

PIC CABLE CLOSURE

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Completed Splice
Fig. 1

1. GENERAL

1.01 This practice covers the description and installation of the PIC Cable Closure for use in aerial non-pressurized PIC Cable.

1.02 This plastic closure is designed for PIC cable splices where the opening is too long to be covered by a standard closure. It is especially useful where 49-type terminals have been removed or replaced and/or maintenance operations have lengthened the opening. Any length of sleeve may be constructed by using the Extender Kit with the closure.

1.03 The closure is available in sizes ranging from a 1-inch to a 6-inch inside diameter (ID) and may be used on straight or branch splices.

1.04 The main parts of the closure have been split to accommodate existing splices and through cables.

1.05 The closure is supported with standard lashed cable supports and spacers. (See Fig. 1.)

2. DESCRIPTION

PIC Cable Closure Kit

2.01 The Closure Kit consists of:

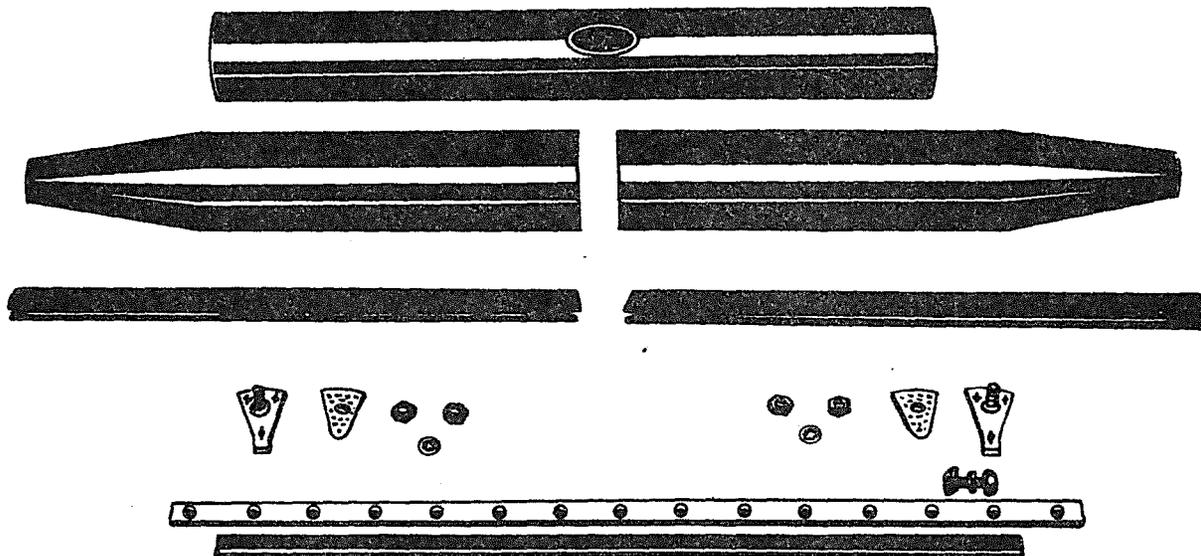
1. A five part black high impact plastic sleeve.
2. C-4040 Bullet Bond Clips.
3. Punched Bond Bar(s) (for establishing shield continuity and mechanical strength across the splice).
4. A one-foot length of DR Tape (for drip collars).
5. A length of insulator Tubing (to insulate the bond bar from the splice).

Note: See Fig. 2 for an exploded view of the kit.

2.02 Table A provides a list showing the length, sizes, and bonding equipment included in each kit:

TABLE A
CLOSURE KIT - CONTENTS

Manufacture Catalog No.	B-Series No.	Sleeve ID (In Inches)	Overall Length (In Inches)	Bullet Bond Clip	Bond Bar	Maximum Length of Bond Bar (In Inches)
C-3500	B-100	1	16	2	1	10
C-3501	B-150	1-1/2	20	2	1	14
C-3502	B-175	1-3/4	24	2	1	16
C-3503	B-225	2-1/4	28	2	1	20
C-3504	B-275	2-3/4	32	4	2	20
C-3505	B-325	3-1/4	32	4	2	20
C-3506	B-450	4-1/2	32	4	2	20
C-3507	B-600	6	32	4	2	20



PIC Cable Closure Kit
Fig. 2

Extender Kit

2.03 The Extender Kit is an accessory to the PIC Cable Closure. It provides a means of covering any length of splice opening. For example: (1) A B-100 PIC Cable Closure and a B-100E Extender will cover a 20-inch opening. If the opening were longer than 20-inches, additional B-100E Extenders must be added. Extenders and bond bars can be cut to fit the exact length of the splice opening.

