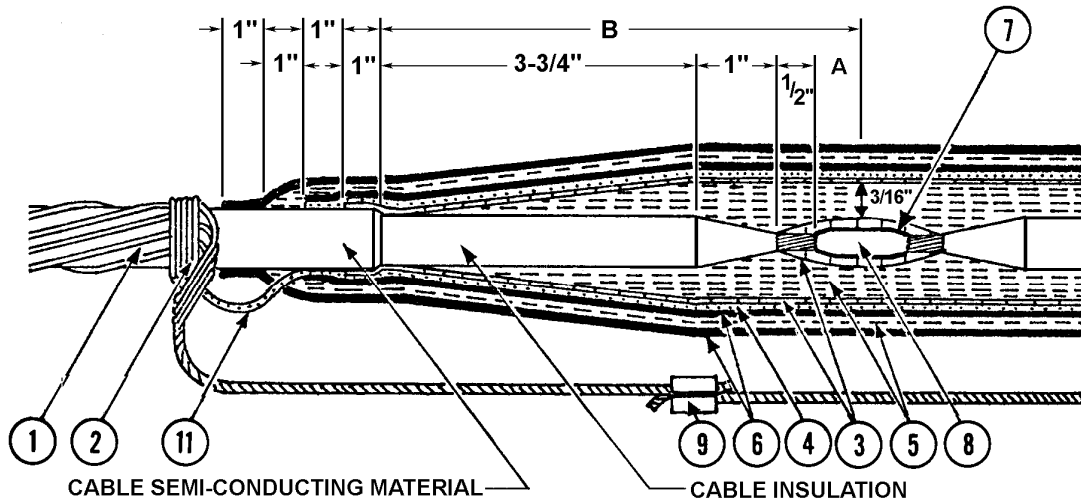


**SPLICE - STRAIGHT
 TWO CONDUCTOR CONCENTRIC, 5000 VOLT
 POLYETHYLENE INSULATED CABLE**



A = 1/2 connector length
B = 1/2 connector length + 5-1/4"

MATERIAL LIST

ITEM	QTY	DESCRIPTION	STOCK #
1	As Req'd	Cable, Cross-linked Polyethylene, Conc. Neutral, Copper Conductor, 5 kV	—
2	As Req'd	Wire, Bare Copper, #14	610218E
3	As Req'd	Tape, Electrical, Semiconducting	736670
4	As Req'd	Tape, Tinned Copper Shielding	736244
5	As Req'd	Tape, with separator, high voltage, 1"	736500
6	As Req'd	Tape, Plastic, Low Temperature	736655E
7	As Req'd	Tape, putty, insulating, 1-1/2"	736750
8	1	Splice, compression, tapered	677337 thru 677349
9	1	Tap " compression, parallel type #2 - #2 " 2-bolt parallel type #2/0 - #10	677326E 669379E
10	As Req'd	Cleaner, electrical insulation	726157E
11	20"	Wire, Tinned, Copper Braid, 1/4" x 3/64"	618614
—	As Req'd	Solder, Rosin Core, 50/50	728504
—	As Req'd	Adhesive, Waterproofing	722020

ORIGINATOR	STANDARDS COORDINATOR	STANDARDS SUPERVISOR	UNIT DIRECTOR
<i>Jim S. Horn</i>	<i>Charles L. Shaffer</i>	<i>John C. Alvin</i>	<i>Betty Robin</i>

- A. Form and shape the cables into their final position and overlap cables 12 inches each way from center to provide excess length of outer concentric wires for later splicing.
- B. Bind concentric wires with several turns of AWG No. 14 bare copper (Stock No. 610218E) at a distance of 4-1/2" + "B" inches from center of splice. Unwrap concentric wires and twist tightly together and bend away from splice,
- C. Cut off excess cable at the splice center.
- D. Remove the semi-conducting jacket from each cable for a distance of "B" inches, being careful not to damage cable insulation. For easy removal., make a circumferential cut at the "B" inches mark and make three or four longitudinal cuts halfway through the semi-conducting jacket equally spaced around the cable from the circumferential cut to the end of the cable. Lightly pencil and smooth exposed edges of semiconducting jacket.
- E. Remove the insulation from each conductor for a distance of 1/2" + "A" inches from the ends and pencil back insulation for a distance of 1".
- F. Attach compression connector per NSV-10, Page 2.
- G. Remove any oxide inhibiting compound from the connector and bare conductor, being careful not to get compound on the insulation. Clean entire prepared splice area., using clean lint-free cloths. Use a separate cloth for the insulation with conducting particles.
- H. Buff the pencils with Aloxite cloth. Be sure there are no particles of semiconducting compound left on the exposed insulation.
- I. Clean the surface of the connector, exposed insulation and semi-conducting jacket with electrical insulation cleaner Stock No. 726157E.
- J. Fill connector indents and voids with sealant (Stock No. 686541) to provide a smooth surface for taping.
- K. Apply electrical semi-conducting tape (Stock No. 736670) to all exposed conductor and connector areas, overlapping cable insulation 1/16". This tape should be half-lapped and stretched when applied until tape width is approximately three-fourths of its original width.
- L. Wrap high voltage, ozone resistant splicing tape (Stock No. 736500), half lapping and stretching thoroughly over all electrical semiconducting tape and insulation up to 1/4" from cable sheath. This tape should be applied to a thickness of 3/16", over connector and tapering evenly toward the ends of the splice. It is important to follow manufacturer's instructions which are with each roll of tape.
- M. Wrap one half-lapped layer of electrical semiconducting tape (Stock No. 736670) over ozone resistant splicing tape extending it 1" beyond the end of the semiconducting jacket.
- N. Apply one half-lapped layer of tinned copper mesh braid (Stock No. 736244) over the semiconducting tape and extend one inch beyond the semiconducting tape at each end of the splice. The tinned copper mesh braid should be wrapped as tightly as possible, and taping should be started at the center of the splice, using two portions of the tinned copper mesh braid (overlapped at the center).
- O. Solder mesh braid at the center of the splice. Solder a 10" pigtail of 1/4" copper braid (Stock No. 618614) at each end of the applied shielding braid for future connection to concentric neutral.

CONSTRUCTION GUIDELINE

- P.** Wrap one half-lapped layer of plastic, low-temperature tape (Stock No. 736655E) over entire area of shielding braid, stretching tightly to flatten lower layer of tape. Tape from both ends of splice uphill to center, slightly overlapping at center of splice.
- Q.** Thoroughly clean semiconducting jacket to a point 2-1/2" beyond plastic tape to ensure a good bond for watertight seal.
- R.** Apply thin coat of waterproofing adhesive (Stock No. 722020) over cleaned semiconducting jacket and allow it to dry. Impregnate exposed, hand-applied braid and 2" of pigtail with adhesive.
- S.** Wrap four layers of half-lapped ozone resistant splicing tape (Stock No. 736500) over entire splice and 1" onto cable semiconducting jacket. This tape should be stretched only slightly in the middle of the joint to allow build-up and stretched tightly at end to form moisture seal. Pigtail braids should be gradually exited through this tape build-up.
- T.** Wrap two half-lapped layers of plastic, low temperature splicing tape (Stock No. 736655E) over entire splice and one inch beyond ozone resistant splicing tape. This wrapping should be applied with only enough tension to shape. Pigtail braids should be gradually exited through this tape build-up.
- U.** Solder the concentric neutral wire, the #14 bare wires, and the braid pigtail together at each end. Make certain that not too much heat is applied to damage the semiconducting jacket.
- V.** Train twisted concentric wires over the splice and with the connector (Stock No. 677326E or 669379E). Join wires together.