

B URBAN WIRE

SPLICING AND TERMINATING

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1. GENERAL

1.01 This section replaces Section G31.612.2 and Addendum G31.612.2. It describes methods of splicing and terminating B Urban Wire. This section has been issued to include information on the use of the G Splice Sleeve and the 16 pair F51759 Wire Terminal.

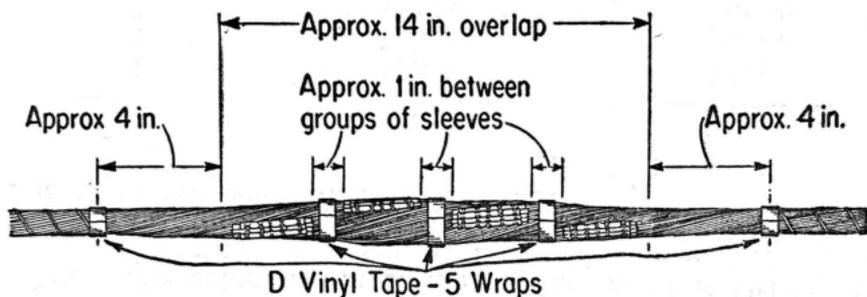
1.02 The color coding of the conductors of B Urban Wire simplifies pair identification and should facilitate the terminating and splicing operations to a considerable degree. The pairs are color-coded as follows:

Pair No.	Tip	Ring
1	White	Blue
2	White	Green
3	White	Brown
4	White	Slate
5	Red	Blue
6	Red	Green
7	Red	Brown
8	Red	Slate
9	Black	Blue
10	Black	Green
11	Black	Brown
12	Black	Slate
13	Yellow	Blue
14	Yellow	Green
15	Yellow	Brown
16	Yellow	Slate

1.03 When the spliced length of B Urban Wire will exceed 5 miles or where it is expected that carrier will operate over it, do not splice by color code. If the work prints do not specify splicing information the supervisor should be consulted.

2. SPLICING

2.01 The G Splice Sleeve consists of an assembly of an inner copper sleeve (for joining the conductor), a black plastic liner and an outer copper shell. A completed splice of two lengths of B Urban Wire using the G Splice Sleeve is shown below.

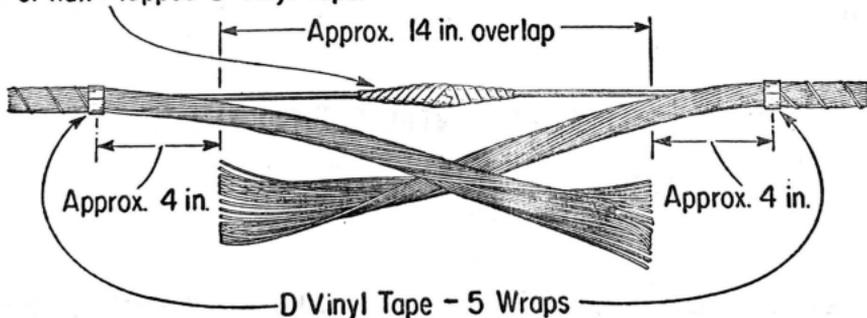


Splice each of four groups of conductors so as to retain their spiral lay.

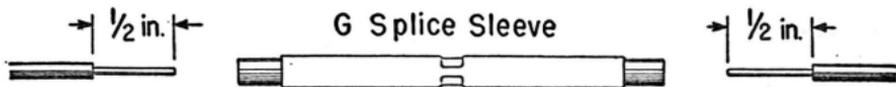
This splice may be made as follows:

- (1) Join and tape the support wire leaving overlap as shown.

Join Steel Support Wire with 109E Steel Sleeve or with a Wire-link. Tape with 2 layers of half-lapped $\frac{3}{4}$ in. DR Tape and 2 layers of half-lapped D Vinyl Tape.

