

**BELL SYSTEM PRACTICES**  
**Outside Plant Construction**  
**and Maintenance**

**SECTION G31.135.2**  
**Issue 2, August, 1955**  
**AT&T Co Standard**

**OPEN WIRE**  
**BRIDLING TO LINE WIRE**

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**1. GENERAL**

1.01 This section replaces Issue 1 and changes the method of bridging between wires using the B Dead-End Sleeve and the B Bridging Sleeve.

1.02 The types of connections to line wires depend upon the types of circuits and are as follows:

- (a) For toll circuits—Bridging Sleeve or DB Sleeve.
- (b) For exchange circuits—Bridging Sleeve or Bridging Connector.

1.03 The types and uses of the various connections are as follows:

- (a) **2B Bridging Connector:** For bridging AL, HD, or Block Wire to 080 Copper or Copper-Steel Line Wire.
- (b) **3B Bridging Connector:** For bridging AL, HD, or Block Wire to 104 and 128 Copper or Copper-Steel Line Wire.
- (c) **5006 Fargo Unit Connector:** For bridging AL or HD Wire to 165 Copper Line Wire.
- (d) **6C Bridging Connector:** For bridging AL, HD, or Block Wire to all sizes of steel line wire.
- (e) **104 by 064 B Copper Bridging Sleeve:** For bridging AL or HD Wire to 104 Copper or Copper-Steel Line Wire.
- (f) **104 by 104 B Copper Bridging Sleeve:** For bridging 104 Copper or Copper-Steel Line Wire to 104 Copper or Copper-Steel Line Wire. Also for bridging No. 10 AWG

(0.102" diameter) protector lead wires to 104 Copper or Copper-Steel Line Wires.

(g) **109 by 064 B Aluminum Bridging Sleeve:** For bridging AL or HD Wire to 109 Steel, High Strength Steel, and Extra High Strength Steel Line Wire.

(h) **109 by 109 B Aluminum Bridging Sleeve:** For bridging 109 Steel Line Wire to 109 Steel, High Strength Steel, and Extra High Strength Steel Line Wire. Also for bridging No. 10 AWG (0.102" diameter) protector lead wires to 109 Steel, High Strength Steel, and Extra High Strength Steel Line Wires.

(i) **104 DB Copper Sleeve:** For bridging AL or HD Wire to 104 Copper or Copper-Steel Line Wire.

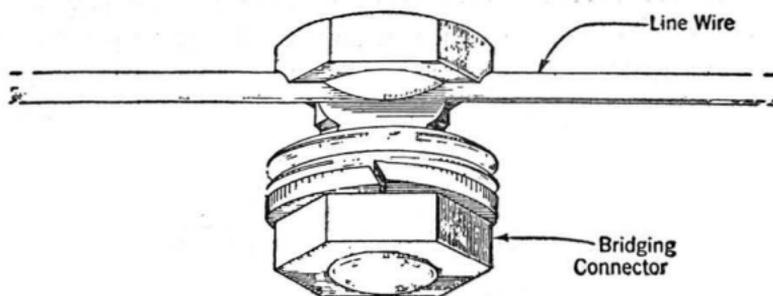
Note: Manufacture of 104 H Dead-End Wire, with which the 104 DB Copper Sleeve is used, has been discontinued. Information on the 104 DB Copper Sleeve is retained to cover use with 104 H Dead-End Wire that may still be in Telephone Company stock.

## 2. INSTALLING BRIDGING CONNECTORS

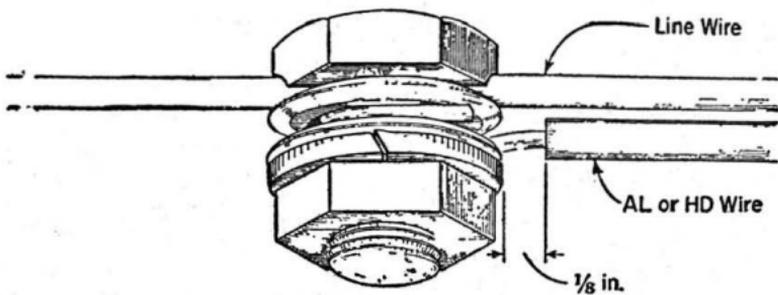
2.01 Install 2B, 3B, and 6C Bridging Connectors as follows:

(a) Clean the line wire at the bridging point with abrasive cloth. Skin and clean the ends of AL, HD, or Block Wire conductors.

