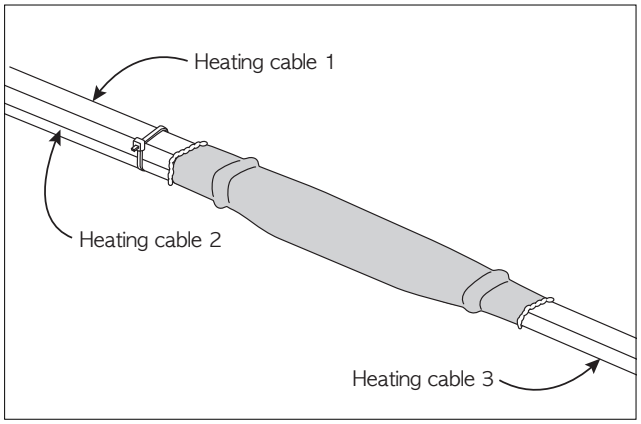
MEP-HT-CTS-1

Tee and Splice Connection Kit Installation Instructions

The following instructions illustrate a tee connection of three heat cables. A splice connection is identical but includes only two heat cables (Cables 1 and 3 in the illustration below).



Description

- MEP-HT-CTS-1 is a tee or splice connection kit for (BK- and QM-) CRGX and LSRX with -CR suffix self-regulating heating cables. This kit includes materials for one tee or one splice connection.
- (BK- and QM-) CRGX and LSRX with -CR suffix self-regulating heating cables are allowed for both pipe freeze protection and roof & gutter de-icing applications.

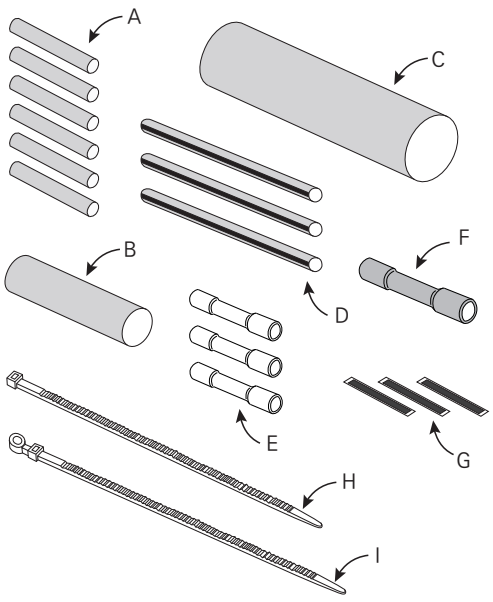
Tools Required

- Racheting Crimp tool, Klein 3005CR
- Utility knife
- Heavy duty scissors
- Needle nose pliers
- Heat gun
- Wire stripper

Additional Materials Required

- Additional accessories may be required for roof & gutter application; roof clips(RC-RG) and downspout hangers(DS-RG)

Kit Contents



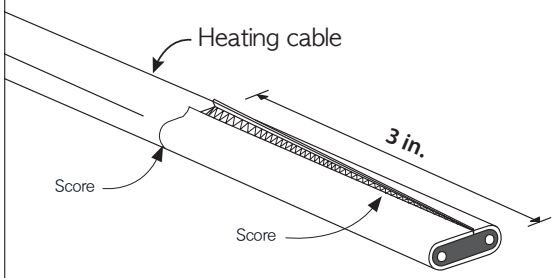
Item	Description	Dimension	Qty.
A	Heat shrink tube (Black)	0.16×1.5 in.	6
B	Heat shrink tube (Black)	0.63×6.3 in.	1
C	Heat shrink tube (Black)	0.79×12 in.	1
D	Heat shrink tube (Green/Yellow)		3
E	Heat shrink butt splice (Yellow)		3
F	Heat shrink butt splice (Pink)		1
G	Mastic tape		3
H	Cable tie	0.18×7.91 in.	1
I	Cable tie	0.19 ×8 in.	1

MEP-HT-CTS-1

Tee and Splice Connection Kit

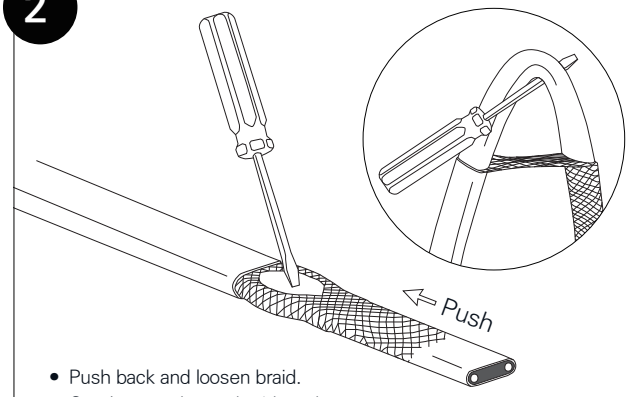
1

- Gently score around and down outer jacket.



