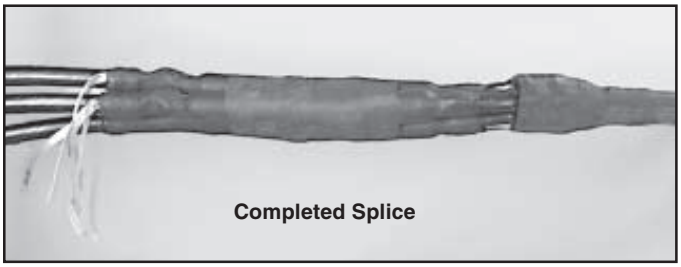
3M™ Cold Shrink Trifurcating Transition Splice Kit QS2012-13-3T

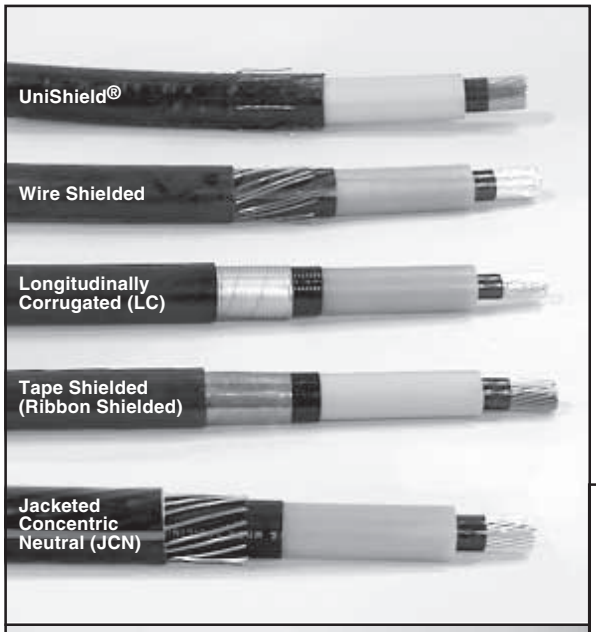
Instructions

IEEE Std. 404
15 kV Class
110 kV BIL


Completed Splice

Cable Size Range Requirements

PILC Conductor Size	500 kcmil (240 mm^2)
Poly/EPR Conductor Size	250 - 350 kcmil (120 - 195 mm^2)
Poly/EPR Insulation O.D.	0.91" to 1.12" (23 - 28,4 mm)




3 Conductor PILC

Connector Dimensional Requirements

	Minimum inches (mm)	Maximum inches (mm)
Outside Diameter	0.90" (23 mm)	1.30" (33 mm)
Length Aluminum (Al/Cu)	2.0" (51 mm)	5.2" (132 mm)
Length Copper (Cu)	2.0" (51 mm)	5.5" (140 mm)

3M Cold Shrink Trifurcating Transition Splice Kit QS2012-13-3T

78-8119-6130-5-B

Contents:

1.0 Prepare PILC Cable 3
2.0 Install Oil Stop 7
3.0 Install Splice Bodies 10
4.0 Connect Splice Shield to Poly/EPR Cables 13
5.0 Seal Lead End and Make Shield Connections on Lead 21

1.0 Prepare PILC Cable

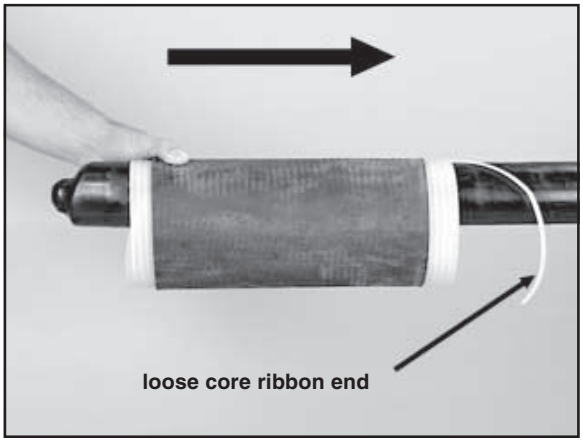
Note: ***Use Components From Bag #1.***

1 - large Cold Shrink jacket tube
1 - plastic sheath seal mold
1 - Cold Shrink oil stop tube for lead
1 - roll Scotch® Super 33+ Tape
2 - 1 1/2" x 1 3/4" (38 mm x 44 mm) mastic pads
1 - folded inner sheath seal

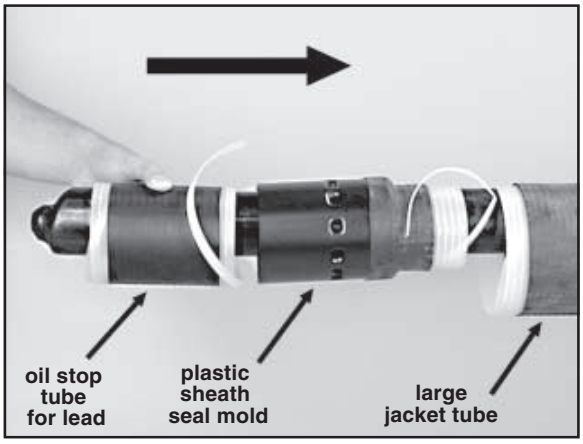
Note: ***The core material being removed when installing Cold Shrink assemblies is polypropylene and can be recycled with other PP wastes.***

1.1 Train the PILC cable end into splice position.

1.2 Slide large Cold Shrink jacket tube onto PILC cable with the loose core ribbon end going on first.



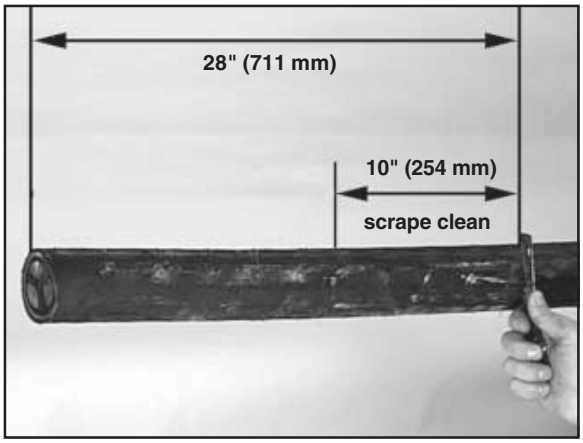
1.3 Slide plastic sheath seal mold and Cold Shrink oil stop tube for lead onto PILC cable with loose core ribbon ends going on first.



1.4 If PILC cable has a jacket, remove 28" (711 mm) from cable end.

1.5 If surface irregularities can be seen on the surface of the exposed lead, scape the surface of the lead smooth for a distance of 10" (254 mm) from the 28" (711 mm) dimension toward cable end.

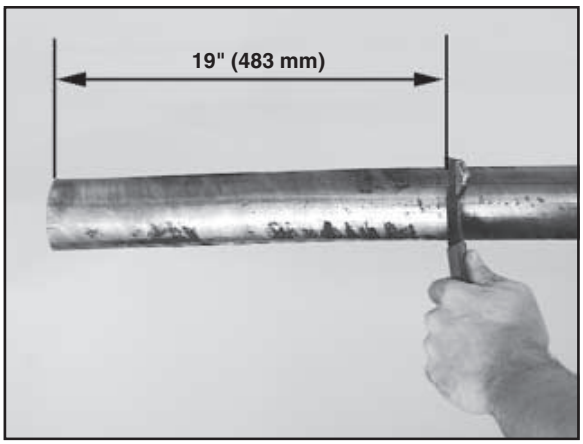
Note: ***Completely remove any surface irregularities from lead surface (grooves, nicks and etc.)***



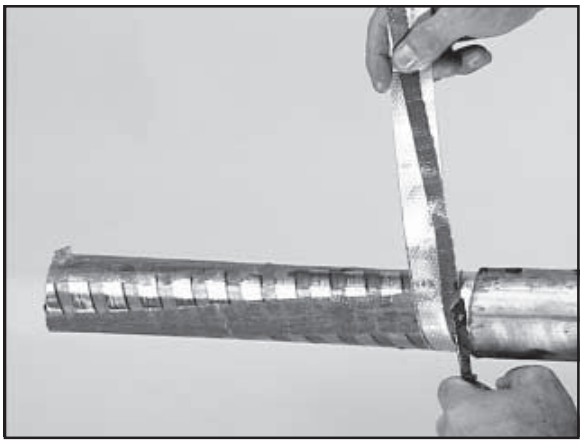
1.6 Ring Score the lead 19” (483 mm) from cable end.

1.7 Remove 19” (483 mm) of lead from cable end.

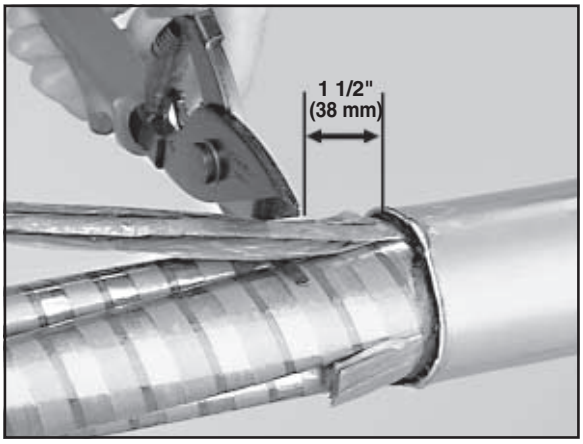
Note: ***Do not bell the end of the lead. Remove any sharp edges at end of lead.***



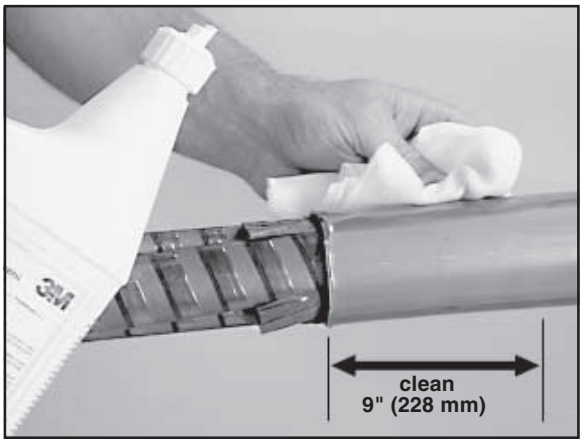
1.8 Remove paper and/or metallic binder from around cable conductors to the end of the lead.



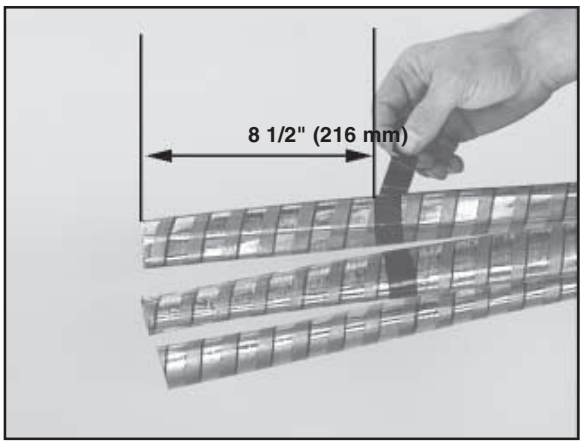
1.9 Separate conductors and remove cable fillers from sides and center of conductors to 1 1/2” (38 mm) from the end of the lead.



