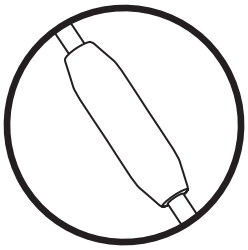


CSJU-S-1511

Cold-Shrinkable Splice for single core polymeric insulated (XLPE-EPR) cables up to 15kV for Wire, Tape, JCN, Flat Strap and LC shielded cables.

Product Installation Instructions

Safety Instructions

⚠ DANGER When installing electrical power system accessories, failure to follow applicable personal safety requirements and written installation instructions could result in fire or explosion and serious or fatal injuries.

⚠ DANGER As TE Connectivity (TE) has no control over field conditions which influence product installation, it is understood that the user must take this into account and apply his own experience and expertise when installing product.

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

⚠ DANGER Power distribution and transmission products must be properly selected for the intended application. It must be installed and serviced by competent personnel who have been trained and understand proper safety procedures. These instructions are written for such personnel and are not a substitute for adequate training and experience in safety procedures.

⚠ CAUTION Read and understand the contents of these instructions before installation and follow all locally approved procedures and safety practices before installing or operating this equipment.

⚠ CAUTION These instructions cannot cover all details or variations in the equipment, procedures, or processes described, nor provide directions for meeting every possible contingency during installation, operation, or maintenance. When additional information is desired to satisfy a problem not covered sufficiently for the user's purpose, please contact your TE sales representative. These instructions are not intended to supersede or replace existing safety and operating procedures.

NOTICE Upon receipt of a product, inspect it thoroughly for damage and loss of parts incurred during shipment. If damage or loss is discovered, file a claim with the carrier immediately or contact your TE representative.

Suggested Installation Equipment (not supplied with kit)

- Cable preparation tools
- TE P63 cable preparation kit or cable manufacturer approved solvent
- Clean, lint-free cloths

Kit Contents

1 Splice body
1 Installation instruction
2 Spring clamps (size "F")
1 Tube of DCC compound
3 Strips of gray mastic
1 Roll of copper mesh
1 Glove
1 Roll red tape
1 Connector (compression/shear bolt, optional)

Customer Service

For 24 hour customer service, call 800-327-6996.

Installation Instructions

1. Check kit selection with the cable diameter dimensions in Tables 1, 2A or 2B.

Table 1: Selection information: Dimensions in inches (millimeters)

CSJU-S joint without connector						
Voltage Class	Catalog Number	Nominal Cable Range	Min. / Max. Insulation O.D.	Max Jacket O.D.	Connector Dimensions	
					Max. O.D.	Max. Length
15kV	CSJU-S-1511	#2 - 4/0 AWG	0.64 - 0.99 (16.3 - 25.1)	1.26 (32.0)	1.0 (25.4)	3.25 (82.5)

CSJU joint with Aluminum shear bolt connector*				
Voltage Class	Catalog Number	Nominal Cable Range	Min./Max. Insulation O.D.	Max. Jacket O.D.
15kV	CSJU-S-1511-SB1	#2 - 1/0	0.64 - 0.99 (16.3 - 25.1)	1.26 (32.0)
15kV	CSJU-S-1511-SB2	#2 - 4/0	0.64 - 0.99 (16.3 - 25.1)	1.26 (32.0)

*Suitable for Aluminum conductors only

CSJU joint with Aluminum compression connector*				
Voltage Class	Catalog Number	Nominal Cable Range	Min./Max. Insulation O.D.	Max. Jacket O.D.
15kV	CSJU-S-1511-ALC0	#2 STR-SOL, #1 SOL	0.64 - 0.99 (16.3 - 25.1)	1.26 (32.0)
15kV	CSJU-S-1511-ALC1	#1 STR-CPT, 1/0 CPT-SOL	0.64 - 0.99 (16.3 - 25.1)	1.26 (32.0)
15kV	CSJU-S-1511-ALC2	1/0 STR-CMPR, 2/0 CPT	0.64 - 0.99 (16.3 - 25.1)	1.26 (32.0)
15kV	CSJU-S-1511-ALC3	2/0 STR-CMPR, 3/0 CPT	0.64 - 0.99 (16.3 - 25.1)	1.26 (32.0)
15kV	CSJU-S-1511-ALC4	3/0 STR-CMPR, 4/0 CPT	0.64 - 0.99 (16.3 - 25.1)	1.26 (32.0)
15kV	CSJU-S-1511-ALC5	4/0 STR-CMPR	0.64 - 0.99 (16.3 - 25.1)	1.26 (32.0)

