MC-10/48 CABLE CLOSURE
DESCRIPTION AND USE

CONTENTS PAGE

1. GENERAL

1.01 This section covers the description, installation, equipping, and wiring of the MC-10/48 cable closure.

1.02 This section is reissued to:

- Add descriptive information for the MC-10/48 cable closure
- Add descriptive information for the 199A1A10-25 protector
- Add descriptive information for the 199A1A25-50 protector
- Include kit of parts (D-181120).

Revision arrows are used to emphasize significant changes.

1.03 The MC-10/48 cable closure is designed to provide a station protected outdoor termination facility for buried distribution cable and station wiring.

2. DESCRIPTION

2.01 ▶The MC-10/48 cable closure (Fig. 1) is a wall-mounted closure 48 inches high, 10 inches wide, and 4 inches deep, painted gray-green. The closure is divided into two chambers to separate cable splicing and station wiring operations. The enclosed lower chamber is provided with brackets for securing, bonding, and splicing cable. The size of cable loop or cable splice that the lower chamber will accommodate is listed in Table A. The upper chamber which has a hinged door is designed to house a 199-type protector. The closure has knockouts to permit the entrance of the prewiring from the building. A grommet is provided to protect the wiring. A standoff mounting bracket is provided for mounting the closure against an uneven surface and to facilitate entering of prewiring through a rear knockout.

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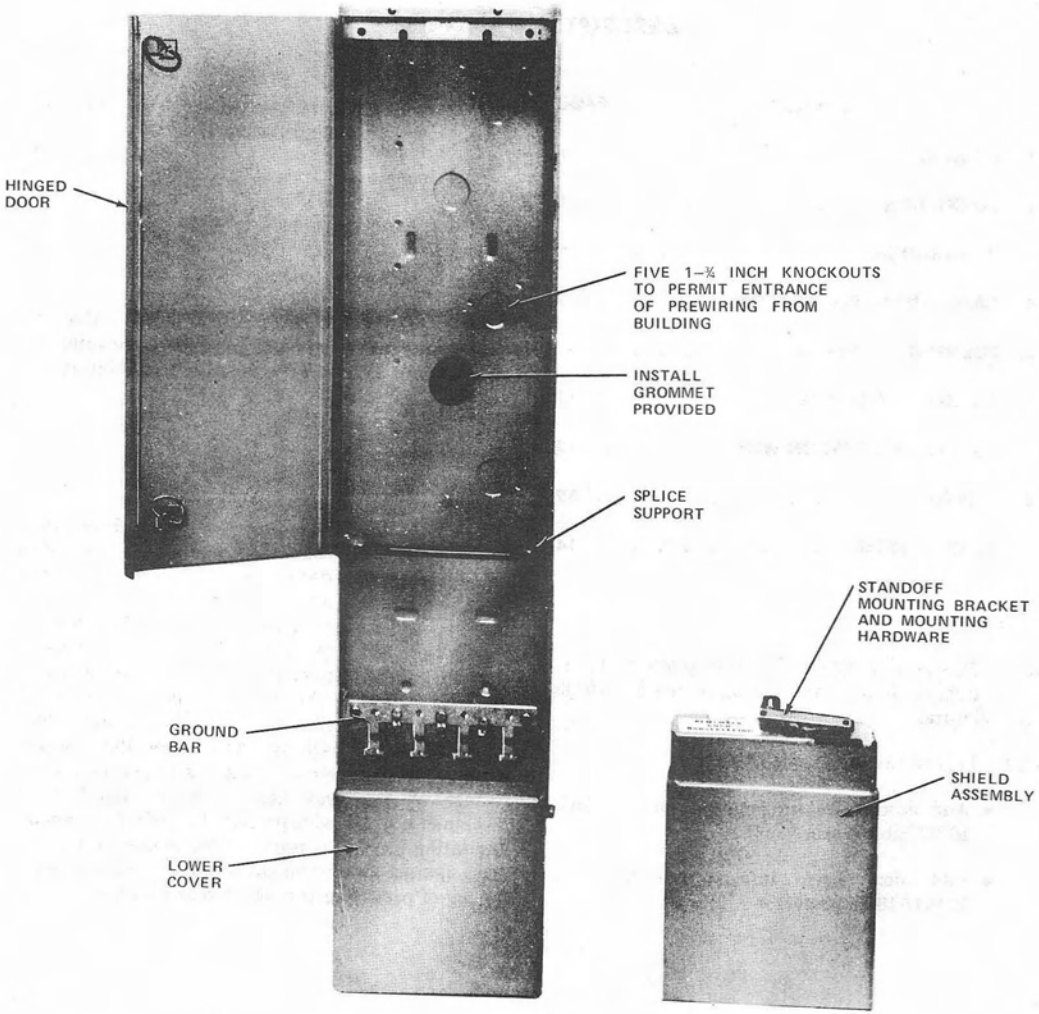

Fig. 1—MC-10/48 Cable Closure

TABLE A

CAPACITY OF MC-10/48 CABLE CLOSURE

STRAIGHT SPLICE	BRIDGE SPLICE	CABLE LOOP (NO SPLICE)
200 Pair	200 Pair Straight and 100 Pair Bridge	400 Pair or 2.1 Inch Diameter Cable

Note 1: The maximum size aerial distribution cable that closure will accommodate is 1 inch in diameter.

