Installation Instructions
167LRT
LOADBREAK BUSHING TAP

CONTENTS: Bushing Tap Housing, Compression Lug, Socket Contact, Wrenches, Lubricant (Do Not Substitute), Well Contact, Installation Tool, Installation/Operating Instructions.

The 167LRT is designed to terminate UD cable having concentric neutral and semi-con shielding. The bushing provides an operating interface for connecting of an Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) 200ampere loadbreak elbow or accessory device. When other types of UD cable are to be terminated an appropriate Elastimold cable shield or grounding device must be used.

DANGER

All apparatus must be de-energized during installation or removal of part(s) except for test point caps and indicators that can be installed and operated energized.

After installation loadbreak products can be operated energized per operating instructions. All deadbreak connectors must be de-energized before operating.

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.

"Loadbreak connectors must be operated with a full insulated "hotstick" type live–line tool." Consult the company's safe work practices for the required live–line tool length.

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

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.

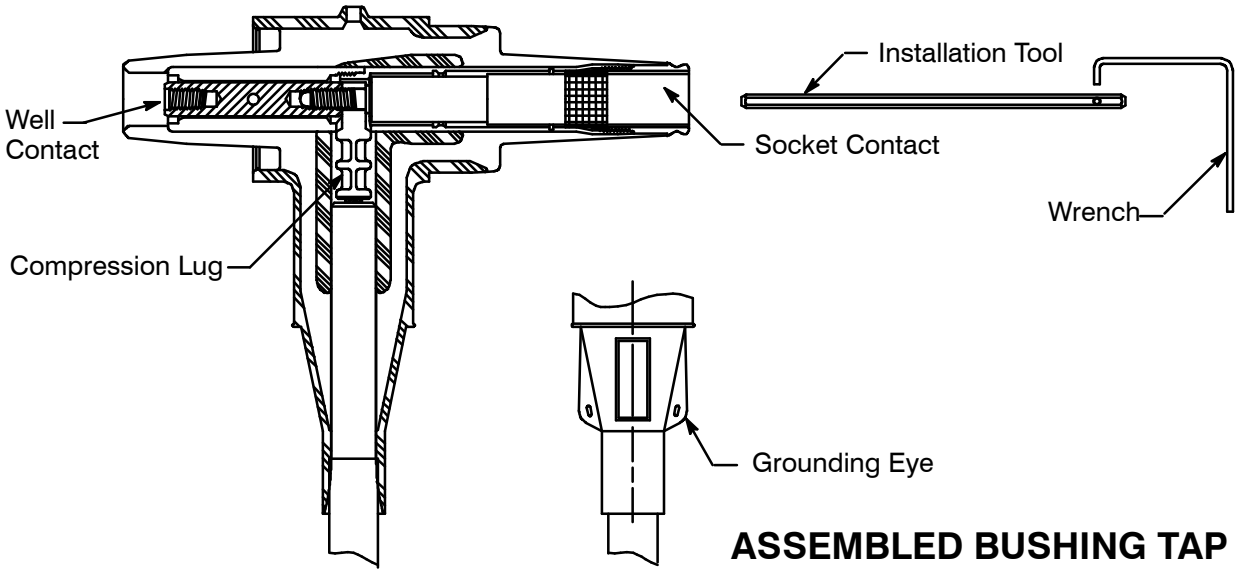
Failure to follow these instructions will result in damage to the product and serious or fatal injury.

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.

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.



ASSEMBLED BUSHING TAP

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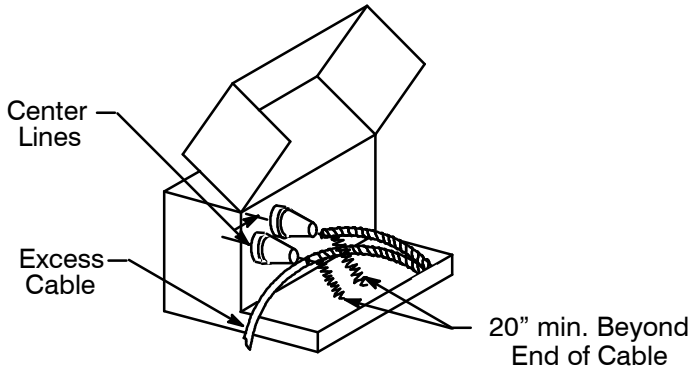
STEP 1 CABLE TRAINING

