     |



**FIGURE 5 - BLANK END PLATE KIT**

- 1. End Plate
- 2. Torque Bar Brackets (2)

| PLP Catalog Number | Description         |
|--------------------|---------------------|
| 80805260           | Blank End Plate Kit |



**FIGURE 6 - LOOSE BUFFER TUBE STORAGE KIT**

- 1. Torque Bar
- 2. Retainer Brackets
- 3. Splice Tray Hold Down Strap

| PLP Catalog Number | Description (cm)                                                                         |
|--------------------|------------------------------------------------------------------------------------------|
| 80805262           | 6.0" x 22" (15.24 x 55.88) Loose Buffer Tube Storage Kit                                 |
| 80805263           | 8.5"x 22" (21.59 x 55.88) Loose Buffer Tube Storage Kit                                  |
| 80805419           | 6.0" x 22" (15.24 x 55.88) COYOTE Express Organizer (for loose buffer tube applications) |
| 80805420           | 8.5" x 22" (21.59 x 55.88) COYOTE Express Organizer (for loose buffer tube applications) |

## ACCESSORY KITS

| PLP Catalog Number | Description [cm]                                                              |
|--------------------|-------------------------------------------------------------------------------|
| 8003285            | Color-Coded Transport Tube Kit (6 per kit)                                    |
| 80805293           | Transport Tube Kit (6 per kit)                                                |
| 80805107           | Strength Member Bracket Kit (2 per kit)                                       |
| 80805431           | Long Strength Member Bracket Kit (2 per kit)                                  |
| 8003280            | Transition Tube Kit                                                           |
| 8003281            | External Bond Clip Kit (2 per kit)                                            |
| 80805286           | Bracket Adaptor Kit for AT&T Bond Connector (4 per kit)                       |
| 8003325            | Adjustable Aerial Hanger Bracket Kit                                          |
| 80803448           | Moisture Blocking Sealant Kit (3 oz. tube)                                    |
| 80805238           | C-Cement (1 oz tube)                                                          |
| 8003279            | Manhole Support Bracket Kit                                                   |
| 8003372            | Vertical Mount Bracket Kit (for 6.0" or 8.5" [15.24 x 21.59] COYOTE Closures) |
| 8003322            | Internal Ground Kit (0.27" - 0.31" [.69 x .79] ground wire)                   |
| 8003360            | Exterior Bond Braid kit                                                       |
| 8003386            | Heat Shield Kit for 6.0" x 22" [15.24 x 55.88] COYOTE Closure                 |
| 8003387            | Heat Shield Kit for 8.5" x 22" [21.59 x 55.88] COYOTE Closure                 |
| 8003385            | Flame-Retardant Blanket for 6.0" x 22" [15.24 x 15.88] COYOTE Closure         |
| 8003388            | Flame-Retardant Blanket for 8.5" x 22" [21.59 x 55.88] COYOTE Closure         |

**1.01** The COYOTE Closure contains everything needed for installation except hand tools, vinyl tape, filled cable cleaning fluid, and C-Cement.

**1.02 Tools Needed:**

- 1/2" socket\*
- 7/16" socket\*
- 3/8" socket/Can wrench
- Snips
- Ratchet Wrench\*
- Torque Wrench (capable of reading 50 inch lbs.)\*
- Fiber optic cable opening tools

\*Available from Preformed Line Products

**2.00 DESCRIPTION AND CLOSURE CAPACITIES**

**2.01** For Safety Considerations, refer to Section 21.00 of this procedure.

**2.02** The COYOTE Closure series organizes, distributes and protects all types of fiber optic cable with a water and air tight seal.

**2.03** The COYOTE Closure series accommodates the following splice trays and splice connectors (Table 1):

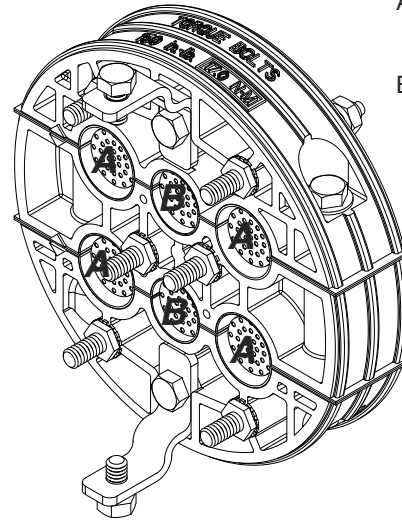
| 6.0" X 22" (15.24 cm x 55.88 cm) COYOTE Closure |                                 |                   |                          |                                  |                                 |
|-------------------------------------------------|---------------------------------|-------------------|--------------------------|----------------------------------|---------------------------------|
| Splice Tray Catalog Number                      | Description                     | Usable Connectors | Splice Capacity Per Tray | Maximum No. of Trays Per Closure | Maximum Closure Splice Capacity |
| 80805110 or 80805514                            | 36 Count Single Fiber Tray      | Single Fusion     | 36                       | 4                                | 144                             |
|                                                 |                                 | Single Mechanical | 36                       | 4                                | 144                             |
| 8001127                                         | Low Profile Tray                | Single Fusion     | 36                       | 6                                | 216                             |
| 80805146                                        | 96 Count Mass Ribbon Fiber Tray | Mass Mechanical*  | 96                       | 2                                | 192*                            |
|                                                 |                                 | Mass Fusion*      | 144                      | 2                                | 288*                            |
| 8.5" X 22"(21.59 cm x 55.88 cm) COYOTE Closure  |                                 |                   |                          |                                  |                                 |
| Splice Tray Catalog Number                      | Description                     | Usable Connectors | Splice Capacity Per Tray | Maximum No. of Trays Per Closure | Maximum Closure Splice Capacity |
| 80805110 or 80805514                            | 36 Count Single Fiber Tray      | Single Fusion     | 36                       | 8                                | 288                             |
|                                                 |                                 | Single Mechanical | 36                       | 8                                | 288                             |
| 8001127                                         | Low Profile Tray                | Single Fusion     | 36                       | 11                               | 396                             |
| 80805146                                        | 96 Count Mass Ribbon Fiber Tray | Mass Mechanical*  | 96                       | 4                                | 384*                            |
|                                                 |                                 | Mass Fusion*      | 144                      | 4                                | 576*                            |

\* Assumes 12 fiber ribbon is utilized. Also holds 16 single count splices.

**TABLE 1**

**3.00 END PLATE CONFIGURATIONS**

**3.01** Two versions of the Three-Section End Plate are available for the COYOTE Closure; one which accepts up to six cables, and one which accepts up to four larger cables. (Figures 7A and 7B)



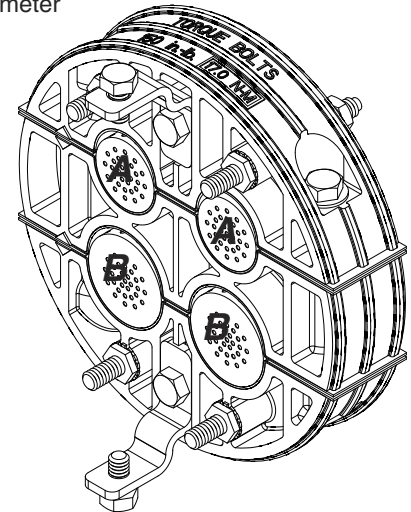
A = 7/8" (2.22 cm) diameter

B = 3/4" (1.90 cm) diameter

**FIGURE 7A - DIAGRAM OF SIX PORT END PLATE**

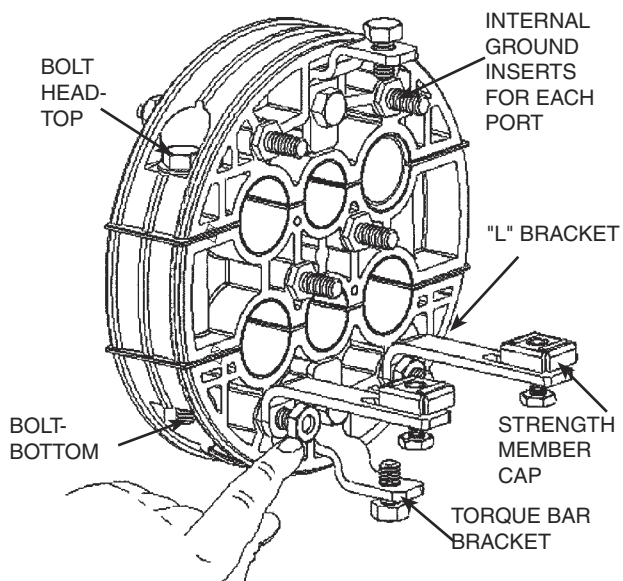
A = 1" (2.54 cm) diameter

B = 1-1/4" (3.18 cm) diameter



**FIGURE 7B - DIAGRAM OF FOUR PORT END PLATE**

**3.02** See Figure 8 for hardware that can be used with the Three-Section End Plate.



**FIGURE 8 - END PLATE HARDWARE**

#### 4.00 CABLE PREPARATION—LOCK-TAPE SEALANT APPLICATION

**NOTE:** For OPGW application, see procedure entitled, “OPGW Cable and End Plate Preparation for COYOTE® Closure” (SP2849).

**4.01** Cable sheath opening measurements, for both size closures, whether using unitube or buffer tube, are 152" (386.10 cm) for continuous loop/express applications, and 76" (193.04 cm) for cut cable.

**NOTE:** The COYOTE Closure is designed for main cables to enter the bottom outside cable ports and for branch cables to enter the bottom middle and upper cable ports in the End Plate.

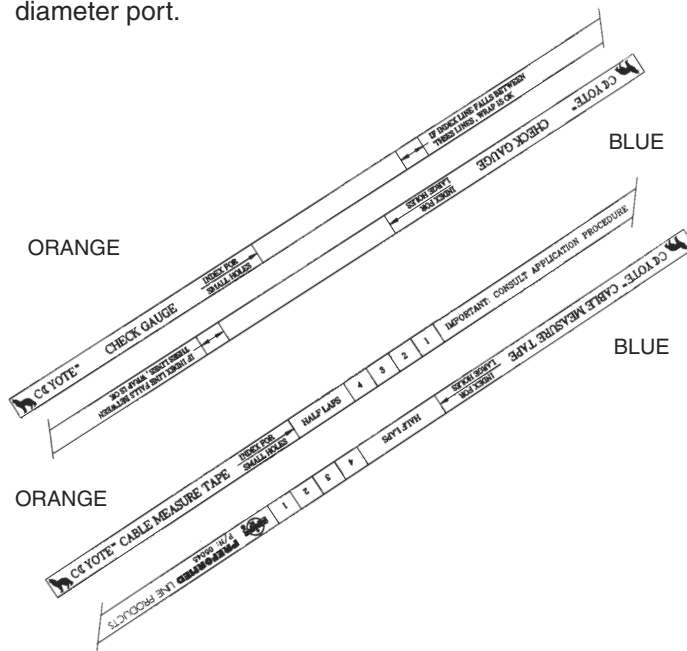
**PLP TIP:** Where irregular cable ends exist, measure from the shortest cable to establish End Plate location.