1.10 Clean 9” (228 mm) of exposed lead using a solvent cleaner approved for use on power cables.

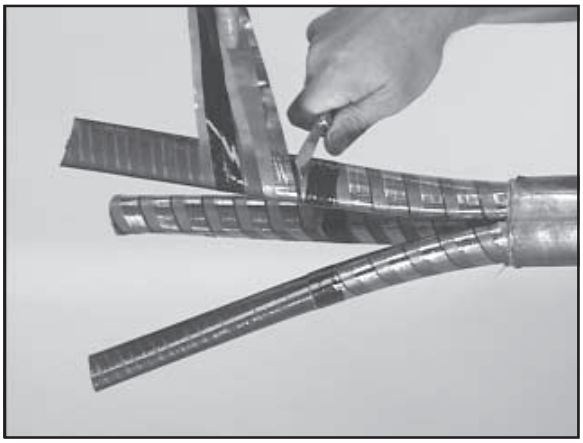


1.11 Bind the metallic shield of each conductor at a point 8 1/2” (216 mm) from conductor ends with two wraps of vinyl tape.



1.12 Remove metallic shield and black semi-conductive paper from conductor ends to the vinyl tape binder.

Note: If black carbon deposits can be seen on the surface of the exposed cable insulation, remove the top layer(s) of paper insulation to the vinyl tape wrap.



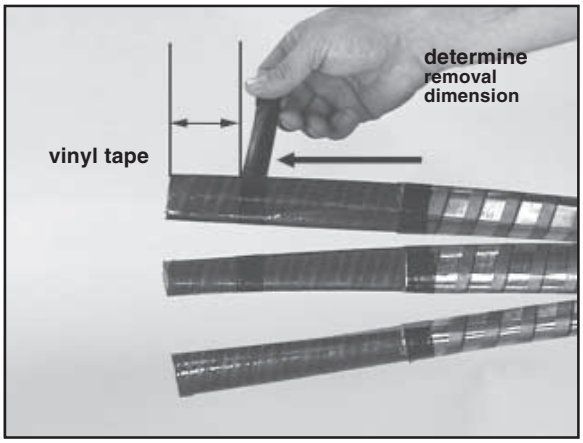
Connector Dimension Table

Connector	Min. Length	Max Length
Copper	2" (51 mm)	5 1/2" (140 mm)
Aluminum	2" (51 mm)	5 1/5" (132 mm)

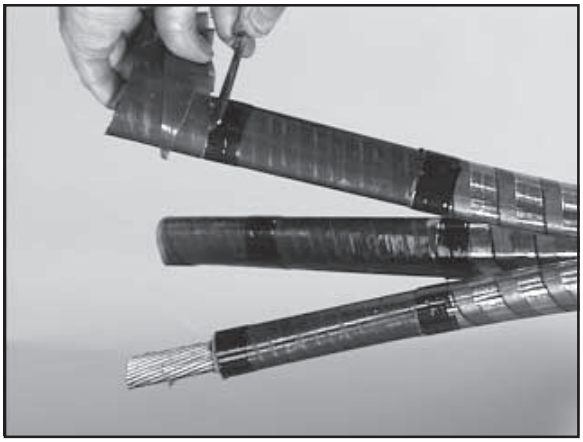
1.13 The insulation removal dimension for the 3M™ Scotchlok™ 2000T series sized 3/0 AWG - 350 kcmil (70mm-195mm^2), either copper or aluminum, is 3” (76 mm).

Note: Determine insulation removal dimension for connectors other than the Scotchlok connectors 2000T series by adding together the depth of connector barrel, plus any growth resulting from crimping, plus 1/2” (13 mm)

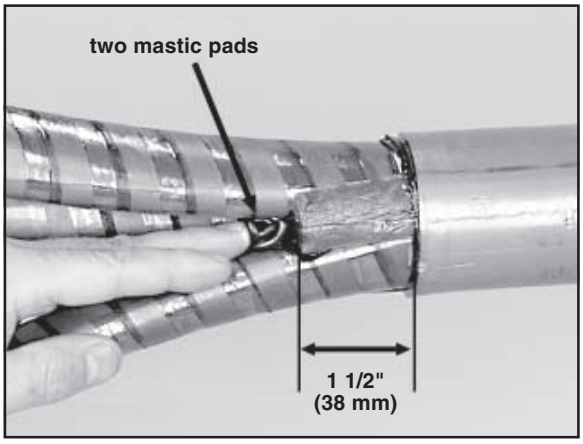
1.14 Bind the paper insulation at the determined cutback dimension with two wraps of vinyl tape.



1.15 Remove insulation from conductor ends to the vinyl tape binding. Leave all bindings in place throughout installation. **DO NOT REMOVE vinyl tape bindings.**



1.16 Install mastic between conductors. Remove paper liners from two 1 1/2" (38 mm) wide by 1 3/4" (44 mm) long mastic pads and force mastic between conductors where conductors separate from lead. Mastic should be installed within 1 1/2" (38 mm) from end of lead.

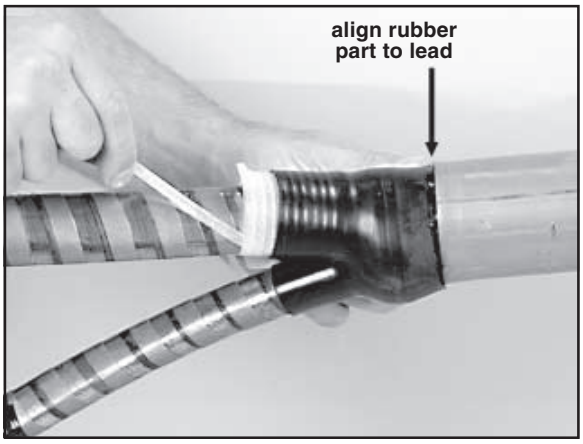


1.17 Slide the folded inner sheath seal onto cable, with the fold of the rubber going on first. Ribbon ends of inner support cores should extend toward cable ends.

Note: ***Inner support cores for the three fingers may extend several windings beyond the rubber fold. Remove this excess core by pulling on the free end before sliding part onto cable.***



1.18 Unfold the folded rubber portion of the inner sheath seal and push the part onto the cable until the rubber end aligns with the end of the lead. Remove inner support cores from the rubber fingers, by pulling on the free ribbon end while unwinding the ribbon in a counter clockwise direction.



2.0 Install Oil Stop

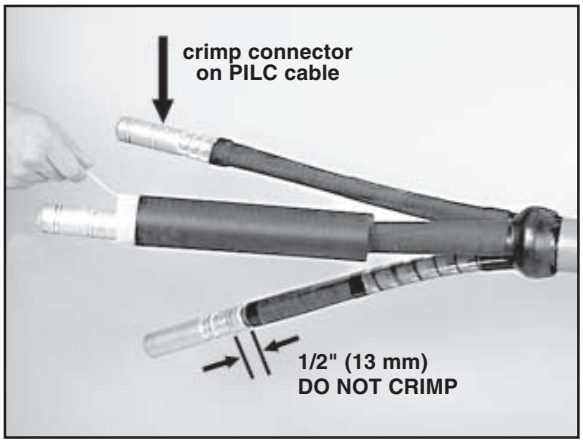
Note: ***Use Components From Bag # 2.***

3 - Cold Shrink oil barrier tubes
1 - roll Scotch® Rubber Splicing Tape 130C
3 - rolls of white restricting tape
1 - shield to lead continuity assembly
1 - outer Cold Shrink sheath seal boot

2.1 Install appropriately sized oil stop connectors onto the PILC cable conductors. Crimp the connectors per connector manufacturer's directions.

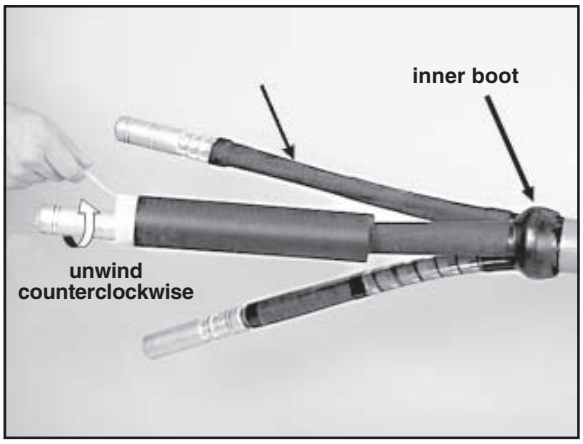
For crimp information on 3M™ Scotchlok™ Connectors 2000T Series, consult the addendum at the end of this instruction sheet.

DO NOT CRIMP CONNECTOR CLOSER THAN 1/2" (13 MM) FROM END.

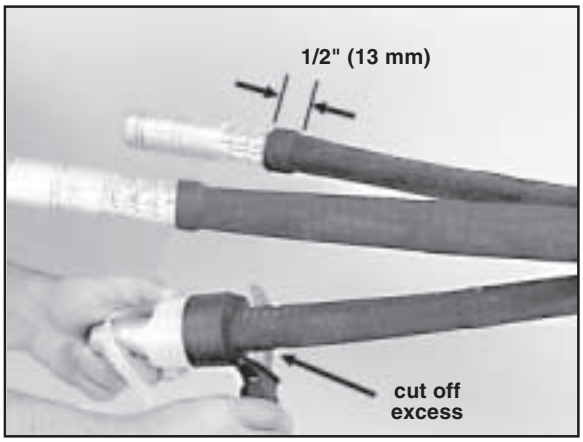


2.2 Slide special Cold Shrink oil barrier tubes onto cable conductors, with the loose ribbon end extending toward cable ends. Install each assembly as far as possible onto the fingers of the inner boot. Remove core ribbon slowly by pulling, while unwinding the ribbon in a counter clockwise direction.