WARNING: DO NOT DAMAGE BRAIDING

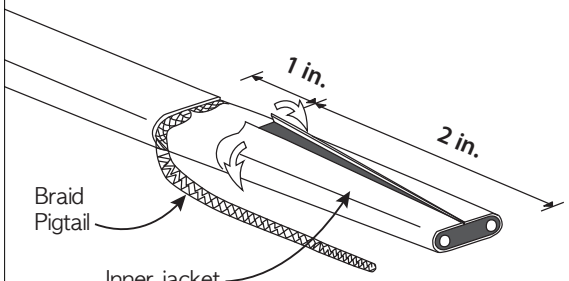
2



- Push back and loosen braid.
- Gently spread apart braid as shown.
- Bend and pull out heating cable through the opening in the braid.

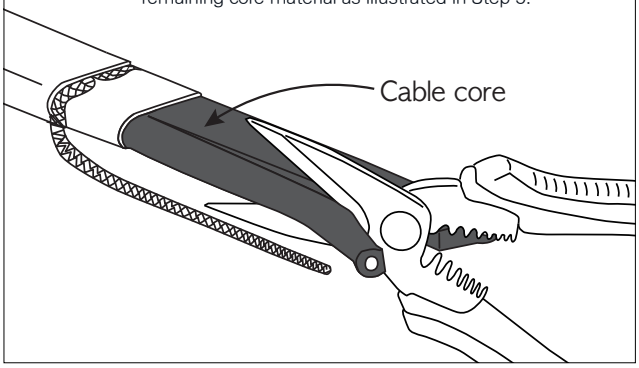
3

- Twist braid into pigtail on one side of heating cable.
- Gently score down and around the inner jacket.
- Bend and break jacket at score; peel off inner jacket.



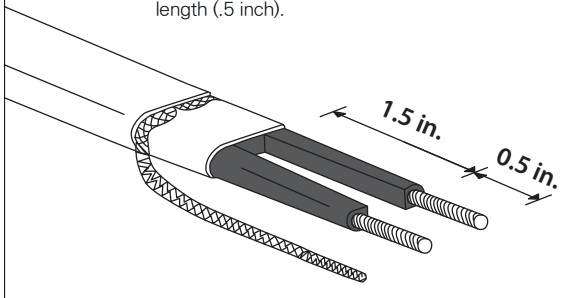
4

- Using scissors or knife, carefully remove cable core between the two main bus wires. Remove all the remaining core material as illustrated in Step 5.

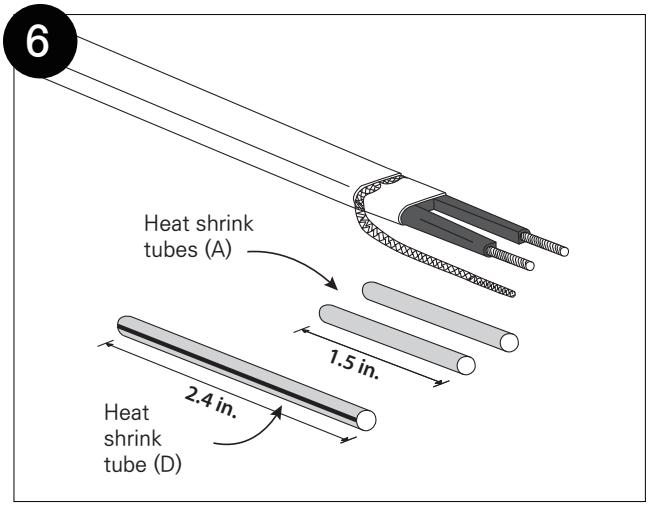


5

- Strip cores at the end of bus wires to the proper length (.5 inch).



