



YeloDeer

Plug In · Heat Up

INSTRUCTION MANUAL

Splice and Tee Connection Kit

KYSF04

Description

This splice and tee kit is designed for use with self-regulating heating cables to create secure cable-to-cable connections. The kit includes all materials required to make one splice or one tee splice, ensuring a durable and moisture-resistant connection for freeze-protection or de-icing systems.

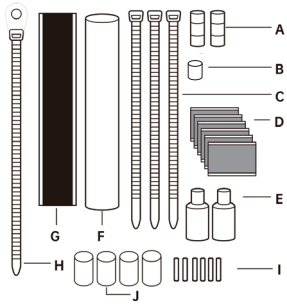
This kit does not provide a power connection. For a complete installation, a compatible power connection kit must be used.

- Tools required**
- Diagonal Cutters
 - Utility knife
 - Crimp tools
 - Hammer and nail (for gutter/downspout applications only)
 - Needle nose pliers
 - Heat gun or torch

Installation Support

The minimum installation temperature for this kit is 0°F (−18°C).

Kit Contents		
Item	Qty	Description
A	2	Bus wire crimps
B	1	Braid crimp
C	3	Cable ties
D	6	Mastic strips
E	2	Heat-shrinkable cap
F	1	Black heat-shrink tube — 8 in (Long) x 1 in (Dia.)
G	1	Black cloth tape — 12 in (Long)
H	1	Clamp tie
I	6	Black heat-shrinkable tube — 1 in (Long) x 1/8 in (Dia.)
J	4	Black heat-shrinkable tube — 1 in (Long) x 1/2 in (Dia.)



WARNING

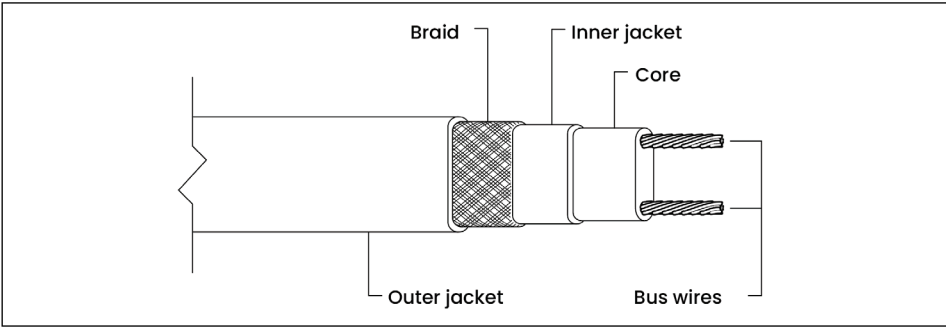
These components are electrical devices. They must be installed correctly to ensure proper operation and to prevent shock or fire. Carefully follow all of the installation instructions and read these important warnings.

- To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of the national electrical codes, ground-fault equipment protection must be used on each heating cable branch circuit. Arcing may not be stopped by conventional circuit protection.
- Bus wires will short if they contact each other. Keep bus wires separated.
- Keep bus wire separated.
- Keep ends of heating cable and kit components dry before and during installation.
- The black heating cable core is conductive and can short. It must be properly insulated and kept dry.
- Component approvals and performance are based on the use of specified parts only. Do not substitute parts or use vinyl electrical tape.
- Leave these installation instructions with the user for future reference.
- The heating cable should not be embedded in the thermal insulation.
- The cable should not be twisted during installation.
- De-energize all power circuits before installation or servicing.
- The conductive layer of this heating cable device must be connected to a suitable grounding/earthing terminal.

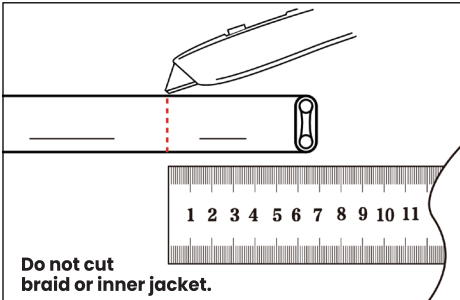
Cautions:

Charring or burning the heat-shrinkable tubes in this kit will produce fumes that may cause eye, skin, nose, and throat irritation.