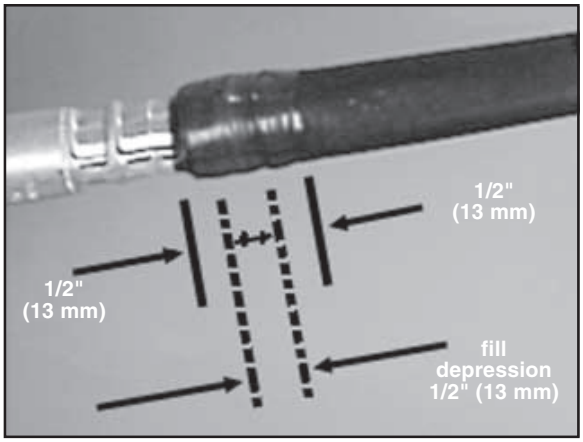
Note: ***Tube on core assemblies may have several windings of core ribbon extending beyond end of rubber. Before sliding part onto cable, remove the excess core by pulling on the loose ribbon end, while unwinding the ribbon in a counter clockwise direction.***



2.3 Oil barrier tubes should overlap 1/2"(13 mm) onto connectors. Any excess overlap should be cut off and discarded.

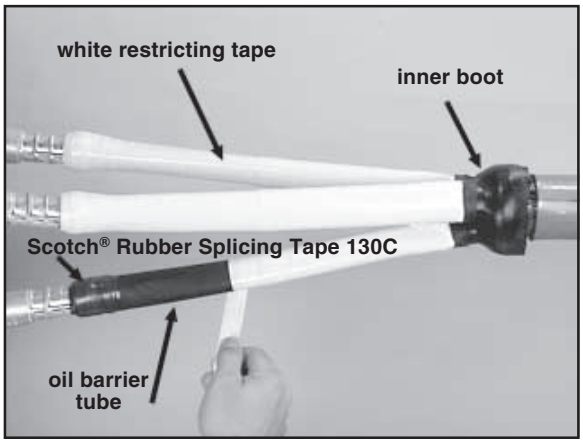


2.4 Fill in depression formed between oil/paper cable insulation and connectors with highly stretched Scotch® Rubber Splicing Tape 130C. Apply final two half-lapped layers 1/2" (13 mm) onto cable insulation and 1/2" (13 mm) onto oil barrier tube over connector. If O.D. of connector is smaller than cable insulation, apply multiple wraps of Scotch® Rubber Splicing Tape 130C at connector end to increase diameter to approximate cable O.D.



2.5 Apply three half-lapped layers of white restricting tape (white tape with smooth surface) over oil barrier tubes and applied Scotch® Rubber Splicing Tape 130C. Start the tape application over oil barrier tube ends at inner boot. Apply the tape as smooth as possible. To aid application, the white restricting tape may be applied in strips.

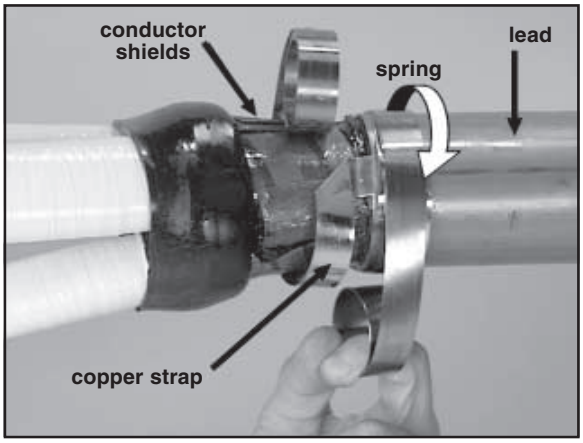
Note: ***White restricting tape does not stretch. Apply with constant tension to avoid wrinkling.***



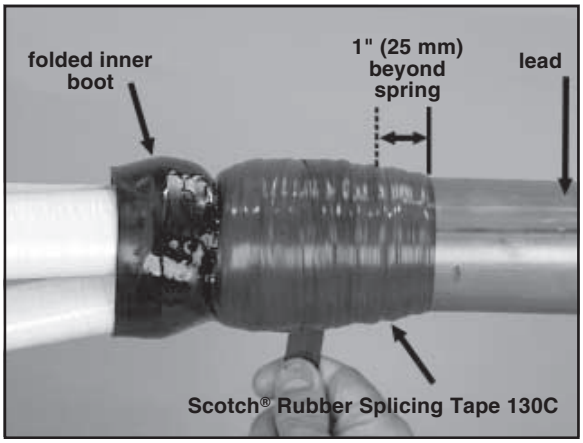
2.6 Fold the large section of the inner boot back over itself, exposing the shields of the phase conductors. If cable has a non-metallic binder between phase conductors and lead, install the shield to lead continuity assembly consisting of a bent tinned copper strap and two constant force springs.

Wrap one end of strap around lead and pull the constant force spring over the top of it, allowing spring to unwrap and rewrap around itself. Install second spring in the same manner over the shields of the phase conductors.

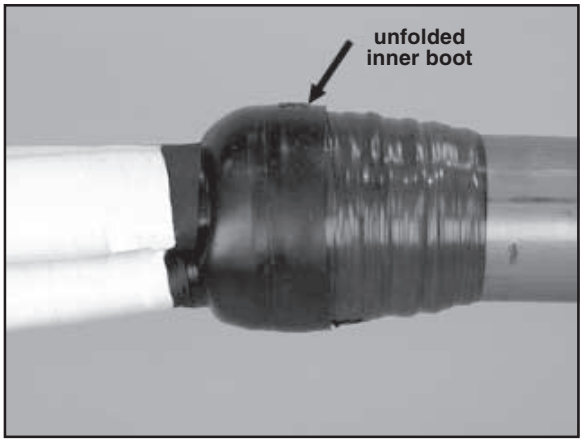
Note: ***If cable has a metallic binder around phase conductors the continuity assembly may be omitted.***



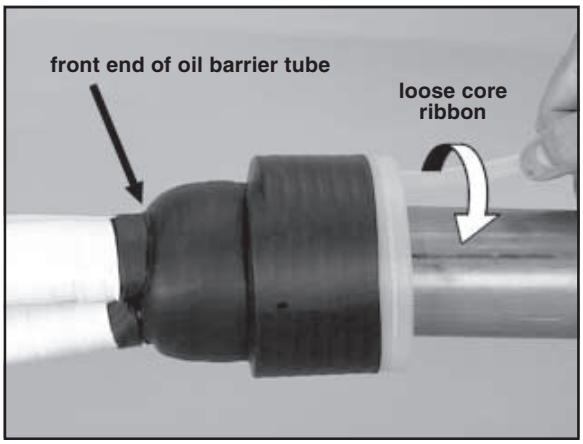
2.7 Apply multiple wraps of Scotch® Rubber Splicing Tape 130C over the shield continuity strap and springs, filling the space between the folded inner boot and between springs. Highly elongate (stretch) the tape during application. Apply two half-lapped layers over spring on lead and taper the tape application 1" (25 mm) onto lead beyond spring. If the shield continuity assembly was omitted in step 2.6, apply multiple wraps of Scotch® Rubber Splicing Tape 130C between the folded boot and end of lead. Taper the tape application 2" (51 mm) onto the end of the lead.



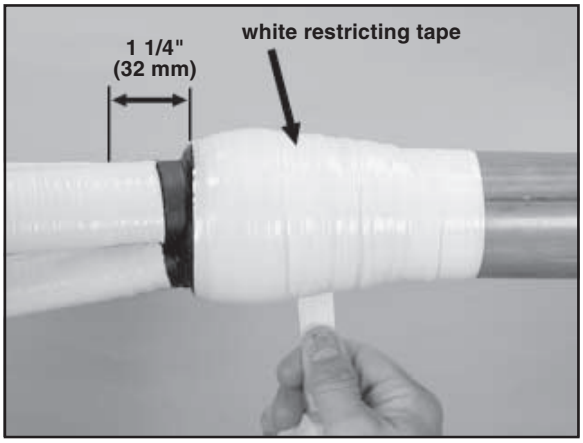
2.8 Unfold inner boot over the applied tape. If the boot is loose on the tape, refold the boot and apply additional tape to provide a tight fit to the Scotch® Rubber Splicing Tape 130C when boot is unfolded.



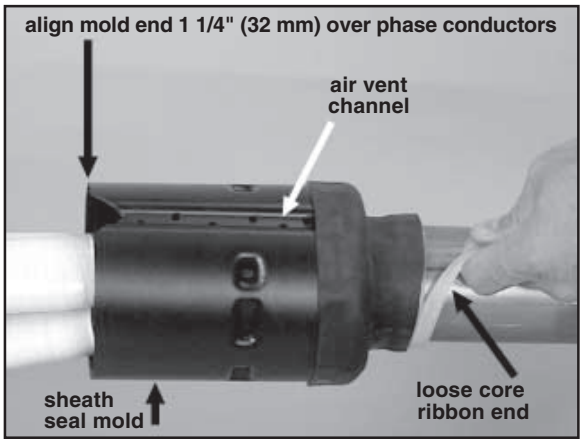
2.9 Position the oil barrier tube for lead (previously applied onto PILC cable) over the large portion of inner boot and applied Scotch® Rubber Splicing Tape 130C. Install by pulling while unwinding the loose ribbon end in a counter clockwise direction.



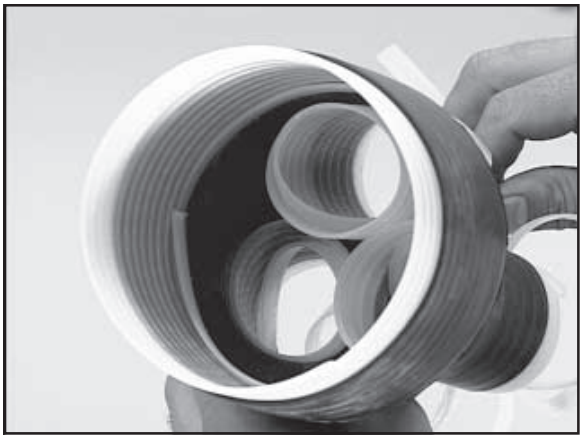
2.10 Apply two half-lapped layers of white restricting tape over the oil barrier tube on lead. Start the tape on the lead at end of oil barrier tube. At this location, apply several wraps of the tape until the tape build-up approximates the O.D. of the oil barrier tube, then half lap the tape over tube and return to starting location.



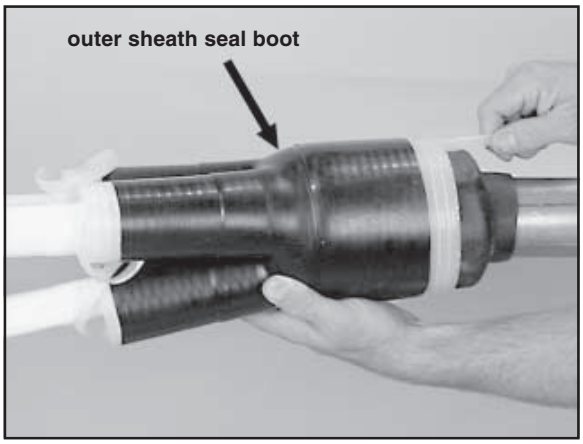
2.11 Slide the plastic sheath seal mold over the inner boot. Align leading edge of mold 1 1/4” (32 mm) over the phase conductors where they extend from the inner boot (shown in 2.10). Rotate the mold to locate the notch in the leading edge and air vent channel at the top. Lock mold into position by removing the inner support core by pulling while unwinding the loose core ribbon end counter clockwise.



2.12 Remove excess core ribbon from fingers of outer sheath seal part in preparation for installation. Remove the excess by pulling slowly on core's loose ribbon end until the core end on the inside is a point where it is supporting rubber.