1. Train cable as shown to ease operation.
2. Cut excess cable squarely at center line of bushing.

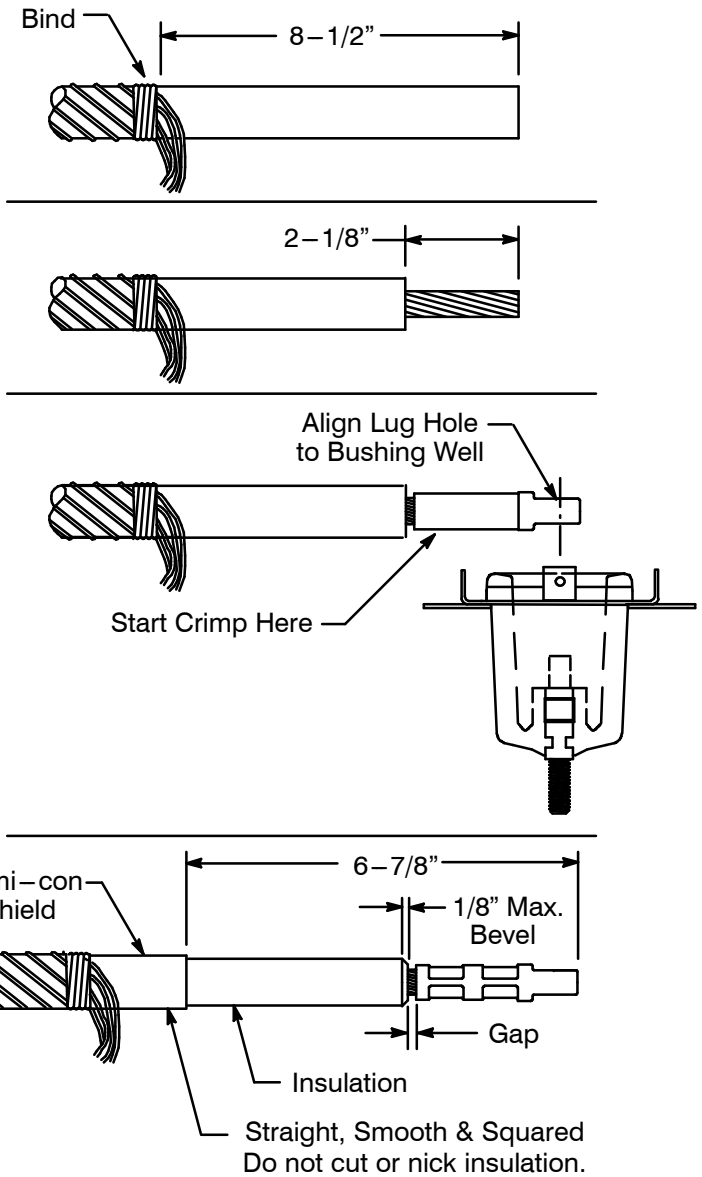


Pad Mount Transformer

STEP 2 CABLE PREPARATION

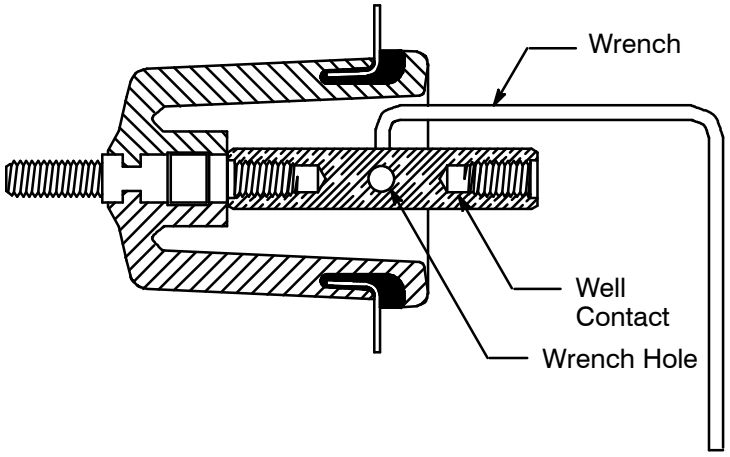
(Use cable cut back template for dimensional guide.)

