

UP-1248 (UP-1200) CABLE CLOSURE

DESCRIPTION AND INSTALLATION

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Since this is a general revision, arrows ordinarily used to indicate changes have been omitted.

1.03 The UP-1248 Cable Closure is used with PIC cables in buried distribution systems. They are a nongas type closure installed above groundline.

1.04 The UP-1248 Cable Closure should be located as specified by the engineering plan. The closure should be placed in unobtrusive locations acceptable to the property owners and where they are reasonably protected from damage by motor vehicles and other machinery. They should be located at least 1 foot from metallic fences.

1.05 The UP-1248 Cable Closure is used to enclose large PIC cable splices, to house access and control points, and to house CCTV (close circuit television) equipment.

1.06 Table A lists the pair capacity of the UP-1248 Cable Closure using the various types of available backboards.

TABLE A

CLOSURE CAPACITY			
BACKBOARD	SLICE CAPACITY	IN PAIR CAPACITY CONTROL OR ACCESS POINT	OUT PAIR CAPACITY CONTROL OR ACCESS POINT
M	900	900	600
N	0	1800	1200
NONE	1800	—	—

1. GENERAL

1.01 This section covers the description, use, and installation of the UP-1248 Cable Closure, which supersedes the UP-1200 Cable Closure.

1.02 This section is reissued to include the

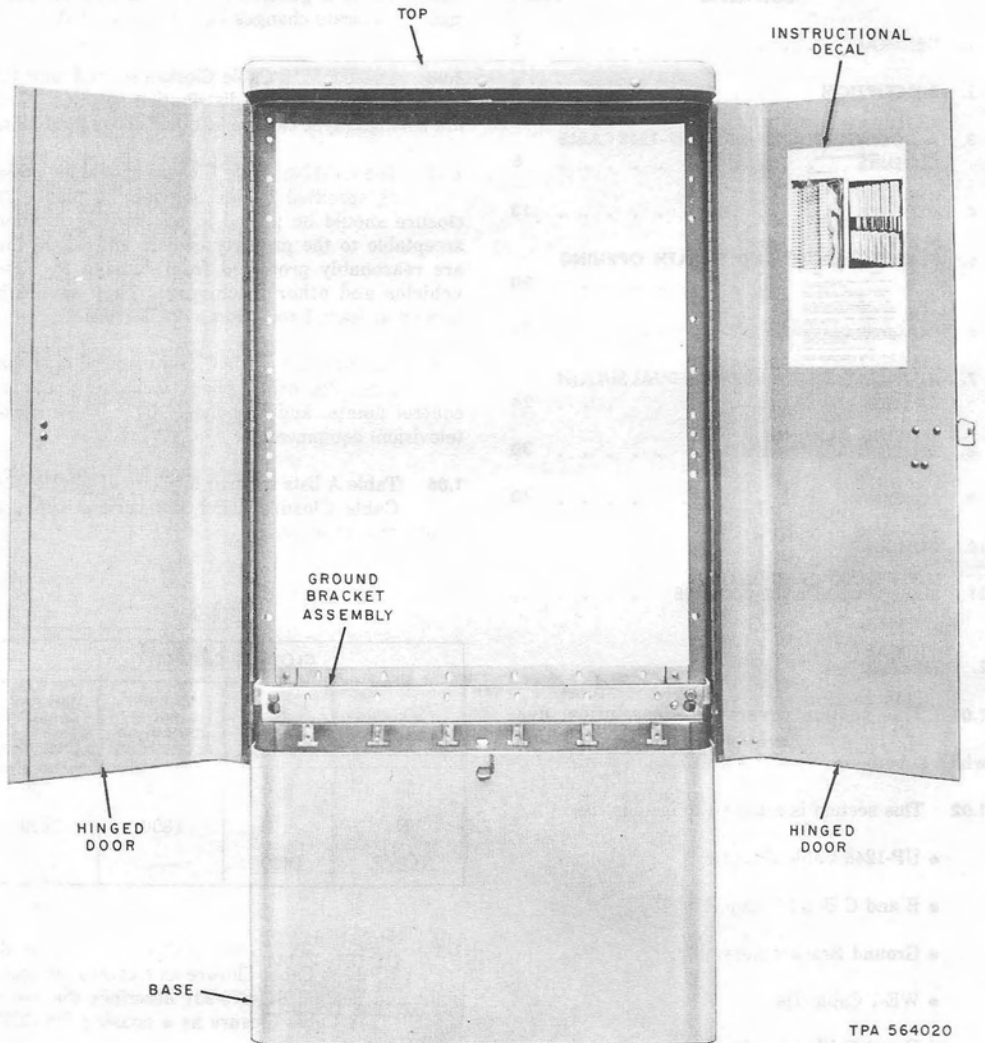
- UP-1248 Cable Closure
- B and C Bond Clamp
- Ground Bracket Assembly
- WE-1 Cable Tie
- F and G Warning Decals

1.07 Section 642-235-202 outlines the use of the UP-1248 Cable Closure as a control or access point and Section 641-270-201 describes the use of the UP-1248 Cable Closure as a housing for CCTV equipment.

2. DESCRIPTION

2.01 The UP-1248 Cable Closure (Fig. 1 and 2) consists of a top, hinged front and back doors equipped with locks, ground bracket assembly, base, and two anchor posts. An F Warning Decal

is placed on the exterior surface and an instructional decal is placed on the interior surface by the manufacturer. The exposed metal parts are galvanized and have a grey-green baked enamel finish. The internal metal parts are hot dip galvanized.



TPA 564020

Fig. 1—UP-1248 Cable Closure

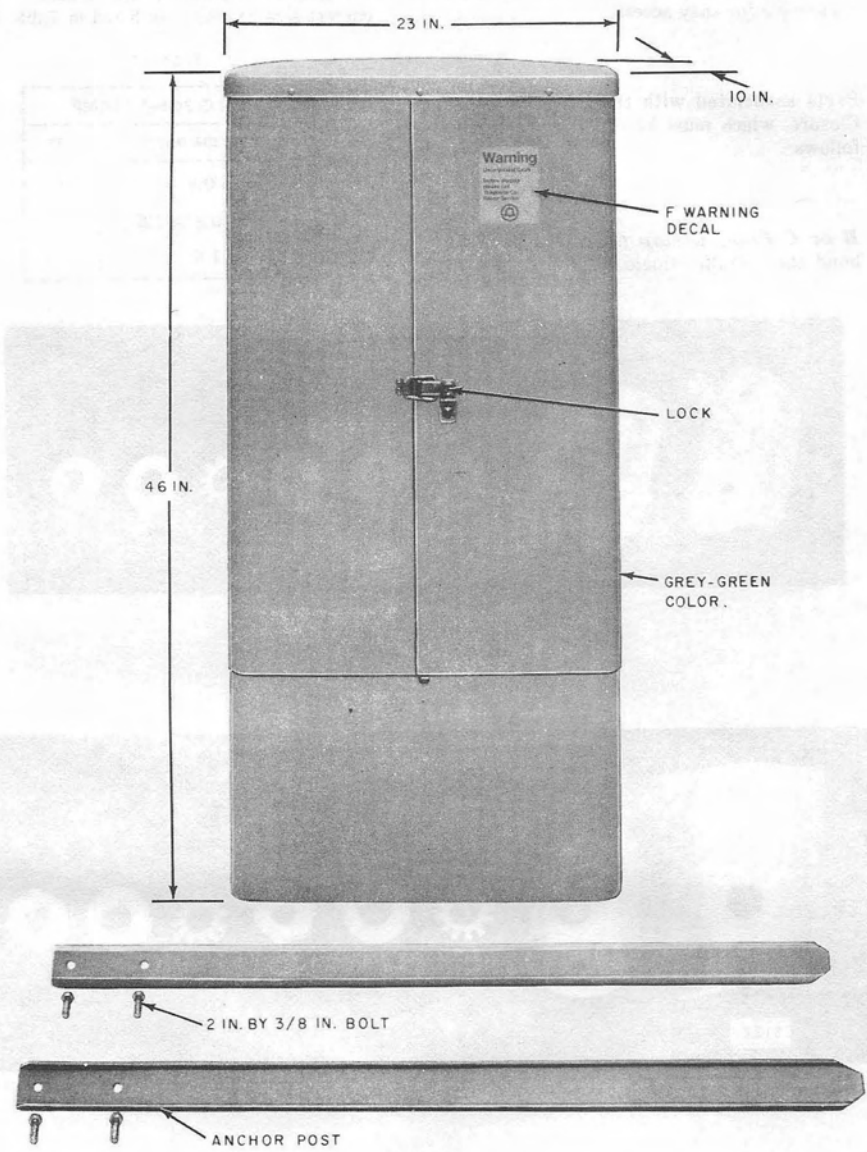


Fig. 2—Dimensions of UP-1248 Cable Closure

2.02 The top and ground bracket assembly are removable for easy access.

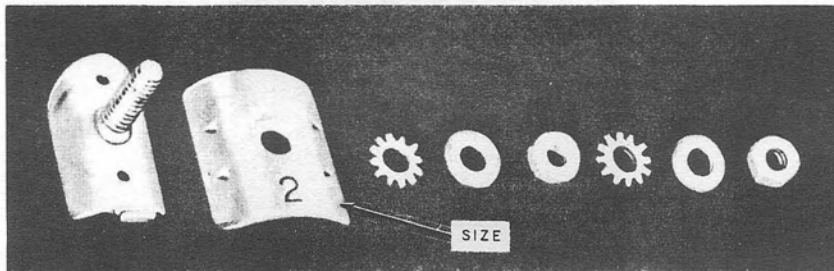
2.03 Parts associated with the UP-1248 Cable Closure, which must be ordered separately, are as follows:

(a) **B or C Bond Clamp (Fig. 3):** Used to bond the metallic shield of PIC Cables to

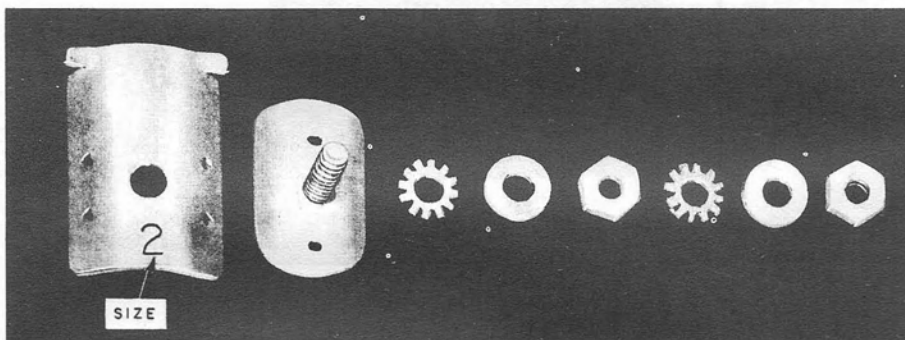
the ground bracket of the closure. Select the correct size required, as listed in Table B.