2.13 Slide the outer sheath seal boot onto the PILC cable with the large end going on first. Pull the boot on until it is tight to the plastic sheath seal mold. Remove the large diameter core and then remove finger cores.



3.0 Install Splice Bodies

Note: ***Use Components From Bag #3.***

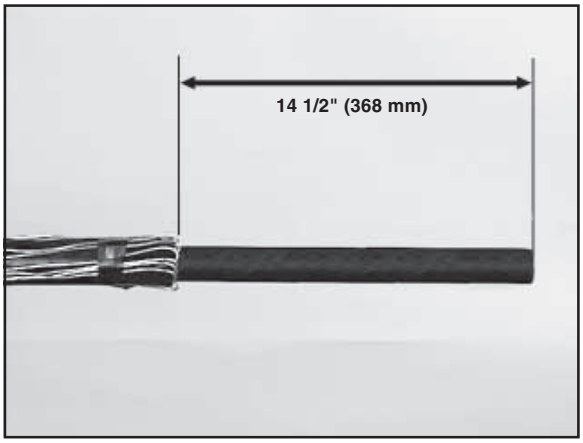
6 - Cold Shrink splice jacketing tubes
3 - Cold Shrink splice bodies
3 - shield sleeves
4 - tubes of 3M™ Red Compound P55/R

3.1 Prepare poly/EPR cable ends according to standard practices.

- **For Jacketed Concentric Neutral and Flat Strap Neutral Cable refer to 3.1.1.**
- **For Concentric Neutral Cable without a Jacket refer to 3.1.2.**
- **For Tape Shield and LC (Longitudinally Corrugated) Shield Cable refer to 3.1.3.**
- **For Drain Wire Shield Cable refer to 3.1.4.**
- **For UniShield® Cable refer to 3.1.5.**

3.1.1 <u>For Jacketed Concentric Neutral and Flat Strap Neutral</u>:

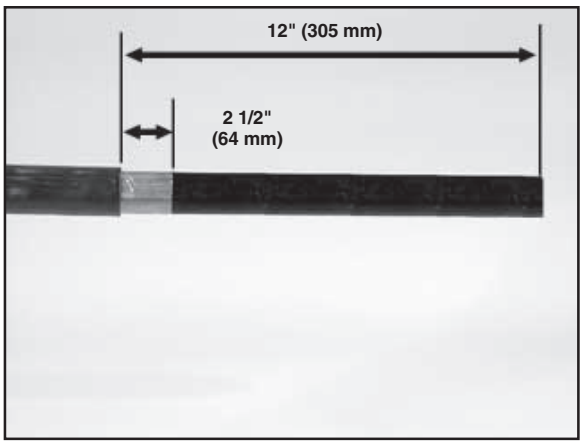
Remove 14 1/2" (368 mm) of cable jacket and fold the neutral wires straight back over jacket end and tape ends of wires to the cable.



3.1.2 <u>For Concentric Neutral</u> without a jacket, wrap a tape band around the neutral wires at 14 1/2" (368 mm) from cable end. Fold the neutral wires over the tape band and tape ends of wires to the cable.

3.1.3 For Tape Shield and L C Shield:

Remove 12” (305 mm) of cable jacket. Remove the metallic shield leaving 2 1/2” (64 mm) of shield exposed beyond cable jacket end.

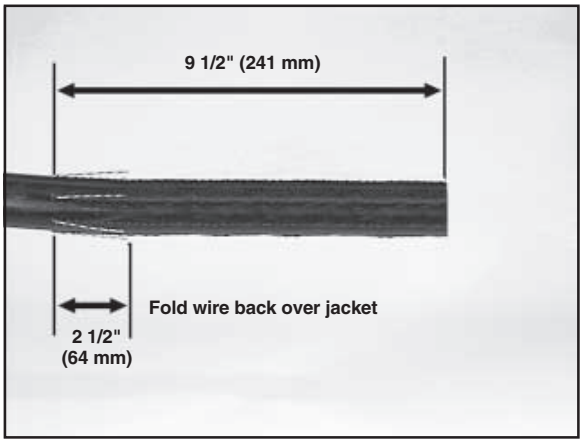


3.1.4 For Drain Wire Shield:

Remove 12” (305 mm) of cable jacket. Cut wires off 2 1/2” (64 mm) from cable jacket and fold wires back over cable jacket end. Tape ends of wires to the cable.

3.1.5 For UniShield® Cable:

Pull the drain wires out of the semicon a distance of 9 1/2” (241 mm) from cable end. Fold the wires back over the cable where they come out of the semicon and cut the wires off 2 1/2” (64 mm) from the fold.

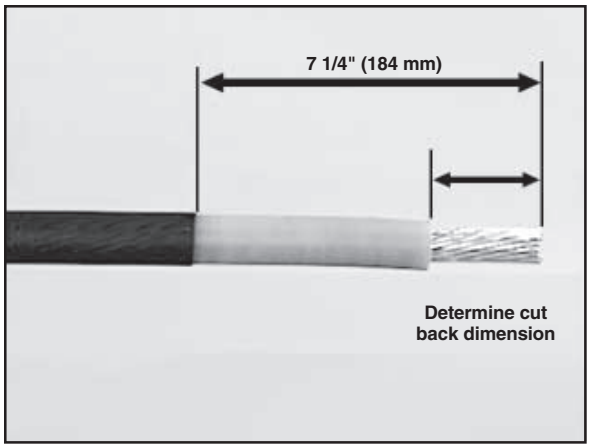


3.2 For all cable types:

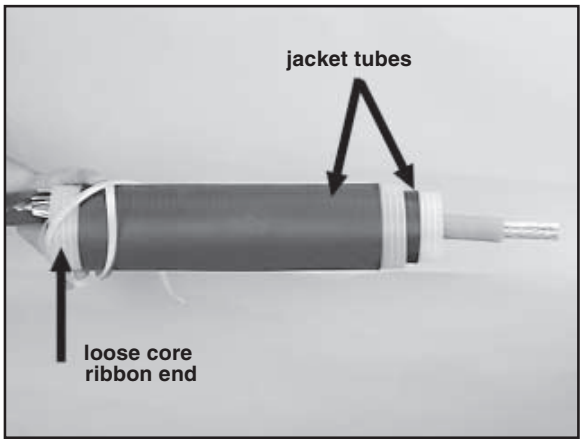
Remove 7 1/4” (184 mm) of cable semi-con insulation shield from cable ends.

3.3 If using 3M™ Scotchlok™ Connectors 2000T series sized #4 AWG - 350 kcmil, remove 2 1/2”(64 mm) of cable insulation from cable end.

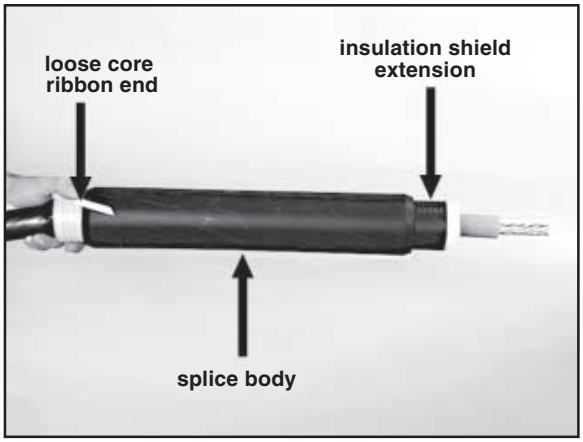
Note: ***Determine insulation cutback dimension for connectors other than the Scotchlok connectors 2000T series by adding together the depth of the connector barrel plus any growth resulting from crimping.***



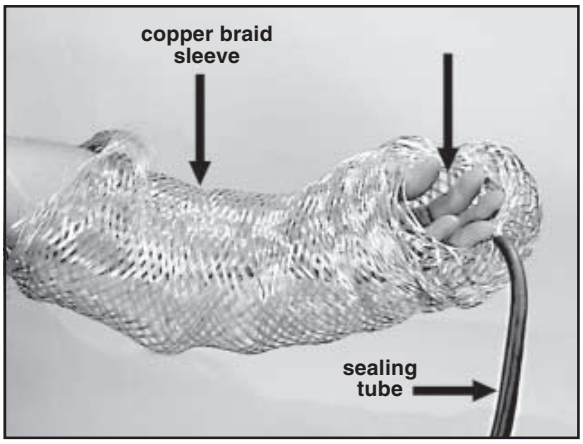
3.4 Slide two Cold Shrink jacket tubes onto poly/EPR cables. Tubes differ in diameter, so one tube will slide over the other for parking. The loose core ribbon end of each assembly should go on the cable first, away from cable end.



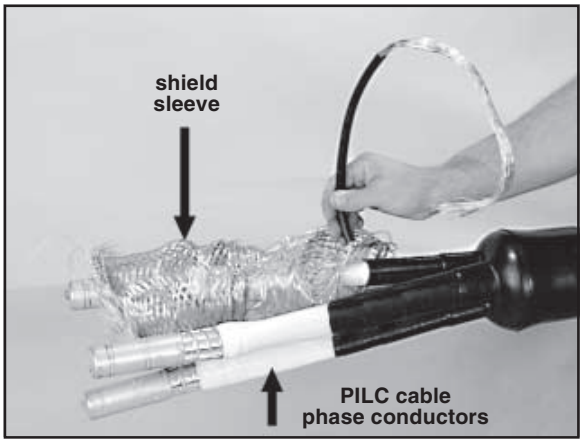
3.5 Slide a splice body onto each poly/EPR cable. The loose core ribbon end should go on the cable first, away from cable end. The splice end with semi-conductive insulation shield extension should be closest to cable end.



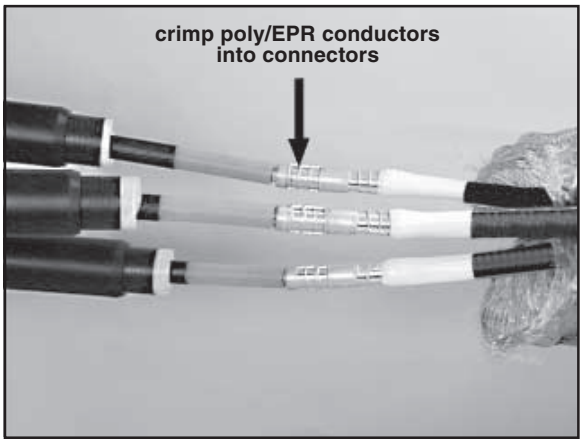
3.6 Shield sleeves are provided with a sealing tube on the copper braids. Slide hand through the longest braid section of the sleeve, and open a hole in the sleeve next to the end of the sealing tube.



3.7 Slide the sleeves onto each phase conductor of the PILC cable (sealing tube end first). The conductor end should enter the sleeve through the hole made next to the sealing tube.

