

Installation Instructions – K655/K675ELR and K656/K676ELR Extended Deadbreak Elbow Connector

Contents of Kits (Y = Included, Blank = Not Included)					
Component	K655ELR-WX K656ELR-WX	K655BELR K656BELR	K655BELRN K656BELRN	K655ELR K656ELR	K655ELRN K656ELRN
Repair Elbow	Y	Y	Y	Y	Y
Cable Adapter	Y				
Compression Lug	Y				
Insulating Plug & Cap	Y			Y	Y
Extension Connector	Y	Y	Y	Y	Y
Hardware Prepack	Y				
Stud	Y	Y		Y	
Installation Instructions	Y	Y	Y	Y	Y
Crimp Chart	Y				
Lubricant	Y	Y	Y	Y	Y

The K655/K675ELR and K656/K676ELR connectors are designed to: 1) provide fully shielded, fully submersible deadfront cable connections to high voltage apparatus and 2) provide a means to splice and tap 600-ampere (K655/K656ELR) or 900-ampere (K675/K676ELR) systems. The connectors are rated for use on systems up to 28kV class. The cable preparation for this elbow is the same as ElastimoldR regular "LR" series elbows, i.e. K655LR. This longer ELR elbow uses an extension connector to span the additional 8-5/16" (211mm) distance.

DANGER

All apparatus must be de-energized during installation or removal of part(s). For loadbreak products follow operating instructions. All deadbreak connectors must be de-energized before operating. All 200A deadbreak connectors must be mechanically secured with bails when connected.

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.

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

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

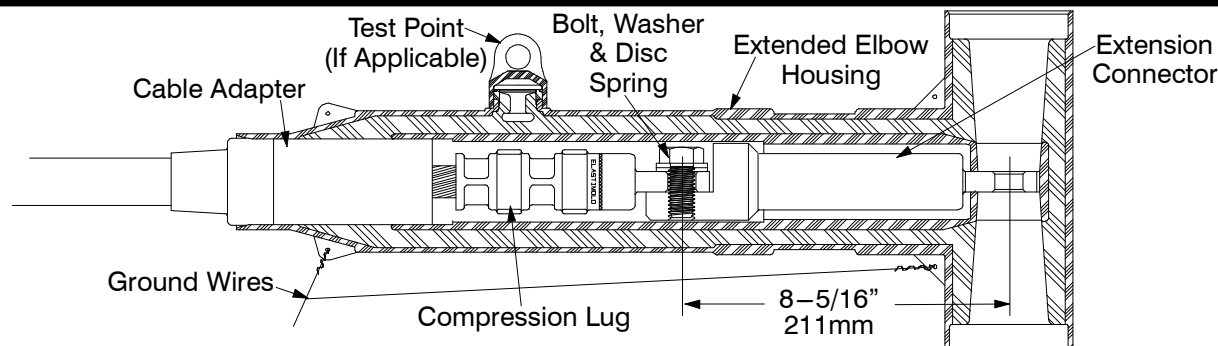
Limited Warranty:

1. 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® products and Elastimold® 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.

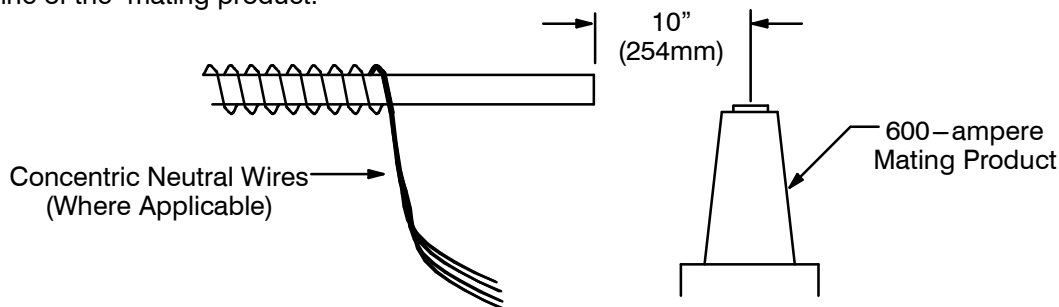
IMPORTANT

1. Check contents of package to ensure they are complete and undamaged.
2. 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.



