

## 105-TYPE CABLE TERMINALS DESCRIPTION AND INSTALLATION

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### 1. GENERAL

1.01 This section covers the description and installation of the 105-type cable terminals.

1.02 The reasons for reissuing this section are listed below. Since this reissue is a general revision, no revision arrows have been used to denote significant changes.

- (a) Include the 105B1-10 and 105B1B-10 cable terminals
- (b) Update information on 105A2-type cable terminals
- (c) Rate the 104-type cable terminals Mfr Disc.
- (d) Rate the 105A2-12 and 105A2B-10 additions and maintenance (A&M)
- (e) Update text and illustrations.

\*\*Reprinted to comply with modified final judgment.

1.03 The 105-type cable terminals are strand mounted cable terminals for outside use on nonpressurized polyethylene-insulated conductor (PIC) cables. They are available with or without cable protection (2A1B protector units). These terminals are not for use as splice closures.

1.04 The 105A2-25 cable terminal is a 25-pair nonprotected terminal.

1.05 The 105B1-type cable terminals are smaller "mini" versions of the 105A-type cable terminals. The 105B1-10 is nonprotected and the 105B1B-10 is furnished with 2A1B protector units.

1.06 The 104-type cable terminals are rated Mfr Disc. The 105A2-12 and 105A2B-10 cable terminals are rated A&M.

1.07 For additional information on the 105-type cable terminals refer to the following sections:

SECTION	TITLE
631-020-200	Brackets—51B and 38-Y-3913—Description and Use
644-203-101	Aerial Plant Rehabilitation—Rebuilding Terminals and Closures

## 2. DESCRIPTION

2.01 Figures 1 through 3 illustrate the 105-type cable terminal. Table A lists the cable terminals and their features.

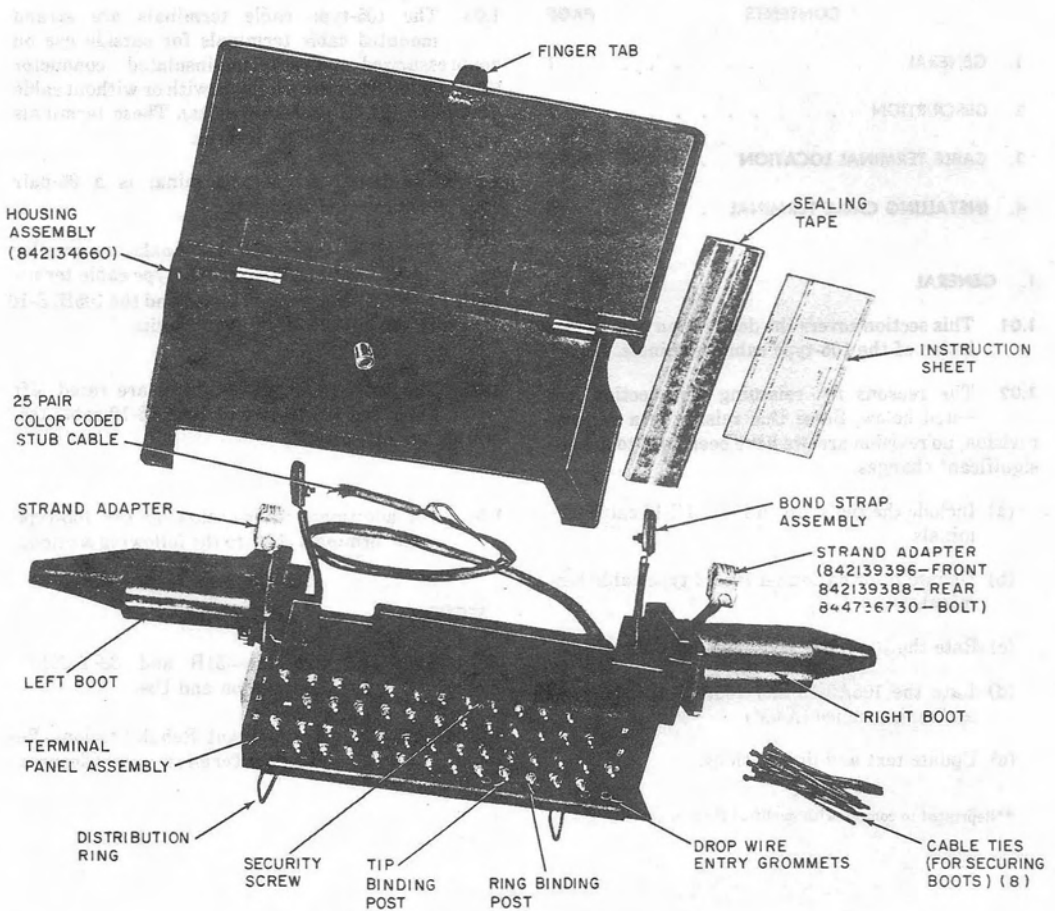


Fig. 1—105A2-25 Cable Terminal

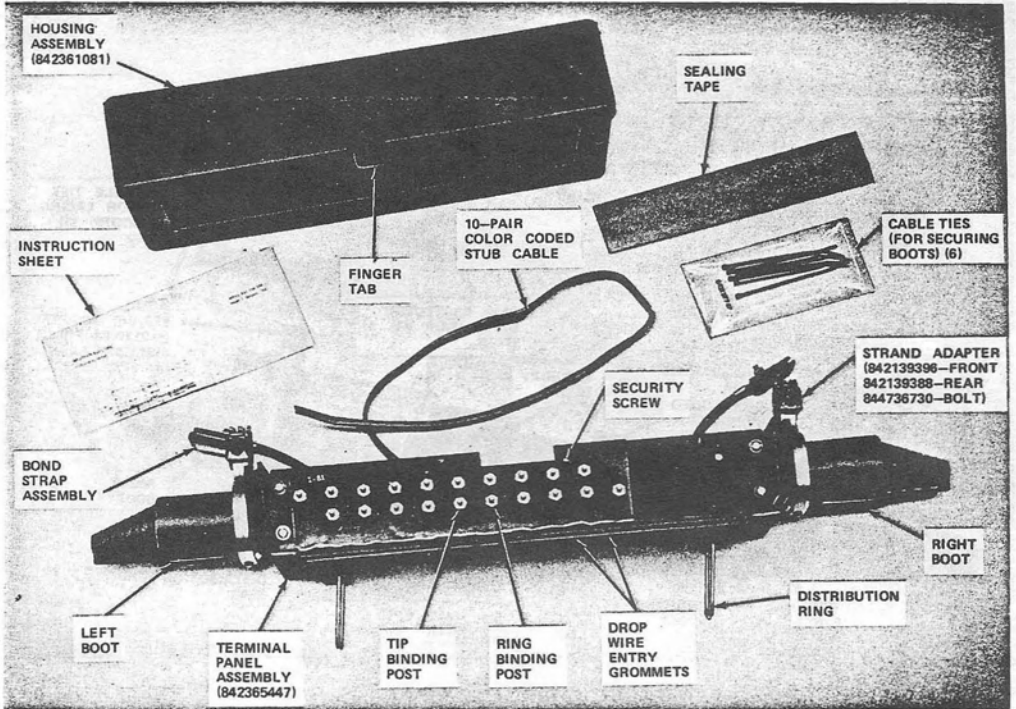


Fig. 2—105B1-10 Cable Terminal

ITEM NO.	QTY	DESCRIPTION	UNIT	REMARKS
1	1	HOUSING ASSEMBLY (842361081)	EA	
2	1	INSTRUCTION SHEET	EA	
3	1	BOND STRAP ASSEMBLY	EA	
4	1	LEFT BOOT	EA	
5	1	TERMINAL PANEL ASSEMBLY (842365447)	EA	
6	1	TIP BINDING POST	EA	
7	1	RING BINDING POST	EA	
8	1	DROP WIRE ENTRY GROMMETS	EA	
9	1	DISTRIBUTION RING	EA	
10	1	RIGHT BOOT	EA	
11	1	SEALING TAPE	EA	
12	1	10-PAIR COLOR CODED STUB CABLE	EA	
13	1	FINGER TAB	EA	
14	1	SECURITY SCREW	EA	
15	1	STRAND ADAPTER (842139396—FRONT, 842139388—REAR, 844736730—BOLT)	EA	
16	6	CABLE TIES (FOR SECURING BOOTS)	EA	