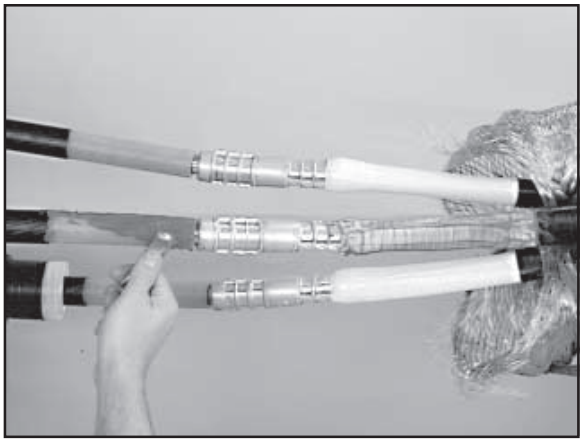


3.8 Crimp poly/EPR cable conductors into connectors. Follow connector manufacturers directions when crimping.

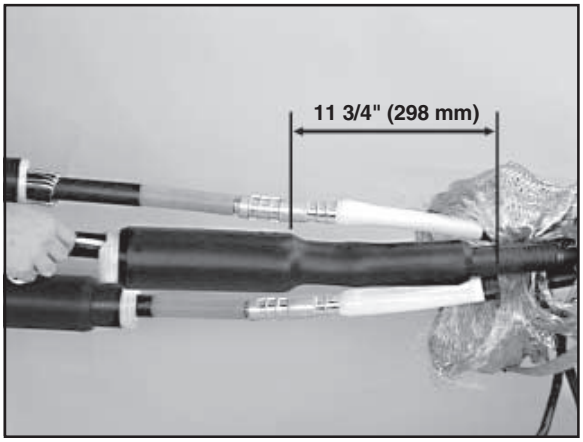


3.9 Apply a liberal amount of 3M™ Red Compound P55/R compound over the white restricting tape on the PILC cable and at the semi-con step on the poly/EPR insulated cable. Any extra compound may by applied along the poly/EPR insulation surface.

IMPORTANT: <u>DO NOT SUBSTITUTE</u> SILICONE GREASE FOR P55/R COMPOUND.



3.10 Place a mark on PILC cable conductor 11 3/4" (298 mm) from connector center. Slide splice body over connector and align leading edge of semi-con extension to mark. Slowly pull while unwinding the inner support ribbon.



4.0 Connect Splice Shield to Poly/EPR Cables

Note: Use Components From Bag #4:

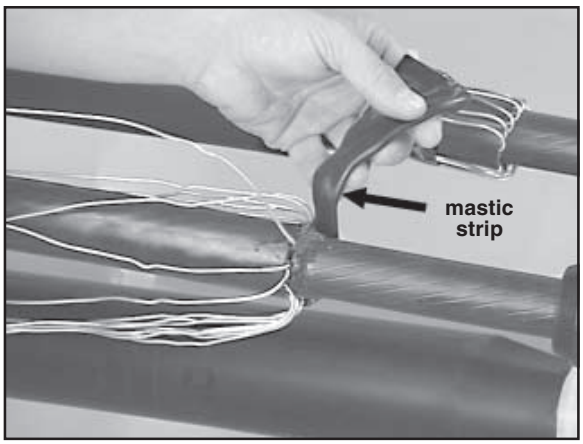
6 - 6" long mastic strips
1 - roll Scotch® Rubber Mastic Tape 2228
3 - U shaped ground braids
6 - constant force springs
6 - 1 1/2" X 1 3/4" (38 mm x 44 mm) mastic pads

- **For Concentric Neutral and Flat Strap Neutral Cable refer to 4.1.**
- **For LC Shield and Poly/EP Shield Cable refer to 4.2.**
- **For Tape Shield Cable refer to 4.3.**
- **For Drain Wire Shield Cable and UniShield® Cable refer to 4.4.**

4.1 **For Jacketed Concentric Neutral and Flat Strap Neutral Cable**

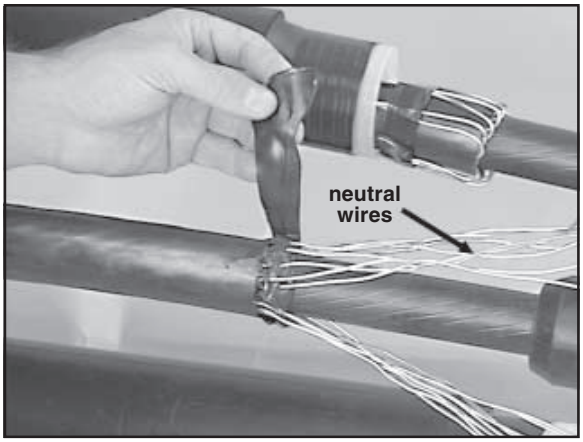
4.1.1 For Jacketed Concentric Neutral, Flat Strap Neutral Cables:

Make a seal at the cable jacket end using half of a 6" (152 mm) long mastic strip. Wrap the bead of mastic around the cable semi-con at the cable jacket end.



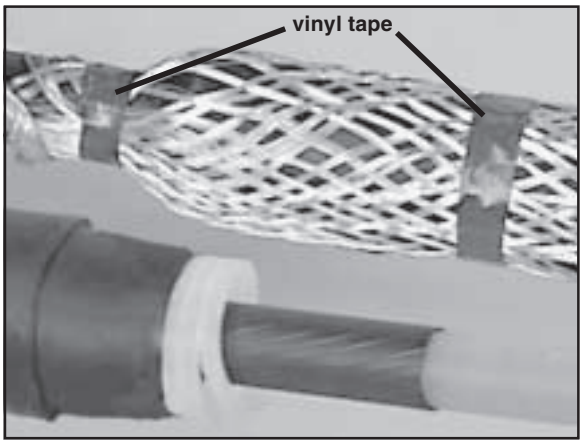
4.1.2 For Jacketed Concentric Neutral and Flat Strap Neutral Cables:

Unfold neutral wires and force the wires into the applied mastic. Apply other half of mastic strip over wires and previously applied mastic strip.



4.1.3 For Concentric Neutral, Jacketed Concentric Neutral and Flat Strap Neutral Cables:

Form the shield sleeve across the splice body. Band the sleeve to the splice body at two locations and to the cable at each end of the splice body using vinyl tape.



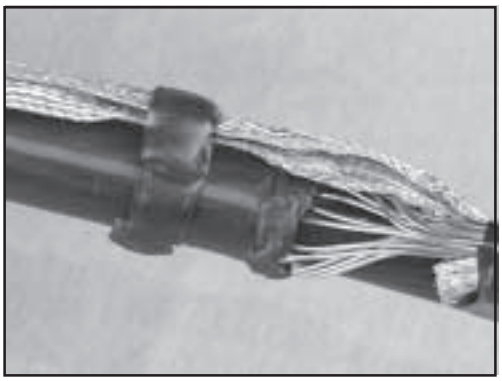
4.1.4 For Concentric Neutral, Jacketed Concentric Neutral and Flat Strap Neutral Cables:

Connect shield braid, U-shaped ground braid and neutrals together using a suitable compression connector of the "INLINE", "C" or "H" type. Remove the folds that exist in the U-shaped ground braid and refold the braid in half, with the end of the braid extending along the cable jacket. Crimp the folded end of braid into the connector. Crimp connector following the connector manufacturer's recommendation. If a "C" or "H" type connector is used, cut off and discard any neutral wires or shield wires that extend beyond connection after crimping.



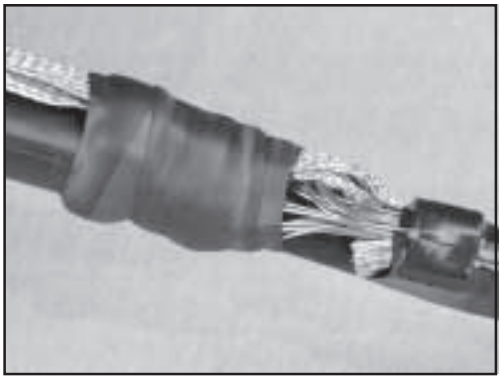
4.1.5 For Concentric Neutral, Jacketed Concentric Neutral and Flat Strap Neutral Cables:

Extend ground braid along the cable. Wrap half of a 6" (152 mm) long mastic strip around the cable where the braid is blocked with solder. Force the solder blocked section of braid into the applied mastic. Wrap second half of mastic strip over solder blocked braid and previously applied mastic. If ground braids overlap, place mastic between ground braid tails to obtain seal.

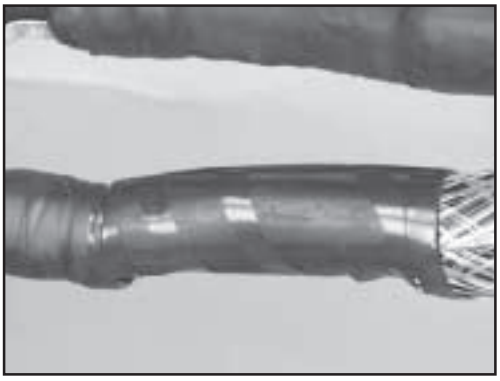


4.1.6 For Concentric Neutral, Jacketed Concentric Neutral and Flat Strap Neutral Cables:

Cover mastic seals with four wraps of Scotch® Rubber Mastic Tape 2228. Stretch the rubber mastic tape when applying. Bind the shield connection in place with a spiral wrap of vinyl tape.



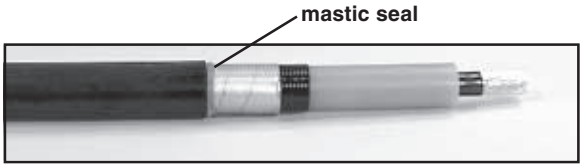
4.1.7 Cut a 6" (152 mm) long piece of cable jacket, saved from Poly/EPR preparation, and lay the piece over the shield connection. Bind the cable jacket section in place with a spiral wrap of vinyl tape.



4.2 **For LC Shield and Poly/EP Lead Cables**

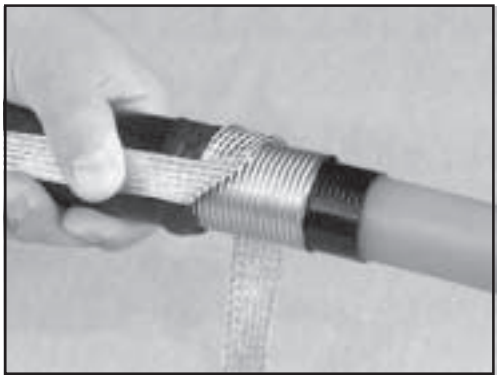
4.2.1 For LC Shield and Poly/EP Lead Cables:

Make a seal at the cable jacket end using half of a 6” (152 mm) long mastic strip. Wrap the mastic around the corrugated shield of the LC cable or on the lead of the Poly/EP cable at the cable jacket end.



