Installation Instructions

K656CY, K656CH and K656I Deadbreak Receptacles

CONTENTS: Receptacle housings, Cable adapters, I, Wye or H Center sections, Aluminum holding collars, Lubricant Hex-head bolts, Crimp connectors, Belleville washers, Flat washers, Hex wrench, Nylon venting rod, Lubricant, Installation instructions, Crimp Chart.

The 655/656CY and K655/K656CY three way wye splices, the 655/656CH and K655/K656CH four way splices and the 655/656I and K655/K656I two way splices are designed to splice and tap solid dielectric type cables rated for 600 ampere at 15kV and 25kV respectively.

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.

These instructions illustrate the installation of one leg of the “I”, “Y” or “H” connector. A complete installation requires repeating the instructions for the total number of cable required (two for the “I”, three for the “Y” and four for the “H”).

These instructions are applicable to concentric neutral cables and flat metallic shielded cable with semi-con shield. For installation on other cable constructions call the nearest Elastimold office.

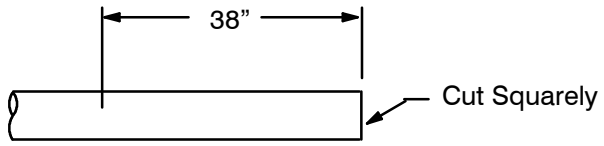
IMPORTANT

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.

GENERAL INSTRUCTIONS

STEP 1

Wipe the outer jacket clean a distance of 38” . **IMPORTANT:** To ensure maximum available length for crimp growth, cut cable end square.



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8155 T&B Boulevard, Memphis, Tennessee 38125
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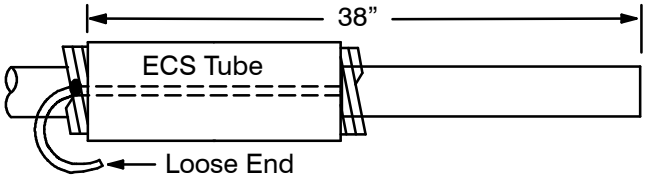
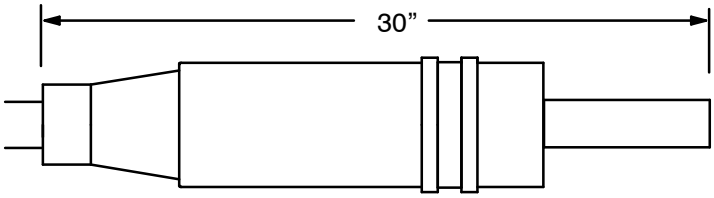
STEP 2

If an ECS grounding device is being used. Slide the tube on to the cable a distance of 38”.



STEP 3

Slide receptacle housing onto the cable a distance of 30”.



STEP 4

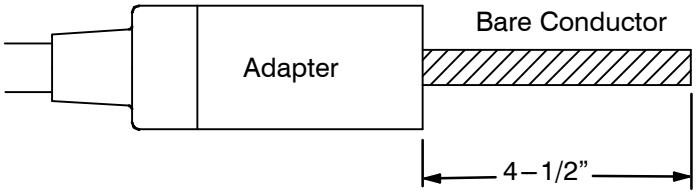
REFER TO THE SPECIAL CABLE PREPARATION SUPPLEMENT INCLUDED WITH THESE INSTRUCTIONS AND FOLLOW THE PROCEDURE FOR THE TYPE OF CABLE BEING USED.

PART A - Jacketed Concentric Neutral Cable (page 5)

PART B - Flat Metallic Tape Shielded Cable with Semi-con Shield (page 6)

STEP 5

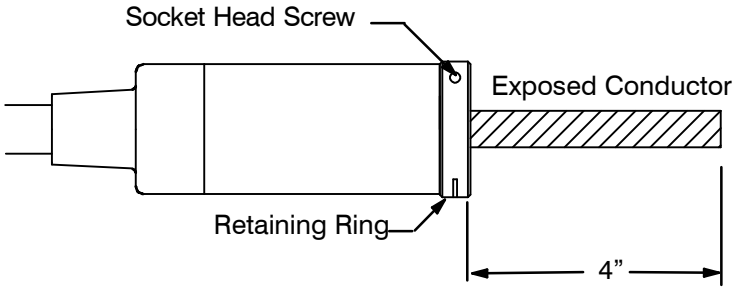
Remove the protruding cable insulation by cutting it even with the end of the cable adapter. Do not cut or nick the cable adapter or the conductor. The length of exposed conductor should be 4–1/2”. Otherwise redo assembly.