GENERAL INSTRUCTIONS

- Position the cable so it is located in the final assembled position with enough slack to provide adequate clearance for removing the elbows. For concentric neutral cable, unwind the concentric neutral wires. Cut the cable 10" (254mm) from center line of the mating product.

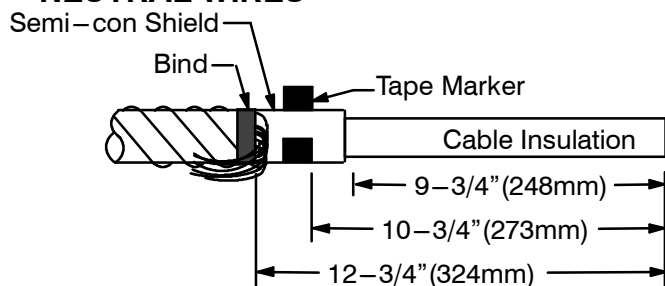


- Clean the outer surface of the cable a distance of 24" (610mm).
- If a 20MA or 21MA grounding device, 600ECS Jacket Cable Seal or 10TL Adapter is being used, refer to the Installation Instructions supplied with those products for removal of cable outer jacket, shield connection and grounding.
- Any reference to Lubricant, use the silicone grease that's supplied by Elastimold®.

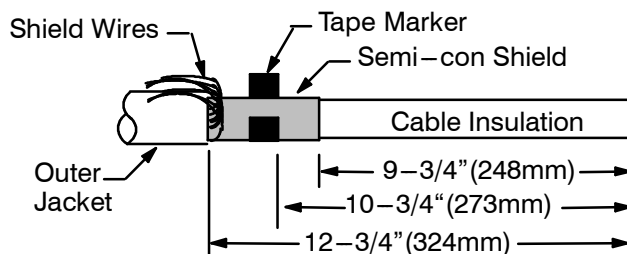
STEP 1

Remove the outer jacket (where applicable). Remove semi-con shield and install tape marker to dimension shown. Do not cut or nick the cable insulation.

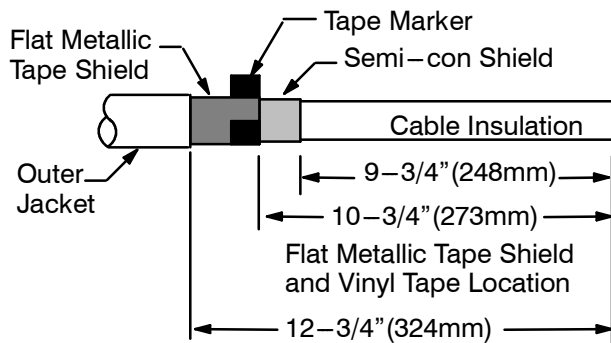
a. NON-JACKETED CONCENTRIC NEUTRAL WIRES



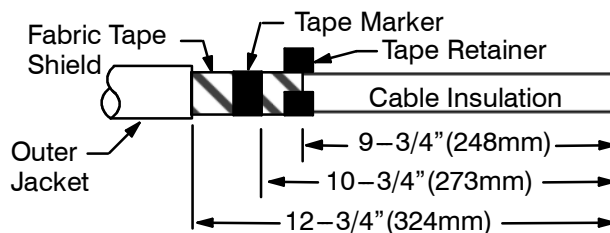
b. JACKETED SHIELD WIRES



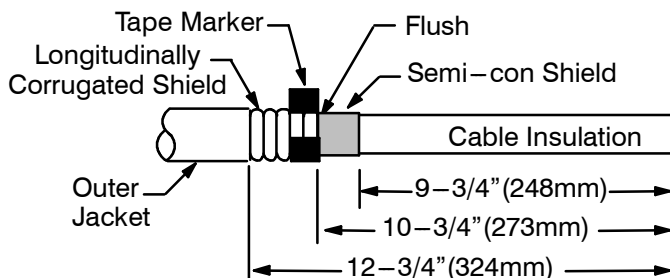
c. JACKETED FLAT METALLIC TAPE SHIELD



d. JACKETED FABRIC TAPE SHIELD



e. JACKETED LONGITUDINALLY CORRUGATED SHIELD



f. UNISHIELD* CABLE

If using UNISHIELD* CABLE, a 10TL cable shield adapter is required. Refer to the Installation Instructions supplied with the 10TL cable shield adapter for cable preparation and grounding.