1. Unwrap and bind concentric neutral wires 8–1/2” back from end of cable.
2. Remove shield and insulation from the cable end. Cut squarely taking care not to nick the conductor.
3. Wire brush bare aluminum conductors and immediately install compression lug. Rotate to spread inhibitor. Position compression lug so the CONTACT THREADED HOLE ALIGNS WITH THE BUSHING BORE. (Refer to crimp chart packaged with compression lug for recommended crimp tool information.) Start crimp at the crimp line mark. Rotate 180° each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.
4. Remove semi–con shield as shown. Bevel insulation end 1/8” max.
5. Thoroughly clean insulation to remove all traces of conductive residue.



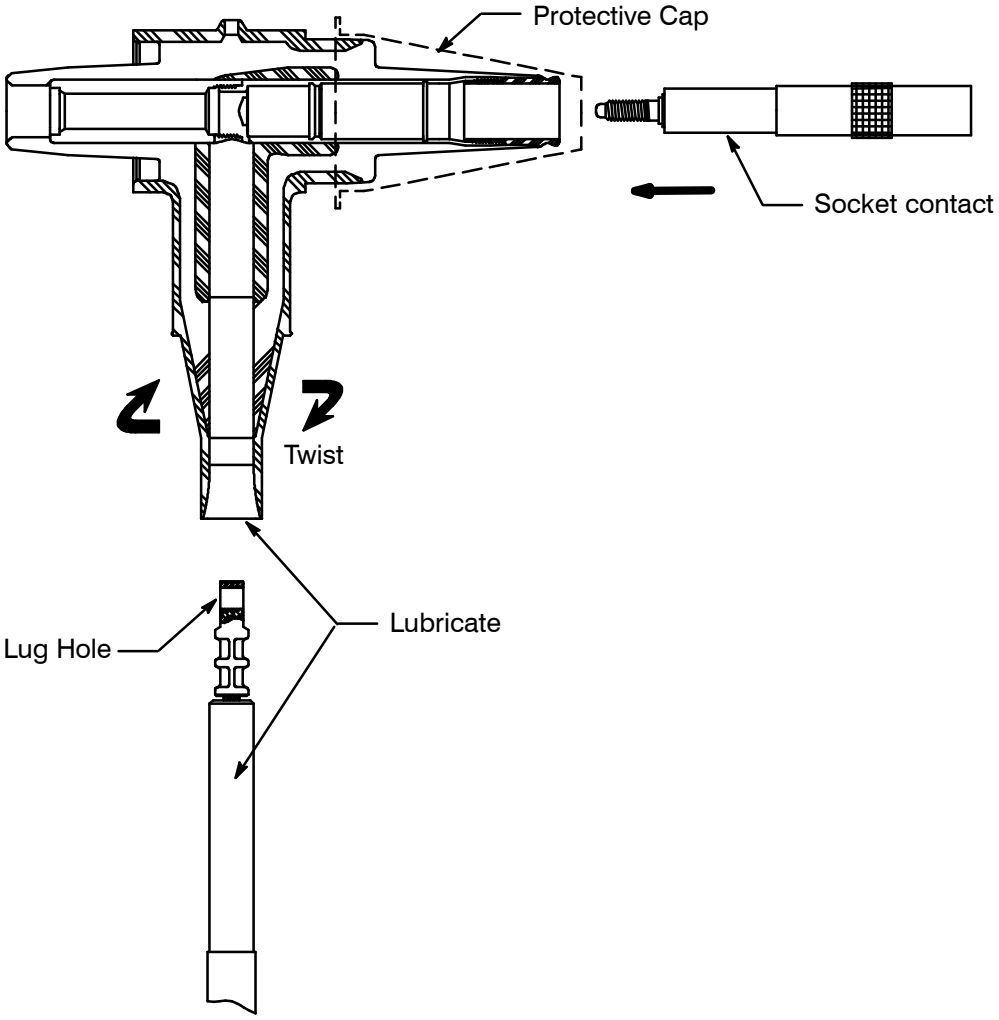
STEP 3 BUSHING WELL CONTACT ASSEMBLY

Thread well contact on–to bushing well stud by hand, taking care not to cross–thread. Tighten with wrench until wrench bends.