**4.02** The color-coded COYOTE Cable Measure Tapes are used to determine the number of half-lapped layers of LOCK-TAPE Sealant required to seal the cable in the End Plate. The back of the Measure Tape is used to check whether the LOCK-TAPE Sealant wrap is the proper diameter to ensure a water and air tight seal. (Figure 9)

For the Six Port End Plate, the orange-colored end is used to measure cables entering the 7/8" (2.22 cm)

diameter ports while the blue-colored end measures cables entering the 3/4" (1.90 cm) diameter ports.

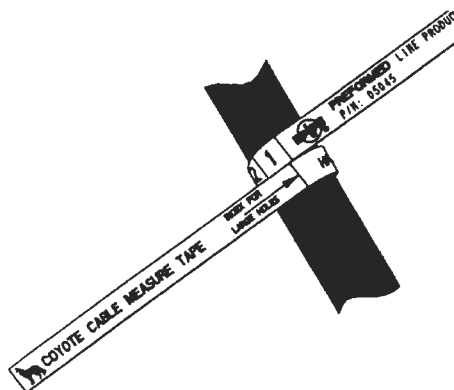
For the Four Port End Plate, the COYOTE Cable Measure Tape has a green-colored end for the 1" diameter port and a red-colored end for the 1-1/4" diameter port.



**FIGURE 9 - COYOTE CABLE MEASURE TAPE (TAPE FOR SIX PORT END PLATE SHOWN)**

#### 4.03 TO USE COYOTE CABLE MEASURE TAPE:

- Wrap the **correct end** of COYOTE Cable Measure Tape around cable where it will enter the End Plate.
- If the index line falls directly between two numbers use the higher number.
- The number on the COYOTE Cable Measure Tape indicates the number of half-lapped layers of LOCK-TAPE Sealant to be applied around the cable. (Figure 10)



**FIGURE 10 - MEASURING CABLE -- BE SURE TO USE CORRECT END OF CABLE MEASURE TAPE**

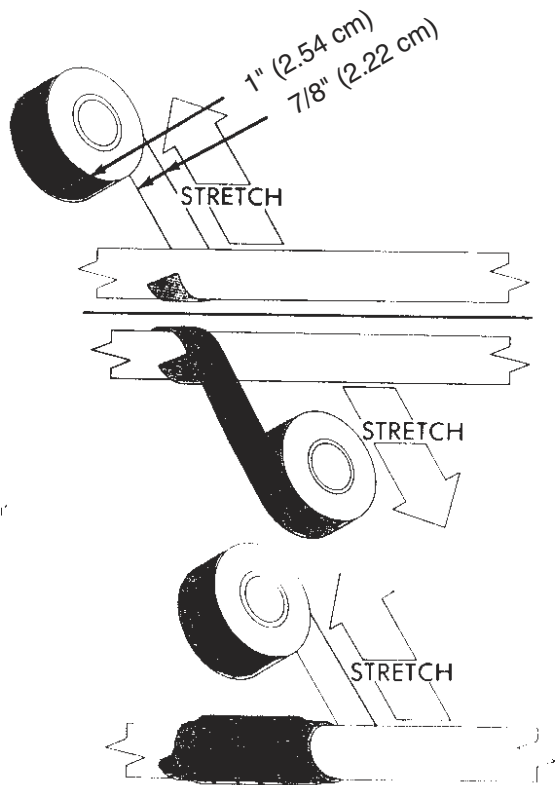


**4.04** Using the provided Emery Cloth, thoroughly scuff the cable sheath for 5" (12.70 cm) from measured opening. Always scuff **around** the cable, never lengthwise.

**4.05** Coat the scuffed area with C-Cement and allow to dry. It is important that the C-Cement dries to a tacky base before LOCK-TAPE Sealant is applied.

**PLP TIP:** Use removed LOCK-TAPE Sealant backing from Step 4.06 to dry and remove excess C-Cement applied to cable.

**4.06** Remove backing from LOCK-TAPE Sealant and wrap LOCK-TAPE Sealant onto the cable with the black side up. Stretch the 1" (2.54 cm) LOCK-TAPE Sealant to a width of 7/8" (2.22 cm). (Figure 11) Apply the required numbers of half-lapped layers of LOCK-TAPE Sealant, as indicated on the Cable Measure Tape, to the area coated with C-Cement. (Figure 12)

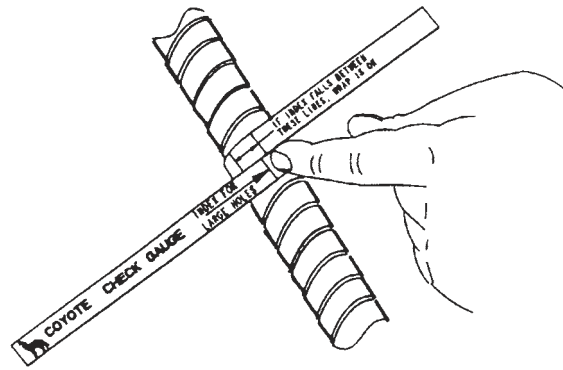


**FIGURE 11 - STRETCH LOCK-TAPE**



**FIGURE 12 - APPLIED LOCK-TAPE**

**4.07** To check LOCK-TAPE Sealant application, wrap the proper end of the COYOTE Cable Measure Tape check gauge around the applied LOCK-TAPE Sealant. If the measurement line falls outside of the index lines of the check gauge, LOCK-TAPE Sealant must be reapplied. It is acceptable to reapply the original LOCK-TAPE Sealant. (Figure 13)



**FIGURE 13 - CHECK GAUGE**

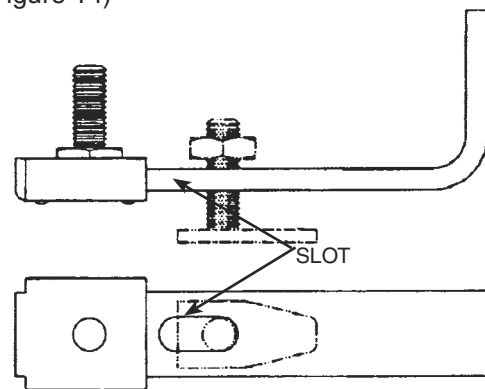
**4.08** To protect LOCK-TAPE Sealant from cable grease, cover the LOCK-TAPE Sealant with vinyl tape.

**NOTE:** If strength members are to be secured, leave 4-5" (10.16-12.70 cm) of metallic or non-metallic strength members exposed from the sheath opening.

**4.09** Open and clean cable according to accepted company practices.

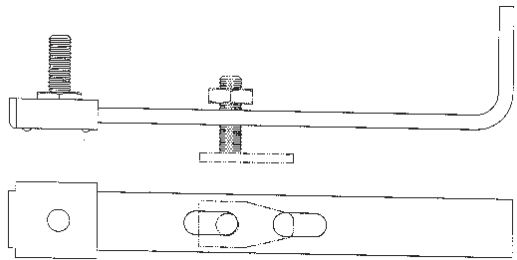
## 5.00 INTERNAL BOND PROCEDURE

**5.01** Bond cable according to accepted company practices. Use the slot on the "L" bracket to attach most bond connectors, as outlined in Section 8.00. (Figure 14)



**FIGURE 14A - SLOT IN "L" BRACKET**

**PLP TIP:** A long "L" bracket is available (Catalog #80805431) for bonded loose buffer tube cable with a dielectric central strength member.



**FIGURE 14B - LONG "L" BRACKET**

## 6.00 END PLATE PREPARATION

**6.01** Disassemble the End Plate by removing the two long bolts holding the three End Plate sections together. Remove the packaging plugs.

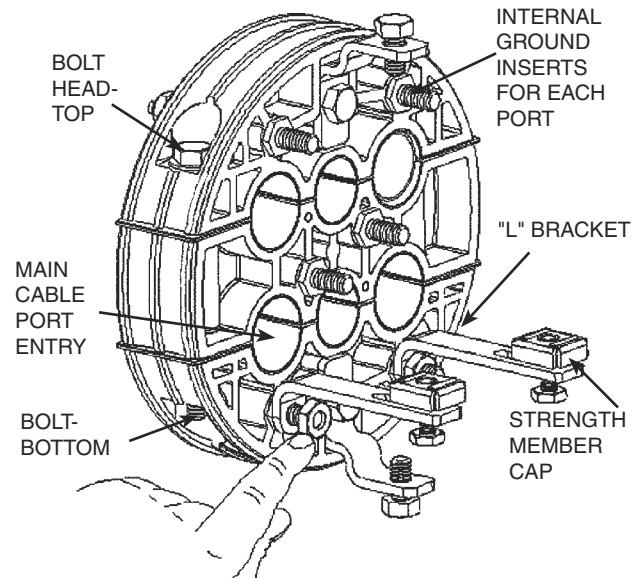
**6.02** Refer to Table 2 for the measurement of sheath to extend beyond the inside of the End Plate for the type of cable and bond connector being used. For all non-metallic cables the sheath will extend 3/4" (1.90 cm) inside the End Plate.

| Cable Positions In COYOTE Closure End Plate      |                          |                                                                     |
|--------------------------------------------------|--------------------------|---------------------------------------------------------------------|
| Cable Type                                       | If using Bond Connectors | Length of Sheath Inside End Plate (cm)                              |
| Dielectric                                       |                          | 3/4" (1.90)                                                         |
| Metallic                                         | RAYCHEM*                 | 1-1/4" (3.18)                                                       |
|                                                  | AT&T*                    | Total 1-3/8" (3.47) =<br>5/8" (1.57) shield +<br>3/4" (1.90) sheath |
| *See Accessory Kits for additional bond hardware |                          |                                                                     |

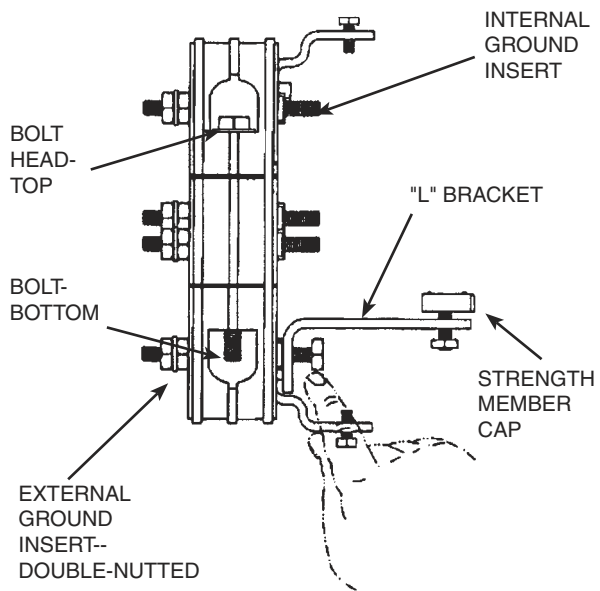
**TABLE 2**

## 7.00 END PLATE ASSEMBLY

**7.01** Loosely attach "L" brackets to the ground insert on the inside of the End Plate adjacent to the cable ports being used with the nut provided. (Figure 15 A & B)