**Unishield is a registered Trade Mark of ANACONDA WIRE and CABLE COMPANY.*

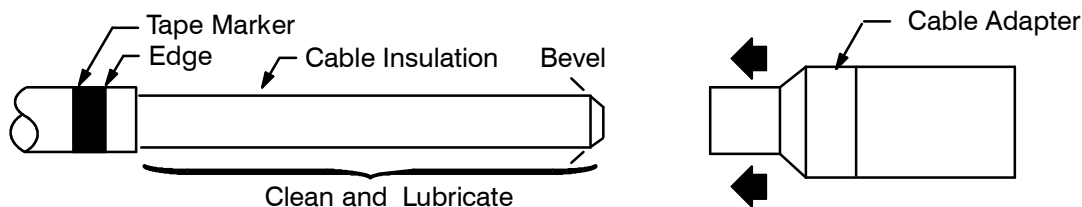
g. LEAD SHEATH CABLE

If using lead sheath cable, a 10TL cable shield adapter is required. Refer to the Installation Instructions supplied with the 10TL cable shield adapter for removal of outer jacket, lead sheath and grounding.

STEP 2 CABLE ADAPTER

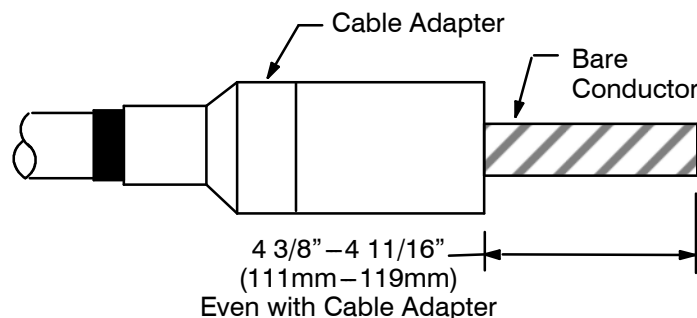
NOTE: If applicable, Install grounding device housing onto cable at this time.

Bevel the end of the cable insulation at a 45° angle, approximately 1/4" (6mm) back. Thoroughly clean, then lubricate cable insulation always working toward semi-con shield. Install cable adapter, small end first, until it is flush with the edge of the tape marker.



STEP 3 CONDUCTOR

Remove the protruding cable insulation by cutting it even with the end of the cable adapter. Do not cut or nick the cable adapter or the conductor. The length of exposed conductor MUST BE 4 3/8"–4 11/16" (111mm–119mm).

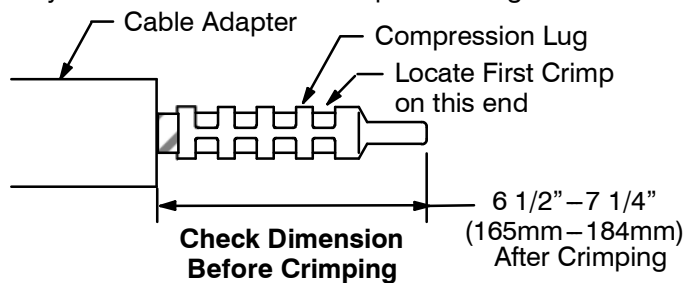


STEP 4 COMPRESSION LUG

Copper Conductor: Fully insert conductor into compression Lug.

