

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G50.637.2
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AT&T Co Standard

CABLE SPLICING—GENERAL

JOINING B DISTRIBUTION CABLE

CONDUCTORS

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1. GENERAL

1.01 This section describes the method of making straight or bridge splices in B Distribution Cable pairs and the method of insulating the conductor joints. The method applies to splices between two lengths of B Distribution Cable or within a length where a terminal is being connected, as well as between B Distribution Cable and C Block Wire.

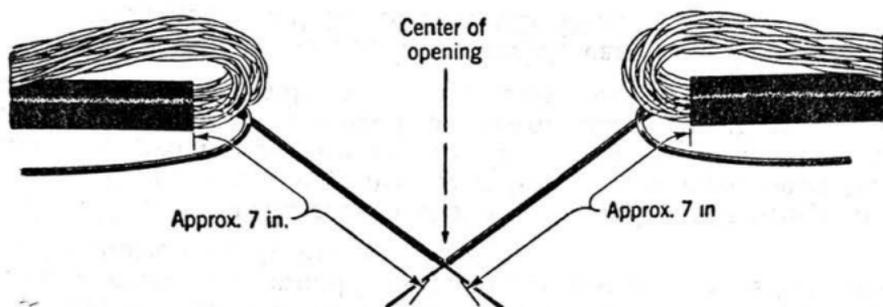
1.02 The neoprene sheath is not completely moisture-proof. Therefore, the joints described herein have been designed to provide moisture-proof insulation of all conductors in the splice. It is essential to follow the instructions carefully; otherwise, insulation trouble may develop at splices.

1.03 **Materials:** The special materials called for in this section are listed in Section G50.637.1.

2. PREPARATION OF CONDUCTORS

2.01 To avoid split pairs, prepare and splice one pair in the B Distribution Cable at a time. For simplicity, the illustrations show the method of splicing a pair at a straight splice between two lengths of cable. The method of joining the pairs at a bridge splice is essentially the same.

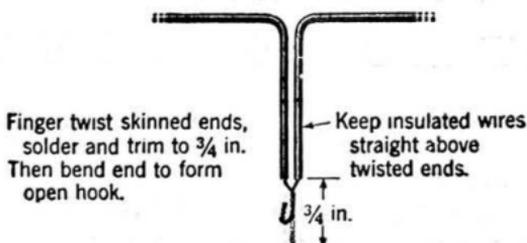
- (1) The pairs being joined should be spliced with a uniform amount of slack which can be obtained by cutting each of the pairs about 9 inches from the butt of the sheath and removing the insulation to a point about 7 inches from the sheath, as indicated in the following sketch.
- (2) After the first measured wires are joined, they can then be used as a gauge in cutting and removing the insulation from the remaining wires.



- (3) The insulation should be removed from the conductors using the skinning notch in the diagonal pliers.

Caution: In removing the insulation be sure to avoid nicking the wires as this may cause opens in handling the completed splice.

- (4) Finger twist the skinned conductors.
- (5) After all pairs are spliced solder the joints with rosin core solder; then trim the twisted joints to $3/4$ inch length, keeping the end square.
- (6) The soldered twist should then be formed as indicated below. The end of the joints should be gripped with the long nose pliers and turned back to shorten the completed joint and to avoid puncturing the insulating sleeve.

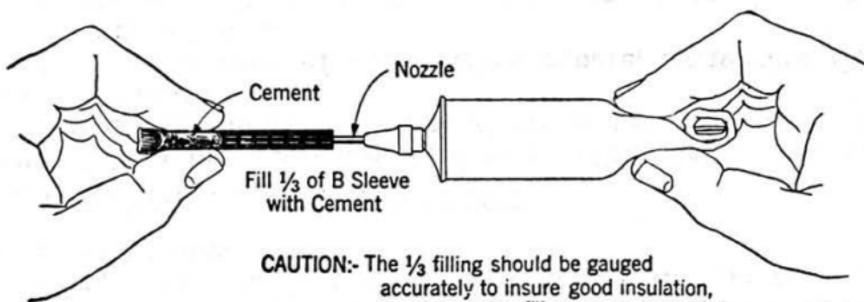


3. APPLYING INSULATING SLEEVES

3.01 A B Sleeve partially filled with B Cement is used to insulate each joint.

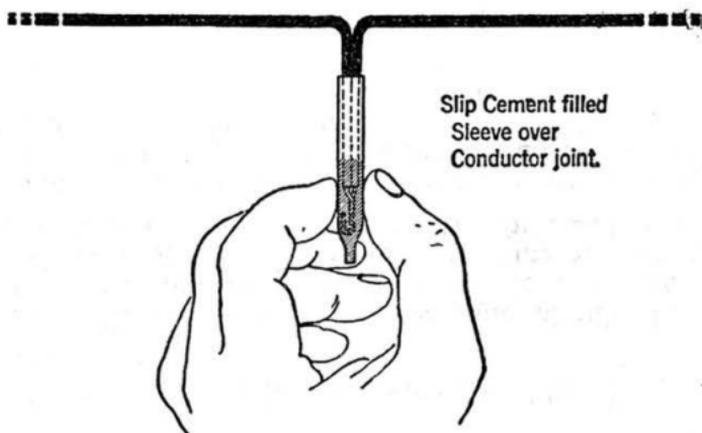
3.02 The cement should be injected into one sleeve at a time immediately before placing it on one of the prepared joints, as follows:

- (1) Remove the cap from a tube of B Cement, and open the end of the tube, making a sizeable opening to permit ready flow of the cement.
- (2) Screw the special nozzle to the tube after checking to see that the nozzle opening is clear.
- (3) Insert the nozzle into one of the B Sleeves, to the sealed end, as illustrated below. (If the sleeve is held lightly in one hand and allowed to slip freely as cement is forced from the tube, the degree of filling the tube can be gauged readily.)



CAUTION:- The $\frac{1}{3}$ filling should be gauged accurately to insure good insulation, but do not overfill as cement may be forced out of sleeve when it is placed over the conductor joint.

- (4) When the tube is approximately $\frac{1}{3}$ filled, withdraw the nozzle.
- (5) A cloth saturated with kerosene should be used to clean the nozzle when necessary to facilitate inserting or withdrawing it from sleeves. The same method may likewise be used to remove cement from the hands if necessary.
- (6) Slip a sleeve prepared as above, over each joint with a gentle rotary motion, as illustrated below. (If cement oozes out of the sleeve, it indicates overfilling.)



3.03 When all joints have been sleeved, complete the splice as described in the section dealing with the type of splice being made.

4. SLEEVING DEAD CONDUCTORS

4.01 When pairs are left dead in a splice they should be cleared and sleeved. One sleeve is used to clear two pairs, as follows:

- (1) Cut the ends of the 4 wires square, staggering the cuts $1/8$ inch.
- (2) Partially fill a B Sleeve with cement as described previously.
- (3) Bunch the 4 wires so that they lie parallel; then carefully slip the B Sleeve over the cleared ends.