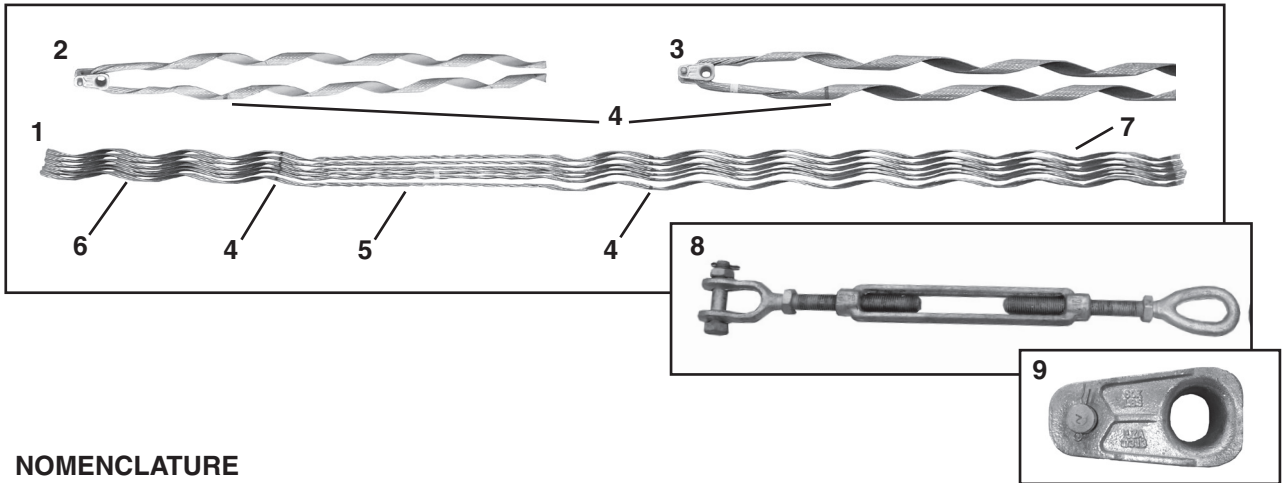




Dead-end Shunt with Dead-end (Single Configuration)

Be sure to read and completely understand this procedure before applying product. Be sure to select the proper PREFORMED™ product before application.



NOMENCLATURE

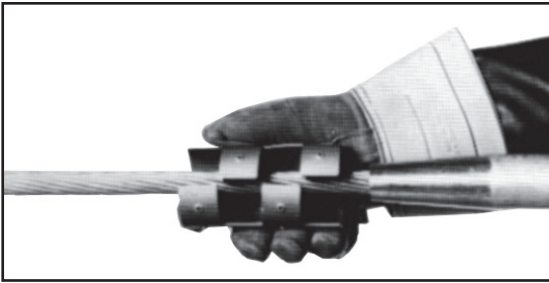
1. Dead-end Shunt (1)
2. Aluminum Clad Steel Dead-end Component (1)
3. Aluminum Alloy Shunt Dead-end Component (1)
4. Color Code and Crossover Marks
5. Cabled Section
6. Short Leg (Jumper Side)
7. Long Leg (Dead-end Side)
8. Turnbuckle (2)
9. Thimble Clevis (2)

Dead-end Shunt Installation

NOTE: When used individually as a Dead-end Shunt, little or no mechanical (tension) reinforcement is provided by the Dead-end Shunt. In this application, the shunt may carry up to 100% of the electrical current in the conductor. See individual specifications for electrical conductivity. The mechanical load is carried by the aluminum clad steel dead-end component.

The same conductor preparations must be followed for applications over a compression dead-end.

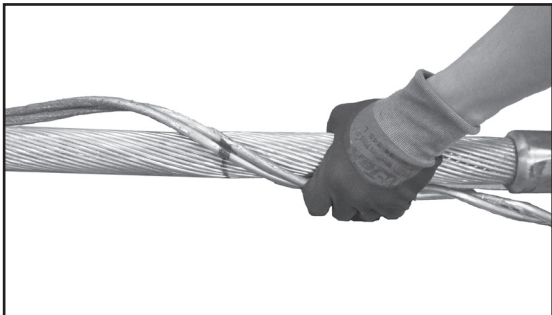
Step #1 Thoroughly clean the entire length of conductor on either side of the compression dead-end or compression jumper that will be covered by the leg sections of the shunt. Be sure to clean the entire circumference of the conductor with a wire brush.



