Cold Shrink Low Voltage Inline Splice Kits 5730/5731

For use with 3/C or 4/C Armor Power Cable (TECK-90) up to 1000 Volts

Instructions

CSA Certified for 600V or Less

Kit Contents

1 Cold Shrink PST Jacket Tube
6 Scotch® Mastic Seal Strips 2228
2 Scotch Shielding Tape 24 Strips
1 Copper Shielding Sleeve (2' Lg.)
2 Constant Force Springs (Size #3)

Note: - Connectors are not included in kit.
- Use only CSA certified compression connectors (Vinyl or Nylon INSULATED BUTT CONNECTORS are preferable.)

Table 1: Kit Selection

Kit No.	Cable Sizes AWG or MCM	Overall Jacket Diameter
5730	#14–#10	0.62–1.0" (16–25 mm)
5731	#8–#4	0.95–1.4" (24–36 mm)

⚠CAUTION

Working around energized electrical systems may cause serious injury or death. Installation should be performed by personnel familiar with good safety practice in handling electrical equipment. De-energize and ground all electrical systems before installing product.

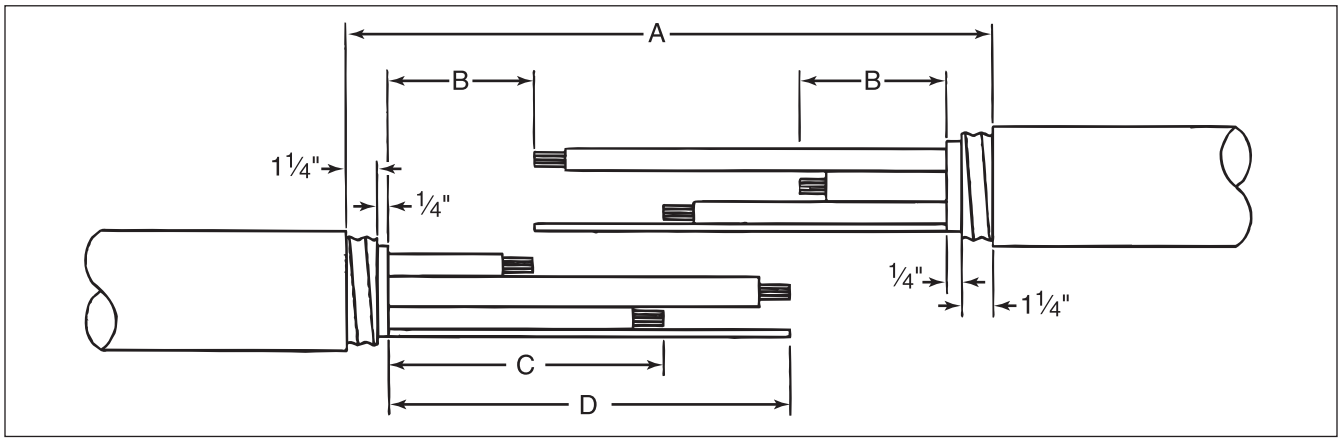
1.0 Prepare Cable

See Table 2 for cable cutback dimensions.
1.1 Position cables and cut so conductor ends overlap. (See Fig. 1)
1.2 Remove cable jacket of each cable according to dimension "D" +1 1⁄2" (See Fig. 1)
1.3 Remove armor leaving 1 1⁄4" of armor exposed from end of each cable jacket. (See Fig. 1)
1.4 File rough edges of armor smooth.
1.5 Remove inner jacket leaving 1⁄4" exposed from the end of the armor.
1.6 Remove cable fillers back to end of inner jacket.
1.7 Match conductor phases.
1.8 Shorten conductors by dimensions indicated in Fig. 1.
1.9 Remove insulation from conductor ends:
- If using Copper connectors: Remove insulation for 1⁄2 of connector length.
- If using Aluminum connectors: Remove insulation for 1⁄2 of connector length +1⁄4."