(b) Loosen the nut and washers of the bridging connector to uncover the wire slot and place the connector on the line wire as illustrated.



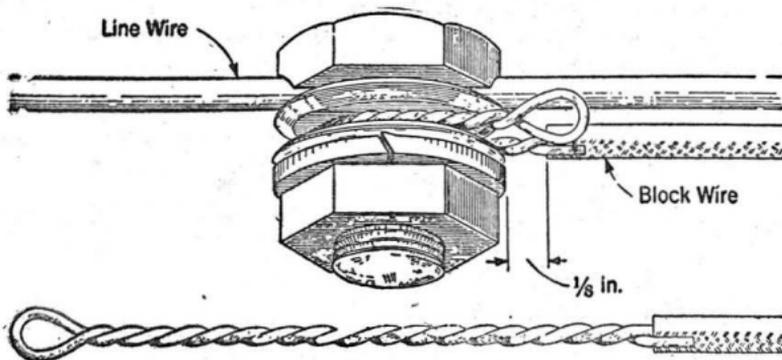
(c) Wrap the AL or HD Wire conductor around the binding post between the washers in the direction that the nut tightens. Using pliers and braid stripper, tighten bridging connector on line wire being careful not to bend the line wire.



(d) Bridge Block Wire on the line wire in a manner similar to the other wires after the Block Wire conductors are prepared for termination as follows:

- (1) Skin and clean conductor ends for a length of 4-1/2 inches.
- (2) Bend conductor back on itself with the wire and lapping over the insulation for 1/8 inch.
- (3) Grip wire insulation and conductor end with pliers and twist conductor loop with fingers until twists are close and there remains a small loop at the end as illustrated.

(e) Using pliers and braid strippers, tighten bridging connector on line wire being careful not to bend the line wire.

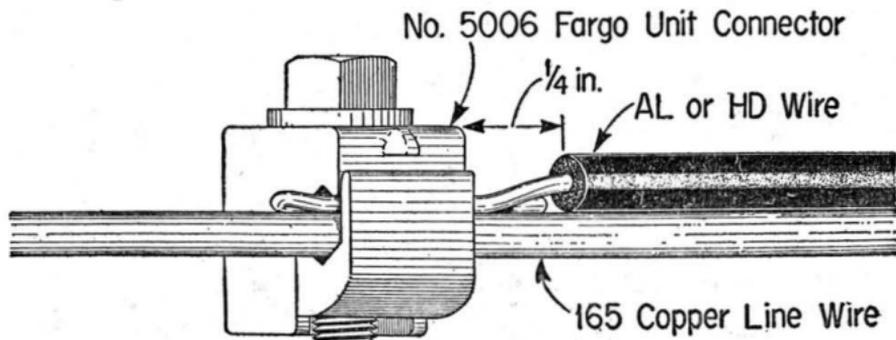


Block Wire prepared for termination

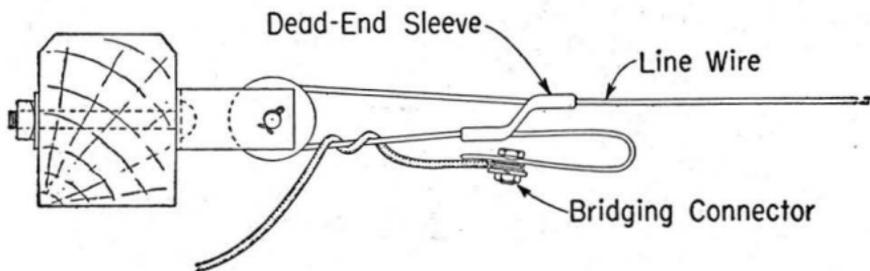
2.02 Install 5006 Fargo Unit Connector as follows:

- (a) Clean the line wire at the bridging point with abrasive cloth. Skin and clean about 2 inches of the AL or HD Wire conductor and bend back so that end of wire is about 1/8 inch from insulation.

- (b) Loosen the nut of the connector and position on line wire.
- (c) Insert AL or HD Wire as illustrated and tighten with pliers.

