

# WIRING 108-TYPE CONNECTORS AND 76-TYPE BINDING POSTS CROSS-CONNECT METHODS 80-TYPE CABINETS

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**1. GENERAL**

1.01 This practice covers the method for running cross-connecting wire between the feeder and distribution cable terminations in 80-type cabinets equipped with 108-type connectors and 76-type binding posts.

1.02 This practice is reissued to update text and illustrations. Since this is a general revision, change arrows are omitted.

## 2. PRECAUTIONS

2.01 To avoid excessive buildup of wire inside the cabinet, remove any cross-connecting wire that is not to be reterminated.

2.02 To avoid a tracing problem, leave a sufficient amount of slack for movement of the cross-connecting wires.

2.03 To avoid damaging the cross-connecting wires, always use an orange stick or equivalent to dress the wires. Also, use only approved tools for terminating the wires. *Do not use a screwdriver or scissors.*

2.04 To avoid cross-connecting wire breaks, use only G cross-connecting wire with the 76-type binding post.

2.05 To avoid damaging the slotted beams of the 108-type connectors, use only F cross-connecting wire that is the correct diameter for insertion between the slotted beams of the connector.

## 3. METHOD OF PAIR IDENTIFICATION

3.01 Before proceeding, the craft personnel must become familiar with the pair identification method for an 80-type cabinet. The SAI (serving area interface) or FDI (feeder distribution interface) arrangements can be equipped with either 108-type connectors (Fig.1) or 76-type binding posts (Fig. 2).

(a) The binding post count is left to right and top to bottom of each panel.

(b) The feeder cables are terminated in the *green* field, and the distribution cables are terminated in the *blue* field.

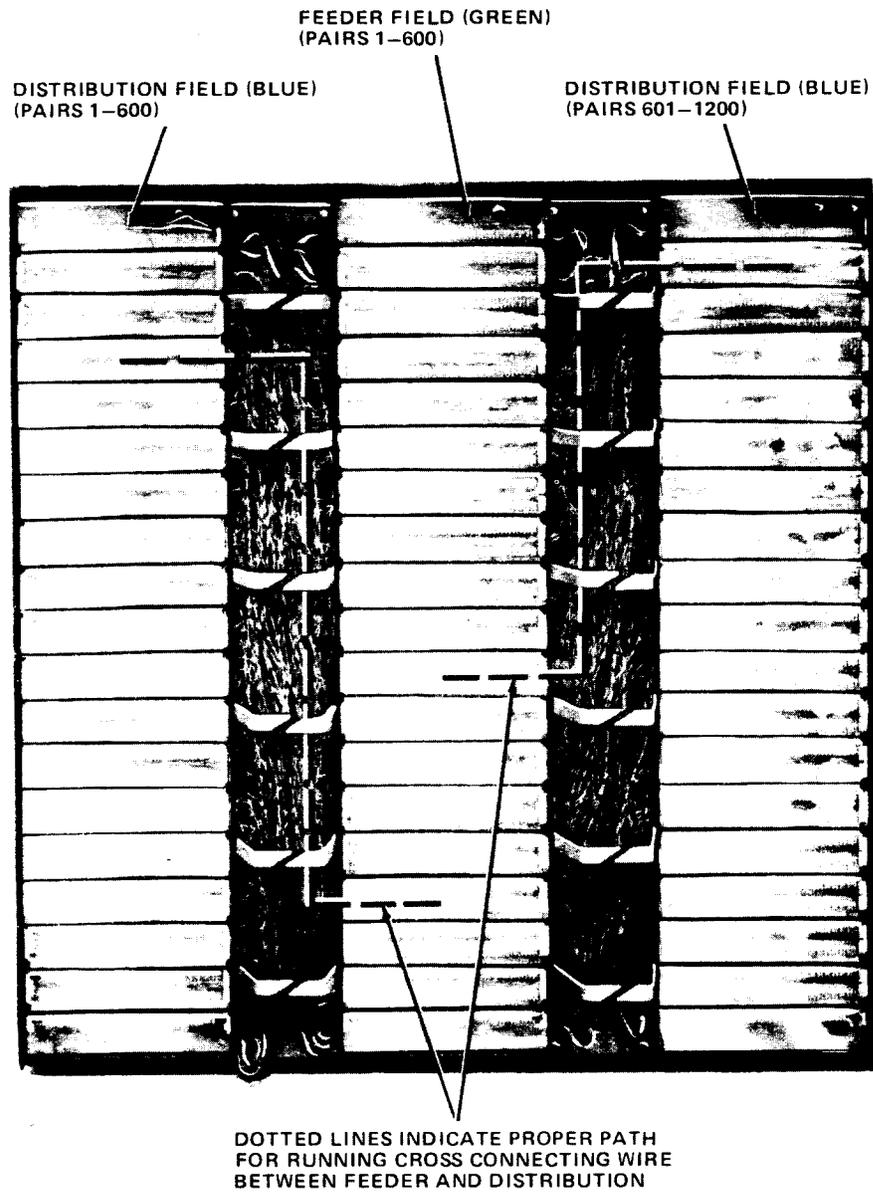
3.02 The 80B cabinet houses FDIs of 1800 pairs using 76-type binding posts or 2700 pairs using 108-type connectors.