TABLE B

B OR C BOND CLAMP	
CABLE DIA (INS.)	SIZE
Up to 0.8	1
Over 0.8 to 1.6	2
Over 1.6	3



B BOND CLAMP



C BOND CLAMP

Fig. 3—B and C Bond Clamp

- (b) **B Measuring Tape (Fig. 4):** Used to determine the diameter of the cable.
- (c) **G Warning Decal (Fig. 5):** 22 inch by 1 inch strip of yellow plastic. Used in areas where a high degree of visibility is required.
- (d) **F Connector:** Used to bond B Ground Wire or No. 6 Ground Wire to the ground bracket

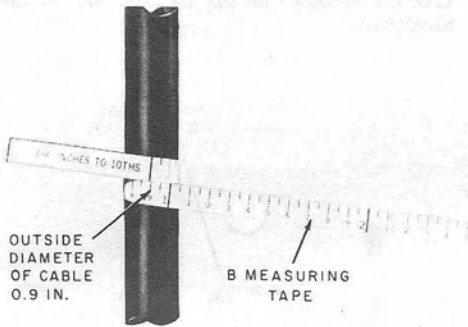


Fig. 4—B Measuring Tape

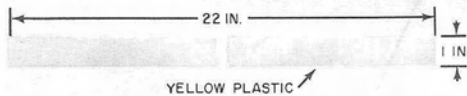


Fig. 5—G Warning Decal

assembly. When required to bond closure to power neutral ground.

- (e) **WE-1 Cable Tie (Fig. 6):** Used to secure the cables to the ground bracket assembly.
- (f) **F Warning Decal (factory installed - Fig. 7):** Used as protective warning device. It has blue letters on a gray-green background.

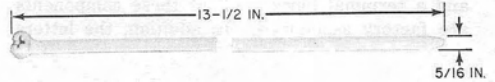


Fig. 6—WE-1 Cable Tie

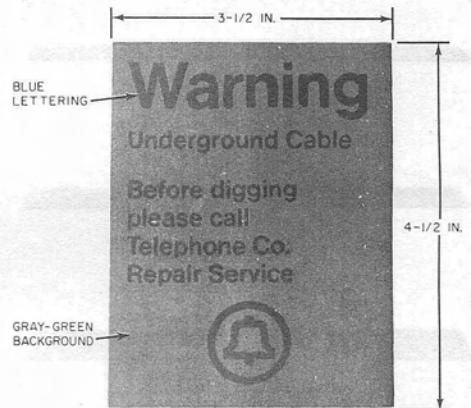


Fig. 7—F Warning Decal

3. ASSOCIATED HARDWARE—UP-1248 CABLE CLOSURE

3.01 The following hardware used in conjunction with UP-1248 Cable Closure must be ordered separately as required:

(a) *N Backboard (1200 OUT pair capacity—*

Fig. 8): is used in new construction of dedicated plant control points. It consists of a plywood board, distributing rings, wiring brackets, and a terminal block. All of these components are factory assembled. In addition, the letters

TO C.O. are stenciled on the *IN* cable side of the backboard.

(b) *M Backboard (600 OUT pair capacity—Fig. 9)*:

is used when constructing a control or access point at an existing splice. It consists of a plywood board, distributing rings, wiring brackets, and a terminal block. All of the components are factory assembled. In addition, the letters *TO C.O.* are stenciled on the *IN* cable side of the backboard.

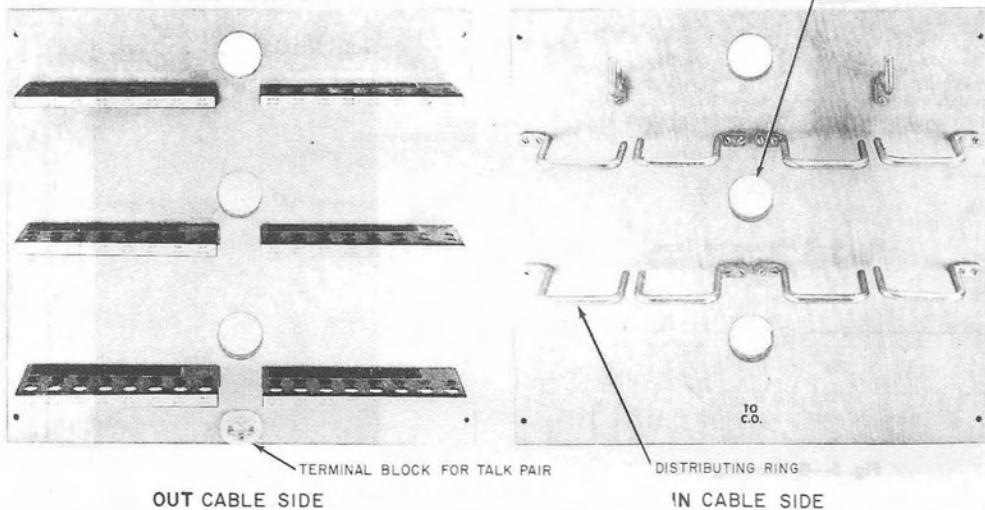


Fig. 8—N Backboard

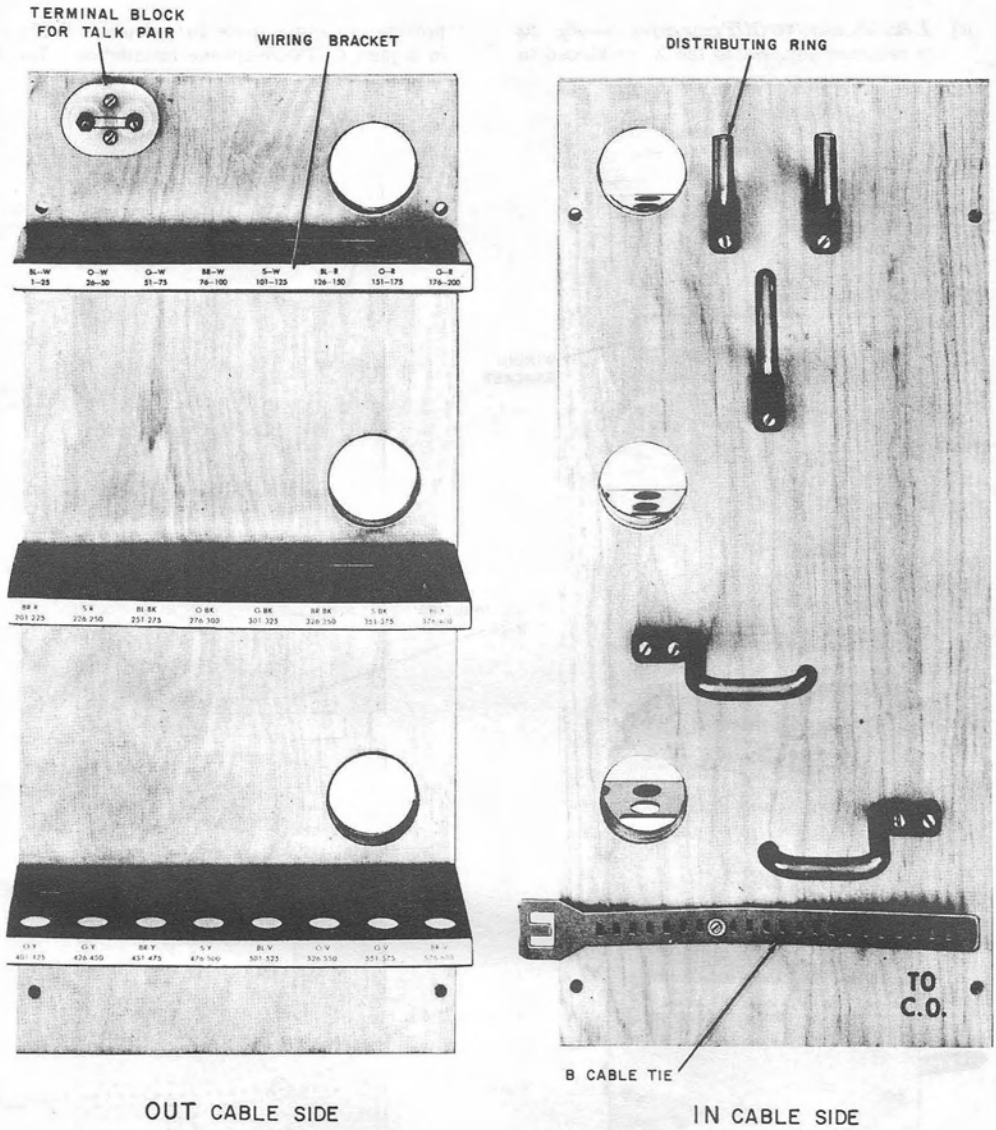


Fig. 9—M Backboard

(c) *L Backboard (300 OUT pair capacity—Fig. 10)* is mounted adjacent to the K Backboard to

provide mounting space for telephone facilities in a joint CCTV-Telephone installation. The L

