Installation Instructions

156LR
Deadbreak Elbow Connectors

CONTENTS: Elbow Connector Housing, Compression Lug, Probe, Probe Contact , Wrench, Lubricant, Hold-down Bail, Installation Instructions.

The 156LR is designed to terminate UD cable having concentric neutral and semi-con shielding. The elbow provides a voltage test point and an operating interface for connecting to an Elastimold 15kV class (8.3kV phase-to-ground and 14.4kV phase-to-phase) or 25kV class (15.2kV Phase-to-Ground and 26.3kV phase-to-phase) 200 ampere deadbreak bushing 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). 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.

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.

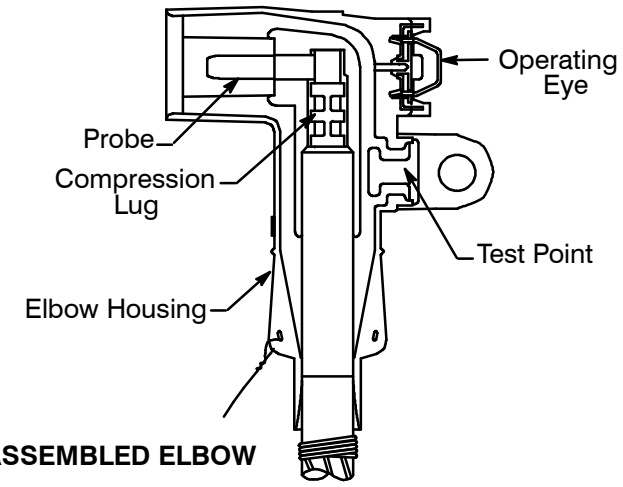
If this product is supplied with a protective shipping cover(s), remove this shipping cover(s) and replace with the appropriate HV insulated cap(s) or connector(s) before submerging or energizing the circuit.

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

IMPORTANT

SYSTEM MUST BE DE-ENERGIZED

1. Unit Must be Bailed
2. Check contents of package to ensure they are complete and undamaged.
3 Check elbow housing cable entrance size and compression lug size to ensure proper fit with cable.
4. Check threads by threading probe into compression lug. If resistance is encountered prior to full assembly, check for damage and replace damaged component.
5. Read entire installation instruction before starting.
6. Have all required tools at hand and maintain cleanliness throughout the procedure.



ASSEMBLED ELBOW

Caution: If test point cap is not installed, lubricate cap and test point and install cap.

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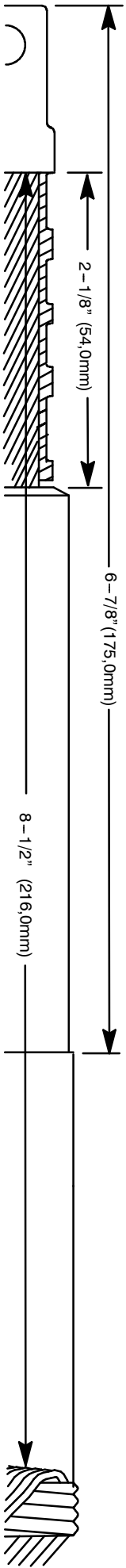
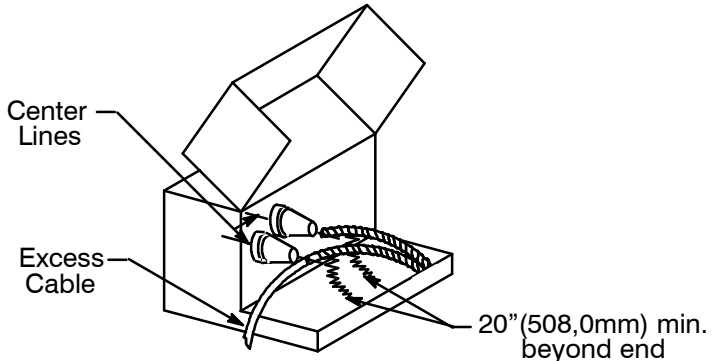


STEP 1 CABLE TRAINING

A. Train cable as shown to ease operation.

B. Cut excess cable squarely at center line of bushing.



Pad Mount Transformer

STEP 2 CABLE PREPARATION

(Use cable cut back template for dimensional guide.)

