SECTION 631-620-912CA
Issue A, July, 1972
Bell Canada
Standard

4086B JWI CABINET

PLACING AND REMOVING JUMPER WIRES

CONTENTS PAGE

1. GENERAL

1.01 This section describes the placing and removing of jumper wires, and associated information, required for interconnecting IN and OUT pairs in the 4086B JWI.

1.02 The cabinet description, installation, and cable placing instructions are described in section 631-620-910.

Use only "Z" cross-connecting wire (24 GA.) for connecting "IN" and "OUT" pairs in the JWI. The use of jumper wire other than 24 gauge will permanently damage the connecting pins on the connector module. The wire is normally located on a storage spool in the top right hand corner of the cabinet.

2. OPENING CABINET

2.01 Two types of cabinet locking arrangements are used in connection with the JWI Cabinet. To open the older type JWI Cabinet (Fig. 1) an NSQ2000L1 or other suitable tool must be used to loosen the locking bolt used to secure the locking latch. More recent models have the locking bolt located on the face of locking latch. This bolt requires only ¼ turn to the left (counter-clockwise) using the same tool as indicated above. Caution must be used on this type of locking arrangement, since, excessive pressure applied on the locking bolt could damage the locking arrangement.

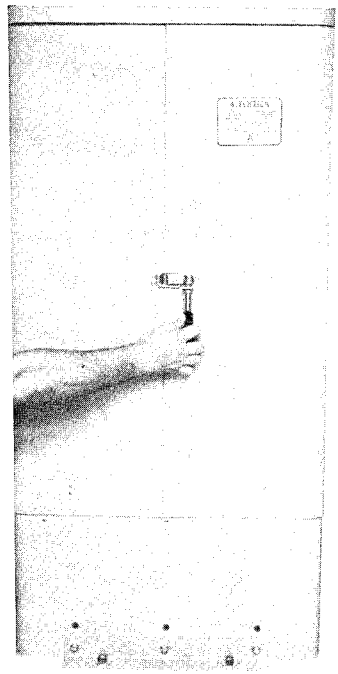

Fig. 1 — Opening Cabinet

3. CONNECTOR MODULES AND BINDING POST COUNT

3.01 To simplify assigning, and to assist in making connections, the ***CONNECTING PINS*** on the connector modules are referred to as BINDING POSTS.

3.02 The connector modules, for both the "IN" cables and "OUT" cables are stamped with the first and last binding post number of the twenty-five pair connector module (Fig. 2).

3.03 Connector modules that are equipped with "blue" covers represent the "OUT" or distribution cables and the "Green" covers represent the "IN" or feeder cables. The count of the binding posts is shown in Fig. 3.

