BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G50.653.4
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AT&T Co Standard

CABLE SPLICING—GENERAL
388A CONDENSERS

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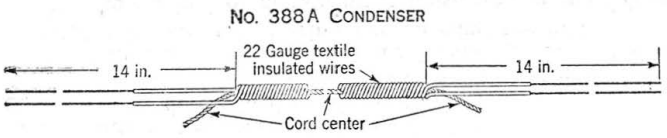
1. GENERAL

1.01 This section outlines the method of installing 388A condensers that are used for capacitance unbalance reduction in toll and toll entrance cables and for capacitance building-out in conjunction with spool type and mica condensers.

1.02 The condensers are small enough to be placed in splices, where comparatively few are required, or in a lead sleeve at the end of a stub cable installed for the purpose.

2. DESCRIPTION

2.01 The No. 388A Adjustable Condensers consist of two textile insulated wires laid side by side and wrapped around a cord center. The appearance of the individual units is illustrated in the following sketch.



2.02 Approximately 14 inches of straight wire is provided to permit connection to the joints in the main cable conductors. These ends are skinned for a distance of five inches for convenience in testing.

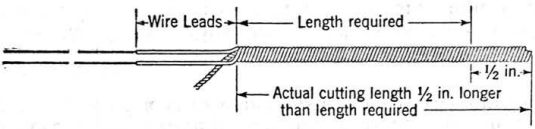
3. PREPARATION

3.01 The condensers are supplied packed with desiccant in friction top cans containing 10 condensers. After a condenser is removed from the can for use the can should be closed tightly to protect the remaining condensers.

3.02 **Cutting Condenser to Length:** The length required will be determined by the tester.

(a) The unit should be cut approximately 1/2 inch longer than the length required for balancing. The 1/2-inch surplus is used for clearing and sleeving the ends.

(b) The method of measuring is illustrated in the following sketch.



3.03 **Division of Condensers:** Two condensers can generally be cut from a single length. Where this is done, the factory prepared ends will serve for splicing them to the conductor joints.

3.04 **Protection of Ends:** The end of the condenser should be protected as outlined below.

(a) Unwrap the wires for 1/2 inch at the end of the condenser.

(b) Trim the ends of both wires square to avoid puncturing the sleeve.

(c) Place a short length of 3/32-inch prepared cotton sleeve over one of the wires.

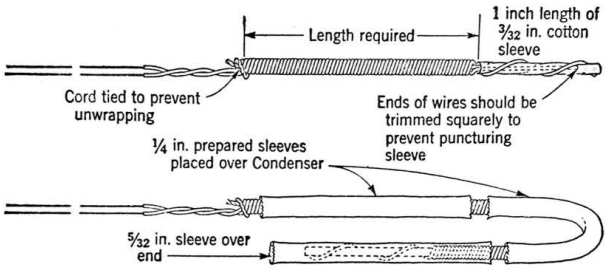
(d) Twist the second wire over the small sleeve to hold it in place.

(e) A 5/32-inch double wall cotton sleeve should then be placed over the small sleeve and the condenser itself, as illustrated in the following figure.

(f) In order to ensure adequate separation of these condensers from the conductors in the completed splice, 1/4-inch prepared cotton sleeves should be slipped over the individual condensers if they are longer than 5 inches; the sleeve at the end is sufficient on shorter condensers.

A sufficient number of sleeves should be placed to afford a fairly uniform covering. This is illustrated in the following sketches. The 1/4-inch sleeves should, of course, be placed before covering the end of the condenser with the 5/32-inch sleeve.

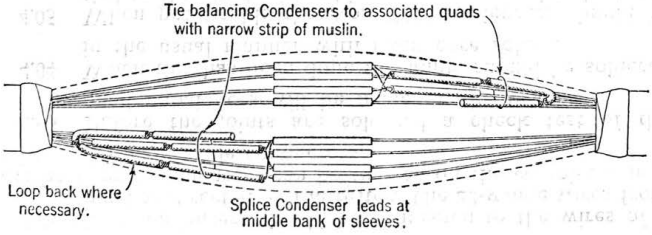
(g) The wire leads from the condenser should be twisted together as illustrated.



3.05 At the other end of the condenser, the cord should be used to make a tie where the wires separate, to prevent unwrapping and consequent change in capacitance.

4. INSTALLATION

4.01 Connecting these condensers in splices and placing cotton sleeves over the joints can be facilitated by splicing quads which are to have condensers attached in the center bank rather than at the end bank of sleeves. The joints in the main cable conductors should be completed before the balancing condensers are applied. The arrangement of condensers in a splice is illustrated below.



4.02 The condensers should be connected to the wires of a quad as directed by the tester. The 22-gauge wires from the balancing condensers can be twisted on the completed pigtails in the main cable conductors.

4.03 Before the joints are soldered a check test of the quad unbalances will be made by the tester.

4.04 When this has been done the joints should be soldered in the usual manner with rosin core solder.

4.05 When practicable the No. 388A condensers should be tied to the quad with which they are associated, at one or two points, to keep them together.