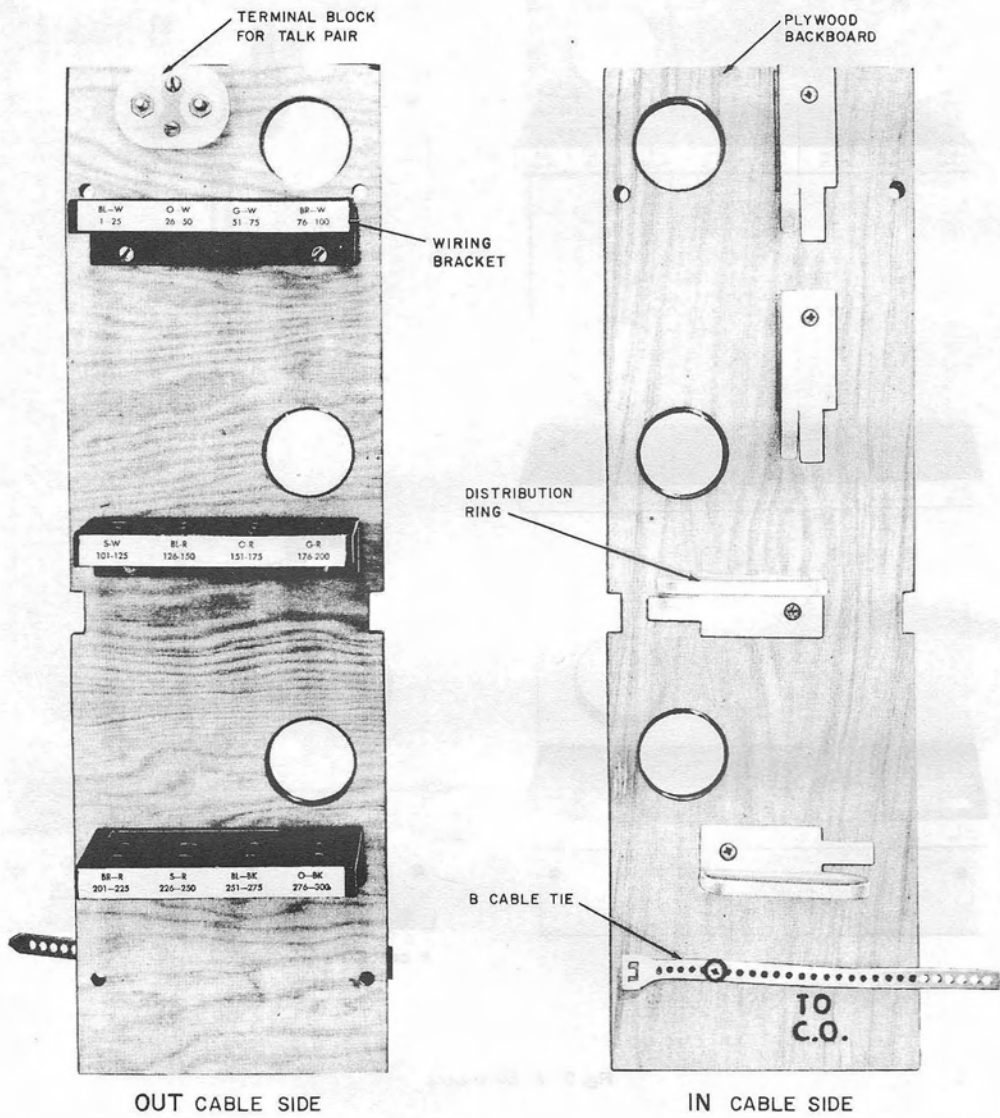


Fig. 10—L Backboard

Backboard is used in new construction of control and access points in dedicated plant. It consists of a plywood board equipped with distributing rings, wiring brackets, and a terminal block which are factory assembled. The letters *TO C.O.* are stenciled on the *IN* cable side of the backboard.

(d) *G Backboard (Fig. 11)* is used for joint CCTV-Telephone installations. One side of the plywood backboard is provided with hardware for telephone facilities. The other side is free of hardware and is used for mounting CCTV apparatus. The telephone hardware may be

removed from the telephone side of the backboard to provide additional space for CCTV equipment. The *G Backboard* may be used in conjunction with the *M Backboard* when mounted adjacent to it as shown in Fig. 18.

(e) *K Backboard (Fig. 12)* is used for joint CCTV-Telephone installations. The backboard is made of plywood with both sides free of hardware for accommodating CCTV apparatus. The *K Backboard* may be used in conjunction with the *L Backboard* when mounted adjacent to it as shown in Fig. 19.

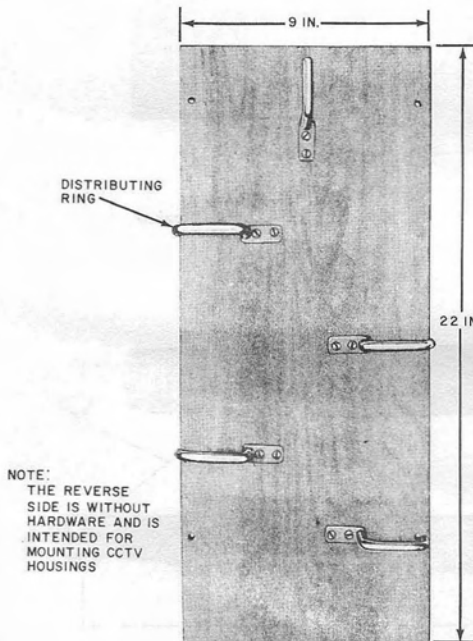


Fig. 11—G Backboard

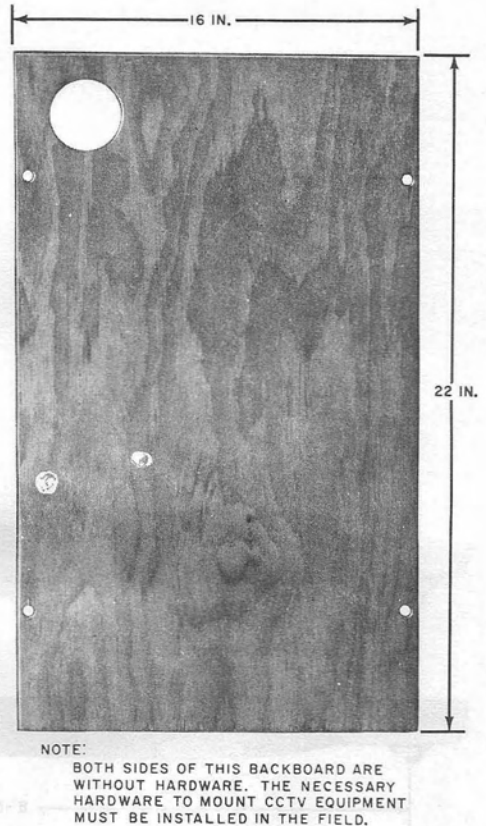


Fig. 12—K Backboard

(f) **Splice Support (Fig. 13)** provides a simple arrangement for making **fold-back** splices in UP-1248 Cable Closures using B Wire Connectors. The splice support is used when constructing a control or access point at an existing splice and when using the closure at a straight splice.

(g) **Center Bracket (Fig. 14)** is available for mounting the M Backboard and splice support.

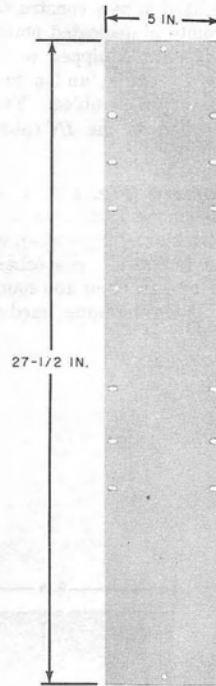


Fig. 14—Center Bracket

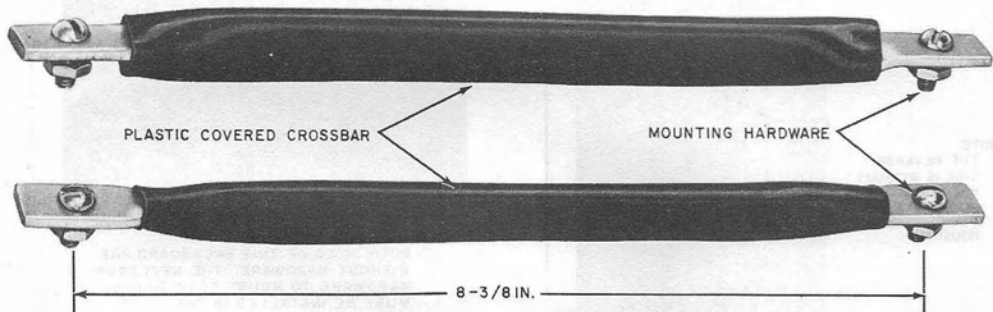


Fig. 13—Splice Supports for UP-1248 Cable Closure

4. USE

4.01 The UP-1248 Cable Closure equipped with an N Backboard (Fig. 15) has a maximum

capacity of 1200 *OUT* pairs. This arrangement is used to enclose control points in new dedicated buried plant.