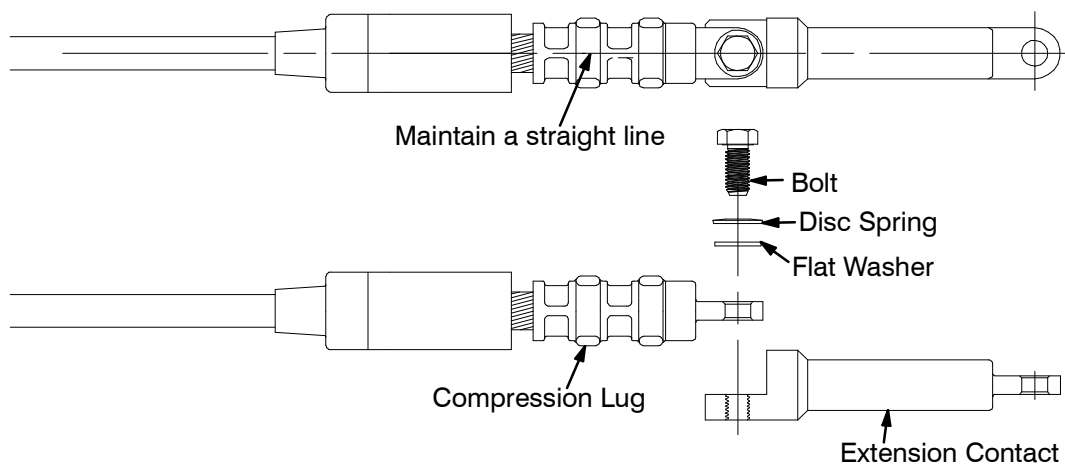
Aluminum Conductor: Wire brush conductor and immediately fully insert conductor into compression lug.

Measure the "Check Dimension" before crimping. This dimension MUST BE less than 6 1/2" (165mm). Crimp the compression lug following the crimping instructions supplied with the lug. Wipe all excess inhibitor from compression lug and cable adapter surface after crimping. The distance from the end of the compression lug to the cable adapter after crimping MUST BE 6 1/2"–7 1/4" (165mm–184mm).



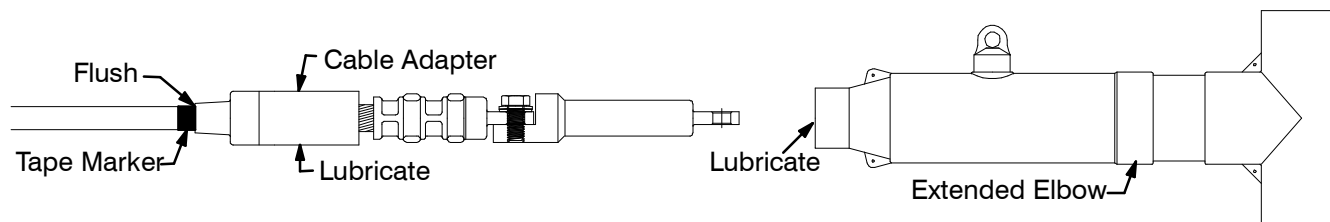
STEP 5 ATTACH EXTENSION CONTACT

Attach the extension contact to the compression lug using the flat washer, disc spring and bolt supplied. With the lug and contact in a straight line, tighten to 50–60 foot-pounds torque.