3.03 The 80C and 80D cabinets have three standard SAI or FDI arrangements.

- A small two panel FDI arrangement (1000 pairs, 76-type binding posts or 1200 pairs, 108-type connectors).

- A three panel SAI arrangement [1800 pairs, 76-type binding posts (Fig. 2) or 2700 pairs, 108-type connectors (Fig. 1).]

- A four panel FDI arrangement (2400 pairs, 76-type binding posts or 3600 pairs, 108-type connectors).



**Fig. 1—Method of Pair Identification—80-Type Cabinets Equipped With Three Panels of 108-Type Connectors**

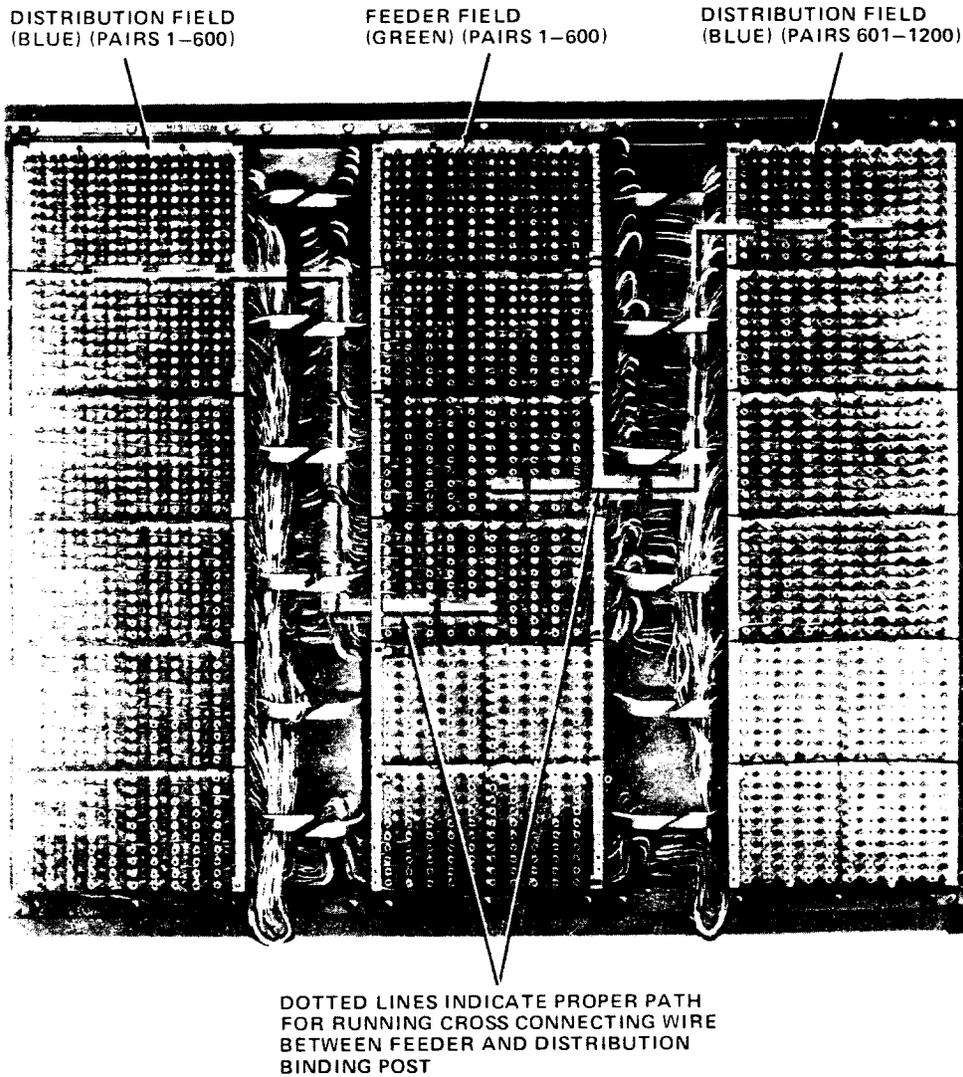


Fig. 2—Method of Pair Identification—80-Type Cabinets Equipped With Three Panels of 76-Type Binding Posts

4. TERMINATING CROSS-CONNECTING WIRE IN 80-TYPE CABINETS EQUIPPED WITH 108-TYPE CONNECTORS

A. Terminating the 24-Gauge F Cross-Connecting Wire

4.01 Locate the feeder-in pair specified on the service order. Remove the test cord from the door, raise

the environmental shield, and place the spring clips of the test cord on the specified feeder-in pair. Attach the clips from the handset cord to the binding posts on the door and verify the feeder-in pair (Fig. 3).

**Note:** It is recommended that the distribution pair be terminated first. Leave the test cord on the feeder pair to provide easier feeder-pair identification.



**Fig. 3—Verifying Feeder-In Pair—108-Type Connectors**

4.02 Locate the assigned distribution pair. Pull enough cross-connecting wire from the spool to reach the assigned distribution pair. Then, raise the environmental shield and insert the F cross-connect wire into the block, splitting the tip and ring conductors over the black high tooth (Fig. 4). The tip conductor is on the left, and the ring conductor is on the right.

**Caution:** Use only F cross-connecting wire when placing cross connections on 108-type connectors. G cross-connecting wire may damage slotted beams due to its larger diameter.

4.03 Using the insertion cutoff tool, seat and cut the cross-connecting wire (Fig. 5).

**Caution:** Use only approved tools for terminating cross-connecting wire. Do not use a screwdriver.

**Note:** To cut the cross-connecting wire, always place the cutting blades of the 788N1 insertion cutoff tool (supplied with the cabinet) on the same side as the designation strip.