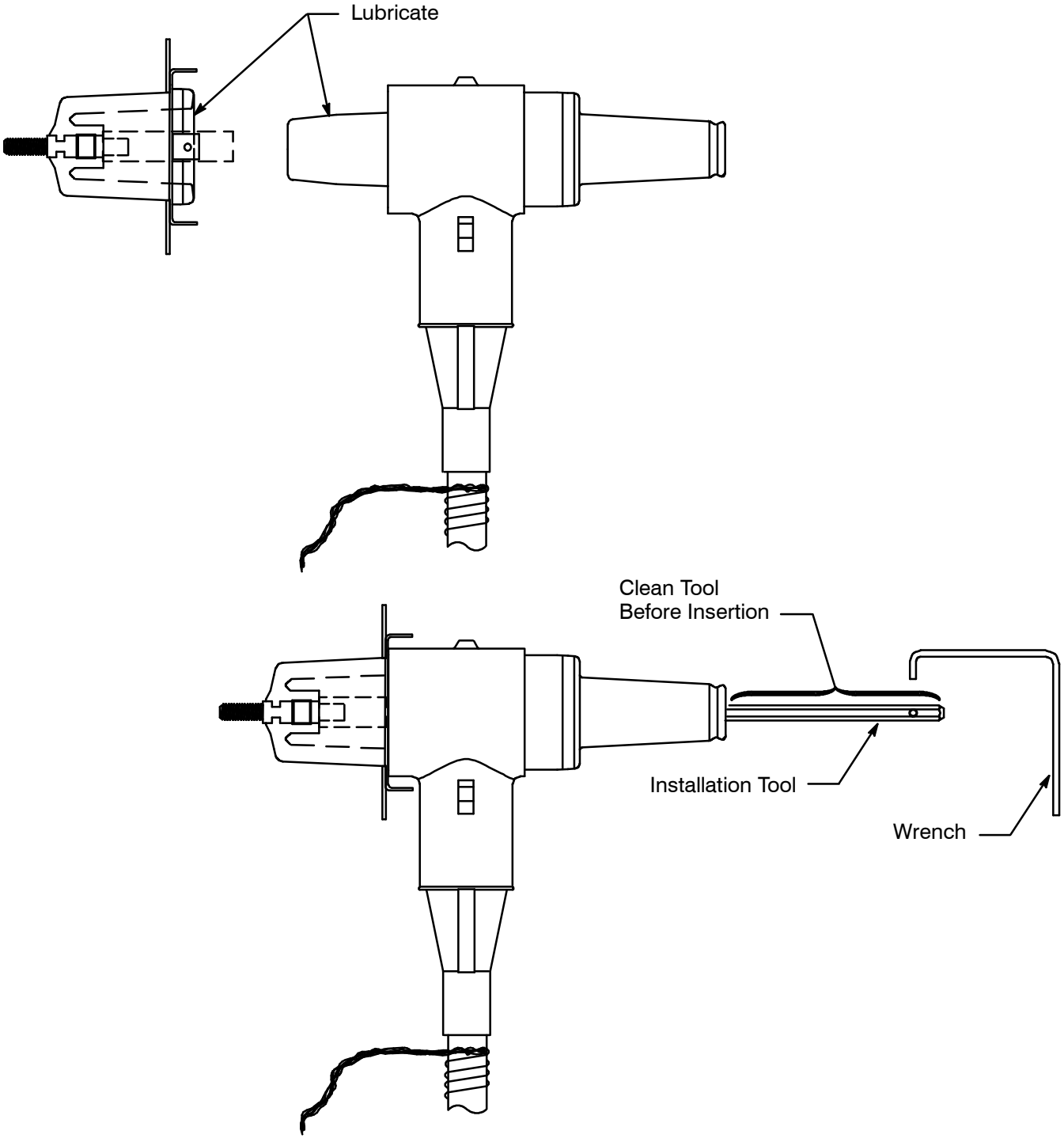
STEP 4 BUSHING TAP ASSEMBLY

1. Remove protective cap from bushing tap.
2. Remove socket contact stored inside of bushing tap housing.
3. Lubricate the cable insulation and inside the bushing housing with the lubricant supplied. DO NOT SUBSTITUTE. Other lubricants may be harmful to this product or its mating product(s). Keep insulation clean of dirt and grime. Do not use excess grease and do not introduce any grease into the gap between the lug and the insulation.
4. Slide the bushing tap onto the cable with a back and forth twisting motion. Wipe off all excess grease.
5. Align bushing with compression lug hole. Assemble socket contact into bushing tap. Socket contact stud must pass through lug hole.