Table 2: Dimensions for Fig. 1

Kit No.	A	B	C	D
5730	11" (28 cm)	2.5" (6.5 cm)	4.0" (10 cm)	5.5" (14 cm)
5731	13" (33 cm)	3.5" (9 cm)	5.0" (12.7 cm)	6.5" (16.5 cm)

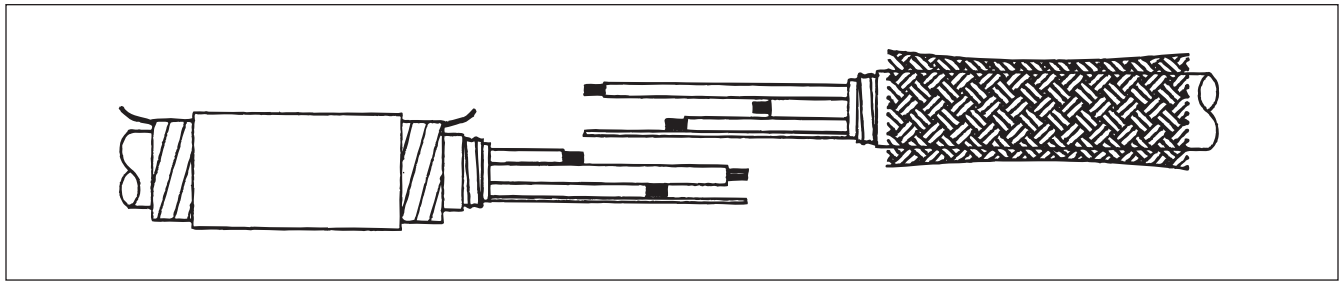
Fig. 1 Cable Preparation



2.0 Placement of Cold Shrink PST Jacket and Copper Shielding Sleeve

2.1 Slide the Cold Shrink PST Jacket over one of the cables. A core end should extend from the end of the assembly. Hold the leading core end outside the assembly when sliding the assembly over the cable.
2.2 Slide the Copper Shielding Sleeve over the opposite cable.

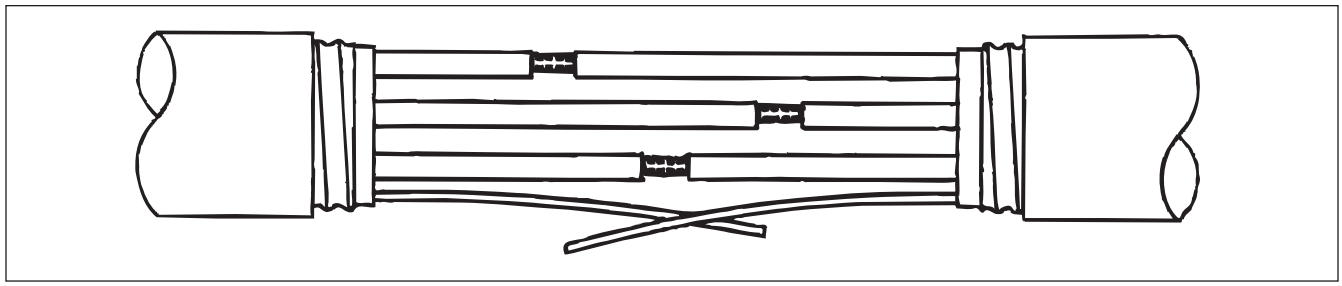
Fig. 2 Placement of Cold Shrink Jacket and Shielding Sleeve.