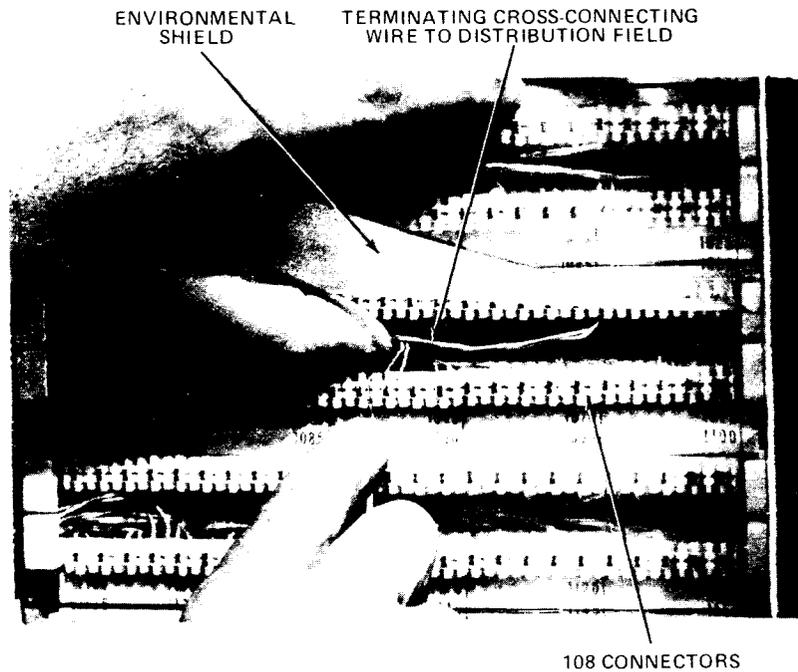


Fig. 4—Terminating Cross-Connecting Wire on Distribution Field—108-Type Connectors

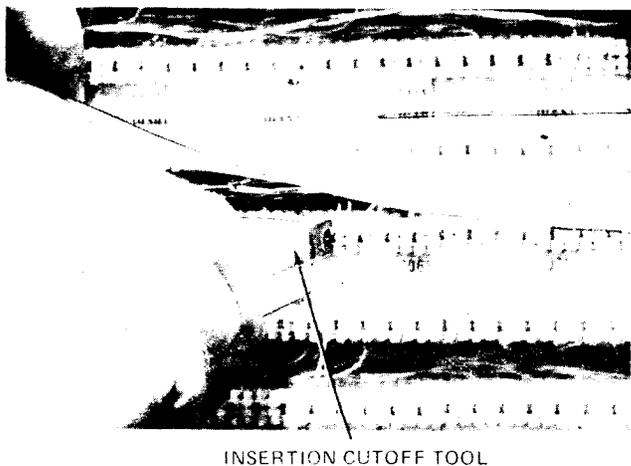


Fig. 5—Seating and Cutting Cross-Connecting Wire

4.04 Push the terminated wires to the rear of the wiring channel between the connecting blocks. Position the wires along the channel, through the wiring slots, and into the wiring trough. Form a finger loop to provide 2 inches of slack (Fig. 6). *These finger loops allow a sufficient amount of slack for movement of the cross-connecting wire for tracing.*



Fig. 6—Forming Finger Loop

4.05 Route the cross-connecting wire within the wiring trough to the feeder field; form a finger loop of slack and place wire in the fanning strip. Raise the environmental shield and push the

cross-connecting wire to the rear of channel (Fig. 7). Remove the test cord from the previously tested feeder pair and terminate the cross-connecting wire as outlined in paragraphs 4.02 and 4.03.