*Suitable for Aluminum conductors only

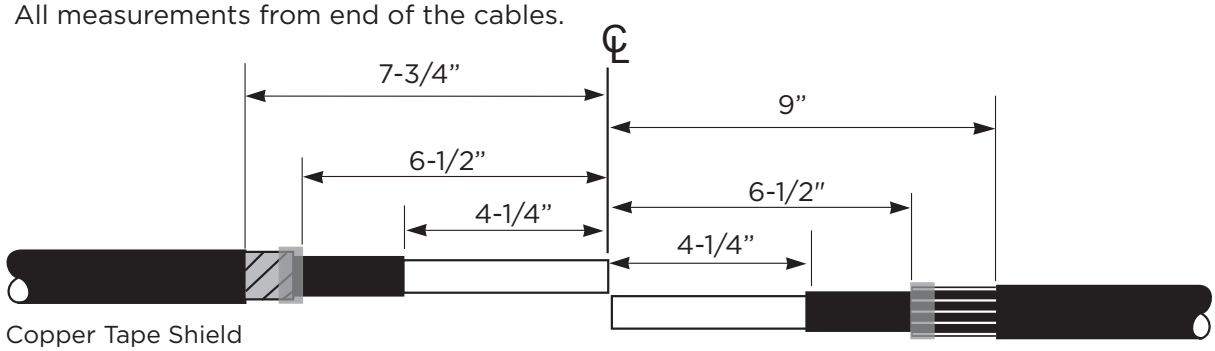
Table 2A: Aluminum shear bolt connector: Dimensions in inches (millimeters)								
"SBx"	Part # Catalog #	Length	O.D.	Socket Size	Conductor Range	Conductor Diameter Range	Strip Length "C"	Remove inserts for conductor sizes
SB1	2182666-1 ASBSD-2-1/0 2-bolt	2.8 (71)	0.9 (24)	1/2 (13)	2 AWG solid to 1/0 AWG Stranded	0.27-0.37 (6.8-9.5)	1-1/4 (33)	N/A
SB2	2182663-1 ASBSD-2-4/0 4-bolt	3.25 (83)	1.0 (25)	1/2 (13)	2 AWG solid to 4/0 AWG Stranded	0.27-0.53 (6.8-13.4)	1-1/2 (40)	1/0 AWG Stranded 0.373 (9.5) Diameter

Table 2B: Aluminum compression connector: Dimensions in inches (millimeters)						
"ALCx"	Part # Catalog #	Length	O.D.	Die Size	Conductor Range	Insulation Cutback "Z"
ALC0	2182669-1 KSD2TNS	2.8 (71.1)	0.64 (16.26)	CSA 22 U243	#2 STR-SOL, #1 SOL	1.25 (32)
ALC1	2182669-2 KSD1TNS	2.8 (71.1)	0.64 (16.26)	CSA 22 U243	#1 STR-CPT, 1/0 CPT-SOL	1.25 (32)
ALC2	2182669-3 KSD10TNS	2.8 (71.1)	0.64 (16.26)	CSA 22 U243	1/0 STR-CMPR, 2/0 CPT	1.25 (32)
ALC3	2182669-4 KSD20TNS	2.8 (71.1)	0.91 (23.1)	CSA 24 U249	2/0 STR-CMPR, 3/0 CPT	1.25 (32)
ALC4	2182669-5 KSD20TNS	2.8 (71.1)	0.91 (23.1)	CSA 24 U249	3/0 STR-CMPR, 4/0 CPT	1.25 (32)
ALC5	2182669-6 KSD20TNS	2.8 (71.1)	0.91 (23.1)	CSA 24 U249	4/0 STR-CMPR	1.25 (32)

