

## DEDICATED PLANT— WIRING ACCESS POINTS

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### 1. GENERAL

**1.01** This section describes the method of wiring an access point in dedicated plant.

**1.02** This section is reissued to:

- Delete the D, E, and F Backboards and change to L, M, and N Backboards
- Revise Fig. 3 to show changes to 5-type closures
- Add illustrations to show new backboards
- Add reference paragraph about restoring previously used *IN* cable pair.

**1.03** Under the dedicated plant plan, a pair is permanently assigned to a specific residence or non-key business address from a central office. Once dedicated, the pair will remain permanently assigned to a customer's location, whether working or idle.

**1.04** Subscriber drop, block, or buried service wires should not be terminated in an access point.

**1.05** Access points can be distinguished from control points by:

- (a) A green B Cable Tie placed around the *EXPRESS* cable of a strand-mounted access point. A red B Cable Tie identifies a control point.
- (b) A marker with a letter *A* on a green background installed on pole- and wall-mounted closures, building cabinets, and buried closures. Control points are identified by a letter *C* on a red background.

**1.06** Access points have been designed so that personnel entering an access point will find the *OUT* cable pairs placed through the rear holes of the wiring brackets, and the method of connecting the *IN* and *OUT* pairs the same regardless of the type of closure. This has been done to facilitate good housekeeping. The closure should always look neat after the workman leaves the job.

**1.07** A talk pair is provided for calling testboard and other locations which will reduce test pick damage to the conductors.

### 2. DEFINITIONS

**2.01** *Access Points* provide a means of connecting pairs in distribution cables to spare pairs in branch or main feeder cables. Cables entering access points from the central office or a preceding control point are termed *IN* or *EXPRESS* cables (Fig. 1). Cables leaving access points toward subscribers are termed *OUT* cables. Cables which originate in the access point assume the address of the access point, and the cable pair numbers assigned to the pairs in these cables begin at one (1) and continue up to the total number of pairs originating at this location. *EXPRESS* feeder cables leaving access points do not change designations.

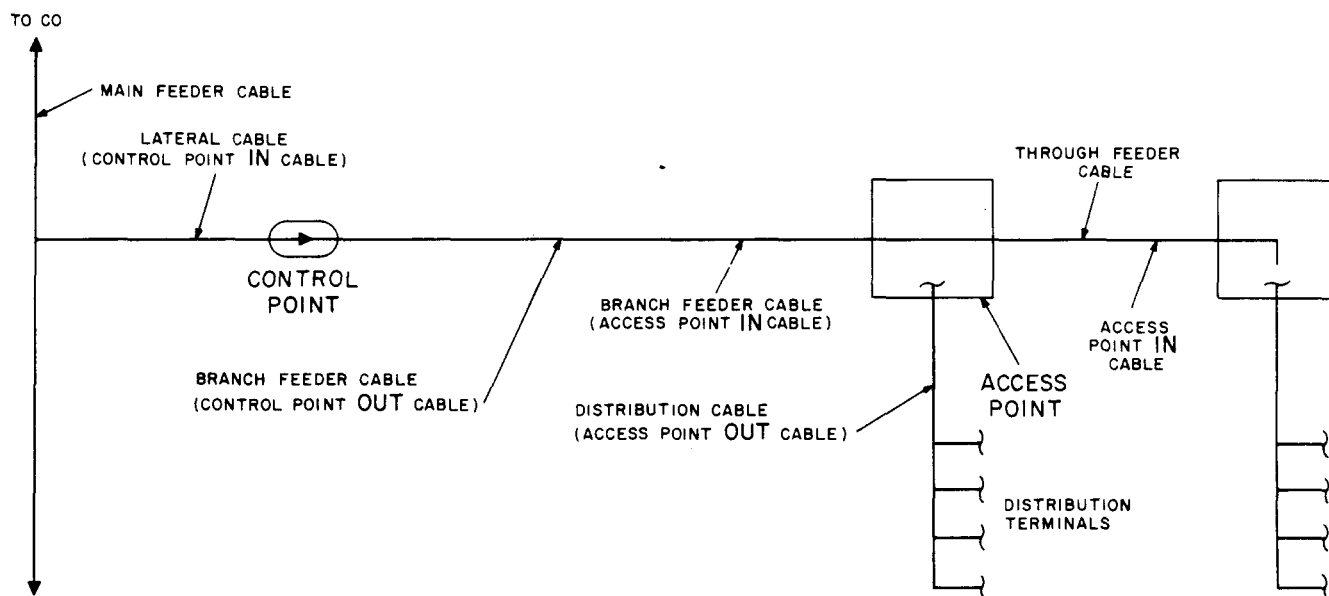


Fig. 1—Simplified Dedicated Plant Distribution System

**2.02 Continuous PIC Sheath Count** provides binder group identification by the use of colored wire ties installed at the time of construction of the access point. Table A lists an example of continuous PIC sheath count in an access point with one or more **IN** and **OUT** cables.

### 3. TYPES OF ACCESS POINTS

**3.01** A workman visiting the following types of access points will find that the **OUT** cable units have been positioned in the wiring brackets and identified by a continuous PIC sheath count. The access point may have a number of pairs connected or no pairs connected.