3.0 Connect Conductors

3.1 Match conductor phases properly.
3.2 Place insulated connectors and crimp them with the proper tool.

Fig. 3 Crimp Connectors

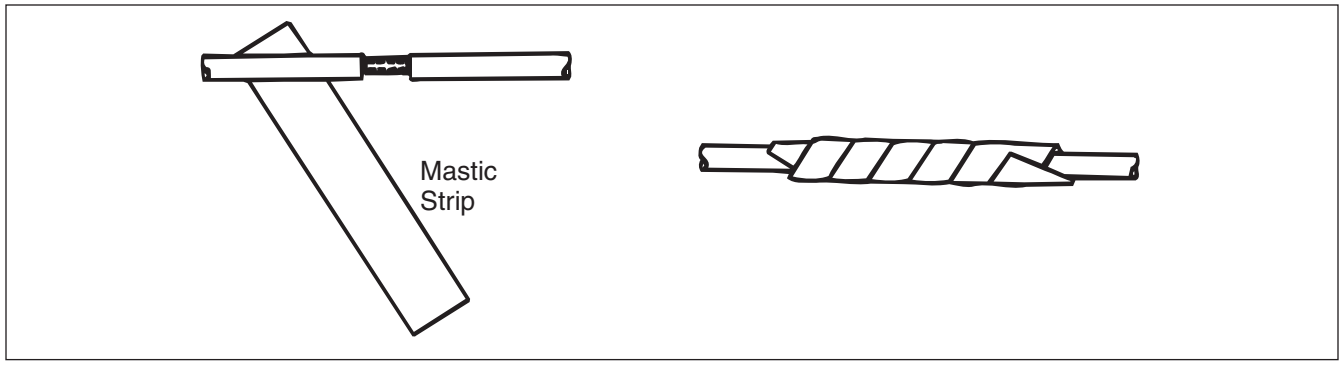


4.0 Insulate Connectors

4.1 Insulate and moisture seal each cable by stretching one half lapped layer of mastic strip (sticky side down) over each of the connections. (See Fig. 4)
4.2 Bring all conductors together to form a bundle.

Note: If un-insulated butt connectors are used, wrap the bundle of conductors with two half lapped layers of vinyl tape before the ground wire is connected.

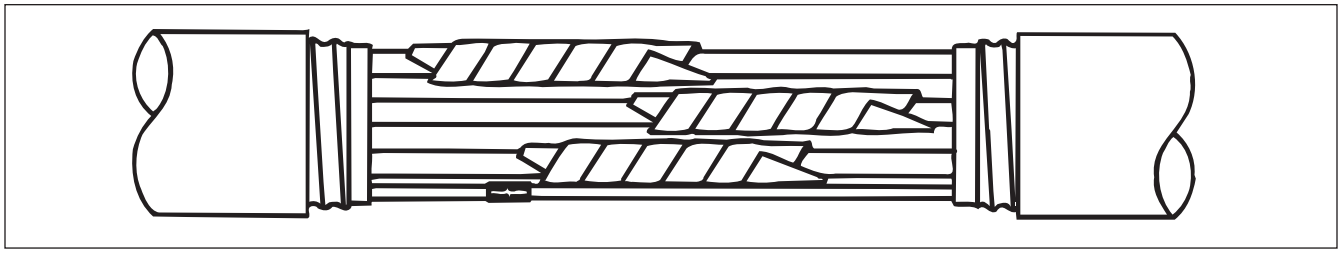
Fig. 4 Insulate Connectors



5.0 Connect Ground Wires

If there are ground wires, join ground wires with proper connectors and appropriate crimping tool and die. (See Fig. 5)

