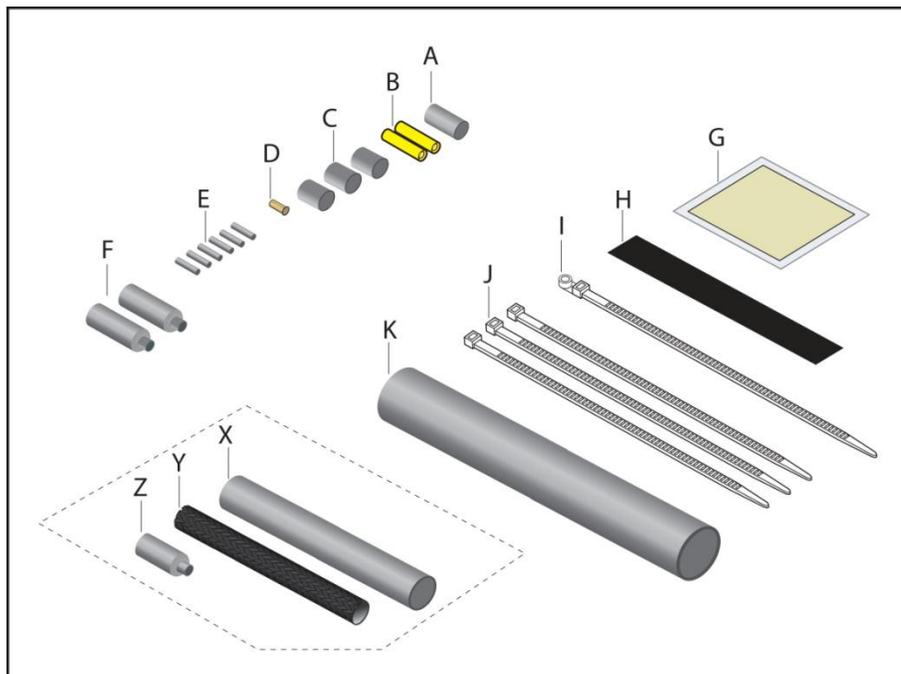


## Installation, Operation and Maintenance Instructions

### IMPORTANT: Save These Instructions!



#### DESCRIPTION

The SRK10 Splice and Tee kits are to be used with King SR heating cables. Carefully follow these instructions. Do not use other materials or alternate splicing methods which may damage the heating cable and create an electrical hazard, risk of fire, or poor performance.

#### SRK10 SPLICE AND TEE KIT

The SRK10 kit is to be used with King SR heating cables to make a splice, tee connection and one end seal.

**CAUTION:** Charring or burning the heat shrink tubing can produce fumes that may cause eye, skin, nose and throat irritation. Use adequate ventilation during installation and avoid overheating the heat shrink tubing.

**TOOLS REQUIRED:** utility knife, cross cutters, needle nose pliers, crimping tool, heat gun.

Item	Qty	Description
A	1	Black heat shrink tube for ground
B	2	Insulated buss wire crimp connectors
C	3	Black heat shrink tube (1/2" dia. x 1" length)
D	1	Un-insulated ground crimp connector
E	6	Black heat shrink tube (1/8" dia. x 1" length)
F	2	Heat shrink cap (1/2" dia. x 2" length)
G	5	Mastic strips (1" width x 1-1/2" length)
H	1	Black cloth tape (1" width x 6" length)
I	1	Cable tie with mounting hole
J	3	Cable ties
K	1	Black heat shrink tube (1" dia. x 8" length)
X	1	Black heat shrink tube (3/4" dia. x 5" length)
Y	1	Woven braid sleeve ( 1/2" dia. x 4" length)
Z	1	Black heat shrink cap ( 1/2" dia. x 1-1/4" length)

**⚠ WARNING: ELECTRIC SHOCK HAZARD**

Disconnect all power before installing or servicing the heating cable and accessories. SR heating cable must be grounded properly in accordance with the National Electrical Code (NEC). Failure to comply can result in personal injury or property damage. Only a qualified licensed electrical contractor shall install and service of SR heating cable and accessories, otherwise the warranty is voided.

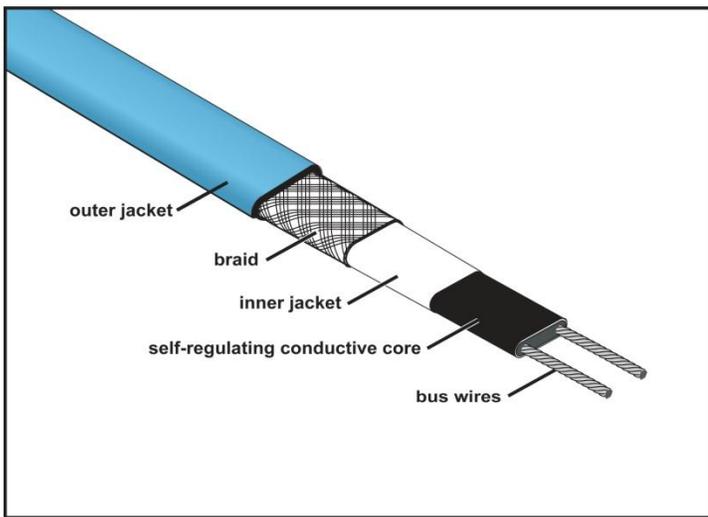
Note:-All electrical wiring, including Ground Fault Circuit Interrupters (GFCI), must be done according to the NEC and local codes by a qualified installer. Article 426 of ANSI/NFPA 70 of National Electrical Code (NEC section 62 of CAN/CSA-C22.1, Canadian Electrical Code, Part I (CEC) governs the installation of this heat systems