STEP 6

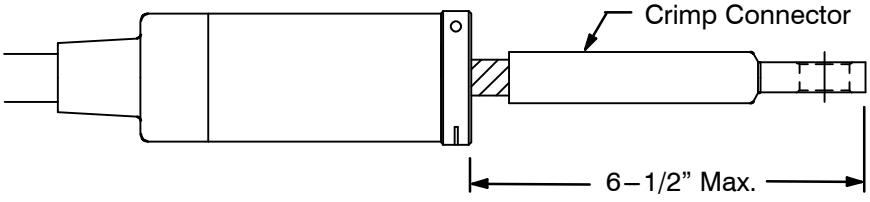
Assemble aluminum retaining rings over conductor and snug firmly against cable adapter, using the hex wrench provided tighten the socket head screw hand tight.

As a check measure the exposed conductor. It should be the range of 4”.



STEP 7

Remove the protective cap from the crimp connector. If using aluminum cable wire brush the conductor and immediately insert into the crimp connector which contains inhibitor. *Make sure conductor is fully inserted into the crimp barrel.* Measure the distance from the end of the connector to the holding collar. If the distance is over 6–1/2” (16.5cm) do not proceed. Recheck all previous work.

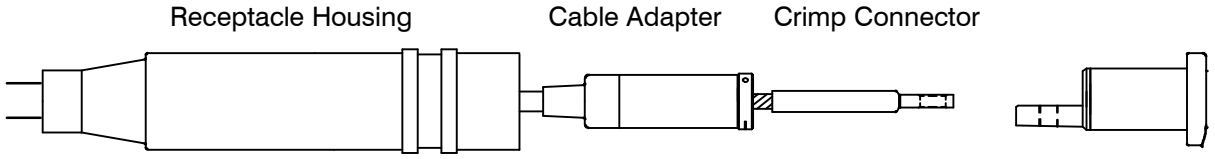


STEP 8

Repeat Steps 5 (page 2) through 8 for the remaining cables to be joined.

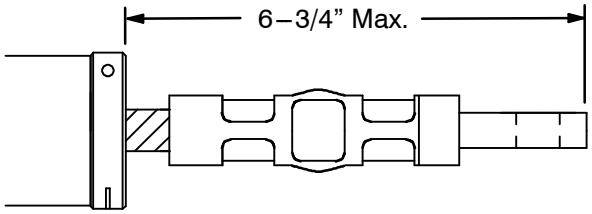
STEP 9

As a final check prior to crimping the connector, all components on all cables should be positioned as shown below. CHECK THAT THE BOLT HOLES IN THE CRIMP CONNECTORS ARE POSITIONED PROPERLY TO ALIGN WITH THE BOLT HOLES of the mating part.



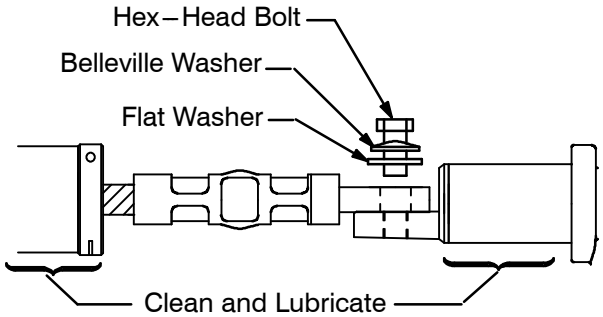
STEP 10

Crimp the connectors following the instructions packaged with the connectors. *Rotate each crimp 90^0 or 180^0. After crimping, measure the distance from the end of the connector to the holding collar. If the distance is over 6-3/4" do not proceed. Recheck all previous work.*



STEP 11

Assemble the washers and bolt as indicated. The flat washer should be against the spade contact, then the Belleville washer (concave side down), then the hex-head bolt. Hand tighten all the bolts. The splice and cables are now in their final positions. *Do not attempt to move or reposition any part of the assembly after the bolts are tightened.*



STEP 12

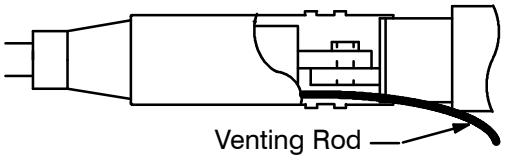
Using a torque wrench with a 15/16" socket, tighten all bolts to 50 to 60 ft. lbs.