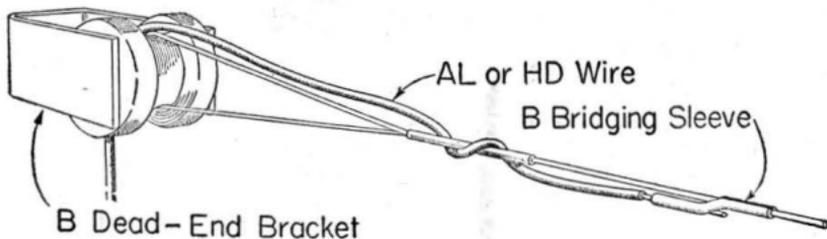


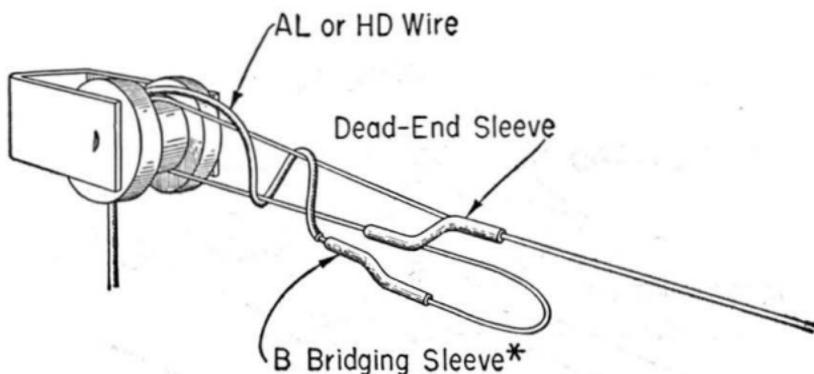
2.03 Where the line wire is dead-ended by the use of dead-end sleeves, and bridging connectors are to be used, they should be placed as shown in the following illustration:



### 3. B BRIDGING SLEEVES

3.01 The B Bridging Sleeve is placed as shown in the following illustrations. See the separate section on B Bridging Sleeves for detailed information on placing B Bridging Sleeve.





\* Use combination S Sleeve on 104 Copper or Copper-Steel Line Wire.

#### 4. INSTALLING DB COPPER SLEEVES

4.01 DB Copper Sleeves at dead-ends shall be installed as follows:

- (a) After forming the dead-end loop as shown in the section on dead-ending and before inserting the ends in the S Sleeve, place a DB Sleeve on the lower side of the dead-end loop.
- (b) The wire for bridling should be placed in the usual manner and with sufficient excess length so that after it is placed in the DB Sleeve it will be loose between the last drive ring and the line wire.
- (c) After measuring the amount of bridling wire required, remove a sufficient length of insulation from the end of the bridling wire so that with the conductor extending through the DB Sleeve a clearance of about 1/4 inch is provided between the insulation and the end of the sleeve. With abrasive cloth, clean the portion of the wire from which the insulation has been removed.
- (d) In order to facilitate rolling the S Sleeve for the connection to the line wire, place the DB Sleeve so that the distance between the end of the DB Sleeve and the dead-end bracket is about one inch.

- (e) Insert the end of the bridling wire into the small hole of the DB Sleeve, entering it at the end away from the dead-end bracket. Make an indentation about 1/4 inch from one end of the sleeve with side cutting pliers to hold the wire in the sleeve and to hold the sleeve in place on the dead-end wire.
- (f) With the dead-end loop removed from the spool roll the DB Sleeve in the proper groove of the sleeve rolling tool. Roll from the end that will be nearer the dead-end bracket.
- (g) Place the loop in position on the dead-end bracket and place two wraps of bridling wire around both sides of the dead-end loop. With the two ends of the dead-end loop even insert them to the constriction in the S Sleeve. Make an indentation about 1/4 inch from the end of the sleeve to hold it in place.
- (h) Pull the line wires to the desired sag and cut it about 1/4 inch short of a point corresponding to the midpoint of the S Sleeve so that the sag will be maintained after the sleeve is rolled.
- (i) Insert the end of the line wire to the constriction of the S Sleeve and make an indentation to hold it in place. Roll the sleeve in the proper groove of the sleeve rolling tool. Slip the two turns of the bridling wire over the S Sleeve.
- (j) The following shows the completed installation.