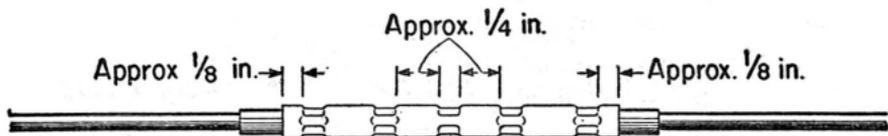


(2) After cutting a pair of wires to be joined, to proper length, remove 1/2 inch of insulation from ends of conductors with a pair of diagonal pliers using the skinning hole. It is important that the 1/2 inch be reasonably accurate for a proper splice.



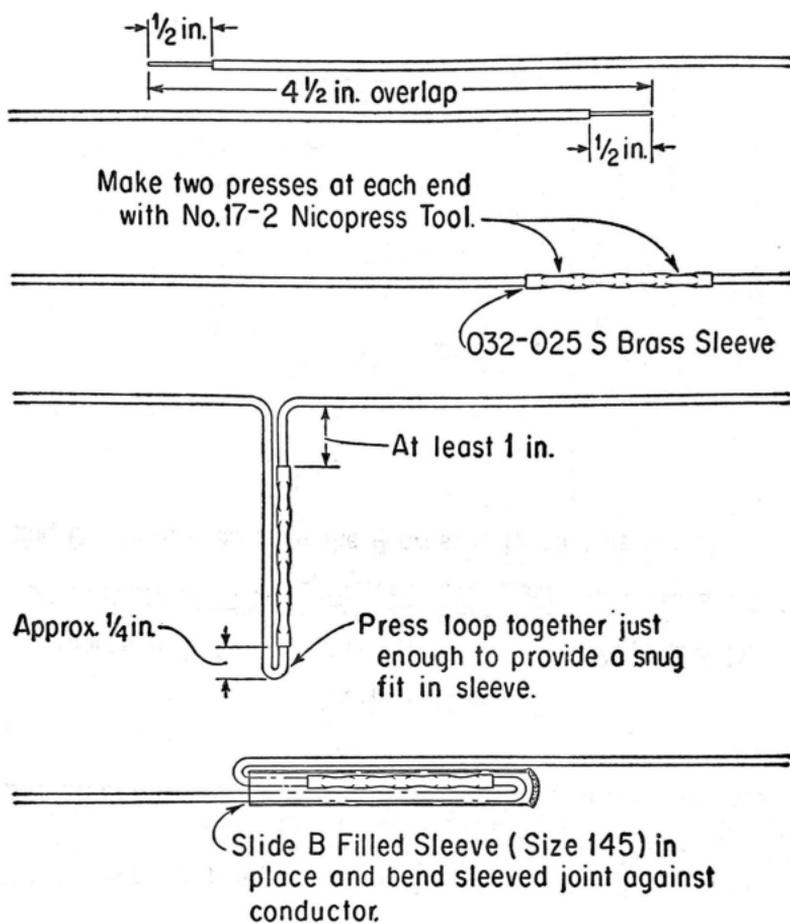
Strip 1/2 in. insulation from wires and insert in sleeve until conductors reach the constriction in the inner sleeve.

(3) Insert conductors into the sleeve until the conductor reaches the constriction in the inner sleeve. 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.