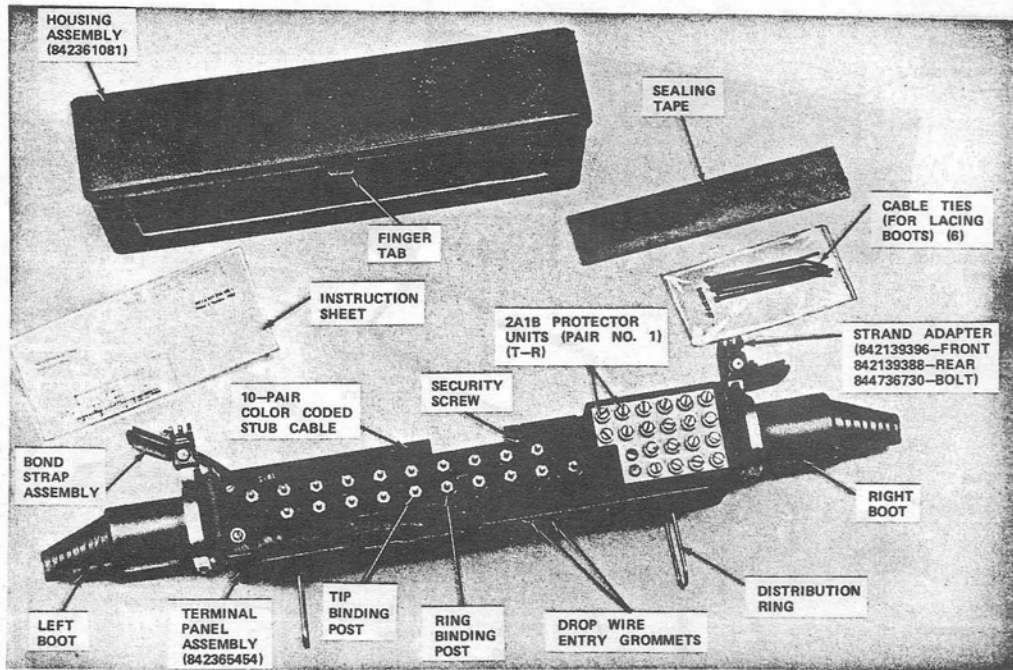


Fig. 3—105B1B-10 Cable Terminal

TABLE A

104- AND 105-TYPE CABLE TERMINALS

CABLE TERMINAL	RATING	MAXIMUM CABLE DIAMETER (NOTE)	NO. OF PAIRS IN STUB CABLE	NO. OF BINDING POSTS (PAIRS)
105A2-12	A&M	1.8 In.	12	12
105A2-25	Std	1.8 In.	25	25
105A2B-10*	A&M	1.8 In.	10	10
105B1-10	Std	1.3 In.	10	10
105B1B-10*	Std	1.3 In.	10	10

**Note:** When these terminals are to be used with cables larger than the maximum od, 1A1 or 1B1 terminal stubs must be used in conjunction with the terminal as covered in Section 631-240-211.

\* The 105A2B-10 and 105B1B-10 cable terminals are equipped with 2A1B protector units.

2.02 The housing assembly of the 105-type cable terminal snaps in place over the terminal panel assembly. A security screw (Fig. 4) is provided for use where additional security is desired.

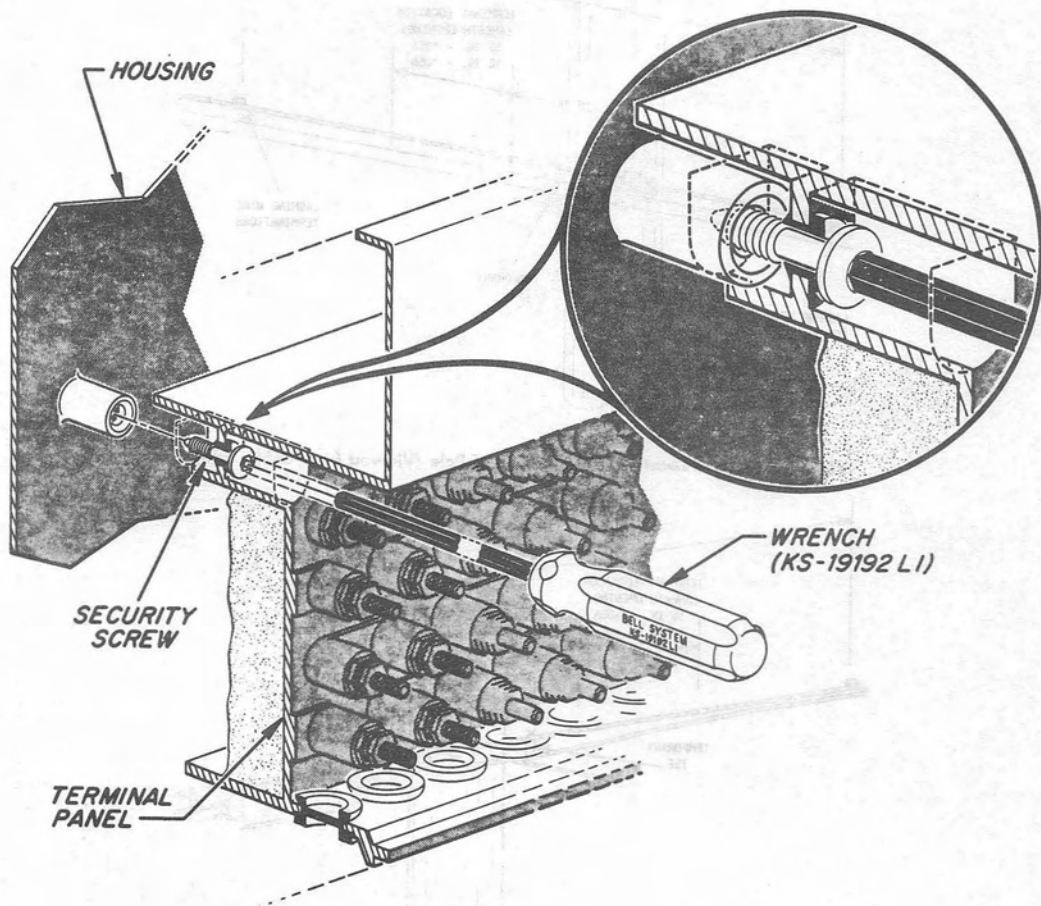


Fig. 4—Security Screw

3. CABLE TERMINAL LOCATION

3.01 Figures 5 through 12 show the location of the 105-type cable terminals.

3.02 The 105-type cable terminal *shall not* be used at a junction splice between paper insulated

and PIC cables. It may be used at a minimum distance of 7 feet from this splice provided an air plug is made in the PIC cable between the terminal and the splice case as covered in Section 637-242-201.

