

## BOND CLAMPS

### DESCRIPTION AND USE

CONTENTS	PAGE
1. GENERAL . . . . .	1
2. DESCRIPTION . . . . .	1
B Bond Clamp . . . . .	2
D Bond Clamp . . . . .	2
3. INSTALLATION . . . . .	3
B Bond Clamp . . . . .	4
D Bond Clamp . . . . .	7
4. INSTALLING THE BOND . . . . .	8
Bond Strap . . . . .	8
Braided Bond . . . . .	9
Ground Wire . . . . .	9
Bonding Ribbon . . . . .	10

#### 2. DESCRIPTION

**2.01** The B and D bond clamps are shown in Fig. 1 and 2. The B bond clamp is available in three sizes as listed in Table A. The size designation is stamped on the inner and outer plates. One size D bond clamp is used for all cable sizes.

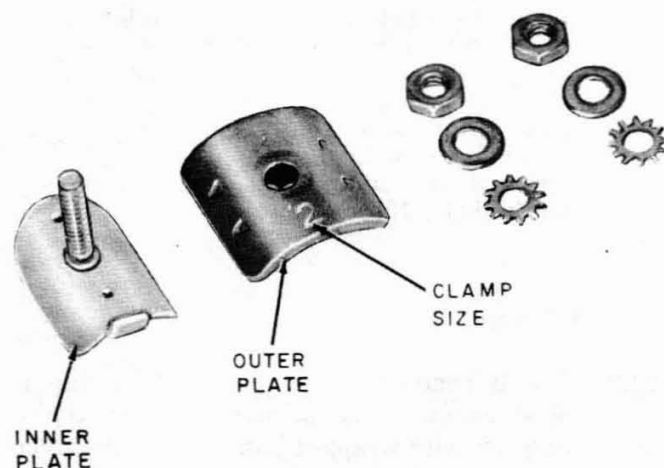


Fig. 1—B Bond Clamp

#### 1. GENERAL

**1.01** This section covers the description and installation of the B and D bond clamps, and methods of installing the bonds.

**1.02** This section is reissued to update installation information on D bond clamps. Revision arrows are used to emphasize the more significant changes.

**1.03** The maximum current carrying capacity of these clamps is equivalent to a No. 6 AWG copper conductor. They may be used in both exposed and unexposed plant.

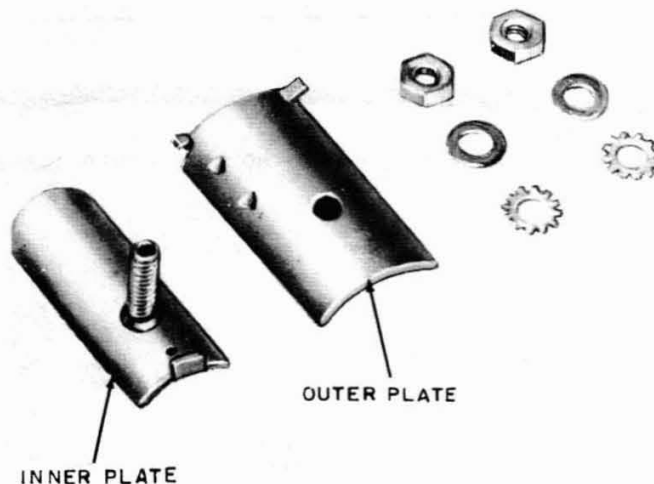


Fig. 2—D Bond Clamp

#### NOTICE

Not for use or disclosure outside the Bell System except under written agreement.

**TABLE A**  
**CABLE/CLAMP REFERENCE**

CABLE OD (INCHES)	UP TO 0.9	0.9 TO 1.6	OVER 1.6
C*	Size 1	Size 2	Size 3
L	B Bond	B Bond	B Bond
A	Clamp	Clamp	Clamp
M	D Bond	D Bond	D Bond
P	Clamp†	Clamp	Clamp

\* All sizes of bond clamps shall be tightened with a 216-type tool.

† When using D bond clamps on cable sizes 0.4 to 0.9 inches in diameter and all DEPIC cables, a 2-inch long slit in the cable sheath, 180 degrees away from point of insertion of D bond clamp, will be required to eliminate damaging mylar core wrap and the DEPIC conductor.

#### B Bond Clamp

**2.02** The B bond clamp is shorter than the D bond clamp. The primary uses of the B bond clamp are with wrapped joints and with 2-type

closures. The cable sheath must be slit to install the B bond clamp.

