BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G34.200.1
Issue 1, March, 1959
AT&TCo Standard

MULTIPLE LINE WIRE SPLICING

Contents **Page**

1. GENERAL

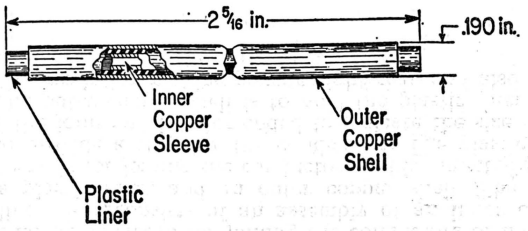
1.01 This section describes the methods to be used in splicing all types of multiple line wires. The information in this section was formerly contained in Sections G34.101.3 and G34.110.3. This section is being issued to cover the use of the K Splice Sleeve for joining 22-gauge conductors, and to cover a method for joining 22-gauge conductors to 19-gauge conductors.

1.02 The conductor color code for each type of multiple line wire is given in Section G34.101.1, Multiple Line Wire—Description.

1.03 Multiple line wires should be spliced color to color unless the work prints or your supervisor specifies another method of splicing.

2. DESCRIPTION OF SPLICE SLEEVE

2.01 The splice sleeve for joining the conductors of multiple line wires consists of an assembly of an inner copper sleeve, a plastic liner, and an outer copper shell. The inner copper sleeve is for joining the conductor, and is indented in the middle to provide a stop for the conductors. The plastic liner insulates the joint and is color coded to indicate the size of the sleeve. The outer copper shell is to hold the plastic liner tight against the insulation making a watertight seal, and also holds the inner sleeve and plastic liner in place.

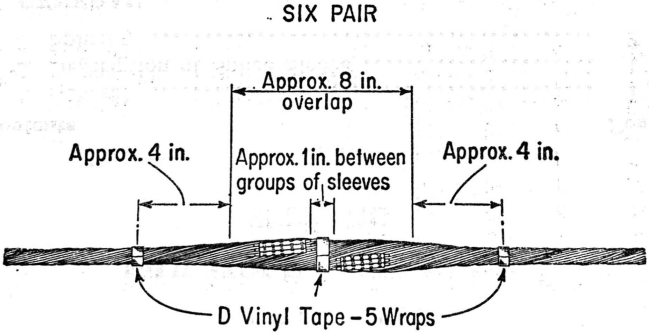


2.02 The following table indicates the size and use of the splice sleeves for multiple line wire:

Splice Sleeve	Color of Plastic Liner	Use
F	Gray	Joining 19-gauge copper conductors
K	Yellow	Joining 22-gauge copper conductors
G	Black	Joining 24-gauge copper conductors

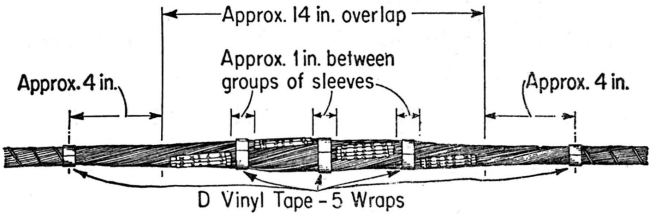
3. SPLICING

3.01 Completed splices for multiple line wires are illustrated below.



Splice each of two groups of conductors so as to retain their spiral lay.

TWELVE OR SIXTEEN PAIR



Splice each of four groups of conductors so as to retain their spiral lay.

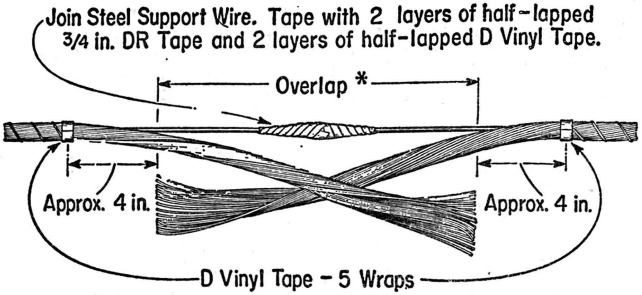
3.02 The splice is made as follows:

(1) Apply five wraps of D Vinyl Tape on the wire about 4 inches back from the overlapped portion. This tape should also hold the yarn serving on those wires which have one, so it will not unravel.

(2) Join the support wire with a sleeve or wirelink leaving an overlap in the conductors as shown. Tape the joint with two layers of half-lapped 3/4-inch DR Tape and two layers of half-lapped D Vinyl Tape.