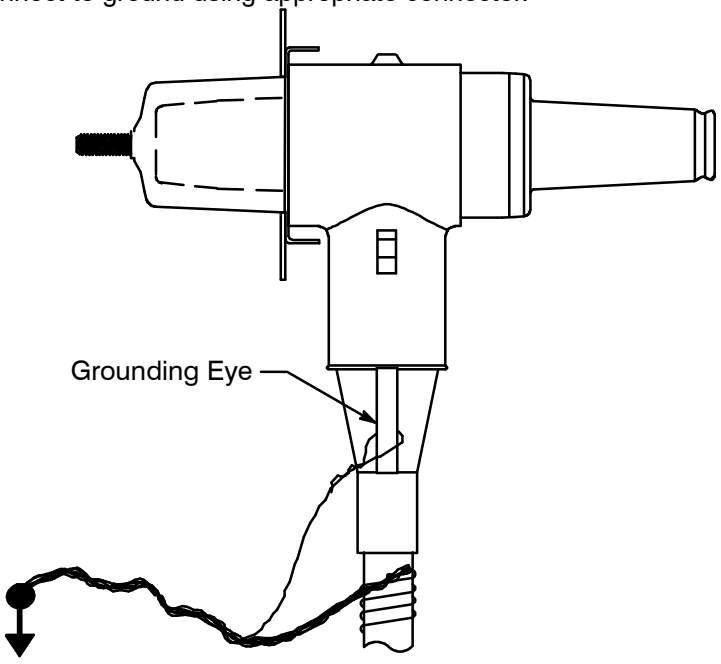
STEP 5 LUBRICATION AND MOUNTING

1. Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Lubricate the bushing well interface area of the bushing tap with the supplied lubricant or ELASTIMOLD approved lubricants.
2. Place the lubricated portion of the bushing tap in the apparatus bushing well. Insert the installation tool in the bore of the bushing tap until fully seated. Insert the wrench through the wrench hole of the tool and turn in a clockwise direction until the wrench bends signifying the proper assembly torque has been reached. Remove wrench and installation tool from bushing tap.