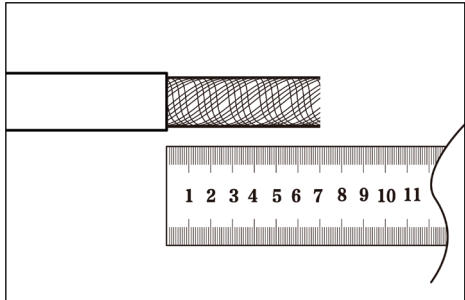
Splice and Tee Connections



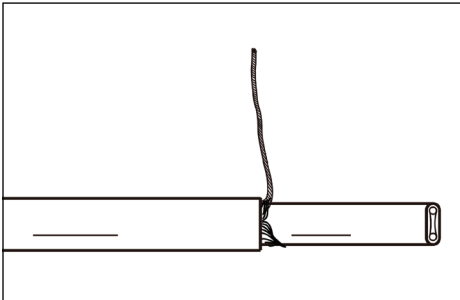
Installation Instructions KYSF04



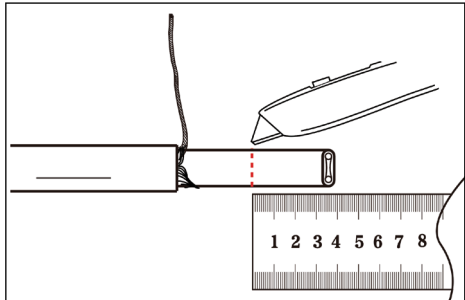
01 Do not cut braid or inner jacket. Clearly cut off the end of each cable. Lightly score completely around and then down outer jacket. The length is 2-3/4 inch (70mm).



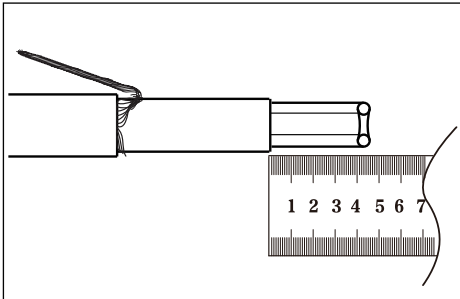
02 Bend heating cable to break jacket at score then peel off outer jacket.



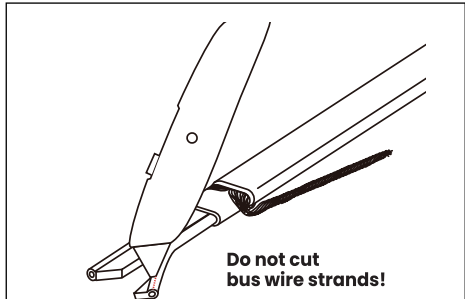
03 Position braid on same side of each heating cable section. Straighten the braid and twist into a "pigtail".



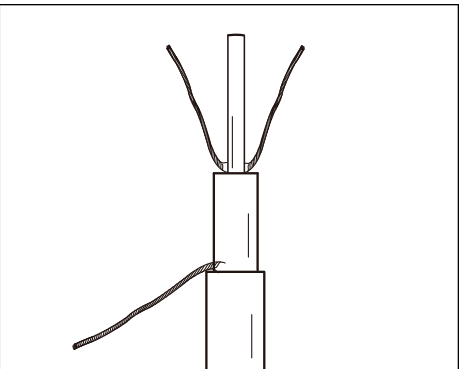
04 At the end of each heating cable, lightly score completely around and then down inner jacket. The length is 1-4/5 inch (45mm).