STEP 13

Apply supplied lubricant or ELASTIMOLD approved lubricant generously to the outside of the cable adapter, the area of the splice section as shown in step 11 and the inside mating surface of the receptacle housing.

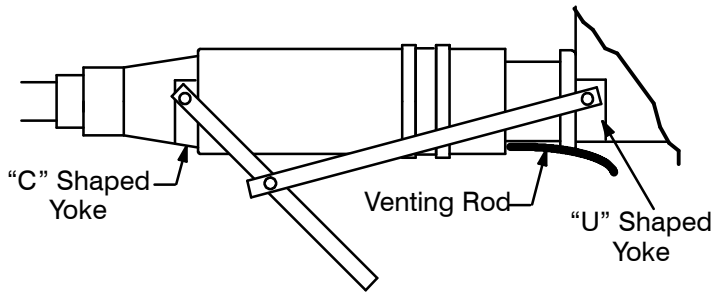
STEP 14

Slide the receptacle housing over the cable adapter and up to the position shown. Insert the nylon venting rod (supplied).



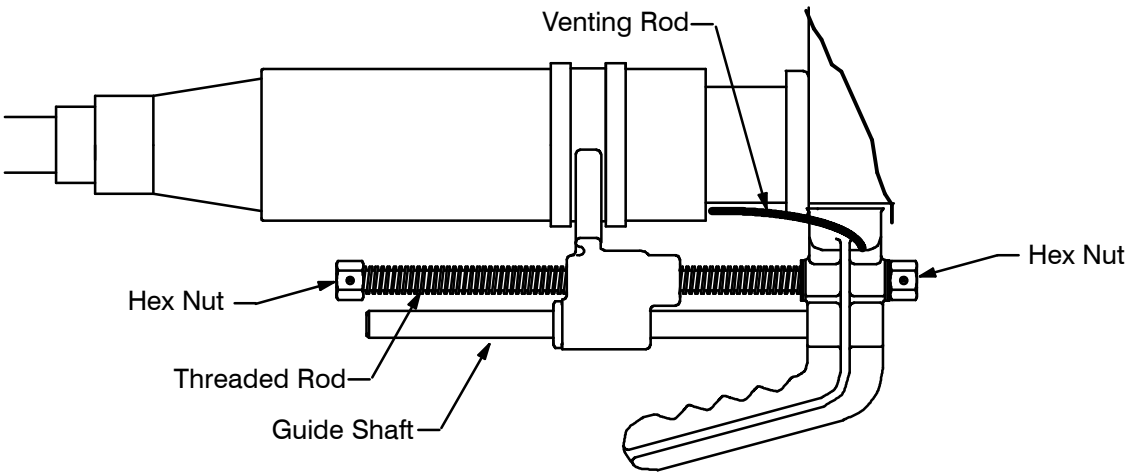
STEP 15A - USING THE 650ATY ASSEMBLY TOOL

Attach the 650ATY assembly tool as shown. Make sure "U" shaped yoke is over the splice section and the "C" shaped yoke is over the receptacle housing. With the assembly tool in place, slowly raise the handle to slide the receptacle housing over the splice section. Remove the vent rod.



STEP 15B - USING THE 600RRT ASSEMBLY TOOL

Place the 600RRT assembly tool as shown.
WARNING: DO NOT PLACE HAND ON THREADED ROD OR GUIDE SHAFT WITH THE ASSEMBLY TOOL IN PLACE. Slide the receptacle housing over the splice section by turning the hex nut on either end of the tool Remove the vent rod.



