

# ELB-600-CES-GRD

Cold applied sealing and grounding kit for Copper Tape (CT) Shield cables when installing Elbows or other Shielded Cable Accessories.

## Product Installation Instructions

### Safety Instructions

**⚠ DANGER** When installing electrical power system accessories, failure to follow applicable personal safety requirements and written installation instructions could result in fire or explosion and serious or fatal injuries.

**⚠ DANGER** As TE Connectivity (TE) has no control over field conditions which influence product installation, it is understood that the user must take this into account and apply his own experience and expertise when installing product.

**⚠ DANGER** Working around energized high-voltage systems may cause serious injury or death. Installation should be performed by personnel familiar with good safety practice in handling high-voltage electrical equipment. De-energize and ground all electrical systems before installing product.

**⚠ DANGER** Power distribution and transmission products 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.

**⚠ CAUTION** Read and understand the contents of these instructions before installation and follow all locally approved procedures and safety practices before installing or operating this equipment.

**⚠ CAUTION** These instructions cannot cover all details or variations in the equipment, procedures, or processes described, nor provide directions for meeting every possible contingency during installation, operation, or maintenance. When additional information is desired to satisfy a problem not covered sufficiently for the user's purpose, please contact your TE sales representative. These instructions are not intended to supersede or replace existing safety and operating procedures.

**NOTICE** Upon receipt of a product, inspect it thoroughly for damage and loss of parts incurred during shipment. If damage or loss is discovered, file a claim with the carrier immediately or contact your TE representative.

### Suggested Installation Equipment (not supplied in kit)

- Cable preparation tools
- TE P63 cable preparation kit or cable manufacturer approved solvent
- Clean, lint-free cloths
- Non-conducting abrasive cloth, 120 grit or finer
- Electrician's tape
- Connector(s) and installation tools.

### Kit Contents

- 1 Installation instruction
- 1 EPDM housing on holdout
- 4 Gray sealant strips
- 1 Spring Clamp
- 1 Copper Braid with stinger wire

### Customer Service

For 24 hour customer service, call 800-327-6996.

# Installation Instructions

## 1. Product selection

Reference the conductor size in Table 1 to determine proper sealing kit for copper tape shield cable. Referenced conductor sizing is based on compressed stranded, 100% insulated cable.

**Table 1**

Catalog Number	Cable Size 15kV Class	Cable Size 25kV Class	Cable Size 35kV Class	Seal Diameter Range.	Tape Shield Dia.
ELB-600-CES-GRD-1	#2 - 250 kcmil	#2 - 4/0 AWG	1/0 AWG	0.95" (24mm) - 1.50" (38mm)	0.67" (17mm) - 1.18" (30mm)
ELB-600-CES-GRD-2	250 - 900 kcmil	4/0 - 600 kcmil	1/0 - 350 kcmil	1.28" (33mm) - 2.67" (68mm)	1.18" (30mm) - 1.57" (40mm)
ELB-600-CES-GRD-3	900 -1500 kcmil	600 - 1500 kcmil	350 - 1500 kcmil	1.60" (41mm) - 3.50" (89mm)	1.57" (40mm) - 2.36" (60mm)

**NOTICE**

The ELB-600-CES seals are suitable for use with 600amp and 200amp elbows meeting the application data in Table 1. 600amp elbows shown in this document are for illustrative purposes only. The same procedures apply to 200amp elbows.

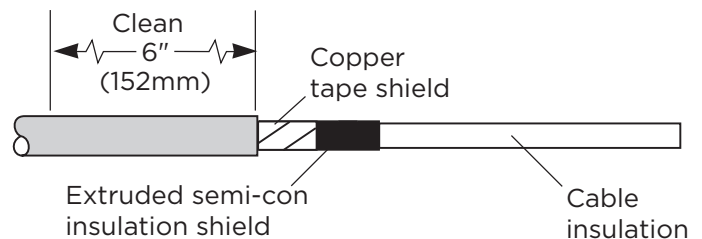
## 2. Check kit

Check kit components to insure proper fit with the cable diameter dimensions, conductor size, and mating products.

**NOTICE** **3. Prepare cable**

For cable preparation and cutback dimensions, refer to the elbow manufacturer's installation instructions.

Remove outer jacket from end of cable. Remove semi-con insulation shield and metallic shield from the end of the cable per elbow installation instructions.

