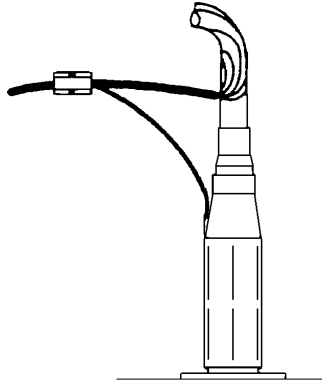


# CONSTRUCTION GUIDELINE

## 25kV 600 AMP, Straight Receptacle Installation Instructions

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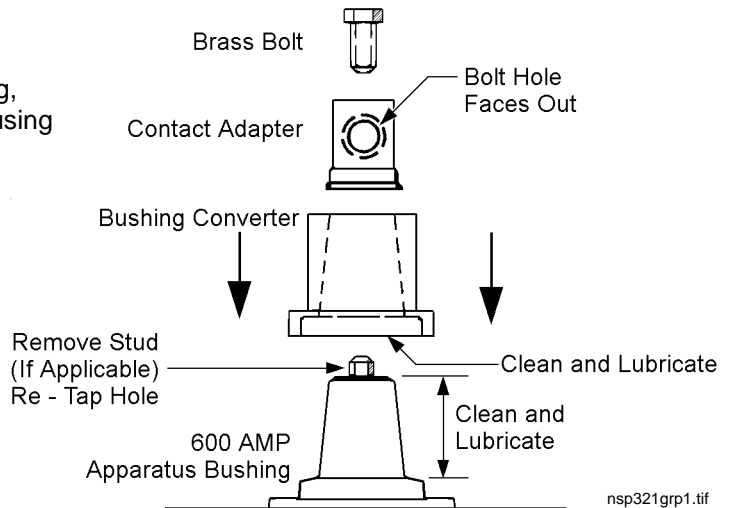


The straight receptacle provides an in-line cable connection to a standard ANSI-386 600 amp 25kV bushing.

### General Instructions

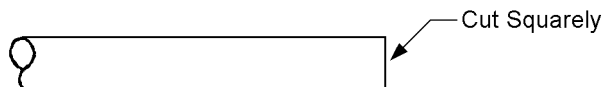
#### Step 1

- 1.1 If stud is present in apparatus bushing, remove the stud and re-tap the hole using 5/8-11 tap.
- 1.2 Clean and lubricate apparatus bushing and bushing converter interface. Assemble bushing converter onto apparatus bushing. Apply 3-4 drops of Loctite to threads of brass bolt. Assemble contact adapter to apparatus bushing, with bolt hole facing out, using 5/8 brass bolt. Torque to 60 ft. lbs.



#### Step 2

Train the cable end and straighten into final position. Cut squarely.



ORIGINATOR	STANDARDS COORDINATOR	STANDARDS SUPERVISOR	UNIT DIRECTOR
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

# CONSTRUCTION GUIDELINE

## Step 2A

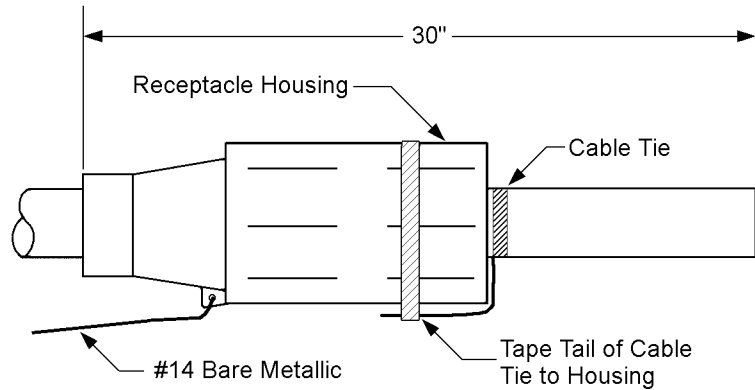
Unwind the concentric neutral wires (if applicable) a distance of 30 inches. Do not cut off. Bend and fold back out of the way.

## Step 3

Wipe the outer jacket clean a distance of 38 inches.