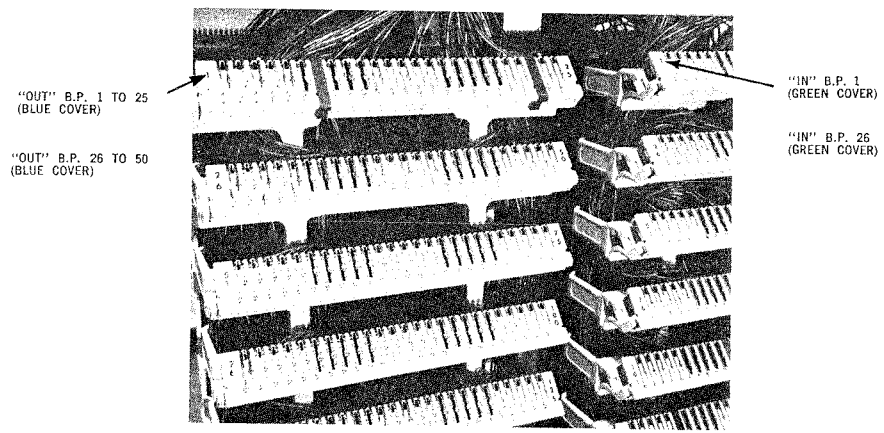

Fig. 2

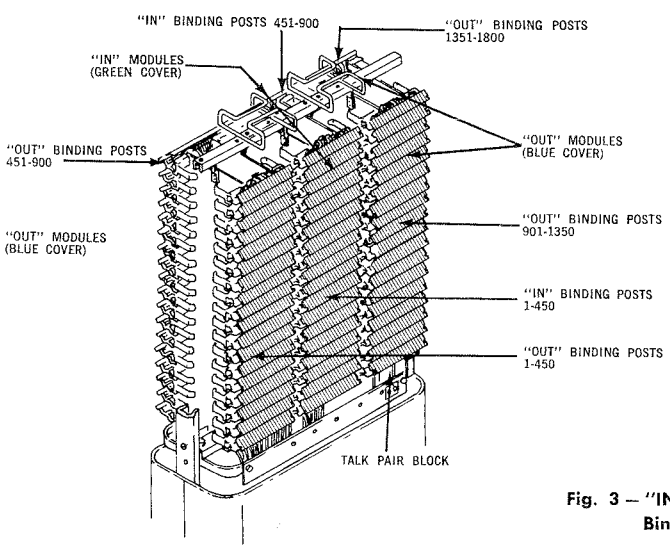

Fig. 3 — "IN" and "OUT" Module Locations and Binding Post Counts

3.04 To avoid the cross-over of jumper wires on the connector module, jumpers for the first thirteen binding posts on a module shall enter from the left side and the remaining twelve from the right. (See Fig. 4.)

4. PLACING AND TERMINATING JUMPER WIRES

4.01 To place a jumper wire, start by locating the required "OUT" binding post in the "blue" field. To assist in locating the binding post in any given twenty-five pair connector module, the binding posts are grouped in units of five, designated by short and long marks on the module cover as shown in Fig. 5.