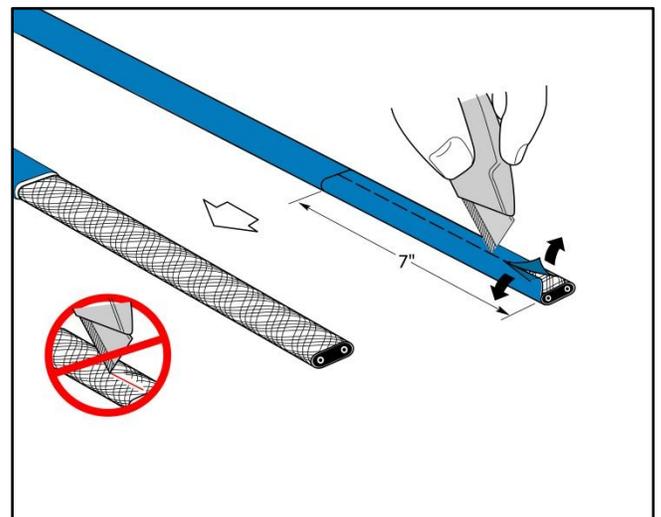
**WARNING:**

The SRK10 kit components are electrical devices and they must be installed correctly to ensure proper operation and to prevent shock or fire. Carefully follow all of the installation instructions and read these important warnings.

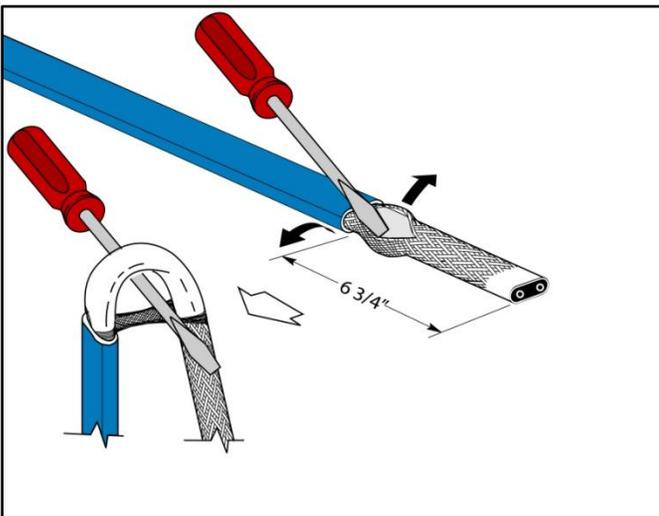
1. Heating cables must be installed in compliance with the national electric code (NEC) in addition to state, provincial and local codes. Check with your local inspector for specific code requirements (or regulations or standards) in your area.
2. To minimize the danger of fire from electrical arcing if the heating cable is damaged or improperly installed ground fault equipment protection (GFEP) must be used on each heating cable branch circuit. Arcing may not be stopped by conventional circuit protection.
3. Bus wires will short if they make contact each other, keep bus wire separated.
4. Keep ends of heating cable and kit components dry before and during installation.
5. The black heating cable core is conductive and can short. It must be properly insulated and kept dry.
6. UL listing approvals and performance are based on the use of the specified components in this kit only. Do not substituted parts or use vinyl electrical tape.
7. Damaged heating cable can cause arcing or fire. Do not energize damaged heating cable. Repair or replace damaged heating cable prior to applying power.
8. Do not twist cables during installation or embed in thermal insulation.



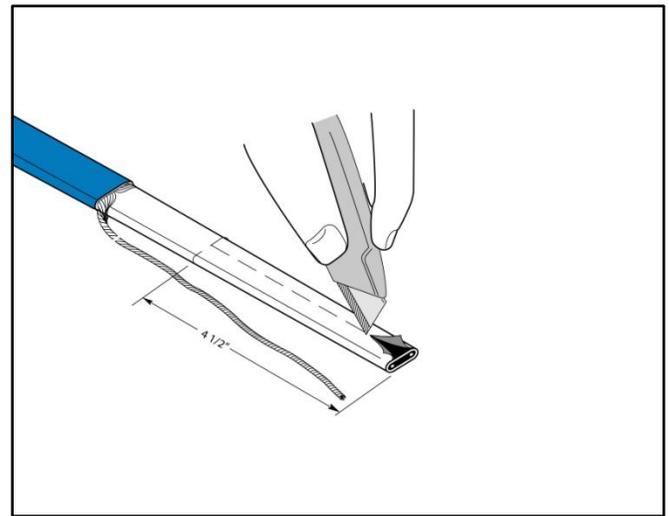
**1** The SR heating cable is comprised of several layers as shown above, use the illustration to gain a clear understanding of the cable components.



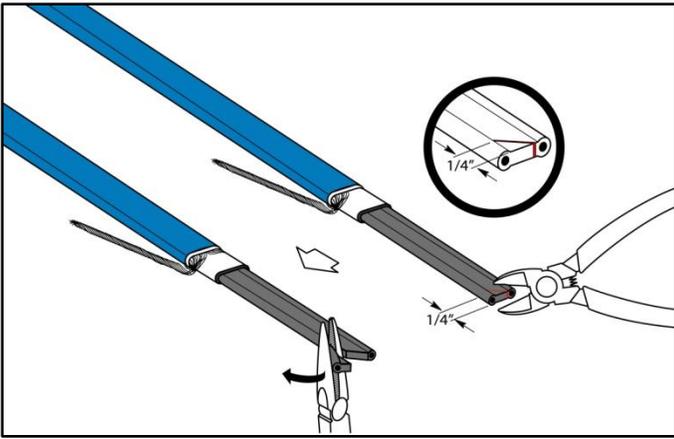
**2** Lightly score completely around and then down outer jacket a distance of 7". Do not cut braid or inner jacket. Bend heating cable to break jacket at score, then peel off outer jacket!