STEP 16

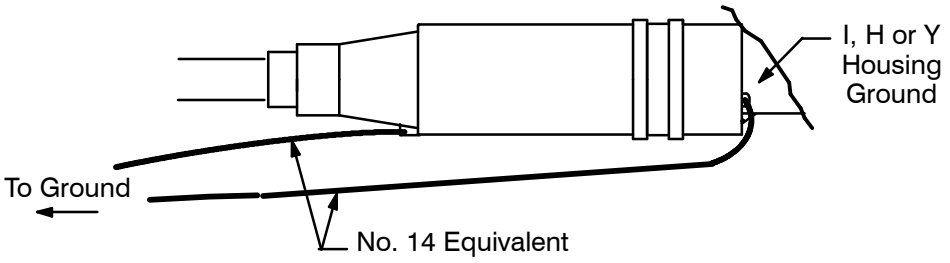
Repeat Steps 14 through 16 for the remaining cables.

STEP 17

Check all cable adapters to make sure they are located properly and remove all vinyl tape markers.

STEP 18 - Grounding

1. Complete installation of ECS grounding device used. Follow the instructions included with the grounding device.
2. Connect a short length of wire (No. 14 AWG, copper or equivalent) to the grounding eyes of the housings. Make a small loop and twist tightly, taking care not to damage the eye.



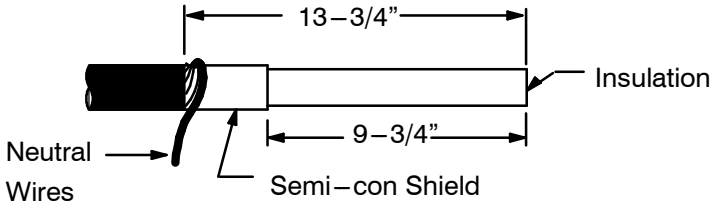
PART A

The jacket removed and neutral wire bending distances are required if a 200 or 600 ECS kit is being installed. If a different grounding device is to be used, jacket removal and neutral wire training may be different. Refer to instructions packaged with that grounding kit.

Jacketed Concentric Neutral Cable

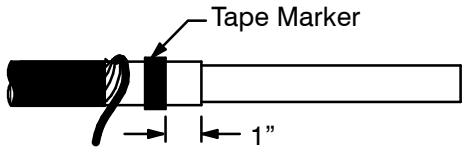
STEP 1

From the end of the cable, measure 13-3/4". Remove the cable jacket to that point with a straight smooth out. Take care not to damage the neutral wires. Bend the neutral wires back and out of the way. From the end of the cable, measure 9-3/4" with a straight, smooth, "squared" cut. *Take care not to cut or nick the insulation.*



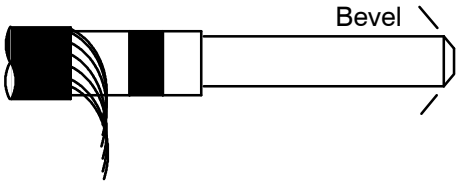
STEP 2

At a point 1" from the end of the semi-con shield wrap two turns of tape to serve as a marker.



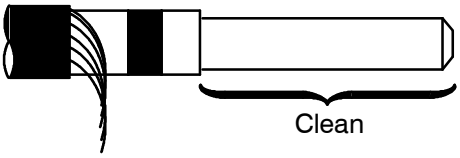
STEP 3

Bevel the end of the insulation at a 45^0 angle, approximately 1/4" back.



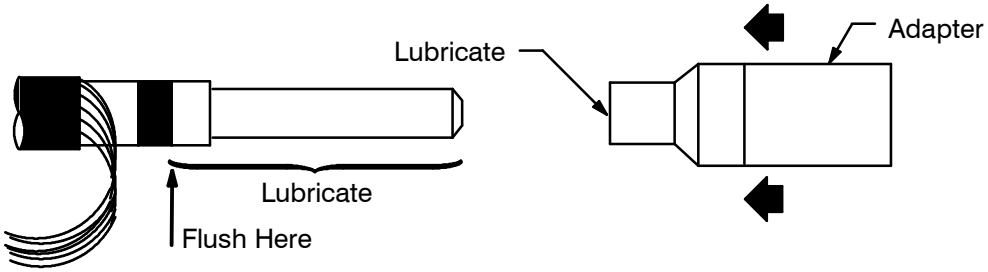
STEP 4

Thoroughly clean the insulation to remove all traces of semi-conducting residue. This may be done by wiping with a rag soaked with an approved safety solvent. Always wipe from the end of the cable toward the outer jacket.