**FIGURE 15A - ATTACH "L" BRACKET-  
FRONTAL VIEW**



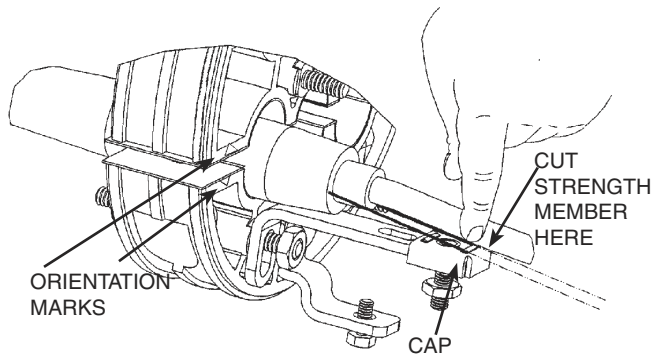
**FIGURE 15B - ATTACH "L" BRACKET--SIDE VIEW**

**7.02** Remove the protective vinyl tape applied to LOCK-TAPE Sealant in Paragraph 4.08.

**7.03** Place the cable into the End Plate as close to the assembly location as possible. Mark it 1/4-1/2" (.64-1.27 cm) from the outside surface of the End Plate. Apply vinyl tape over the remaining LOCK-TAPE Sealant. **Do not apply vinyl tape in the seal area.**

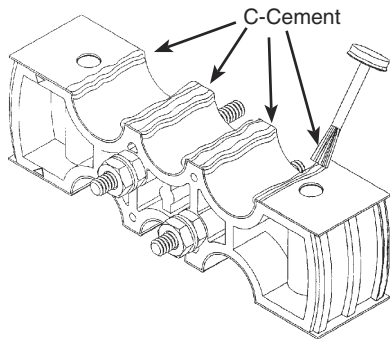
**7.04** Use the strength member cap on the "L" bracket as a guide for trimming the strength member. (Figure 16)





**FIGURE 16 - CAP AS TRIMMING GAUGE**

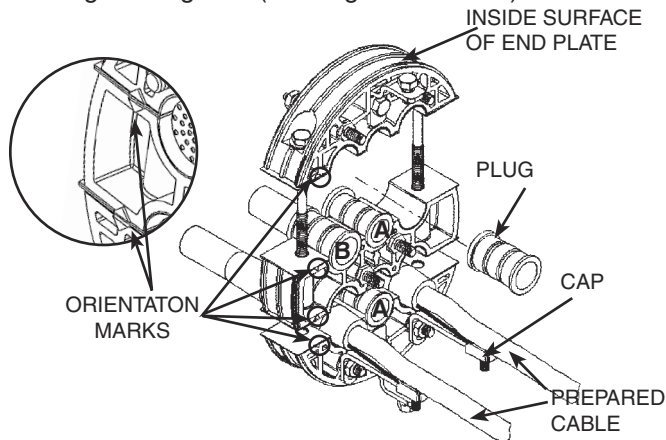
**7.05** Remove cable from the End Plate port(s) and apply C-Cement along the edge of **all** End Plate ports. Make sure C-Cement is dry before continuing. The End Plate center section is illustrated in Figure 17.



**FIGURE 17 - APPLY C-CEMENT**

**7.06** Lay prepared cable and correct end of appropriate plugs into ports and loosely tighten all three sections of End Plate. Use care that no grease from the cable contacts the LOCK-TAPE Sealant on the End Plate ports. (Figure 18)

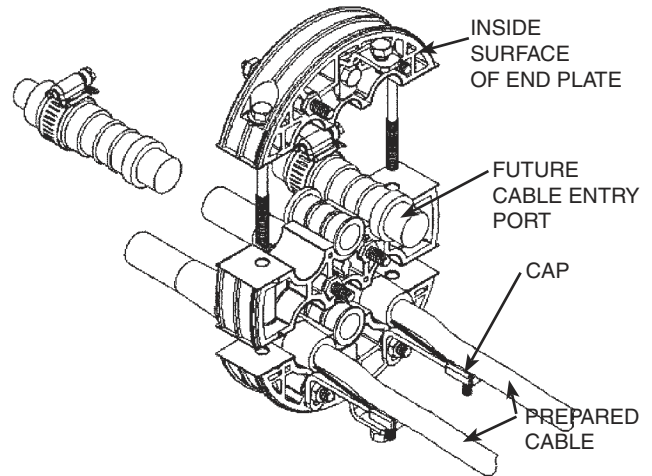
**PLP TIP:** Use orientation marks on End Plate as alignment guide. (See Figures 18 & 19)



**A = 7/8" (2.22 CM)      B = 3/4" (1.90 CM)**

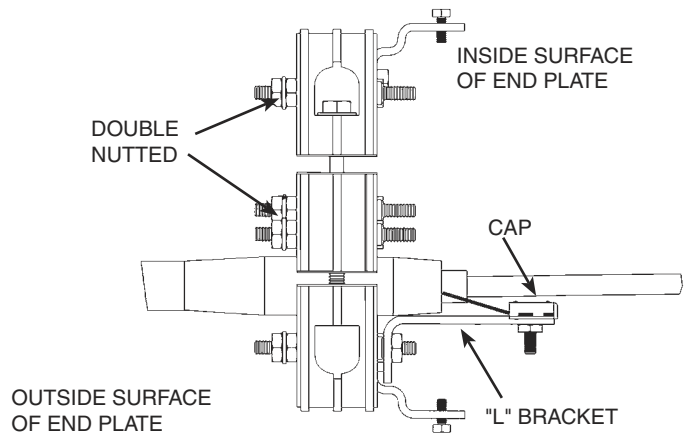
**FIGURE 18 - INSTALLED CABLE AND PLUGS (SIX PORT END PLATE)**

**7.07** Future cable entry ports and End Plate grommets cannot be added once End Plate assembly is complete. Therefore, when using future cable entry ports, insert ports at this time. Future cable entry ports will fit in only the 7/8" ports of the Six Port End Plate, and different future cable entry ports are available for both the 1" ports and the 1-1/4" ports in the Four Port End Plate (see page 3 for details). Also see the Application Procedure accompanying the Future Cable Entry Port Kits and End Plate Grommet Kits. (Figure 19)



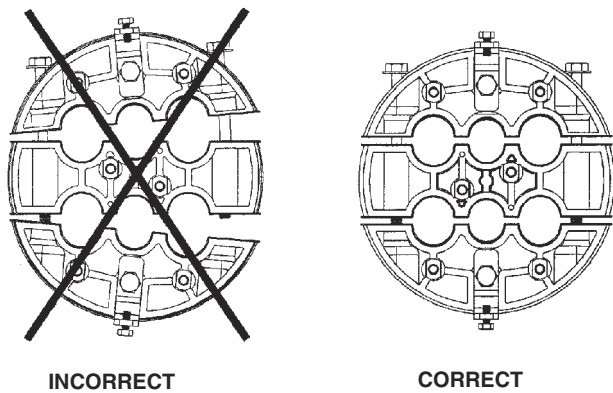
**FIGURE 19 - INSTALLED FUTURE CABLE ENTRY PORTS (SIX PORT END PLATE)**

**7.08** Slide strength members under cap and tighten. Tighten "L" bracket. (Figure 20)



**FIGURE 20 - INSTALLING STRENGTH MEMBER**

**7.09** When all cables and/or plugs have been installed, tighten End Plate bolts by rotating 2 or 3 turns on each bolt so the End Plates come together evenly. Tighten bolts with torque wrench to 150 inch pounds. (Figure 21)



**FIGURE 21 - CORRECT END PLATE ALIGNMENT**

**7.10** Apply vinyl tape to the remaining 1/4–1/2" (.64-1.27 cm) (Paragraph 7.03) of exposed LOCK-TAPE Sealant on the cable outside the End Plate.

**8.00 UNITUBE PREPARATION**

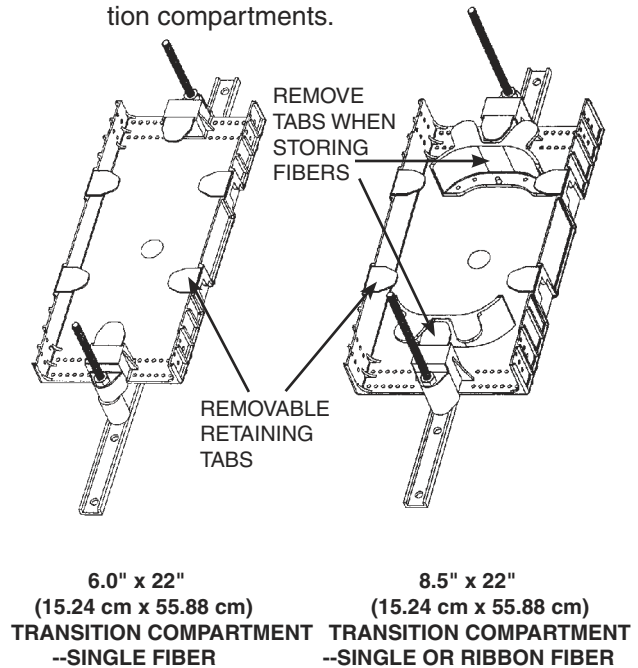
**8.01** For unitube cable refer to Table 3 to determine the correct length of core tube necessary to enter the transition compartment when using the lower cable ports in the End Plate. Cables entering the upper ports will be transitioned into the compartment using a transition tube. Refer to Paragraph 10.02 for core tube lengths. See Section 14.00 for routing loose buffer tube cable into the storage compartment. When routing both unitube and buffer tube in the same closure, follow instructions for unitube application.

| Unitube Lengths (cm) From Sheath to Transition Compartment |                       |                   |                   |
|------------------------------------------------------------|-----------------------|-------------------|-------------------|
| COYOTE Closure Dimensions                                  | Splice Configurations |                   |                   |
|                                                            |                       | In-Line           | Butt              |
| 6.0" x 22"<br>(15.24 x 55.88)                              | Top                   | 3/4"<br>(1.91)    | 3/4"<br>(1.91)    |
|                                                            | Bottom                | 5-3/4"<br>(13.97) | 6"<br>(15.24)     |
| 8.5" x 22"<br>(21.59 x 55.88)                              | Top                   | 3/4"<br>(1.91)    | 3/4"<br>(1.91)    |
|                                                            | Bottom                | 6"<br>(15.24)     | 6-3/4"<br>(16.51) |

**TABLE 3**

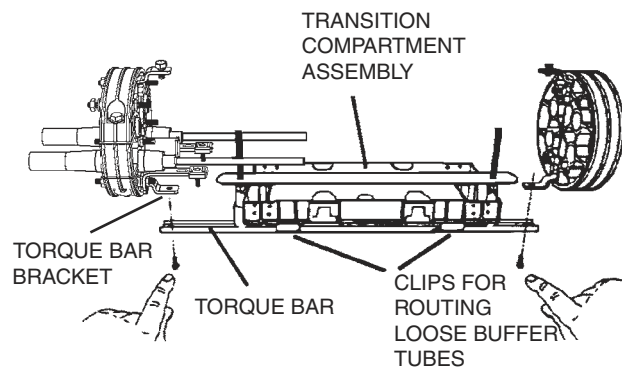
**9.00 INSTALLING TRANSITION COMPARTMENT FOR UNITUBE CABLE**

**9.01** See Figure 22 for the features of the transition compartments.



**FIGURE 22 - TRANSITION COMPARTMENTS**

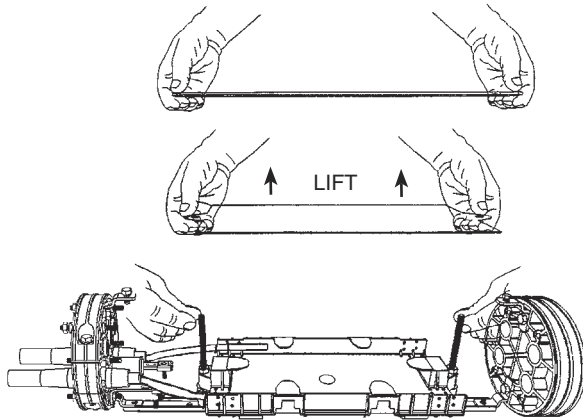
**9.02** The transition compartment assembly attaches to the torque bar bracket on the bottom of the end plates with the bolts provided. (Figure 23) Make sure the side of the torque bar labelled "3 Section End" is nearest the Three-section End Plate. The torque bars are labelled for in-line as well as butt installation.