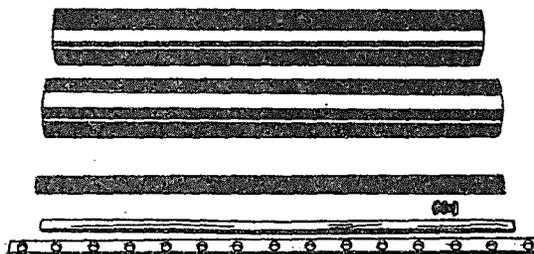
2.04 The kit consists of:

1. A center coupling sleeve.
2. A sleeve with a slider.
3. A punched Bond Bar with linking hardware.

Note: See Fig. 3 Extender sizes are listed in Table B.

TABLE B
EXTENDED SIZES

Manufacturer Catalog No.	B-Series No.	Sleeve ID (In Inches)	Extended Lengths (In Inches)
C-3600	B-100E	1	10
C-3601	B-150E	1-1/2	14
C-3602	B-175E	1-3/4	16
C-3603	B-225E	2-1/4	20
C-3604	B-275E	2-3/4	20
C-3605	B-325E	3-1/4	20
C-3606	B-450E	4-1/2	20
C-3607	B-600E	6	20



Extender Kit
Fig. 3

3. CLOSURE SIZE SELECTION

3.01 Sleeve size selections based on gauge and cable size are listed in Table C.

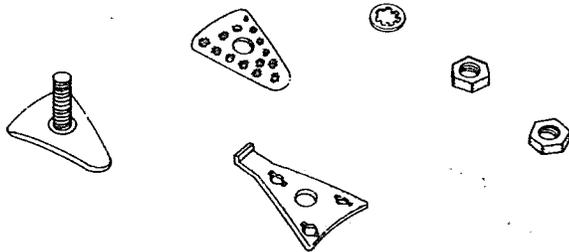
TABLE C
SLEEVE SIZE SELECTIONS

Cable Size	Gauge of Cables			
	19 ga.	22 ga	24 ga.	26 ga.
6, 11, and 16	B-100 1"	B-100 1"	B-100 1"	B-100 1"
25	B-175 1-3/4"	B-150 1-1/2"	B-150 1-1/2"	B-150 1-1/2"
50	B-175 1-3/4"	B-175 1-3/4"	B-175 1-3/4"	B-150 1-1/2"
75	B-225 2-1/4"	B-225 2-1/4"	B-225 2-1/4"	B-175 1-3/4"
100	B-275 2-3/4"	B-225 2-1/4"	B-225 2-1/4"	B-225 2-1/4"
150	B-275 2-3/4"	B-275 2-3/4"	B-275 2-3/4"	B-225 2-1/4"
200	B-325 3-1/4"	B-275 2-3/4"	B-275 2-3/4"	B-225 2-1/4"
300	B-450 4-1/2"	B-325 3-1/4"	B-325 3-1/4"	B-325 3-1/4"
400	B-450 4-1/2"	B-450 4-1/2"	B-325 3-1/4"	B-325 3-1/4"
600	B-600 6"	B-600 6"	B-600 6"	B-450 4-1/2"

3.02 A sleeve larger than that shown may be required for branch splices. Measure the total diameter of cables entering one end of the splice bundle to determine the selection of sleeve size.

4. SHEATH PREPARATION AND BONDING

4.01 Sheath continuity is achieved by using the C-4040 Bullet Bond Clip and a bond bar. Fig. 4 illustrates an exploded view of the Bullet Bond Clip.



C-4040 Bullet Bond Clip
Fig. 4

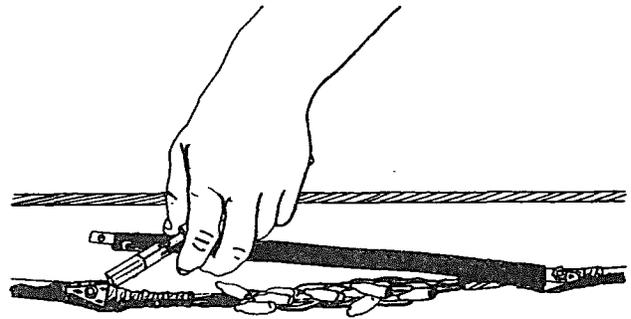
4.02 Section 638-300-901PT covers the method of installing the bullet bond clip.

Note: Only the punch method of placing the clip shall be used.

4.03 After all bullet bond clips have been placed on the entering cables, cut the bond and insulator tubing to the desired length.

4.04 Slip the insulator tubing over the bar and attach bar to the bond clips. Tighten securely (see Fig. 5). Fig. 6 illustrates the use of the extender bond bars.

Note: Insulator tubing is slipped over the bars before closure is placed. Use vinyl tape on overlap when extender kit is used.