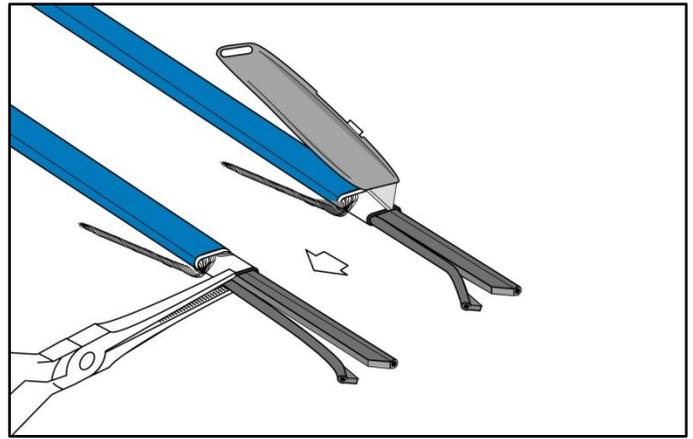
**3** Cut the braid and push it back to loosen it as shown. Bend the cable and gently pull it through the braid.



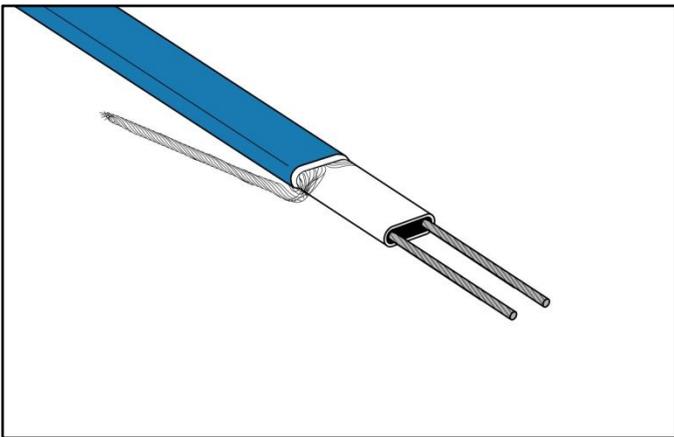
**4** Twist and position the braid to one side of heating cable and then cut the insulating jacket back 4-1/2". Lightly score the inner insulating jacket and then bend the cable to break the jacket and peel it off.



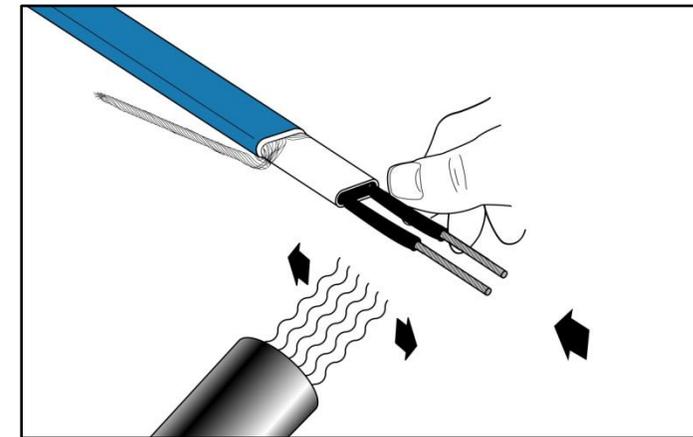
**5** Notch the conductive core at the end and twist it back to peel the bus wires from the core.



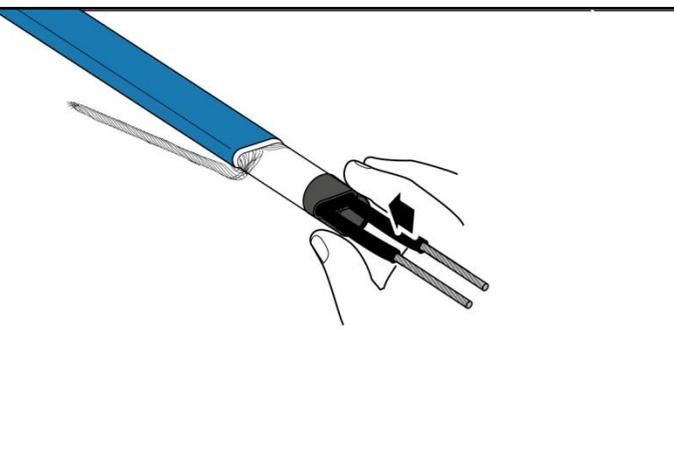
**6** Score between the bus wires and bend the core to break it free and peel the core material away from the bus wires.



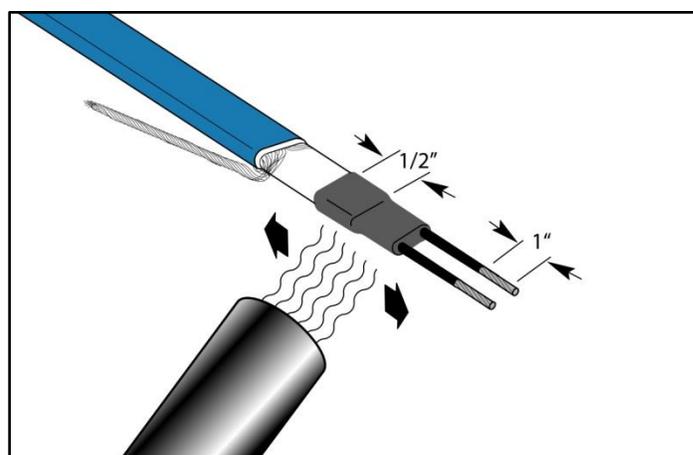
**7** Cut and remove the remaining center core, leaving the bare conductors.