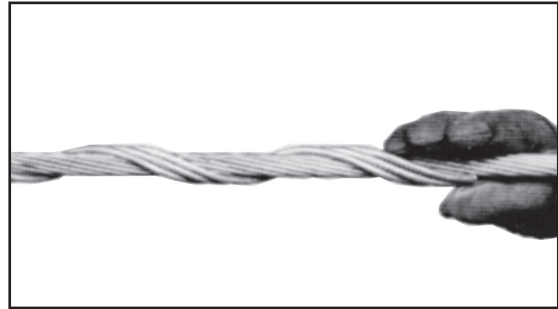
PLP TIP: It is important when applying the shunt's subsets, to avoid excessive gaps between each subset. Too much gap could make it difficult to completely apply all the individual rods of the last subset.

By applying one subset into a previously applied subset, excessive gap is minimized. Applying away from another subset will produce excessive gaps. Excessive gaps can also be avoided by applying all subsets on the conductor at the same time in a rotating fashion. However, with large, long rods this procedure can be difficult.

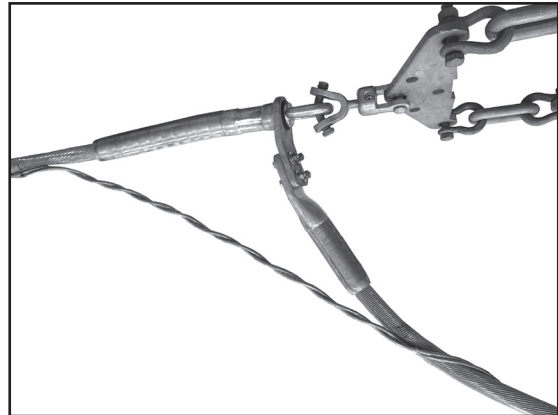
Step #2 Before applying the Dead-end Shunt, make the crossover mark precisely 11" from the end of the compression dead-end. Select the first subset, labeled as "set 1", consisting of two rods, as the first subset to be installed. Position the color code closest to the cabled section of the long leg at the 11" mark on the dead-end side of the shunt. The crossover mark lines up with the color mark made on the conductor.



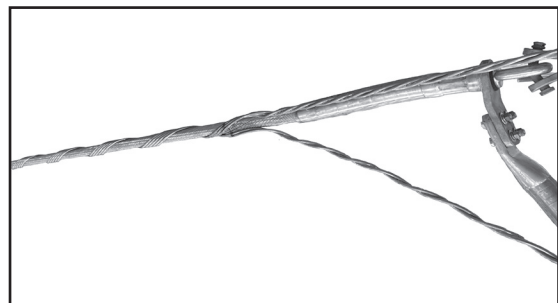
Step #3 While holding the subset more or less parallel to the conductor, wrap the leg on the conductor, beginning at the crossover mark.



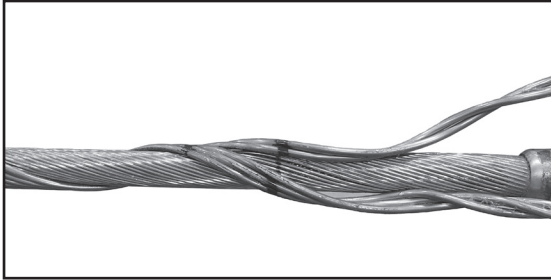
Step #4 Completely apply first subset onto both Dead-end side and Jumper side of the assembly. The first subset (consisting of two rods) should be completely applied onto the compression jumper end.



Step #5 Make sure that the leg ends are snapped into place before proceeding with the application of remaining subsets.

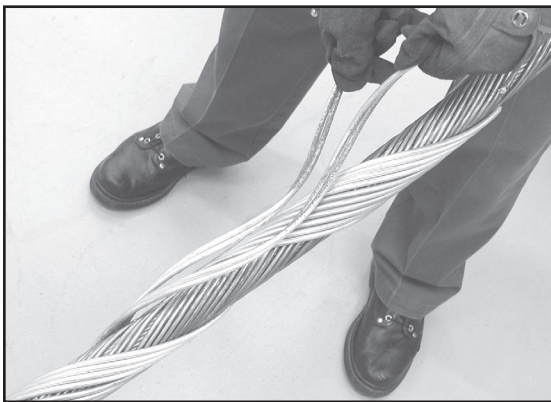


Step #6 Select the second subset, labeled as “set 2”, consisting of three rods, and line up the color codes of the second subset with the 1st subset on the compression dead-end side of the assembly. Begin the leg application on the dead-end side of the assembly so it wraps into the subset already applied. Apply this side completely.