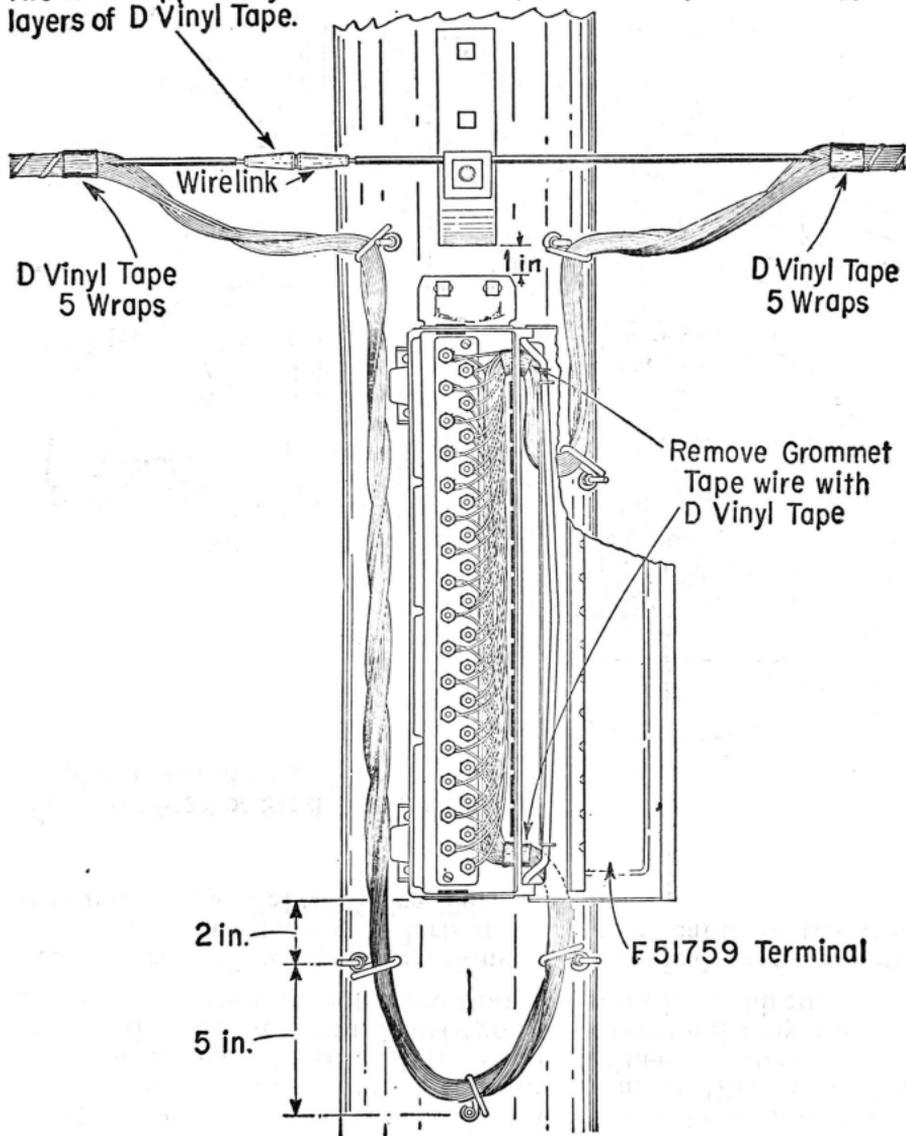
2.02 Individual conductors may also be spliced as illustrated.



Note:-Protect sleeves from sunlight by wrapping spliced section of B Urban Wire with one layer of half-lapped D Vinyl Tape.

2.03 A wire terminal may also be used as a means of splicing B Urban Wire as illustrated.

A 109 S Steel Sleeve or two one-bolt clamps may also be used to join support wire. If this joint should fall under conductors, place two half-lapped layers of $\frac{3}{4}$ in. DRTape followed by two half-lapped layers of D Vinyl Tape.