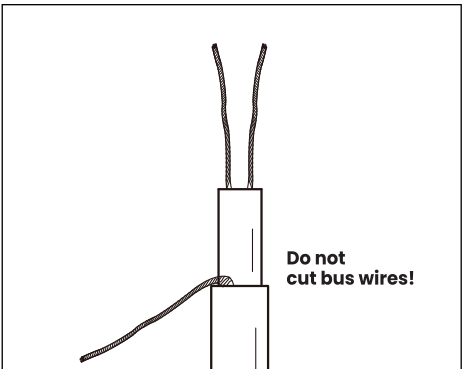
05 Bend heating cable to break jacket at score, then peel off inner jacket.



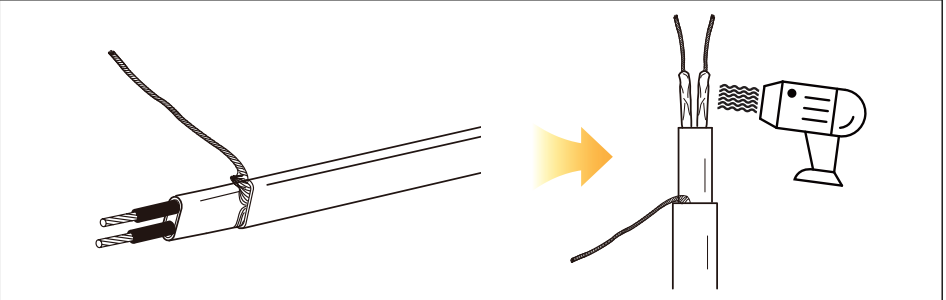
06 Skive outside edges of black matrix. Do not cut bus wire strands!



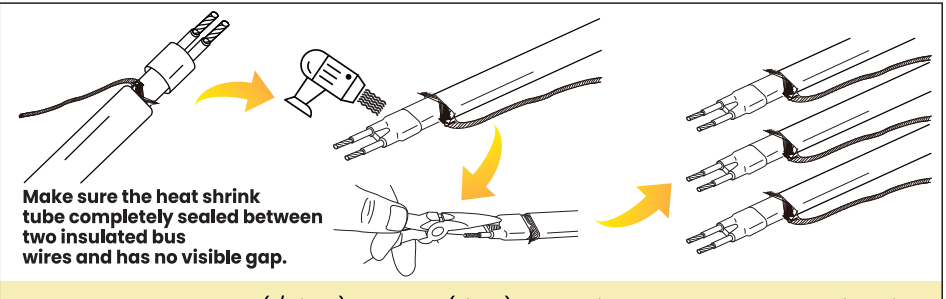
07 Peel exposed wires back from center matrix.



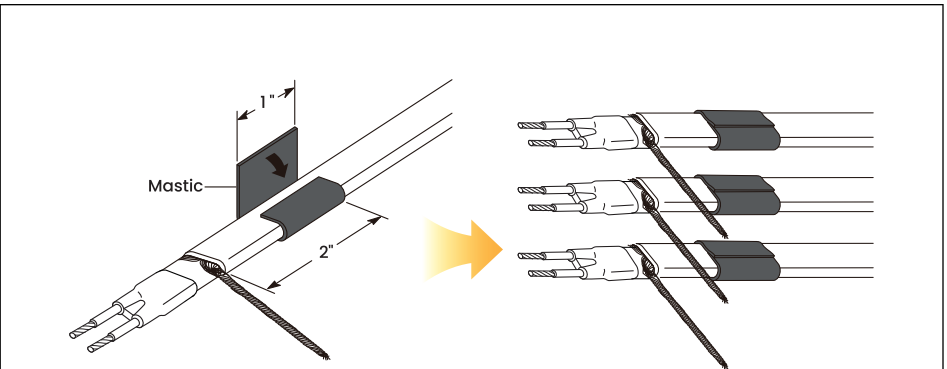
08 Cut and remove remaining center core of matrix. Leaving bare conductors. Do not cut bus wires!