## Step 4

First, slide either cold shrink tubing (Stock No. 686512) or heat shrink tubing (Stock No. 737456E) onto the cable. Slide receptacle housing onto the cable a distance of 30 inches. Temporarily secure the housing with #14 bare metallic or large cable tie and vinyl tape.

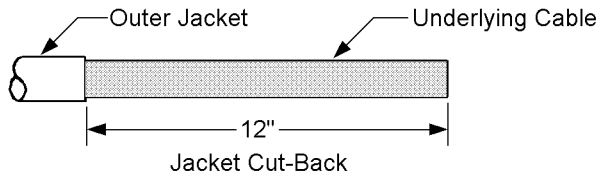


## Step 5 - Cable Preparation

XLP shielded, EPR cable: if concentric neutral cable, skip to step 6.

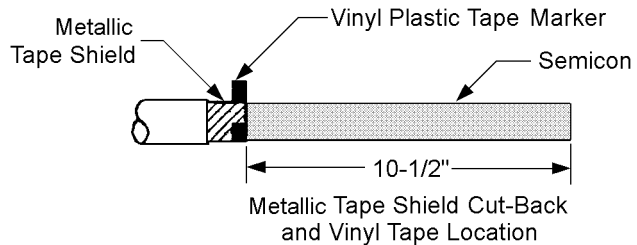
### Step 5A – Outer Jacket

Remove outer jacket to dimension shown.



### Step 5B – Metallic Tape Shield

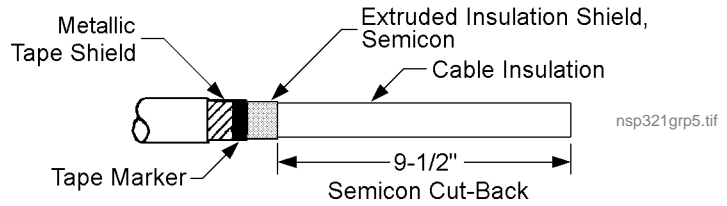
Remove metallic tape shield and secure with vinyl plastic tape to dimension shown. This vinyl tape also serves as a dimension maker for the cable adapter installation.



# CONSTRUCTION GUIDELINE

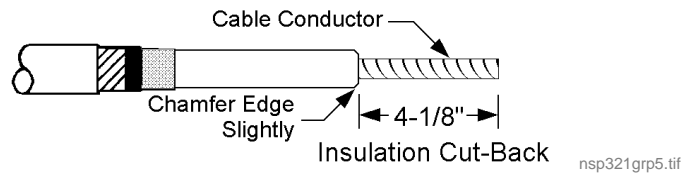
## Step 5C – Extruded Insulation Shield, Semicon

Remove extruded insulation shield to dimension shown. Do not cut or nick the cable insulation.



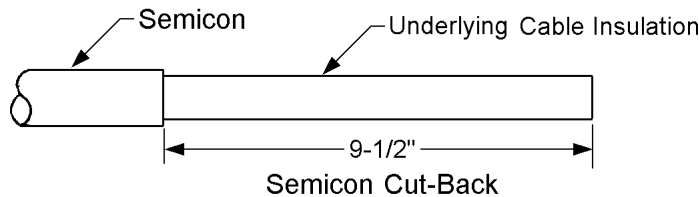
## Step 5D – Insulation

Remove insulation to dimension shown. Do not cut or nick the conductor. Slightly chamfer the insulation square corner so the adapter will slide on easier. Go to Step 7.



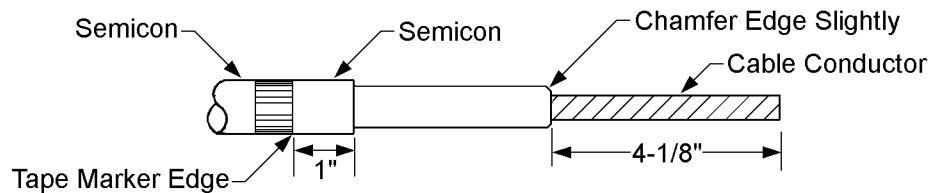
## Step 6 – Cable Preparation, Bare Concentric Neutral Step 6A – Semicon Insulation Shield

Remove outer semicon insulation shield to dimension shown. Do not cut or nick the cable insulation.