**TABLE A — EXAMPLE OF A CONTINUOUS PIC SHEATH COUNT  
IN AN ACCESS POINT**

| OUT CABLES <sup>1</sup> |                        |              |                             |                                       | IN CABLES <sup>2</sup> |                        |              |                             |                                       |
|-------------------------|------------------------|--------------|-----------------------------|---------------------------------------|------------------------|------------------------|--------------|-----------------------------|---------------------------------------|
| CABLE NO.               | CABLE PIC SHEATH COUNT | BINDER GROUP | CONTINUOUS PIC SHEATH COUNT | COLOR OF WIRE ON CONTINUOUS BINDER GR | CABLE NO.              | CABLE PIC SHEATH COUNT | BINDER GROUP | CONTINUOUS PIC SHEATH COUNT | COLOR OF WIRE ON CONTINUOUS BINDER GR |
| 1                       | 1-25                   | Bl-W         | 1-25                        | Bl-W                                  | 1                      | 1-25                   | Bl-W         | 1-25                        | Bl-W                                  |
| 1                       | 26-50                  | O-W          | 26-50                       | O-W                                   | 1                      | 26-50                  | O-W          | 26-50                       | O-W                                   |
| 1                       | 51-75                  | G-W          | 51-75                       | G-W                                   | 1                      | 51-75                  | G-W          | 51-75                       | G-W                                   |
| 1                       | 76-100                 | Br-W         | 76-100                      | Br-W                                  | 1                      | 76-100                 | Br-W         | 76-100                      | Br-W                                  |
| 2                       | 1-25                   | Bl-W         | 101-125                     | S-W                                   | 1                      | 101-125                | S-W          | 101-125                     | S-W                                   |
| 2                       | 26-50                  | O-W          | 126-150                     | Bl-R                                  | 1                      | 126-150                | Bl-R         | 126-150                     | Bl-R                                  |
| 2                       | 51-75                  | G-W          | 151-175                     | O-R                                   | 1                      | 151-175                | O-R          | 151-175                     | O-R                                   |
| 2                       | 76-100                 | Br-W         | 176-200                     | G-R                                   | 1                      | 176-200                | G-R          | 176-200                     | G-R                                   |
| 3                       | 1-25                   | Bl-W         | 201-225                     | Br-R                                  | 2                      | 1-25                   | Bl-W         | 201-225                     | Br-R                                  |
| 3                       | 26-50                  | O-W          | 226-250                     | S-R                                   | 2                      | 26-50                  | O-W          | 226-250                     | S-R                                   |
| 4                       | 1-25                   | Bl-W         | 251-275                     | Bl-Bk                                 | 2                      | 51-75                  | G-W          | 251-275                     | Bl-Bk                                 |
| 4                       | 26-50                  | O-W          | 276-300                     | O-Bk                                  | 2                      | 76-100                 | Br-W         | 276-300                     | O-Bk                                  |
|                         |                        |              |                             |                                       | 2                      | 101-125                | S-W          | 301-325                     | G-Bk                                  |
|                         |                        |              |                             |                                       | 2                      | 126-150                | Bl-R         | 326-350                     | Br-Bk                                 |
|                         |                        |              |                             |                                       | 2                      | 151-175                | O-R          | 351-375                     | S-Bk                                  |
|                         |                        |              |                             |                                       | 2                      | 176-200                | G-R          | 376-400                     | Bl-Y                                  |

**Note 1:** *OUT* cable number and pairs are: (1) 100-pair, (2) 100-pair, (3) 50-pair, (4) 50-pair.

**Note 2:** *In* cable number and pairs are: (1) 200-pair and (2) 200-pair.

- (a) **Strand-Mounted Access Point**—The 1B1 Closure (Fig. 2) is used as a strand-mounted access point.
- (b) **Pole- and Wall-Mounted Access Points**—The 5-type closures (Fig. 3) and the 29-type cabinets (Fig. 4) are used to enclose pole- and wall-mounted access points.
- (c) **Access Points in Buried Plant**—The L Backboard (Fig. 5), the M Backboard (Fig.

6), and the N Backboard (Fig. 7), used in conjunction with the G, H, and UP-1200 Cable Closures, respectively, are used for access points in buried plant. Section 631-600-221 describes the L and M Backboards used in G and H Closures. Section 631-600-225 describes the M and N Backboards used in the UP-1200 Closure. Wiring arrangements for the B and C Backboards used in conjunction with the 38-Y-B and 38-Y-C Cable Closures are identical to the wiring arrangements for the L and M Backboards.◆