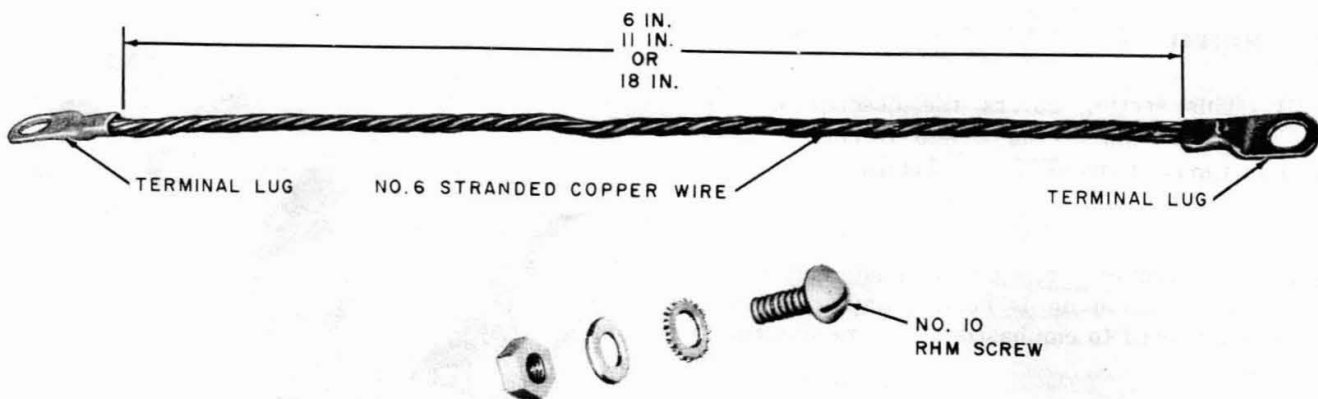
#### D Bond Clamp

**2.03** The D bond clamp provides a simplified installation method which does not require slitting and taping of the sheath except when used on cable sizes 0.4 to 0.9 inches in diameter and on all Dual Expanded Polyethylene Insulated Conductor (DEPIC) cables. In order to achieve the same amount of surface contact on the metallic shield and also the desired mechanical strength as the B bond clamp, the D bond clamp is approximately 0.6 inch longer.

**2.04** Two sets of triangular teeth are provided in the outer plate of the bond clamp to bite into the plastic cable sheath.

**2.05** Projections are provided at one end of the outer plate to aid in positioning and holding sealing clamps when used in pedestal closures.

**2.06** A bond strap (Fig. 3) is available on an optional basis for connection between stud of bond clamp and ground.



**Fig. 3—Bond Strap**

2.07 Figure 4 shows a bond strap assembly (Comcode No. 842353070) which is available for rehabilitation applications (see Section 644-203-101).

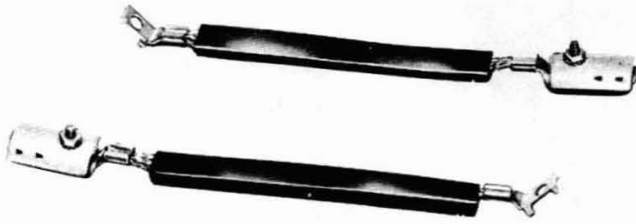


Fig. 4—Bond Strap Assembly

### 3. INSTALLATION



*Proper installation of the bond clamp is vital. It establishes shield continuity and provides electrical protection which allows the installation to meet transmission objectives.*