2. Prepare cable

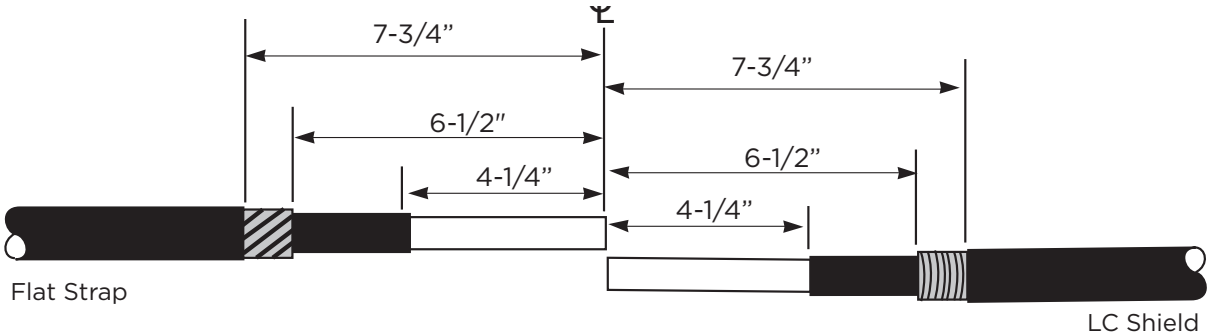
Prepare the cables as shown. Abrade cable 6" back from jacket cutback. Using approved solvent, clean the cable jacket for 30" on side where splice body will be placed. Using PVC tape, temporarily tape down the neutral ends to prevent damage to the splice core.

All measurements from end of the cables.



Copper Tape Shield
(remove backing from provided copper tape strip and wrap over end of shield)

Jacketed Concentric Neutral and Wire Shield



Flat Strap

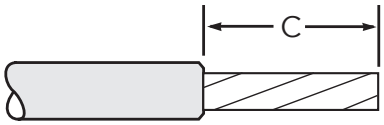
LC Shield

3. Remove Insulation.

CHOICE 1: SHEAR BOLT CONNECTOR

Confirm that the conductor O.D. range is acceptable according to Table 2A. Select the appropriate strip back dimension “C”, and determine if the inserts must be removed depending on the conductor size.

Remove the insulation as shown. Do not install the connector at this time.



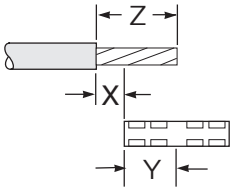
Go to Step 4

CHOICE 2: COMPRESSION CONNECTOR

NOTICE *TE compression connectors that are included in this kit use an insulation cutback of 1.25” per Table 2B which includes expansion gap. For all other manufacturers, follow the directions below.*

See Table 1 to determine the maximum connector length. Remove the cable insulation on both cables equal to half the connector length plus an extra expansion gap “X” as shown in the chart below. Do not install the connector at this time.

Conductor Size	Expansion gap “X” for AL connector
#2 AWG - 4/0 AWG	1/8”



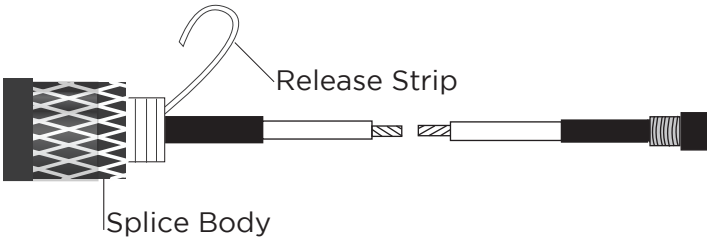
"Z" Insulation Cutback = "X" Expansion Gap + "Y" Strip Length

Go to Step 4.

