

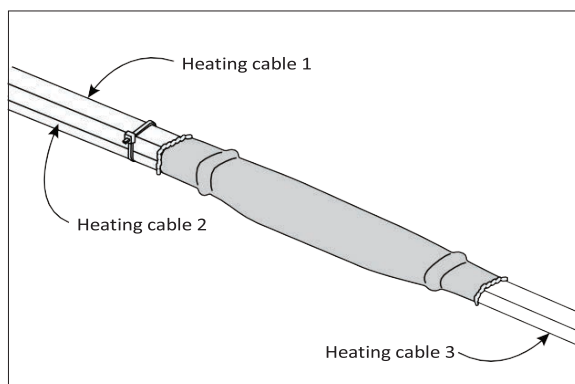
# FloTrace Connection T Kits

## Installation Instructions

### HTW200

#### Tee and Splice Connection Kit

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

- HTW 200 is a tee or splice connection kit for FloTrace self-regulating heating cables. This kit includes materials for one tee or one splice connection.
- FloTrace self-regulating heating cables are allowed for both pipe freeze protection and roof & gutter de-icing applications.

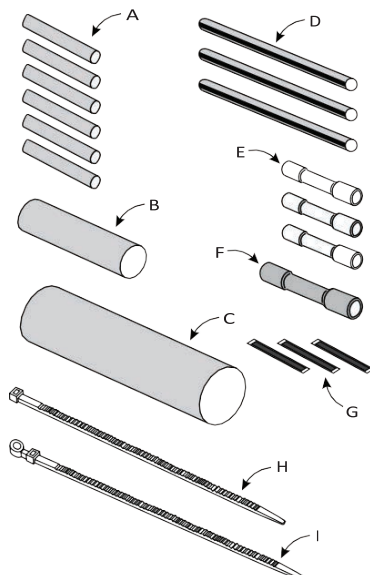
#### Tools Required

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

#### Additional Materials Required

- Additional FloTrace accessories may be required for roof & gutter application; roof clips (XHT-RC) and downspout hangers (XHT-DH)

#### 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

# HTW200 Installation Instructions

## 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).

**6**

Heat shrink tubes (A)

Heat shrink tube (D) 2.4 in

## HTW200 Installation Instructions

### 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).

**10**

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

**11**

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

**12**

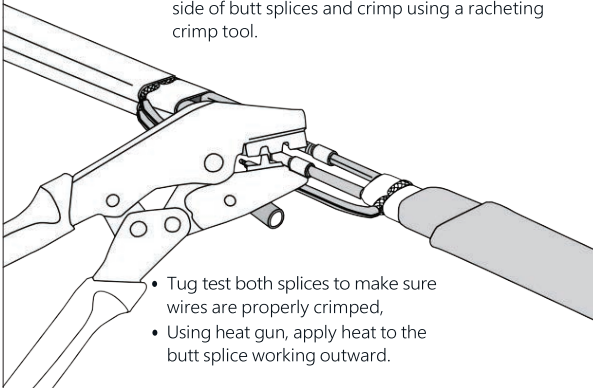
- Slide shrink tubes (B) and (C) onto the heating cable.

# HTW200 Installation Instructions

## Tee and Splice Connection Kit

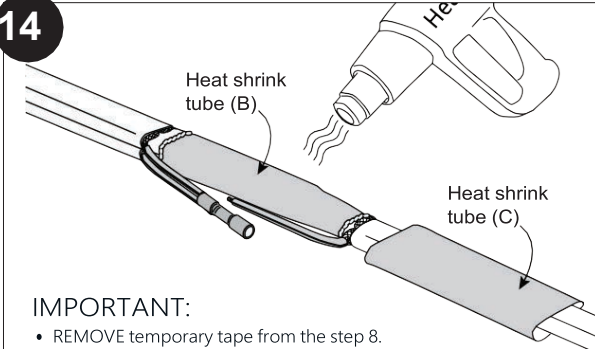
**13**

- Insert each of stripped bus wires into the other side of butt splices and crimp using a ratcheting 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**



Heat shrink tube (B)

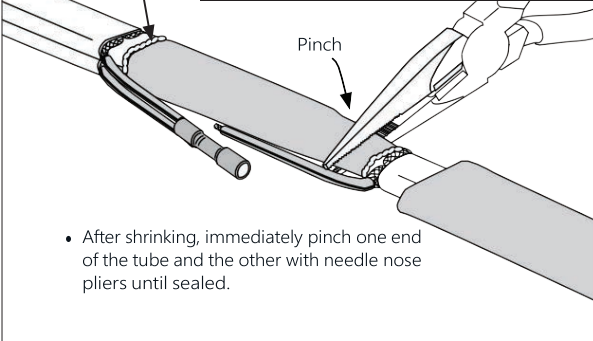
Heat shrink tube (C)

**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.**

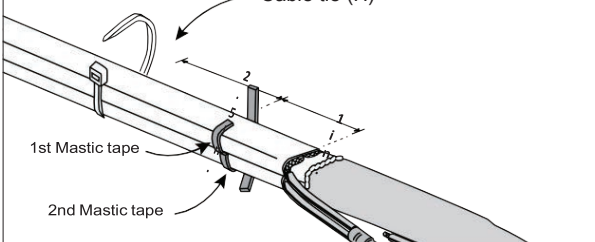


Pinch

- 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.