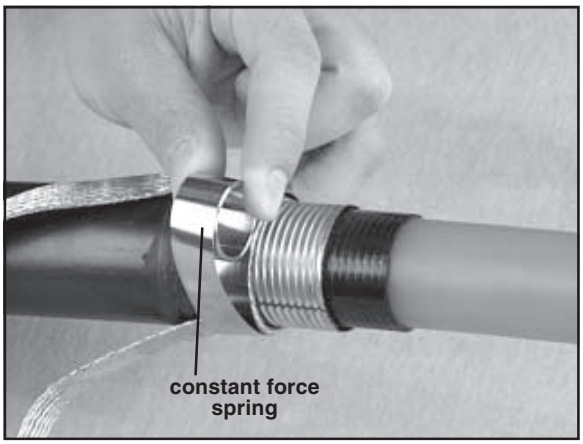
4.2.2 For LC Shield and Poly/EP Lead Cables:

Wrap the center section of the U shaped ground braid around the cable metallic shield next to the mastic seal.



4.2.3 For LC Shield and Poly/EP Lead Cables:

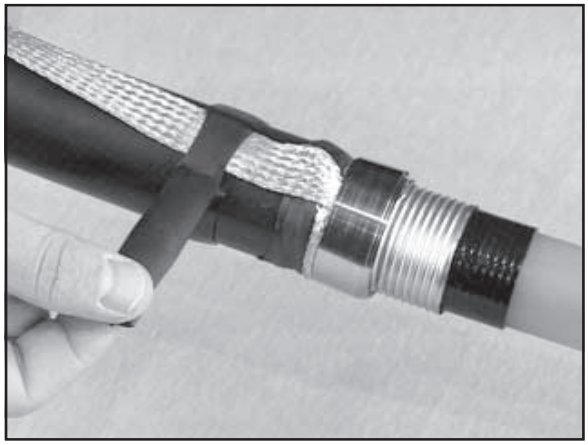
Make the ground braid connection to the cable shield by wrapping a constant force spring over the ground braid. Wrap the spring in the same direction as the ground braid and cinch (tighten) the final wrap.



4.2.4 For LC Shield and Poly/EP Lead Cables:

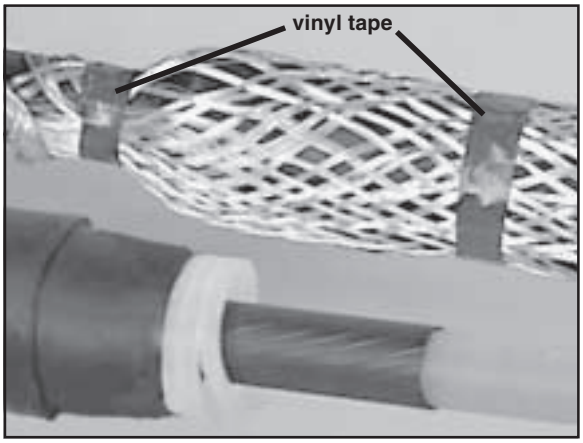
Wrap half of a mastic strip around the cable jacket where solder blocked sections occur in the ground braid. Wrap a second mastic strip over previously applied mastic strip, ground braid tails and cable. If ground braid tails overlap, place mastic between the ground braid tails to obtain a seal.

Cover the mastic seal area with 4 wraps of Scotch® Rubber Mastic Tape 2228. Stretch the tape while applying.



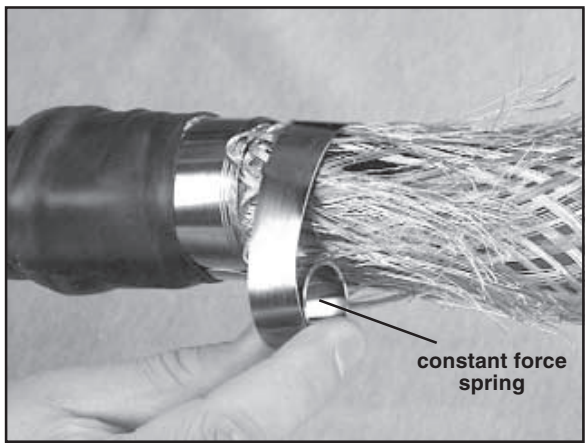
4.2.5 For LC Shield and Poly/EP Lead Cables:

Form the shield sleeve across the splice body. Band the sleeve to the splice body at two locations and to the cable at each end of the splice body using vinyl tape.



4.2.6 For LC Shield and Poly/EP Lead Cables:

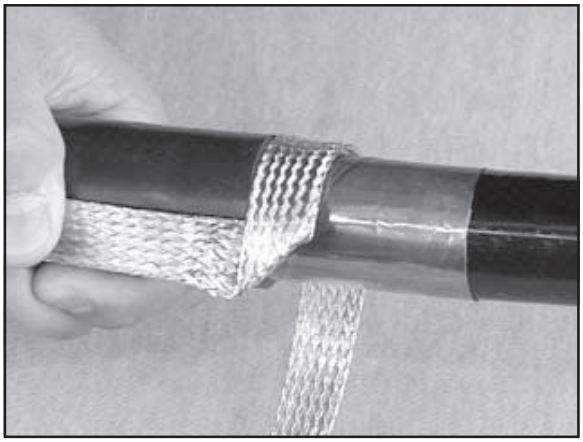
Extend the shield sleeve over the exposed cable metallic shield. Install a constant force spring for **one wrap only** around the sleeve and cable metallic shield. Fold end wires of shield sleeve back over the single wrap of spring and complete the installation of the spring. Cinch (tighten) the final spring wrap and cover spring(s) with a wrap of vinyl tape.



4.3 **For Tape Shield Cable**

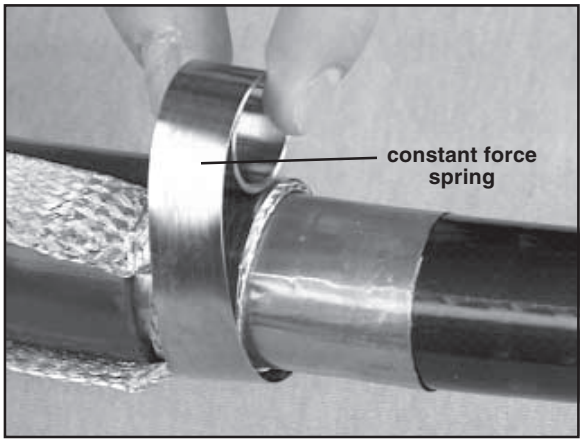
4.3.1 For Tape Shield Cable:

Wrap the center section of the U-shaped ground braid around the cable metallic shield next to the end of the cable jacket.



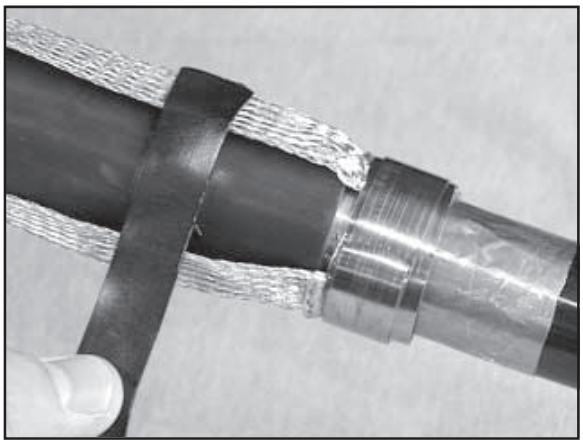
4.3.2 For Tape Shield Cable:

Make the ground braid connection to the cable shield by wrapping a constant force spring over the ground braid. Wrap the spring in the same direction as the ground braid and cinch (tighten) the final wrap.



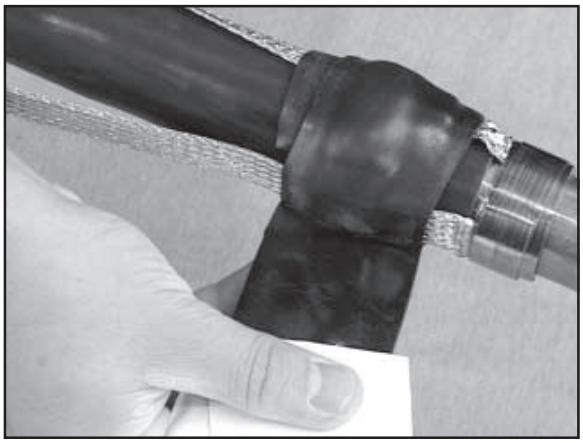
4.3.3 For Tape Shield Cable:

Wrap a mastic strip around cable jacket where solder blocked sections occur in ground braid. Wrap a second mastic strip over previously applied mastic strip, ground braid tails and cable. If ground braid tails overlap, place mastic between the ground braid tails to obtain a seal.



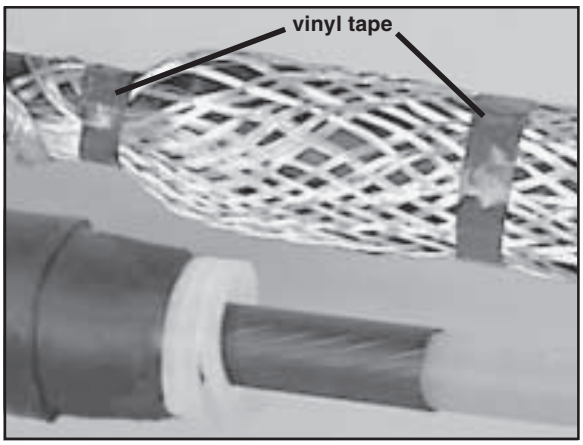
4.3.4 For Tape Shield Cable:

Cover the mastic seal area with 4 wraps of Scotch® Rubber Mastic Tape 2228. Stretch the tape while applying.



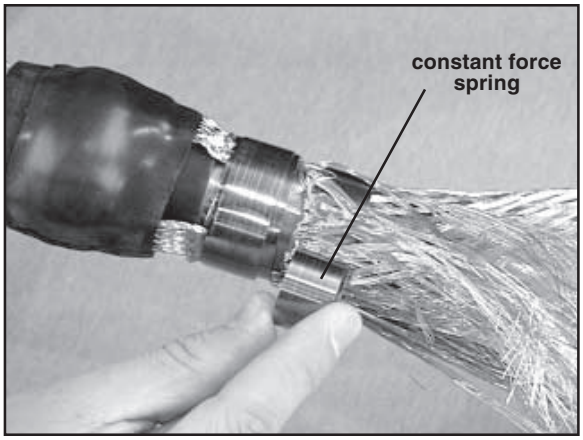
4.3.5 For Tape Shield Cable:

Form the shield sleeve across the splice body. Band the sleeve to the splice body at two locations and to the cable at each end of the splice body using vinyl tape.