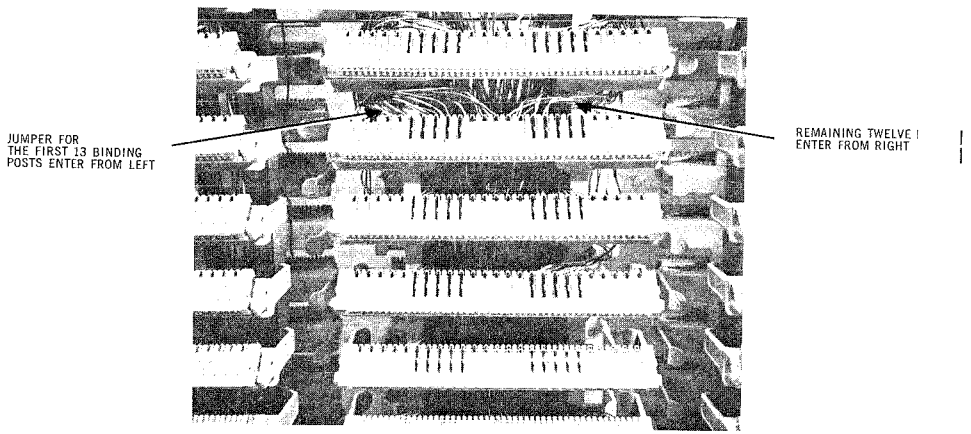

Fig. 4

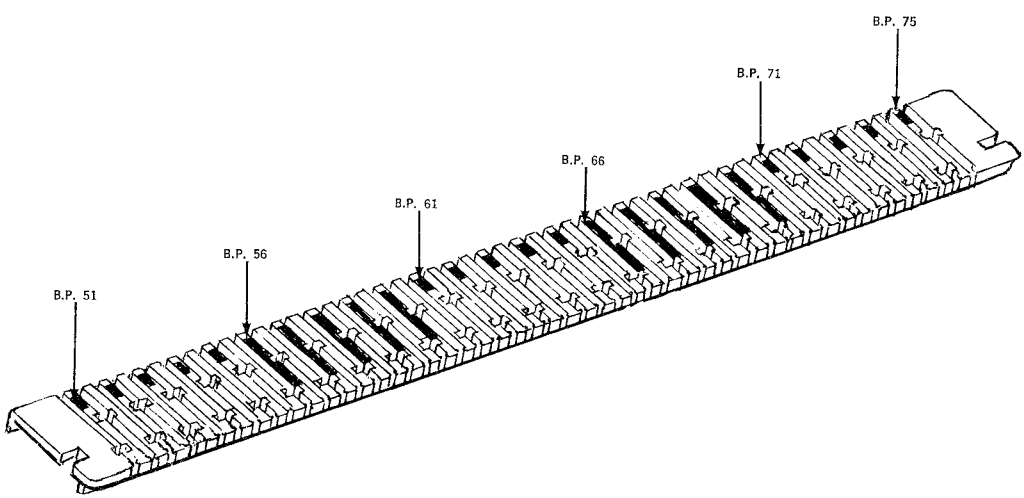

Fig. 5 — Connector Module Cover

Correction Nov. 72

4.02 Route one end of the jumper wire ("Z" Cross-Connecting Wire) down and behind the wiring channels in the "OUT" cable field. (See Fig. 6.)

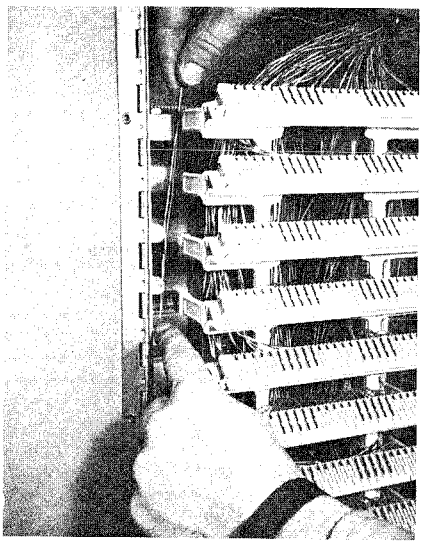

Fig. 6 — Routing Jumper Wire

4.03 Bring the wire out and over the connector module cover on which the wire is to be terminated. Split the pair over the black mark on the module cover, placing the tip wire (yellow with blue trace) of the jumper to the left and the ring wire (blue with yellow trace) to the right. (See Fig. 7.)

Hold the wire in place with the fore-finger and push the jumper down until it definitely snaps into both the rear and forward catch areas of the cover. (See Fig. 8.)

4.04 To terminate the jumper wire on the binding post, insert the impact tool in the channel slot, perpendicular to the surface of the module with the flag portion of the head of the tool facing the rear of the module Fig. 9.

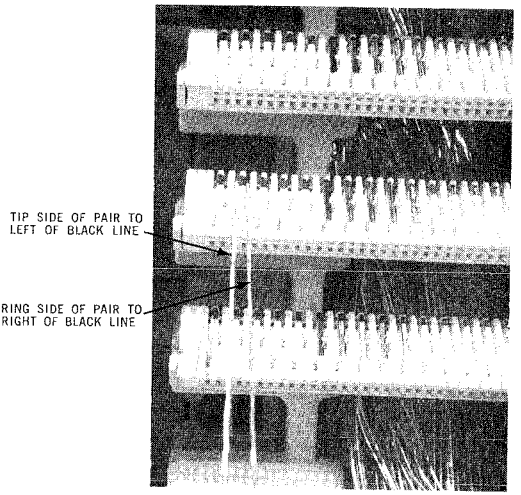

Fig. 7

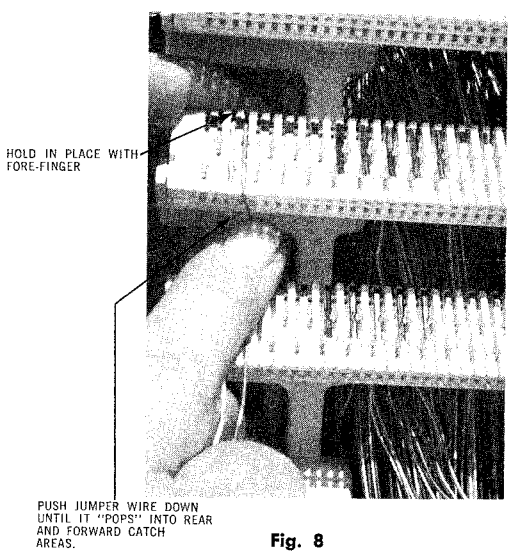

Fig. 8

4.05 Compress the impact tool completely, until the impact is heard in the tool. This will seat and terminate the jumper wire, as well as cut the excess length of jumper wire.