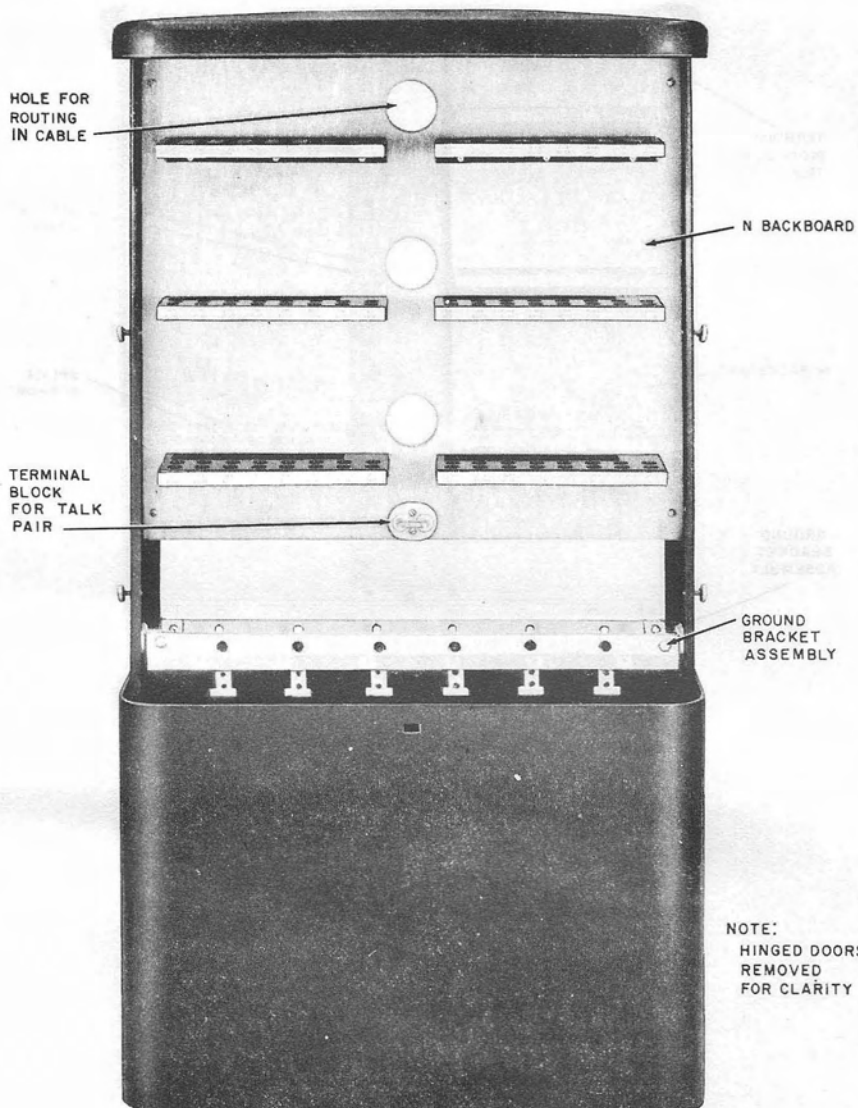
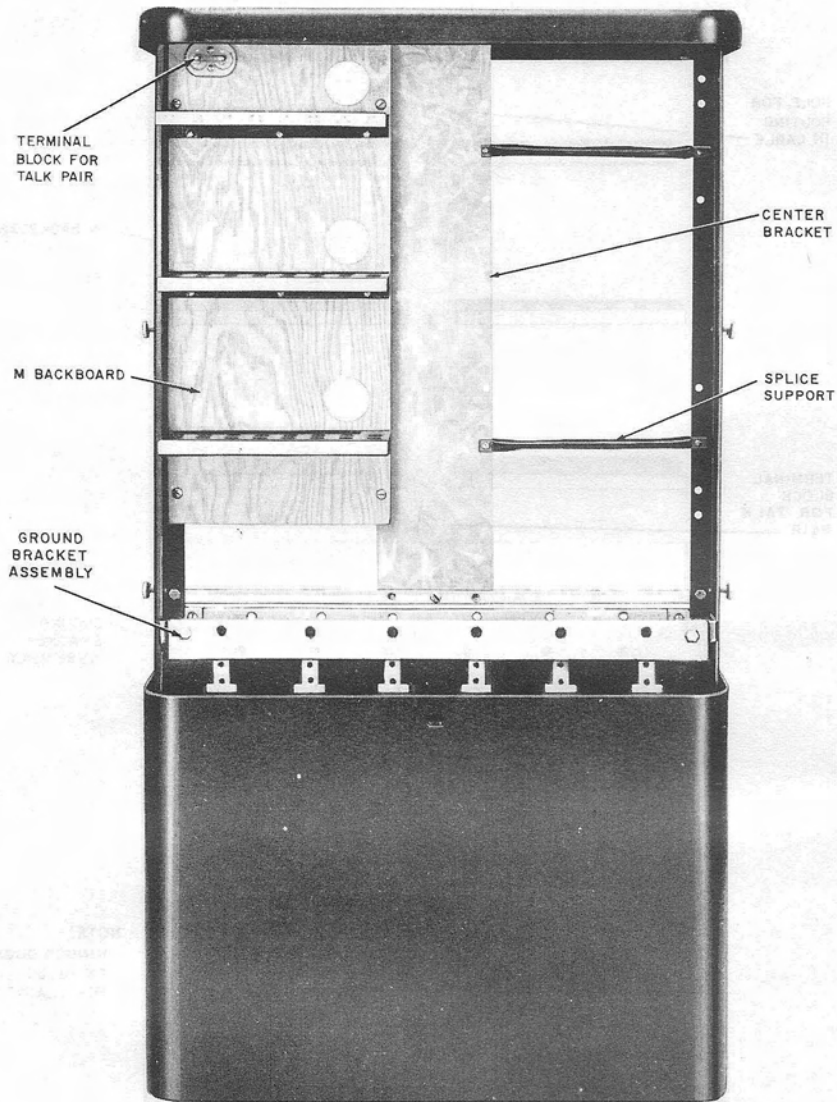


Fig. 15—UP-1248 Cable Closure Equipped with N Backboard

4.02 When equipped with an M Backboard, center bracket, and splice supports (Fig. 16) it can

be used to contain a 900-pair splice and an access point with a maximum of 600 *OUT* pairs. This



NOTE:
HINGED DOORS REMOVED FOR CLARITY

Fig. 16—UP-1248 Cable Closure Equipped with M Backboard and Splice Supports

arrangement can also be used when converting existing plant to dedicated plant. Random spares selected from the splice are arranged on an M Backboard to build an access or control point. In this case the UP-1248 Cable Closure would be substituted for the LE10/42 Cable Closure.

4.03 When equipped with two splice supports and center bracket (Fig. 17), it can be used on new construction to contain an 1800-pair splice.

4.04 When equipped with a G or K Backboard (Fig. 18 and 19), the UP-1248 Cable Closure can be used for joint CCTV-Telephone installation. With G and M Backboard combinations (Fig. 18), the G Backboard is used for mounting CCTV equipment. The M Backboard will accommodate 900 *IN* pairs and 600 *OUT* pairs when used as a control or access point.