Note 2: The 24-gauge protector stub may be bridged to any of the above.

2.02 The 199A1A10-25 protector is illustrated in Fig. 2. The metallic backboard has predrilled holes for mounting and a mounting lug located at its bottom center. It is equipped with wire retaining rings. Binding posts for ten station wire pairs are provided. The 119A1-25 connecting block contains binding posts for 25 wire pairs.

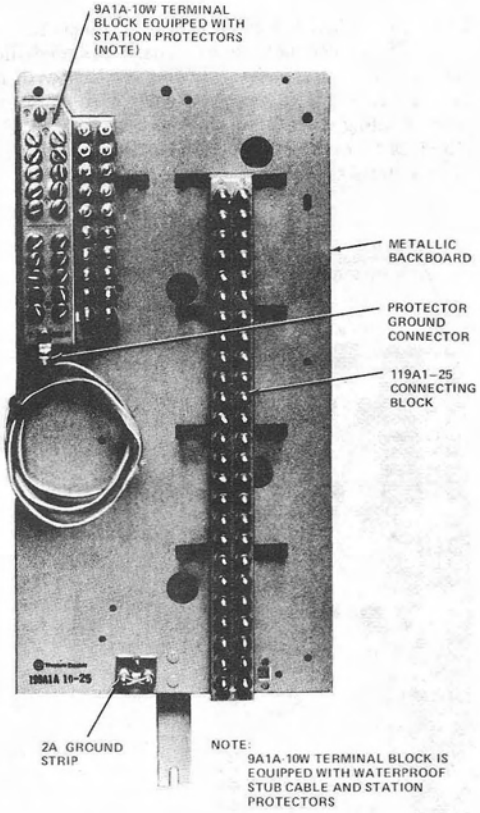

Fig. 2—199A1A10-25 Protector

2.03 The 199A1A25-50 protector is illustrated in Fig. 3. The metallic backboard has predrilled holes for mounting and a mounting lug located at its bottom center. It is equipped with wire retaining rings. Binding posts for 50 stations are provided. The 119A1-25 connecting blocks contain binding posts for 25 wire pairs each.◀

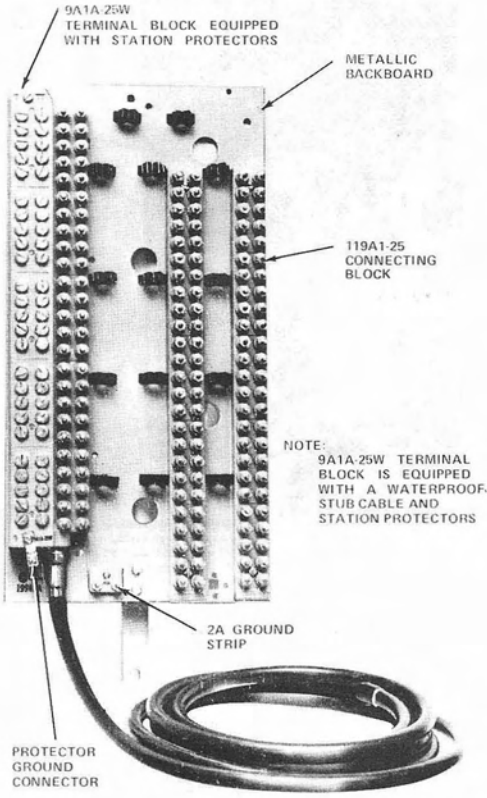

Fig. 3—199A1A25-50 Protector

3. INSTALLATION

3.01 The MC-10/48 cable closure is designed for wall mounting with the standoff mounting bracket provided.

3.02 Open the door and remove both shield assemblies from the lower part of the closure.

3.03 Position the closure against the wall at the prewiring exit and mark the wall to show the closure top (marking must not be objectionable to building personnel). See Fig. 4. The bottom of the closure should be 3 inches below final grade; however, if the area in which the closure is to be located is paved, set the closure on the pavement. ▶When it is required that the MC-10/48 cable closure be mounted higher than standard height, it is necessary to support and close the bottom of the cable closure and seal around the cables which enter through the bottom. This is accomplished by a kit of parts (D-181120) which consists of a bracket, a foam block, and an instruction sheet (Fig. 5).◀