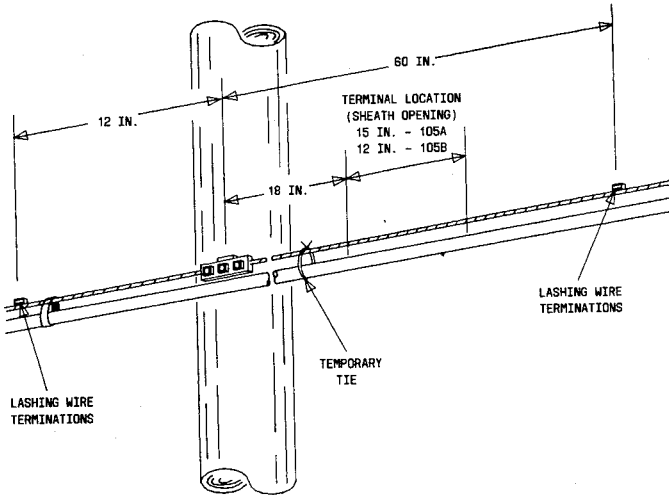


Fig. 5—Preferred Location at Right Side of Pole (Viewed from Cable Side)

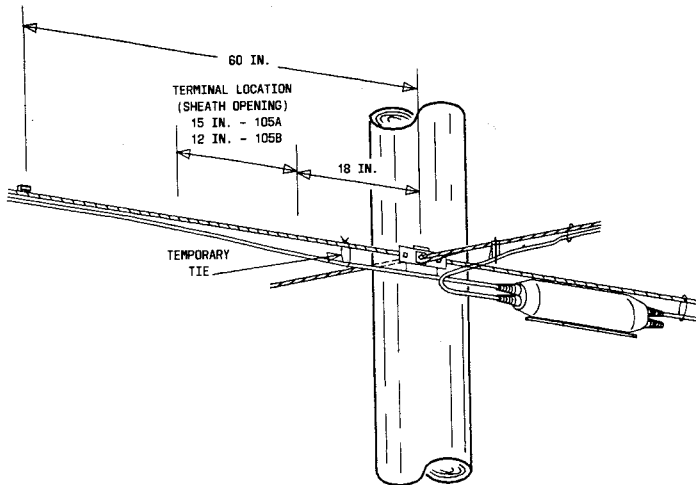
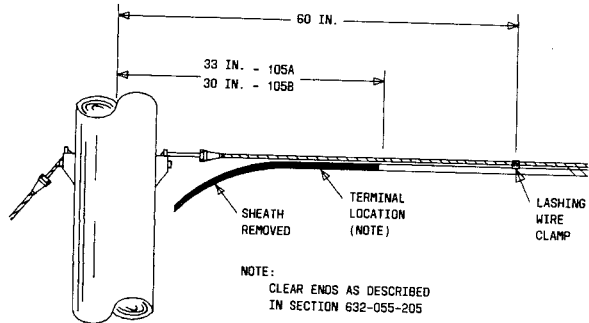
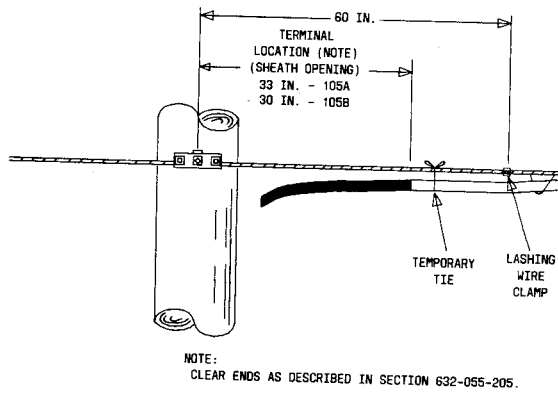


