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Safety for life



Eaton meets or exceeds all applicable industry standards relating to product safety in its Cooper Power™ series products. We actively promote safe practices in the use and maintenance of our products through our service literature, instructional training programs, and the continuous efforts of all Eaton employees involved in product design, manufacture, marketing, and service.

We strongly urge that you always follow all locally approved safety procedures and safety instructions when working around high voltage lines and equipment, and support our “Safety For Life” mission.

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.

A competent technician has these qualifications:

- Is thoroughly familiar with these instructions.
- Is trained in industry-accepted high and low-voltage safe operating practices and procedures.
- Is trained and authorized to energize, de-energize, clear, and ground power distribution equipment.
- Is trained in the care and use of protective equipment such as arc flash clothing, safety glasses, face shield, hard hat, rubber gloves, clampstick, hotstick, etc.

Following is important safety information. For safe installation and operation of this equipment, be sure to read and understand all cautions and warnings.

Hazard Statement Definitions

This manual may contain four types of hazard statements:

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in equipment damage only.

Safety instructions

Following are general caution and warning statements that apply to this equipment. Additional statements, related to specific tasks and procedures, are located throughout the manual.

DANGER

Hazardous voltage. Contact with hazardous voltage will cause death or severe personal injury. Follow all locally approved safety procedures when working around high- and low-voltage lines and equipment.

G103.3

WARNING

Before installing, operating, maintaining, or testing this equipment, carefully read and understand the contents of this manual. Improper operation, handling or maintenance can result in death, severe personal injury, and equipment damage.

G101.0

WARNING

This equipment is not intended to protect human life. Follow all locally approved procedures and safety practices when installing or operating this equipment. Failure to comply can result in death, severe personal injury and equipment damage.

G102.1

WARNING

Power distribution and transmission equipment must be properly selected for the intended application. It must be installed and serviced by competent personnel who have been trained and understand proper safety procedures. These instructions are written for such personnel and are not a substitute for adequate training and experience in safety procedures. Failure to properly select, install or maintain power distribution and transmission equipment can result in death, severe personal injury, and equipment damage.

G122.3

200 A cable jacket seal installation instructions

Product information

Introduction

The Eaton Cooper Power series RTE® Cable Jacket Seal forms a barrier that protects underground cable from moisture and airborne contaminants. The cable seal is needed whenever the cable jacket is removed to install a 200 A elbow or termination. The cable seal is installed at the transition point between the cable jacket stripback and the cable insulation shield.

The highly elastic EPDM rubber formulation allows a wide coverage of cable diameters, from #4-175 mil to 4/0-345 mil, with only three sizes. Its unique ability to be repositioned and reused after its initial installation provides outstanding field application flexibility.

CAUTION

The Cable Jacket Seal should only be installed only on de-energized cable, by personnel familiar with good safety practices and the handling of high-voltage electrical equipment.

No special tools are required to install the Cable Seal Jacket. The complete kit includes:

- Jacket sealing sleeve
- Mastic
- Silicone lubricant
- Instructions

Installation procedure

1. **Prepare the cable and remove the cable jacket** per the supplied elbow instructions. There should be a maximum of 2.5 inches between the bottom of the elbow or terminator to the jacket stripback point. (See Figure 2.)

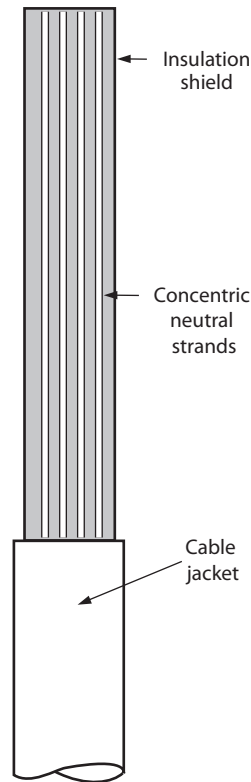


Figure 2. URD cable with jacket removed

2. **Use the supplied mastic**, to apply a single wrap of the mastic around the cable jacket, approximately 1/2 inch below the point where the jacket is removed. **DO NOT stretch mastic when installing.**

Bend the concentric neutral strands back as tightly as possible against the cable, forming as small a radius as possible. Press the neutral wires into the mastic band. (See Figure 3.)

3. **After neutral wires are embedded into the mastic**, apply another layer of mastic over the neutrals exactly on top of the first layer. Press tightly to fill in any voids. Apply another wrap of mastic on the insulation shield as close as possible to the jacket strip-back and bent neutral wires. **DO NOT stretch mastic when installing.**

Continue to apply a half-lapped layer of slightly stretched mastic over the transition between the insulation shield and the cable jacket until the mastic overlaps the layer previously installed over the concentric neutrals. (See Figure 4.)