**Warning:** *Maintain sheath continuity at all times. To do this may require use of a temporary bond.*

# B Bond Clamp

3.01 Install the B bond clamp as illustrated in Fig. 5, 6, or 7.

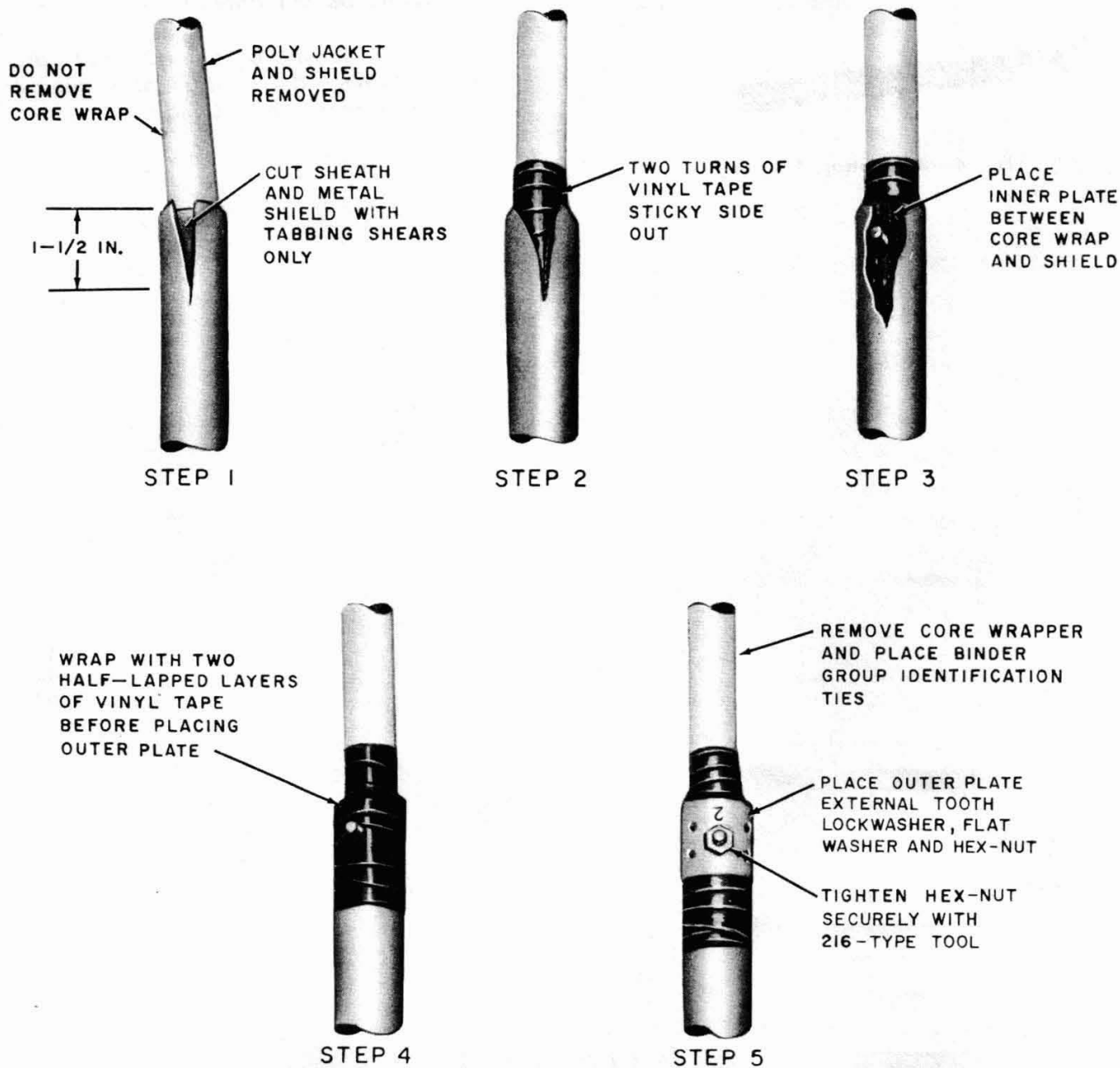


Fig. 5—Installing B Bond Clamp