Fig. 6—Terminal Location at Left Side of Pole



**Fig. 7—Terminal Location at Dead-End Pole**



**Fig. 8—Terminal Location at Cable Dead End**

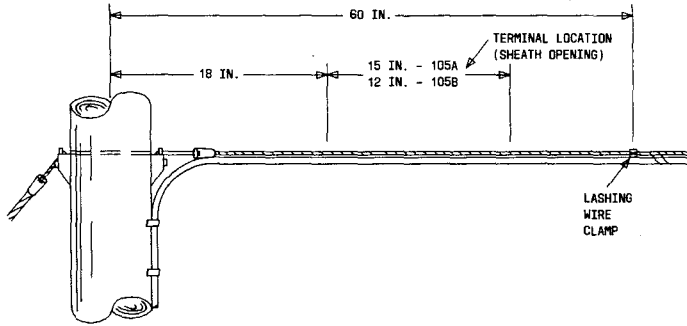


Fig. 9—Terminal Location at Junction of Aerial and Underground Cable

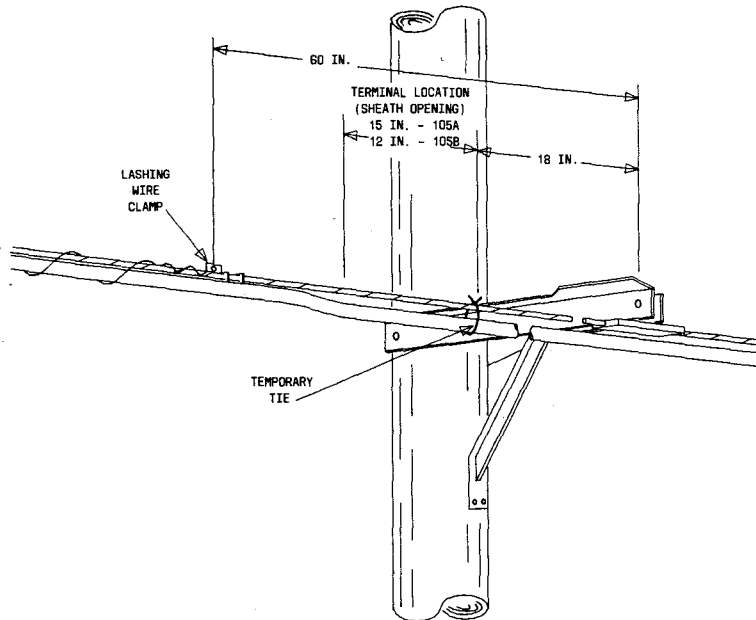
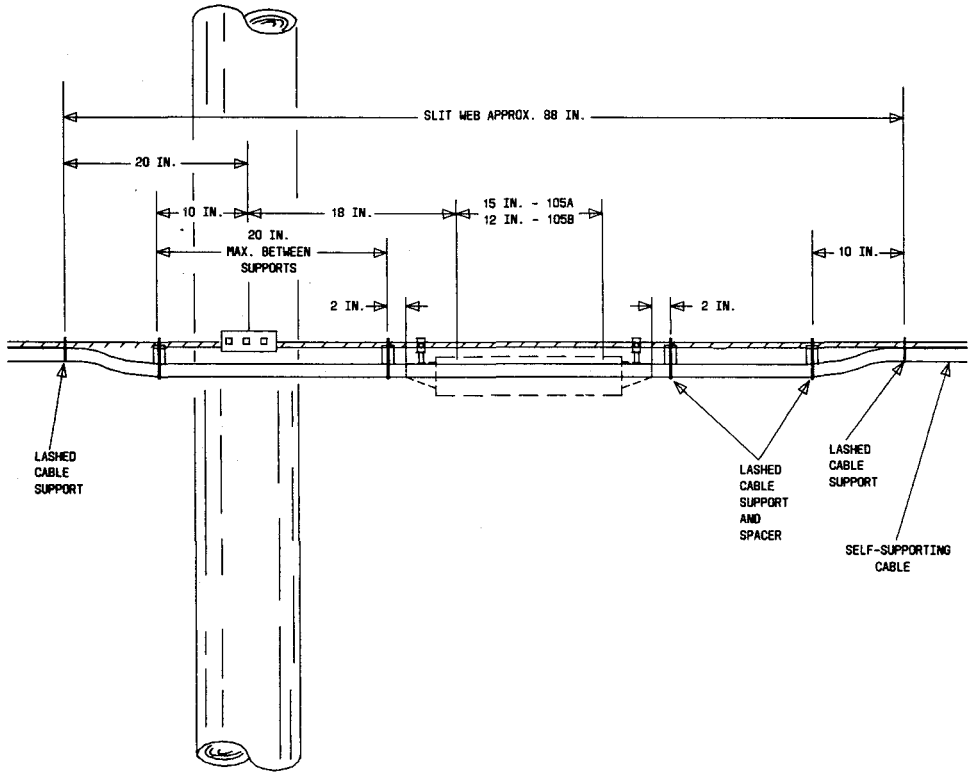
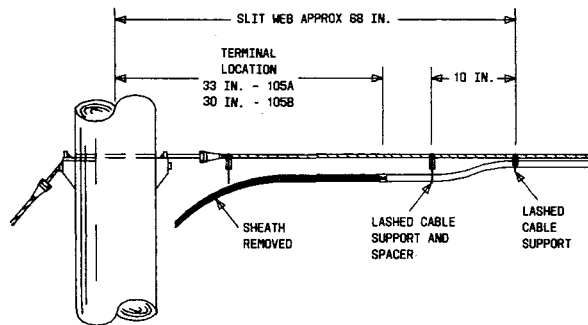


Fig. 10—Terminal Location at Extension Arm





**Fig. 11—Terminal Location on Self-Supporting Cable at Intermediate Pole**



**Fig. 12—Terminal Location on Self-Supporting Cable at Dead-End Pole**

3.03 At cable dead ends, up to 300 pairs (1.8 inch od cable) may be contained in a 105A-type cable terminal and up to 200 pairs (1.3 inch od cable) in a 105B1-type cable terminal. Clear ends with 25-pair 710-type connector modules as described in Section 632-055-205. If end of boot is open on 105A-type cable terminal, plug with formed roll of B or D sealing tape.

4. INSTALLING CABLE TERMINAL

4.01 Figures 13 through 17 illustrate the installation of the 105A-type cable terminal.

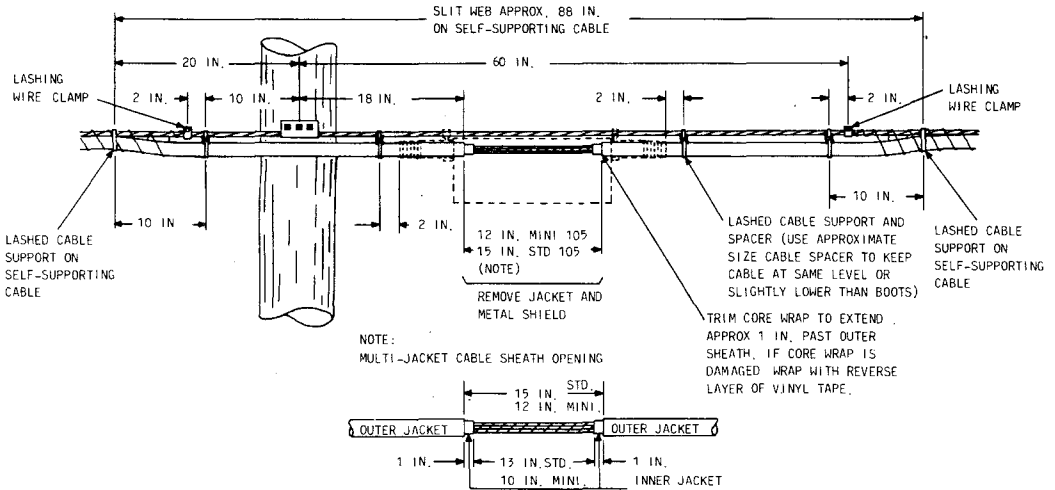
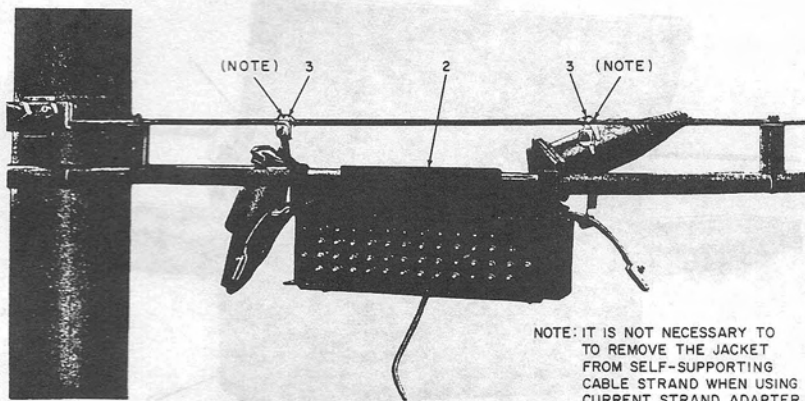
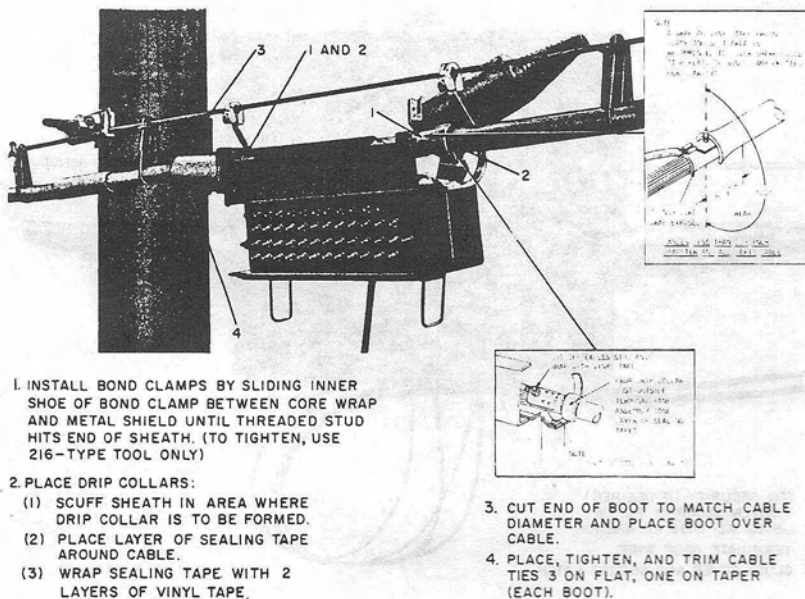