4. Place splice body over cable.

Slide the splice body over the cable end so that the release strip of the spiral holdout points toward the cable end.

NOTICE *LC shield cable is shown in the following steps of this instruction for illustrative purposes only.*



5. Install Connector.

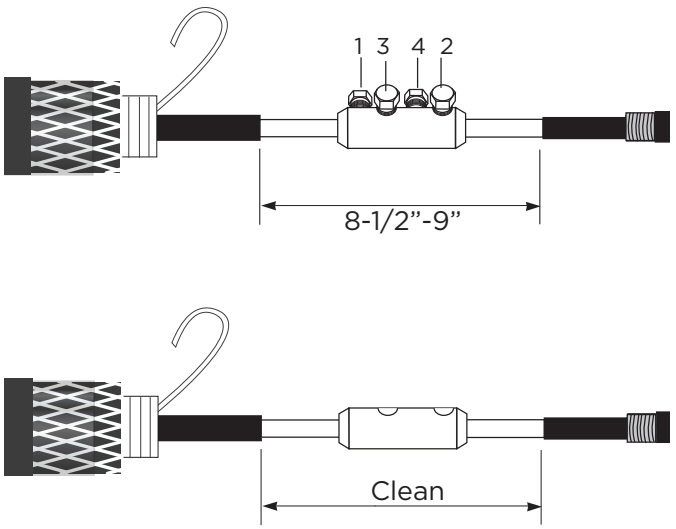
CHOICE 1: SHEAR BOLT CONNECTOR

Confirm that the dimension between semi-con cutbacks is 8-1/2”-9” for proper placement of splice body.

Insert conductors so that the insulation butts up with the end of the connector. Hand tighten the shear bolts so that the connector stays in place. Follow the tightening sequence as shown in the drawing. Using the abrasive tape included with the shear bolt connector, smooth any remaining part of the shear bolt that remains higher than the connector.

Abrade insulation (if necessary) and clean insulation using approved solvent.

Go to Step 7.

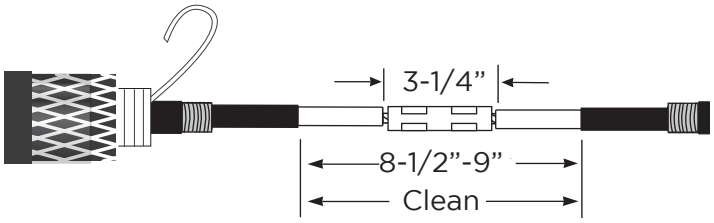


CHOICE 2: COMPRESSION CONNECTOR

Confirm that the dimension between semi-con cutbacks is between 8-1/2-9” for a proper placement of the splice body.

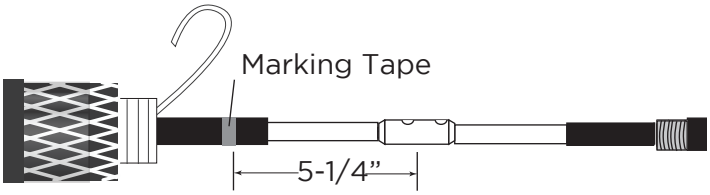
Also confirm that the distance between insulation cutbacks with the connector crimped will not be more than 3-1/4”.

After Installation use abrasive strip to deburr connector if necessary. Abrade insulation (if necessary) and then clean insulation using approved solvent. Clean and degrease the compressed conductor.



6. Install marking tape.

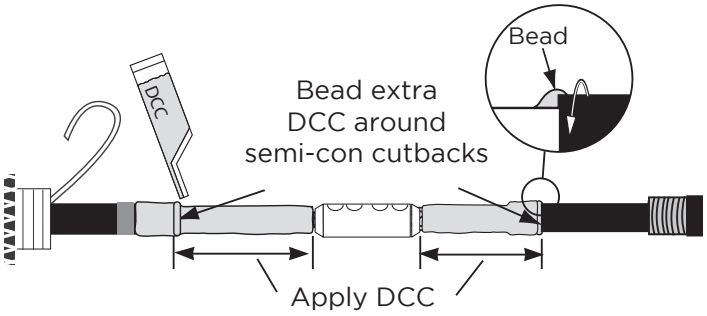
Install several turns of marking tape onto the cable semi-con 5-1/4” from the center of the connector as shown. This will be a guide for installing the splice body. The tape should be installed on the same side where the splice body is parked.