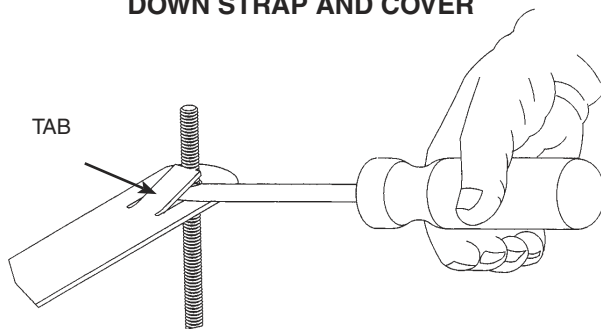
**FIGURE 23 - INSTALL TRANSITION COMPARTMENT**

**9.03** Remove splice tray hold down strap and transition compartment cover. (Figure 24A)

**PLP TIP:** If the hold down strap is snug against the studs, lift the tab using a screwdriver as demonstrated in Figure 24B.



**FIGURE 24A - REMOVE SPLICE TRAY HOLD DOWN STRAP AND COVER**



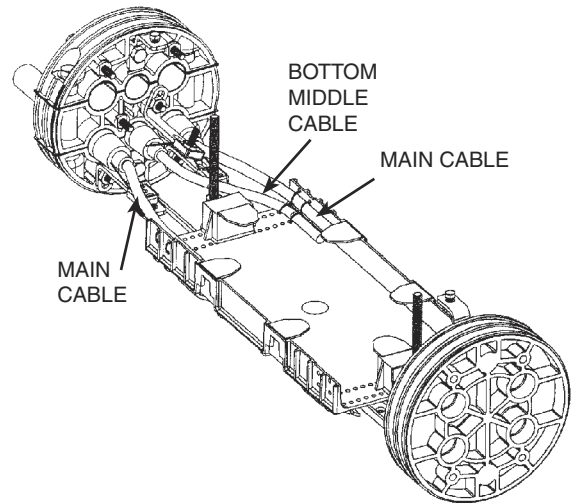
**FIGURE 24B - HOLD DOWN STRAP REMOVAL**

## 10.00 SECURING UNITUBE IN THE TRANSITION COMPARTMENT

**NOTE:** Prior to installing unitube cable, apply moisture blocking sealant (Catalog #80803448) into the end of the tube according to your company or cable manufacturer's practices.

**10.01** Secure unitube to the transition compartment as shown in Figure 25.

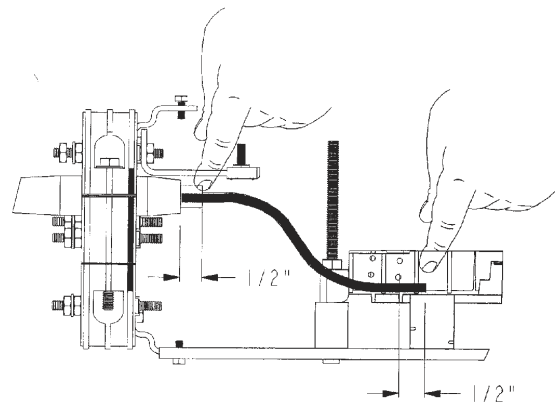
**NOTE:** It is important that all single cable tubes are secured in the correct position on the transition compartment.



**FIGURE 25 - SECURING CABLE TUBE**

**10.02** Unitube cables entering through the top ports of the End Plate will require a transition kit (Catalog # 8003280). The kit includes two lengths of tube approximately 24" (60.96 cm) long which can be field cut 7"-8". The smaller transition tube (.240" [.610 cm] diam.) is for unitube cables ranging from 4-48 fiber count. The larger transition tube (.311" [.790 cm] diam.) is for unitube cables ranging from 50-96 fiber count.

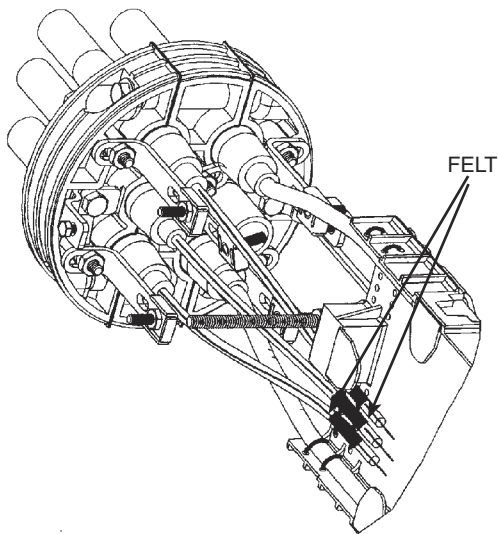
**10.03** Leave approximately 3/4" (1.90 cm) of cable tube for all cables entering the top ports of the End Plate. Determine which diameter transition tube is to be used. To measure the correct amount of transition tube necessary, hold it 1/2"-3/4" (1.27-1.90 cm) past the unitube, make an "S" bend into the transition compartment 1/2" (1.27 cm) past the tie down ports in the bottom of the tray. Cut the transition tube at this mark and apply. (Figure 26)



**FIGURE 26 - MEASURING TRANSITION TUBE**

**PLP TIP:** Install fibers in transition tube, then apply moisture blocking compound.

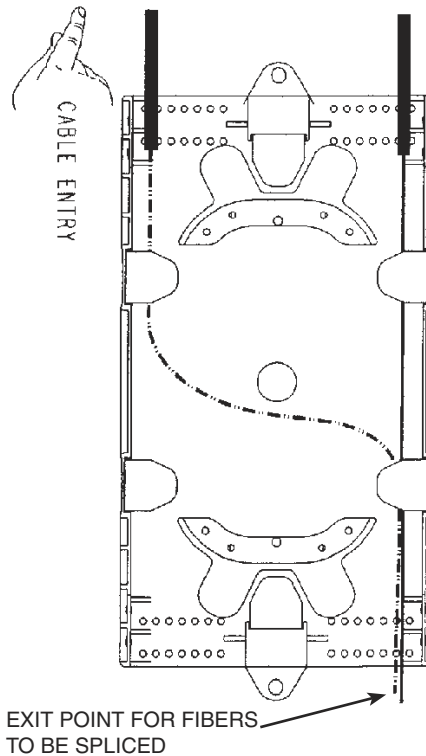
**10.04** Wrap the end of the transition tube with one layer of the felt tape provided and secure to the bottom of the transition compartment with two of the tie wraps provided. (Figure 27)



**FIGURE 27 - SECURING TRANSITION TUBE FOR CABLES ENTERING TOP END PLATE PORTS**

**11.00 ROUTING AND STORING FIBER IN THE TRANSITION COMPARTMENT**

**11.01** When routing fiber in the transition compartment of either size closure for continuous loop applications, cut the fibers to be spliced at the midpoint of the loop. This allows for splicing in either direction. Lay the fibers to be spliced directly through the transition compartment exiting the opposite end. These fibers will be routed to splice trays 1-4 of the 6.0" x 22" (15.24 cm x 55.88 cm) and trays 1-8 of the 8.5" x 22" (21.59 cm x 55.88 cm) via transport tubes. Wrap the continuous loop, and the fibers not being spliced, until all fibers are stored in the transition compartment. For cut cables bring all fibers to be spliced directly through the transition compartment exiting the opposite end of the same corner (Figure 28).



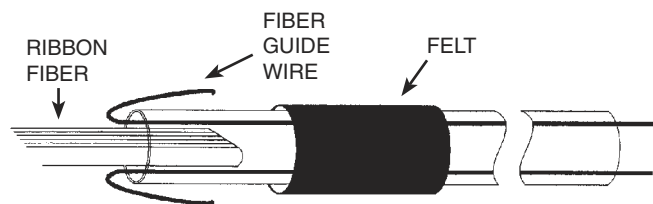
**FIGURE 28 - ROUTE FIBERS IN TRANSITION COMPARTMENT – 6.0" X 22" AND 8.5" X 22"**

**12.00 INSTALLING FIBERS INTO TRANSPORT TUBES AND SECURING TO TRANSITION COMPARTMENT**

**12.01** Group fibers into bundles determined by how many fibers will be inserted into each transport tube. A maximum of six transport tubes can be terminated per splice tray.

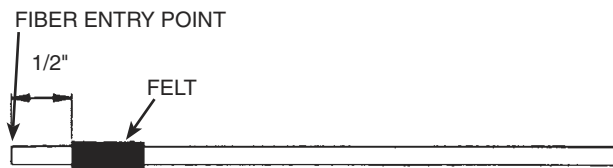
**12.02** Push fibers through the transport tubes.

**NOTE:** For ribbon fiber application, fiber guide wires are provided. Suggested use is four ribbons per tube. (Figure 29)



**FIGURE 29 - GUIDE WIRES IN USE**

**12.03** Select the required number of transport tubes and wrap one layer of felt tape 1/2" (1.27 cm) from one end of all transport tubes. (Figure 30)



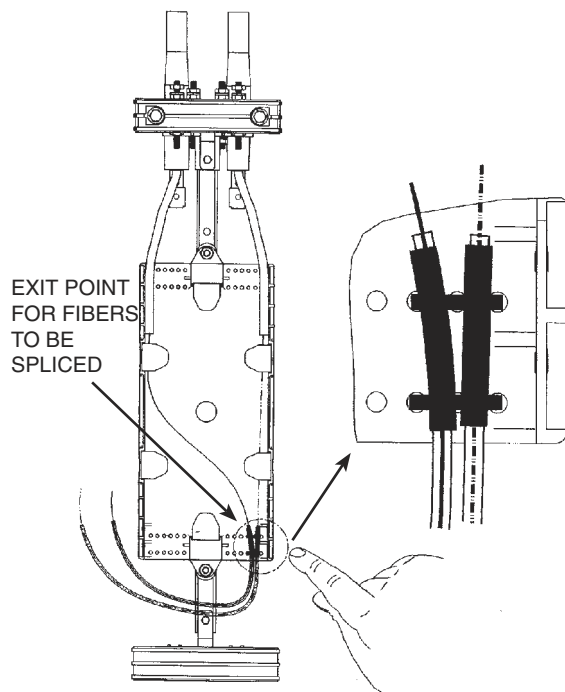
**FIGURE 30 - WRAP FELT TAPE**

**NOTE:** Fiber from transition compartment enters at felt tape end of transport tube.

**12.04** Repeat steps 12.01 through 12.03 for remaining transport tubes.

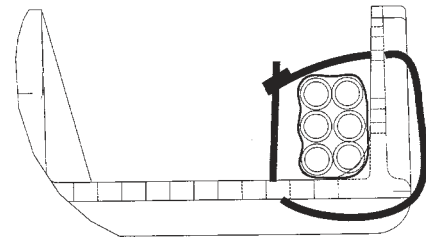
**PLP TIP:** To differentiate between the office and field side, place vinyl tape at the end of one set of transport tubes.