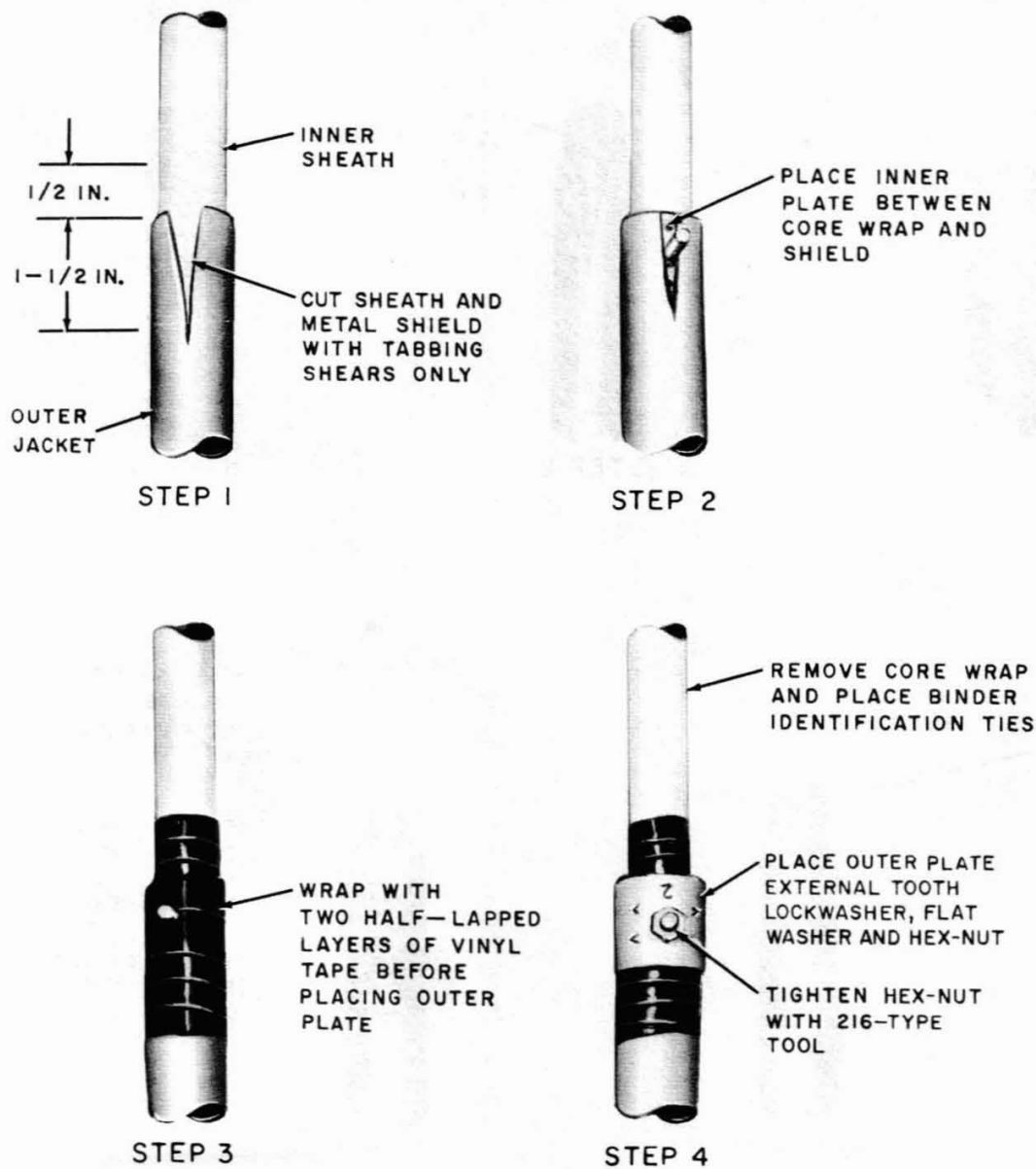


Fig. 6—Installing B Bond Clamp—Multijacket Cable

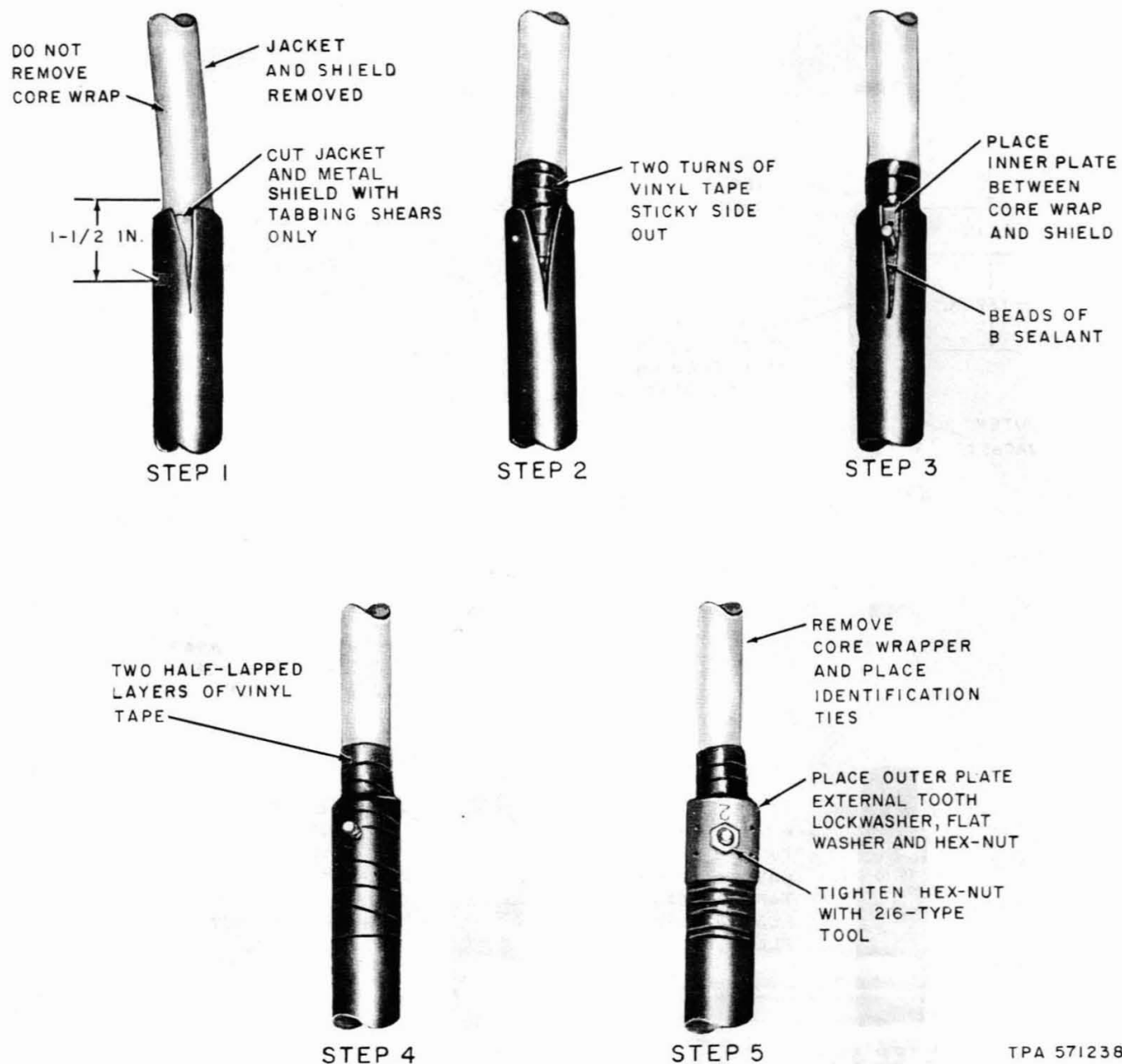
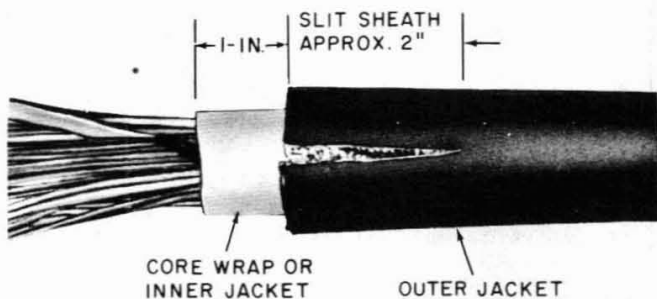


Fig. 7—Installing B Bond Clamp—Corrosive Area

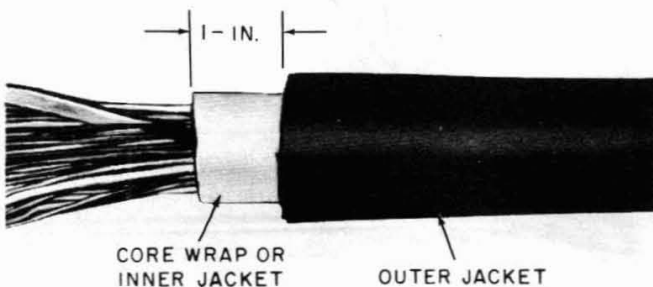
**D Bond Clamp**

**3.02** Install D bond clamp as shown in Fig. 8 through 10. In high corrosive areas, place B sealant as shown in Fig. 7, Step 3. Figure 11 shows installation on cables 0.9 inch in diameter or less and on all DEPIC cables.