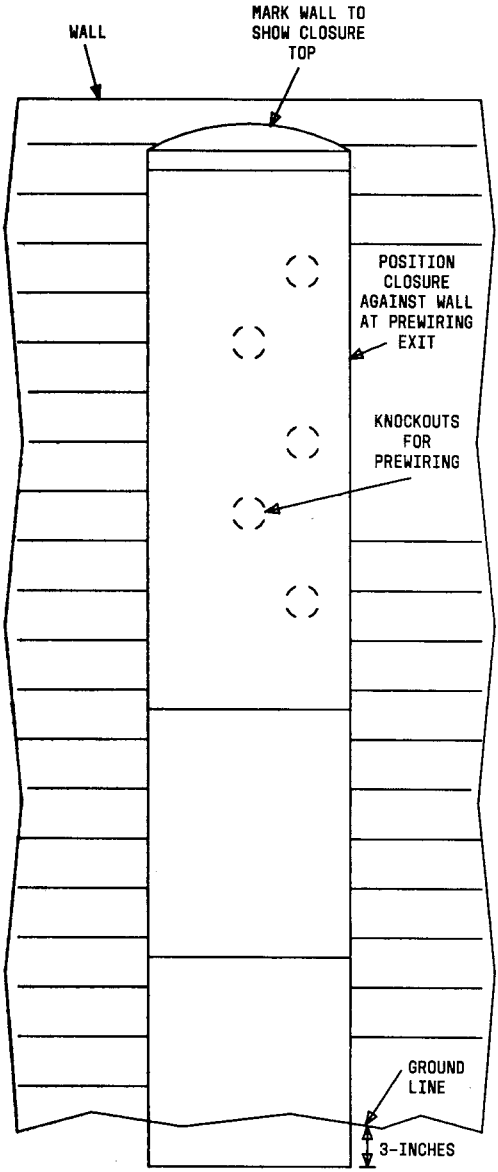

Fig. 4—Positioning Closure and Marking Wall

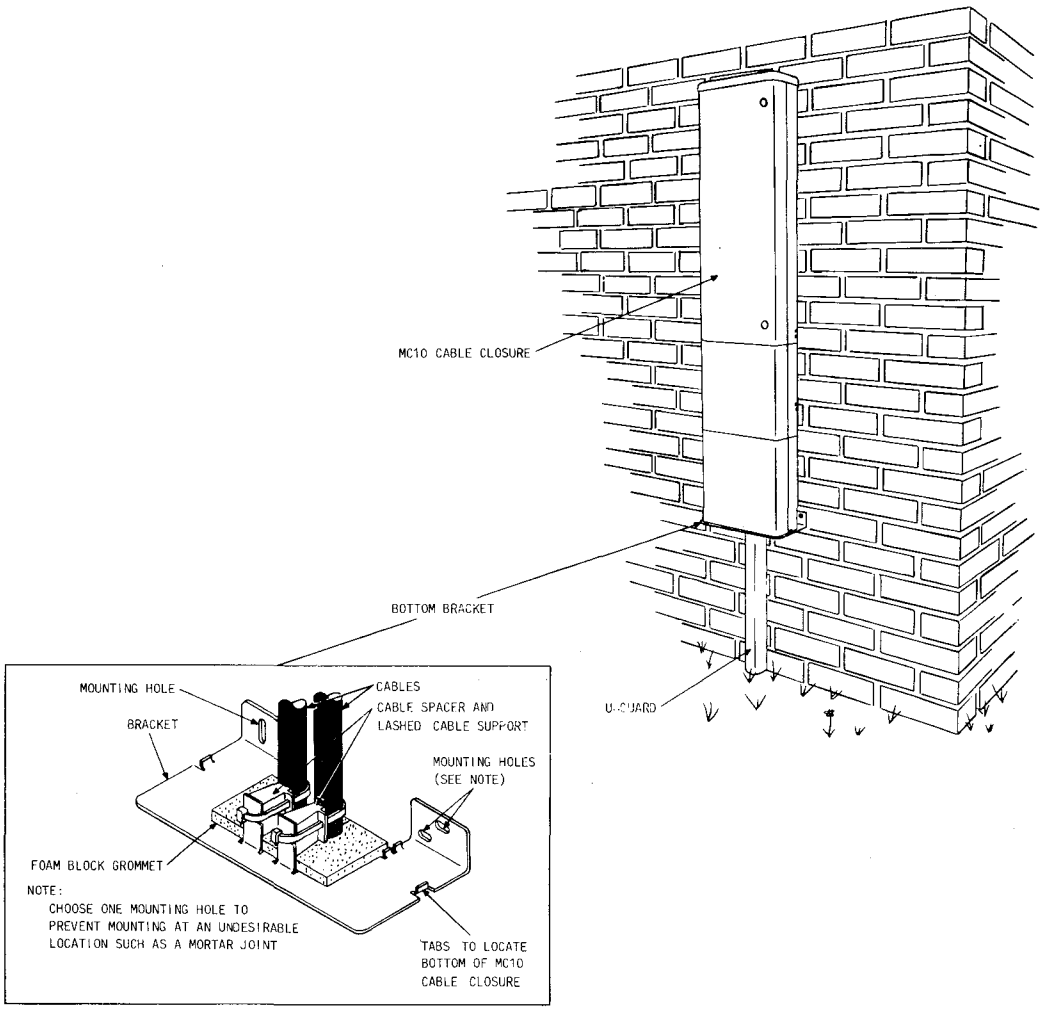

Fig. 5—Kit of Parts

3.04 Remove the closure; then, using the standoff mounting bracket as a template, mark two mounting holes 1 inch below the top of the closure mark (Fig. 6).