**12.05** Secure all transport tubes with the felt tape applied to the inside tie down holes in the transition compartment with two of the tie wraps provided. (Figure 31)

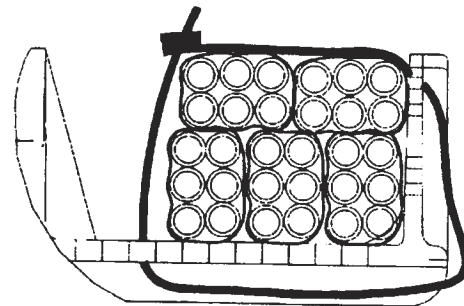


**FIGURE 31 - SECURE TRANSPORT TUBES**

**PLP TIP:** For ease of handling, group the transport tubes in multiples of six. This simplifies the arrangement of the final group of transport tubes in the transition compartment. (Figure 32 A & B)

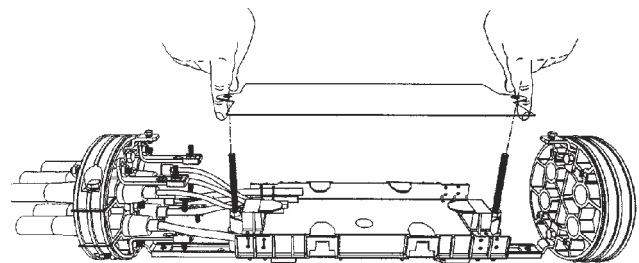


**FIGURE 32A - GROUP TRANSPORT TUBES-SINGLE CLUSTER**



**FIGURE 32B - GROUP TRANSPORT TUBES-MULTIPLE CLUSTERS**

**12.06** Replace protective cover on transition compartment as in Figure 33.



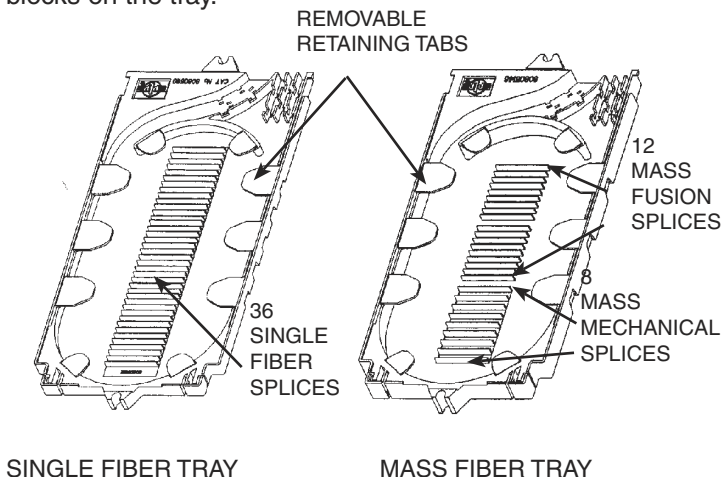
**FIGURE 33 - REPLACE COVER**



### 13.00 SECURING TRANSPORT TUBES AND ROUTING FIBER IN SPLICE TRAYS

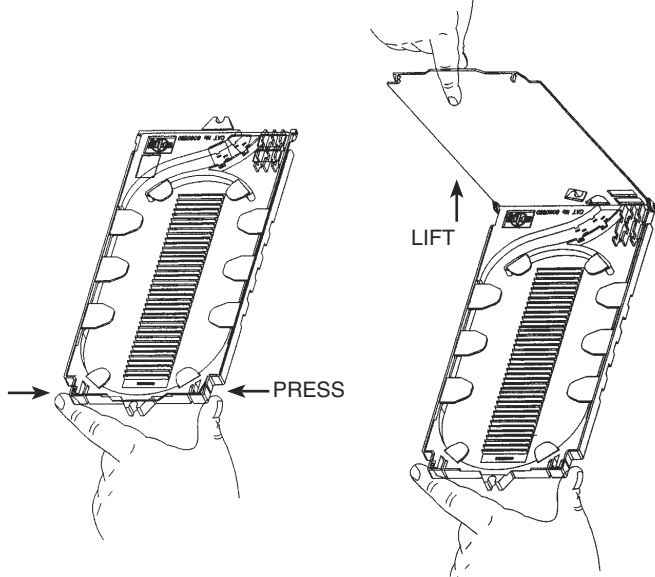
**13.01** There are six types of splice trays available for the COYOTE Closure. The single fiber trays are designed for single fusion or single mechanical splice applications. The single fiber trays can accommodate up to 36 single fiber splices. The mass fiber trays are designed for 12 mass fusion or 8 mass mechanical splices. (Figure 34) Refer to Table 1 for COYOTE Splice Tray capacities.

Single fiber Splice Tray (Cat. No. 80805514) consists of a bare splice tray and three self-stick elastomer (12-count) splice blocks. Follow the procedures included with this splice tray to position the splice blocks on the tray.



**FIGURE 34 - SPLICE TRAYS**

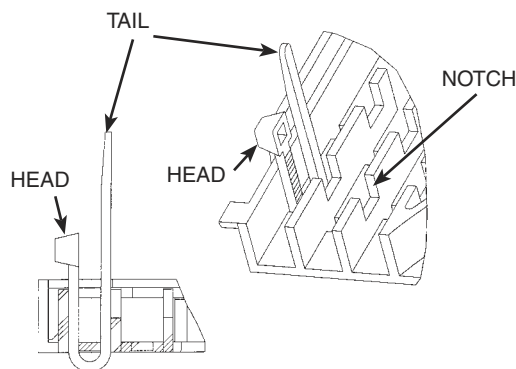
**13.02** Remove cover of splice tray. (Figure 35)



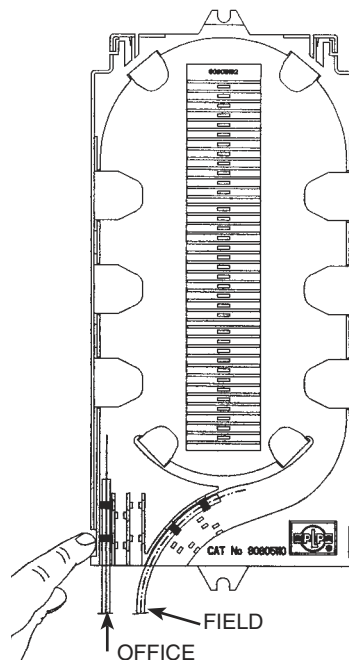
**FIGURE 35 - REMOVE SPLICE TRAY COVER**

**13.03** Position the transport tubes onto the splice tray so they extend 1/4" (.64 cm) past the tie down holes and apply provided tie wraps as shown in Figures 36 A & B.

**PLP TIP:** For easy tie wrap installation, insert the tie wrap with the ridges on the inside of the loop, with the head opposite the notch in the splice tray. Insert the tail into the head. Press head down to the tray and hold in place while pulling the tail to tighten the tie wrap.



**FIGURE 36A - SECURE TIE WRAPS**

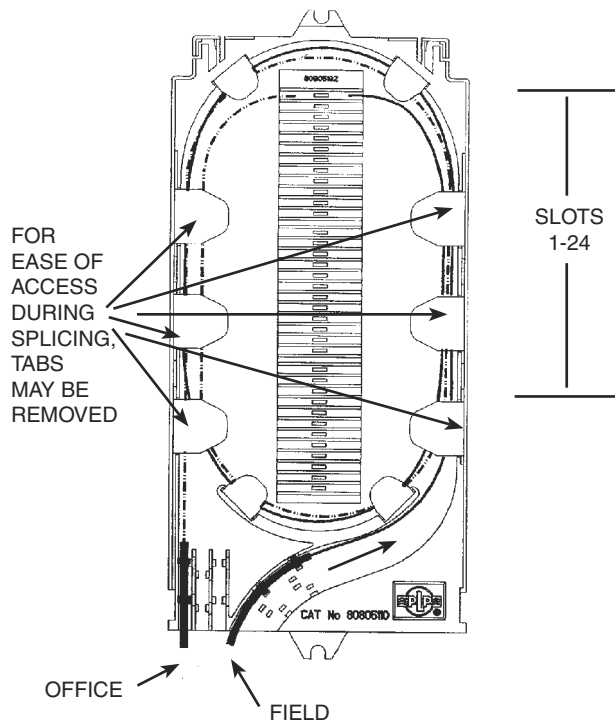


**FIGURE 36B - POSITION AND SECURE TRANSPORT TUBES**

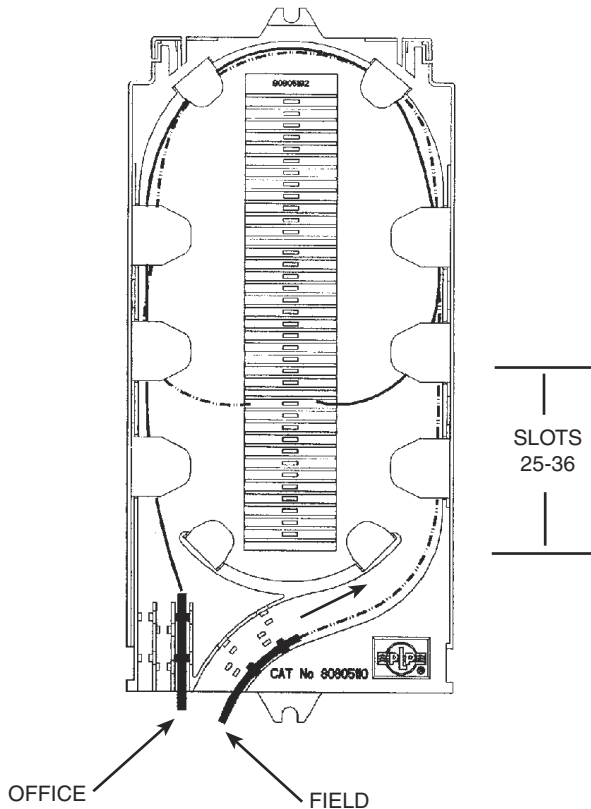
**13.04** When routing the fiber in the **SINGLE COUNT SPLICE TRAY**, route fibers 1-24 1-1/2 times around the splice tray and lay into the top of the splice block (see Figure 37A). Route fibers 25-36 1-3/4 times around the splice tray, and lay into the bottom of the splice block (see Figure 37B).



