

Installation & Operating Instructions

160GLR & 370GLR

GROUNDING ELBOW

CONTENTS: *Grounding Elbow, Lubricant (DO NOT SUBSTITUTE), Installation/Operating Instruction*

The grounding elbow is designed to provide plug-in, visible grounding for UD systems. The 160GLR provides an operating interface for connecting to an ANSI/IEEE STD 386 Fig. 5, 15kV class (nominal 8.3kV phase-to-ground and 14.4kV phase-to-phase) 200 ampere loadbreak bushing or accessory device with fault close rating of 10,000 amperes, symmetrical, 10 cycles max.

The 370GLR provides an operating interface for connecting to an ANSI/IEEE STD 386 Fig. 7, 25kV class (nominal 15.2kV phase-to-ground and 26.3kV phase-to-phase) or 35kV class (nominal 21.1kV phase-to-ground and 36.6kV phase-to-phase) 200 ampere loadbreak bushing or accessory device with fault close rating of 10,000 amperes, symmetrical, 10 cycles max.

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.

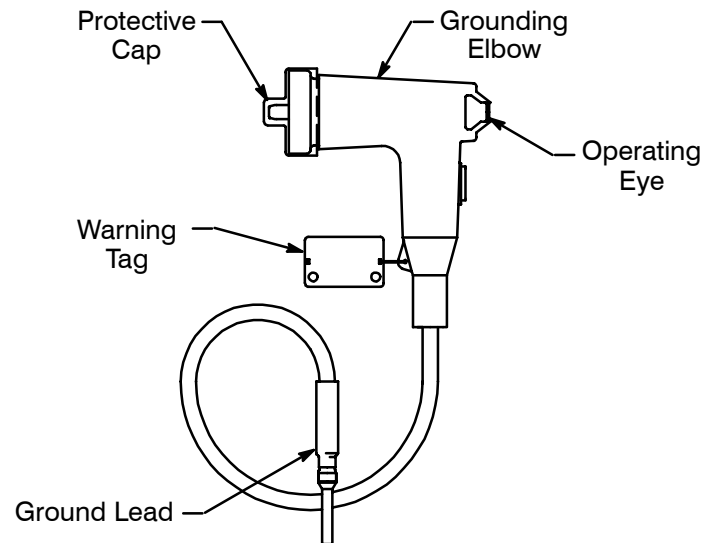
Failure to follow these instructions will result in damage to the product and serious or fatal injury.

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.

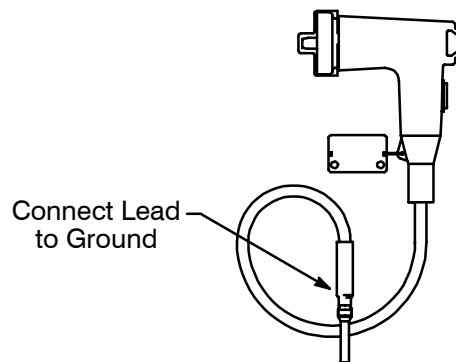
IMPORTANT

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.



STEP A GROUNDING

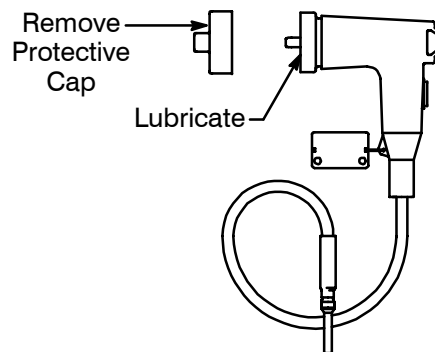
Connect lead on grounding elbow to system ground. Leave enough slack in ground lead for hotstick operation of the grounding elbow.



STEP B LUBRICATION

Remove protective cap and apply a light, uniform coat of supplied lubricant, working thoroughly into surface.

CAUTION: EXCESS LUBRICANT may prevent the grounding elbow from being fully seated in the “locked on” position. Keep the internal mating surface free from dirt and grime.



IMPORTANT: Do not insert grounding elbow into bushing unless circuit has been tested and shown to be “de-energized”.

STEP C PREPARATION

ENSURE THAT THE SYSTEM IS DE-ENERGIZED WITH EITHER OF THE FOLLOWING PROCEDURES:

