

# SERGE BARIL PST-SJ SPLICE CONNECTION KIT FOR ORDINARY AND DIVISION 2 HAZARDOUS LOCATIONS

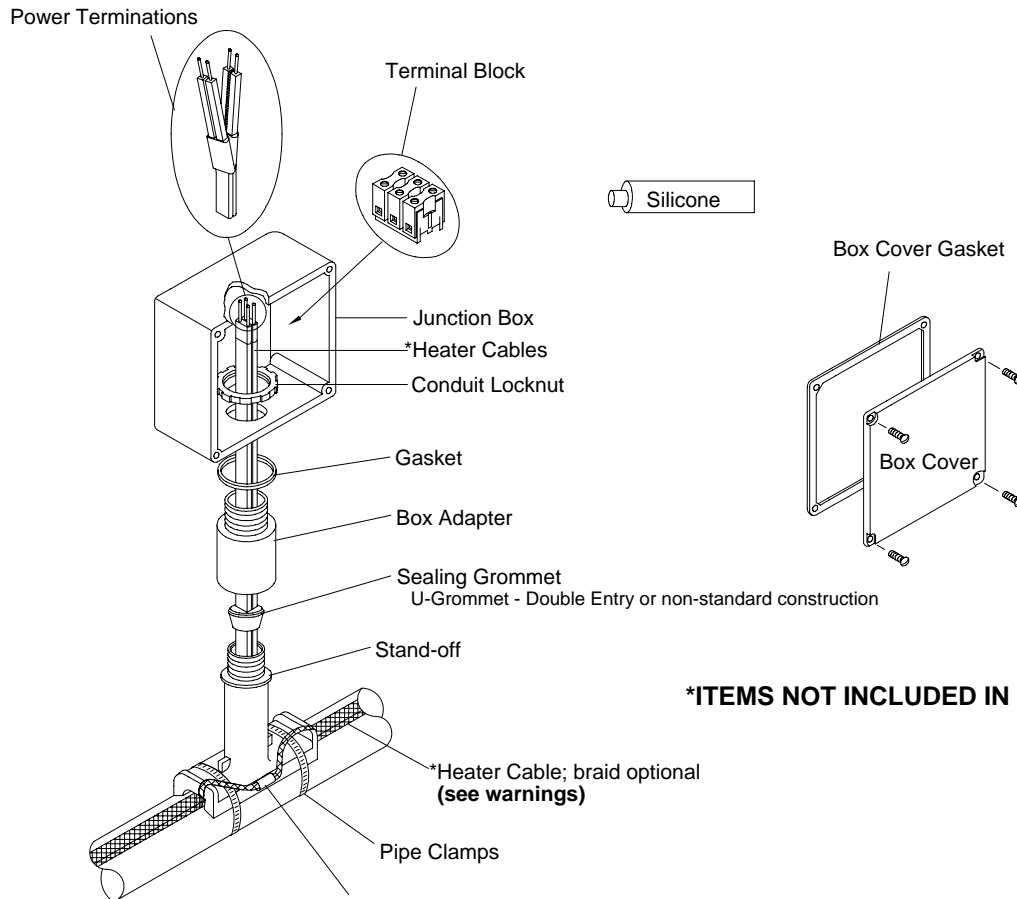
## INSTALLATION INSTRUCTIONS

### DESCRIPTION

The PST-SJ Splice Connection Kit is for use with all versions of Serge Baril's FPS, SCS & CCA heater cables.

### KIT CONTENTS

- |                    |                                |
|--------------------|--------------------------------|
| 1 Junction Box     | 2 Power Terminations           |
| 1 Box Cover Gasket | 1 Box Adapter                  |
| 1 Box Cover        | 1 Gasket                       |
| 1 Terminal Block   | 1 Uninsulated Splice Connector |
| 1 Conduit Locknut  | 1 Tube of Silicone             |
| 1 Sealing Grommet  | 2 Pipe Clamps                  |
| 1 Stand-off        |                                |



### \*ITEMS NOT INCLUDED IN KIT

#### For Braided Heater Cables Only:

Connect ground braid from both heater cables using the uninsulated splice connector.  
 (CSA - Ordinary Areas Only)

**Note:** This detail shows external grounding of braid. For internal grounding of braid (overjacket products), see sheet 8 of 8.

### ⚠ WARNINGS:

- Canadian Div. 2 Hazardous installations must use internal ground connection of braid. See sheet 8 of 8.
- Article 427 of the National Electric Code requires that all heaters shall have metal coverings and be provided with branch circuit ground-fault protection.
- If nuisance tripping of ground fault breakers occurs due to condensation in junction box, electrical connection should be moisture proofed by use of a coating or sealant.