**NOTE:** There should be a minimum of 50" (127 cm) of exposed fiber for splicing.

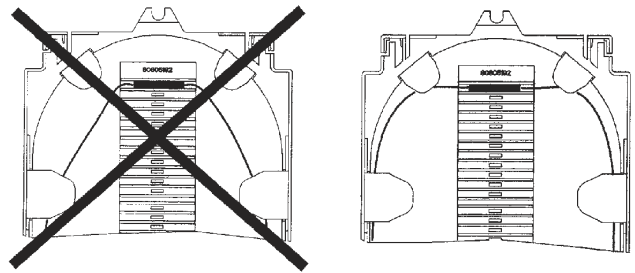


**FIGURE 37A - ROUTING FIBERS IN THE SINGLE FIBER SPLICE TRAY—FIBERS 1-24**



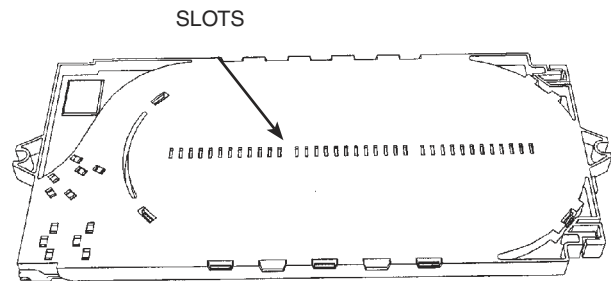
**FIGURE 37B - ROUTING FIBERS IN THE SINGLE FIBER SPLICE TRAY—FIBERS 25-36**

**13.05** Splice the fibers according to your accepted company practices. (Figure 38)



**FIGURE 38 - BEND RADIUS - IMPORTANT**

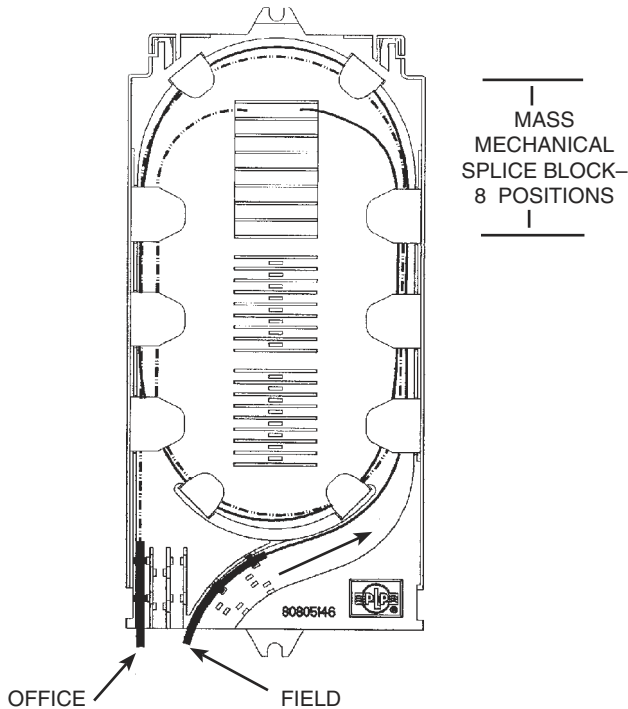
**PLP TIP:** If splice protectors loosely fit in the slots of the splice block, wrap each protector with felt tape to provide the desired fit **or** use a bead of silicone caulk to secure the connectors and place a strip of felt tape over the connectors and silicone caulk. Place Splice Count Label on cover to identify fibers spliced. On the back of both trays, slots are provided to aid in the removal of splice protectors or connectors. (Figure 39)



**FIGURE 39 - SPLICE BLOCK SLOTS**

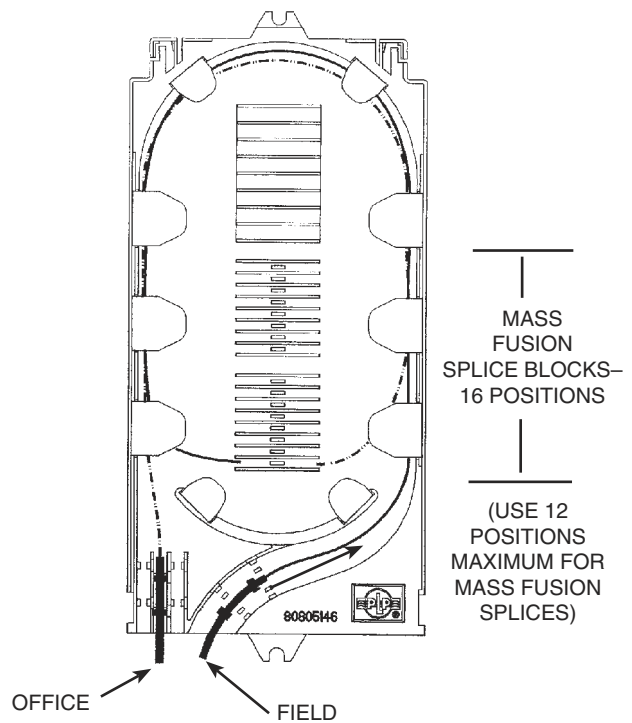
**13.06** When routing the fiber in the **MASS FIBER SPLICE TRAY for MASS MECHANICAL**, route fibers 1-1/2 times around the splice tray and lay into the top of the splice block. (Figure 40)

**NOTE:** There should be a minimum of 50" (127 cm) of exposed fiber for splicing.



**FIGURE 40 - ROUTING FIBERS IN THE MASS FIBER SPLICE TRAY FOR MASS MECHANICAL**

**13.07** When routing fibers in the **MASS FIBER SPLICE TRAY for MASS FUSION**, route fiber 1-3/4 times around the splice tray and lay into the splice block. (Figure 41)



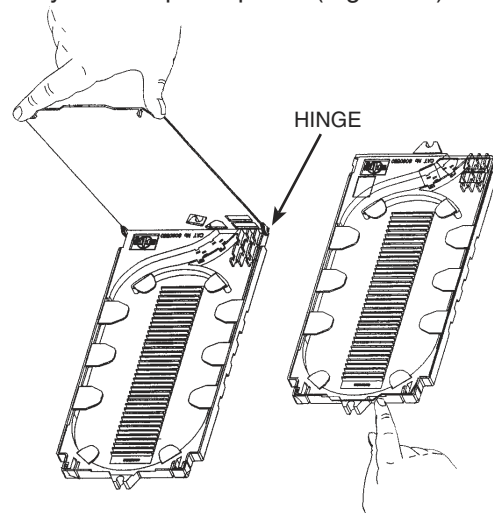
**FIGURE 41 - ROUTING FIBERS IN THE MASS FIBER SPLICE TRAY FOR MASS FUSION**

**13.08** Splice fibers according to accepted company practices. (Refer back to Figure 38)

**PLP TIP:** If splice protectors loosely fit in the slots of the splice block, wrap each protector with felt tape to provide the desired fit **or** use a bead of silicone caulk to secure the connectors and place a strip of felt tape over the connectors and silicone caulk.

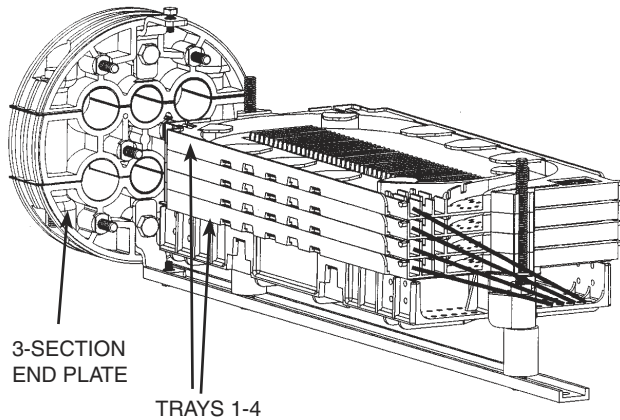
**13.09** Replace all tray retaining tabs.

**13.10** To replace tray cover, position pivotal arm on plastic cover underneath the hinges on the splice tray and snap into place. (Figure 42)

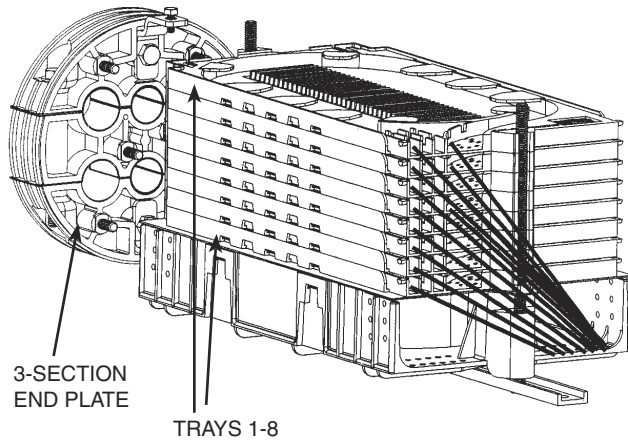


**FIGURE 42 - REPLACE SPLICE TRAY COVER**

**13.11** Slide all splice trays onto the threaded studs. See Figures 43 A & B for proper splice tray alignment for the 6.0" x 22" (15.24 cm x 55.88 cm) closure and the 8.5" x 22" (21.59 cm x 55.88 cm) closure.

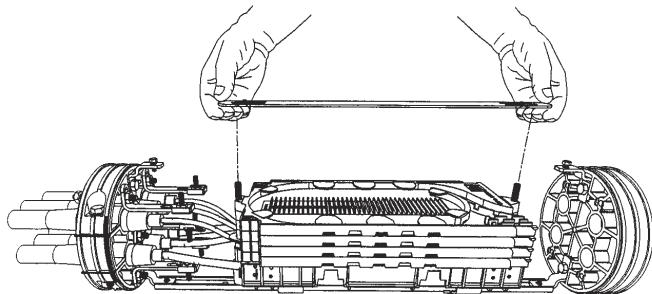


**FIGURE 43A - PROPER SPLICE TRAY ALIGNMENT 6.0" X 22" (15.24 CM X 55.88 CM)**



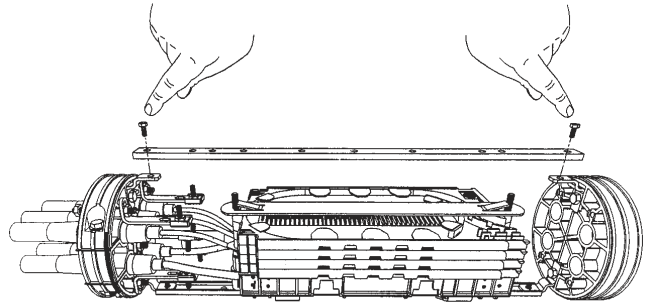
**FIGURE 43B - PROPER SPLICE TRAY ALIGNMENT 8.5" X 22" (21.59 CM X 55.88 CM)--TRAYS 1-8**

**13.12** After all splices are completed, secure all splice trays onto the threaded studs by reapplying the splice tray hold down strap. (Figure 44)



**FIGURE 44 - REPLACE SPLICE TRAY HOLD DOWN STRAP**

**13.13** Install the top torque bar to the upper torque bar brackets on the end plates with the bolts provided. (Figure 45) Make sure the side of the torque bar labelled "3 Section End" is nearest the Three-section End Plate. The torque bars are labelled for in-line as well as butt installation.