Fig. 13—Step 1—Preparing Cable



- (NOTE) 3
- 2
- 3 (NOTE)
- NOTE: IT IS NOT NECESSARY TO REMOVE THE JACKET FROM SELF-SUPPORTING CABLE STRAND WHEN USING CURRENT STRAND ADAPTER.
- 1—PULL ON FINGER TAB TO OPEN THE COVER. SEPARATE THE TERMINAL PANEL ASSEMBLY FROM THE HOUSING ASSEMBLY BY PRYING APART AT THE BOTTOM EDGE.
  - 2—CENTER TERMINAL PANEL ASSEMBLY OVER SHEATH OPENING.
  - 3—TORQUE STRAND ADAPTER BOLT TO 75 INCH-POUNDS. DO NOT EXCEED 100 INCH-POUNDS.

**Fig. 14—Step 2—Installing Terminal Panel Assembly (105A-Type Cable Terminal)**



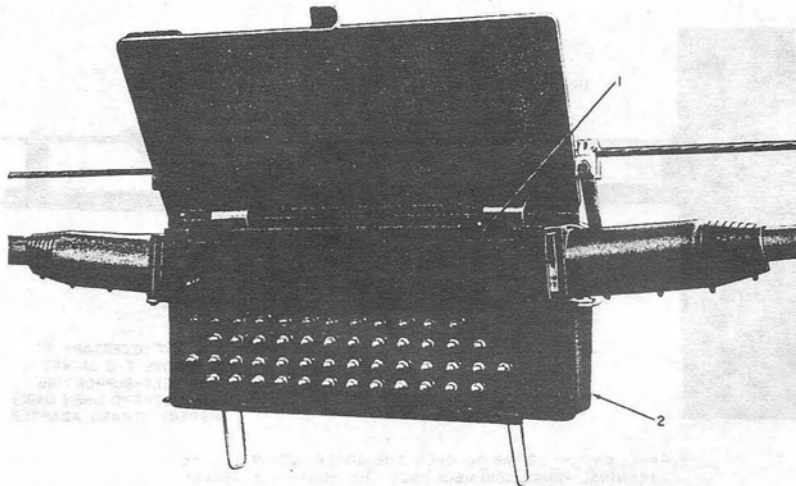
1. INSTALL BOND CLAMPS BY SLIDING INNER SHOE OF BOND CLAMP BETWEEN CORE WRAP AND METAL SHIELD UNTIL THREADED STUD HITS END OF SHEATH. (TO TIGHTEN, USE 216-TYPE TOOL ONLY)

2. PLACE DRIP COLLARS:

- (1) SCUFF SHEATH IN AREA WHERE DRIP COLLAR IS TO BE FORMED.
- (2) PLACE LAYER OF SEALING TAPE AROUND CABLE.
- (3) WRAP SEALING TAPE WITH 2 LAYERS OF VINYL TAPE.

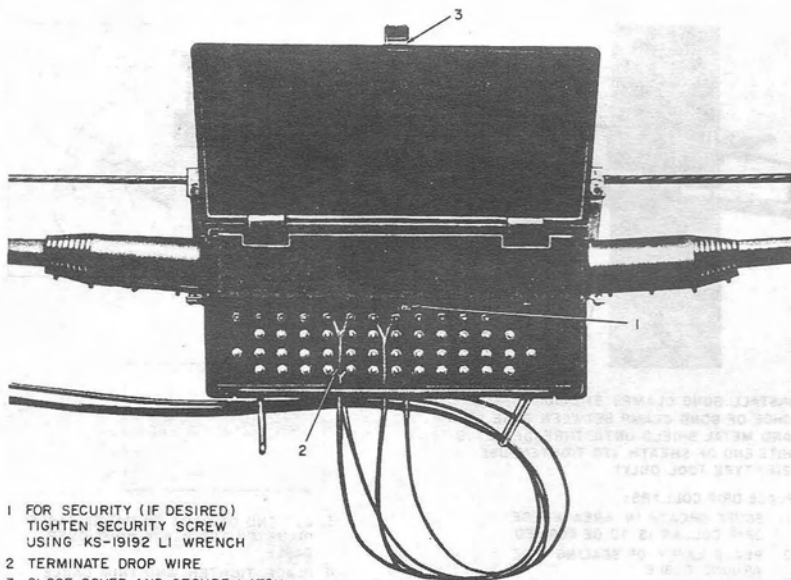
3. CUT END OF BOOT TO MATCH CABLE DIAMETER AND PLACE BOOT OVER CABLE.
4. PLACE, TIGHTEN, AND TRIM CABLE TIES 3 ON FLAT, ONE ON TAPER (EACH BOOT).

**Fig. 15—Step 3—Installing Bond Clamps and Drip Collar (105A-Type Cable Terminal)**



1. PERFORM SPLICING OPERATION AS REQUIRED
2. PLACE HOUSING ASSEMBLY (WHEN FULLY SEATED THERE IS AN AUDIBLE SNAP)

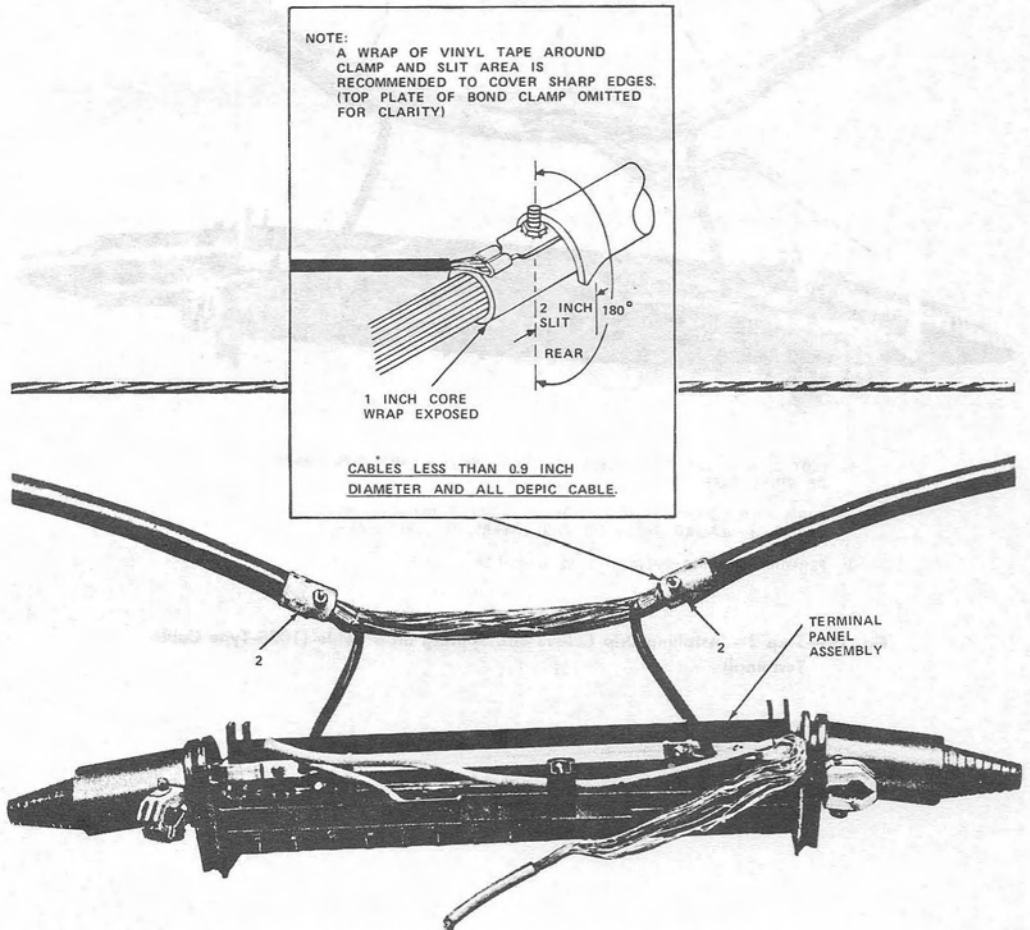
**Fig. 16—Step 4—Installing Housing Assembly (105A-Type Cable Terminal)**