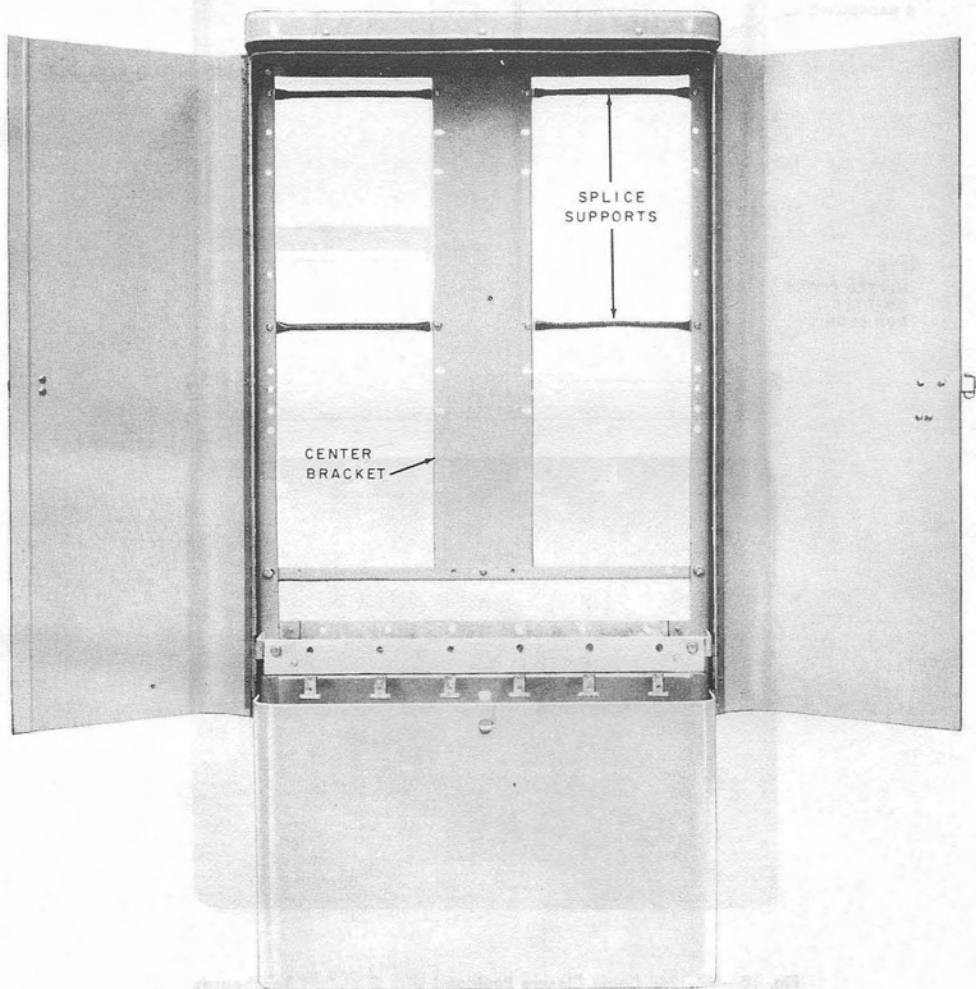


Fig. 17—UP-1248 Cable Closure Equipped with Center Bracket and Splice Supports

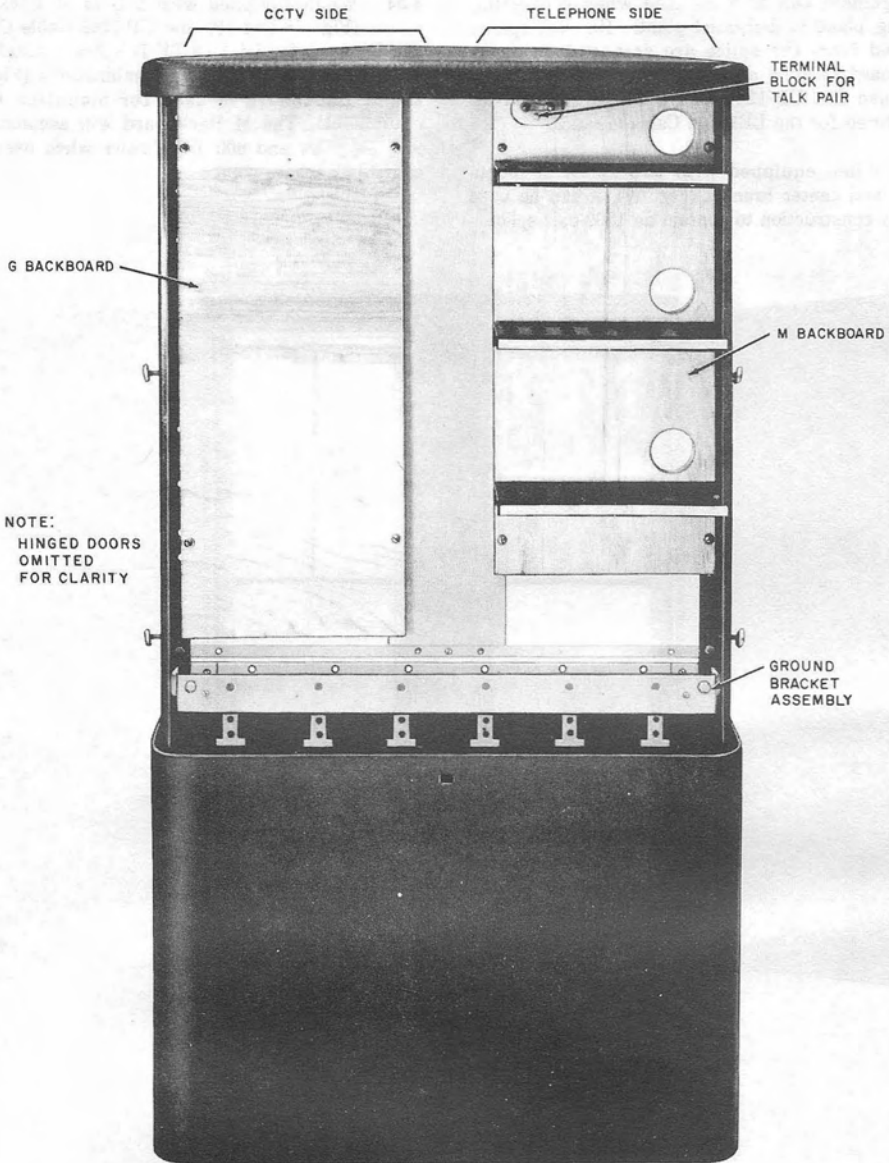


Fig. 18—UP-1248 Cable Closure Equipped with G and M Backboards

4.05 When the K and L Backboard are jointly used (Fig. 19), the K Backboard is used for mounting CCTV equipment. The L Backboard will

accommodate 400 *IN* pairs and 300 *OUT* pairs when used as a control or access point.

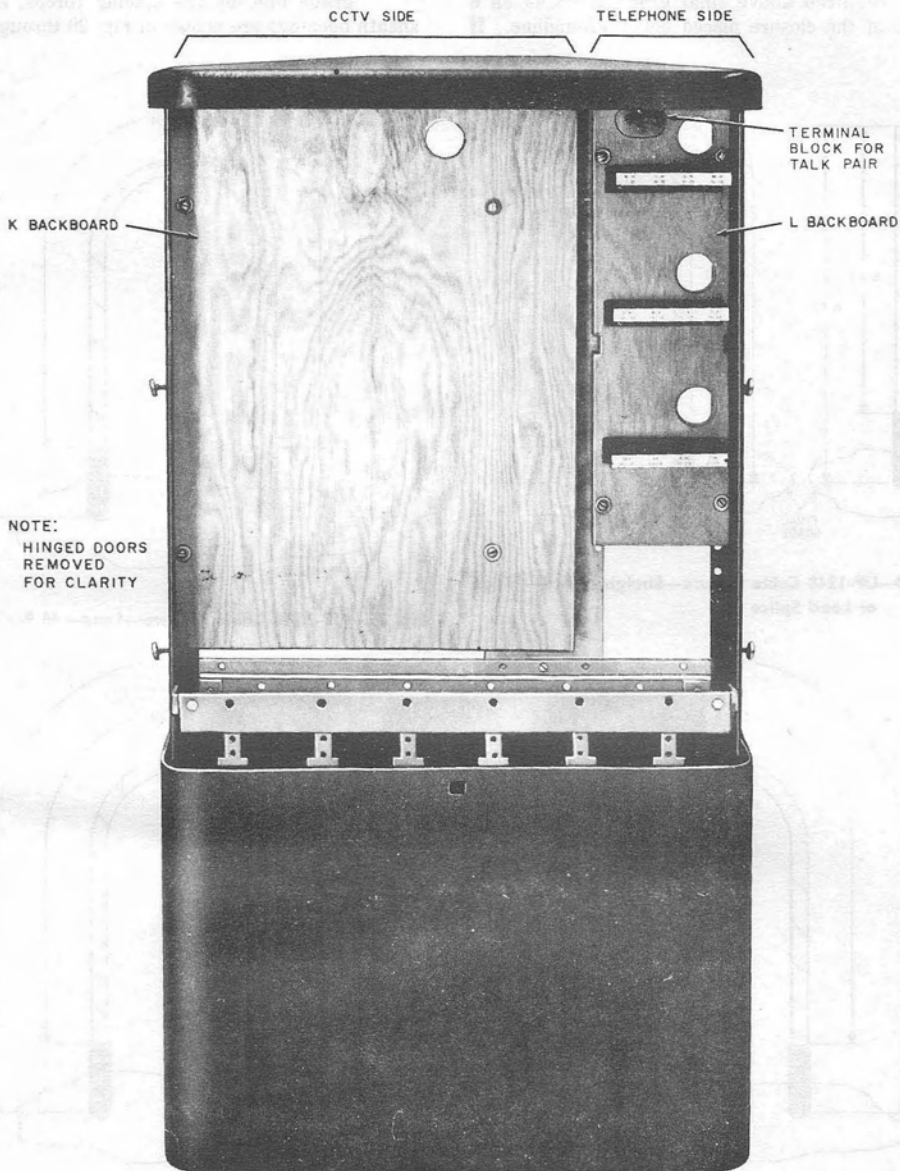


Fig. 19—UP-1248 Cable Closure Equipped with K and L Backboard

5. PLACING CABLE AND SHEATH OPENINGS

5.01 The amount of cable loop or cable ends required above final grade is based on 6 inches of the closure placed below groundline. If

the closure is placed at another depth, the measurements will have to be adjusted accordingly.

5.02 The cut ends or cable loops placed above grade line, by the placing forces, and the sheath openings are shown in Fig. 20 through 23.