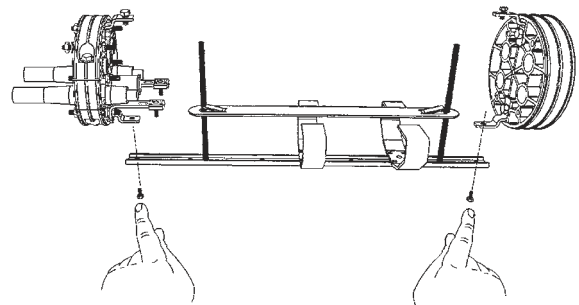


**FIGURE 45 - INSTALL TOP TORQUE BAR**

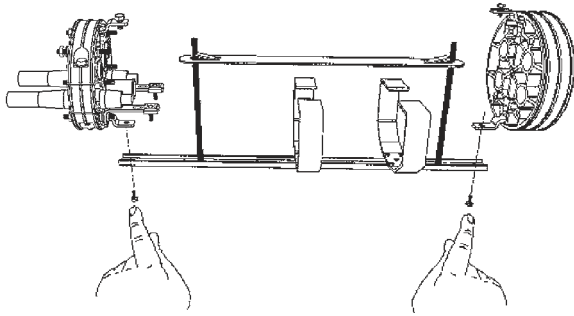
**13.14** See Section 15.00 for installing COYOTE Closure Shells.

## 14.00 ROUTING LOOSE BUFFER TUBE CABLE

**14.01** When routing both unitube and buffer tube in the same closure, follow instructions for unitube application beginning in Paragraph 8.00. For buffer tube alone, install the loose buffer tube storage compartment (Figure 46A) or express loose buffer tube storage compartment (Figure 46B) to the torque bar bracket on the bottom of the End Plates with the bolts provided. Make sure the side of the torque bar labelled "3 Section End" is nearest the Three-section End Plate. The torque bars are labelled for in-line as well as butt installation.



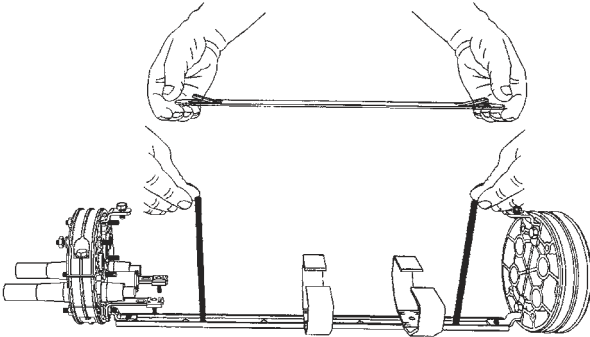
**FIGURE 46A - INSTALL LOOSE BUFFER TUBE STORAGE COMPARTMENT**



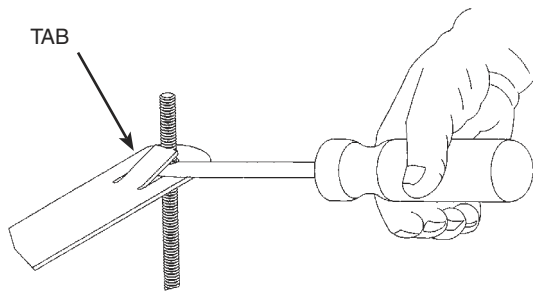
**FIGURE 46B - INSTALL EXPRESS LOOSE BUFFER TUBE STORAGE COMPARTMENT**

**14.02** Remove splice tray hold down strap. (Figure 47A)

**PLP TIP:** If the hold down strap is snug against the studs, lift the tab using a screwdriver as demonstrated in Figure 47B.



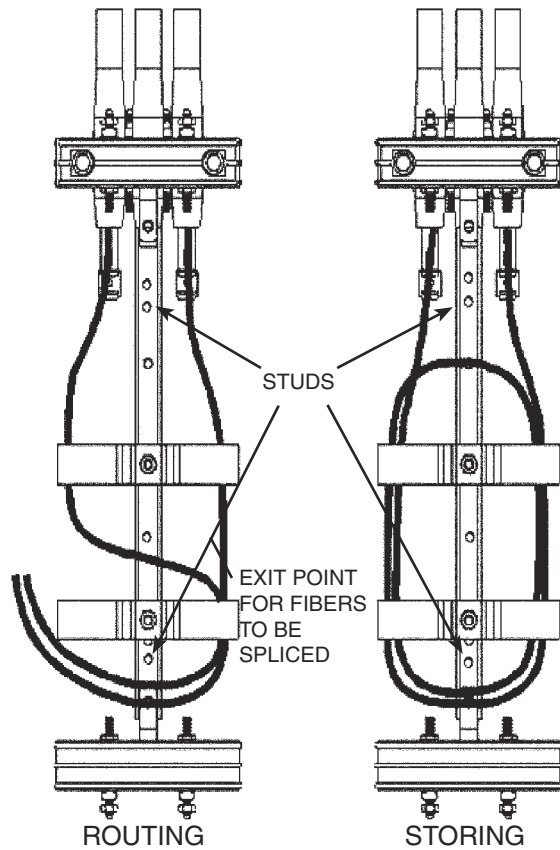
**FIGURE 47A - REMOVE SPLICE TRAY HOLD DOWN STRAP**



**FIGURE 47B - HOLD DOWN STRAP REMOVAL**

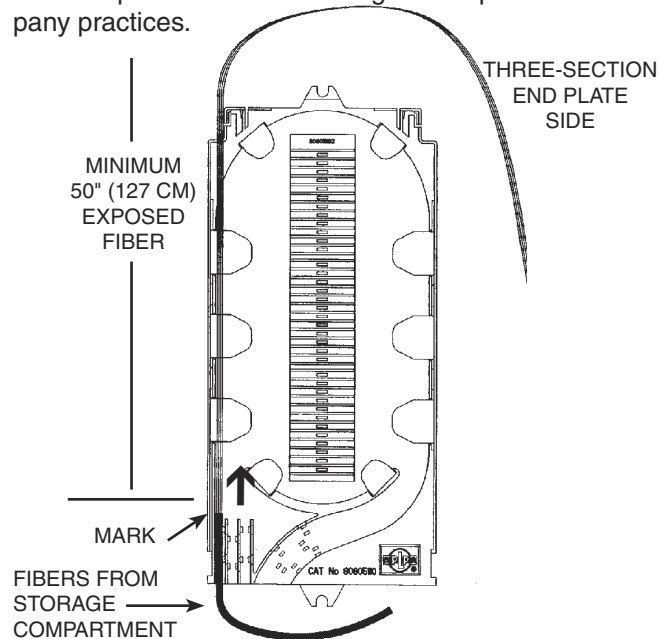
**NOTE:** See Table 1 for COYOTE Splice Tray capacities.

**14.03** When routing loose buffer tubes in the **6.0" x 22"** (15.24 cm x 55.88 cm) **and 8.5" x 22"** (21.59 cm x 55.88 cm) **COYOTE Closure**. Route the loose buffer tubes to be spliced through the storage compartment, exiting them both at the opposite end on the same side. Store any unspliced loose buffer tubes or continuous loop loose buffer tubes by routing them inside the storage brackets. (Figure 48)



**FIGURE 48 - LOOSE BUFFER TUBE ROUTING AND STORAGE**

**14.04** Position the trays on the threaded studs. There should be a **minimum of 50" (127 cm) of exposed fiber** for splicing in the tray. Lay the loose buffer tubes in the tray and make a mark on the tube 1/4" (.64 cm) past the tie down holes. See Figure 49. Remove the loose buffer tube from this point outward. Clean exposed fibers according to accepted company practices.



**FIGURE 49 - LAY TUBES IN TRAY AND MARK**

#### 14.05 COYOTE Express Closure Application:

The COYOTE Express Closure is designed for loop or ring application where a high count fiber is used and a continuous loop or express splice is made and a low count branch cable is being spliced. More room in the storage compartment is required for the storage of slack buffer tube.

14.06 Follow Paragraph 4.01 for cable opening measurements.

14.07 Separate the buffer tubes to be spliced from the rest of the express buffer tubes and cut them at the center points.

14.08 From the left entrance, start wrapping the express fiber to be stored in a clockwise rotation until all express buffer tubes are stored in the express storage compartment.

14.09 Route buffer tubes to be spliced to the splice trays.

**NOTE:** The express storage compartments accept two single splice trays in the 6.0" COYOTE Express Closure and four single trays in the 8.5" closure.

14.10 Place one wrap of felt tape at the end of each loose buffer tube. Position the buffer tubes onto the splice tray so they extend 1/4" (.64) past the tie down holes and apply provided tie wraps as shown in Figures 50 A & B.

**PLP TIP:** For easy tie wrap installation, insert the tie wrap with the ridges on the inside of the loop, with the head opposite the notch in the splice tray. Insert the tail into the head. Press head down to the tray and hold in place while pulling the tail to tighten the tie wrap.

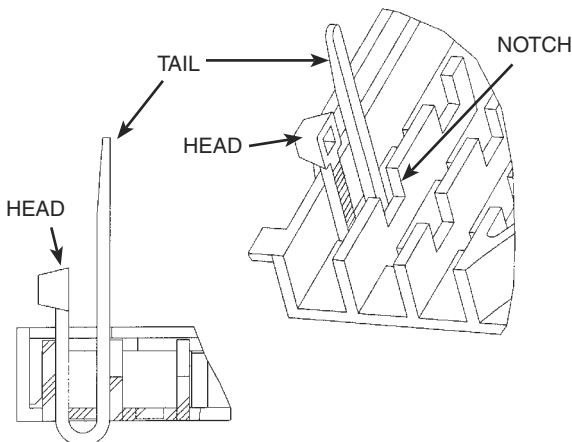


FIGURE 50A - SECURE TIE WRAPS

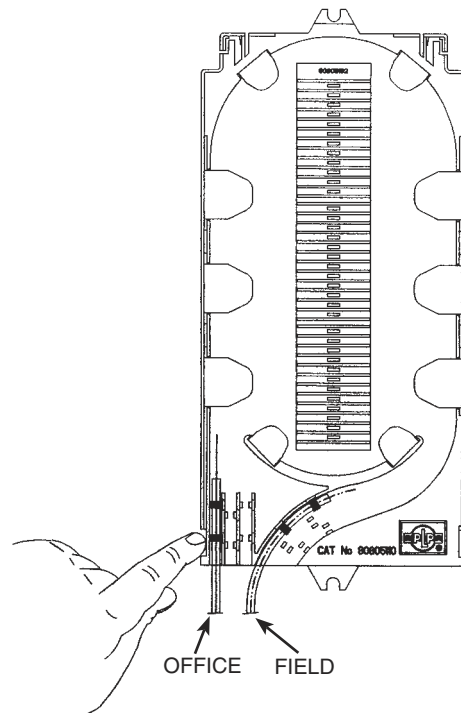


FIGURE 50B - POSITION AND SECURE TRANSPORT TUBES

14.11 For routing the fiber in the **SINGLE FIBER SPLICE TRAY**, see Paragraph 13.04.

14.12 For routing fibers in the **MASS FIBER SPLICE TRAY**, see Paragraphs 13.07 and 13.08.

14.13 To replace splice tray cover, splice tray hold down strap and torque bar see Paragraphs 13.10-13.13.

#### 15.00 INSTALLING THE COYOTE CLOSURE SHELLS

15.01 The neoprene in the shells must be pliable when installed. In cold weather (below 32° F), for new installation, or re-entry, warm shells prior to installation.