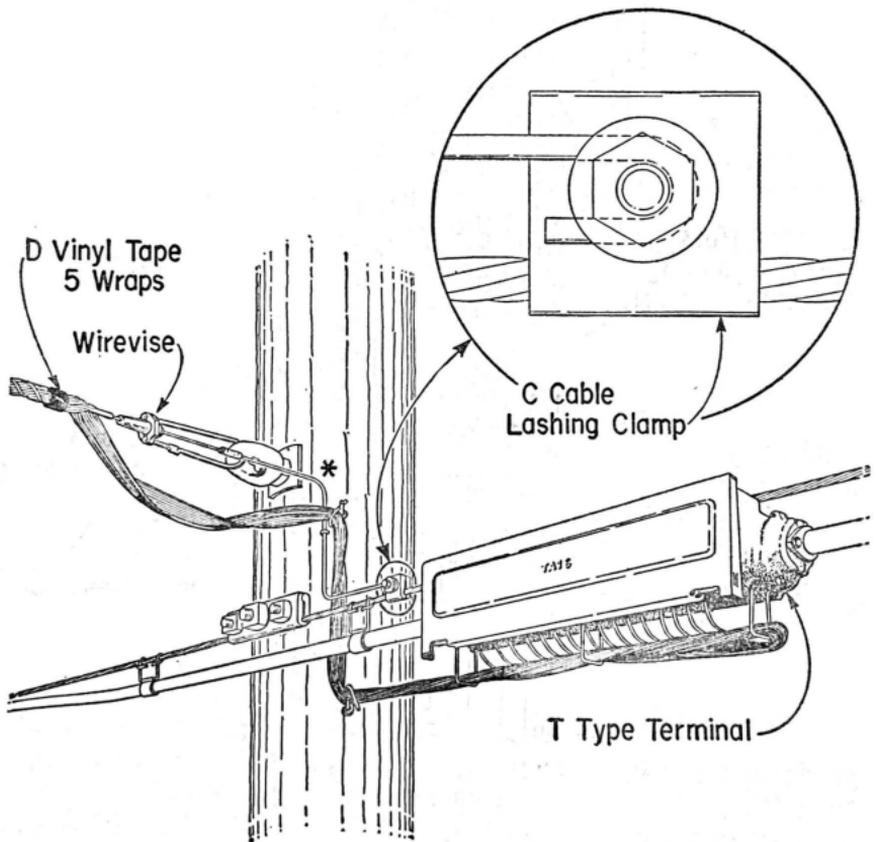
3. TERMINATING THE CONDUCTORS



3.01 The conductors of B Urban Wire may be terminated in the distribution cable terminal, in an F51759 Wire Terminal or a 105A Wire Terminal as specified on detail plans. Also at the end of a run, a 104-type wire terminal may be used where termination of not more than six pairs is required.

3.02 The following illustrations show typical arrangements for terminating B Urban Wire in a cable distribution terminal or the F51759 Wire Terminal.

*Use 109 Steel or Steel Construction Wire to extend support wire.



Attach 45A Bracket
to pole with four
 $\frac{1}{4}$ in. x $2\frac{1}{2}$ in. Drive Screws