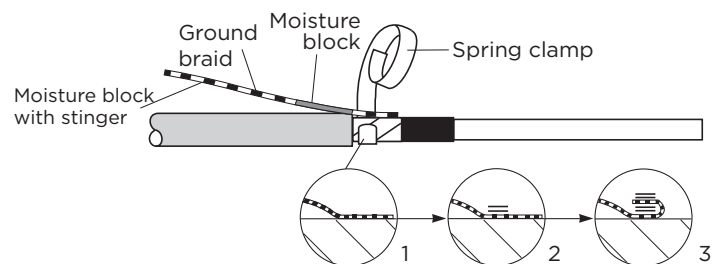


## 4. Install ground braid

(1) Lay the ground braid on the cable with the solder block aligned with the jacket cutback and the short end of the braid over the exposed copper tape shield.

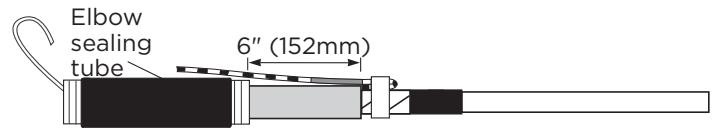
(2) Attach the braid to the tape shield by placing two wraps of the spring clamp over the braid.

(3) Fold the short end of the braid back over the spring clamp wraps as shown. Continue to wrap the remaining clamp over the braid. Tighten clamp by twisting it in the direction it is wrapped and secure with the copper foil tape provided.

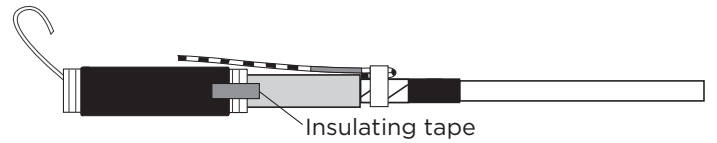


## 5. Park elbow seal

Park elbow seal over cable jacket, 6" from cable jacket cutback.



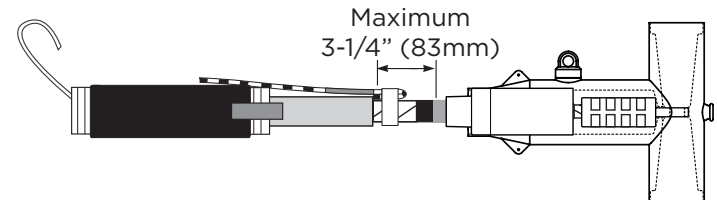
Temporarily secure black tube to cable jacket with insulating tape.



## 6. Prepare cable and install elbow

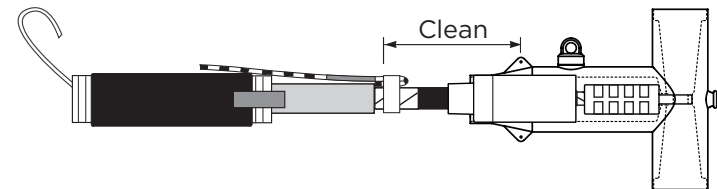
Prepare rest of cable and install elbow per manufacturer's instructions.

Make sure the gap between the cable jacket cutback and the end of the elbow does not exceed 3-1/4" (83mm).



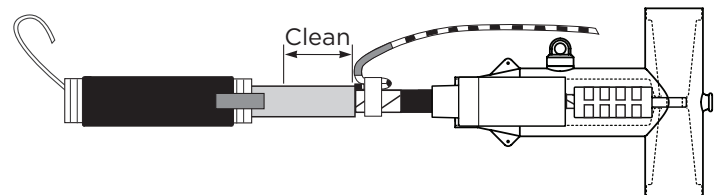
## 7. Clean cable and apply gray sealant

Clean from the elbow grounding eye to the cable jacket cutback using an approved solvent capable of removing silicone grease. Make sure all grease is removed from the bottom area of the elbow.

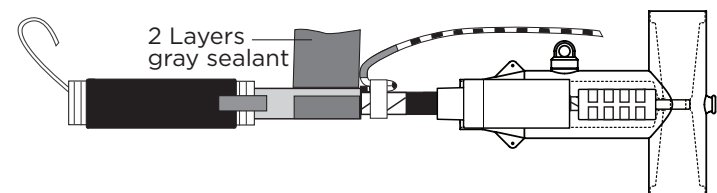


## 8. Complete ground braid and ground cable sealing

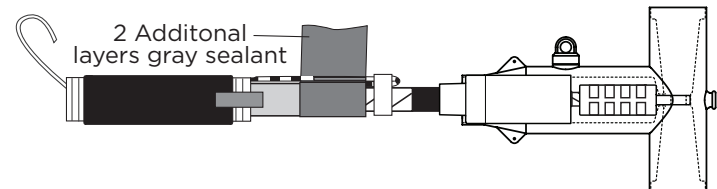
Lift ground braid away from the cable jacket. Using an oil-free solvent, clean the jacket for 2-1/2" (60mm) below the jacket cutback point.