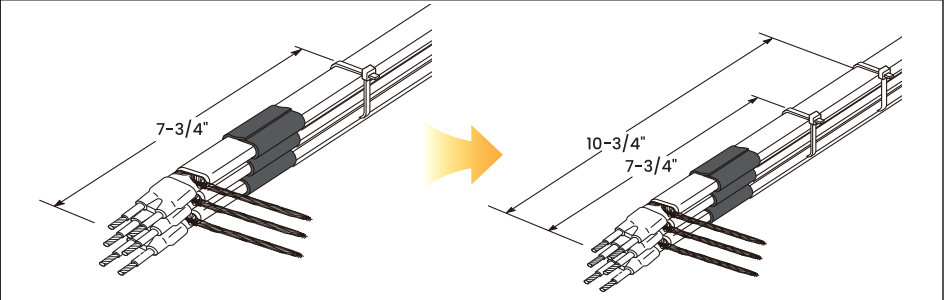
09 Slide 3.2mm (1/8 inch) × 25.4mm (1 inch) shrink tubes over bus wires. To shrink tubing move heat source continuously back and forth. Total heating time should be about 2 minutes (Temperature range 300°C–350°C (572°F–662°F)). While shrinking, ensure that tubes remain up against black core.



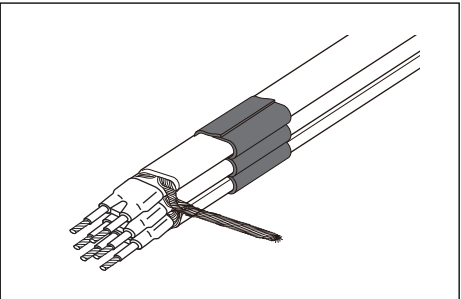
10 Center the 12.7mm (1/2 inch) × 25.4mm (1 inch) heat-shrinkable tube over the end of heating cable as shown. Heat evenly until the tubing fully shrinks and adhesive flows out both ends. Shrink the tube completely. Total heating time should be about 3 minutes (Temperature 300°C–350°C (572°F–662°F)). Immediately after shrinking, pinch with needle nose pliers between wires while tube is still hot. Hold for 10 seconds to ensure a tight seal. Make sure the heat shrink tube completely sealed between two insulated bus wires and has no visible gap.



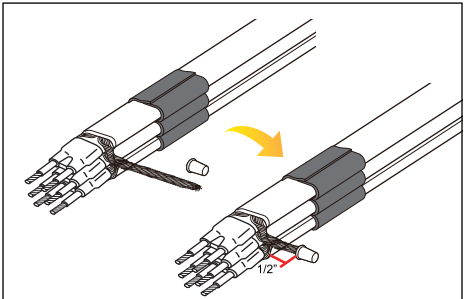
11 Remove release paper from mastic strip. Wrap a piece of mastic around the outer jacket on each heating cable section and position as shown. (For wider heating cables, especially for HTR heating cable series, stretch the mastic strips to ensure it fully wraps around the outer jacket.)



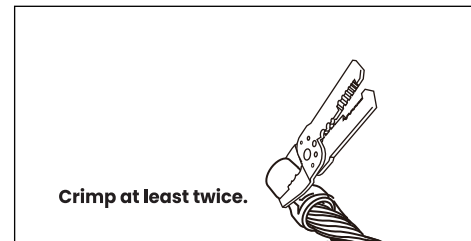
12 Carefully align the heating cable sections and place them together and press mastic strips firmly together. Fasten with a cable tie at each of the two positions shown.