4.06 Route the jumper wire from the "OUT" binding posts (blue covers) up the wiring channel. ***LAY THE WIRE INTO, AND COMPLETELY THROUGH, ONLY ONE SET OF JUMPER WIRE CHANNELING RINGS*** on top of the terminating frame, as shown in Fig. 10. Continue the jumper wire down the wiring channel of the "IN" binding posts (green covers) to the desired location and terminate as outlined in Para. 4.01 to 4.06.

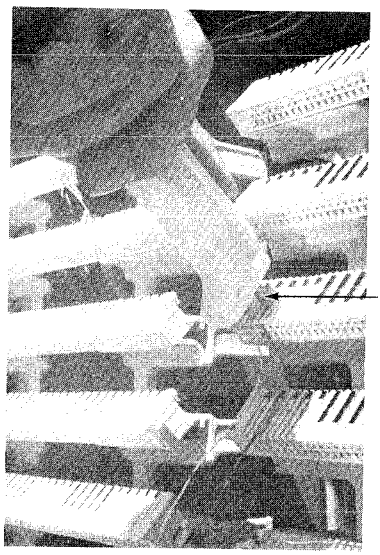

Fig. 9

Note: Allow 1-½" to 2-½" of slack in jumper wire prior to terminating.

4.07 The talk pair block is to be connected to a terminated cable pair by running a jumper wire from the block to the desired binding post location. The direct connection of a cable pair to the talk pair block is not allowed.

Care should be taken when placing jumper wires in the JWI. Improper or poorly run jumper wires contribute to service interruptions, jumper wire build up, difficulty in pair tracing, and a general overall poor housekeeping condition.