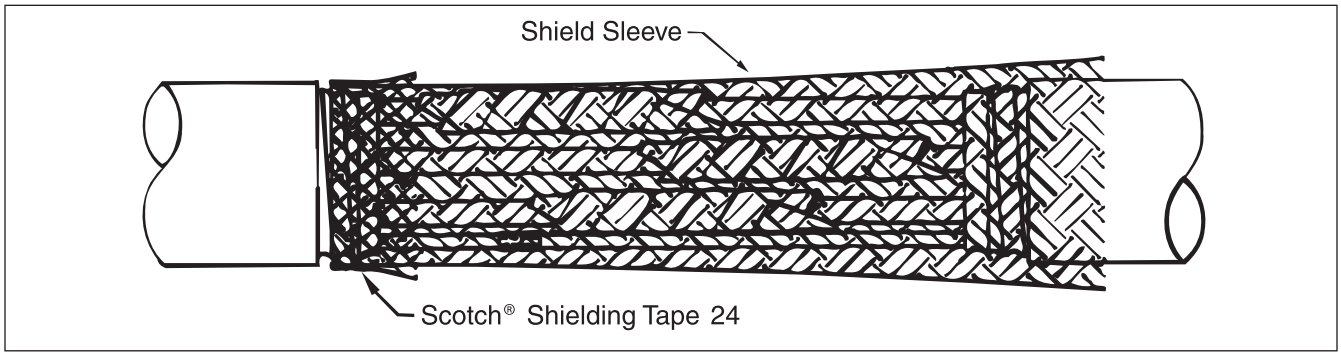
Fig. 5 Connect Ground Wire



6.0 Connect Copper Shield Sleeve

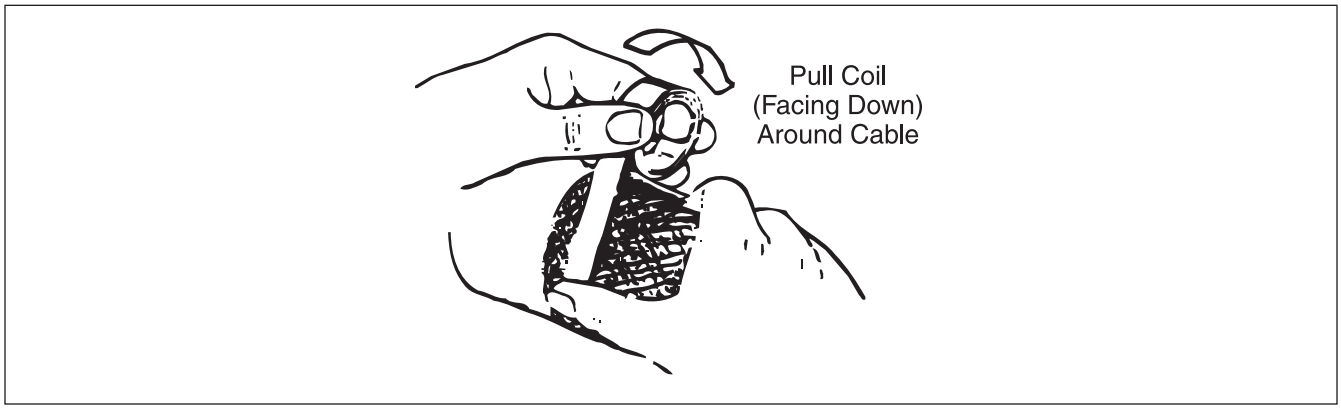
6.1 Position the Copper Shield Sleeve over splice opening as shown in Fig. 6. This will provide armor continuity.
6.2 At each end of the exposed armor, wrap several layers of Scotch® Shielding Tape 24 over the Copper Shield Sleeve. Use all the shielding tape included in the kit. Tie off end of shielding tape.
6.3 Fold ends of Copper Shielding Sleeve back over the shielding tape. (See Fig. 6)

Fig. 6 Connect Shield Sleeve



6.4 Unwrap about 2" (5 cm) of Constant Force Spring coil. (See Fig. 7)
6.5 With thumb, hold the end of the coil in place over the bend of the copper shielding sleeve. The rolled up extended coil should be facing downward and away from you. Pull the coil around the cable allowing it to unwrap and re-wrap around the cable and itself.
6.6 Cinch (tighten) the applied coil after final wrap is applied.