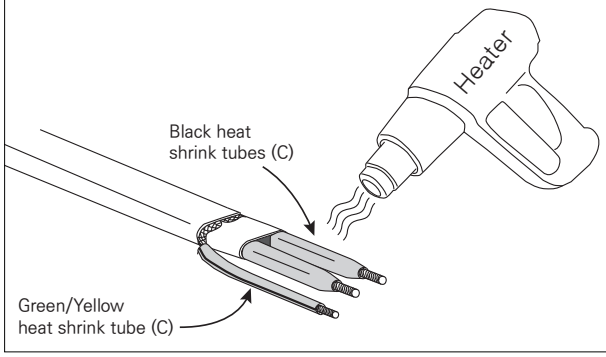
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Tee and Splice Connection Kit

7

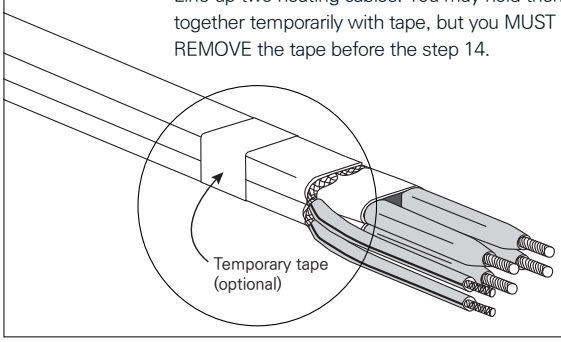
- Slip Black tubes (A) over bus wires.
- Slip Green/Yellow tube (C) over braid pigtail.
- Shrink all three tubes by using heat gun continuously from side to side.



8

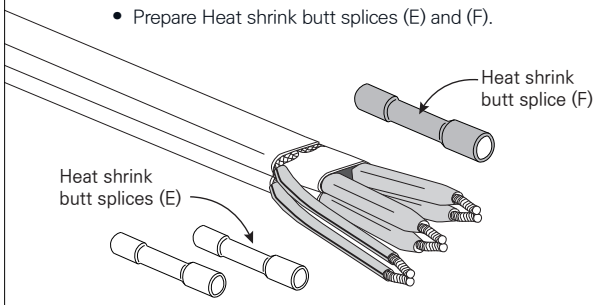
IMPORTANT:

- For tee connection, repeat steps 1 through 7 for second and third heating cables. For a splice, the third heating cable is not used.
- Line up two heating cables. You may hold them together temporarily with tape, but you MUST REMOVE the tape before the step 14.



9

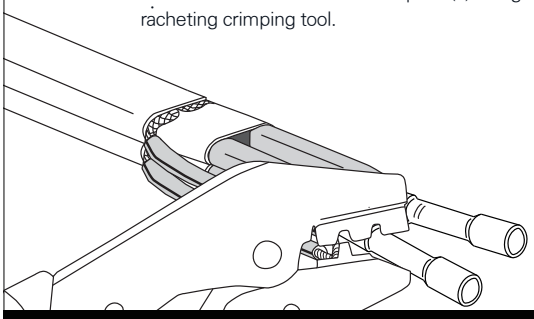
- Hold each section of bus wires and braids together as shown.
- Prepare Heat shrink butt splices (E) and (F).



WARNING: Make sure bus wires from the same heating cable are not twisted together.

10

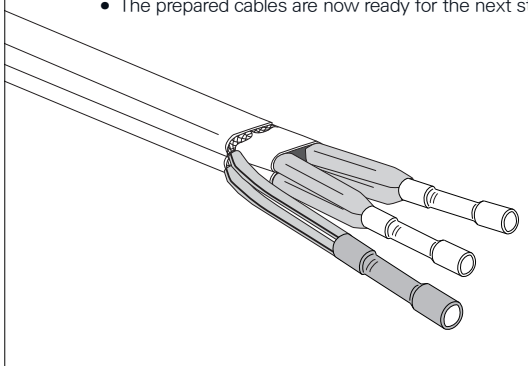
- Crimp each set of bus wires with butt splices (E) and the set of braids with butt splice (F) using a racheting crimping tool.



As with a tee connection, use butt splices (E) to connect bus wires of heating cables.

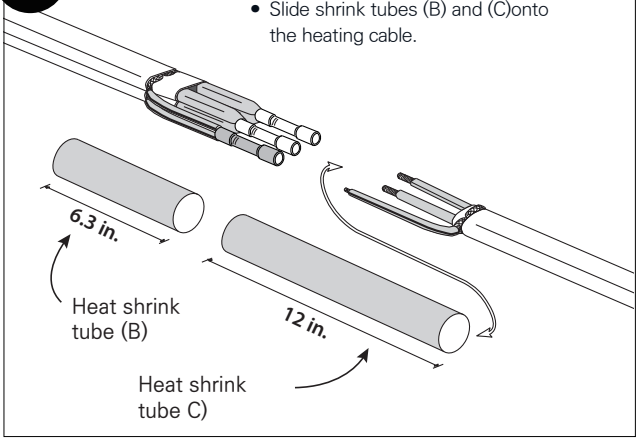
11

- The prepared cables are now ready for the next step.