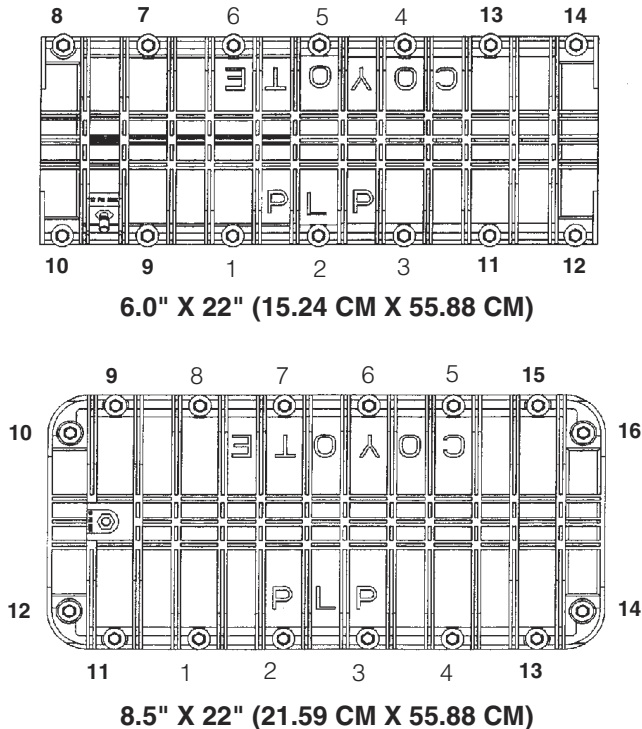
15.02 Remove protective paper liners from shells. Take care to keep gasket area clean.

15.03 The top and bottom shells are mated together around the End Plates. The top shell is identified by an air valve and bolts. Position the top and bottom shells around the End Plates in the grooves located in each shell half.

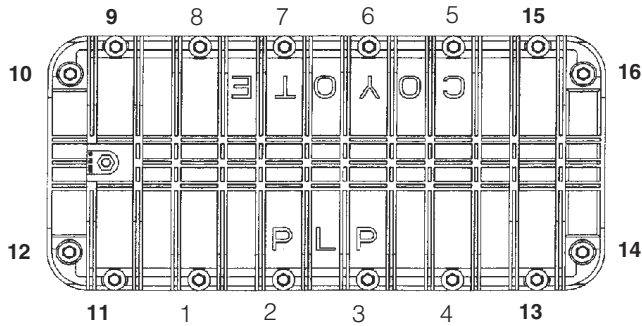


**15.04** Align the closing hardware and first **HAND-TIGHTEN** in the torque sequence shown in Figure 51. Once all closing hardware is hand-tightened, repeat the torque sequence using a torque wrench set at 55 inch pounds. After completing torque sequence, re-torque the two outside corner bolts on all four corners (in bold).

**NOTE:** SET TORQUE TO 55 INCH POUNDS.



**6.0" X 22" (15.24 CM X 55.88 CM)**



**8.5" X 22" (21.59 CM X 55.88 CM)**

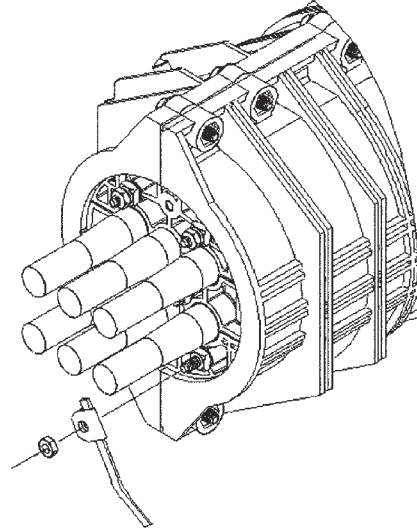
**FIGURE 51 - TORQUE SEQUENCE**

**15.05** Flash test and soap COYOTE Closure according to accepted company practices, to a maximum of 10 psi.

**15.06** Release pressure from closure and replace cap on air valve.

## 16.00 EXTERNAL BOND PROCEDURE

**16.01** For all ground inserts with cables attached, loosely attach a bond clamp (2 per kit) (Catalog #8003281) outside the End Plate. The clamp attaches between the two nuts on the stud on the outside of the End Plate. **NOTE: DO NOT REMOVE THE NUT ON THE GROUND INSERT CLOSEST TO THE END PLATE.** When reattaching hex nut, secure using a can wrench, or torque wrench set no higher than 40 inch/pounds. Route bond ribbon (not supplied) through the clamps and to the ground source. Tighten all clamps. (Figure 52)



**FIGURE 52 - BOND CABLES**

**16.02** For bonding all isolated grounds together on the exterior of the COYOTE Closure, use Exterior Bond Braid Kit (Catalog #8003360).

**16.03** The eyelets of the Exterior Bond Braid Kit are placed at intervals to align with isolated ground studs on the exterior of the COYOTE End Plate.

**16.04** Remove one hex nut from each of the ground studs.

**16.05** Apply the Exterior Bond Braid and re-apply hex nuts and tighten. When reattaching hex nuts, secure using a can wrench, or torque wrench set no higher than 40 inch/pounds.

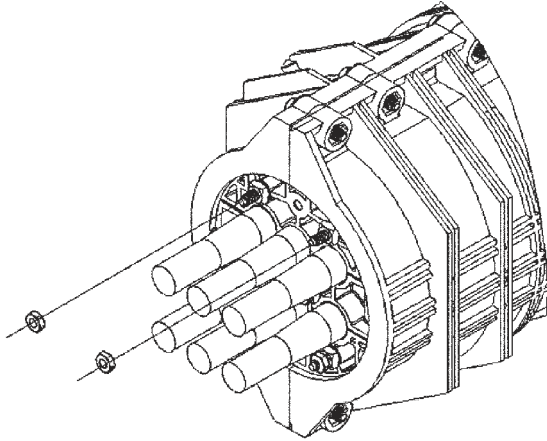
**16.06** Attach tail of the Exterior Bond Braid via the remaining eyelet to the ground source as per company practice.



## 17.00 STRAND MOUNT PROCEDURE

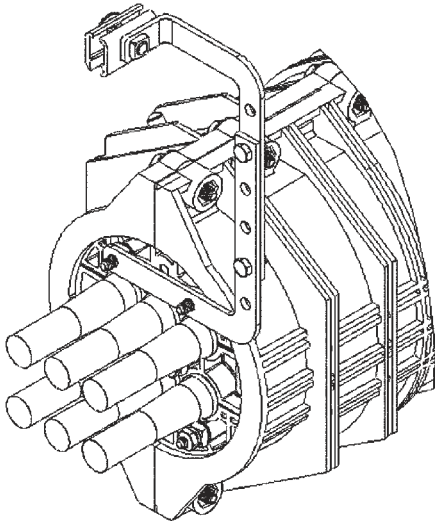
**17.01** The Adjustable Aerial Hanger Bracket (Catalog #8003325) can be used for applications where the Closure is being secured to the strand.

**17.02** Remove one hex nut from each of the two upper ground inserts. (Figure 53)



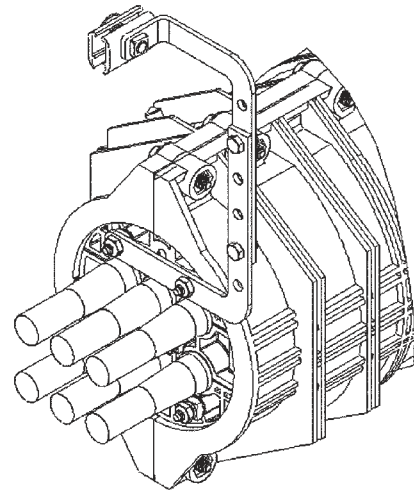
**FIGURE 53 - REMOVE HEX NUTS**

**17.03** Place hanger bracket onto ground inserts. (Figure 54)



**FIGURE 54 - PLACE HANGER BRACKET**

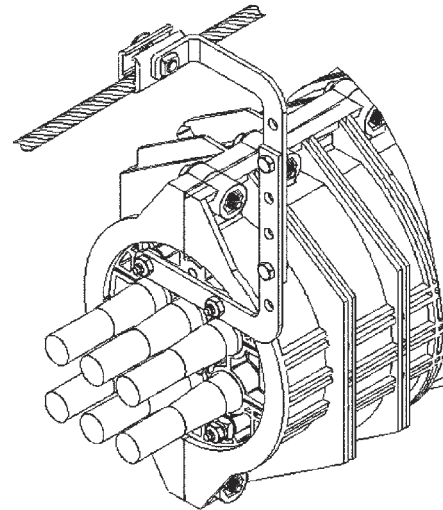
**17.04** Secure hanger bracket to ground inserts with hex nuts and tighten. When reattaching hex nut, secure using a can wrench, or torque wrench set no higher than 40 inch/pounds. (Figure 55)



**FIGURE 55 - SECURE HANGER BRACKET**

**17.05** Repeat Steps 17.02 through 17.04 to install hanger brackets onto other end plate.

**17.06** After attaching hanger brackets to end plates, secure Closure to strand with Aerial Suspension Clamps. (Figure 56)



**FIGURE 56 - SECURE CLOSURE TO STRAND**

## 18.00 MANHOLE SUPPORT BRACKET KIT INSTALLATION

**18.01** The Manhole Support Bracket Kit (Catalog #8003279) can be used for applications to secure the COYOTE Closure to manhole racking or hand hole racking.

**18.02** Remove one hex nut from each of the two upper ground inserts.

- 18.03** Place Manhole Support Bracket onto ground studs.
- 18.04** Secure bracket to ground studs with hex nuts and tighten. When reattaching hex nuts, secure using a can wrench or torque wrench set no higher than 40 inch/pounds.
- 18.05** Repeat steps 18.02-18.04 to install Manhole Support Bracket to the other End Plate.
- 18.06** After attaching brackets to both End Plates, slide the long support bar over the "Ts" on top of the Manhole Support Brackets until the support bar is centered over the COYOTE Closure.

**PLP TIP:** Cable tie the support bar to the rack steps for added security.

## 19.00 BURIED INSTALLATION

**NOTE:** COYOTE Closures may be direct buried if the following precaution is taken.

- 19.01** The COYOTE Closure must be completely surrounded by 1-2' (31-61 cm) of sand or fine gravel prior to back filling.
- 19.02** Ground according to accepted company practices.

## 20.00 MAINTENANCE PROCEDURES

- 20.01** The COYOTE Closure is designed for numerous re-entries.
- 20.02** Be sure to clean shells and End Plates thoroughly to remove sand, dirt and other foreign substances.
- 20.03** Any bent studs or stripped nuts should be replaced. Only use hardware supplied by Preformed Line Products.
- 20.04** The neoprene gasket in the shells should be lubricated prior to reapplication if they are dry. A uniform thin layer is all that is necessary. Only use lubrication supplied by Preformed Line Products (Catalog No. 80801566).
- 20.05** Any shells that are damaged must be replaced.

**20.06** Prior to reinstallation, the neoprene gasket on the shells should be allowed to return to its original state. Warming the shells speeds up the process.

**20.07** If additional cables are added in the future, do not reuse the Three-Section End Plate.

## 21.00 SAFETY CONSIDERATIONS

**21.01** This application procedure is not intended to supersede any company construction or safety standards. This procedure is offered only to illustrate safe application for the individual. Failure to follow these procedures may result in personal injury.

**21.02** When working in the area of energized lines, extra care should be taken to prevent accidental electrical contact.

**21.03** For proper performance and personal safety, be sure to select the proper size PREFORMED™ Product before application.

**21.04** This product is intended for use by trained technicians only. This product **should not be used** by anyone who is not familiar with, and not trained to use it.



**PREFORMED** LINE PRODUCTS 

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