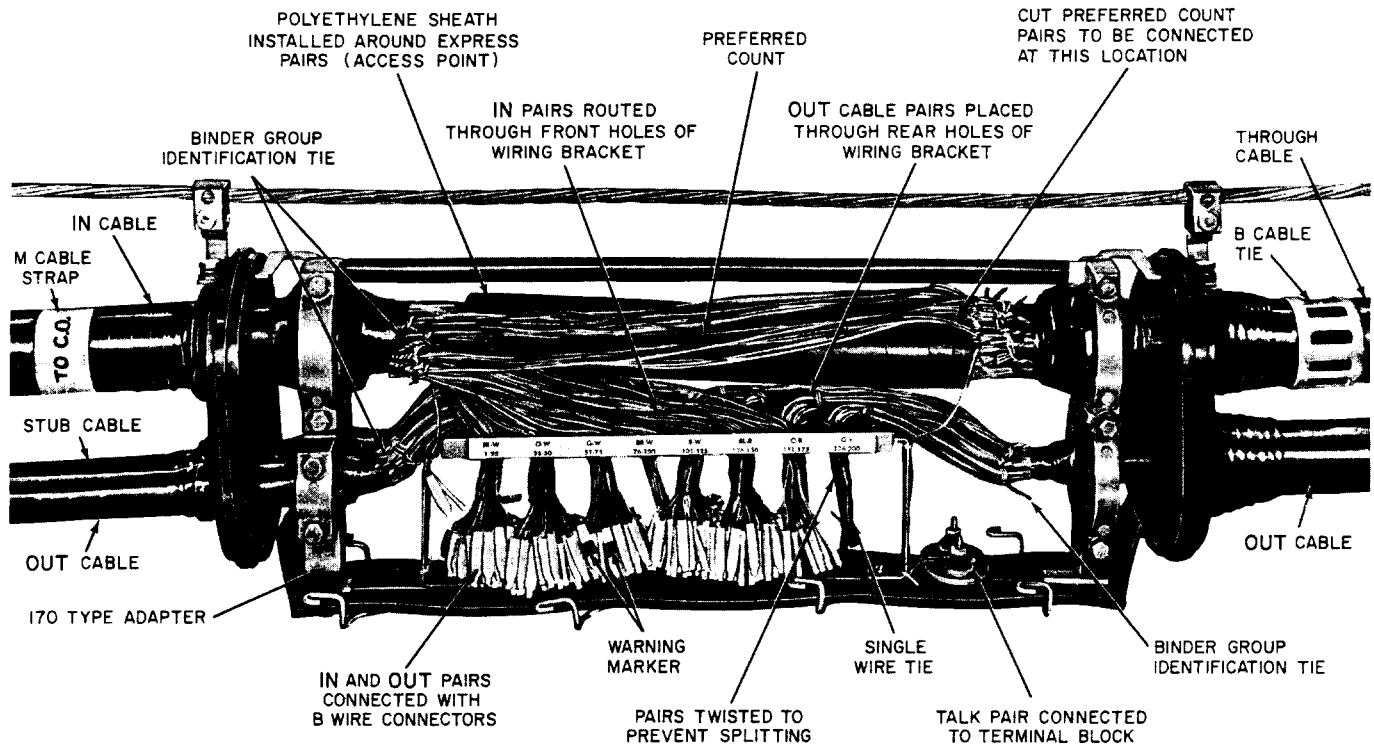


Fig. 2—1B1 Closure

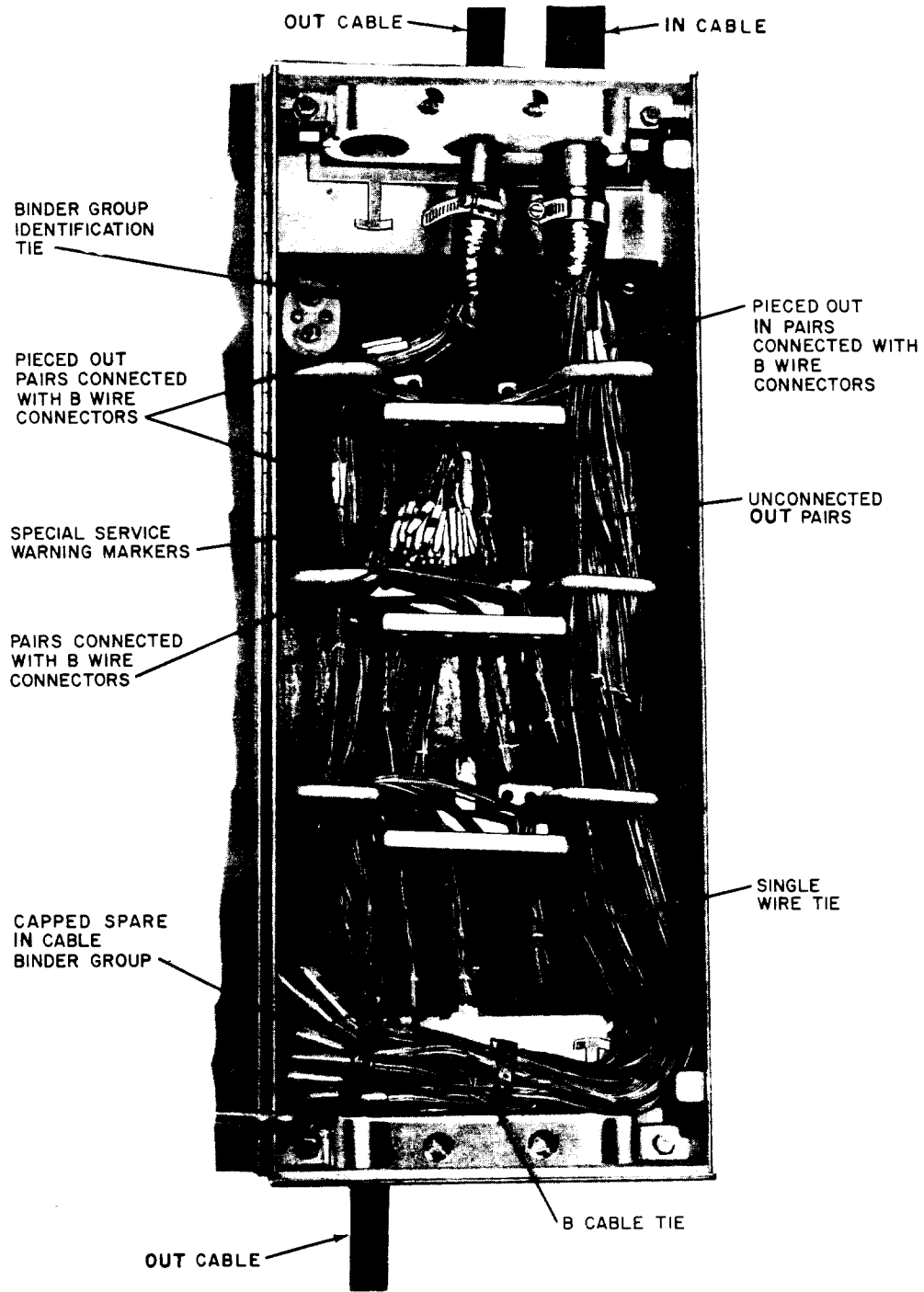


Fig. 3—5-Type Closure

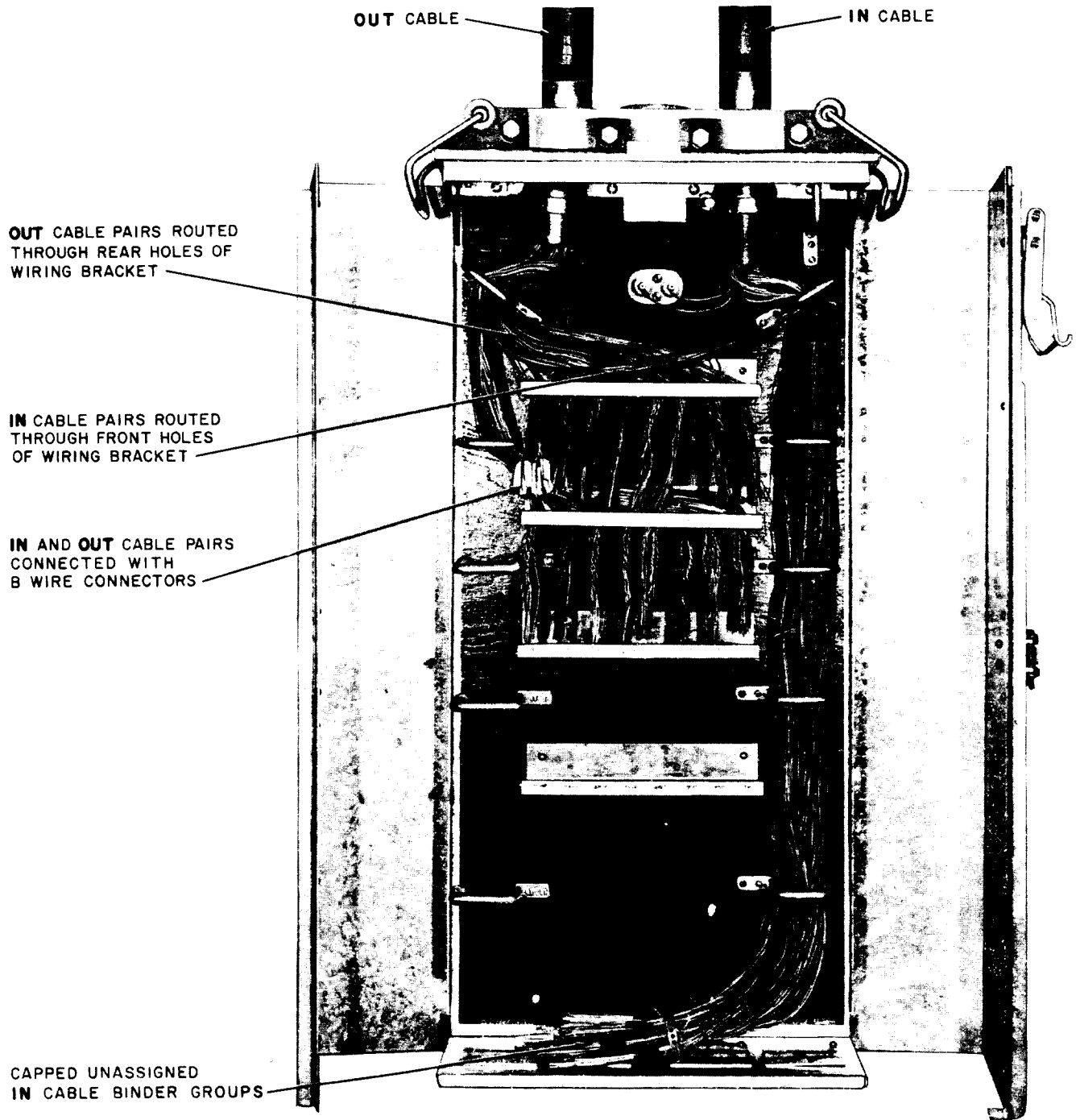


Fig. 4—29-Type Cabinet

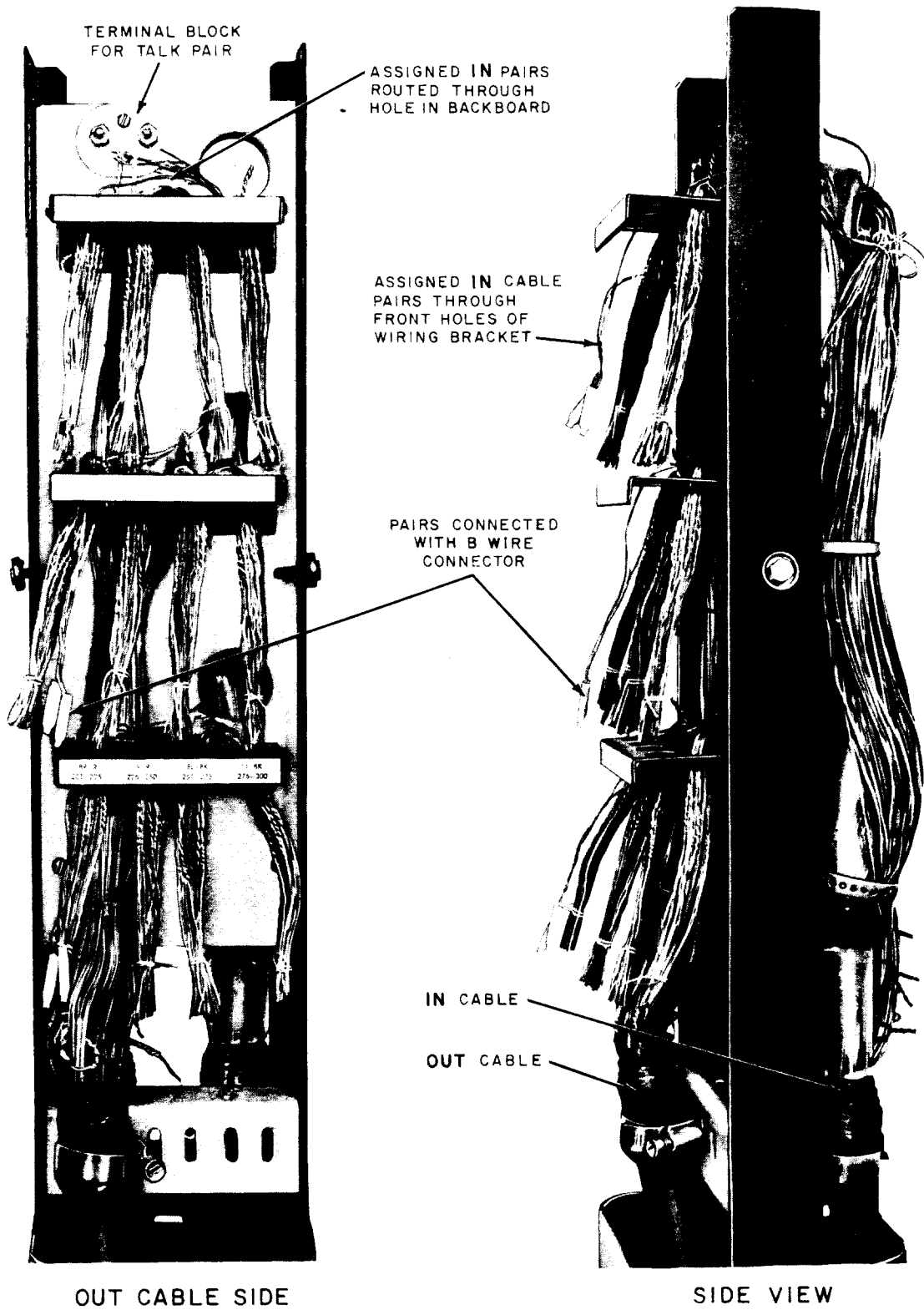


Fig. 5—L Backboard



Fig. 6—M Backboard



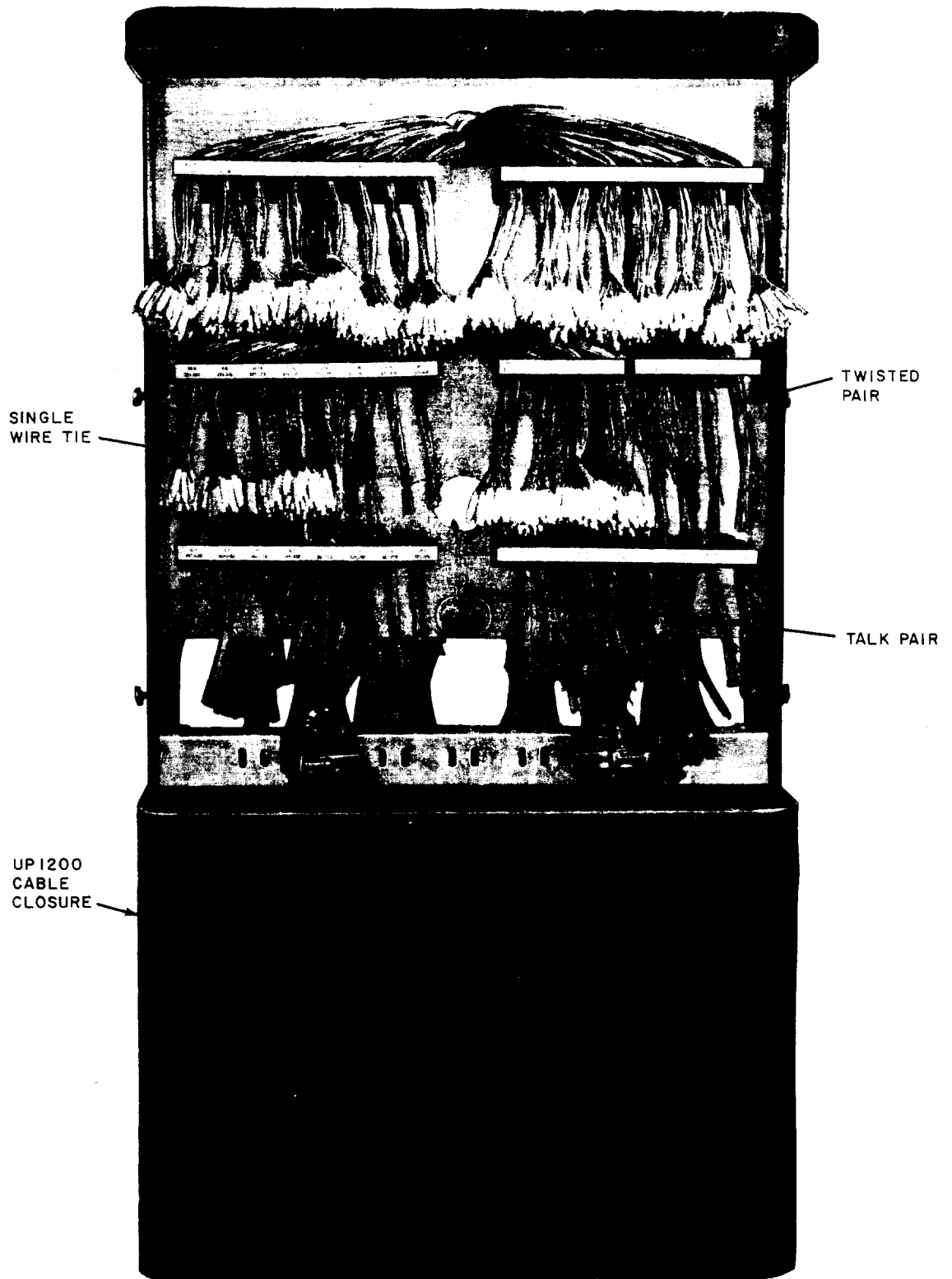


Fig. 7—N Backboard

#### 4. IDENTIFYING SPECIAL CIRCUITS

4.01 When cable pairs are used for special services, it will be necessary to identify the circuits at the time the pairs are connected by wrapping a red warning marker tape around each B Wire Connector as shown in Fig. 3.

4.02 When disconnecting the special service pairs, remove the red warning marker tape from the B Wire Connectors.

#### 5. CONNECTING

5.01 The procedures for connecting the *IN* and *OUT* cable pairs in an access point are the same in each type of closure and are designed to eliminate unnecessary handling of pairs once they

are connected, promote good housekeeping, and provide easy identification; therefore it is important that the procedures outlined in this section be followed.

#### CABLE END LOCATION OR LOCATIONS FED BY STUB CABLE

5.02 Loosen the B Cable Tie and select the assigned *IN* pair.

5.03 Cut the assigned *IN* pair as close to the acetate container as possible as shown in Fig. 8.

**Note:** If the wrong pair is cut, clear conductor ends with B Wire Connector. Replace the pair within its binder group.