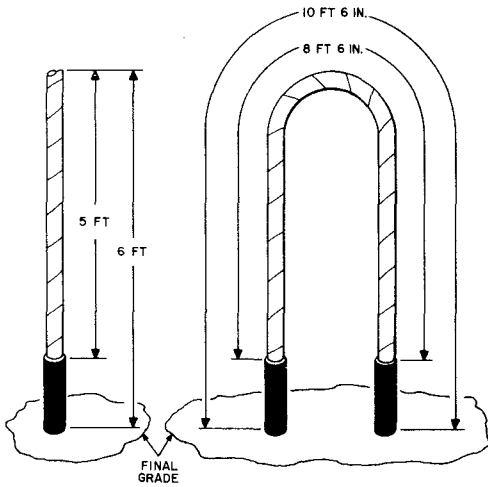


Fig. 20—UP-1248 Cable Closure—Straight Splice—Bridge or Load Splice

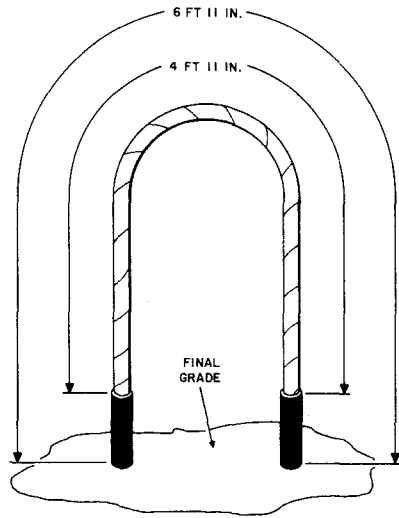


Fig. 22—UP-1248 Cable Closure—Loop—M Backboard

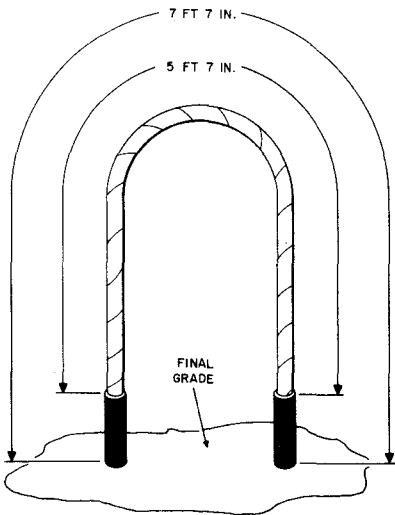


Fig. 21—UP-1248 Cable Closure—Loop—N Backboard

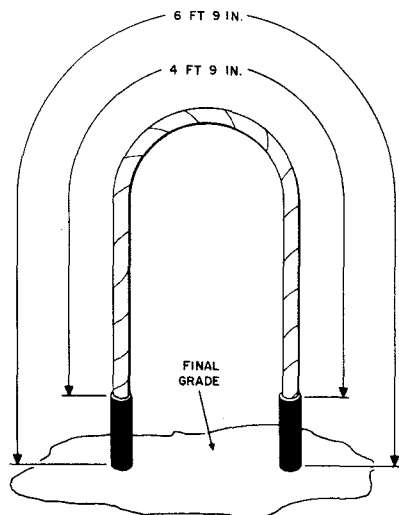


Fig. 23—UP-1248 Cable Closure—Loop—L Backboard

6. PLACING CLOSURE

- 6.01** Being careful not to damage the cables, excavate a hole to the dimensions illustrated in Fig. 24.



To prevent damage to the cables, establish the location and path of the cables before placing the anchor posts.

Note: When a joint trench is provided for power and telephone cables, the closure must be placed a minimum of 6 inches off the trench line.

- 6.02** There are four 2-inch by 3/8-inch hex head bolts provided with each closure. These bolts are used to mount the anchor posts to the closure. In soft soil, the anchor posts can be bolted to the base of the closure and by alternately taping the posts, the closure is placed. Otherwise, the anchor posts are driven into the ground separately and the closure mounted on the posts. When the anchor posts are placed separately the inside

dimension between posts is 23 inches. The top of the anchor post should be placed approximately one inch below final grade.

- 6.03** The closure should be placed with the base centered in the excavation and the anchor post perpendicular to the cable path. The cable enters the closure through the base. (When required, the top, hinged doors, and ground bracket assembly can be removed from the closure.) Fill the base to about one inch from the top with crushed stone, gravel, or approved equivalent (Fig. 25). This helps to eliminate rodent damage and to reduce moisture condensation inside the closure. Where cables enter closures by means of conduit (lateral), plug the conduit with a rubber conduit plug.

- 6.04** After the closure has been placed, carefully restore the earth outside the base and tamp firmly.



The gravel, crushed stone, etc, should not be placed in the closure until after the cables have been bonded to the ground bracket assembly.

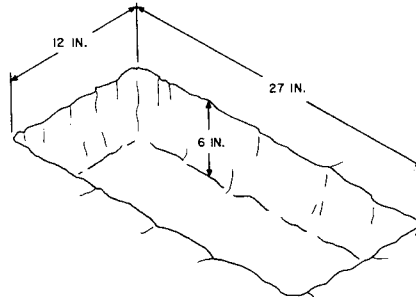


Fig. 24—Excavation Dimensions

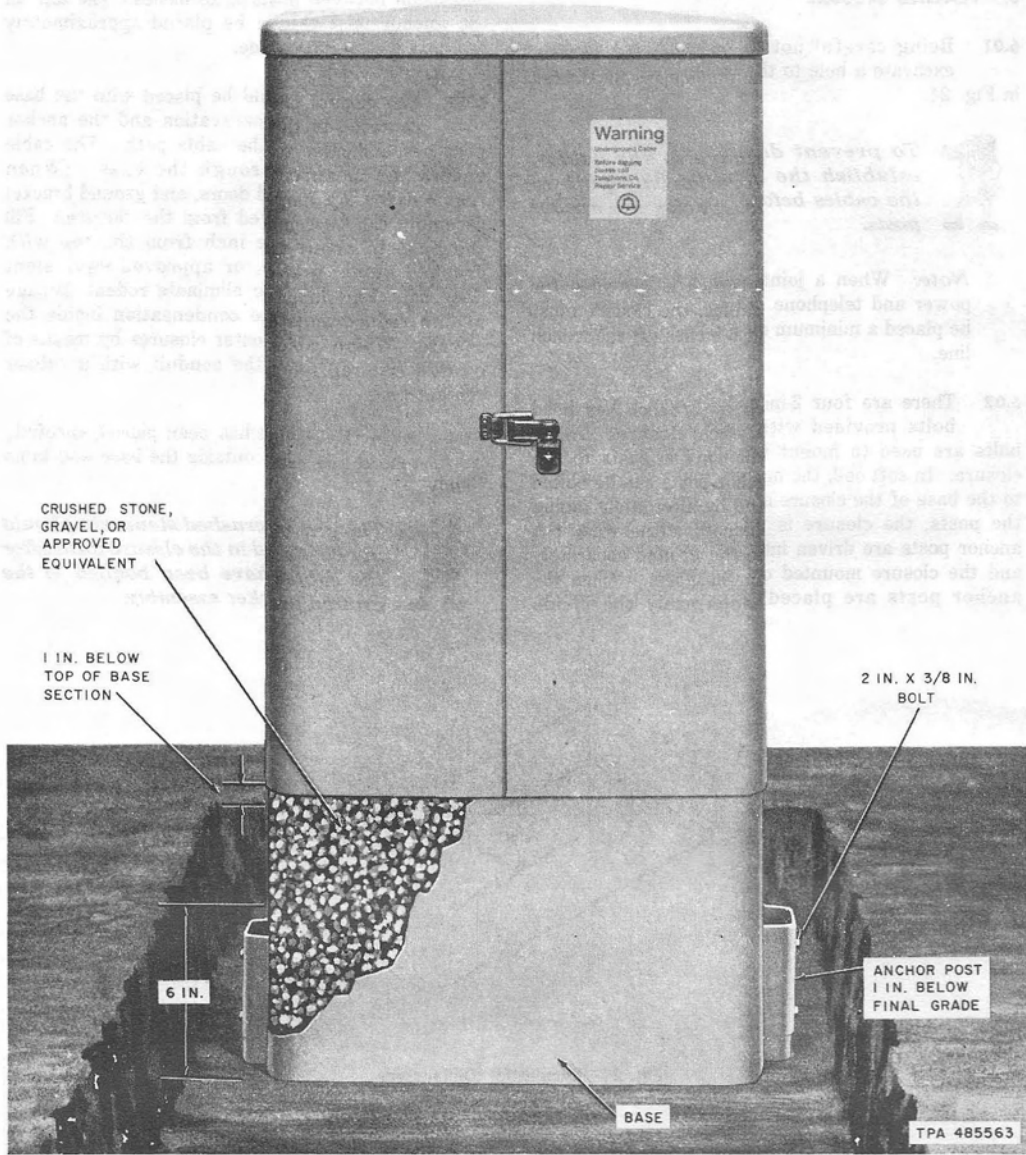


Fig. 25—Closure Placed

7. INSTALLATION—SINGLE AND DUAL SHEATH CABLES

- 7.01** Place the cable against the ground bracket centered on the hole in the ground bracket where the bond clamp will be installed. Mark the sheath 1/4-inch above the ground bracket, and place a B Paper Tape Marker on the sheath (Fig. 26).
- 7.02** Remove the ground bracket assembly. Mark the sheath 1-1/2 inches below the 1/4-inch mark, and place a B Paper Tape Marker on the sheath (Fig. 27).
- 7.03** Score the cable sheath at the 1/4-inch mark, remove the sheath. **Do not remove the core wrapper.** Using tabbing shears, cut the sheath and shield between the B Paper Tape Markers (Fig. 28). Remove the B Paper Tape Markers.