A. Unwrap and bind concentric neutral wires 8-1/2" (216,0mm) back from end of cable.

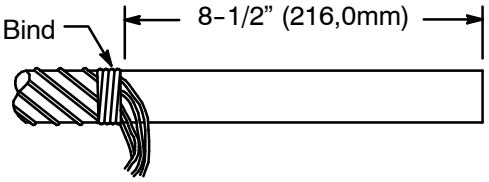
B. Remove shield and insulation from the cable end. Cut squarely taking care not to nick conductor.

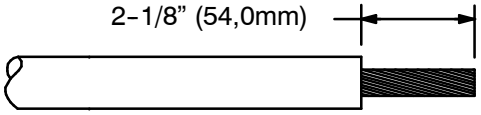
C. Wire brush bare aluminum conductors and immediately install compression lug. Rotate to spread inhibitor.

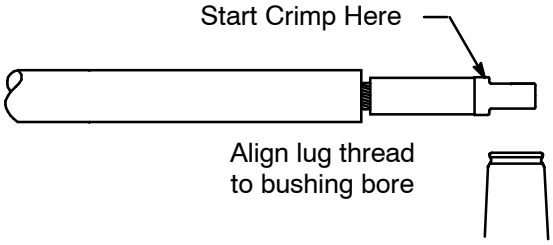
Position compression lug so the CONTACT THREADED HOLE ALIGNS WITH THE BUSHING BORE. (Refer to crimp chart packaged with compression lug for recommended crimp tool information). Start crimp at the crimp line mark. Rotate 180^0 each successive crimp. Carefully wipe excessive inhibitor from the outside of the lug and cable.

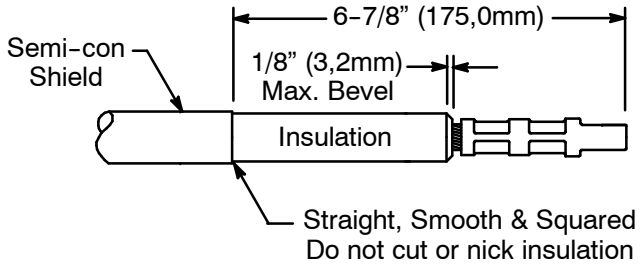
D. Remove semi-con shield as shown. Bevel insulation end 1/8" (3,2mm) max.

E. Thoroughly clean insulation to remove all traces of conductive residue.









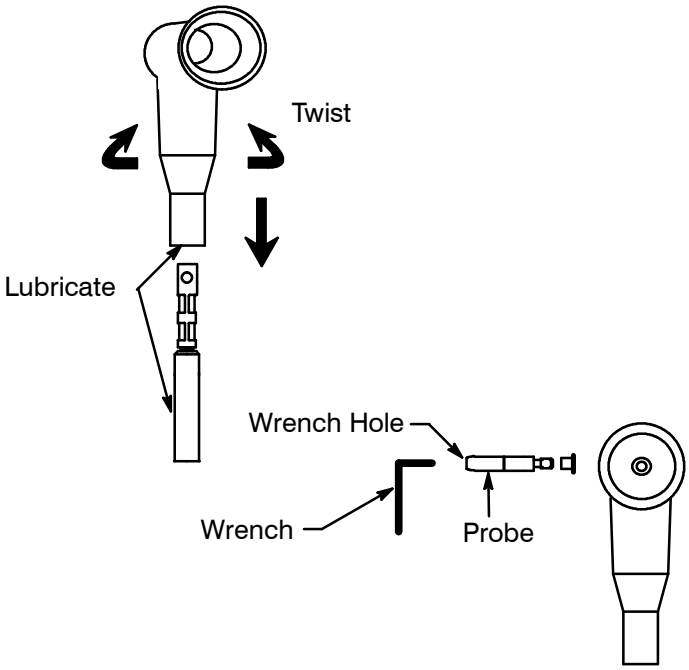
STEP 3 ELBOW ASSEMBLY

A. Clean and lubricate the cable insulation and inside the elbow 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.

B. Slide the elbow connector onto the cable with a back and forth twisting motion. Wipe off all excess grease.

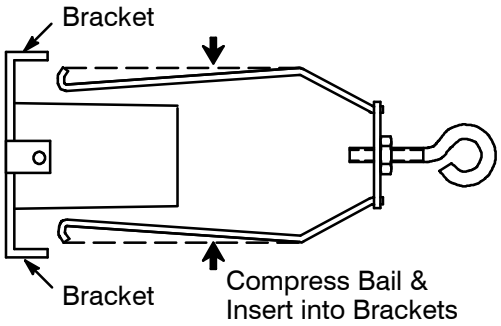
C. Align elbow with compression lug's threaded hole.