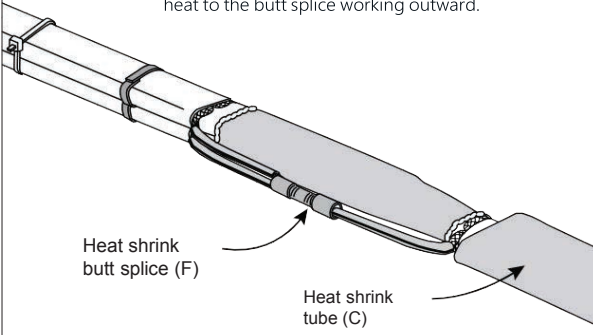
Cable tie (H)

1st Mastic tape

2nd Mastic tape

**17**

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

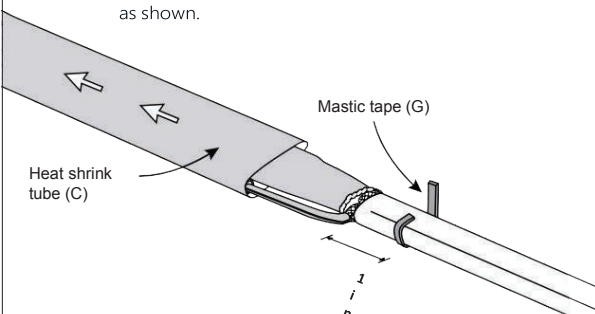


Heat shrink butt splice (F)

Heat shrink tube (C)

**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 wrap around the heating cable as shown.



Mastic tape (G)

Heat shrink tube (C)

1  
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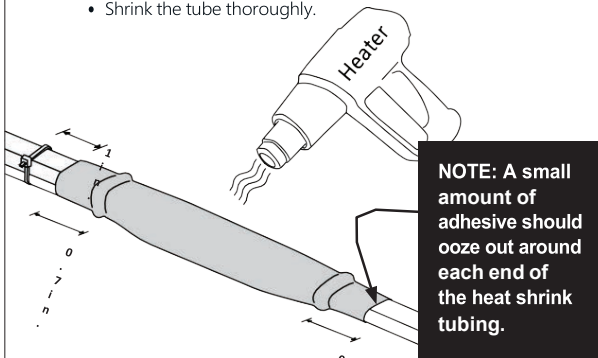
# HTW200

## Installation Instructions

### Tee and Splice Connection Kit

**19**

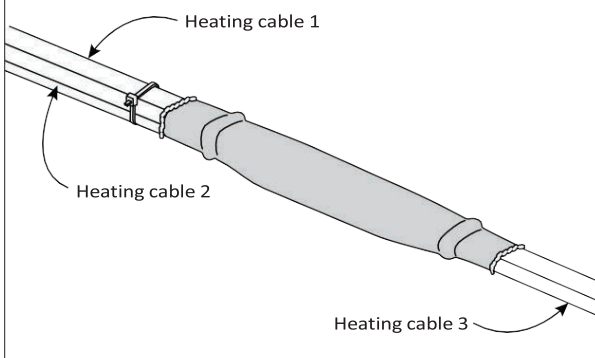
- Move heat shrink tube (C) over the splice as shown and shrink by using heat gun. Check to see the tube extends over the end of the heating cables.
- Shrink the tube thoroughly.



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

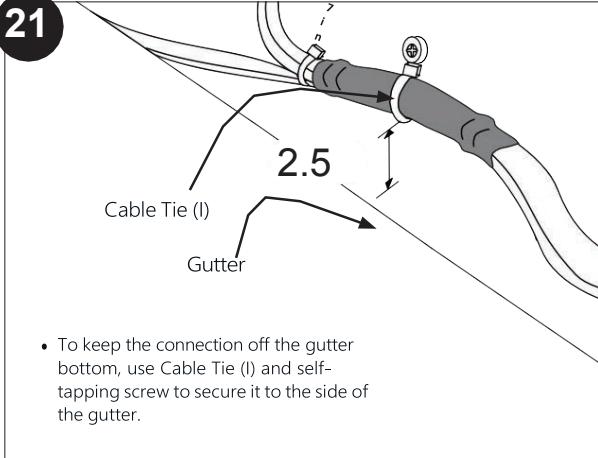
**20**

- The completed tee connection should look like this.



Heating cable 1  
Heating cable 2  
Heating cable 3

**21**



Cable Tie (I)  
Gutter  
2.5

- 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.