**Note:** A wrap of vinyl tape around clamp and slit area is recommended to cover sharp edges.

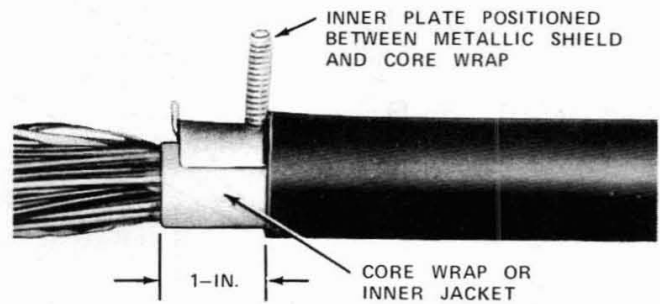


CABLE DIAMETER LESS THAN 0.9 IN. AND ALL DEPIC CABLE SHEATH SLITTING REQUIRED 180° AWAY FROM POINT OF INSERTION OF D BOND CLAMP.

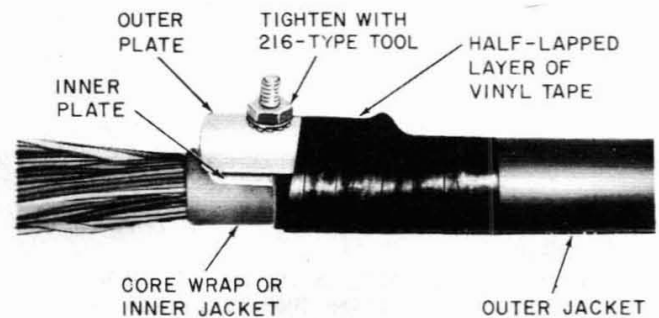


CABLE DIAMETER GREATER THAN 0.9 IN. (SHEATH SLITTING NOT REQUIRED)

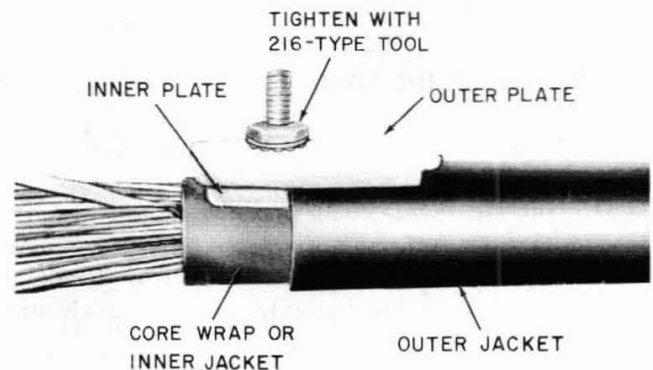
**Fig. 8—Cable Preparation for Installation of D Bond Clamp**



**Fig. 9—Inner Plate Installed**

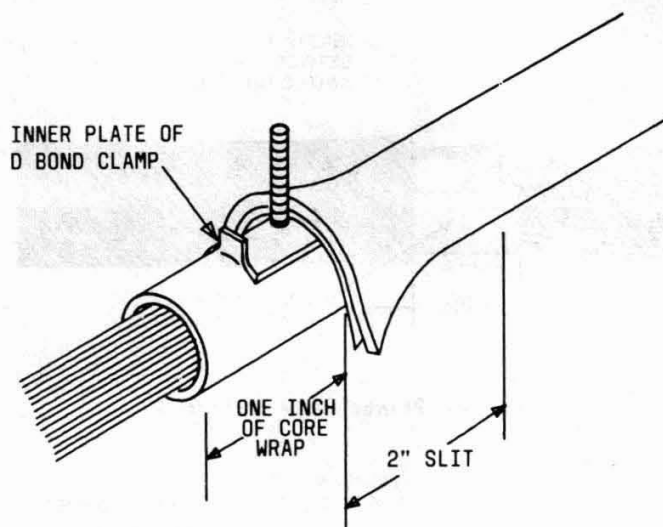


CABLE DIAMETER 0.9 IN OR LESS (WRAP WITH VINYL TAPE APPROX. 1/2 IN. PAST END OF SLIT)



CABLE DIAMETER GREATER THAN 0.9 IN.

**Fig. 10—Completed Installation of D Bond Clamp**



ON CABLE SIZES 0.9 INCHES IN DIA. OR LESS AND ON ALL DEPIC CABLES:

- MAKE A 2-INCH SLIT IN THE JACKET, THEN SLIDE THE BOND CLAMP SHOE INTO PLACE.
- MAKE SURE THE PLATE IS INSERTED OPPOSITE THE SLIT AS SHOWN.