D. Thread probe into lug by hand, taking care not to cross-thread. Tighten with wrench until wrench bends.



STEP 4 ASSEMBLE BAIL

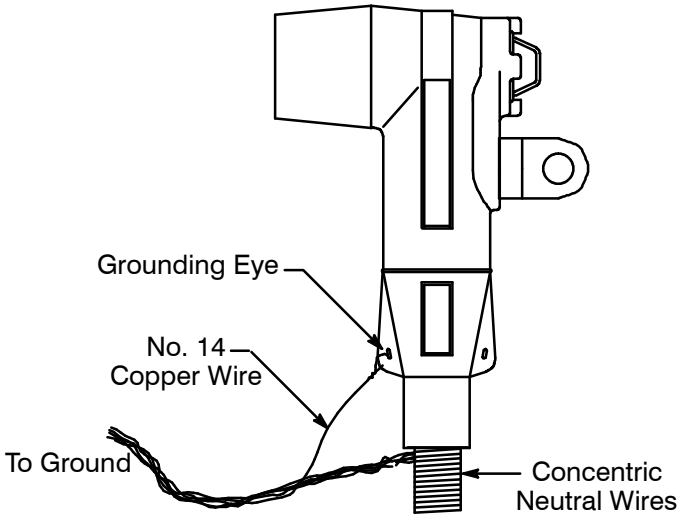
Place hold-down bail in hold-down bracket.



STEP 5 CONCENTRIC NEUTRAL CONNECTION

A. IUsing a separate copper wire (No. 14 AWG / 2.5mm) or equivalent, insert one end through the grounding eye on the elbow. Twist tight taking care not to damage the eye.

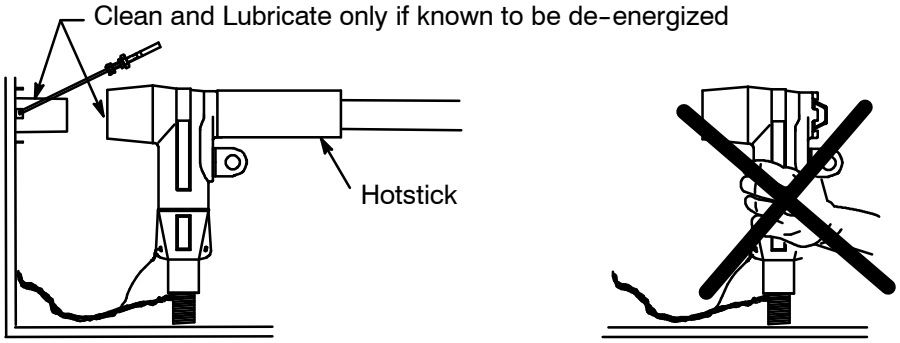
B. Twist all neutral wires and connect to ground using appropriate connector. Provide adequate slack in wires for elbow operation.



STEP 6 CONNECT ELBOW AND BUSHING PLUG

A. Clean and lubricate the receptacle portion of the elbow connector and the mating bushing with the lubricant supplied. LUBRICATE ONLY IF THE TRANSFORMER AND ELBOW ARE KNOWN TO BE DE-ENERGIZED.

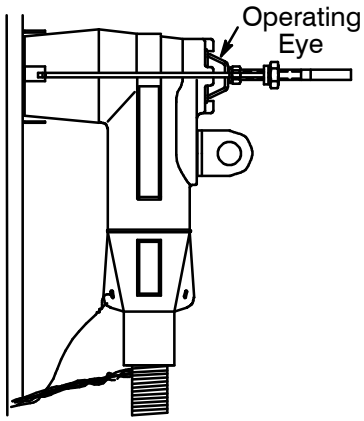
B. Place elbow on bushing with a fully insulated hotstick. **DO NOT OPERATE BY HAND. DO NOT SEPARATE IF ENERGIZED.**



STEP 7 BAIL ELBOW

A. Pull hold-down bail up over the crown or top of elbow so that the eyebolt on the bail is directly over the operating eye.

B. Tighten down on elbow locator by turning eyebolt in a clockwise direction. Adjust the nut on the eyebolt until it allows the eyebolt to seat securely in the locator. The nut should act as a stop to prevent the eye bolt from applying excessive force on the elbow. Once the nut is in final position, it will not have to be readjusted when removing and replacing elbow.



VOLTAGE TEST

ELASTIMOLD connectors equipped with an integral capacitance test point 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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