12

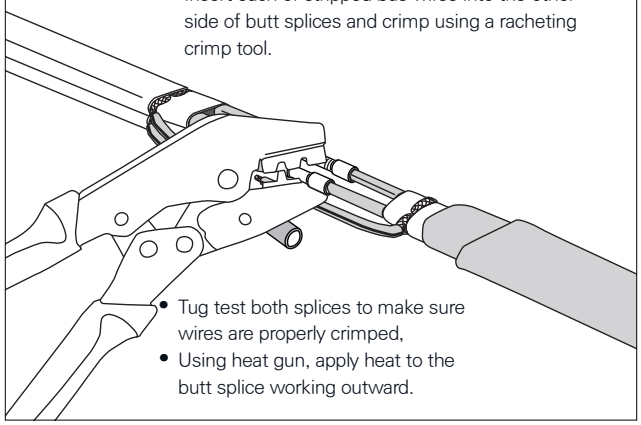
- Slide shrink tubes (B) and (C)onto the heating cable.



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Tee and Splice Connection Kit

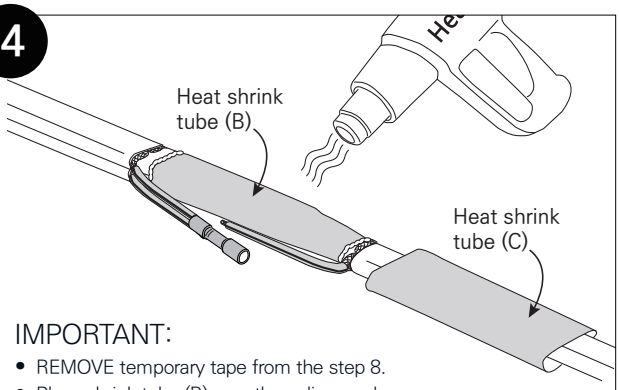
13

- Insert each of stripped bus wires into the other side of butt splices and crimp using a racheting crimp tool.



- Tug test both splices to make sure wires are properly crimped,
- Using heat gun, apply heat to the butt splice working outward.

14

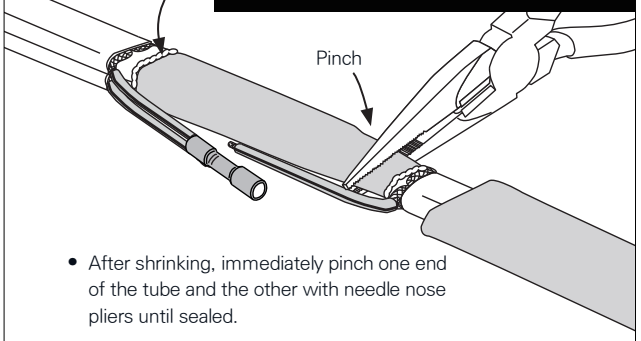


IMPORTANT:

- REMOVE temporary tape from the step 8.
- Place shrink tube (B) over the splice as shown and shrink by using heat gun.
- Start shrinking at the center and work toward each end. Keep heating even after tube has shrunk to melt adhesive inside tube.

15

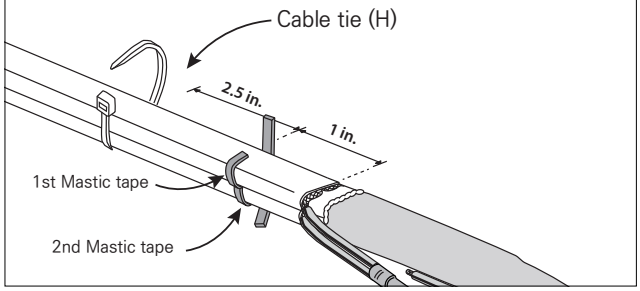
NOTE: A small amount of adhesive should ooze out around each end of the heat shrink tubing.



- After shrinking, immediately pinch one end of the tube and the other with needle nose pliers until sealed.

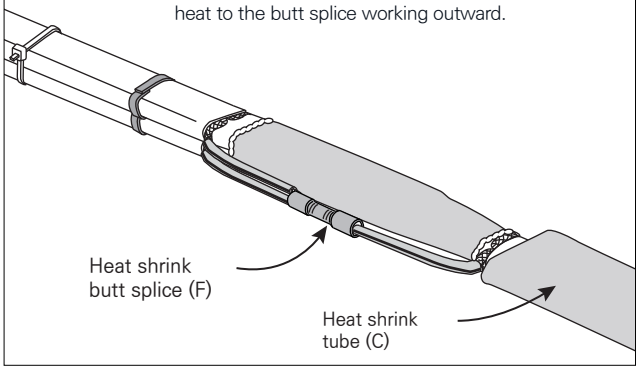
16

- Align a piece of mastic tape (G) 1 inch from the end of outer jacket and wrap around each cable as shown.
- Press cables firmly together so that mastic strips between cables bond together.
- Use cable tie (H) 3.5 inches from the stripped end of heating cables as shown.