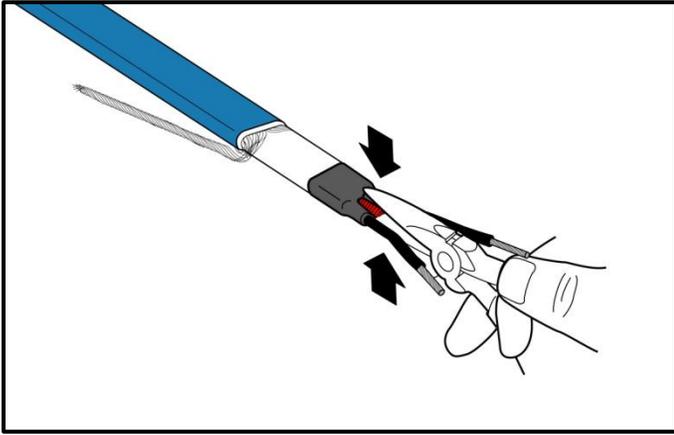
**8** Slide the 1/8" dis. X 1" heat shrink tube over the bus wires. Apply heat to shrink the tubes, approximately 2 minutes at 600°F (315°C). Keep tubes up against the core while heat shrinking.



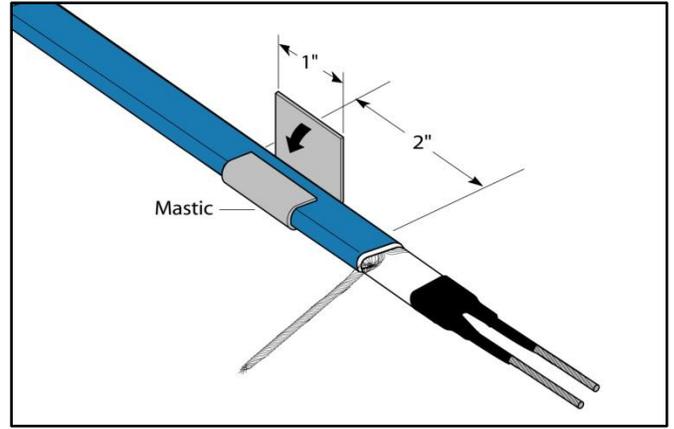
**9** Center the 1/2" x 1" heat shrink tube over the cable core and bus wires as shown.



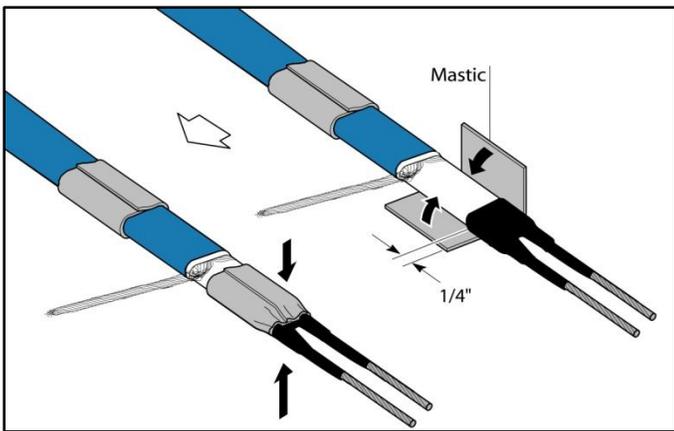
**10** Heat evenly for approximately 3 minutes at 600°F (315°C) until it shrinks completely.



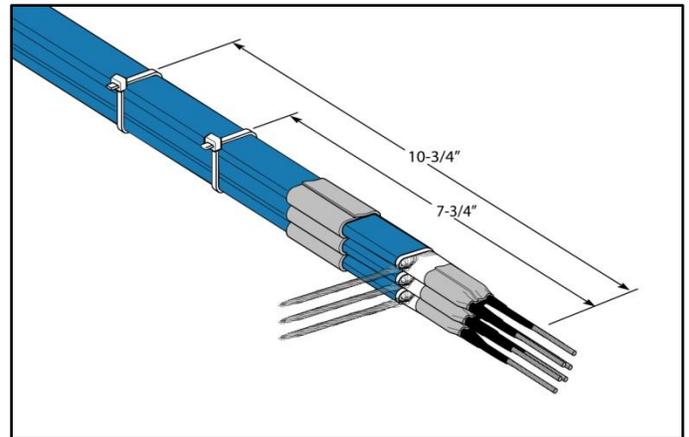
**11** Immediately pinch the tube with pliers between the bus wires while it is still hot and hold for 10 seconds. Make sure the heat shrink tube is completely sealed between the bus wires with no visible gap.