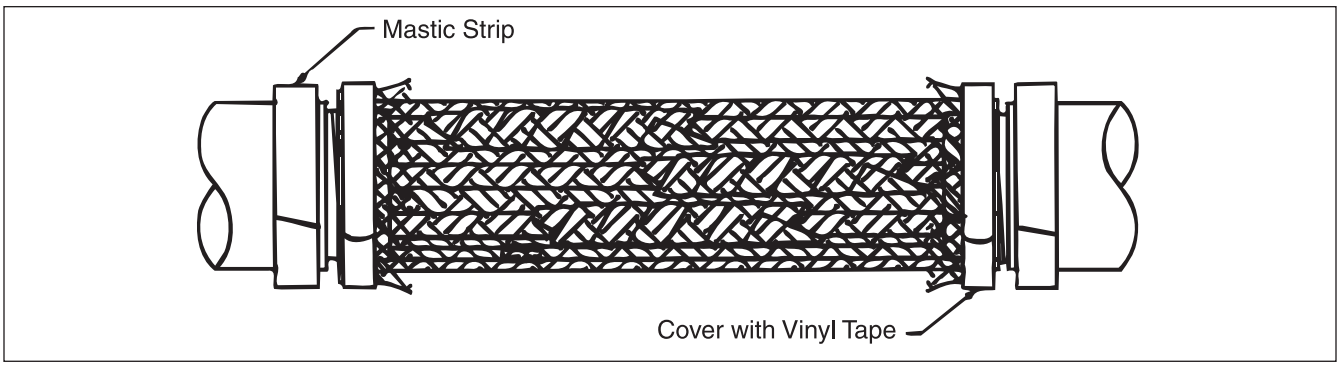
Fig. 7 Install the Constant Force Springs



7.0 Apply Mastic to Seal PST Jacket

Using the Mastic Strip, build up the diameter of the cable jacket next to the Constant Force Spring. Do not build diameter of mastic larger than the Constant Force Springs. If necessary, cut off any excess of the Mastic Strips. (See Fig. 8)

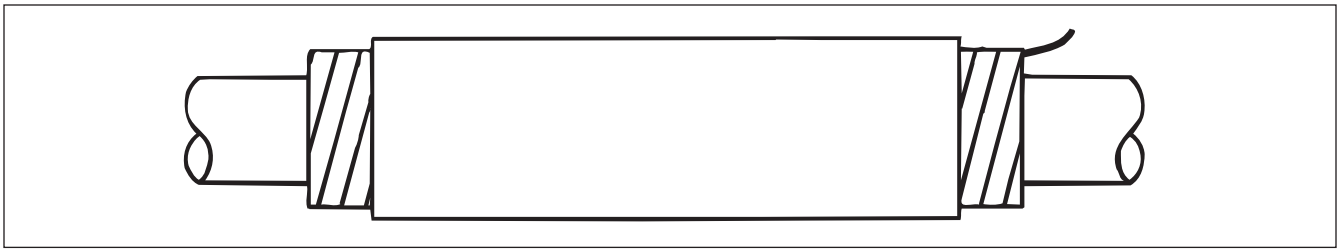
Fig. 8 Apply Mastic to Seal Jacket



8.0 Apply Vinyl Tape

Apply vinyl tape (Scotch® Super 33+ Vinyl Electrical Tape or Scotch® Super 88 Vinyl Electrical Tape is recommended however, it is not included in kit) over the Constant Force Springs and the ends of the Copper Shielding Sleeve to smooth the sharp edges at each end of the splice opening. (See Fig. 8)

Fig. 9 Center Jacket Sleeve and Remove Core



9.0 Apply Cold Shrink PST Jacket Sleeve

9.1 Center PST Jacket Sleeve over splice opening. (See Fig. 9)
9.2 Start removing the core so PST Jacket Sleeve shrinks over the entire mastic strip.
9.3 Sleeve will stretch lengthwise in order to cover the mastic strip at the opposite end of splice.
9.4 Remove the remainder of the core by unwinding counter clockwise. An occasional tug of the loose core end while unwinding will aid in the removal of the core.
9.5 Cable can be energized immediately after splice is completed.

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