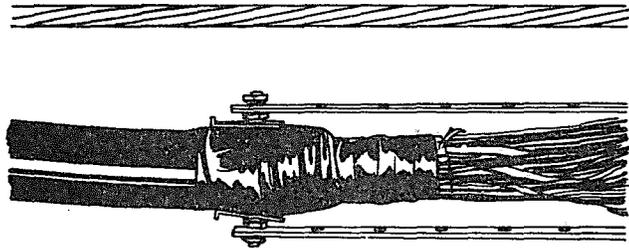
Placing Bond Bar Across Splice
Fig. 5



Bond Bar Extension
Fig. 6

4.06 In closure sizes 2-3/4 inches ID (B-275) and up, a second bond bar shall be placed (the extra bonding system is provided in the kit). The

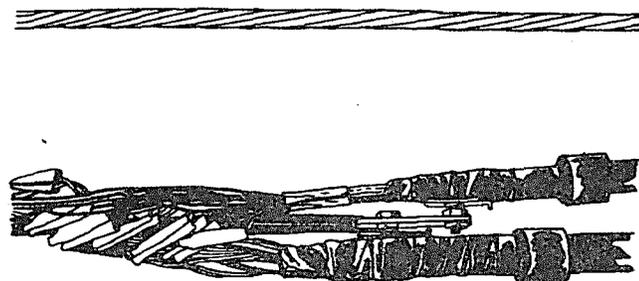
second bond should be installed 180° opposite the first. (See Fig. 7.) Make only two slits in the sheath before punching the hole for the bullet bond clip.



Double Bond Bar
Fig. 7

4.06 When several cables enter a splice from one end, it will be necessary to obtain additional bullet bond clips.

1. On the branch cables, place a bullet bond clip again using the punch method (if there is more than one branch cable, bond cables together as shown in Section 638-300-901PT).
2. Expose a second hole in the bond bar by trimming away some of the insulator tubing.
3. Attach the bond bar to the bond clips as shown in Fig. 8.



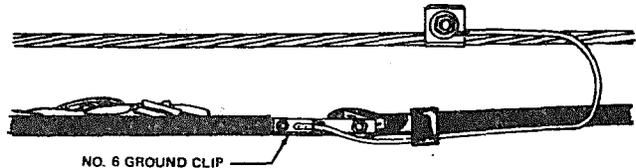
Branch Cable Bonding
Fig. 8

4.07 The cable shield shall be bonded to the strand at every PIC Cable Closure. An extra bolt, nut, and lock washer have been provided on each bond bar for this purpose.

1. Install a length of B Ground Wire between the bond bar and the strand.

2. Use a standard lashing wire clamp to terminate the ground wire on the strand.
3. Terminate the ground wire to the bond bar using a No. 6 Ground Clip. (See Fig. 9).

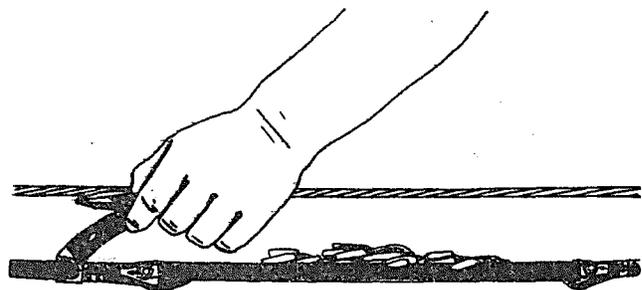
Note: Section 638-300-901PT also provides information regarding the use of the No. 6 Ground Clip.



Bonding to Strand
Fig. 9

5. PLACING THE CLOSURE

5.01 Wrap the splice bundle with B Polyethylene Tape. Leave the ends of the splice open, so that the cable can breathe. Make a drip collar with the DR Tape (3 turns) on each entering cable. Where two or more cables enter one end of a splice, stagger the drip collars as shown in Fig. 8. Fig. 10 illustrates placing a drip collar.



Placing Drip Collar
Fig. 10

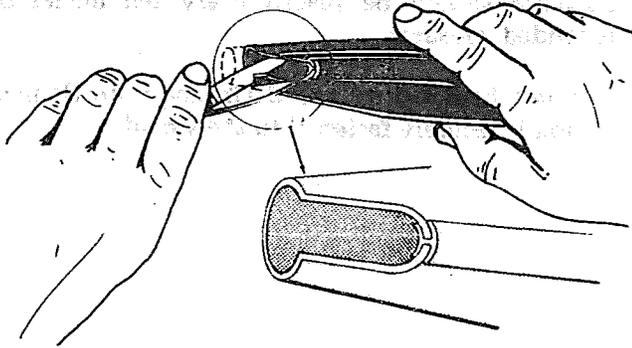
5.02 Place the closure as follows:

1. Disassemble the closure.
2. To obtain a close fit around the cables, measure the total diameter of the cables entering at each end of the splice. Cut off the surplus portion of the cone with snips, hack saw, or cable saw.