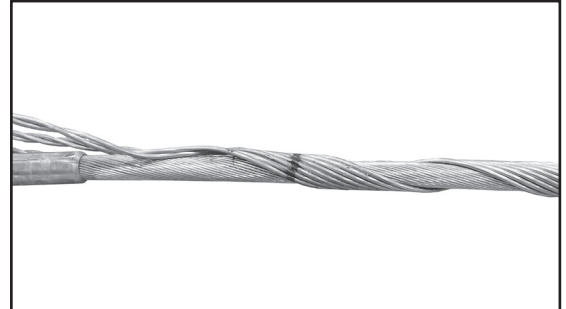


NOTE: On the other side of the shunt, DO NOT apply the second subset onto the compression jumper side. The excess portion of the rods, which have not been applied, should be laid to the **RIGHT** side of the conductor.

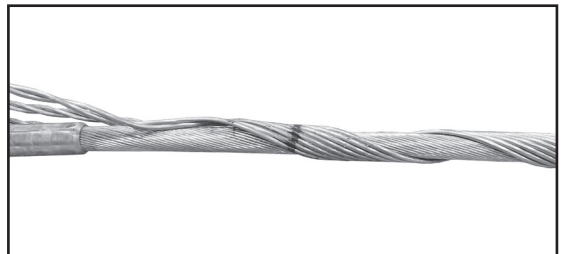
PLP TIP: To ease the Dead-end Shunt installation, do not apply the last two leg pitches. Split the legs as shown, and then apply them completely as smaller subsets or as individual rods. Make sure that all rod ends are snapped into place.



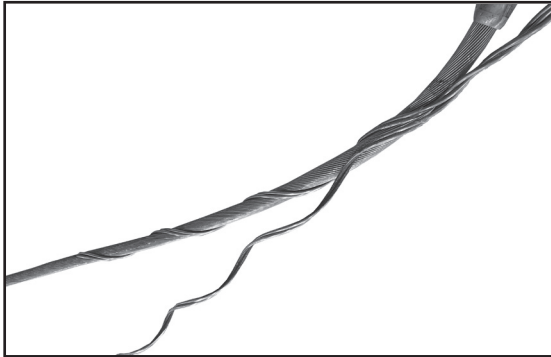
Step #7 Repeat Step #6 for the third subset, labeled as “set 3”, consisting of three rods. Line up the color code of the subsets with the previously applied subsets, and apply the dead-end side leg completely as before. The excess portion of the rods, which have not been applied, should be laid to the **RIGHT** side of the conductor.



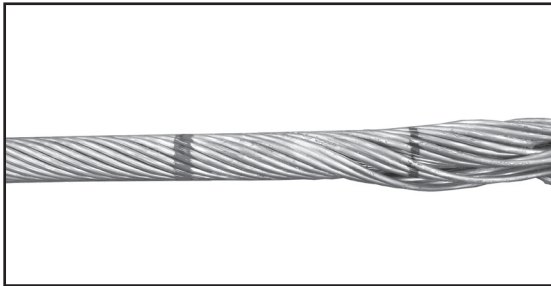
Step #8 Repeat Step #6 for the fourth and fifth subsets, labeled as “set 4” and “set 5” respectively, consisting of three rods each. Line up the color code of the subsets with the previously applied subsets, and completely apply these subsets onto the dead-end side. The excess portion of the rods, not applied, should be laid to the **LEFT** side of the conductor.



Step #9 The sixth subset, labeled as “set 6”, consisting of two rods, should be completely applied onto the dead-end side of the assembly, and also completely assembled to the jumper side of the assembly, making sure that the leg ends are snapped into place.