Fig. 11—Installation of D Bond Clamp—Cable Slitting Required

#### 4. INSTALLING THE BOND

##### Bond Strap

4.01 Install bond strap as shown in Fig. 12.

Tighten nut with 216-type tool. Complete the bond by connecting the other end of the bond strap to another bond clamp or to the closure ground bracket.



When installing the braided bond, ground wire, or bonding ribbon as described in the following paragraphs, use size 2B bond clamp outer plate. Extra plates are available in kits of ten. They may be used on either B or D bond clamps.

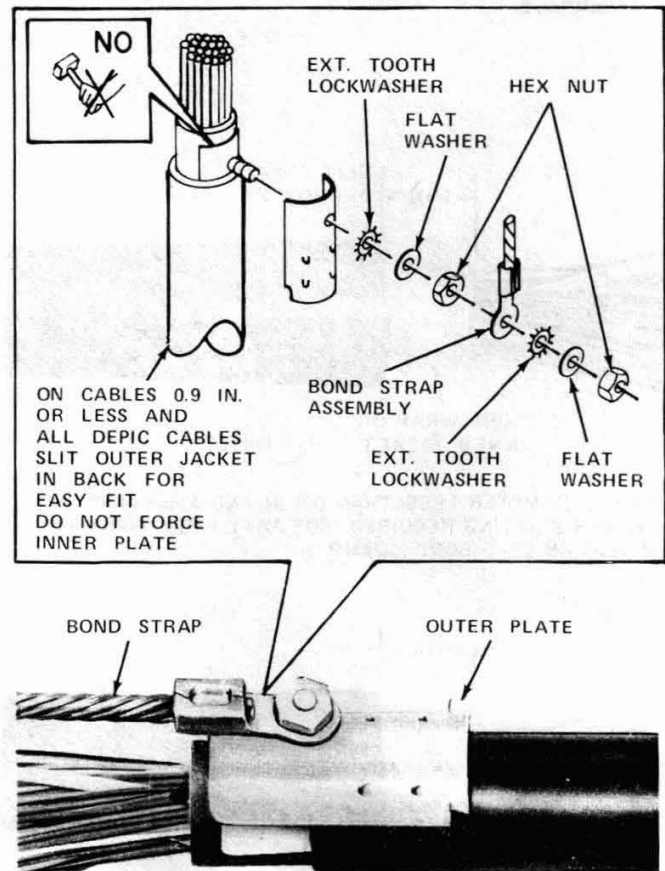
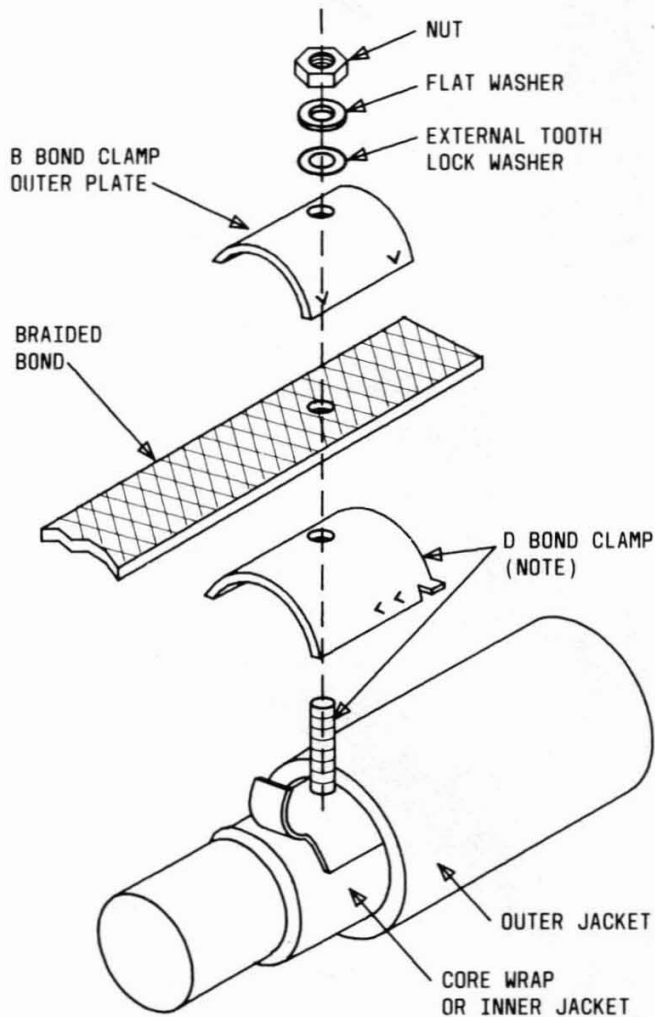


Fig. 12—Bond Strap Installed on D Bond Clamp



### Braided Bond

4.02 When braided bond is used, secure bond as shown in Fig. 13. Extra nut, washers, and outer plate may be ordered as an AT-8544 B2 cover clamp.