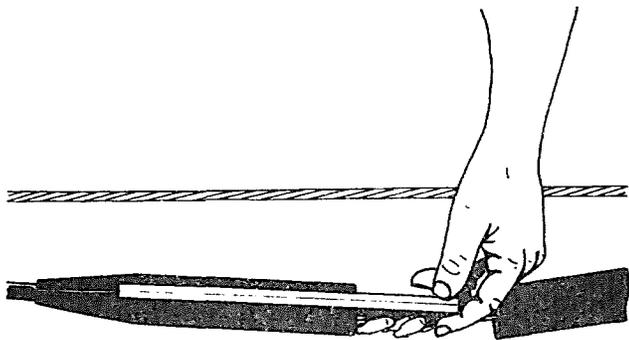
3. For a close fit on the branch end of the splice, make a "U" cut in the cone as follows:

- a. Make a straight cut on the cone to fit the larger cable.
- b. Next make a "U" cut on the bottom (slider side) of the cone as shown in Fig. 11.

4. Slip the trimmed cone sections onto the cable. Insert the slider. Cut off surplus slider that extends beyond the end of the closure. See Fig. 12.



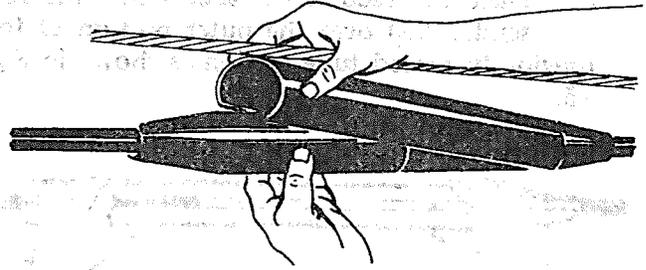
Cutting U Slot For Branch Cable
Fig. 11



Placing Slider
Fig. 12

5. Slide the cone sections together over the splice (center the splice bundle). Snap the center coupling sleeve in place as shown in Fig. 13. Check to be sure cone sections are together, and that the sliders are facing down.

Note: Do not tape the conical ends of the closure to the cable. The cable must breathe.

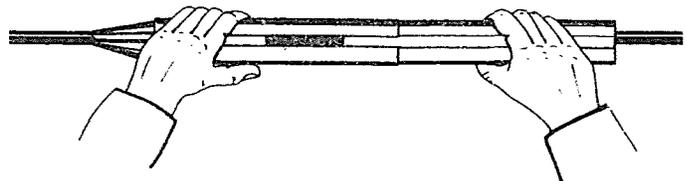


Placing Coupling Sleeve
Fig. 13

Placing Extender

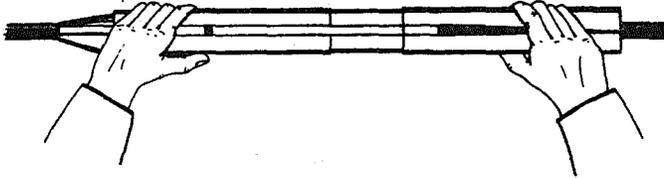
5.03 The Extender is used in conjunction with a PIC Cable Closure to cover any length of splice opening. Place the extender as follows:

1. Cut the tubular sections and bond bars to the exact length to fit splice opening.
2. Connect two or more bond bars together, as required. (See Fig. 6).
3. Arrange the spliced connectors and secure to bond bar with tape or wire ties.
4. Place one cone over the splice. Slip the original tube provided with the PIC Cable Closure over the cone as shown in Fig. 14.
5. Select the slit tube with the slider from the Extender kit. Place this unit around splice and butt against the cone section of the closure. Fig. 14 shows this partially completed.



Part of Extender in Place
Fig. 14

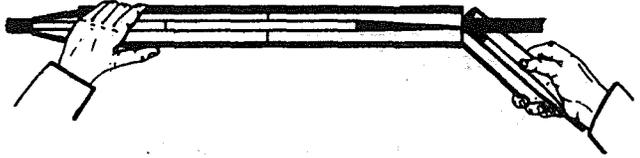
6. Place the second slit tube (from the Extender Kit) over the outer portion of the previously placed tube section as shown in Fig. 15.



Placing Second Tube of Extender
Fig. 15

7. Place the other cone section over the splice and within the slit tube of the Extender as shown in Fig. 16. Center the closure over the

splice opening and rotate entire closure so that slit portions are on bottom.



Placing Second Cone Section
Fig. 16

- 5.04 Attach completed closure to the strand with standard spacers and lashed cable supports. Follow practices for supporting lead sleeves. Extra supports should be placed every ten inches on extended closures.

Note: Ensure that the B Ground Wire Connection is securely fastened to the strand.