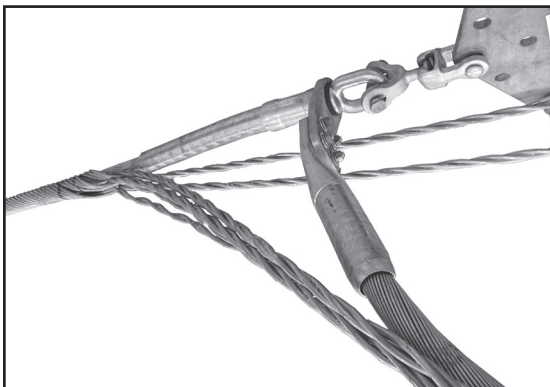


Step #10 Make sure that all leg ends are snapped into place. The entire dead-end side of the shunt should be complete.

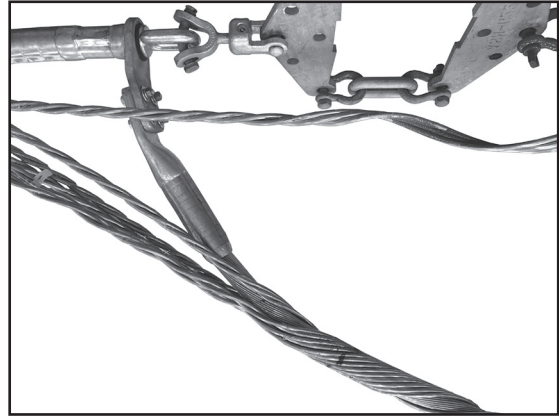


Step #11 Apply the 5th and then the 4th subset, labeled as “set 5” and “set 4” respectively, onto the compression jumper side, following the procedure outlined in Step 9. Use this procedure to wrap all the remaining subsets one by one.

NOTE: YOU ARE APPLYING THE SUBSETS ON THE JUMPER SIDE IN THE REVERSE ORDER FROM THE DEAD-END SIDE.



Step #12 Repeat for subsets three and two, labeled as “set 3” and “set 2” respectively.



Shunt Dead-end Installation

NOTE: Dead-ends are specially designed to provide mechanical holding strength for this applications.

In order for this assembly to provide the required mechanical holding strength, the installation of the aluminum clad steel dead-end must be completed.

Installation Issues:

Length: Dead-ends are manufactured with a specific number of rods (wires) and length specified by PLP® in order to provide necessary holding strength.

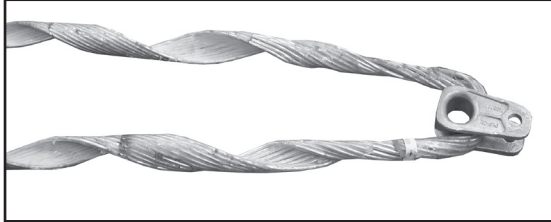
CAUTION: Alterations to the number or length of the rods may prevent the product from functioning properly. Do not alter the rods in any way.

Associated Hardware: There are two additional components associated with the dead-end application.

A.Thimble clevis: A clevis of proper size and strength is provided in order to support the dead-end’s loop and connect the dead-end to the structure or other fittings.

B.Turnbuckle: A turnbuckle of proper size and strength is provided in order to provide adjustment for the connection of a dead-end to a yoke plate.

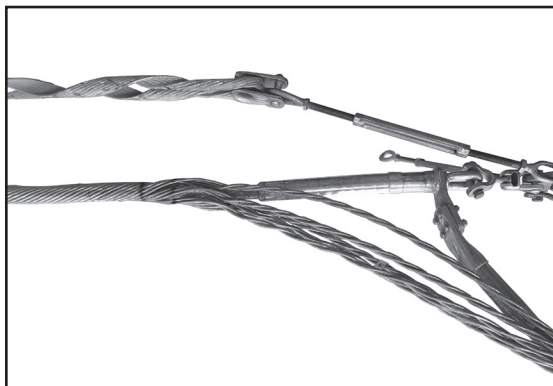
Step #13 Insert the Aluminum Clad Steel Dead-end (set 7) in the Thimble Clevis provided. Loop the Aluminum Clad Steel Dead-end component through the seat of the thimble clevis and position it parallel to the cable. The head of the clevis pin should be on the inside of the thimble clevis up against the dead-end.