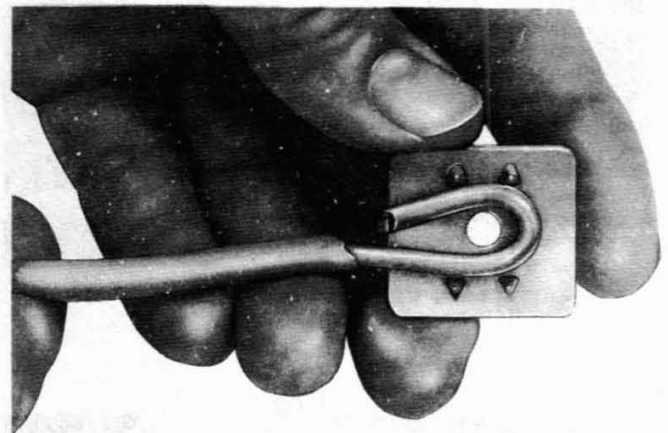


NOTE:  
THIS METHOD MAY BE USED WITH  
EITHER THE D OR B BOND CLAMPS.

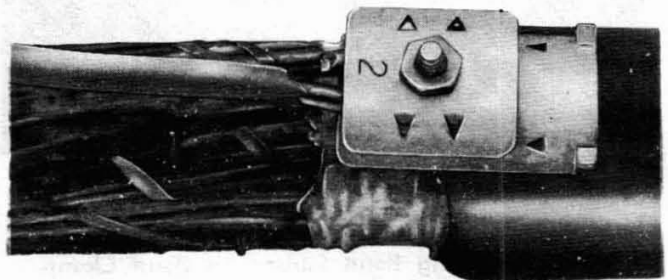
Fig. 13—Installing Braided Bond on D Bond Clamp

### Ground Wire

4.03 When No. 6 AWG ground wire is used, secure the wire as shown in Fig. 14.



PREPARED #6 GROUND WIRE POSITIONED  
ON A #2 B BOND CLAMP OUTER PLATE



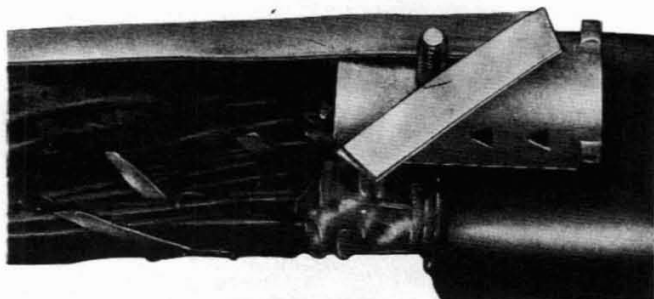
NOTE  
THIS METHOD MAY BE USED WITH  
EITHER THE D OR B BOND CLAMPS

COMPLETED #6 GROUND WIRE INSTALLATION

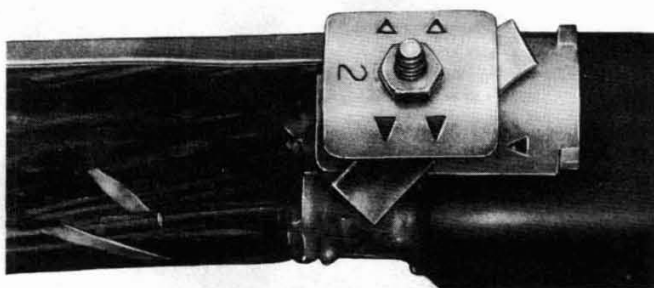
Fig. 14—Installing No. 6 AWG Ground Wire on Bond Clamp

### Bonding Ribbon

- 4.04 When bonding ribbon is used, secure the ribbon as shown in Fig. 15.



PREPARED BONDING RIBBON



COMPLETED BONDING RIBBON INSTALLATION

**Fig. 15—Installing Bond Ribbon on Bond Clamp**