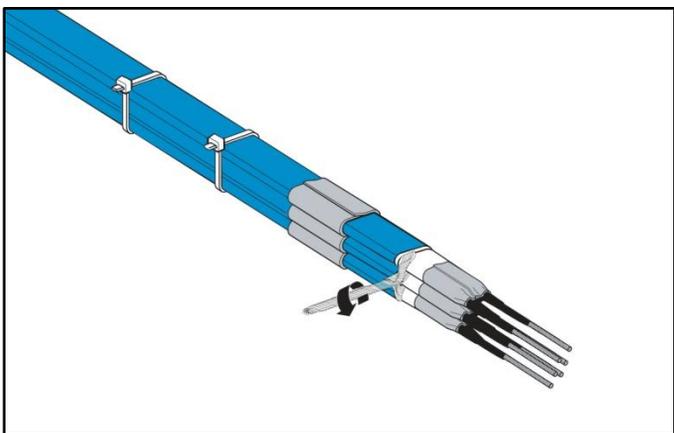
**12** Remove release paper from mastic strip and wrap the mastic around the outer jacket as shown. Do this to all the cables to be spliced.



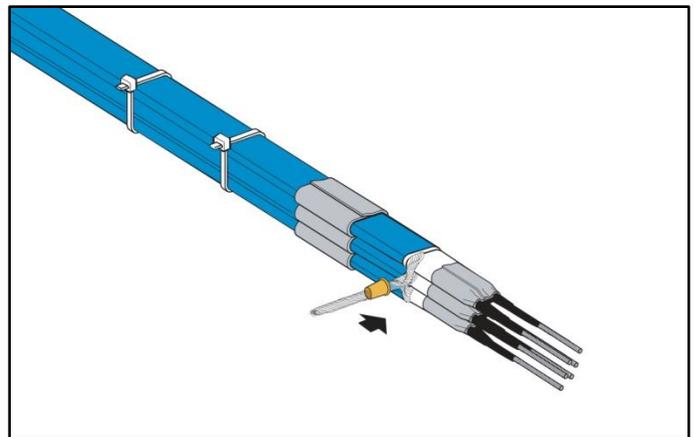
**13** Wrap a second piece of mastic around the end of the cable as shown. Pinch the center of the mastic to seal the conductive core.



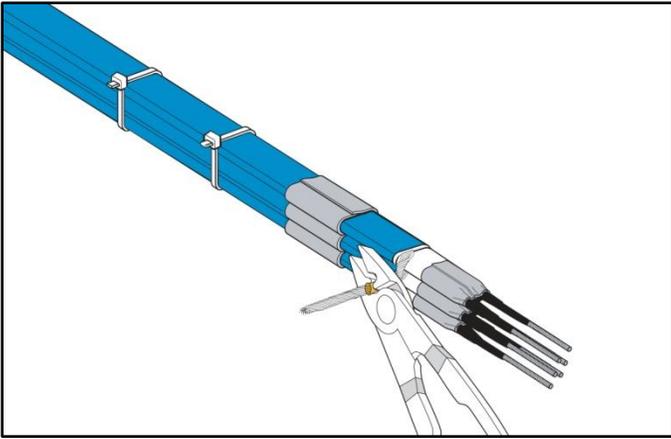
**14** Carefully align the heating cable sections and place them together, press mastic strips firmly together. Fasten with a cable ties at each of the two positions shown (10-3/4" and 7-3/4").



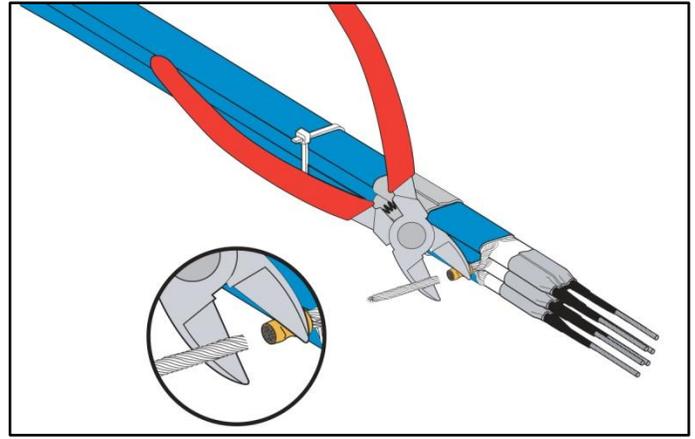
**15** Twist the braided ground pigtails together.



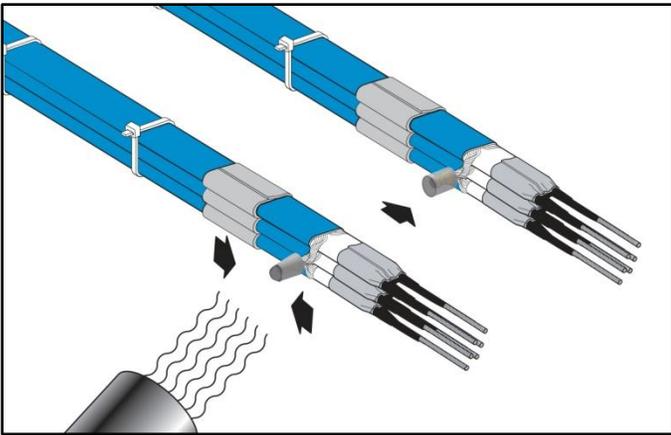
**16** Place the un-insulated connector provided on the ground wires.