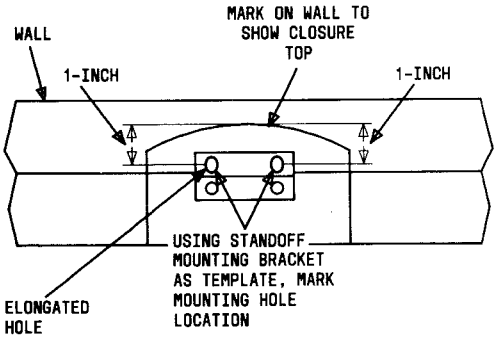

Fig. 6—Marking Mounting Hole Location

3.05 If the closure is to be secured to a wooden surface, drill lead holes in the marked hole location and secure the standoff mounting bracket to the wall with two No. 12 wood screws.

3.06 ***Caution: Impact goggles should be worn to protect the eyes when driving anchors into masonry or similar materials. Do not place anchors in mortar joints.*** If the closure is to be secured to a masonry surface, drill two 5/16-inch holes at the marked hole locations and install two No. 16 masonry anchors. Secure the standoff mounting bracket to the wall with two No. 16 screws.

3.07 Prewiring should be brought through a knockout in the back of the closure (Fig. 7). Remove the appropriate knockout and install the large grommet furnished with the closure. Feed the prewiring through the grommet; then, secure.

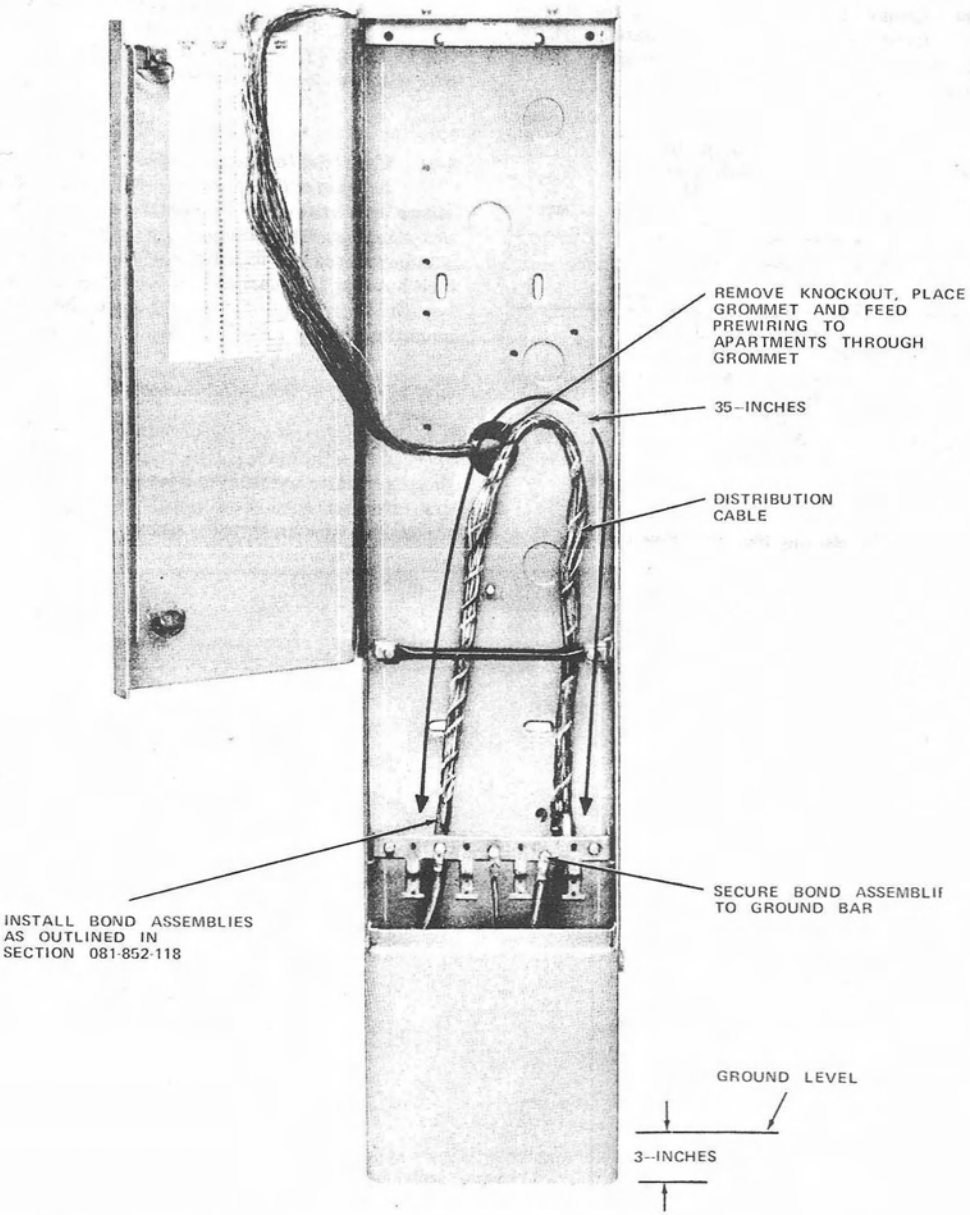

Fig. 7—Prewiring Entering Through Rear of Closure

4. CABLE SHEATH PREPARATION

4.01 The cable length required for installation is shown in Fig. 8 and 9. If the closure is not placed 3 inches below grade, the cable lengths will have to be adjusted accordingly.