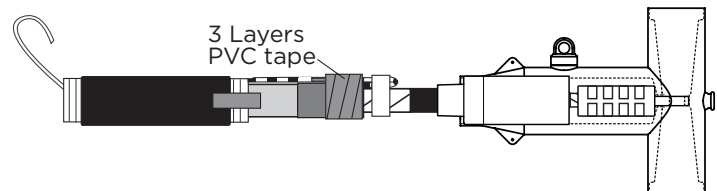
Remove the backing from the gray sealant. Using light tension, wrap two layers of gray sealant onto the jacket under the braid.



Lay the braid back over the jacket and through the black tube. Press moisture blocked section of braid into the gray sealant. Using light tension wrap two more layers of gray sealant over the braid.

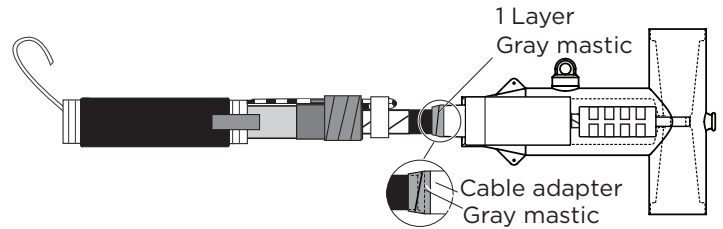


Apply three half lapped layers of PVC tape over half of the gray mastic as shown.

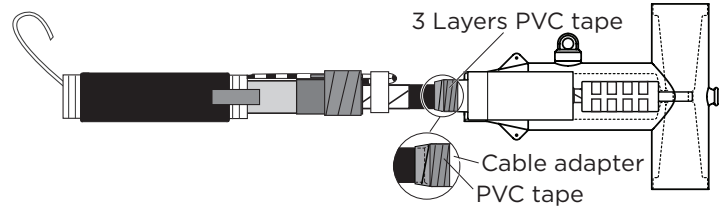


### 9. Apply gray mastic to cable adapter

Wrap one complete layer of gray mastic at the base of the cable adapter with a slight overlap onto the cable's semi-con shield. Knead the mastic together where the 2 ends come together to ensure complete seal will be formed.



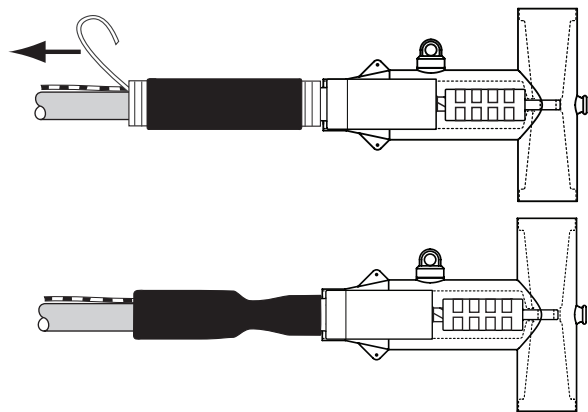
Apply three half lapped layers of PVC tape over half of the gray mastic as shown.



### 10. Position elbow sealing tube; shrink by releasing spiral holdout

Remove PVC tape. Position elbow tube to overlap gray mastic and PVC tape applied to cable jacket and elbow.

Release the spiral holdout by pulling continuously counter-clockwise while holding the elbow sealing tube in place. The spiral holdout cannot be pulled out all at once. Slowly pull the spiral holdout on top of the cable and then pass it around and underneath the cable until the spiral has been completely removed.

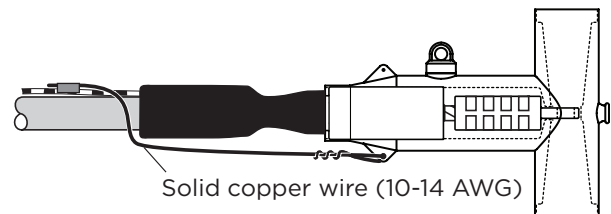


### 11. Connect copper wire

Attach factory attached solid copper drain wire from the copper braid to the grounding tab on the elbow's lower body area.

**Installation is complete.**

Refer to manufacturer's elbow instructions to complete elbow installation.



The Information contained in these installation instructions is for use only by installers trained to make electrical power installations and is intended to describe the correct method of installation for this product. However, TE has no control over the field conditions which influence product installation. It is the user's responsibility to determine the suitability of the installation method in the user's field conditions. TE's only obligations are those in TE's standard Conditions of Sale for this product and in no case will TE be liable for any other incidental, indirect or consequential damages arising from the use or misuse of the products.

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