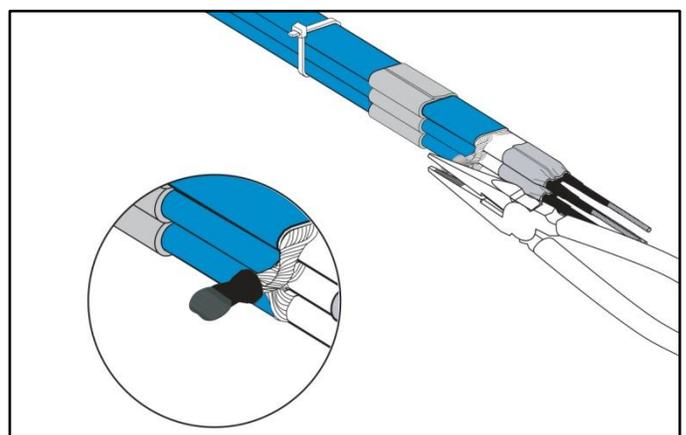
**17** Crimp with the un-insulated connector.



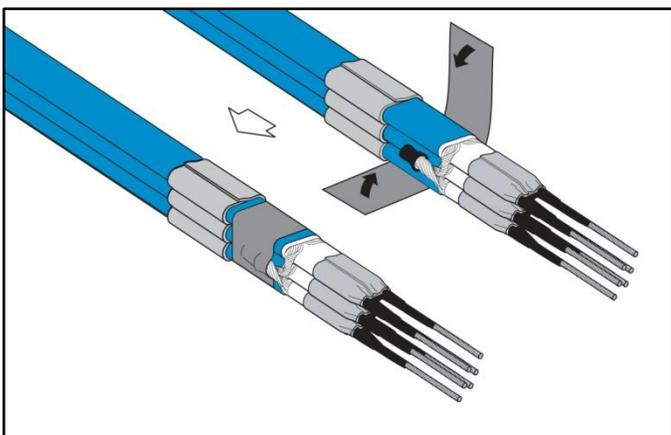
**18** Trim off excess braid.



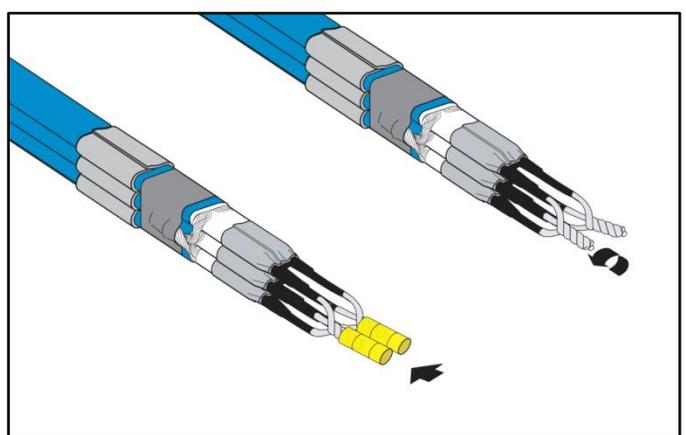
**19** Slide the 1/2" dia. X 1" heat shrink tube over the un-insulated ground crimp. Apply heat evenly for approximately 3 minutes to shrink the tube.



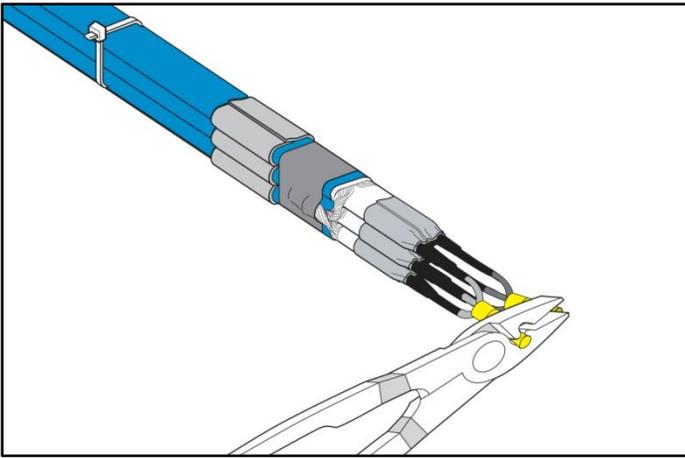
**20** Immediately after shrinking, pinch the end of the tube with flat nose pliers for approximately 10 seconds until the end stays sealed.



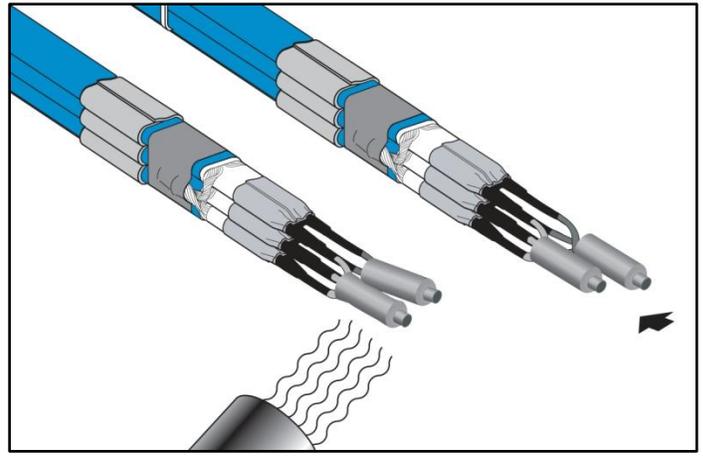
**21** Fold the crimped braid back against the heating cables. Wrap the black cloth tape evenly around crimp and heating cables. Cover crimp completely.