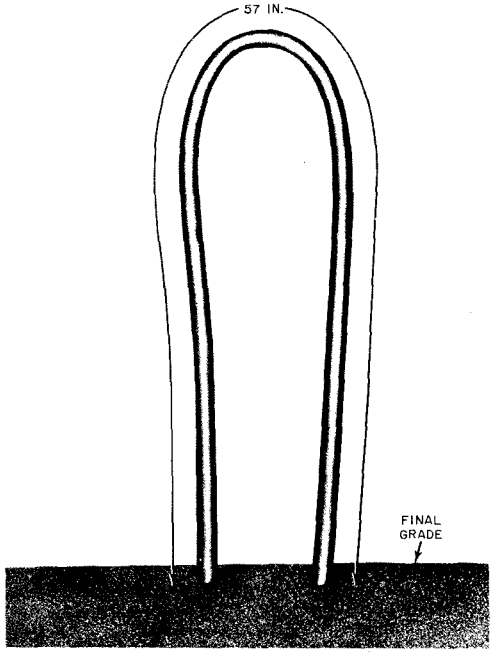

Fig. 8—Loop Length—Cable Loop Location

4.02 Position the cable against the ground bar and mark the cable approximately 1/4 inch above the ground bar on each side of the proposed sheath opening. The distance between the two marks should be 35 inches as shown in Fig. 7. These dimensions must be measured accurately. A good housekeeping job cannot be done if the sheath opening is too long or too short. The ground bar can be removed or detached on one side and swung up to provide additional working space for cable sheath preparation.

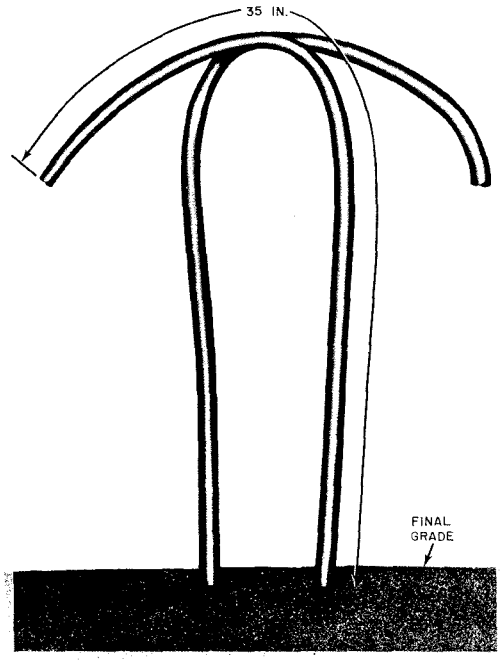

Fig. 9—End Length—Cable Splicing Location

4.03 Remove the sheath between the two marks.

4.04 Install the D bond assembly furnished with the closure on the cable as outlined in Section 081-852-118. Attach the D bond assembly to the bonding bracket as shown in Fig. 7.

5. EQUIPPING TERMINALS

5.01 Install the 199-type protector in the closure as shown in Fig. 10. Two screws of different sizes are furnished with the 199-type protector. Select the screw size that fits the threaded mounting hole and discard the other screw. Secure the protector at the top with the selected screw.