STEP 6 INSERT CABLE

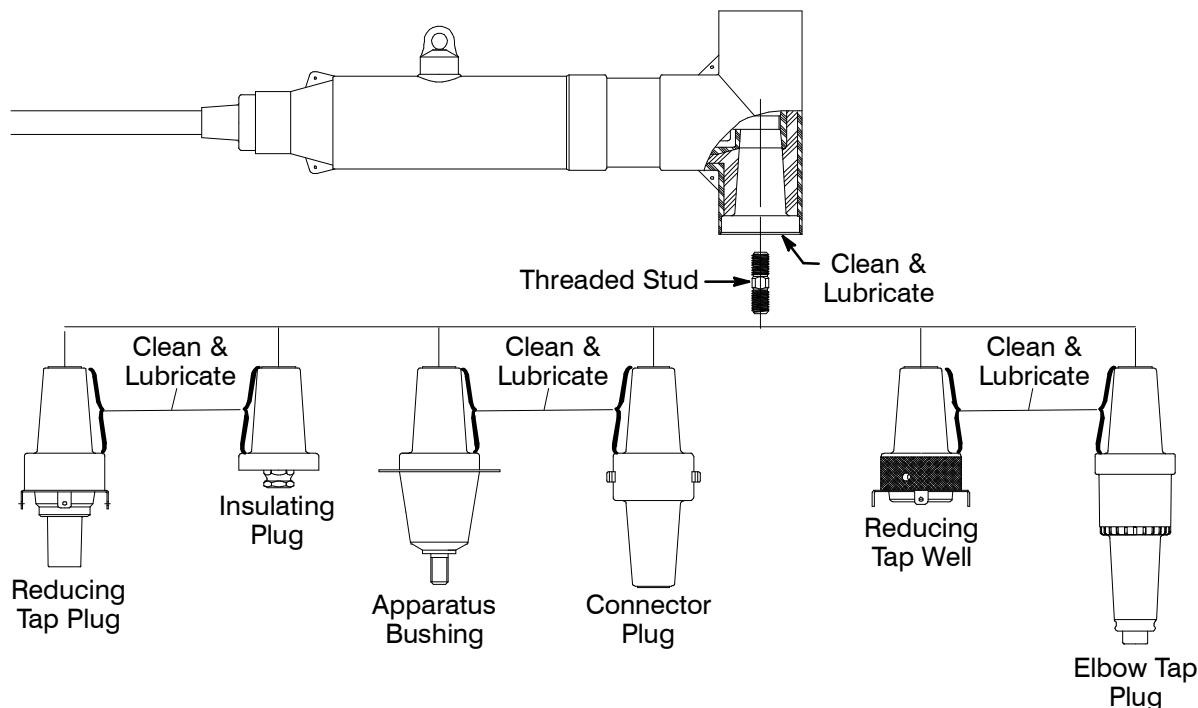
Lubricate cable adapter and inside of elbow cable entrance. Install elbow onto cable adapter until the elbow can not advance further. Make sure cable adapter is still flush with tape marker. If not, reposition cable adapter. Remove tape marker.



STEP 7 MATING PRODUCTS

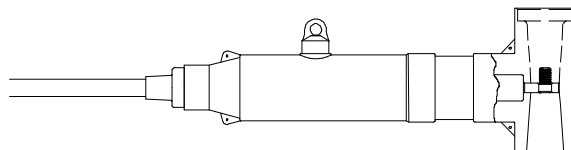
DO NOT CONNECT OR DISCONNECT MATING PRODUCTS WHILE ENERGIZED.
DO NOT ENERGIZE WHILE DISCONNECTED.

Remove protective caps from the elbow and the mating part. Hand tighten the threaded stud supplied with the elbow into mating part, if the mating part is not equipped with a stud. Clean and lubricate both the elbow and the mating part with lubricant. (Keep surfaces of elbow and mating part clean.)