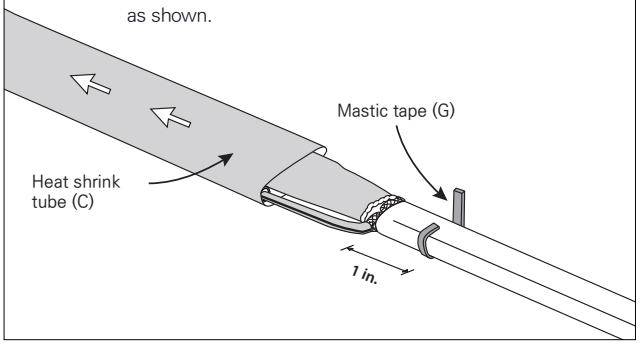
17

- Connect the braids using butt splice (F) and properly crimp using racheting crimp tool. Apply heat to the butt splice working outward.



18

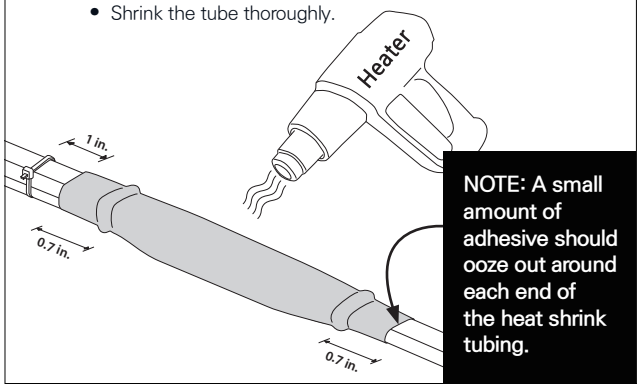
- Slide shrink tube (C) over splice as shown.
- Align one piece of mastic tape (G) 1 inch from the end of outer jacket and and wrap around the heating cable as shown.



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Tee and Splice Connection Kit

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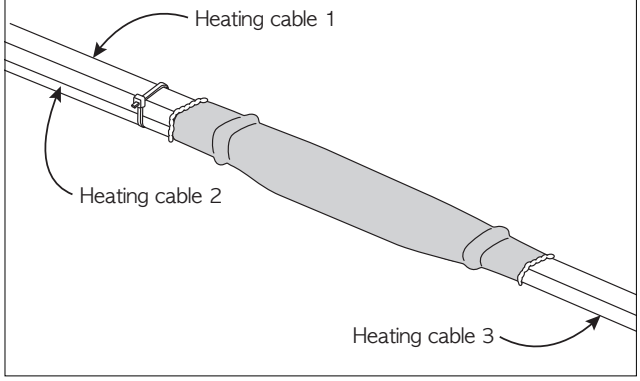
- Move heat shrink tube (C) over the splice as shown and shrink by using heat gun. Check to see the tube extends over the end of the heating cables.
- Shrink the tube thoroughly.



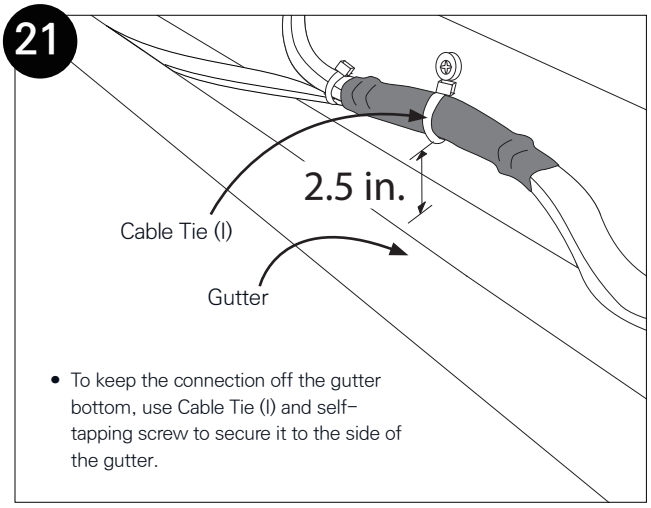
NOTE: A small amount of adhesive should ooze out around each end of the heat shrink tubing.

20

- The completed tee connection should look like this.



21



- To keep the connection off the gutter bottom, use Cable Tie (I) and self-tapping screw to secure it to the side of the gutter.