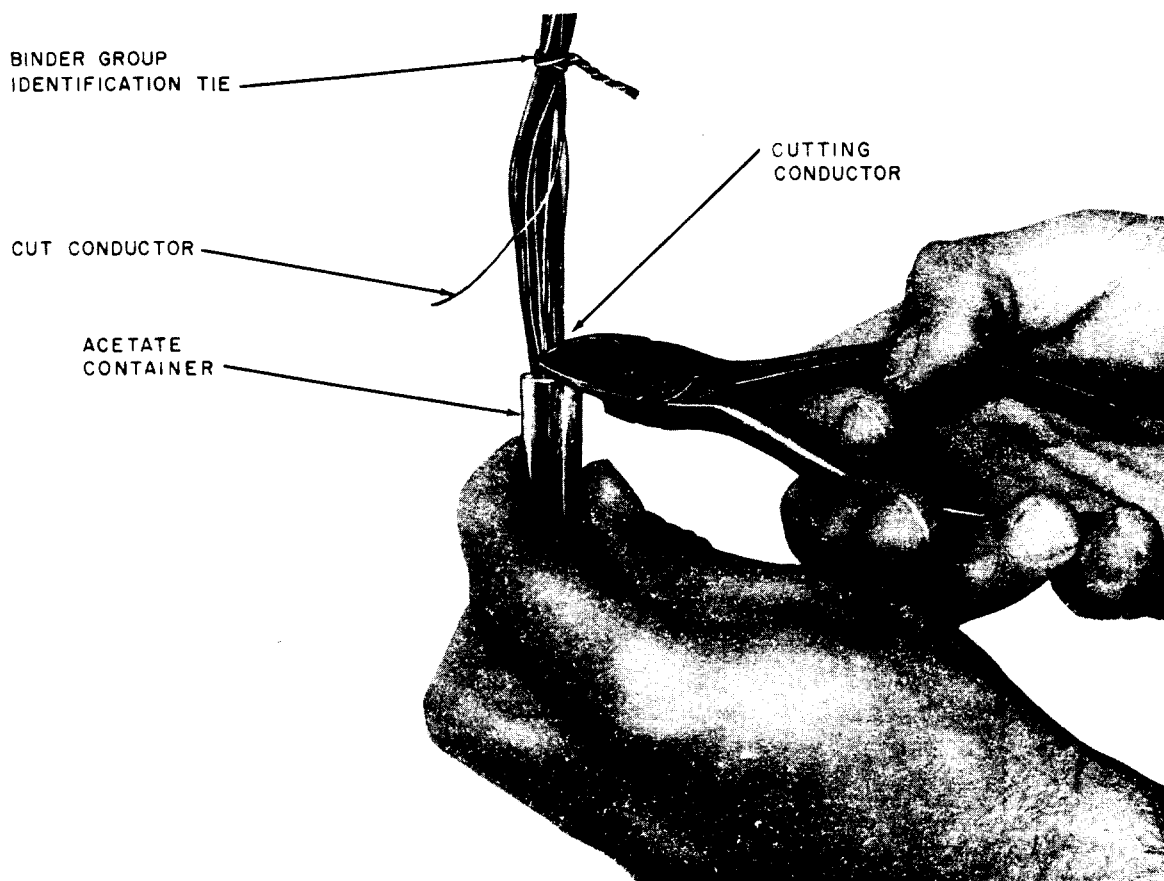
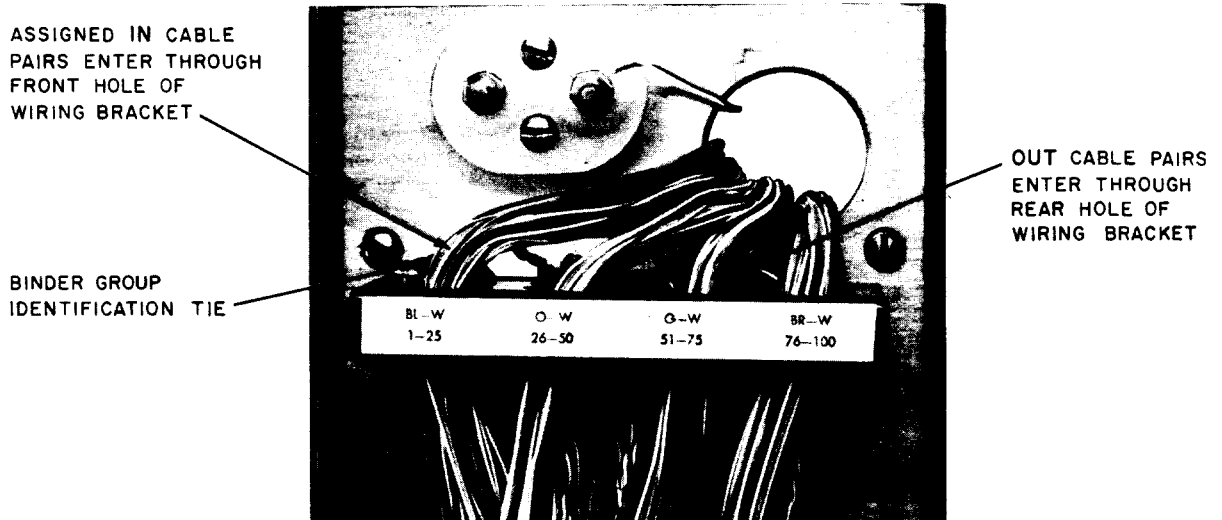


Fig. 8—Cutting Assigned Pair from Capped Binder Group

**5.04** Pull the assigned *IN* pair from the binder group and place in the *front* wiring bracket hole (Fig. 9) corresponding to the assigned *OUT* cable pair to which it is to be connected. **Do not remove the *OUT* cable pair from the rear hole of the wiring bracket.**

**5.05** Remove the *OUT* cable pair from the single wire tie.



**Fig. 9—Assigned *IN* Cable Pair Routed Through Front Holes of Wiring Bracket**

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**5.06** Cut the assigned *IN* pair to the same length as the assigned *OUT* pair and connect with a B Wire Connector as shown in Fig. 10. If for any reason the *IN* pair is shorter than the *OUT* pair, piece out the *IN* pair (Part 6). Do not cut the *OUT* pair. Use only a B Connector Presser or Pneumatic Presser for crimping the B Wire Connectors.

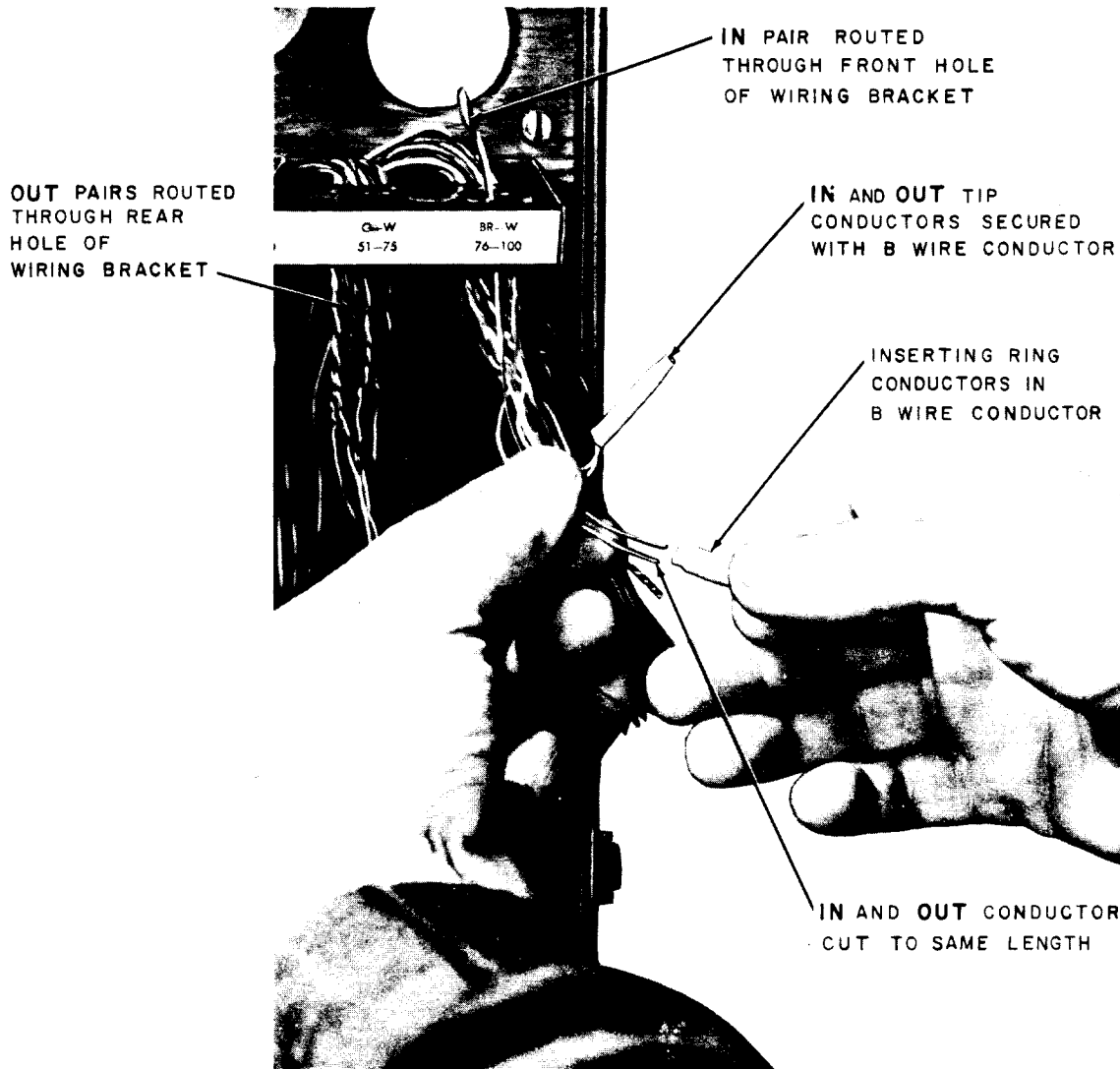
**5.07** Tighten the single wire tie on the remaining unconnected pairs of the *OUT* binder groups.