13 Twist the braid pigtails together.

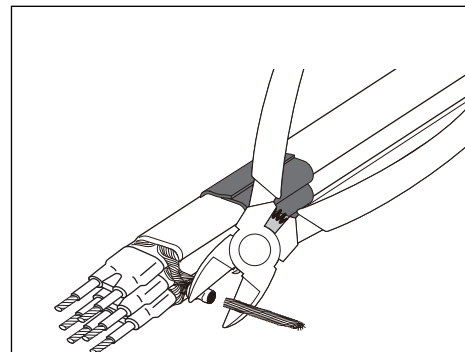


14 Slide braid crimp over braid to within 12.7mm 1/2 inch of heating cable.



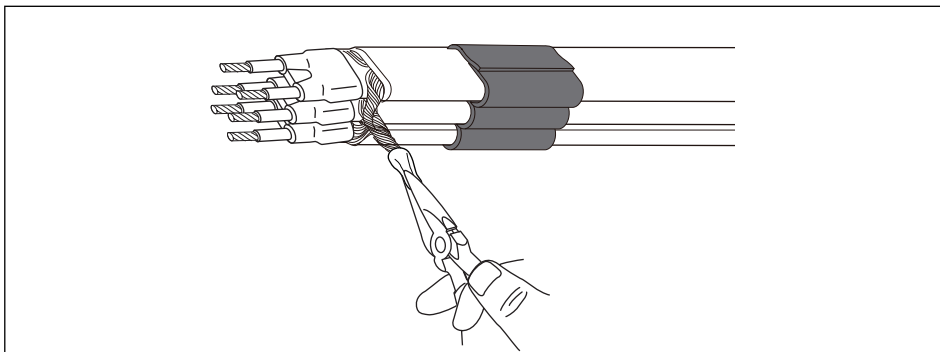
Crimp at least twice.

15 Crimp the braid as shown, using the “CT-100A” crimp tool.

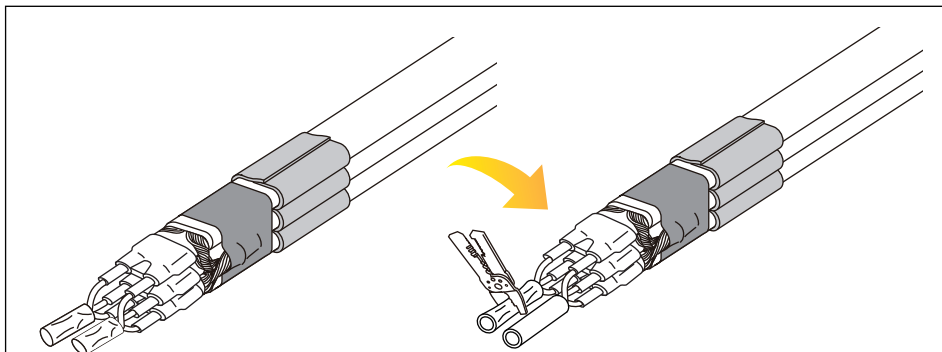


16-1

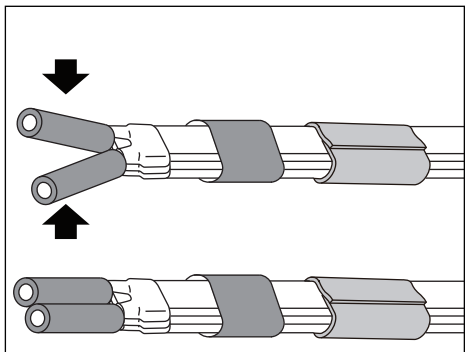
16 Cut off the extra braid.



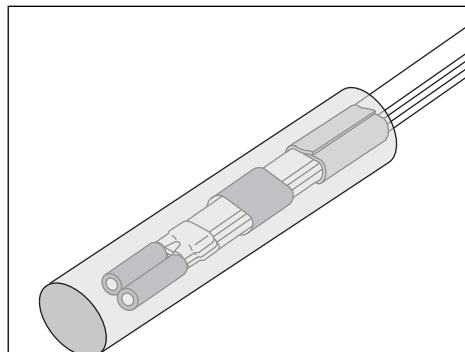
19 Immediately after shrinking, pinch the end of the tube with flat-nose pliers until the end stays sealed, this normally takes 10 seconds.