4.3.6 For Tape Shield Cable:

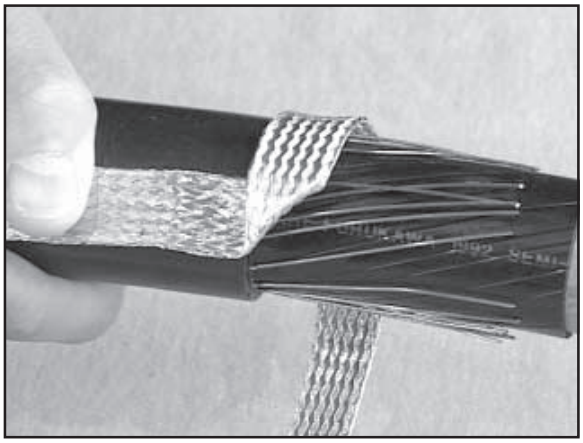
Extend the shield sleeve over the exposed cable metallic shield. Install a constant force spring for **one wrap only** around the sleeve and cable metallic shield. Fold end wires of shield sleeve back over the single wrap of spring, and complete the installation of the spring. Cinch (tighten) the final spring wrap and cover spring(s) with a wrap of vinyl tape.



4.4 For Drain wire Shield and UniShield® Cable

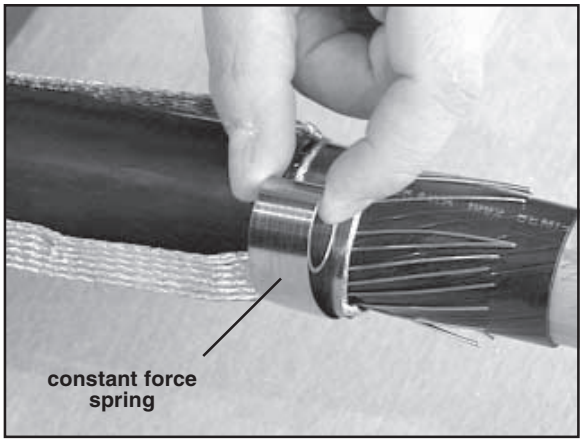
4.4.1 For Drain Wire Shield and UniShield® Cable:

Wrap the center section of the U-shaped ground braid around the cable wires so cable wires are exposed toward splice.



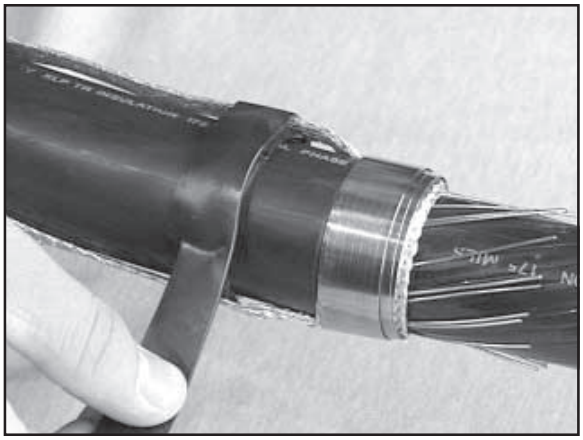
4.4.2 For Drain Wire Shield and UniShield® Cables:

Make the ground braid connection to the cable wires by wrapping a constant force spring over the ground braid. Wrap the spring in the same direction as the ground braid and cinch (tighten) the final wrap.



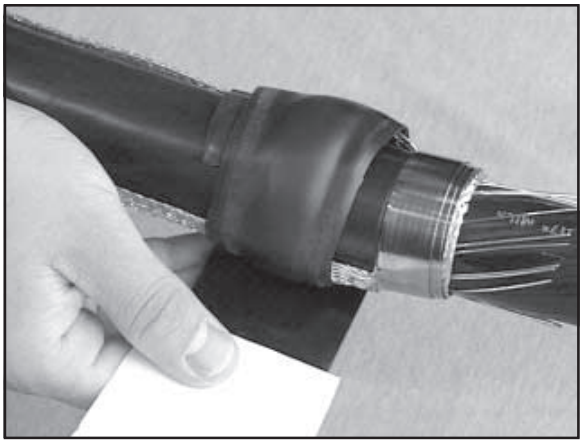
4.4.3 For Drain Wire Shield and UniShield® Cables:

Wrap a mastic strip around cable jacket where solder blocked sections occur in ground braid. Wrap a second strip over previously applied mastic strip, ground braid tails and cable. If ground braid tails overlap, place mastic between the ground braid tails to obtain a seal.



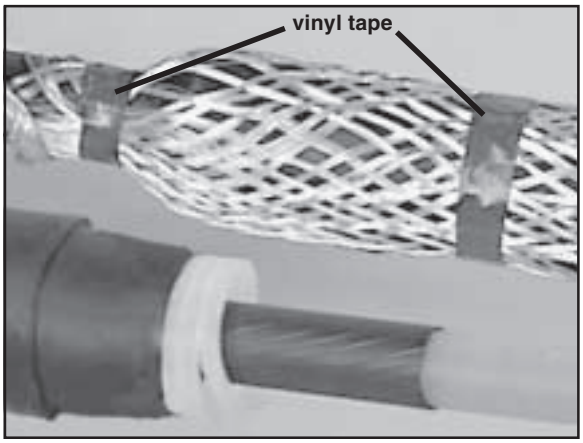
4.4.4 For Drain Wire Shield and UniShield® Cables:

Cover the mastic seal area with 4 wraps of Scotch® Rubber Mastic Tape 2228. Stretch the tape while applying.



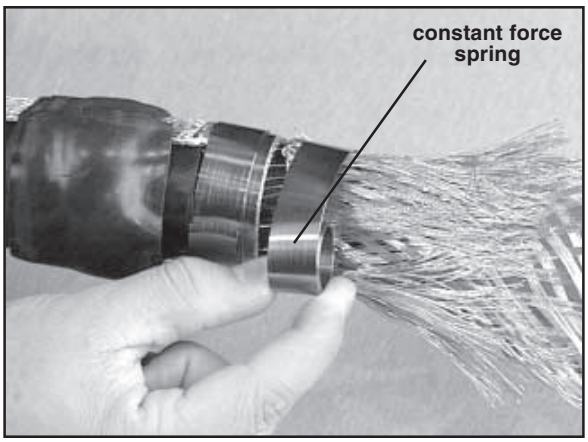
4.4.5 For Drain Wire Shield and UniShield® Cables:

Form the shield sleeve across the splice body. Band the sleeve to the splice body at two locations and to the cable at each end of the splice body using vinyl tape.

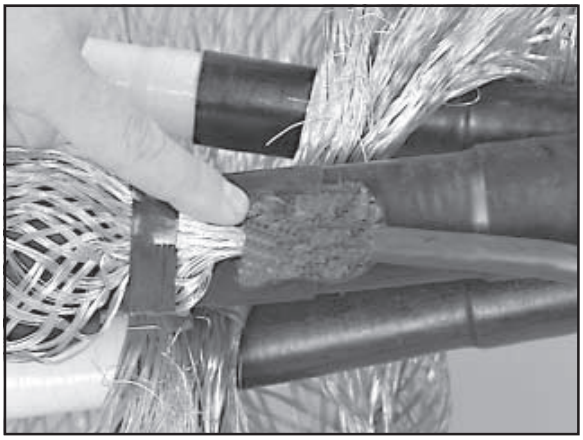


4.4.6 For Drain Wire Shield and UniShield®Cables:

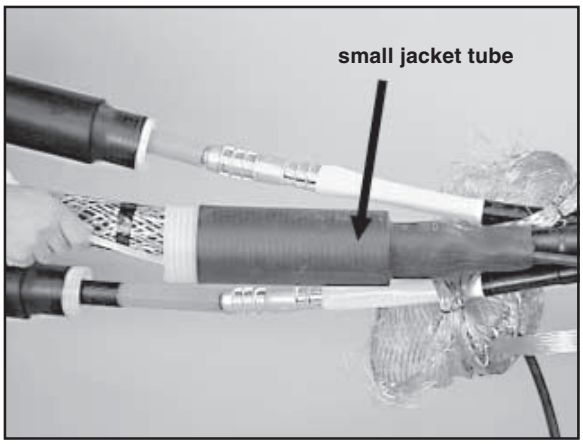
Extend the shield sleeve over the exposed cable shield wires. Install a constant force spring for **one wrap only** around the sleeve and cable shield wires. Fold end wires of shield sleeve back over the single wrap of spring, and complete the installation of the spring. Cinch (tighten) the final spring wrap and cover spring(s) with a wrap of vinyl tape.



4.5 On the PILC cable side of splice body, place a 1 1/2" wide x 1 3/4" long (38 mm x 44 mm) mastic pad on each side of the shield sleeve sealing tube. Place the mastic pads at tube end closest to splice body. Push the mastic that extends to the sides of the tube, tight to the tube edge and cover mastic seal with two wraps of Scotch® Rubber Mastic Tape 2228.

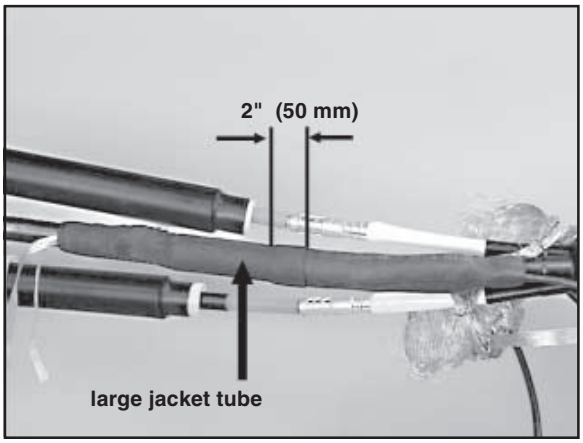


4.6 Move the small diameter Cold Shrink jacket tube over the splice body. Locate the leading edge over mastic and Scotch® Rubber Mastic Tape 2228 seal on PILC cable and remove core.



4.7 Move the large diameter Cold Shrink jacket tube over splice body.

Locate the leading edge 2" (50 mm) over the end of previously installed jacket tube and remove core ribbon.