## Step 6B – Insulation

Remove insulation to dimension shown. Do not cut or nick the conductor. Slightly chamfer the insulation square cut edge so the adapter will slide on easier.

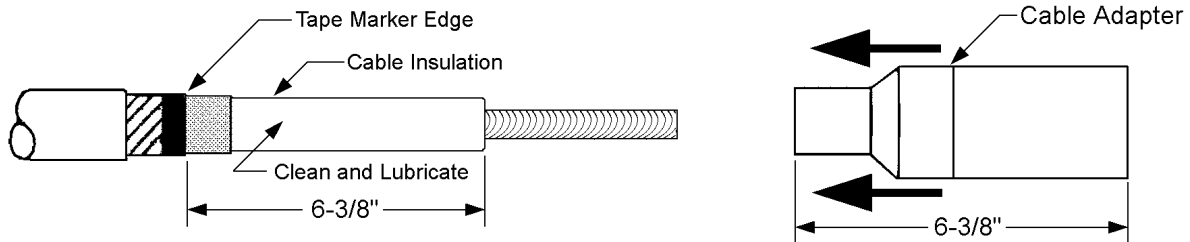


Install vinyl tape maker, one-inch back from cut edge of semicon to serve as a dimension maker for cable adapter insulation.

# CONSTRUCTION GUIDELINE

## Step 7 – Cable Adapter

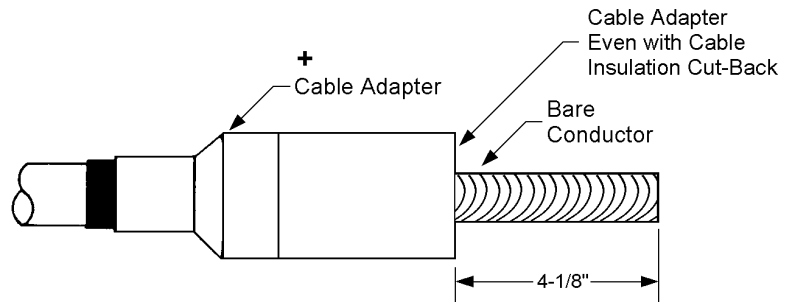
Thoroughly clean the exposed conductor and the cable insulation. Lubricate the insulation with silicone grease (Stock No. 686431E). Avoid tracking of conductive particles onto the insulation. The insides of the cable adapter must be clean. Install the cable adapter, small end first, until it is flush with the edge of the tape marker and even with the insulation cut-back. Note, for ease of assembly, measure and match the inside dimension of the adapter to the outside of the insulation.



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## Step 8

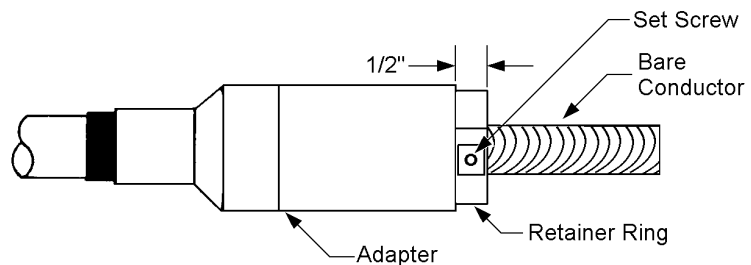
The length of exposed conductor should be 4-1/8 inches. Otherwise, redo assembly.



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## Step 9

Position the retainer ring over the conductor and flush against the cable adapter. Using the hex wrench supplied, tighten setscrew.