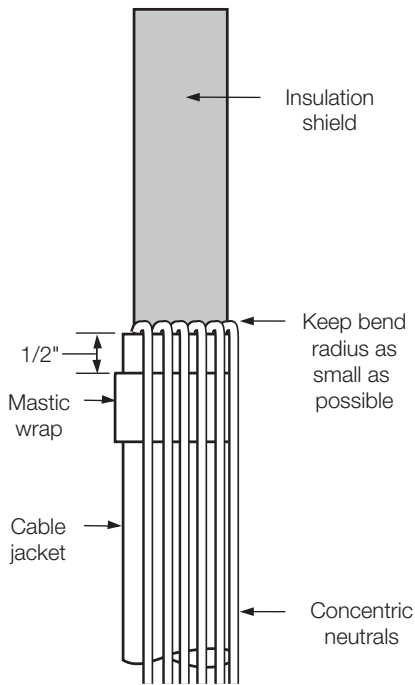


Figure 3. URD cable with mastic wrap applied, concentric neutrals bent back and pressed into mastic layer

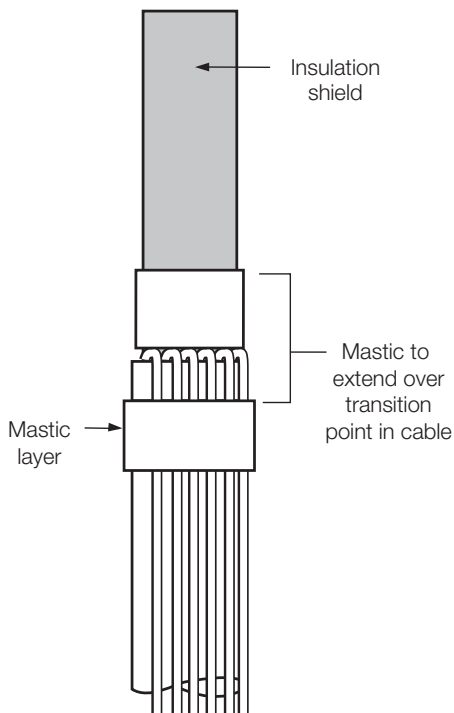


Figure 4. After applying one layer of mastic over the concentric neutrals and insulation shield, continue to apply one half-lapped layer of mastic until it overlaps the second mastic layer

Wrap the cable and mastic with one half-lapped layer of vinyl electrical tape. The tape should extend from just below the bottom of the applied mastic (on the portion of the cable with the jacket still in place) to over the top of the mastic, one wrap, onto the insulation shield of the cable.

At this time, finish preparing the cable for the elbow installation, per the supplied elbow instructions.

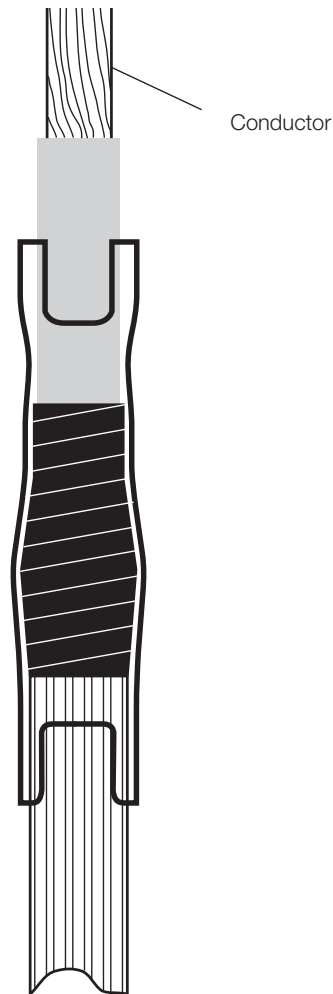


Figure 5. Prepared cable showing vinyl tape applied over mastic and seal in place

200 A cable jacket seal installation instructions

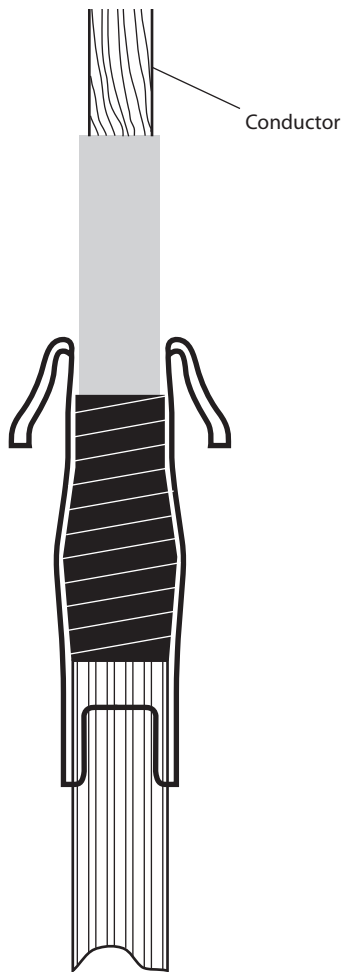


Figure 6. Prepared cable seal is pulled back onto itself prior to installing 200 A elbow

4. **Apply a thin uniform layer of the supplied silicone lubricant** over the cable and vinyl tape. Using the tabs on the large end of the premolded rubber jacket seal, pull the sleeve over the cable until the vinyl tape is completely covered. (See Figure 5.)