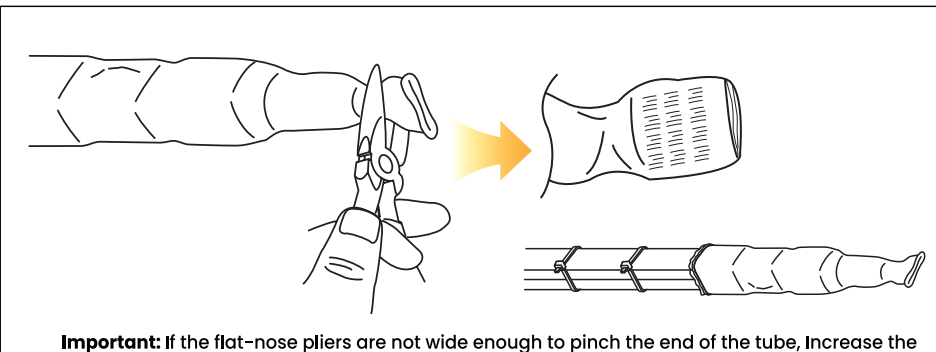
22 Use bus wire crimps and “CT-100A” crimp tool to crimp each set of bus wires together.



25 Squeeze the mastic together.

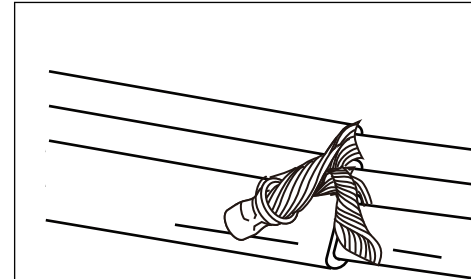


26 Slide the 203mm (8 inch)-long heat-shrinkable tube as shown. Place edge of tube at edge of mastic.



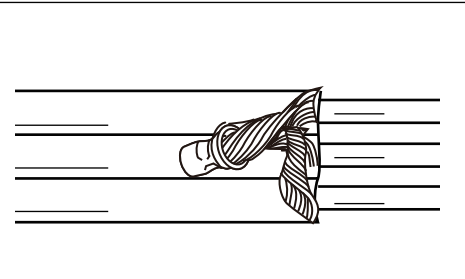
Important: If the flat-nose pliers are not wide enough to pinch the end of the tube, Increase the pinch times!

28 Immediately after shrinking, pinch the end of the tube with flat nose pliers until the end stays sealed; this normally takes 10 seconds.

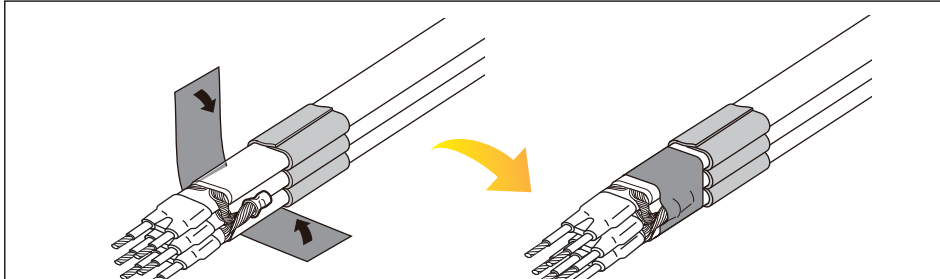


16-2

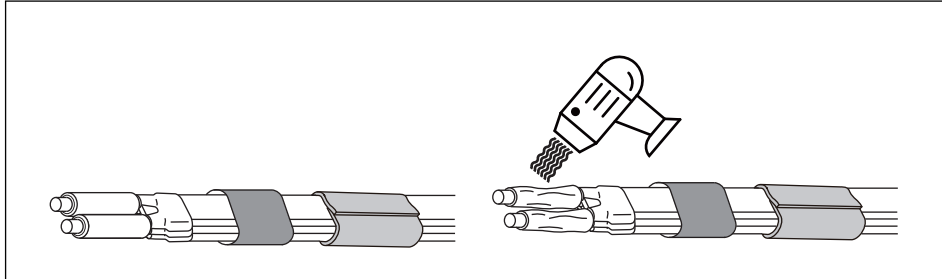
Position the braid crimp connector as shown