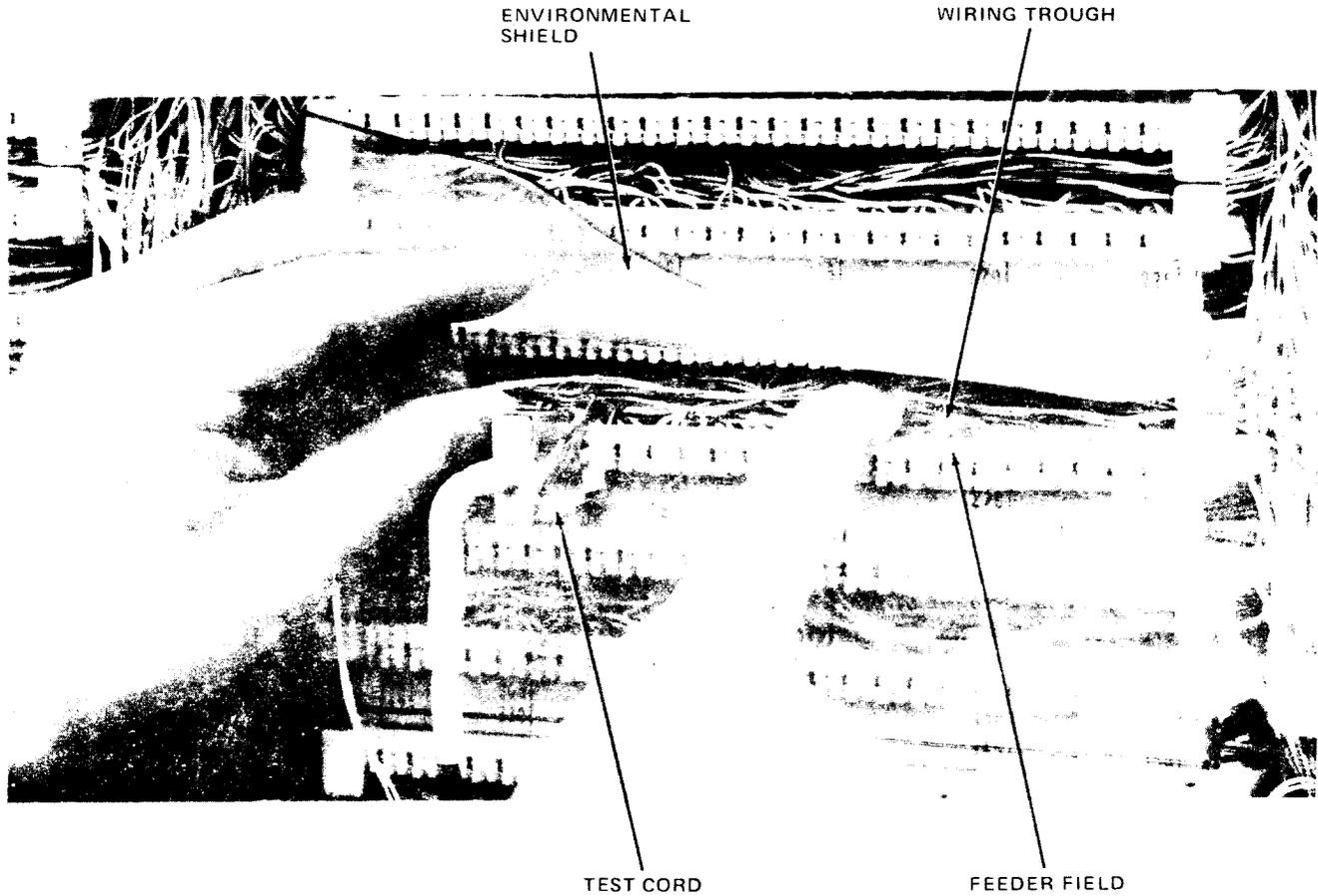


Fig. 7—Routing Cross-Connecting Wire to Assigned Feeder Pair

5. **TERMINATING CROSS-CONNECTING WIRE IN 80-TYPE CABINETS EQUIPPED WITH 76-TYPE BINDING POSTS**

A. **Terminating the 22-Gauge G Cross-Connecting Wire**

**Caution:** Use only G cross-connecting wire with the 76-type binding post. The smaller diameter F cross-connecting wire breaks when the binding post screw is tightened.

5.01 Locate the feeder-in pair specified on the service order. Remove the test cord from the door. Squeeze the spring clip on the test cord, and place the clip on the specified feeder-in pair. Attach the clips from the handset to the binding posts on the door, and verify the feeder-in pair (Fig. 8).

**Note:** It is recommended that the distribution pair be terminated first. Leave the test cord on the feeder pair to provide easier feeder-pair identification.

