

# Installation Instructions - SFJ2 15/25 CXXXX

CONTENTS: Shrink Fit Joint, Splice (Conductor Contact), Grounding Wire, T-Handle, Lubricant (DO NOT SUBSTITUTE), and Installation Instructions.

The straight joint is a permanent, fully shielded, fully submersible joint for aluminum to aluminum and/or aluminum to copper conductor, wire shielded cables, with a continuous operating current rating equal to that of the cable on which it is installed and a rated voltage as indicated on the joint housing.

#### **DANGER**

All apparatus must be de-energized during installation or removal of part(s).

All apparatus must be installed and operated in accordance with individual user, local, and national work rules. These instructions do not attempt to provide for every possible contingency.

Do not touch or move energized products in the work area.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or

experience in such safety practices.

Excess distortion of the assembled product may result in its failure.

Failure to follow these instructions will result in damage to the product and serious or fatal injury. If this product is supplied with a protective shipping cover(s), remove this shipping cover(s) and replace with the appropriate HV insulated cap(s) or connector(s) before submerging or energizing the circuit

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ELASTIMOLD® OFFICE.

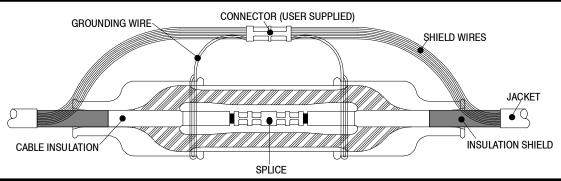
#### **Limited Warranty:**

- T&B warrants that its products will be free from defects in materials or workmanship for a period of two (2) years, except for tools which are warranted for 90 days. Fisher Pierce<sup>®</sup> products and Elastimold<sup>®</sup> Reclosers are warranted for three years; and Joslyn ™ VBT and VBU capacitor switches are warranted for four years or 40,000 operations whichever occurs first. Upon prompt notification of a warranted defect, T&B will, at its option, repair or replace the defective product.
- 2. In no event shall T&B be liable for any consequential, indirect or special damages, nor will T&B be liable for transportation, labor, or other charges arising out of the removal or reinstallation of its products. Liability for breach of warranty is limited to the cost of repair or replacement of the warranted product only.
- 3. Misuse, misapplication or modification of T&B products immediately voids all warranties.

THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE SPECIFICALLY DISCLAIMED.

#### **IMPORTANT**

- 1. Check contents of package to ensure they are complete and undamaged.
- Check all components to ensure proper fit with cable and/or mating products.
- 3. Read entire installation instructions before starting.
- 4. Have all required tools at hand and maintain cleanliness throughout the procedure.
- 5. Product must be installed within a two year period of time from the manufactured date on the label and part.
- 6. The temperature of the joint and that of the environment in which it is installed are critical to the proper conforming of the splice to the insulation of the cable:
  - If the joint has been stored at a temperature below 32°F/0°C, it must be warmed to a temperature of at least 59°F/15°C for not less than one hour prior to installation. Installation must be completed within ten minutes after it has been re—warmed.
  - If the joint has been stored at a temperature between 32°F/0°C and 59°F/15°C, the joint may not be energized within 45 minutes of installation to allow the splice to conform to the insulation of the cable.
  - If the joint has been stored at a temperature above 59°F/15°C, the joint may not be energized with 30 minutes of installation to allow the splice to conform to the insulation of the cable.

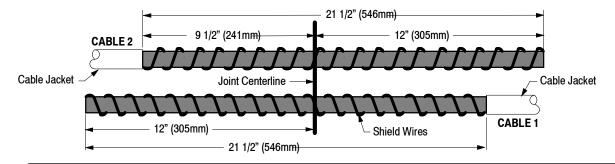




#### CABLE JACKET

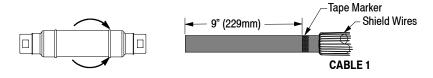
#### STEP A

- 1. Overlap both cables and cut to 12" (305mm) from center line of joint. This procedure will ensure sufficient length of shield wires to be able to rejoin over joint.
- 2. Where applicable, remove cable jacket of Cable 1 to 21 1/2" (546mm) and that of Cable 2 to 21 1/2" (546mm).
- Fold back shield wires.
- 4. Cut both cables at center line of joint.



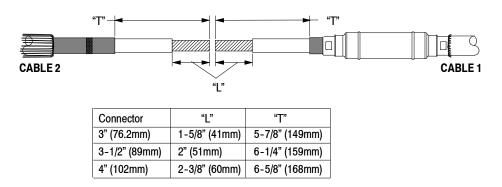
### STEP B - PREPARE CABLE 1 & STORE HOUSING

- 1. Bend the joint back and forth to allow the cores to move inside of joint.
- 2. Slide the joint over the folded back concentric wires.
- 3. Measure back from the edge of the conductor 9" (229mm) and place a piece of tape at the edge. This tape marker will be used to center the joint. Do the same on Cable 2.



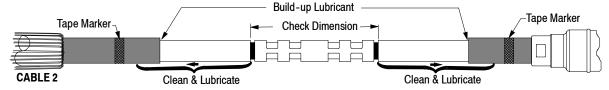
# STEP C - PREPARE CABLES FOR SPLICE INSTALLATION

Carefully remove the insulation shield and then the insulation from both cables. The "L" dimension will change depending on the length of the contact, shown in table below. **DO NOT CUT OR NICK THE CABLE INSULATION OR CONDUCTOR.** This could result in failure of the assembly.



## STEP D - SPLICE INSTALLATION

- 1. Aluminum conductors must be wirebrushed and immediately inserted into the splice connector. Be sure "Check Dimension" prior to crimping does not exceed Check Dimension 1 otherwise redo assembly.
- 2. Crimp the splice connector following the recommendations provided with it.
- 3. Wipe off all excess inhibitor (where applicable), then check the distance between cable insulations. If it exceeds Check Dimension 2 redo assembly.
- Remove any sharp protrusions/burrs that were generated when crimping the splice. Metal chips/filings must be removed from the splice prior to assembly into position.
- Clean cables where indicated. Lubricate in the direction of arrows to provide a build-up or ramp of lubricant at the edge of the insulation shield.



	Not to Exceed Before Crimping	Not to Exceed After Crimping
Connector	Check Dimension 1	Check Dimension 2
3" (76mm)	4" (102mm)	4-1/2" (114mm)
3-1/2" (89mm)	4-1/2" (114mm)	5" (127mm)
4" (102mm)	5" (127mm)	5-1/2" (140mm)

## STEP E - COMPLETE JOINT ASSEMBLY

- 1. Position the joint up on cores over the connector and in between the tape markers. Cut the bands holding the cores into the splice body. Squeeze the joint body in the middle. If required, hook the T-handle tool into the slots at the end of the core and hold the joint body while pulling on the cores to expel them.
- 2. Once both cores are expelled, the joint body needs to be centered between both tape markers. Remove the tape markers from the semi-conducting shield of the cable.
- 3. Cut the #12 ground wire in half and wrap a loop of #12 ground wire around one stress cone and twist tightly. Use the other half of the #12 ground wire and wrap a loop around the stress cone and twist tightly.
- 4. Connect each of the grounding wires into an appropriate connector with the shield wires of each cable, as shown below.
- 5. Reconstruct cable jacket (where applicable) over both cables and also over joint housing.