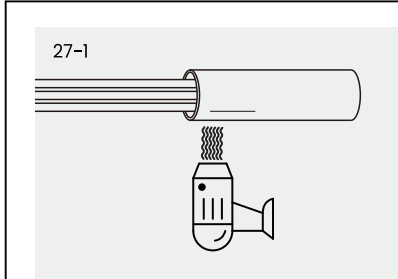
16-3



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

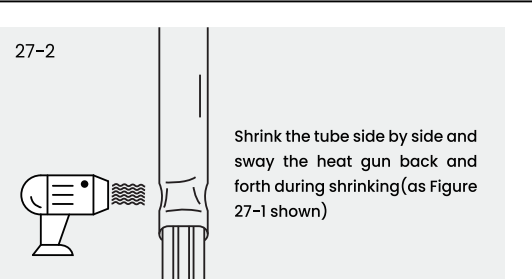


23 Slide heat-shrinkable cap over each set of bus wires crimps. And Heat tube from the end of the heat-shrinkable cap evenly until it shrinks and adhesive flows out (as Figure 23-1 shown).- Total heating time should be about 3 minutes (Temperature about 400°C(752°F)). Additional heat is needed if the heat-shrinkable cap does not fully shrink and the adhesive ring does not appear.



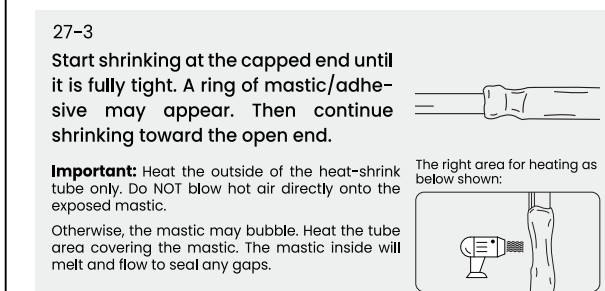
27-1

Start at the point as shown.



27-2

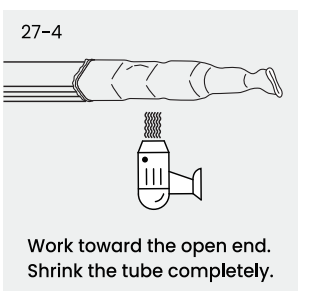
Shrink the tube side by side and sway the heat gun back and forth during shrinking (as Figure 27-1 shown)



27-3

Start shrinking at the capped end until it is fully tight. A ring of mastic/adhesive may appear. Then continue shrinking toward the open end.

Important: Heat the outside of the heat-shrink tube only. Do NOT blow hot air directly onto the exposed mastic. Otherwise, the mastic may bubble. Heat the tube area covering the mastic. The mastic inside will melt and flow to seal any gaps.



27-4

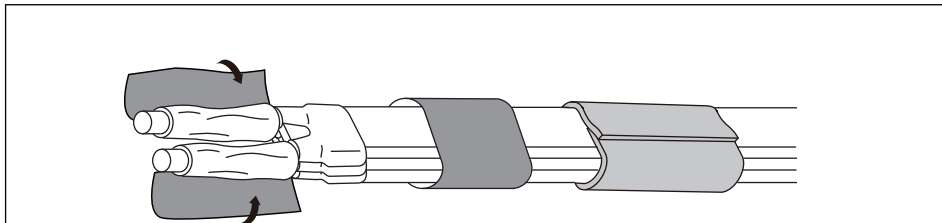
Work toward the open end. Shrink the tube completely.

The right area for heating as below shown:

Caution: Allow heated parts to cool before touching.