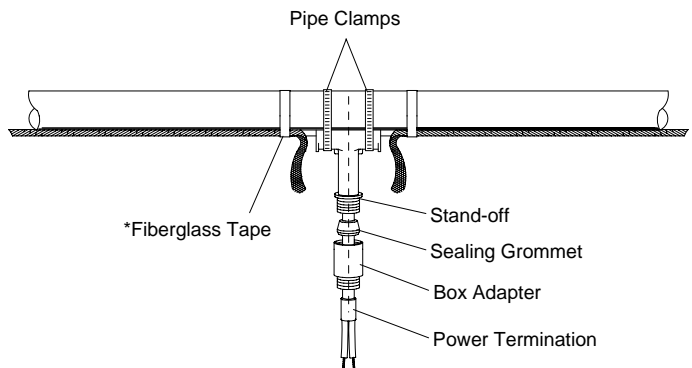
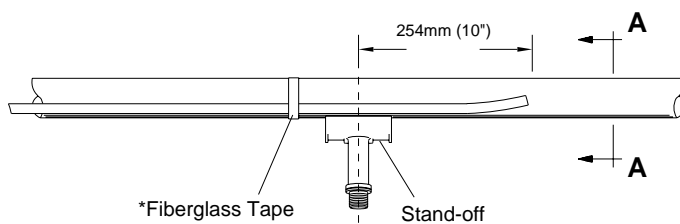
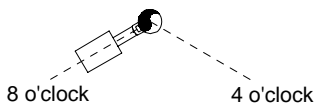


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## INSTALLATION INSTRUCTIONS

### STAND-OFF POSITIONING

#### Section View A A (recommend installing at the 8 or 4 o'clock positions.)



**WARNING:**  
Do not place pipe clamps  
over the heater cable.

- 1 Mark pipe where stand-off will be mounted.
- 2 **External Braid Connection - B Products only:**
  - Remove braid from heater cables, back to the point the cables leave the pipe. See Sheet 3 of 8.
  - Proceed to step 3 below.

#### Internal Braid Connection - B, BT or BA Products:

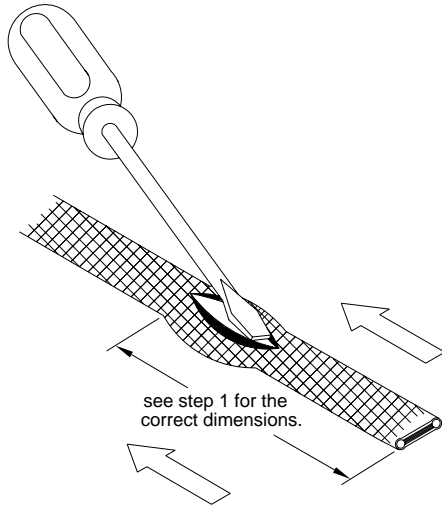
Proceed to step 3 below.

- 3 Push heater cables through the bottom opening of stand-off.
- 4 Place stand-off on the pipe and fasten with pipe clamps.
- 5 Slide the sealing grommet over the heater cables and position inside stand-off opening.
- 6 Apply silicone around the heater cables at top of the sealing grommet and fill any voids in sealing grommet.
- 7 Slide the box adapter over heater cables and tighten securely to stand-off.
- 8 Prepare heater cables for power termination:
  - for braided products, see sheet 3 of 8.
  - for overjacket products, see sheet 4 of 8.
  - for base products, see sheet 5 of 8.
- 9 Terminate heater cables, see sheet 7 of 8.

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## INSTALLATION INSTRUCTIONS

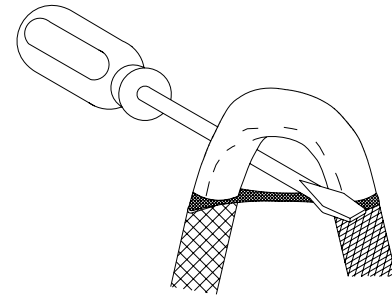
### BRAIDED PRODUCTS



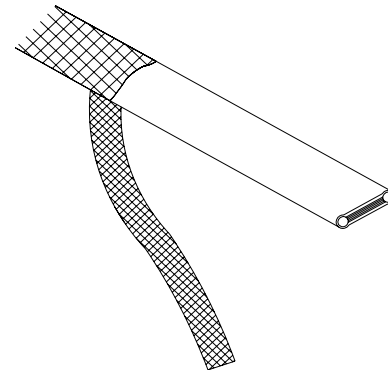
- 1 External Braid Connection:**  
Move braid back 305mm (12") to create a bulge.

**Internal Braid Connection:**  
Move braid back 127mm (5") to create a bulge.

- 2** At the bulge, separate the braid to make an opening.



- 3** While bending the heater cable, work it through the braid opening.