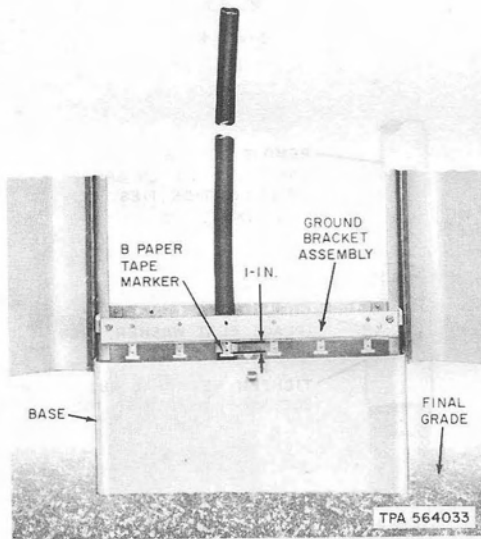


Fig. 26—Marking Cable for Sheath Opening

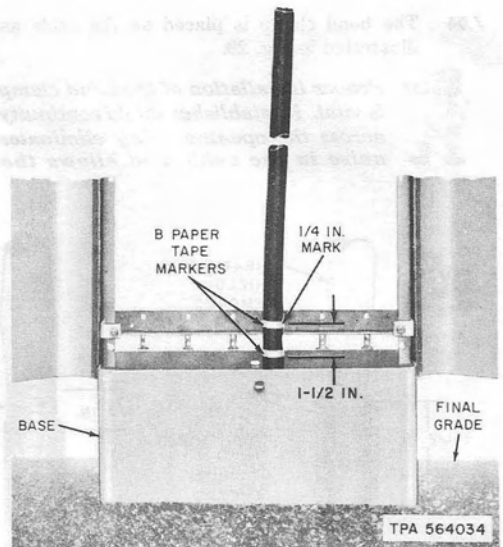


Fig. 27—B Paper Tape Markers Placed

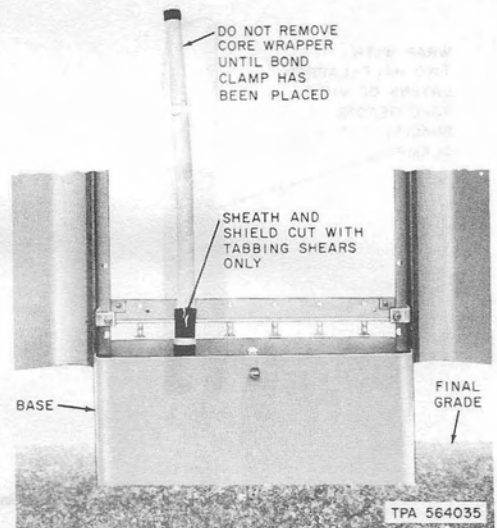


Fig. 28—Sheath Removed

7.04 The bond clamp is placed on the cable as illustrated in Fig. 29.



Proper installation of the bond clamp is vital. It establishes shield continuity across the opening. This eliminates noise in the cable and allows the

installation to meet transmission objective.

Note: In corrosive areas install the bond clamp as illustrated in Fig. 31.

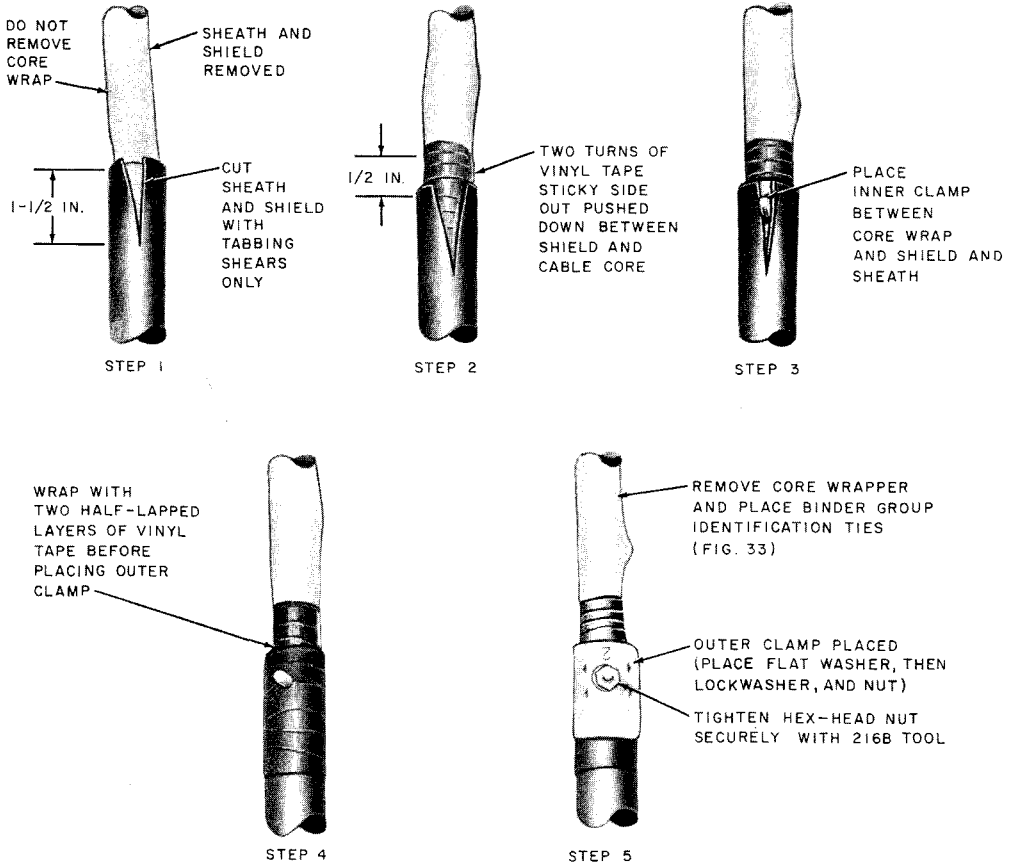


Fig. 29—Placing Bond Clamp

7.05 Place the inner plate stud of the bond clamp through the proper hole in the ground bracket. Place the flat washer then lock washer and nut on the stud and tighten securely. Secure

the cable to the ground bracket assembly with a WE-1 Cable Tie. Fig. 30 illustrates the cable installed in the closure.

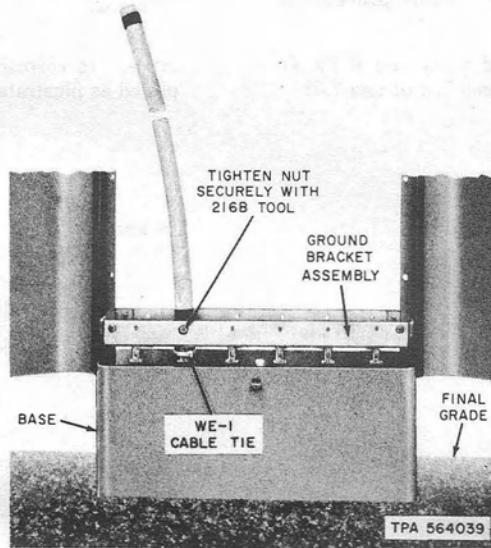


Fig. 30—Cable Installed in Closure

7.06 In corrosive areas the bond clamp is installed as illustrated in Fig. 31.

DUAL SHEATH CABLE

7.07 The amount of cable loop or cut ends required is outlined in 5.02, Fig. 20 through 23.

7.08 To install dual sheath cable proceed as follows:

- (1) Mark the sheath and place the B Paper Tape Markers as outlined in 7.01 and 7.02.

- (2) Remove the outer sheath as outlined in 7.03.

- (3) 1/2-inch from the outer sheath butt, score and remove the inner sheath.

- (4) The bond clamp is placed as illustrated in Fig. 32.

Note: In corrosive areas the bond clamp is placed as illustrated in Fig. 31.

SEE FIG. 29
STEP 1

SEE FIG. 29
STEP 2

STEP 1

STEP 2

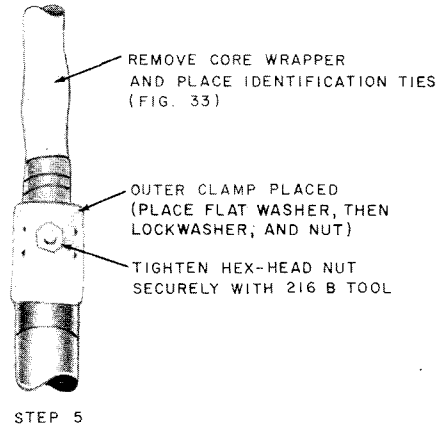
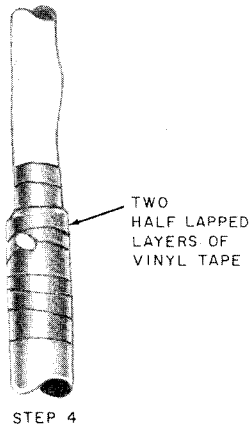
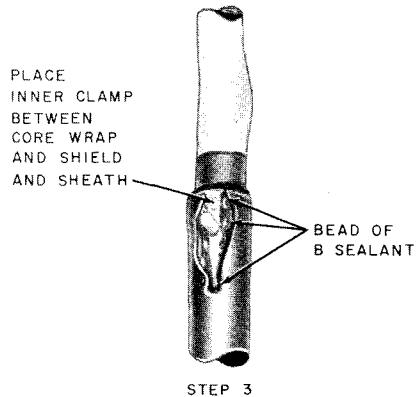
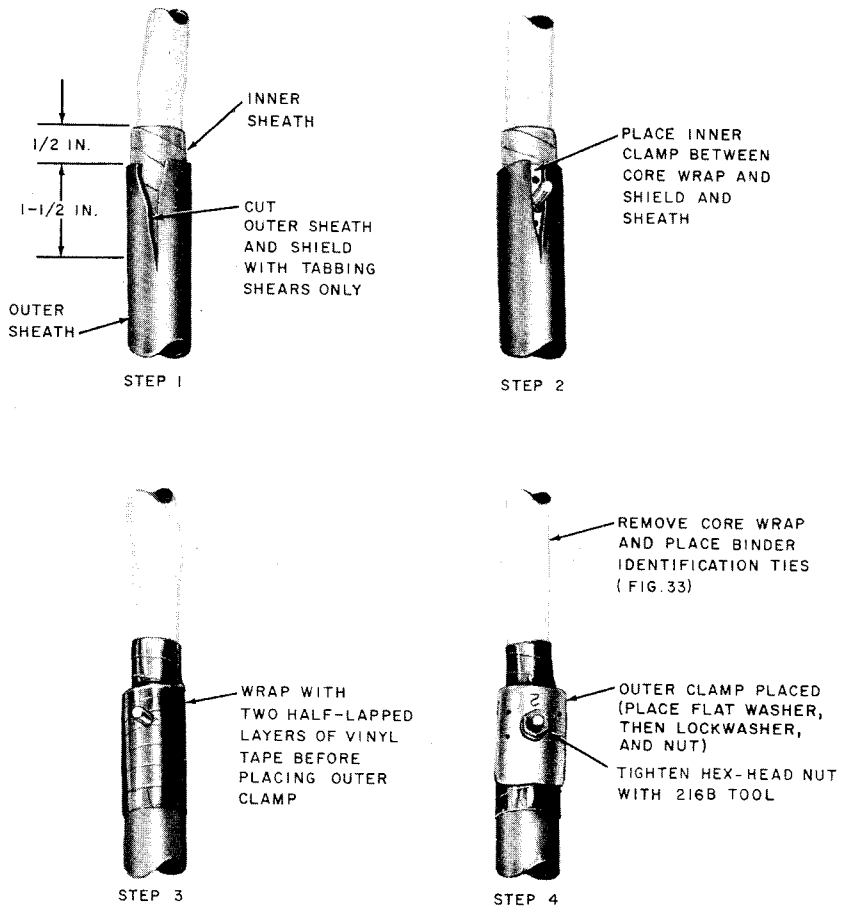