5. REMOVING JUMPER WIRES

5.01 A disconnected jumper wire must be removed in its entirety.

5.02 Before removing any jumper wires, locate and verify the binding posts to which it is connected.

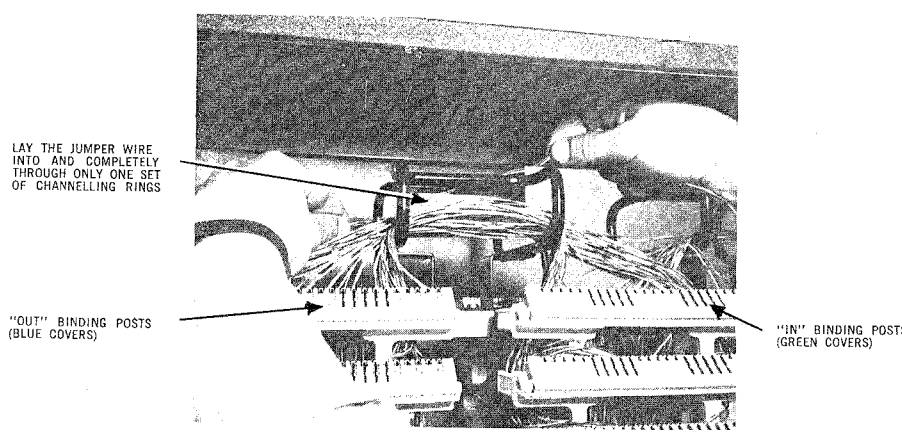

Fig. 10

5.03 Grip the jumper wire, using long nose pliers, approximately ¼" in rear of module. (See Fig. 11.)

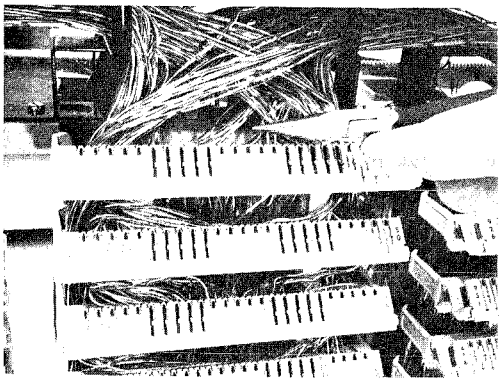

Fig. 11 — Removing Jumper Wire

5.04 Carefully pull on the jumper in an upward direction till it is released from the module.

5.05 Repeat the above for the remaining connection on the "IN" or "OUT" binding post.

6. USE OF TEST PROBE

6.01 The method of placing the test probe is shown in Fig. 12.

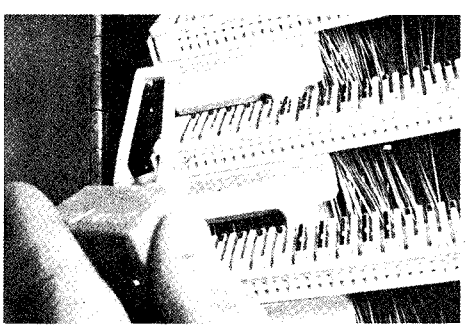

Fig. 12 — Installing Test Probe

6.02 The test probe, shown installed in Fig. 13, provides a means of connecting to a cable pair for proving circuits, testing, etc.

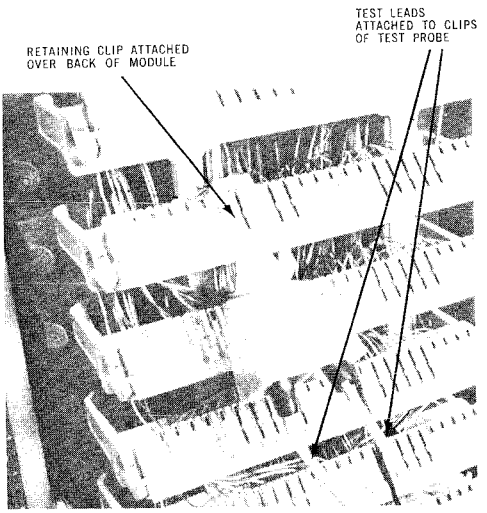

Fig. 13 — Test Probe Installed

7. IDENTIFYING SPECIAL CIRCUITS

7.01 When cable pairs are used for special services, it will be necessary to identify and protect the circuit by placing binding post caps over the binding posts at both appearances in the JWI. (Fig. 14.)

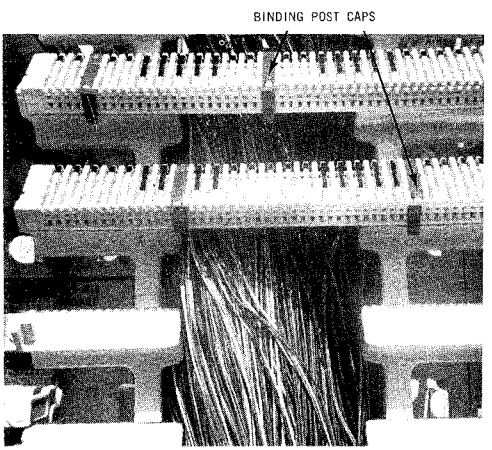

Fig. 14

7.02 Place the cap over the pair to be protected, ensuring that the guides on the sides of the cap are locked in their proper location of the module cover.

7.03 Once the cap is placed over the pair to be protected, insert the two plastic tips located on the bottom area of the cap into the mid-level test ports of the module.

8. CLOSING CABINET

8.01 Visually inspect the interior of the cabinet for good housekeeping and a neat orderly appearance.

8.02 In closing the cabinet doors, models with the locking bolt located on the face of the latch will lock automatically when the door is closed. Other models should have the latch secured by tightening the Locking Bolt using a NSQ2000L1 or other similar tool. DO NOT OVERTIGHTEN.

Before leaving the cabinet location, remove all scraps of material and other debris which may have accumulated around the JWI during the working operations.