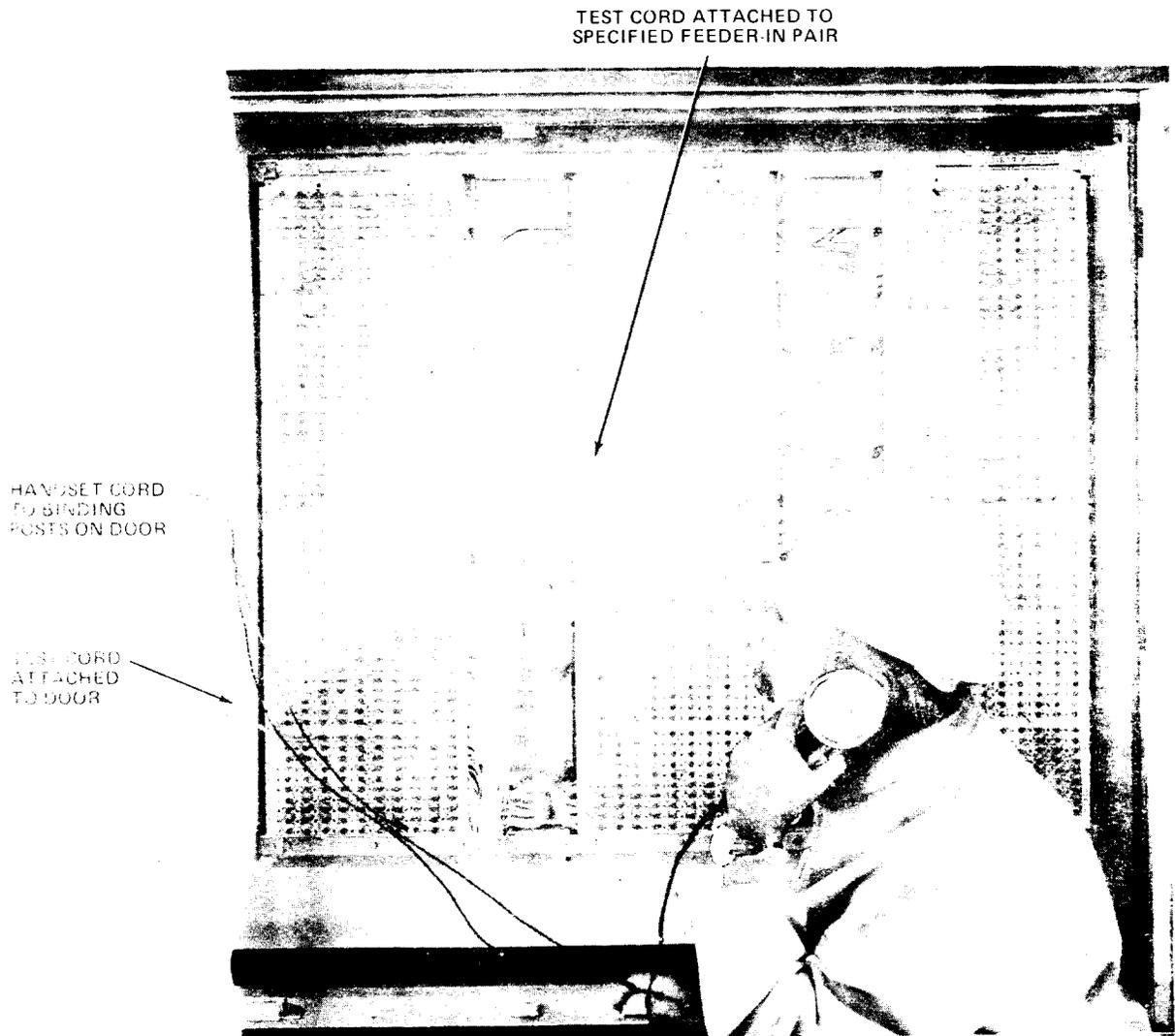


Fig. 8—Verifying Feeder-In Pair—76-Type Binding Post

5.02 Locate the assigned distribution pair. Pull enough cross-connecting wire from the spool to reach the assigned distribution pair binding post. Strip about 1 inch of insulation from the ends of the cross-connecting wire. *Do not nick the conductors.* Using a screwdriver, loosen the screw on the binding post.

5.03 Place wires *between* washers on the binding post. Do not cross-over the wires. Tighten the screw finger tight plus 1/4 turn with the screwdriver. *Do not overtighten.* Cut the excess length of wire at the binding post and *remove the wire clippings* (Fig. 9).