Indirect Test using Capacitive Test Points

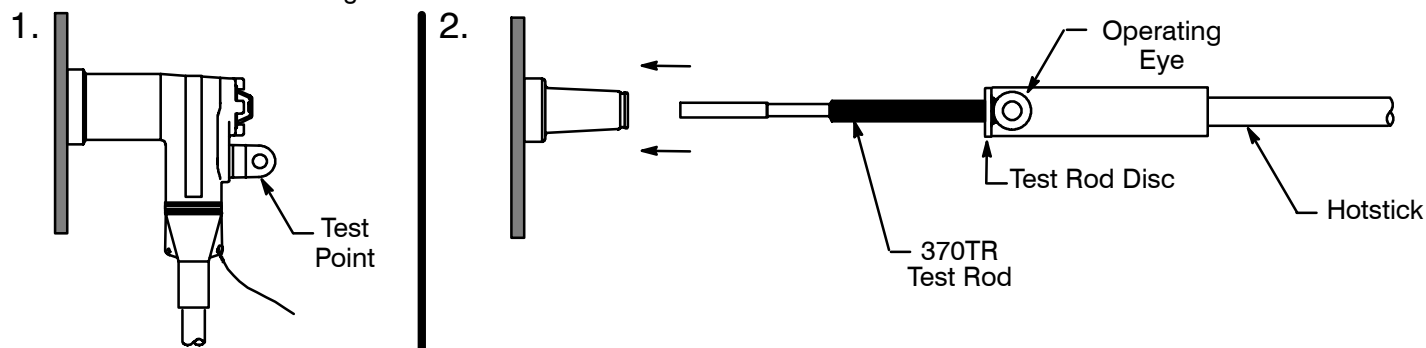
1. **WARNING:** THE VOLTAGE TEST POINT IS A CAPACITANCE DEVICE, IT IS NOT DIRECTLY CONNECTED TO THE CONDUCTOR. Do not use conventional voltage measuring equipment. Follow the manufacturer’s directions for the meter that is used. Test with a suitable sensing device, made for use with separable connectors 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.

Direct Test using 370TR Test Rod

2. Remove existing elbow or insulated cap from the bushing with a hotstick following the applicable loadbreak operating instructions (IS-167/168LR, IS-273/274LR or IS-375/376LR). Firmly tighten a hotstick to the 370TR test rod operating eye. Insert the test rod into the bushing. Using a meter capable of direct reading the system voltage, check the test rod disc for voltage. Remove test rod.

IMPORTANT: If voltage is indicated by either of the two preceding procedures, do not proceed without de-energizing the system.

CAUTION: The hotstick eye and disc of the test rod are not insulated; be careful to keep them clear from ground until tested “de-energized”.

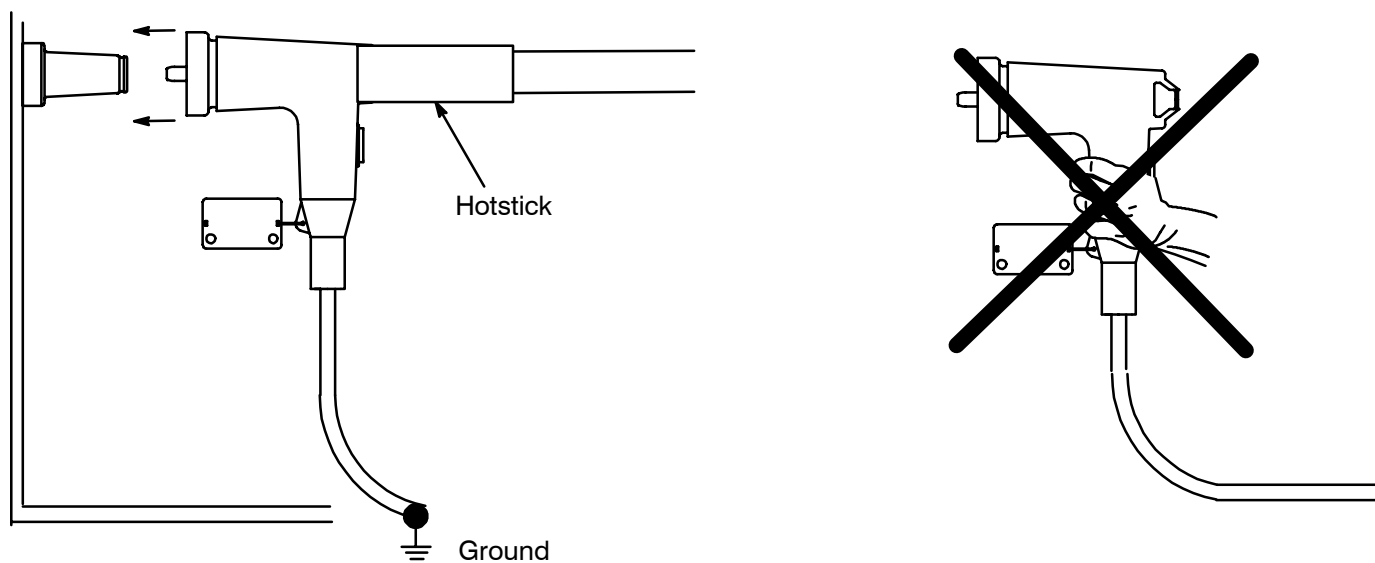


IF MEASUREMENT INDICATES THE SYSTEM IS DE-ENERGIZED PROCEED WITH STEP D.

DANGER: Continue to treat the system as energized using a hotstick for all operations in case of error or equipment malfunction. Ground lead must be connected to system ground before connecting elbow to bushing. If ground connection is dislodged when elbow is connected to bushing remove elbow before reattaching ground lead. DO NOT OPERATE BY HAND.

STEP D CONNECTION

1. Firmly tighten a hotstick to the grounding elbow operating eye.
2. Place the grounding elbow receptacle area over the bushing, inserting the probe approximately 1 to 2 inches into the bushing.
3. Firmly thrust the grounding elbow home with a fast, straight motion, which will engage the internal lock of the grounding elbow into the bushing interface.
4. To return the loadbreak elbow to the apparatus bushing and to remove the grounding elbow, reverse the operational sequence, following the applicable loadbreak-loadmake operating instructions.



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