7. Apply blue DCC (Discharge Control Compound).

With a gloved hand, apply the blue DCC grease (Discharge Control Compound) to the cable insulation up to the semi-con cutbacks and tape mark with the supplied DCC. Be sure to use extra DCC to form a bead around the semi-con cutbacks as shown.

NOTICE ***Use only the BLUE DCC supplied in the kit to help fill voids. Do NOT use standard silicone grease.***

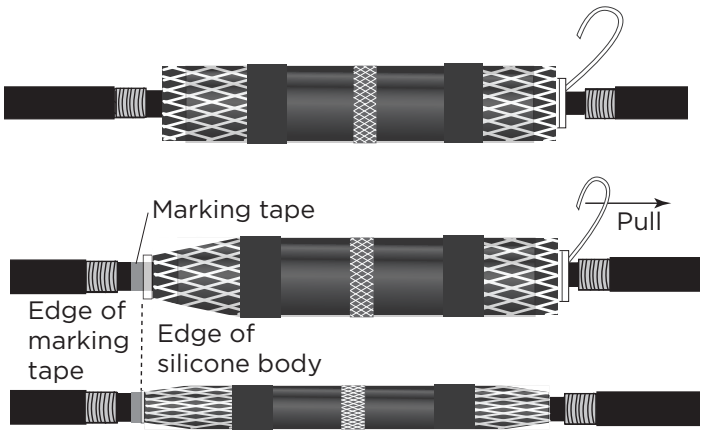


8. Installation of the splice body.

Position the splice body so that the silicone body's edge is aligned with the leading edge of the marking tape.

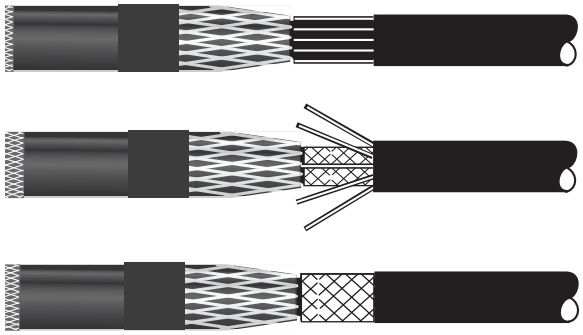
Release the spiral holdout by pulling counterclockwise while holding the splice body in place. The spiral holdout cannot be pulled out all at once. Slowly pull the spiral holdout on top of the cable and then pass it around and underneath the cable until the spiral has been completely removed.

NOTICE *The splice body must remain aligned with the marking tape while the spiral holdout is released. Once the splice is partially shrunk adjacent to the marking tape, there is no need to hold the splice. Use two hands at this point to remove the remaining spiral holdout.*



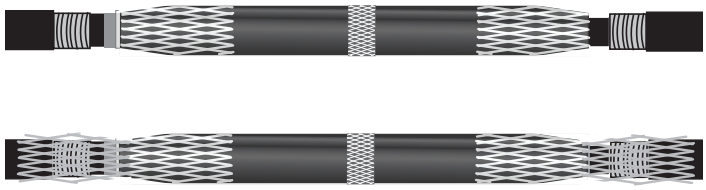
9. JCN Only: Apply Copper Mesh.

For JCN cable, lift neutrals, wrap 4 layers of mesh onto semi-con. Lay the neutrals back down and cover with 4 additional wraps of copper mesh.



10. Remove tape and straighten mesh sock.

Remove the temporary tape that was applied in Step 2. Remove the plastic wrap holding the ends of the mesh sock wires on the expanded splice, and straighten the mesh sock wires out over the metallic shield. If using a knife, be careful not to damage the rejacketing material.