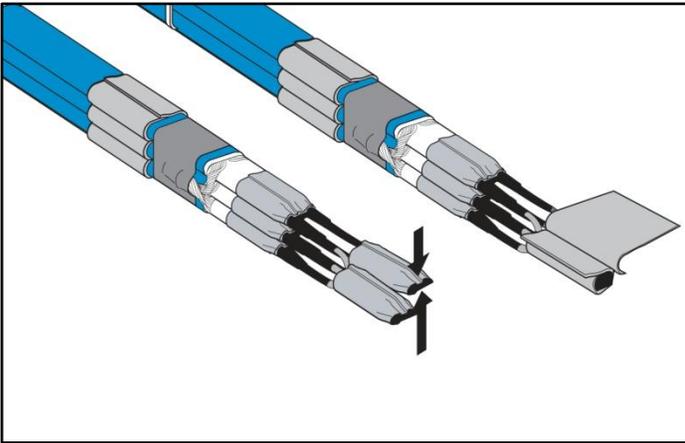
**22** Twist the bus wires together, make sure not to cross the wires as this will cause a direct short, keep the left side wires and right side wires separate. Slide the insulated crimps onto the bus wires.



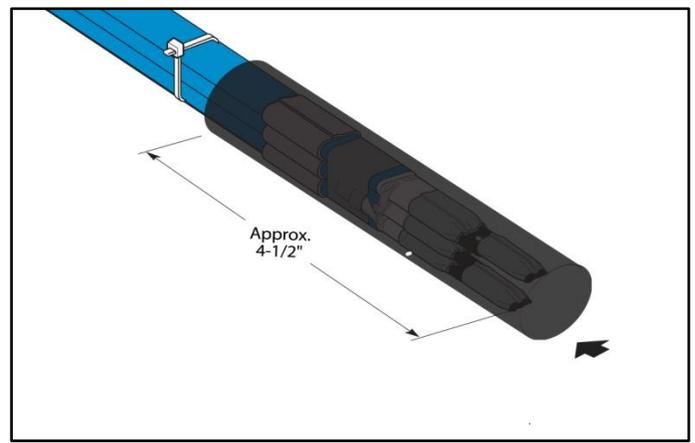
**23** Use a crimping tool and crimp each connector, be sure to apply enough force to make a solid connection. Pull on connector to make sure it is on tight, a loose connection will cause excessive heat and fail.



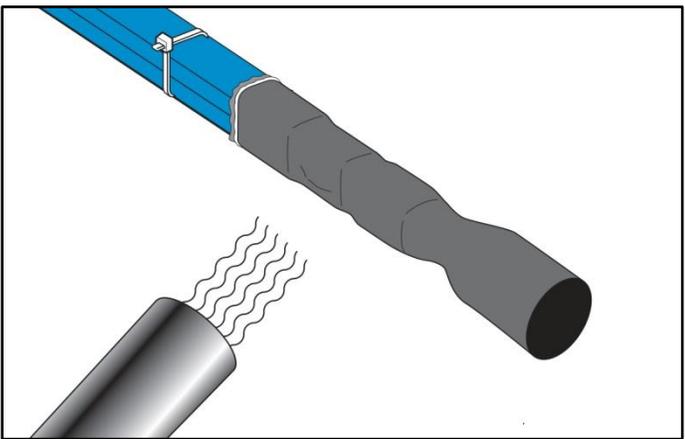
**24** Slide the heat shrink cap over each set of crimped wire. Heat from the end of the cap evenly until it shrinks and adhesive flows out the end. Total heating time should be about 3 minutes at 752°F (400°C)..



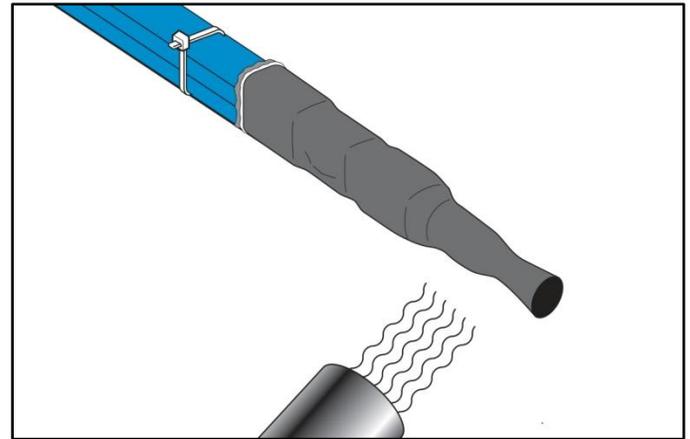
**25** Remove the release paper from the mastic strips and wrap one strip using the width side (not length) around the each cap. Stretch the mastic tape if necessary to make sure the width wraps around the cap completely.



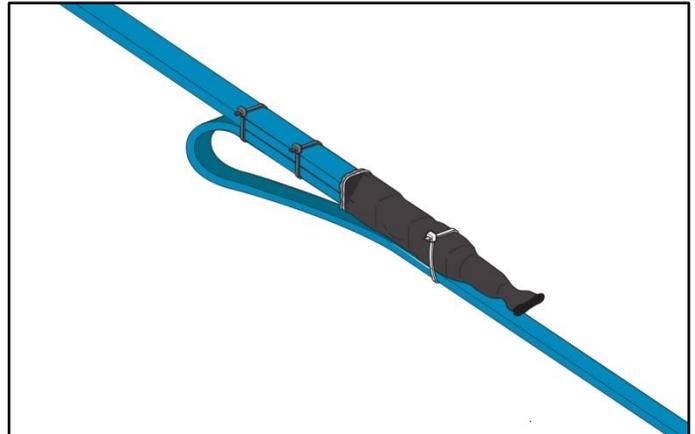
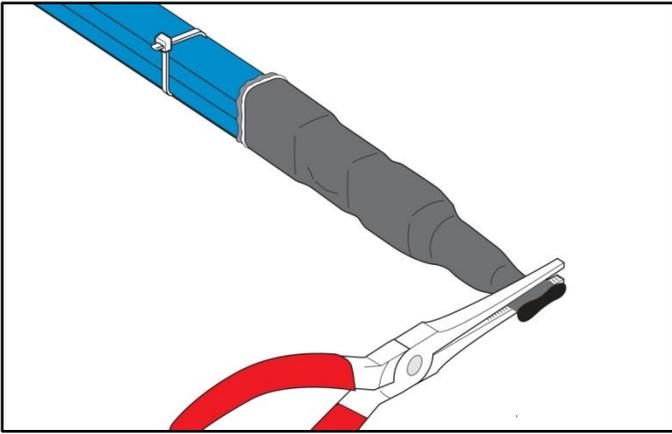
**26** Slide the 1" diameter by 8" long heat shrink tube over the entire piece of cable. Place the edge of the tube at the edge of the mastic.



