

Installation Instructions

15/25/35PCJ1WXXX

W = Housing sizes: N,P,Q

CONTENTS: Joint Housing, Splice (Conductor Contact), Lubricant (**DO NOT SUBSTITUTE**), Installation Instructions.

The straight joint is a permanent, fully shielded, fully submersible joint for aluminum to aluminum and/or aluminum to copper conductor, wire shielded cables, with a continuous operating current rating equal to that of the cable on which it is installed and a rated voltage as indicated on the joint housing.

DANGER

All apparatus must be de-energized during installation or removal of part(s).

Do not touch or move energized products in the work area.

These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions will result in damage to the product and serious or fatal injury.

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.

All apparatus must be installed and operated in accordance with individual user, local and national work rules and electrical standards.

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.

Inspect parts for damage, rating and compatibility with mating parts.

Excess distortion of the assembled product may result in its failure.

FOR MORE INFORMATION ON PARTS, INSTALLATION RATINGS AND COMPATIBILITY, CALL THE NEAREST ABB OFFICE.

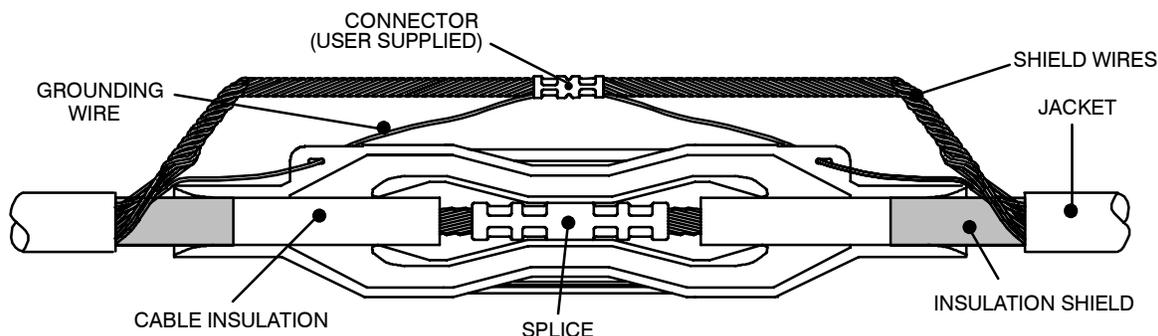
Limited Warranty:

1. ABB Installation Products Inc. warrants that its products will be free from defects in materials or workmanship for a period of two (2) years, except for tools which are warranted separately (see warranty accompanying those products). Fisher Pierce™ products and Elastimold™ Reclosers are warranted for three years; and Joslyn™ VBT and VBU capacitor switches are warranted for four years or 40,000 operations whichever occurs first. Upon prompt notification of a warranted defect, ABB Installation Products Inc. will, at its option, repair, replace or refund the defective product.
2. In no event shall ABB Installation Products Inc. be liable for any consequential, indirect, incidental or special damages, whether under contract, warranty, tort, negligence, strict liability or otherwise. ABB Installation Products Inc. will not be liable for providing temporary power, removal, working access, installation, transportation to or from any repair facility, or reimbursement for labor costs, or for any other expenses arising out of the removal or reinstallation of its products. Liability for breach of warranty is limited to the cost of repair, replacement or refund of the warranted product only.
3. Misuse, misapplication or modification of ABB Installation Products Inc. products immediately voids all warranties.

THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE SPECIFICALLY DISCLAIMED.

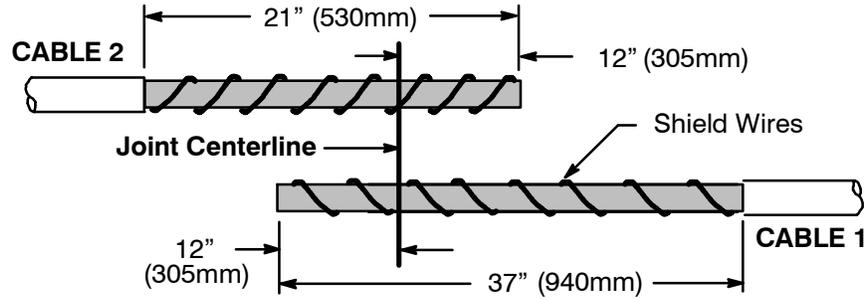
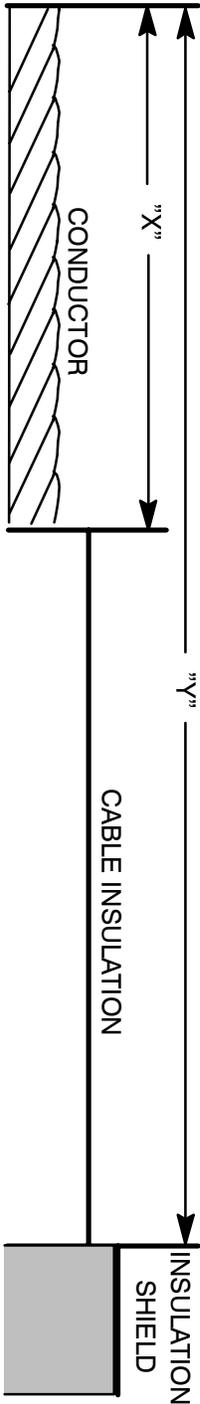
IMPORTANT

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.