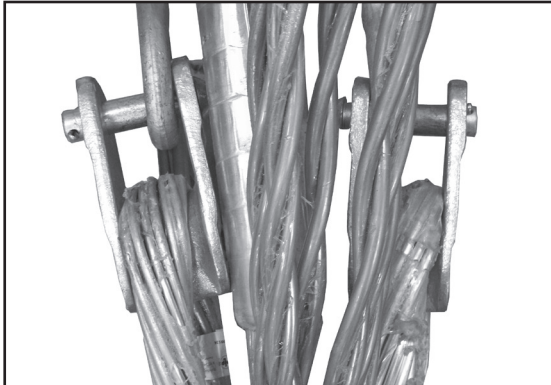
Step #15 Align the crossover mark of the Aluminum Clad Dead-end (set 7) with the color code mark on the Dead-end Shunt furthest from the cabled section. Begin application by wrapping the dead-end leg over the Dead-end Shunt starting at the color-coded crossover marks. Completely install this leg. To make application easier towards end of procedure, split the legs in sets of two or three and make sure that they completely wrap in. Complete the Aluminum Clad Dead-end installation by installing the second leg of the dead-end. After the Aluminum Clad Dead-end installation, turn turnbuckle until hand-tight.



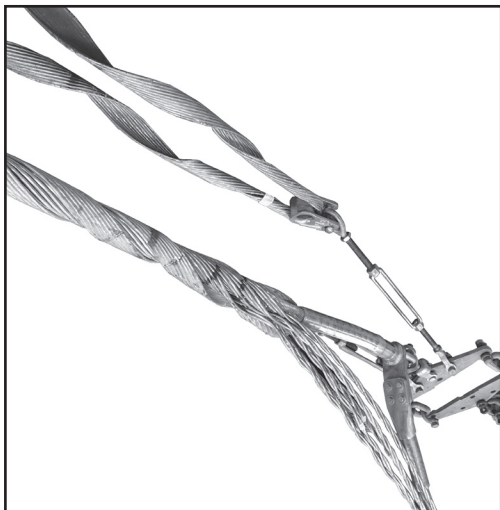
Step #14 Lubricate the threads of the turnbuckle with Never Seez®. Attach the turnbuckle to the left hand side of the Yoke Plate and to the Thimble Clevis with the Aluminum Clad Dead-end component.



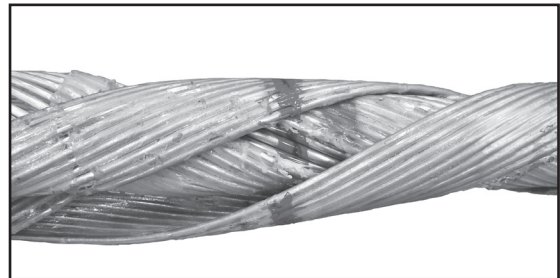
Step #16 Insert the Aluminum Alloy Dead-end (set 8) in the other Thimble Clevis provided. Loop the Aluminum Alloy Dead-end component through the seat of the Thimble Clevis and position it parallel to the cable. The head of the clevis pin should be on the inside of the Thimble Clevis up against the dead-end.



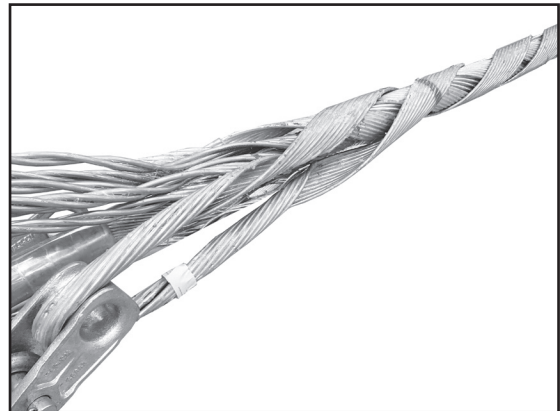
Step #17 Lubricate the threads of the other Turnbuckle with Never Seez[®]. Attach the Turnbuckle to the left hand side of the Yoke Plate and to the Thimble Clevis with the Aluminum Alloy Dead-end component.