**27** Start heating at far end from the crimped wire work toward the open end. Keep heating after tube has shrunk, to melt adhesive and mastic inside the tube.  
**Important:** additional heating is required after the tube is shrunk to melt the mastic and adhesive inside. Ensure the mastic melted to fill the gaps at the end of the cable.

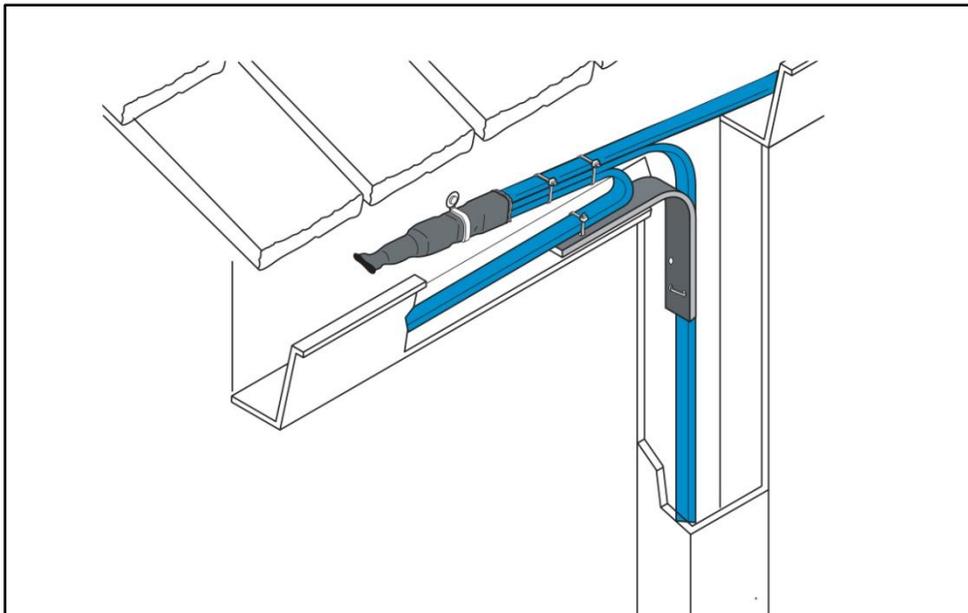


**28** Shrink the tube completely at the starting point, keep heating until the ring of mastic and adhesive appears. Then work the heat gun toward the open end. Total heating time should be about 5 minutes at 752°F (400°C).



**29** Immediately after shrinking, pinch the end of the tube with flat nose pliers until the end stays sealed; this will take about 10 seconds.  
**Important:** If the width of flat-nose pliers is not wide enough to pinch the entire end of the tube, then pinch several times to seal the end completely.

**30** When splicing two cables together, fold the cable over as shown and fasten with a cable tie.



**31** For downspout applications secure the supply cable to the downspout hanger (SRK15) with a cable tie as shown. Then clamp the next cable onto the downspout hanger using another cable tie. The third cable will continue down the gutter.

**Warranty Information:**

King Electrical Mfg. Company will repair or replace, without charge to the original owner, any heating cable found to be defective or malfunctioning within the 2 year warranty. **In Case of Product Failure:** Contact King Electrical Mfg. Co. at 800.603.5464. The owner will be required to provide, within the designated warranty period, the following information: model number, date of purchase, and a complete description of the problem encountered with product. Upon receipt of the aforementioned, the company will reply to the owner within a period not to exceed fifteen (15) working days, and will provide the action to be taken by owner. **Terms:** This warranty requires the owner or his agent install the equipment in accordance with the National Electrical Code, any other applicable heating or electrical codes and the manufacturer's installation instructions. It further requires that reasonable and necessary maintenance be performed on the unit. Failure of proper maintenance by owner will void the warranty in its entirety. The company is not liable for any actions it deems to be abuse or misuse of the product. The customer shall be responsible for all costs incurred in the removal or reinstallation of products, including, but not limited to, labor costs, and shipping costs incurred to return products to King Manufacturing. At their discretion, King Manufacturing will decide to either repair or replace the product, with no charge to the owner, with return freight paid by King. The Company shall not be liable for consequential damages arising with respect to the product, whether based upon negligence, tort, strict liability or contract. No other written or oral warranty applies, nor any warranties by Representatives, Dealers, Employees of King or any other person. King Manufacturing can be contacted by phone at 206.762.0400, fax 206.763.7738 or website [www.king-electric.com](http://www.king-electric.com). The company's minimum liability shall not in any case exceed the list price for the product claimed to be defective.