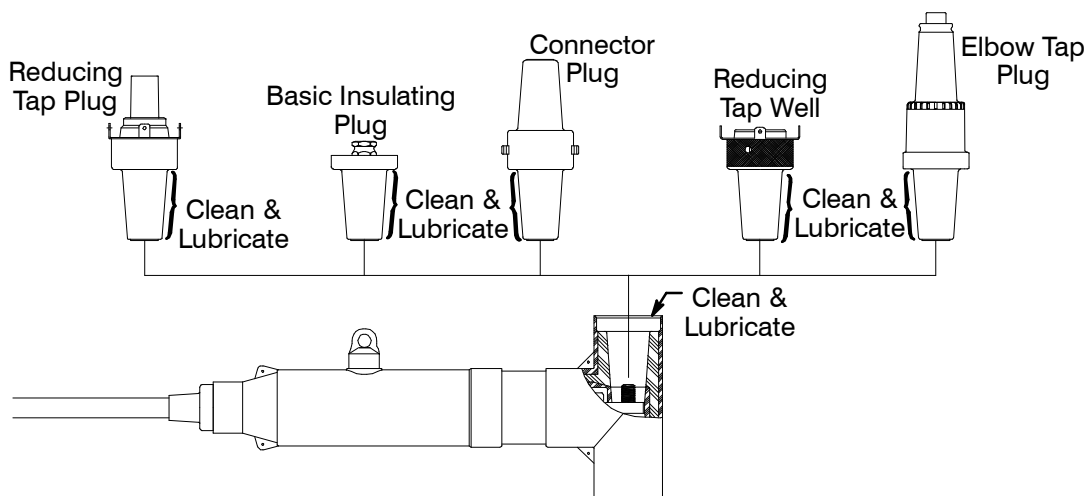
STEP 8

Push elbow onto mating part, lining up the hole in the extension contact with the stud on the mating part.



STEP 9

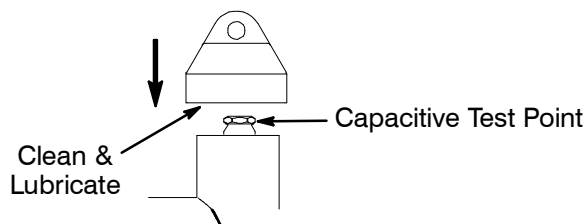
Clean and lubricate both the elbow and the mating part with lubricant. Insert the mating part into the elbow. Engage the threads and hand tighten. Torque mating part according to the instructions supplied with the mating part.



STEP 10

If an insulating plug is used as a mating part, clean and lubricate inner surface of the voltage detection cap and place on elbow. Push down hard until cap snaps into place.

CAUTION: The insulating plug provides a means for detecting system voltage. Follow VOLTAGE TEST directions below.

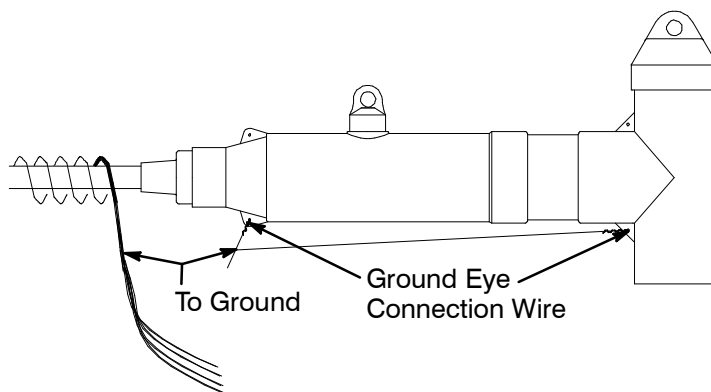


STEP 11

Insert one end of a piece of wire with ampacity at least equivalent to No. 14 AWG Copper through each grounding eye and twist to make a small loop. Do not damage the eye. Connect wire to ground using a suitable connector.

The shield of the cable must be grounded. Ground according to the instructions supplied with the grounding device. If no grounding device is used, the shield must be grounded through an alternate method.

It is also recommended that the jacket of the cable be waterproofed at this point to prevent moisture from entering the cable.



VOLTAGE TEST ON K656ELR/K676ELR

The ELASTIMOLD® deadbreak elbow connector is equipped with an integral capacitance test point that can be used to establish whether or not the circuit is energized. When using the test point, complete the following steps:

1. Remove test point cap with a hotstick. When removing cap, PEEL OFF AT AN ANGLE rather than pulling directly in line with the test point assembly.
2. **WARNING:** THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. Do not use conventional voltage measuring equipment. Follow the manufacturer's directions for the meter that is used. Test with a suitable sensing device, made for use with separable connectors manufactured with capacitive test points, to determine if cable is energized. Contamination, moisture, dirt, etc. around the test point or use of the wrong measuring equipment can provide a false "no voltage" indication on an energized elbow. To prevent serious or fatal injury treat the elbow as energized until the "no voltage" test point indication is confirmed by other means.
3. After voltage detection has been made, clean and lubricate the inside surface of the cap with silicone grease and replace it on the test point.

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