STEP 5

Apply supplied lubricant or ELASTIMOLD approved lubricant sparingly along cable as shown. Lubricate the inside of the cable adapter. Slide the adapter, small end first, over the cable with a twisting motion until the end of the adapter is *flush* with the tape marker.



STEP 6

Now, Refer to Steps 5 (page 2) through 18 of the General Instructions.

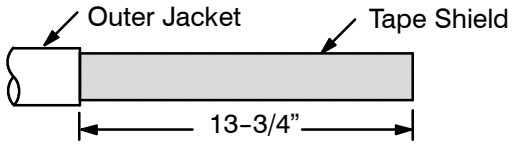
PART B

The jacket and tape shield removal distances are required if a 200 or 600 ECS-G3 kit is being installed. If a different grounding kit is being used, jacket and tape shield removal may be different. Refer to instructions packaged with that grounding kit.

Flat Metallic Tape Shielded Cable with Semi-con Shield

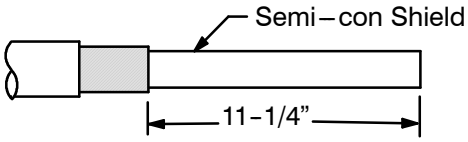
STEP 1

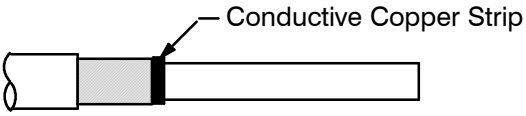
From the end of the cable measure 13-3/4". Remove the outer jacket to that point with a straight, smooth "squared" cut. *Take care not to cut or damage the tape shield.*



STEP 2

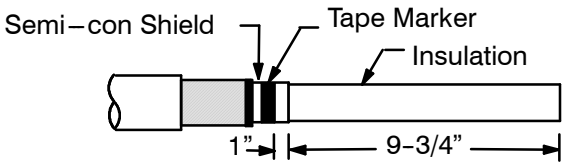
Measure 11-1/4" and remove the tape shield to that point. Wrap conductive copper strip around the edge to keep the copper tape shield in place.





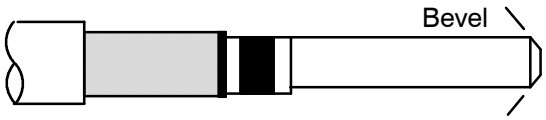
STEP 3

Measure 9-3/4" and remove the semi-con shield to that point with a straight, smooth, "squared" cut. *Take care not to cut or nick the insulation.* At a point 1" from the end of the semi-con shield wrap two turns of tape to serve as a marker.



STEP 4

Bevel the end of the insulation at a 45° angle, approximately 1/4" back.



STEP 5

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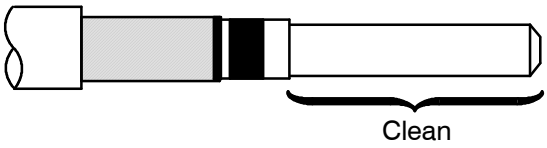

STEP 6

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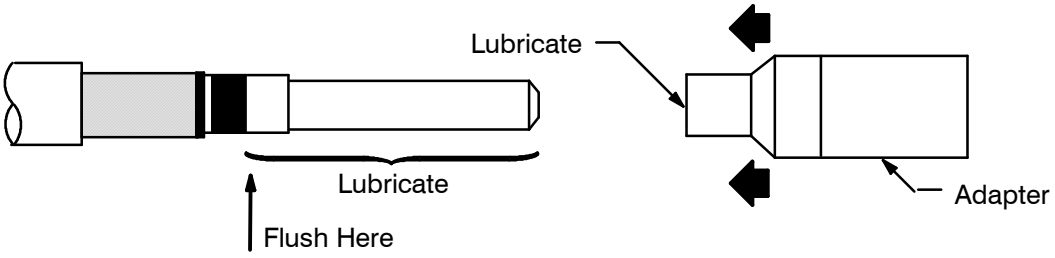

STEP 7

Now, refer to Steps 5 (page 2) through 18 of the General Instructions.