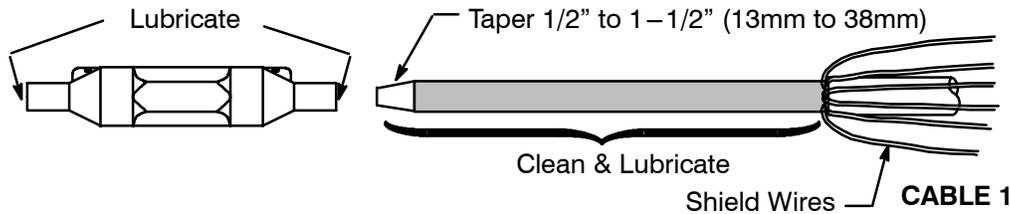
STEP A

1. Overlap both cables and cut to 12" (305mm) from center line of joint. This will ensure sufficient length of shield wires to be able to rejoin over joint.
2. Where applicable, remove cable jacket of Cable 1 to 37" (940mm) and that of Cable 2 to 21" (530mm).
3. Fold back shield wires.
4. Cut both cables at center line of joint.



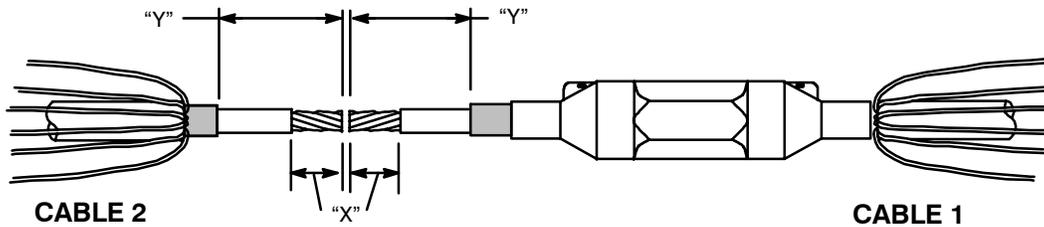
STEP B - PREPARE CABLE 1 & STORE HOUSING

1. Taper edge of Cable 1 at least 1/2" to no greater than 1-1/2" (13mm to 38mm). Clean and lubricate insulation shield. Lubricate inside bore of joint housing on both ends.
2. Slide the housing on the cable up to the shield wires. Tests have shown this procedure will not contaminate electrical interfaces.



STEP C - PREPARE CABLES FOR SPLICE INSTALLATION

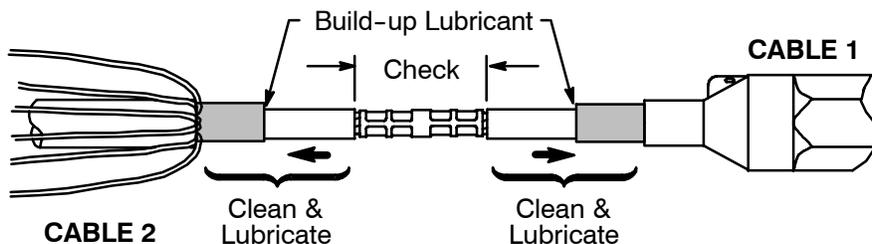
Carefully remove the cable insulation and then the insulation shield from both cables. **DO NOT CUT OR NICK THE CABLE INSULATION OR CONDUCTOR.**



Conductor	"X"	"Y"
500 MCM – 750 MCM	2 1/2" (64mm)	6 1/4" (159mm)
1000 MCM	2 3/8" (68mm)	6 3/8" (162mm)

STEP D - SPLICE INSTALLATION

1. If conductors are aluminum, wire-brush and immediately insert into the splice. Check dimension to the table below. If it exceeds the Max Check Before dimension, redo assembly.
2. Crimp the splice following the recommendations provided with it.
3. Wipe off all excess inhibitor where applicable. Check the distance between cable insulations. If it exceeds the Max Check After dimension, redo assembly.
4. Remove any sharp protrusions/burrs that were generated when crimping the splice. **Metal chips/filings must be removed from the splice and joint assembly area prior to sliding joint.**
5. Clean cables where indicated. Lubricate in the direction of arrows to provide a build-up or ramp of lubricant at the edge of the insulation shield.



Check Dimension Table		
Conductor	Max Check Before	Max Check After
500 MCM – 750 MCM	6" (152mm)	6 1/4" (159mm)
1000 MCM	6 7/8" (156mm)	6 1/2" (165mm)

STEP E - COMPLETE JOINT ASSEMBLY

1. Slide housing into final position. Proper positioning is ensured by observing and equalizing the deformation of the joint ends caused by the underlying cable insulation shield.
2. For 35kV ONLY:
 - Install two DELTEC™ Cable ties on each end of the cable entrance. Begin by installing the outer ties approx. 1/4" from the edge of the splice then install the second ties approx. 1/4" from the first with an offset of the locking heads of the two cable ties. The T&B WT3D tool (not included) is recommended to tighten the ties and then trim off the extra material of the ties.
 - Remove the yellow pin from the joint grounding eye and discard yellow pin.
3. Retrain shield wires and secure to ends of joint as shown.
4. Insert one of the shield wires from Cable 1 (if #14 AWG or larger) through the joint grounding eye. Repeat for Cable 2. If shield wires are smaller than #14 AWG use separate #14 AWG copper wire or equivalent.
5. Connect joint grounding wires and remaining shield wires, using an appropriate connector, as shown.
6. Reconstruct cable jacket (where applicable) over both cables and joint housing.