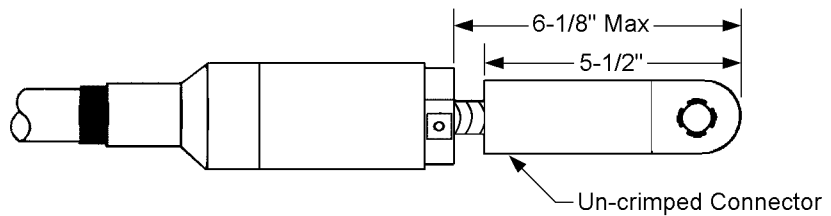
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**CONSTRUCTION GUIDELINE****Step 10**

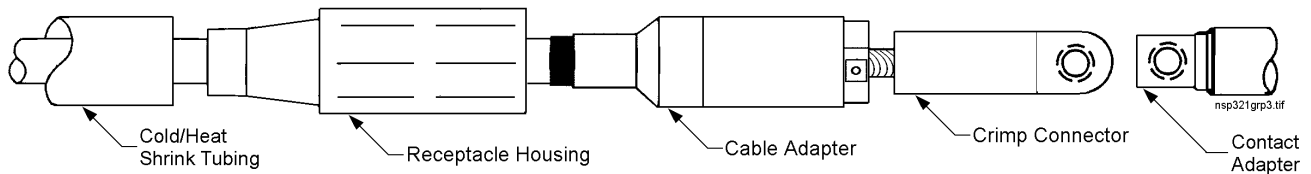
Remove the protective cap from the crimp connector. Cut the crimp connector to an overall length of 5-1/2 inches. Remove any burrs and dress newly cut edge. If using aluminum cable, wire brush the conductor and immediately insert into the crimp connector that contains inhibitor.

*Make sure conductor is fully*

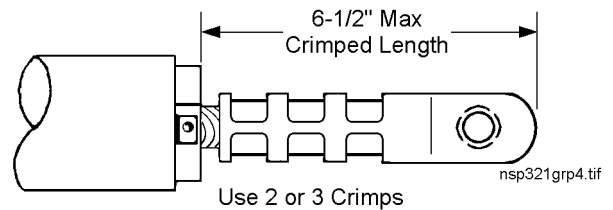
*inserted into the crimp barrel.* Measure the distance from the end of the connector to the retainer ring. If the distance is over 6-1/8 inches do not proceed. Recheck all previous work.

**Step 11**

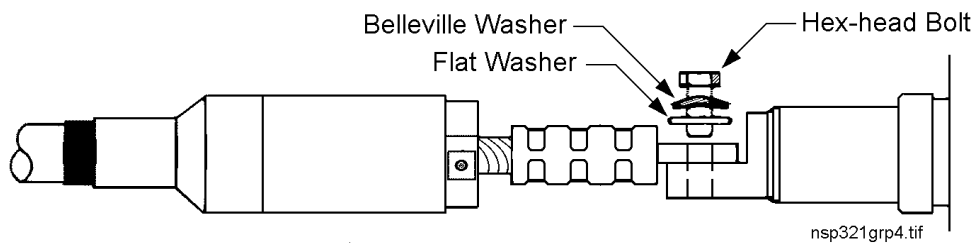
As a final check prior to crimping the connector, all components should be positioned as shown in the exploded view. CHECK THAT THE BOLT HOLE IN THE CRIMP CONNECTOR IS POSITIONED PROPERLY TO ALIGN WITH THE BOLT HOLE IN THE CONTACT ADAPTER.

**Step 12**

Crimp the connectors following the instructions packaged with the connectors. Rotate *each crimp 90°*. After crimping, measure the overall distance from the end of the connector to the retainer ring. If the distance is over 6-1/2 inches do not proceed. Recheck all previous work.

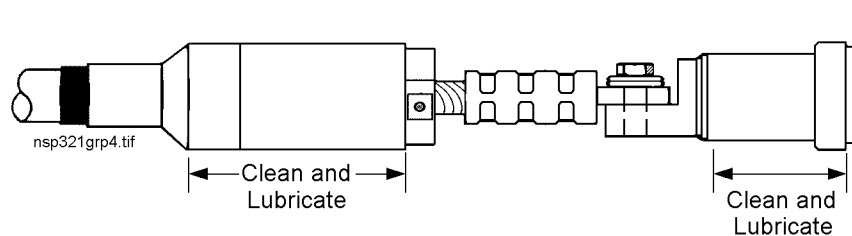
**Step 13**

Assemble the washers and bolts as indicated, the flat washer against the spade contact, then the hex head bolt. Do not attempt to move or reposition any part of the assembly after the bolt is hand tightened. Using a torque wrench with a 15/16 socket, tighten to 50-60 ft. lbs.