- 1 FOR SECURITY (IF DESIRED)  
TIGHTEN SECURITY SCREW  
USING KS-19192 LI WRENCH
- 2 TERMINATE DROP WIRE
- 3 CLOSE COVER AND SECURE LATCH

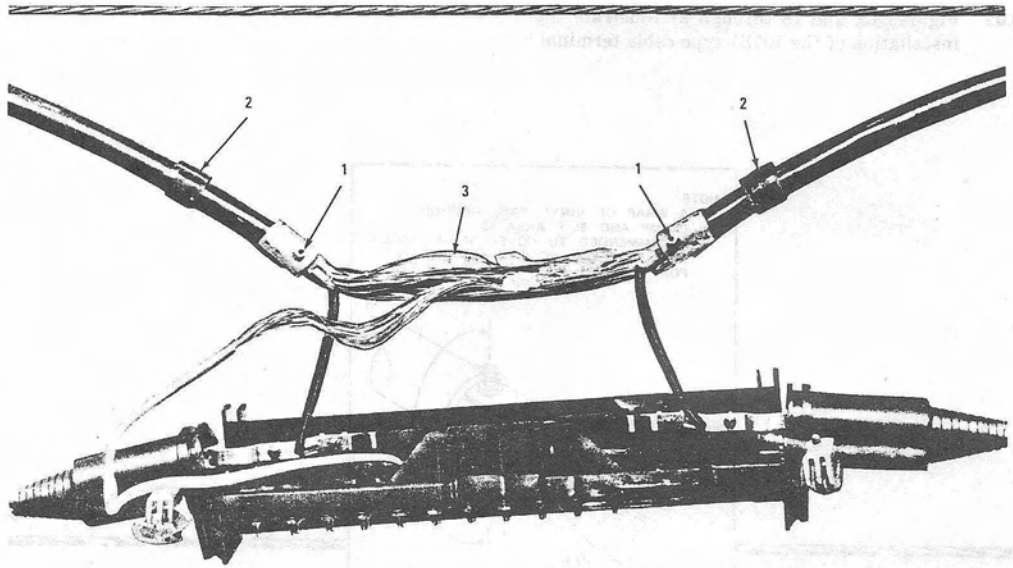
**Fig. 17—Step 5—Completed Installation (105A-Type Cable Terminal)**

4.02 Figures 13, and 18 through 21 illustrate the installation of the 105B1-type cable terminal.



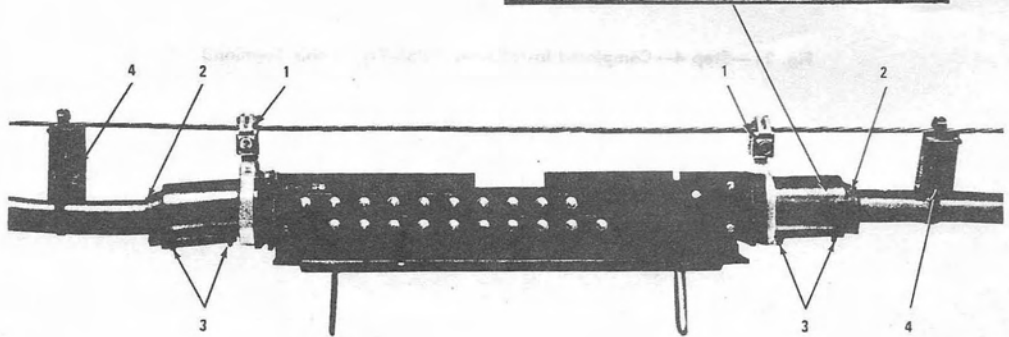
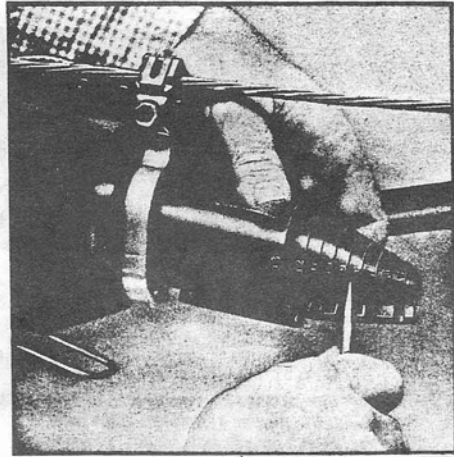
- 1- PULL ON FINGER TAB TO OPEN THE COVER. SEPARATE THE TERMINAL PANEL ASSEMBLY FROM THE HOUSING ASSEMBLY BY PRYING APART AT THE BOTTOM EDGE.
- 2- INSTALL BOND CLAMPS (P/O TERMINAL PANEL ASSEMBLY) BY SLIDING INNER SHOE OF BOND CLAMP BETWEEN CORE WRAP AND METAL SHIELD UNTIL THREADED STUD HITS END OF JACKET. (TO TIGHTEN, USE 216-TYPE TOOL ONLY.)

Fig. 18—Step 1—Installing Bond Clamps (105B-Type Cable Terminal)



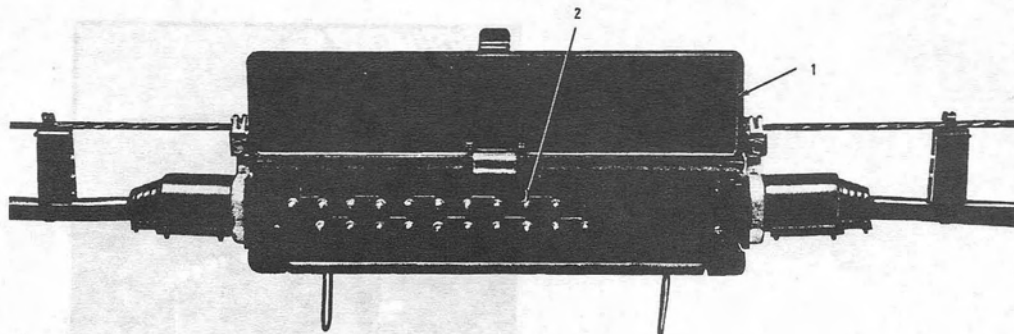
- 1- (NOT SHOWN) CUT OFF EXCESS STUD AND WRAP CLAMP WITH LAYER OF VINYL TAPE.
- 2- FORM DRIP COLLAR JUST OUTSIDE TERMINAL PANEL ASSEMBLY (ONE LAYER OF SEALING TAPE AND TWO LAYERS OF VINYL TAPE).
- 3- PERFORM SPLICING OPERATION AS REQUIRED.