4.8 Complete steps 3.6 to 4.7 for all three phases.

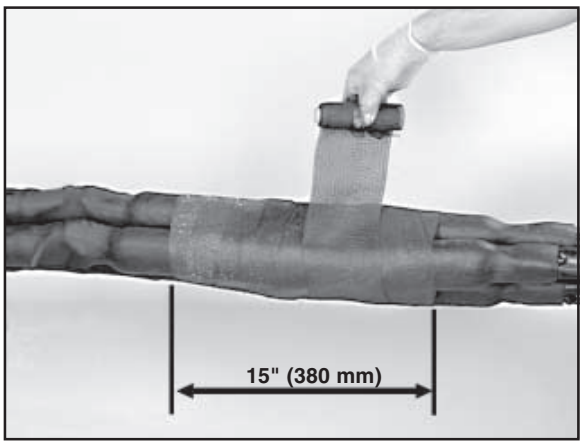
5.0 Seal Lead End and Make Shield Connections on Lead

Note: ***Use Components From Bag #5.***

1 - 3M™ Scotchcast™ Electrical Insulating Resin 4N
6 - 1 1/2" x 1 3/4" (38 mm x 44 mm) mastic pads
3 - constant force springs
1 - 3M™ Sheath Wrap

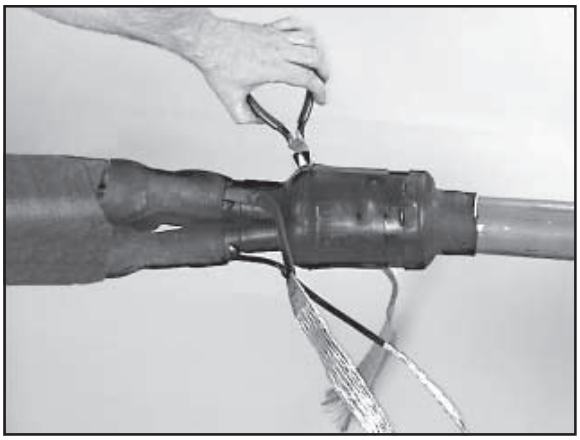
5.1 Apply 3M™ Sheath Wrap

5.1.1 Band the splices together in the center for a total length of 15" (380 mm) using 3M™ Sheath Wrap. The cure system for 3M™ Sheath Wrap is activated when the material is exposed to water. The roll may be saturated with water before applying or applied material may be sprayed with water to initiate the cure.



Note: ***The rubber gloves provided, should be worn when applying.***

5.2 Cut a slit using a diagonal cutter or similar tool 3/8" (10 mm) long in the top of the sheath seal boot where the notch section in the plastic mold part can be felt.



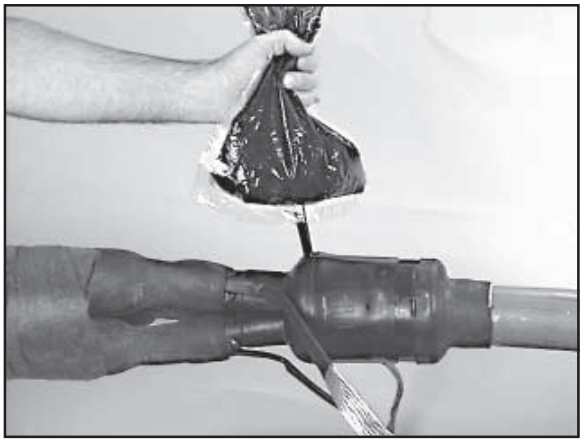
5.3 Remove 3M™ Scotchcast™ Electrical Insulating Resin 4N from box and foil guard bag. Place a thumb on each side of the bag next to the barrier strip that keeps the resin from the hardener. Roll thumbs toward barrier, forcing it to separate and allow resin to mix with hardener. Squeeze the bag 30 to 40 times to force the compound to mix.



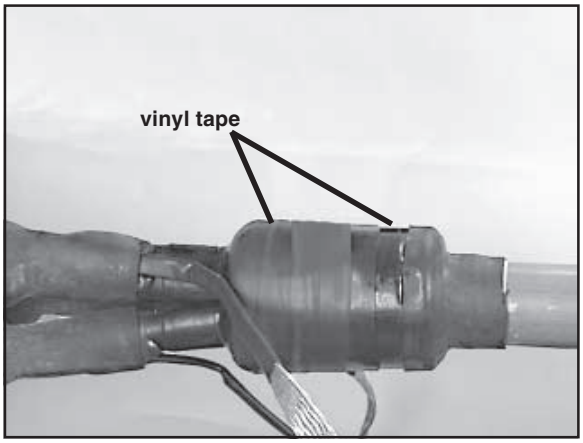
5.4 Separate barrier next to bag nozzle by positioning thumbs the same way as before. Allow compound to flow into the injection nozzle.



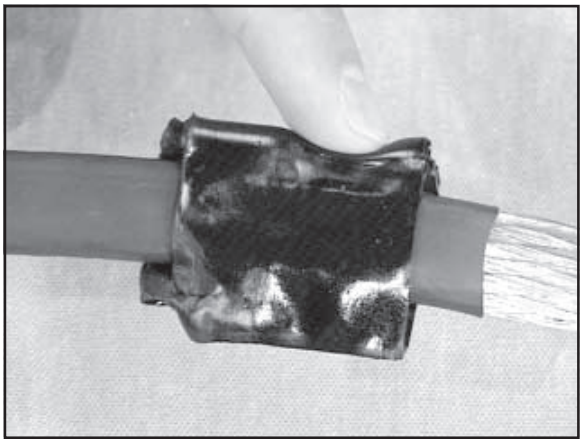
5.5 Insert nozzle into the cut in the rubber sheath seal boot and squeeze bag to force compound from bag to sheath seal. When compound is visible in air vent channel of rigid plastic part, the sheath seal is full.



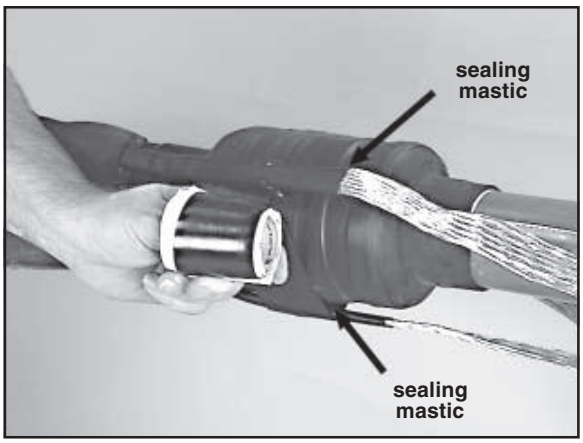
5.6 Apply one half-lapped layer of vinyl tape around the resin-filled boot to cover the resin inject hole. Apply a second application of vinyl tape to cover the air vent channel in plastic mold body.



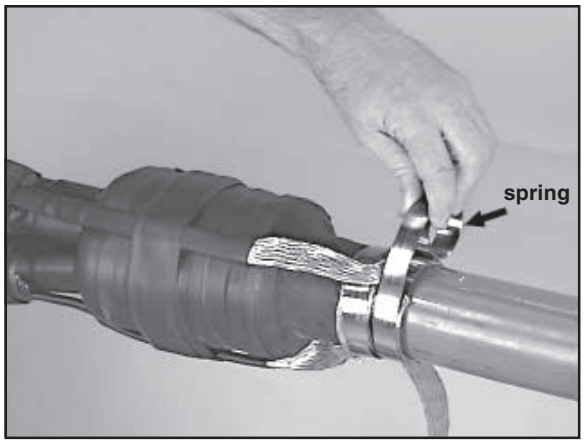
5.7 Place a 1 1/2” wide x 1 3/4” long (38 mm x 44 mm) mastic sealing pad on each side of shield sleeve sealing tubes at the end of each sealing tube. Press the mastic to the edges of the sealing tubes.



5.8 Apply two wraps of Scotch® Rubber Mastic Tape 2228 over applied mastic and shield sleeve sealing tubes in the area of the mastic.

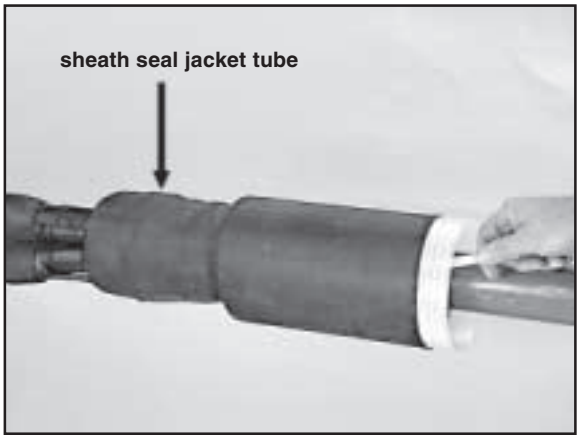


5.9 Bend copper shield sleeve end 90° and individually wrap braid ends around lead. If braid wraps around onto itself, cut off excess and discard. Wrap a constant force spring around each braid. A small twist on the shield braid strand end will aid in holding the braid together. After all three shield braids are connected to lead, apply two wraps of vinyl tape over each spring. If the PILC cable has a jacket, center the end of the Scotch® Rubber Mastic Tape 2228 over the end of the cable jacket and make a moisture seal by applying two lapped layers of the tape over the jacket end.



5.10 Position Cold Shrink sheath seal jacket tube over sheath seal. Align leading edge of tube beyond the resin inject hole and previously applied vinyl tape. Remove core ribbon by pulling while unwinding the loose core ribbon end. Tube should completely cover the applied tapes and the body of sheath seal boot, constant force springs and any exposed lead between constant force springs and PILC cable jacket.

5.11 Connect ground leads to a suitable ground. Splice is complete.



Aluminum Connectors (Copper/Aluminum)

Conductor Size (AWG/ kcmil)	CRIMPING TOOL–DIE SETS (NO. OF CRIMPS/END)								
	Burndy		Kearney			Thomas & Betts			Anderson
	MD6	Y35, Y39, Y45*, Y46*	0–52, 0–51	WH–1, WH–2 WH–3, PH15	PH25	TBM 5 TBM 8	TBM 12	TBM14M TBM 15	VC6
3/0 4/0	W249 (3)	U28ART (2)	840 (4)	840 (3)	840 (2)	Red (3)**	71H (3)**	71H (3)**	Universal (2)
250 300 350	—	U31ART (2)	—	1–1/8 to 2 (2)	1–1/8 to 1 (1)	—	87H (3)**	87H (3)**	Universal (3)

* **Y45 and Y46 accept all Y35 dies ("U" series). For Y45 use PT6515 adapter. For Y46 use PUADP adapter.**
** **Excess flash must be filed off to round out connector.**

Copper Connectors

Conductor Size (AWG/ kcmil)	CRIMPING TOOL–DIE SETS (NO. OF CRIMPS/END)							
	Burndy				Thomas & Betts			Anderson
	MD6	MY29	Y34A	Y35, Y39, Y45*, Y46*	TBM 5 TBM 8	TBM 12	TBM 14M TBM 15	VC6–3, VC6–FT**
3/0	W243 (2)	3/0 (1)	A27R (1)	U27RT (2)	Orange (2)	50 (1)	50 (1)	Universal (1)
4/0	BG (3)	4/0 (1)	A28R (2)	U28RT (2)	Purple (2)	54 (1)	54H (2)	Universal (2)
250	W166 (3)	250 (1)	A29R (2)	U29RT (2)	Yellow (2)	62 (1)	62 (1)	Universal (2)
300	—	—	A30R (2)	U30RT (2)	White (2)	66H (2)	66 (1)	Universal (2)
350	—	—	A31R (2)	U31RT (2)	Red (3)	71H (3)	71H (3)	Universal (2)

* **Y45 and Y46 accept all Y35 dies ("U" series). For Y45 use PT6515 adapter. For Y46 use PUADP adapter.**
** **Anderson VC6–3 and VC6–FT require no die.**

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