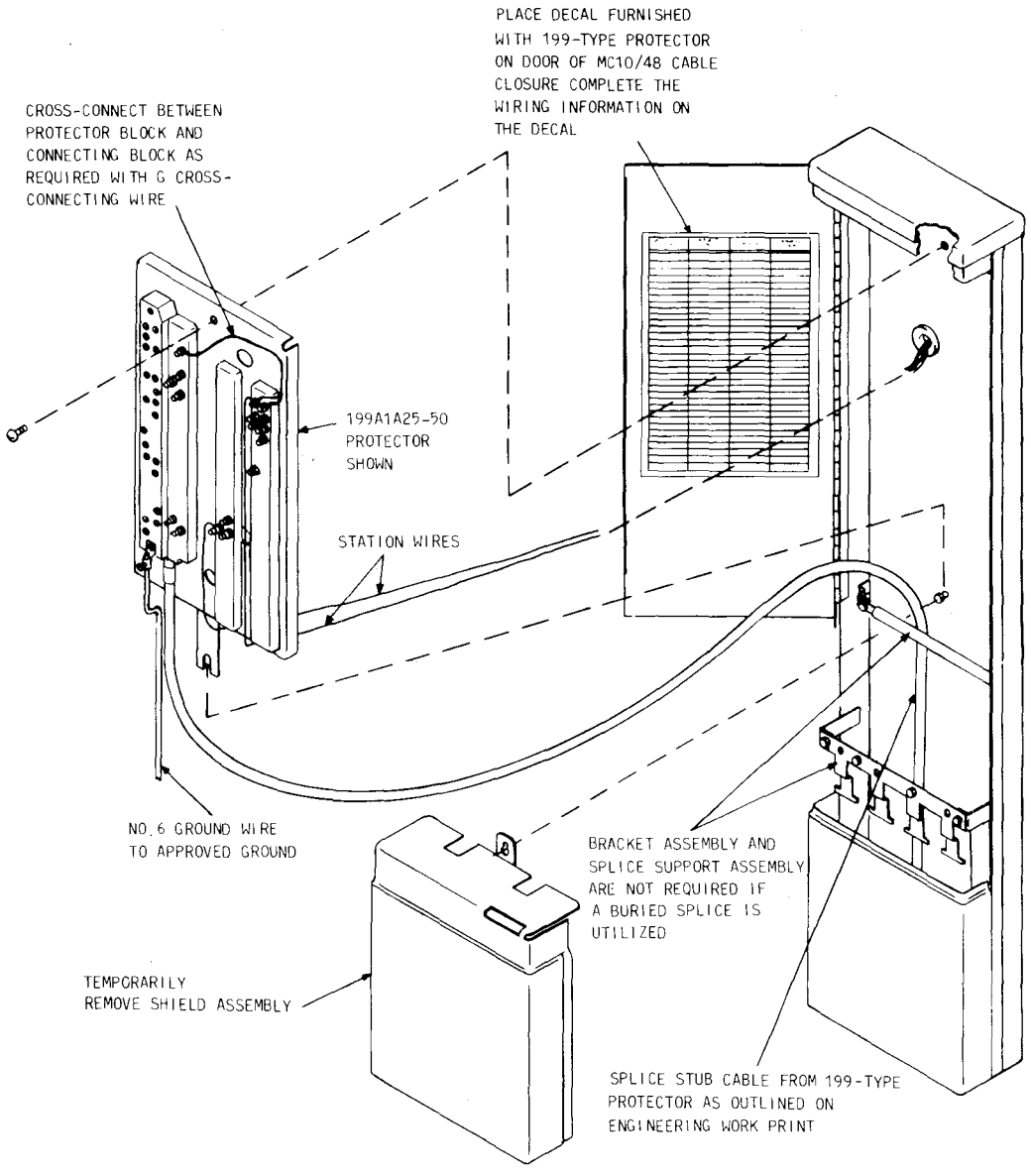

Fig. 10—Installation of 199-Type Protector

5.02 Install the D bond assembly on the stub cable as outlined in Section 081-852-118; then, secure the bond assembly to the ground bar (Fig. 11).