Fig. 31—Placing Bond Clamp—Corrosive Area



NOTES:

1. IN CORROSION AREAS INSTALL CLAMP AS ILLUSTRATED IN FIG. 31
2. FIG. 30 ILLUSTRATES THE CABLE INSTALLED IN CLOSURE.

Fig. 32—Bond Clamp Placed—Dual Sheath Cable

8. SPLICING ARRANGEMENTS

8.01 Where the closure is used for access or control points in dedicated buried plant, the wiring arrangements are outlined in Section 642-235-202.

Note: The cable or cables are bonded to the ground bracket assembly as outlined in Part 7.

8.02 The UP-1248 Cable Closure is used to enclose straight, bridge, or load splices from 900 pairs through 1800 pairs. Where the pair cable size is less than 900 pairs an LD10/42 or LD6/42 Cable Closure should be used.

Note: At a load point, where the pair cable size is 600 pairs and 300 or more pairs are to be loaded, a UP-1248 Cable Closure should be used.

8.03 After the core wrapper has been removed, before removing the unit binder, approximately two inches from the butt of each cable, around each binder group, place Binder Group Identification Ties.

Note: A Binder Group Identification Tie is plastic insulated wires of the same color as the unit binder.

8.04 At load points, to associate the load coil pairs with the main cable binder group pairs, around each binder group of load coil pairs, place Binder Group Identification Ties.

8.05 Where the UP-1248 Cable Closure is used to enclose a straight, bridge, or load splice, two splice supports are installed as illustrated in Fig. 17. The pairs are spliced with B Wire Connectors as outlined in Section 632-205-201. Fig. 33 illustrates a straight splice.

Note: The spacing of B Wire Connectors at a bridge or load point is the same as a straight splice.

9. LOADING

9.01 Where buried load coil cases are used for loading, they should be buried in the trench parallel to the main cable. In areas where the closure is offset several feet from the main cable trench, bury the load coil case in the trench leading to the closure. Extend the stub into the closure, tab and bond the stub to the ground bracket assembly.

9.02 The 701-type load coil cases, when used for loading, are placed in the closure and secured to the ground bracket assembly. No more than 8 load coil cases should be placed in a closure.

10. BONDING

10.01 When indicated on the work print, the closures are bonded to the power company ground with No. 6 Ground Wire. At the closure terminate the No. 6 Ground Wire to an F Connector. Bond the F Connector to the ground bracket assembly of the closure. The ground wire is bonded to the power company ground as covered in local instructions.

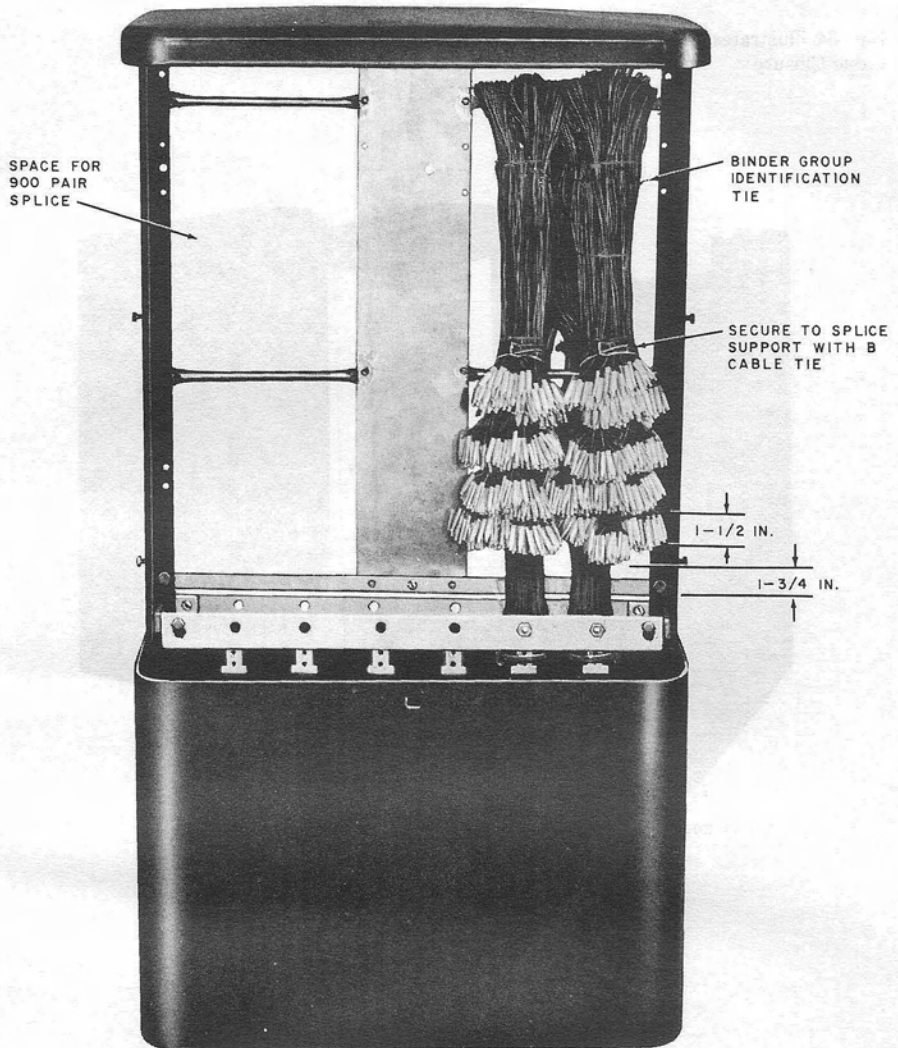


Fig. 33—UP-1248 Cable Closure—Straight Splice

11. SUPERSEDED CABLE CLOSURE

11.01 Fig. 34 illustrates the superseded UP-1200 Cable Closure.

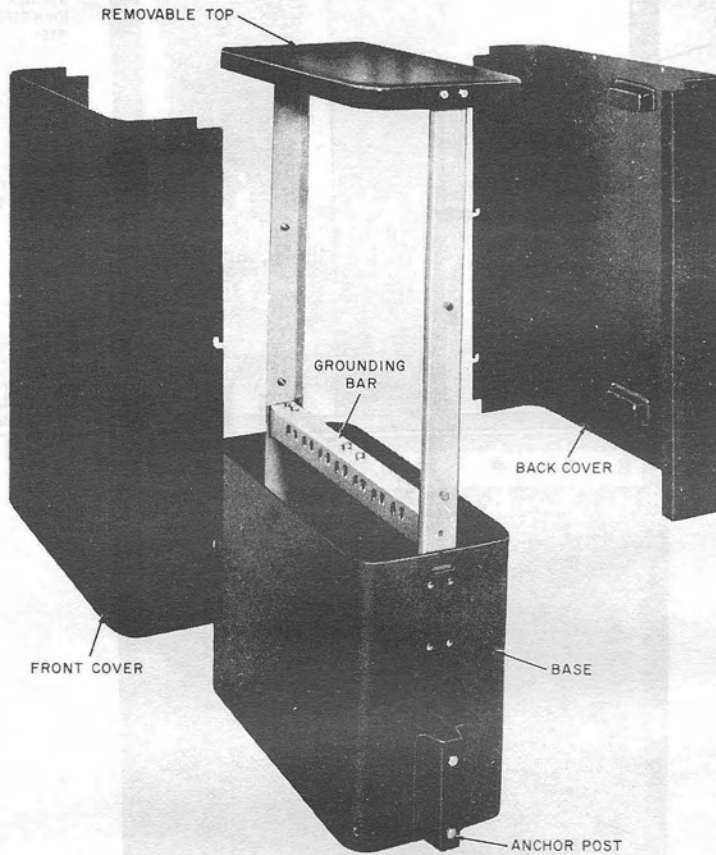


Fig. 34—Superseded UP-1200 Cable Closure