Pull the jacket seal back onto itself, using the tabs on top of the rubber jacket seal. Pull the top back far enough to allow for the installation of the 200 A elbow. Install the elbow onto the cable (See Figure 6).

Apply one layer of mastic around the cable entrance of the elbow, at the junction of the elbow and the cable. Wrap with one half-lapped layer of vinyl electrical tape (see Figure 7).

Grasping the two pull tabs on the top of the jacket seal, pull the seal up and over the cable entrance portion of the elbow. Position the seal so that both the vinyl tape on the cable and the cable entrance of the elbow are covered.

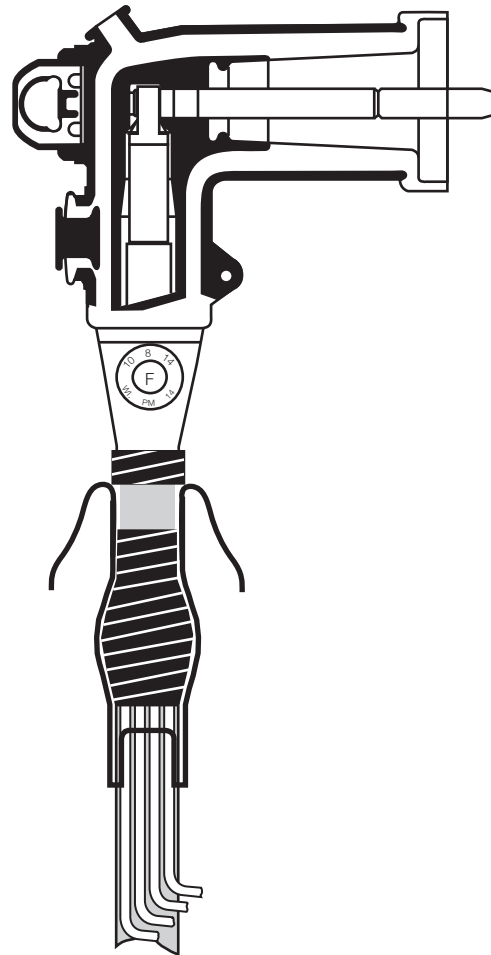


Figure 7. Illustration of 200 A elbow installed on cable, with mastic and tape applied at the cable entrance of the elbow

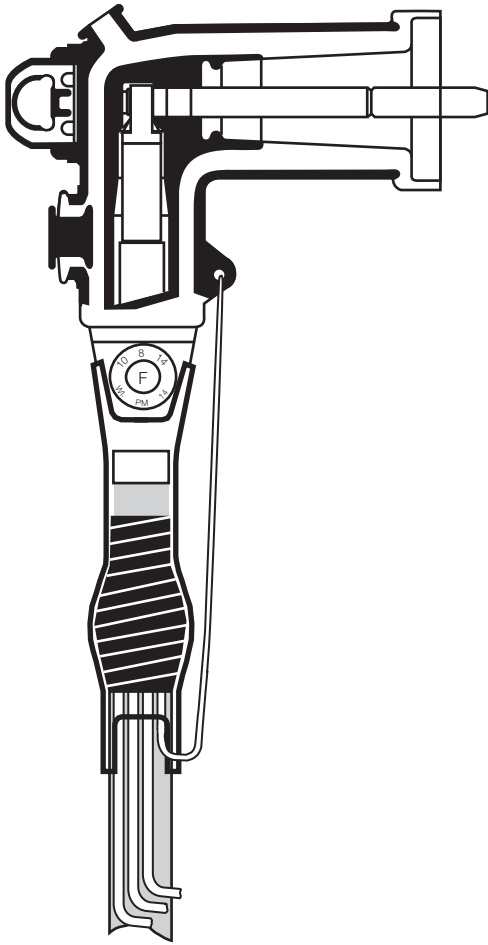


Figure 8. Illustration of completed jacket seal and 200 A elbow installed on cable

Bend one strand of the exposed concentric neutral from the bottom of the jacket seal to the grounding tab of the elbow and tie off. (see Figure 8)

Optional hint:

The use of a tie wire to bend down the concentric neutral strands to the cable, installed below the sealing sleeve, may aid in the twisting of the neutral strands to form a single conductor for grounding.

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