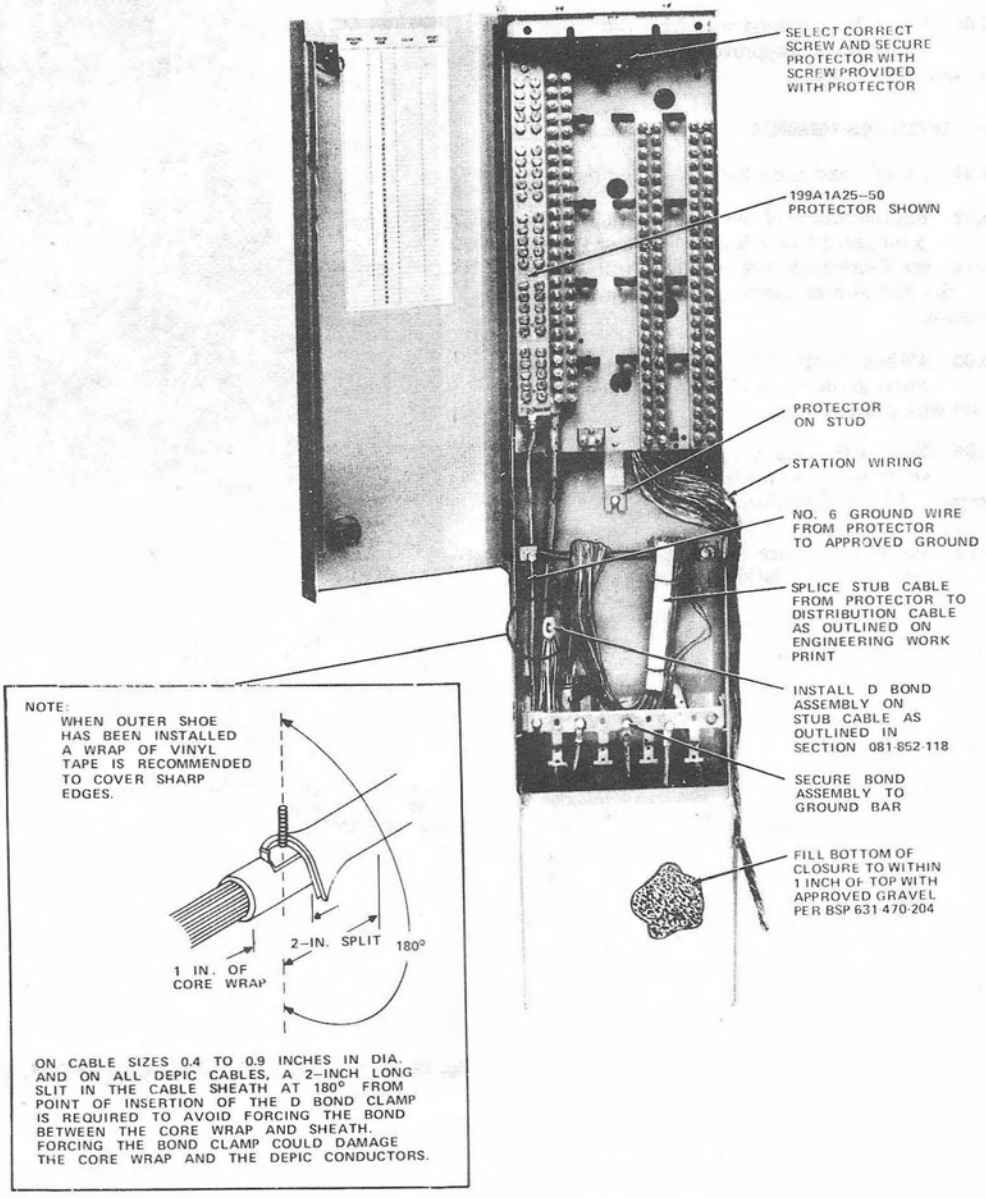

Fig. 11—Installed 199-Type Protector

5.03 Splice the stub cable from the protector to the distribution cable as outlined on the engineering work print.

5.04 Run a No. 6 ground wire from the lug on the protector to an approved ground as outlined in Section 631-400-102.

6. ENCLOSING TERMINAL

6.01 Backfill and tamp the soil around the cable.

6.02 Fill the bottom of the closure with gravel to a point about 1 inch below the top of the lower cover per Section 631-600-003. This will keep out rodents and also minimize condensation inside the closure.

6.03 When the MC-10/48 cable closure is mounted above grade, do not fill the bottom of the closure with gravel.

6.04 Remove the appropriate knockout(s) from the shield assembly for the stub cable of the protector and No. 6 ground wire (Fig. 12).

6.05 Install and secure the shield assembly; then, seal the void in the knockout with sealing tape.

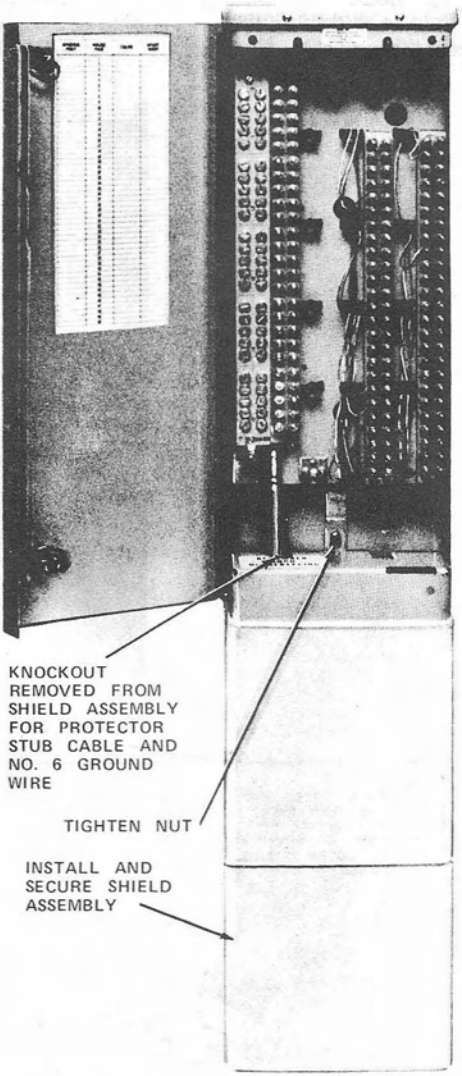

Fig. 12—Completed Installation of MC-10/48 Cable Closure

7. TERMINATING STATION WIRES

7.01 ***Caution: To prevent conductor breakge when the binding nut is tightened, the bare wire should be formed around the binding post without crossing over itself.***

7.02 Route the station wire up the left-hand side of the connecting block to the assigned binding post as shown in Fig. 13 and terminate as follows:

(1) Strip approximately 3/4 inch of insulation from the end of each station wire to be terminated.

(2) Loosen the two hex nuts on the binding post.

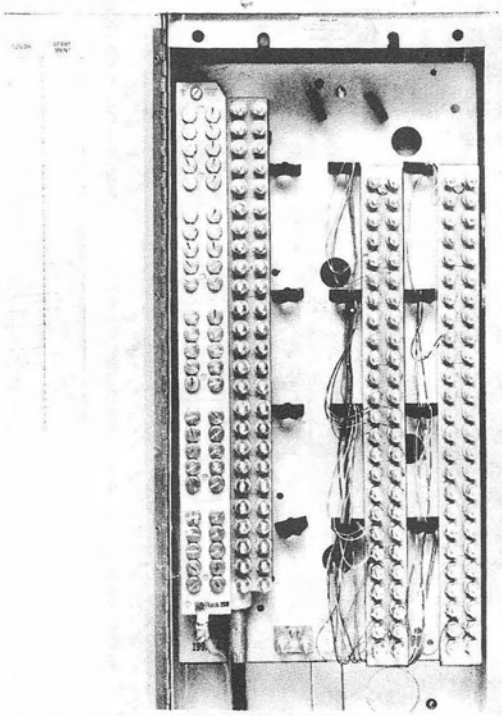

Fig. 13—Terminated Service Wires

(3) Wrap the bare copper of the station wire around the binding post in a clockwise direction between the solder plated washers.

