
15 / 25 kV CLASS GROUNDING ELBOW INSTALLATION & OPERATING INSTRUCTIONS

DESCRIPTION

The CHARDON 15/25kV Class Grounding Elbow provide the operating components required for grounding deadfront underground systems. The grounding elbows are tools that can be used to visibly ground cables, transformers and switchgear. CHARDON 200 A grounding elbows are designed to mate with 200 A loadbreak bushings and accessories and are manufactured in accordance with IEEE Standard 386.

GROUNDING ELBOW KIT CONTENT:

- 1 - Grounding Elbow Body
- 1 - Compression Connector
- 1 - Loadbreak Probe
- 1 - Wrench (Probe Installation Tool)
- 1 - Lubricant
- 1 - Paper towel
- 1 - Installation Instructions



CAUTION: All associated apparatus must be de-energized during installation and/or maintenance.



DANGER: Do not touch or move energized product by hand. Failure to follow this instruction may result in serious or fatal injury, as well as damage to the product.

SAFETY INFORMATION

The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe operation of the equipment described. Only competent technicians, who are familiar with this equipment should install, operate and service it.

INSTALL PROCEDURE

PRIOR TO INSTALLATION

Visibly inspect grounding elbows, cables, ferrules and clamps prior to installation to insure they are

complete and undamaged.

STORAGE AND HANDLING

Grounding elbows and accessories should be stored and handled in a manner as to prevent contamination to the interfaces. When not in use, grounding elbows should be stored installed on a mating accessory, such as an insulated standoff bushing. Feed-thru Parking Bushing should be capped with Protective (insulating) Cap.

CABLE INSULATION AND GROUNDING PROCEDURES

Equipment Required

- 200 A Grounding Elbow – 2
- 200 A Loadbreak Feed-thru Parking Bushing – 2
- Live-line tool – 1
- 200 A Protective (insulating) Cap – 2
- Silicone Lubricant
- Test Probe

STEP 1 Clean and Lubricate Apparatus

- Remove protective caps from Feed-thru Parking Bushing.
- Clean and lubricate interfaces of Feed-thru Parking Bushing, grounding elbow, and Protective Cap.
- Use only the lubricant provided with apparatus.

STEP 2 Install Feed-thru Parking Bushing

- Grasp eyebolt on Feed-thru Parking Bushing with live-line tool and use the live-line tool to position the Feed-thru in apparatus accessory pocket. Tighten eyebolt to the tank wall.
- Attach #14 AWG copper drain wire from the ground lug on the bracket of the Feed-thru Parking Bushing device to system ground.

STEP 3 Test Cable

- Grasp pulling eye of loadbreak elbow you intend to ground with live-line tool. Disconnect elbow from apparatus bushing and completely close elbow into Feed-thru Parking Bushing tap.
- Grasp test probe with live-line tool and insert probe into open tap of Feed-thru Parking Bushing. Test cable status per operating company's

standard procedures, tools and methods, verifying the cable is de-energized.

- Use live-line tool to remove test probe after cable status has been determined.



WARNING:

Do not ground energized cable.

STEP 4 Install Grounding Elbow

- Attach grounding elbow cable to system ground.
- Grasp pulling eye on grounding elbow with live-line tool and completely close into open tap on feed-thru device.
- Attach ground lead from Protective Cap to system ground.
- Grasp pulling eye on protective cap with live-line tool and place on open apparatus bushing.



CAUTION: This procedure must be performed on both ends of cable for complete grounding.

STEP 5 Repeat Process

- Repeat Steps 1 through 4 on opposite end of cable.



WARNING: All associated apparatus must be de-energized during installation or maintenance.

200 AMP APPARATUS BUSHING GROUNDING PROCEDURES

Equipment Required

- Grounding Elbow
- 200 A Insulated Standoff Bushing or Parking Stand
- Arrester
- Live-line tool
- Silicone Lubricant
- Test Probe

STEP 1 Clean and Lubricate Apparatus

- Remove protective caps from insulated standoff bushing or parking stand arrester.
- Clean and lubricate interfaces of grounding elbow, insulated standoff, or parking stand arrester.

STEP 2 Install Insulated Standoff or Parking Stand Arrester

- Grasp eyebolt on insulated standoff bushing or parking stand arrester with live-line tool and use the live-line tool to position in apparatus accessory pocket.
- Tighten eyebolt to tank wall.
- If insulated standoff bushing is used, attach #14 AWG copper drain wire from lug on bracket to system ground.
- If parking stand arrester is used, attach ground lead of arrester (connected to base of arrester with 4 to 8 ft-lb torque) to system ground. Attach #14 AWG drain wire from grounding tab of arrester to system ground.

STEP 3 Remove Mating Device

- Using a live-line tool, grasp the pulling eye of the loadbreak elbow, protective cap, or other device mounted on the 200 A bushing you intend on grounding. Disconnect elbow, cap or other device to expose the 200 A bushing.
- Install removed device onto insulated standoff bushing or parking stand arrester.

STEP 4 Test 200 A Bushing

- Grasp test probe* with live-line tool and insert probe into 200 A bushing. Test bushing status per operating company's standard procedures, tools and methods verifying the bushing is de-energized.
- Use live-line tool to remove test probe* after cable status has been determined.

STEP 5 Install Grounding Elbow

- Attach grounding elbow to system ground.
- Grasp pulling eye on grounding elbow with live-line tool and completely close onto exposed 200 A bushing.

STEP 5 Repeat Process

- Repeat Steps 1 through 5 for all bushings you intend to ground.



WARNING: All associated apparatus must be de-energized during installation or maintenance.

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