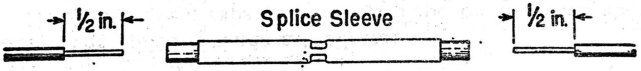
Support Wire

Size	Material	Join Wire With
109	Galvanized Steel	109E Steel Sleeve or 109 Wirelink
120	Galvanized Steel	120 Wirelink



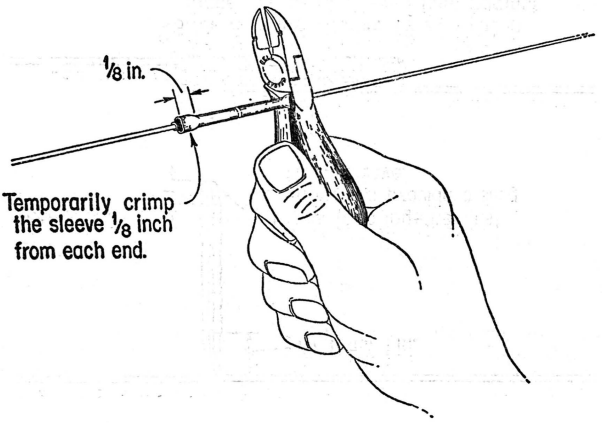
*OVERLAP	
For 6 Pair	-8 in.
For 12 or 16 Pair	-14 in.

(3) Cut the pair of wires to be joined to proper length, and remove 1/2 inch of insulation from ends of conductors with a pair of diagonal pliers using the skinning pole. It is important that the 1/2 inch be reasonably accurate for a proper splice.

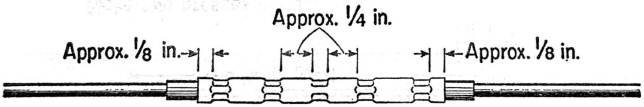


Strip ½ in. insulation from wires and insert in sleeve until conductors reach the constriction in the inner sleeve.

(4) Insert mating conductors into the proper sized splice sleeve until each conductor reaches the constriction in the inner sleeve. Using the portion of the diagonal pliers between the handles and behind the jaws, temporarily crimp the sleeve 1/8 inch from each end of the copper shell.



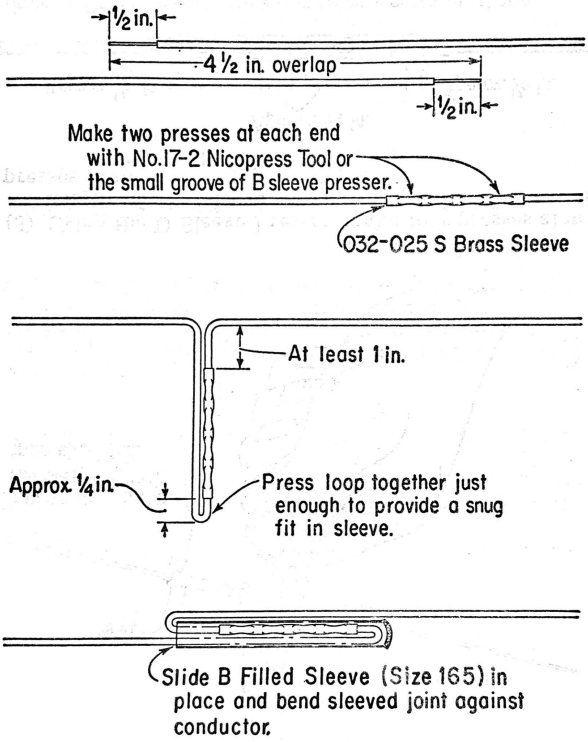
(5) Using the D Sleeve Presser, make four presses along the length of the sleeve as shown, making the two inner presses first.



Using D Sleeve Presser, make 4 presses located as shown.

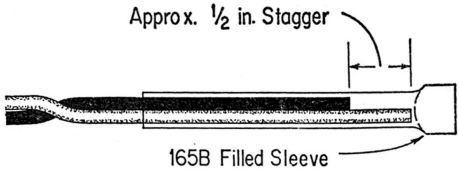
(6) Stagger the conductor splices so the finished splice looks like the illustration in Paragraph 3.01. Be sure the conductors retain their spiral lay and relationship in groups.

3.03 Splice 19-gauge conductors to 22-gauge conductors by using 032-025 S Brass Sleeves. When the support wires of the multiple line wires being spliced are not the same size, it is necessary to splice at a pole where the wire can be dead-ended from both directions on an S or B Guy Bolt. The individual conductors can be spliced as shown.



Note:-Protect sleeves from sunlight by wrapping spliced section of multiple line wire with one layer of half-lapped D Vinyl Tape.

The pairs which are not spliced should be cleared by cutting one conductor of the pair 1/2 inch shorter than the other (stagger cut) and putting each pair in a 165 B Filled Sleeve (blue).



The entire splice should then be wrapped with one layer of half-lapped D Vinyl Tape to protect the filled sleeves from sunlight.

3.04 Should it be necessary to splice 22-gauge conductors to 24-gauge, the method and materials in Paragraph 3.03 can be used.