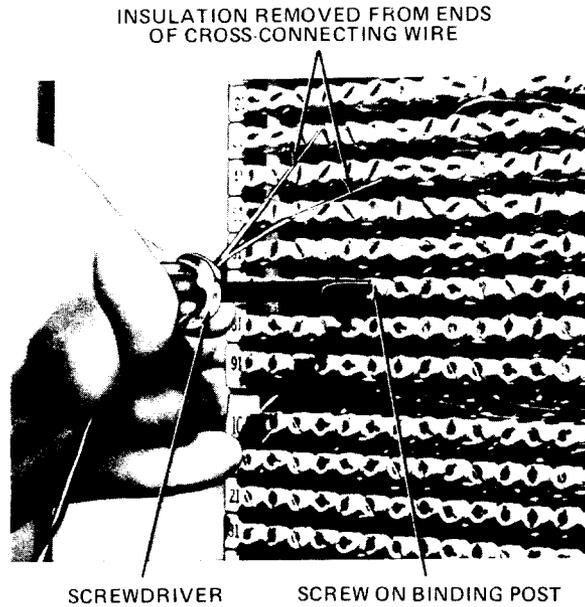
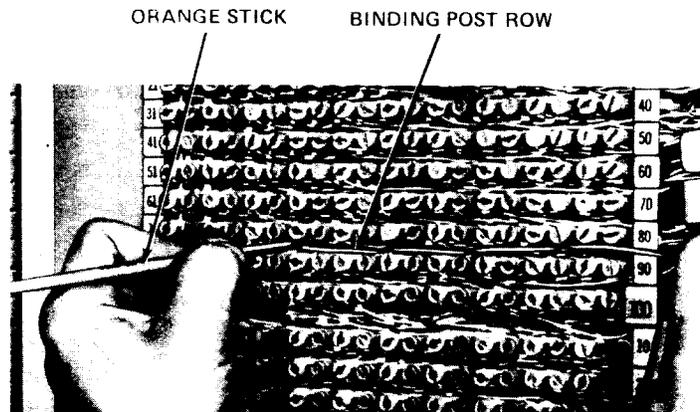


Fig. 9—Terminating Cross-Connecting Wire on Distribution Field—76-Type Binding Post

**5.04** Using an orange stick, dress the cross-connecting wire horizontally along the binding post row (Fig. 10).

**Caution:** *Do not use a screwdriver or scissors to dress the wires.*

**5.05** Place the wire through the wiring trough slot, form a finger loop, and dress wires to the rear of the trough (Fig. 11). *These finger loops allow a sufficient amount of slack for movement of the cross-connecting wire for tracing.*



**Fig. 10—Routing Cross-Connecting Wire**



Fig. 11—Forming Finger Loop and Placing Wire in Wiring Trough

5.06 Route the cross-connecting wire to the assigned feeder binding post, and cut to the required length (Fig. 12). Remove the test cord from the previ-

ously tested feeder pair, and terminate the cross-connecting wire as outlined in paragraphs 5.02 and 5.03.

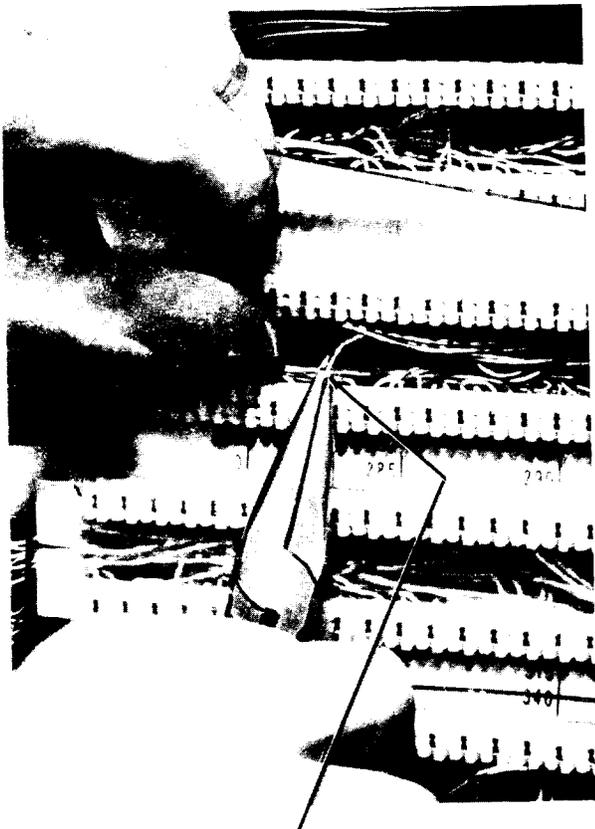


Fig. 12—Cutting Cross-Connecting Wire

## 6. REMOVING AND RETERMINATING CROSS-CONNECTING WIRES

### A. 108-Type Connecting Blocks

**6.01** Using long-nose pliers, remove the cross-connecting wire by pulling it forward in a direction perpendicular to the face of the wiring block (Fig. 13). *If the cross-connecting wire is not to be reterminated, remove it from the cabinet. This prevents excessive buildup of cross-connecting wire and helps maintain good housekeeping.*