**5.08** Secure the capped spare binder groups to the bottom of the closure by tightening the B Cable Tie.

**LOOP-THROUGH LOCATIONS AND STRAND-MOUNTED CLOSURES**

**5.09** Select the *IN* cable pair from the preferred count and cut the pair at the butt of the cable *away* from the central office side of the closure.

**5.10** Repeat 5.04 and 5.06 for placing and connecting the assigned *IN* cable pair.



**Fig. 10—Connecting *IN* and *OUT* Cable Pair**

6. PIECING-OUT

OUT CABLE PAIR

6.01 If for any reason the OUT cable pair is too short to reach an assigned wiring bracket

hole, piece-out the conductor as follows (Fig. 11). Use wire having the same colored insulation and gauge as the cable pair.

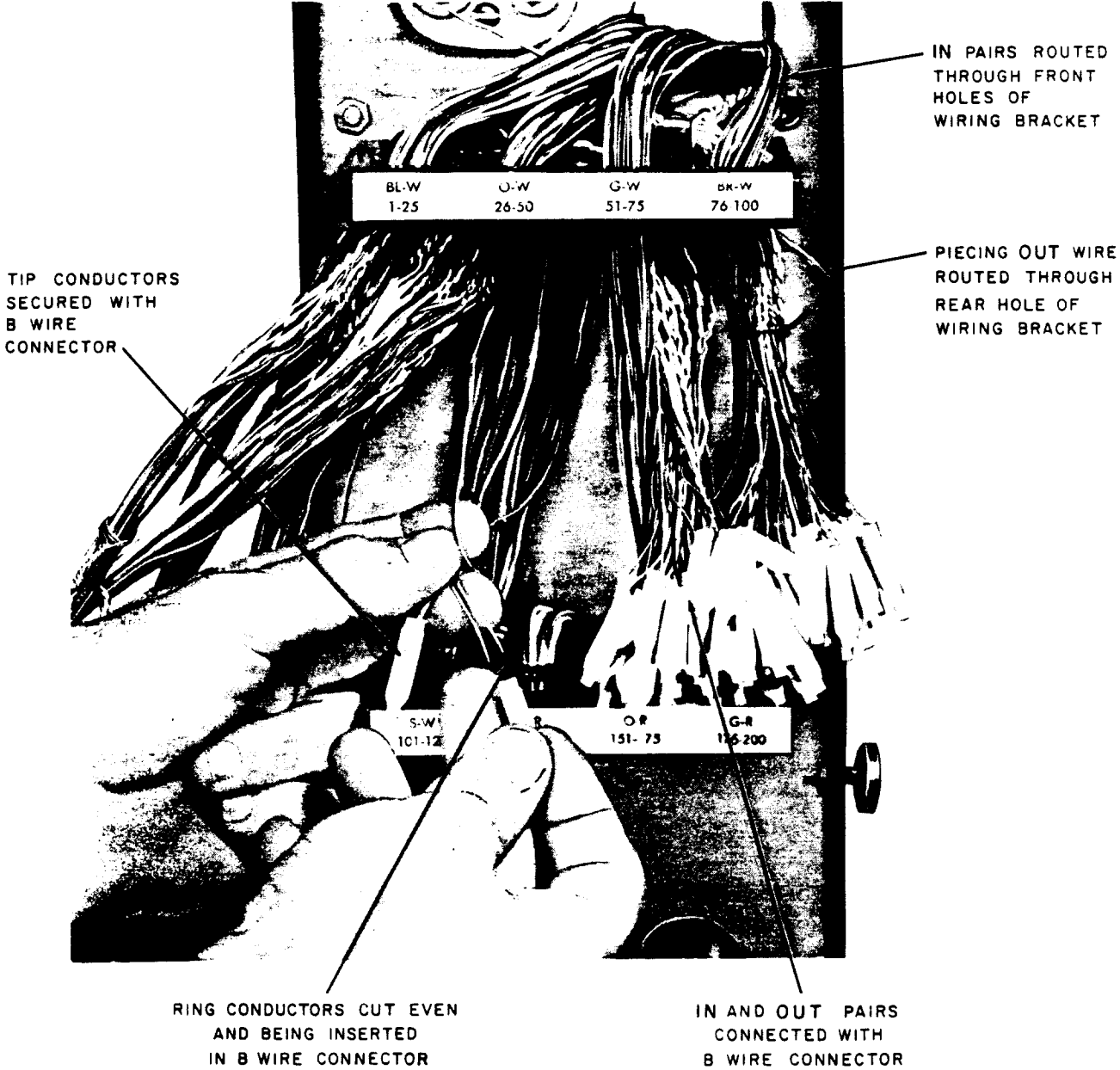


Fig. 11—Piecing-Out OUT Cable Pair

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- (a) Cut the **OUT** cable pairs even.
- (b) Insert the tip conductor and the like-colored piecing-out wire in a B Wire Connector and press.
- (c) Insert the ring conductor and the like-colored piecing-out wire in a B Wire Connector and press.
- (d) Route the **OUT** cable pair through the assigned rear hole of the wiring bracket and apply from 4 to 6 tight twists as close to the bottom of the wiring bracket as possible. This prevents pair splitting.
- (e) Cut the piecing-out wire to the same length as the other unconnected pairs of the binder group.