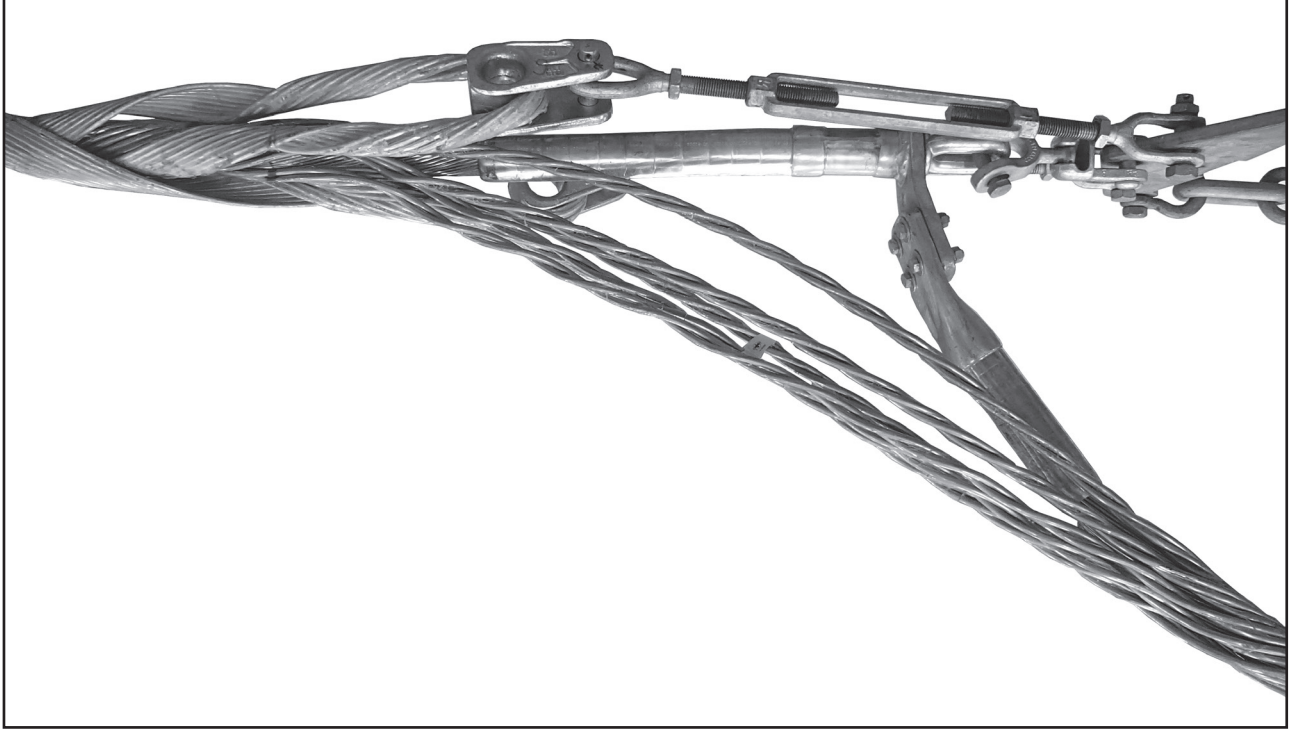
Step #18 Align the crossover mark of the Aluminum Alloy dead-end component (set 8) with the color coded mark of the Aluminum Clad Dead-End (set 7). Apply this leg in the same fashion as the previous dead-end leg.



Step #19 Complete the dead-end installation by installing the second leg of the Aluminum Alloy Dead-end. After completely installing the Aluminum Alloy Dead-end, turn the Turnbuckle until hand tight and then tighten one additional full rotation with a wrench.



Step #20 Installation complete.



SAFETY CONSIDERATIONS

This application procedure is not intended to supersede any company construction or safety standards. This procedure is offered only to illustrate safe application for the individual. **FAILURE TO FOLLOW THESE PROCEDURES MAY RESULT IN PERSONAL INJURY OR DEATH.**

This product is intended for a single (one time) use and for the specified application.
Do not reuse or modify this product under any circumstances.

This product is intended for use by trained technicians only. **This product should not be used by anyone who is not familiar with, and not trained to use it.**

When working in the area of energized lines, extra care should be taken to prevent accidental electrical contact. Be sure to wear proper safety equipment per your company protocol.

For proper performance and personal safety, be sure to select the proper size PREFORMED™ product before application.

PREFORMED products are precision devices. To ensure proper performance, they should be stored in cartons under cover and handled carefully.



PREFORMED LINE PRODUCTS

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