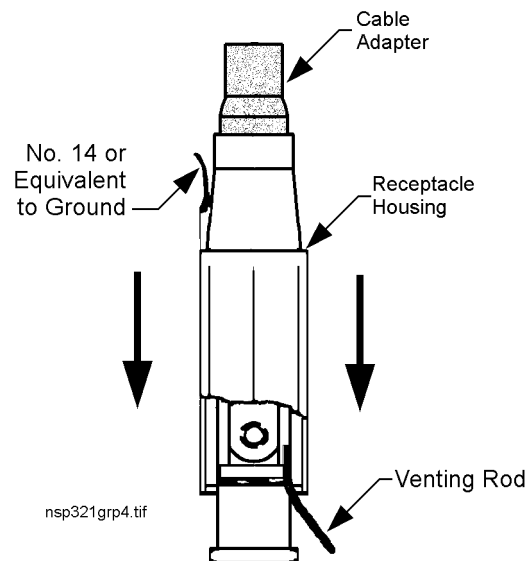


**CONSTRUCTION GUIDELINE****Step 14**

Apply supplied lubricant or Stock No. 686431E silicone grease generously to the outside of the cable adapter and the area of the bushing adapter as shown. **DO NOT SUBSTITUTE.** Other lubricants may be harmful to this product or its mating product.

**Step 15**

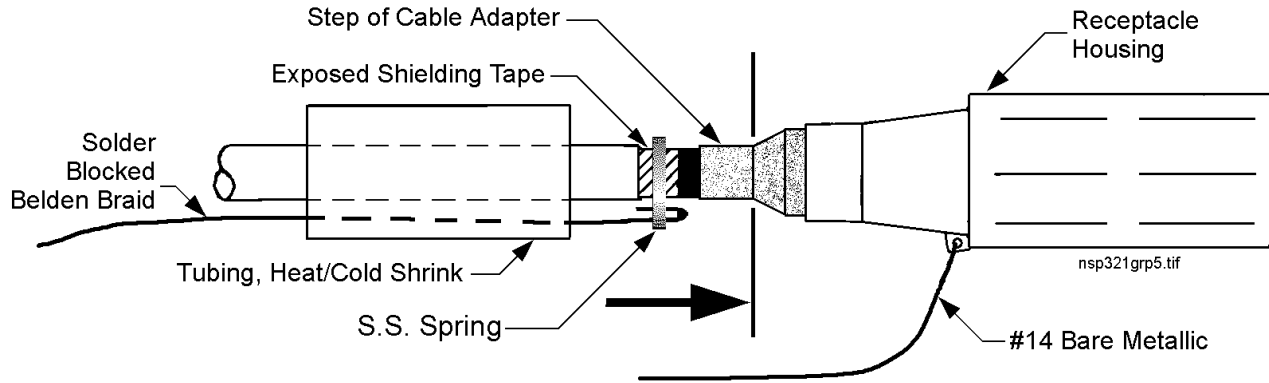
Slide the receptacle housing over the cable adapter and up to the position shown. Insert the nylon venting rod (supplied). Slide the receptacle housing onto the bushing converter until fully seated. Remove the venting rod. Connect a short piece of wire (No. 14 AWG) copper or equivalent to the grounding eye of the receptacle housing. Make a small loop and twist tightly, taking care not to damage the eye. Using a suitable connector, connect the neutral wires and the grounding wire.



# CONSTRUCTION GUIDELINE

## Step 16

Complete cable grounding. Refer to NSP-320. Use either grounding device (Stock No. 686512) with cold shrink tubing; or use solder-blocked copper braid (Stock No. 618625) with a stainless steel spring (Stock No. 686514), red mastic (Stock No. 686541), and heat shrink tubing (Stock No. 737456E); or use a combination of both. Ensure waterproof integrity of cable termination.



If concentric neutral cable. clean neutral strands with bench roll and attach No. 14 AWG with "C"-crimpets to neutral wires. Train bundles in neat fashion and complete ground connection per NSP-320.