(4) Tighten the larger nut to secure the wire.

8. WIRING

8.01 Caution: To prevent conductor breakage when the binding nut is tightened, the bare wire should be formed around the binding post without crossing over itself.

8.02 The method of running G cross-connecting wire (white-violet) from the 119A1-25 connecting block to the 9A1A-type terminal block is illustrated in Fig. 14 and is as follows:

(1) Strip approximately 3/4-inch of insulation from the end of the cross-connecting wire.

(2) Using the small end of the 216-type tool, loosen the small nut on the 119A1-25 connecting block.

(3) Wrap the bare copper of the G cross-connecting wire around the binding post in a clockwise direction between the washers between the large and small nuts.

(4) Tighten the small nut.

(5) Route the other end of the cross-connecting wire through the wire guide to the protector block as shown in Fig. 14.

(6) Strip approximately 3/4-inch of insulation from the end of the cross-connecting wire.

(7) Using the 216-type tool, loosen the nut on the assigned binding post of the protected terminal block.

(8) Wrap the bare copper of the G cross-connecting wire around the binding post in a clockwise direction between the two washers.

(9) Tighten the binding nut to secure the wire.

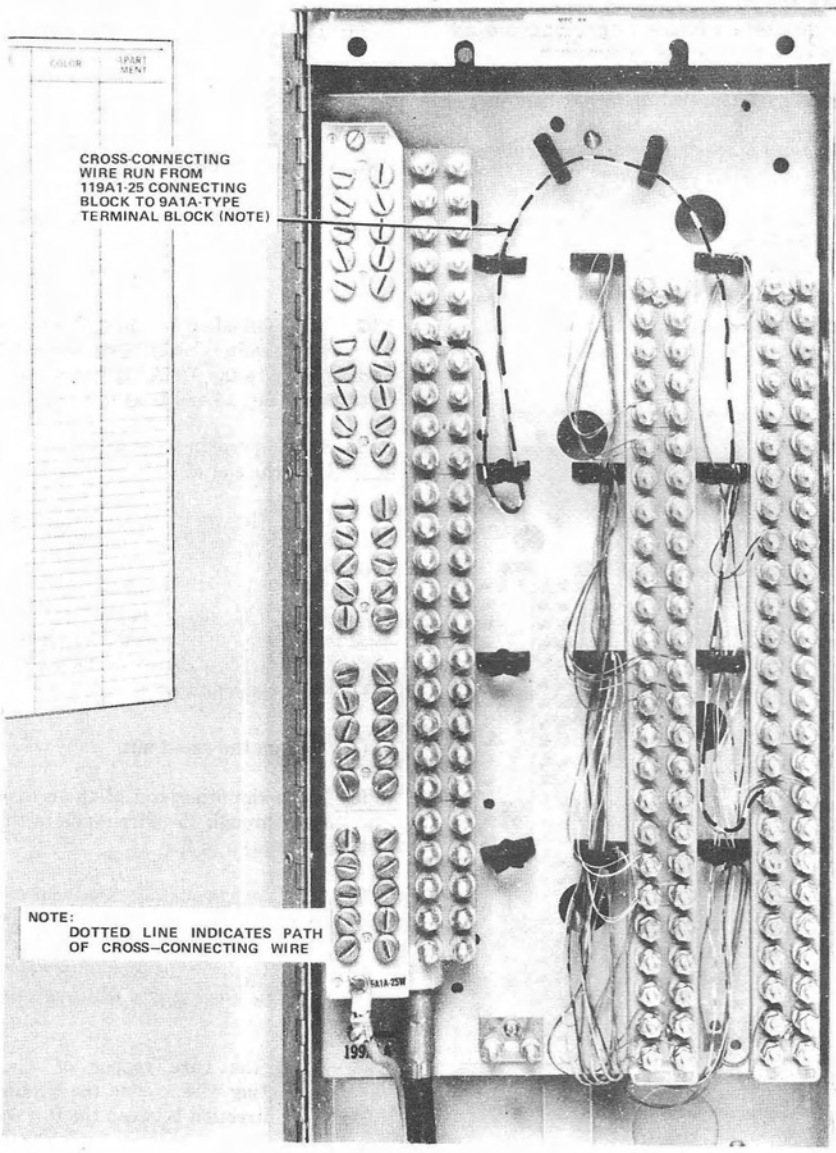

Fig. 14—Cross-Connecting Wire Run

9. PLACING DECAL

9.01 Place the decal furnished with the 199-type protector on the inside face of the closure door and over any existing decal as shown in Fig. 10 as follows:

(1) Position the decal on the door and outline the decal location on the door.

(2) Remove the decal and peel the backing from the longest edge.

(3) Place the long edge of the decal along the mark and smooth out.

(4) Slowly remove the backing from the decal and smooth out until the decal is placed. If the application is unsatisfactory, it is possible to remove the decal and reapply it.

(5) Connection record entries should be completed as specified on the engineering work print and customer service order.

(6) Close and secure the front cover.