**Fig. 19—Step 2—Installing Drip Collars and Splicing Stub Cable (105B-Type Cable Terminal)**



- 1- CENTER TERMINAL PANEL ASSEMBLY OVER SHEATH OPENING AND TORQUE STRAND ADAPTER BOLTS TO 75 INCH-POUNDS. DO NOT EXCEED 100 INCH-POUNDS. (IT IS NOT NECESSARY TO REMOVE THE JACKET FROM SELF-SUPPORTING CABLE STRAND)
- 2- CUT END OF BOOTS TO MATCH CABLE DIAMETER AND PLACE BOOTS OVER CABLE
- 3- PLACE, TIGHTEN, AND TRIM CABLE TIES
- 4- PLACE LASHED CABLE SUPPORT AND SPACER (USE APPROXIMATE SIZE CABLE SPACER TO KEEP CABLE AT THE SAME LEVEL OR SLIGHTLY LOWER THAN BOOTS.

**Fig. 20—Step 3—Placing Terminal Panel Assembly on Strand (105B-Type Cable Terminal)**

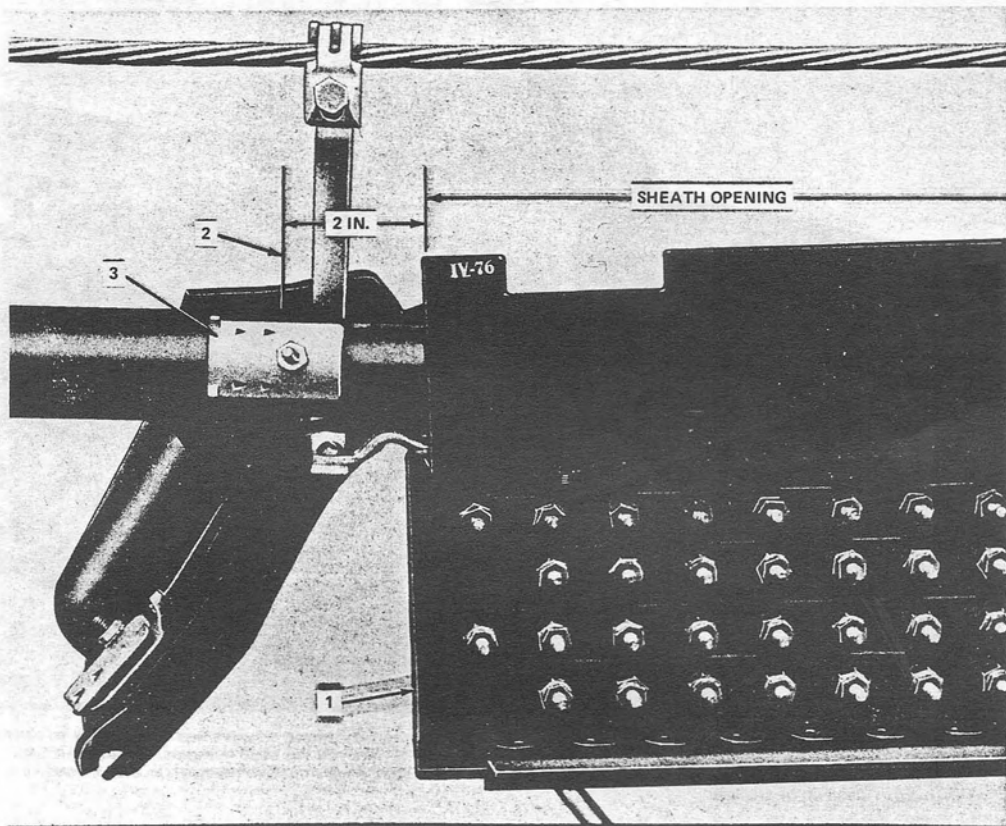


- 1- PLACE HOUSING ASSEMBLY ON TERMINAL PANEL ASSEMBLY (WHEN FULLY SEATED THERE IS AN AUDIBLE SNAP)
- 2- FOR SECURITY (IF DESIRED) TIGHTEN SECURITY SCREW USING KS-19192 L1 WRENCH
- 3- (NOT SHOWN) TERMINATE DROP WIRE
- 4- CLOSE COVER AND SECURE LATCH

**Fig. 21—Step 4—Completed Installation (105B-Type Cable Terminal)**



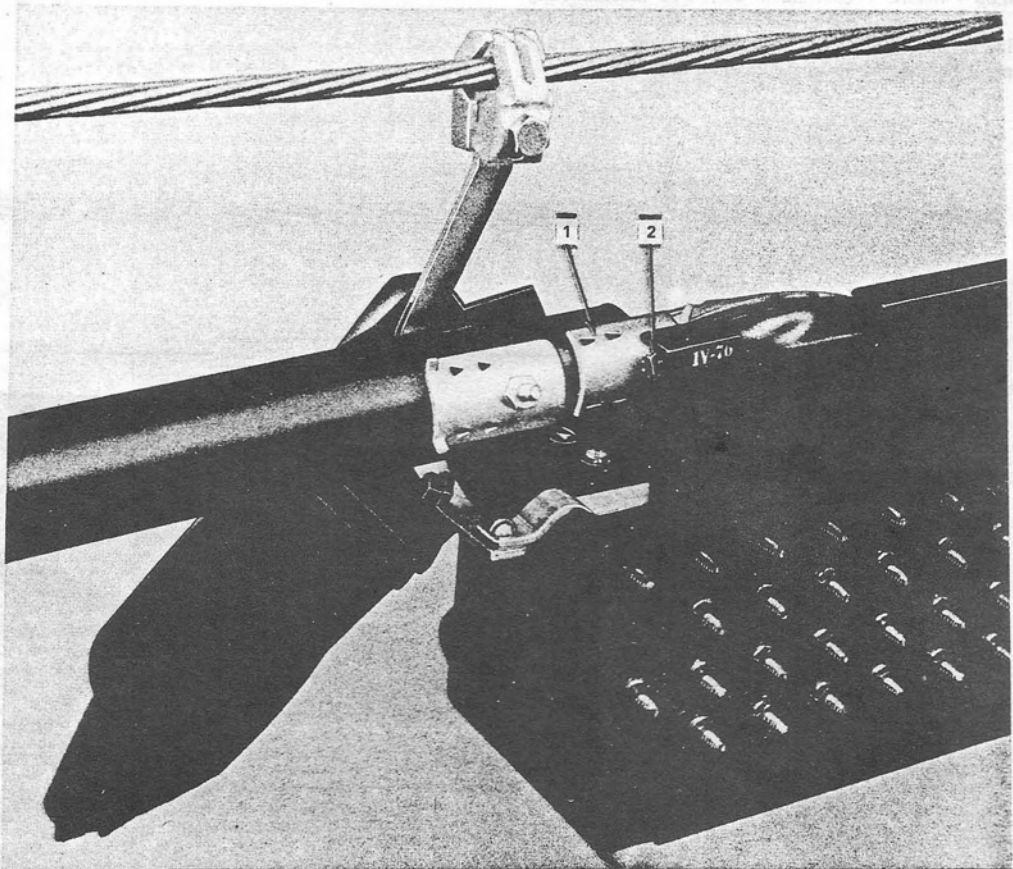
4.03 Where a terminal is placed on mechanically protected cable, install bond clamps as shown in Fig. 22 through 25. The D bond clamps and straps must be ordered separately, when required.