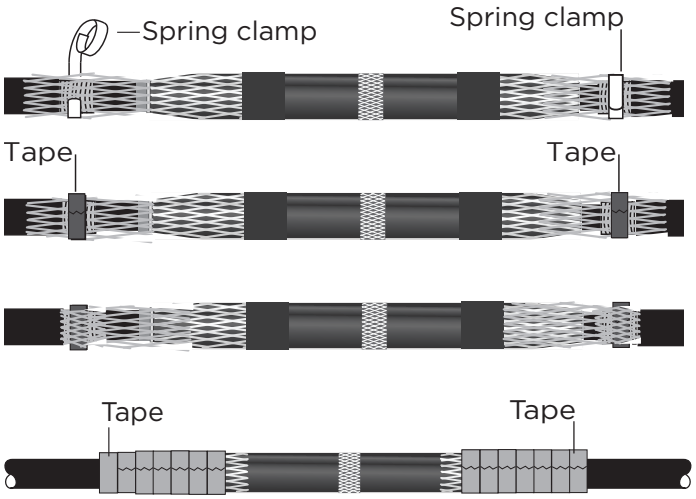


11. Apply spring clamps and tape.

Install the spring clamps over the mesh sock wires and cable metallic shield. Tighten the spring clamps by twisting it in the direction it is wrapped. Secure spring clamps with three layers of tape wrapped with high tension in direction of the spring clamps.

Fold the mesh sock wires over the spring clamps toward the center of the splice. Continue taping over the ends of the mesh sock wires to cover any sharp points.

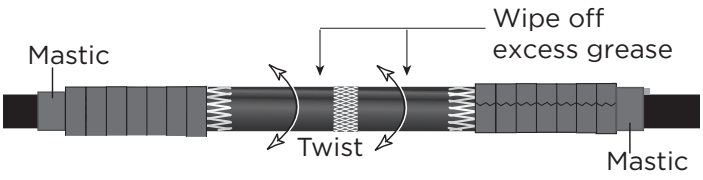
Repeat on the other side of the splice.



12. Expand re-jacketing sleeve.

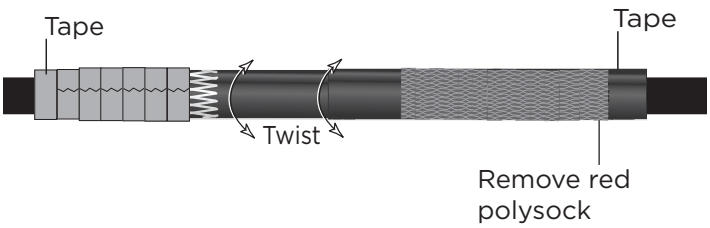
Install a strip of gray sealing mastic at each jacket cutback.

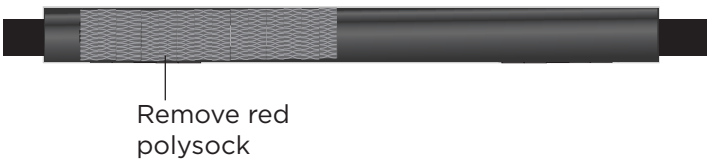
Wipe any grease material off of the black rejacketing sleeve to allow for a positive grip on the rejacketing sleeve.



Twist the black rejacketing sleeve from side to side to release the grease. Slide the rejacketing tube over the cable jacket. Remove the now exposed release liner and red poly sock carefully without cutting the other half of the black rejacketing sleeve.

Repeat for each side of the tube.





CSJU-S installation is complete.

The Information contained in these installation instructions is for use only by installers trained to make electrical power installations and is intended to describe the correct method of installation for this product. However, TE has no control over the field conditions which influence product installation. It is the user's responsibility to determine the suitability of the installation method in the user's field conditions. TE's only obligations are those in TE's standard Conditions of Sale for this product and in no case will TE be liable for any other incidental, indirect or consequential damages arising from the use or misuse of the products.

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