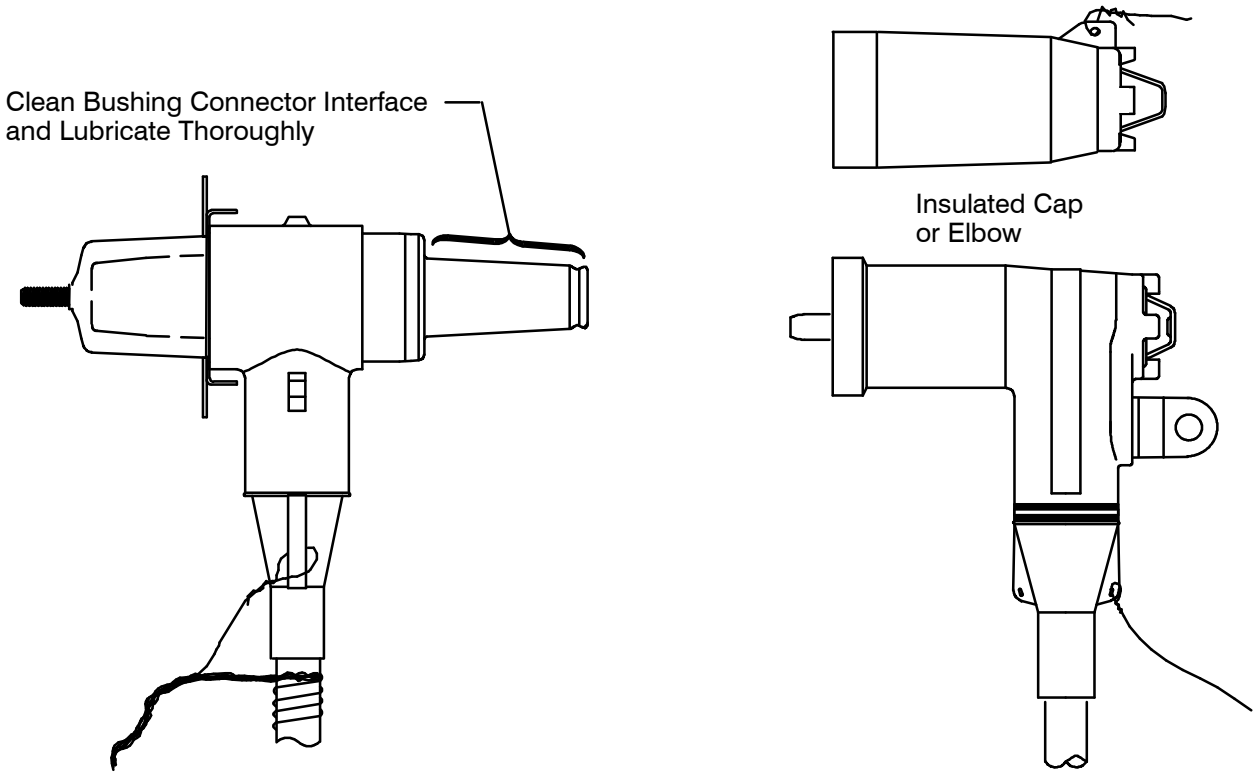
STEP 6 CONCENTRIC NEUTRAL CONNECTION

1. Insert one end of a No. 14 AWG (2.5mm) copper wire or equivalent through the grounding eye on the bushing tap. Twist tight taking care not to damage eye.
2. Twist neutral wires and connect to ground using appropriate connector.



STEP 7

Thoroughly wipe the bushing tap interface clean of any contaminants and apply a light, uniform coat of supplied lubricant, working thoroughly into surface. CAUTION: EXCESS LUBRICANT may prevent a loadbreak elbow from being fully seated in the “locked on” position. Install the mating products to the bushing tap following the instructions supplied with the mating products. If the bushing tap is not to be immediately mated with an elbow connector, insulated cap or grounding elbow connector, replace the shipping cap. Do not energize or submerge the apparatus with the shipping cap on the bushing tap. This is a protective cap only which is not insulated or water tight and only intended to keep the bushing tap surfaces clean during handling and installation.



OPERATING INSTRUCTIONS

Before Loadmake or Loadbreak Operation:

Loadbreak connectors must be operated with a full insulated “hotstick” type live-line tool. Consult the company’s safe work practices for the required live-line tool length.

Remove Fluid Injection or Voltage Test Cap and install Insulated Cap following instructions packaged with these parts.

Area must be clear of obstructions or contaminants that would interfere with the operation of the connector. This position should allow you to establish firm footing and enable you to grasp the hotstick tool securely, maintaining positive control over the movement of the loadbreak connector before, during and directly after the operating sequence. Because of the control, speed and force required to engage or disengage the elbow, certain operating positions are more advantageous than others. If there is some question as to proper operating position, it is recommended that the connectors be operated de-energized. Do not connect two different phases of a multiple-phase system. Before closing a single-phase loop, make certain both ends of the loop are the same phase.

LOADMAKE OPERATION

Check appropriate accessory device operating instructions to be sure that the device is rated for energized operation.

1. Area must be clear of obstructions or contaminants that would interfere with the operation of the connector.
2. In preparing bushing for elbow connector, remove insulated cap by attaching hotstick tool to the insulated cap pulling eye, and following the instructions for this accessory, remove from bushing.
3. Securely fasten a hotstick to the loadbreak connector pulling eye.
4. After establishing firm footing and positive control of the elbow connector, withdraw the elbow from the accessory device on the apparatus parking stand with a fast, straight, firm motion being careful not to place the elbow connector near a ground plane.
5. Place the elbow connector receptacle area over the bushing plug, inserting the elbow male contact (arc follower portion) into the bushing until the first slight resistance is felt. Resistance is felt when the arc follower portion of the male contact first meets the female contact of the bushing (at this point the contacts are approximately 2” apart).
   DO NOT HOLD IN THIS POSITION BUT IMMEDIATELY PUSH THE ELBOW HOME WITH A FAST, FIRM, STRAIGHT MOTION, which will engage the internal lock on the elbow and bushing interface.
   Apply sufficient force to engage the internal lock on the elbow connector and bushing interface.

Fault Close

1. **It is not recommended that operations be made on known faults**.
2. If a fault is experienced, both the elbow connector and the bushing must be replaced.

LOADBREAK OPERATION

1. Place desired accessory device on apparatus parking stand.
   Refer to appropriate operating instructions for accessory device to be used. Be certain it is rated for energized operation.
2. Firmly tighten a hotstick to the loadbreak connector pulling eye.
3. Without exerting any pulling force, slightly rotate the connector in order to break surface friction prior to disconnection.
4. Withdraw the connector from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
5. Place connector on appropriate accessory device, following the operating instructions for that accessory.

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