### **IN CABLE PAIR**

- 6.02** The procedures for piecing-out the **IN** cable pair (Fig. 12) are identical to the procedures outlined in 6.01, except cross-connecting wire may be used as the piecing-out wire if no wire having the same-colored insulation or gauge as the **IN** cable pair is available. **Never use an odd-colored wire.**
- 6.03** Route the pieced-out wire through the distributing rings, binder group identification tie, and the front hole of the wiring bracket corresponding to the assigned **OUT** cable pair.
- 6.04** Connect the assigned **IN** cable pair and the **OUT** cable pair using B Wire Connectors.
- 7. PIECING-OUT AND RESTORING PREVIOUSLY USED IN CABLE PAIR WITHIN BINDER GROUP FOR FUTURE USE**
- 7.01** Remove the disconnected **IN** cable pair from the **front** hole of the wiring bracket.
- 7.02** Obtain a length of piecing-cut wire having the same colored insulation and gauge as the disconnected **IN** cable pair. **If no wire with the same colored insulation or gauge as the IN cable pair is available, use G Cross-Connecting Wire for piecing out. Do not substitute an odd-colored wire.**
- 7.03** Splice the piecing-cut wires to the disconnected **IN** cable pair using B Wire Connectors.
- 7.04** Clear ends of pieced out pair using B Wire Connectors, then restore the pieced out pair within its original binder group and secure within the unassigned **IN** cable pairs with a B Cable Tie.
- 8. TALKING CIRCUIT**
- 8.01** The terminal block, installed at the time of construction, provides the workman with a talking circuit for calling the test desk, etc.
- 8.02** Detailed instructions covering the use of specific types of handsets are covered in other sections.

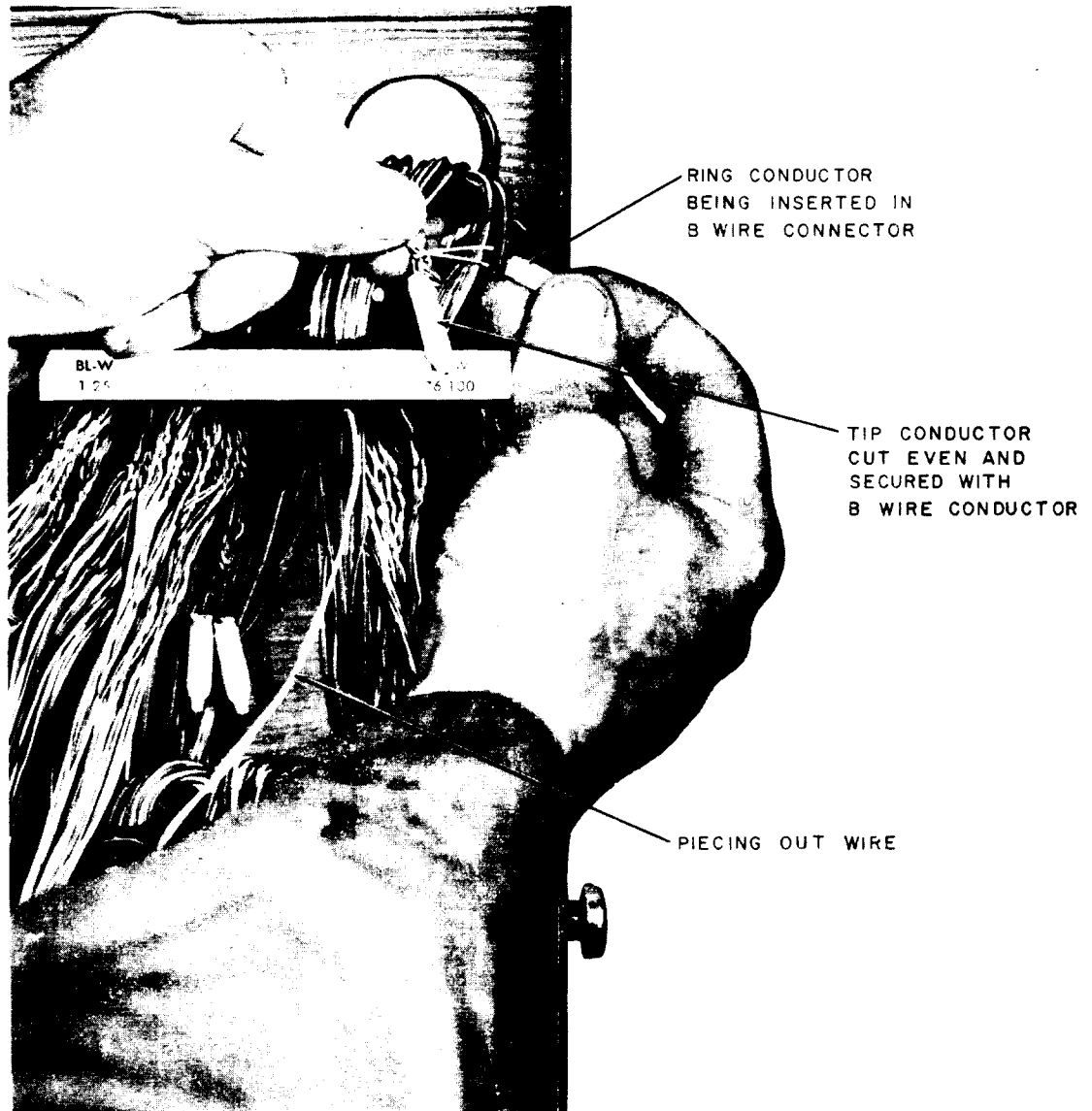


Fig. 12—Piecing-Out *IN* Cable Pair