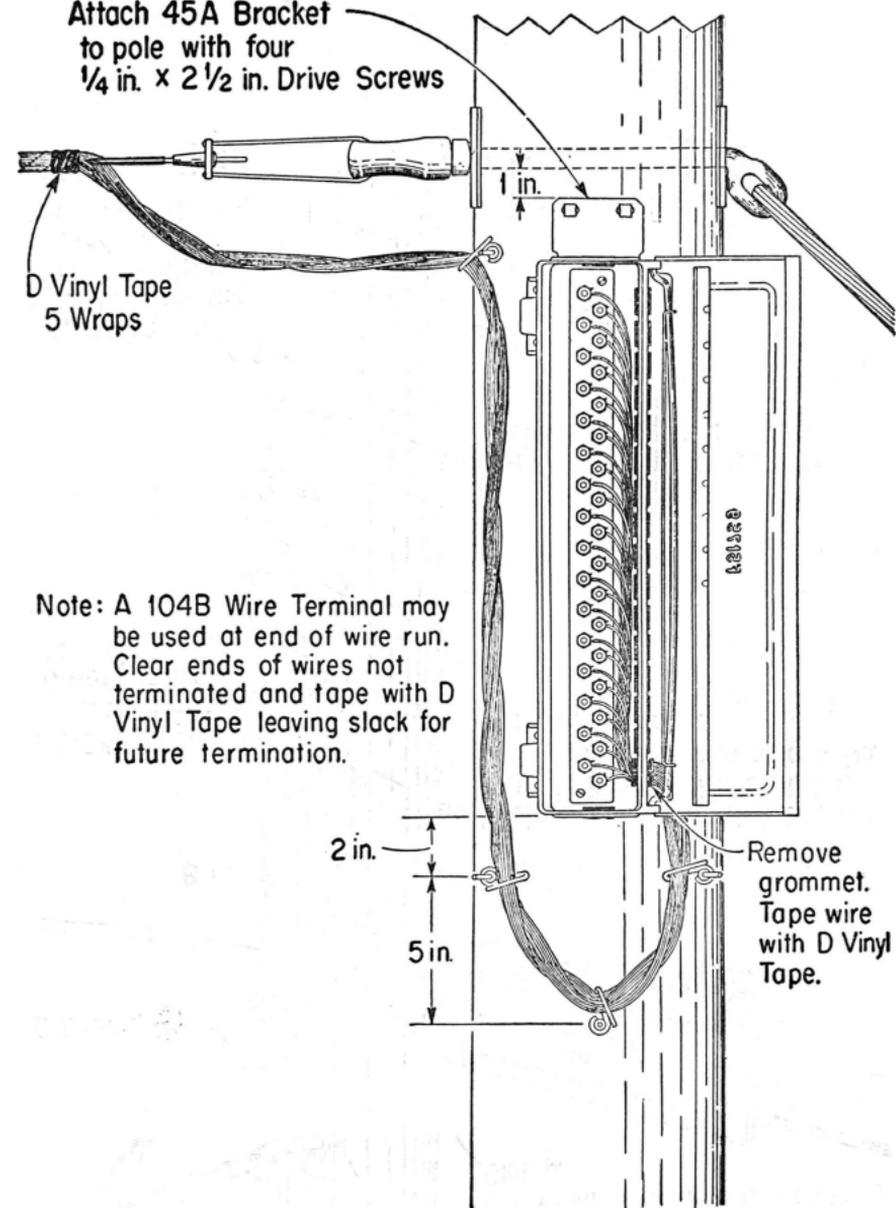
D Vinyl Tape
5 Wraps

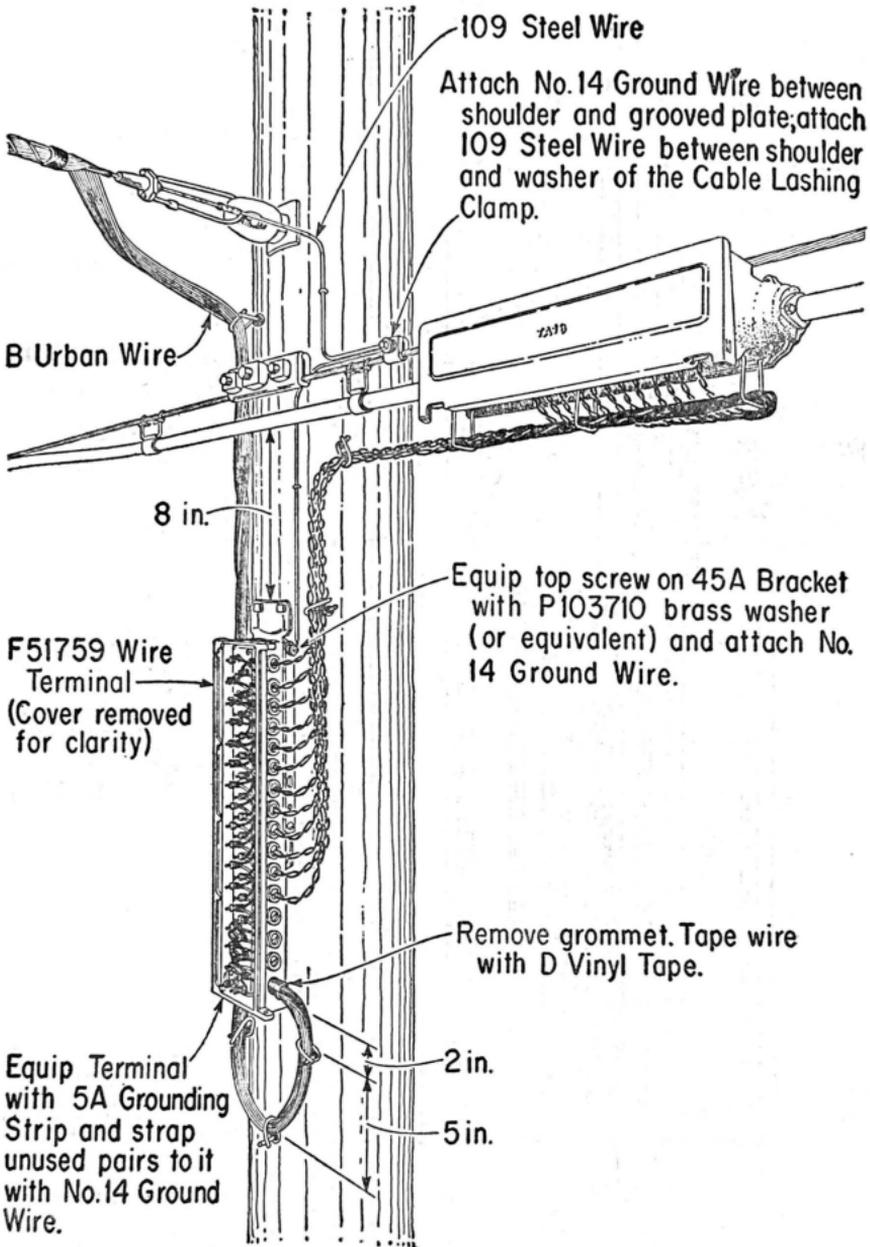
Note: A 104B Wire Terminal may
be used at end of wire run.
Clear ends of wires not
terminated and tape with D
Vinyl Tape leaving slack for
future termination.