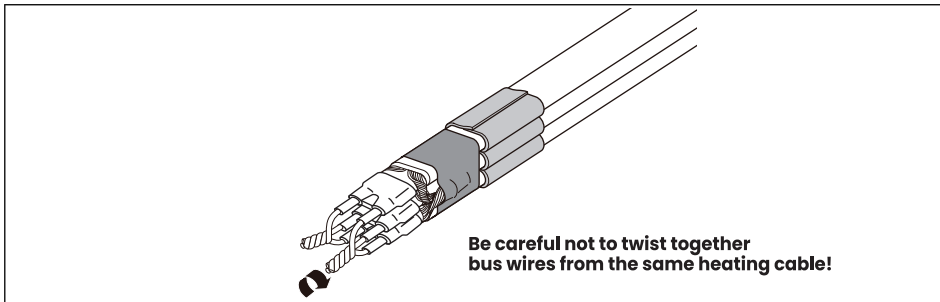
Important: After the tube is fully shrunk, apply extra heat to fully melt the mastic/adhesive inside. Make sure the sealing ring (mastic/adhesive) is visible at the end.

27 Shrink the tube completely, working from the capped end toward the open end. After shrinking, keep heating to melt the adhesive/mastic inside. Total heating time: about 5 minutes (approx. 400°C / 752°F).



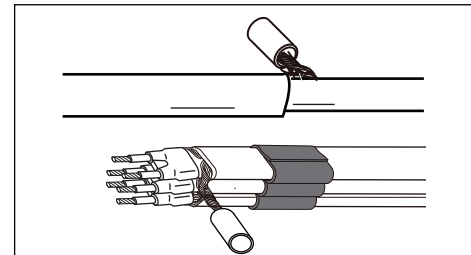
(Important: Stretch the mastic strips because the width can not full around each of the heat shrinkable cap.)

24 Remove release paper from mastic strips, wrap one strip of mastic around each heated-shrinkable cap and position as shown.

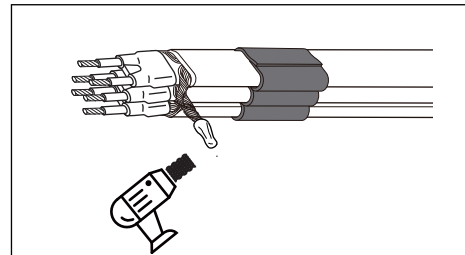


Be careful not to twist together bus wires from the same heating cable!

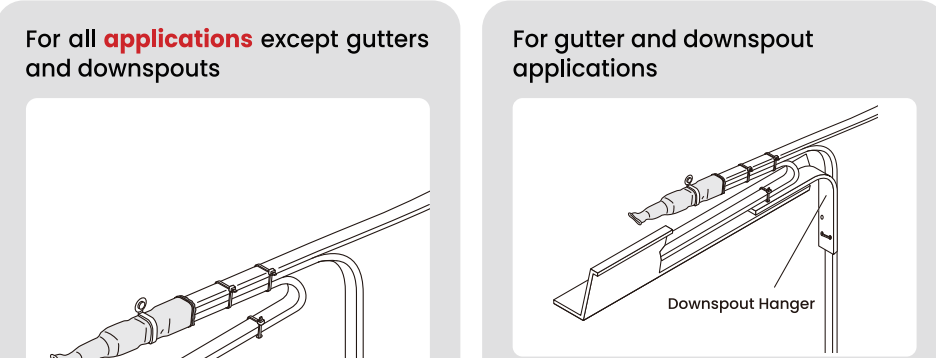
21 Select one bus wire from each cable section and twist the wires together. Repeat with remaining bus wires.



17 Slide the 12mm (1/2") x25.4mm (1") heat-shrink tube over uninsulated braid crimp.



18 Heat evenly until the tubing shrinks and adhesive flows from both ends. Shrink the tube completely (as Figure 18-1 shown). Total heating time should be about 3 minutes (Temperature about 400°C(752°F))



Downspout Hanger

Secure end of connection to heating cable

- Secure heating cable with down-spout hanger.
- Fasten clamp tie to center of connection.
- Use a hammer,nail,and clamp tie to secure connection and keep it off of the gutter bottom as shown.



Scan with Phone Camera

At Your Service >>> Web: www.yelodeer.com Email: yelodeer@yelodeer.com