- 1 - REMOVE OUTER SHIELD AND SHEATH AN ADDITIONAL 2 INCHES ON EACH SIDE OF SHEATH OPENING.
- 2 - POSITION TERMINAL ON STRAND.
- 3 - INSTALL D BOND CLAMP ON FRONT SIDE OF CABLE BY SLIDING INNER SHOE OF BOND CLAMP BETWEEN INNER JACKET AND METAL SHIELD UNTIL STUD HITS END OF SHEATH.

NOTE: FOR CABLES LESS THAN 0.8 INCH IN DIAMETER, SLIT THE SHEATH APPROXIMATELY 2 INCHES ON BACK SIDE OF CABLE TO ALLOW CLAMP TO SLIDE IN ON FRONT SIDE. WRAP CLAMP AND SLIT AREA WITH VINYL TAPE.

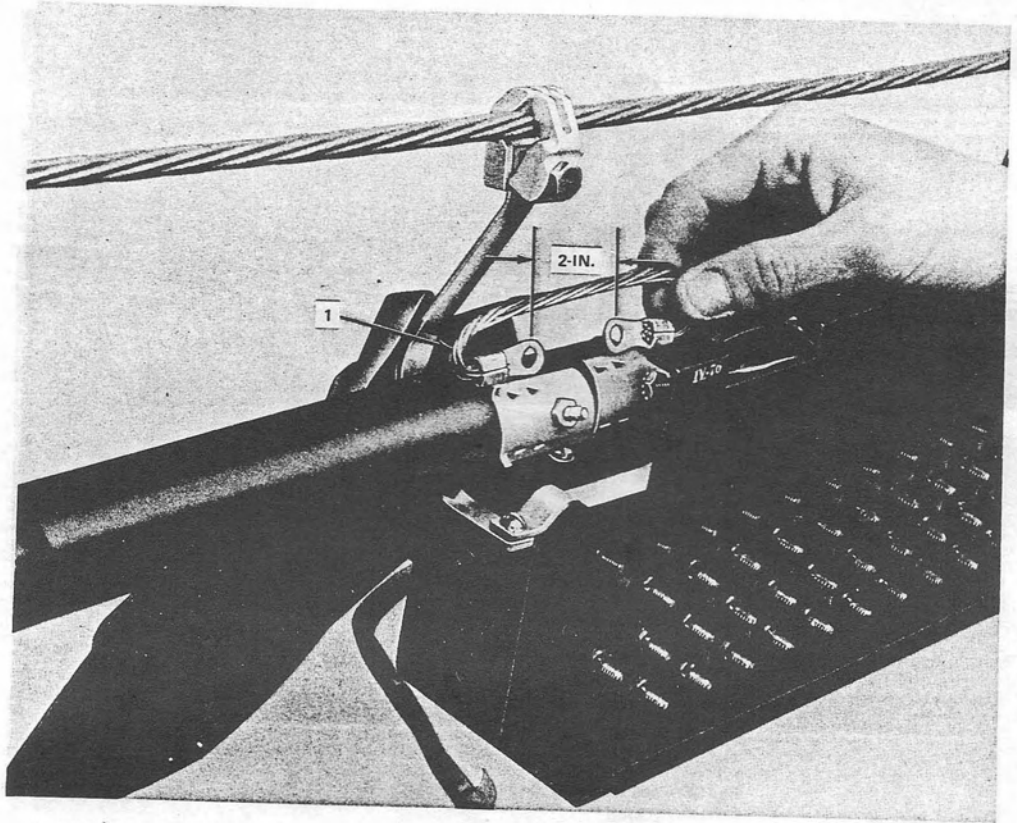
Fig. 22—Bonding Preparation for Mechanically Protected Cable



1 - INSTALL BOND CLAMP PROVIDED WITH CABLE TERMINAL DIRECTLY BEHIND D BOND CLAMP BY SLIDING INNER SHOE OF BOND CLAMP BETWEEN CORE WRAP AND METAL SHIELD UNTIL STUD HITS END OF SHEATH.

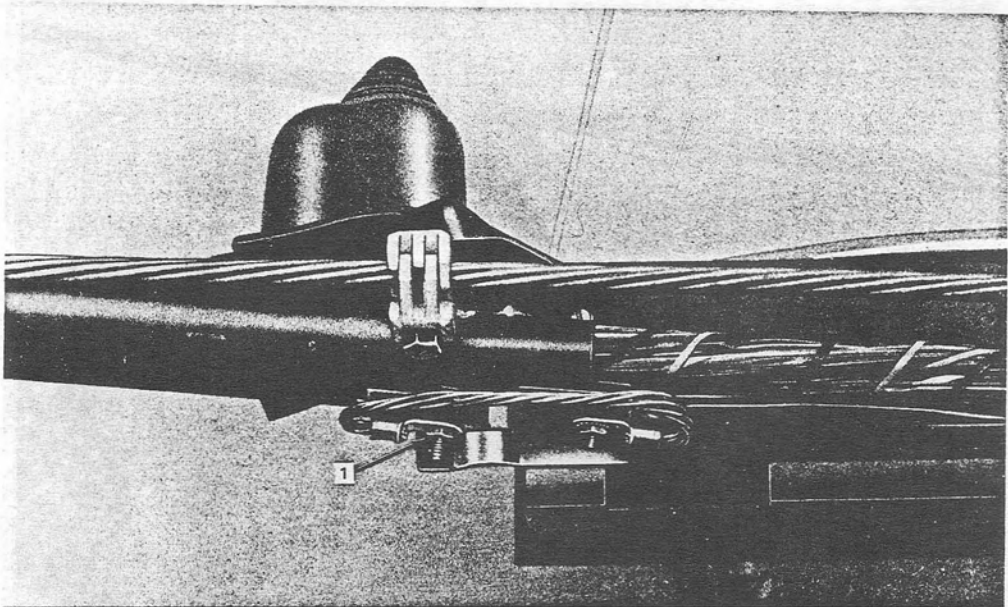
2 - BEFORE TIGHTENING, REMOVE NUT COMPLETELY TO BREAK THE "STAKE" ON THE STUD THREADS. REPLACE NUT AND TIGHTEN. (THIS PROVIDES THE NORMAL CABLE BOND.)

Fig. 23—Installing Bond Clamps



1 - FORM 6-INCH BOND STRAP.

Fig. 24—Installing Bond Straps



- 1 - PLACE THE BOND STRAP, WASHERS, AND NUTS AND TIGHTEN WITH 216-TYPE TOOL.
- 2 - COMPLETE INSTALLATION OF TERMINAL OR CLOSURE AS INSTRUCTED IN APPROPRIATE BELL SYSTEM PRACTICE.

**Fig. 25—Mechanically Protected Cable—Bonding Completed**