2 in.

5 in.

Remove
grommet.
Tape wire
with D Vinyl
Tape.





3.03 At intermediate poles subscribers' drops may be bridged by using the 105A Wire Terminal. A maximum of 3 terminals may be mounted on each side of the wire bracket. Terminals should be mounted approximately 10 inches apart, and the bundle of 16 urban pairs must pass around the support wire between terminal locations. The method of installing a terminal is as follows:

- (1) Separate the pair to be connected and open the lay of the B Urban Wire to expose the support wire.
- (2) Place a one-inch B Cable Guard (1/2 length) around the remaining 15 pairs.
- (3) Remove about one inch of insulation from the support wire at the point where the terminal mounting clamp is to be placed. (Insulation on the support wire may be crushed with side cutting or long nosed pliers, as an aid in removing it.)
- (4) Dress the 2 wires (of the pair to be connected) across the face of the terminal, in the wire grooves on the upper side of each binding post. The required slack may be worked into this pair by pulling gently on the wires.
- (5) Place the terminal mounting clamp on the support wire, on the side of the mounting stud away from the drop wire slot and tighten the clamping nut securely using a B Braid Stripper or a C Socket Wrench. The face of the terminal should be at an angle of about 45° with the horizontal, with the drop wire entrance slot on the low side.
- (6) Loosen the nuts on the binding post using a 216B Tool, and place the conductor under lower washer. Insulation should not be removed; tightening the lower nut with a 216B tool will force the conductor through the insulation and make contacts with the face of the binding post. At temperatures below +10° F, it will be necessary to pre-crush the insulation between the jaws of long nosed pliers before placing the wire under the binding post washer.
- (7) Place drop wire in slot and twist into locked position after placing conductor immediately above the lower nut. If a second drop is to be connected, the thin web in the drop wire slot must be broken down (with long nosed pliers) and the conductor of the second drop connected between the washers under the top nut.
- (8) Replace cover. Rotate cover slightly to insure that lip of cover is engaged in groove in terminal faceplate.

3.04 The following sketch illustrates a single installation of a 105A Wire Terminal.