REMOVING CROSS-CONNECTING WIRES  
USING LONG-NOSE PLIERS

Fig. 13—Removing Cross-Connecting Wire

**6.02** After removing the cross-connecting wire, make sure there is no insulation left in the block. In the event that there is insulation left in the block, remove the insulation using an orange stick or other insulated tool.

**6.03** To reterminate the cross-connecting wire, cut off the old contact part of the wire and reterminate as outlined in paragraphs 4.02 and 4.03. If the wire is not long enough to leave the proper amount of slack, replace the wire. *Do not piece out.*

### B. 76-Type Binding Posts

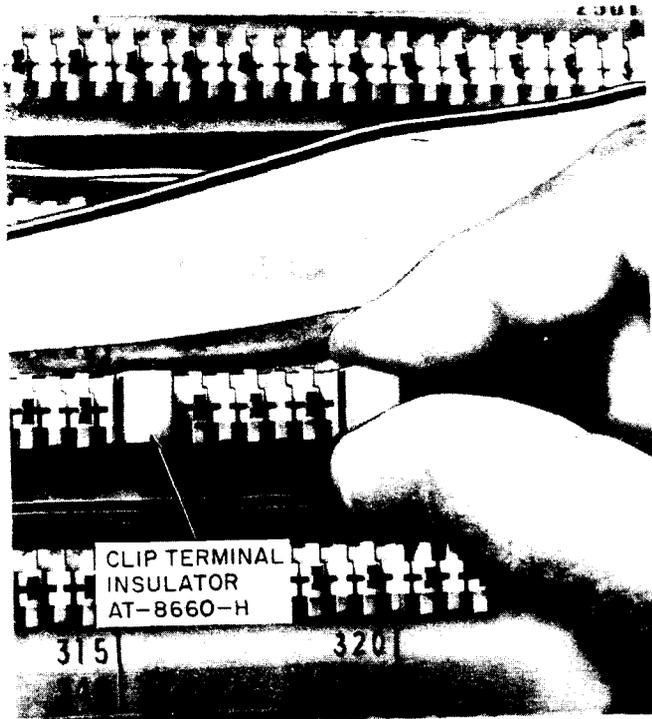
**6.04** Loosen the binding post screws, and remove the cross-connecting wire from the feeder side first. *If the cross-connecting wire is not to be reterminated, remove the wire from the cabinet.* This prevents excessive buildup of wire and helps maintain good housekeeping.

**6.05** To reterminate the cross-connecting wire, cut off the contact portion of the wire and reterminate as outlined in paragraphs 5.02 and 5.03. If the wire is not long enough to leave the proper amount of slack, replace the wire. *Do not piece out.*

**7. IDENTIFYING SPECIAL CIRCUITS**

**A. 108-Type Connecting Blocks**

7.01 When cable pairs are used for special service, it will be necessary to identify the circuits by placing an H clip terminal insulator (AT-8660-H) over the pair at the feeder and distribution terminal as shown in Fig. 14.



**Fig. 14—Placing Clip Terminal Insulator for Special Circuit Identification —108-Type Connectors**

**B. 76-Type Binding Posts**

7.02 When cable pairs are used for special services, it will be necessary to identify the circuits by placing a binding post insulator (AT-6798) over the pair at the feeder and distribution termination as shown in Fig. 15.



**Fig. 15—Placing Clip Terminal Insulator for Special Circuit Identification —76-Type Binding Posts**

**8. ISSUING ORGANIZATION**

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