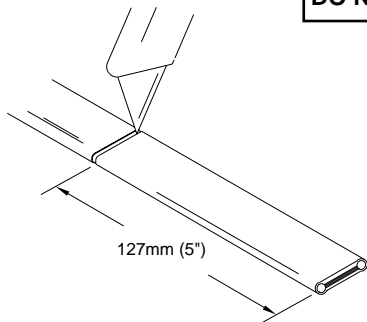
- 4** Pull the braid tight.  
**5** Proceed to "FPS, SCS & CCA Products", sheet 5 of 8.

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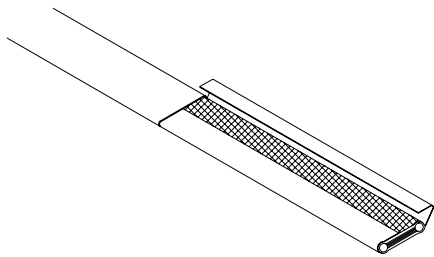
## INSTALLATION INSTRUCTIONS

### OVERJACKET PRODUCTS

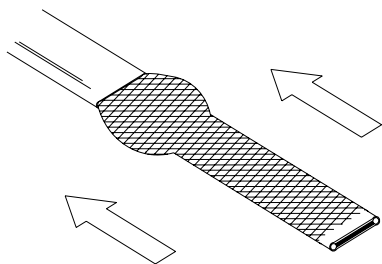
**⚠ WARNING:**  
**DO NOT CUT BRAID.**



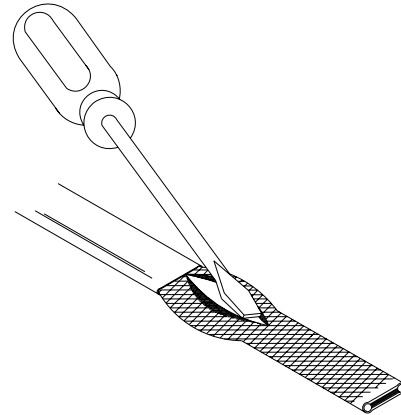
- 1 Lightly cut around heater cable overjacket 127mm (5") from the end. Bend cable to break overjacket.
- 2 Lightly cut cable overjacket up the center between first cut mark and the cable end. Bend cable to break overjacket.



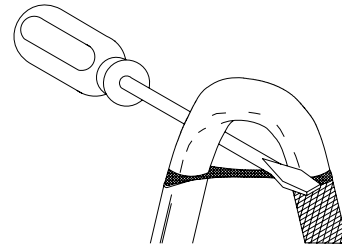
- 3 Remove cable overjacket from heater cable.



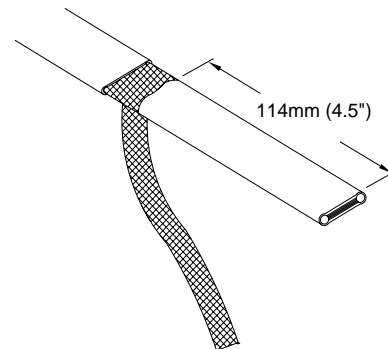
- 4 Move braid back toward the overjacket, creating a bulge.



- 5 At the bulge, separate the braid to make an opening.



- 6 While bending the heater cable, work it through the braid opening.

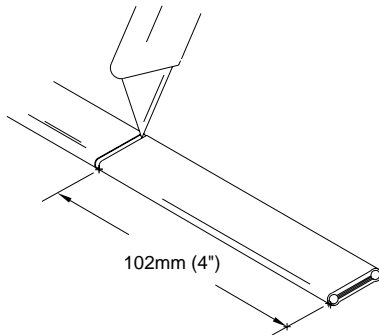


- 7 Pull the braid tight.
- 8 Proceed to "FPS, SCS & CCA Products", sheet 5 of 8.

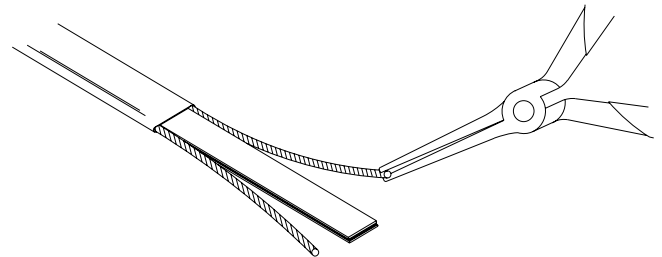
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## INSTALLATION INSTRUCTIONS

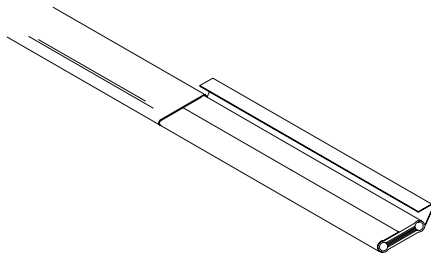
**FOR ALL SERGE BARIL FPS, SCS, PTM & CCA PRODUCTS**  
(See sheet 6 of 8 for an alternate method of SCS & PTM products.)



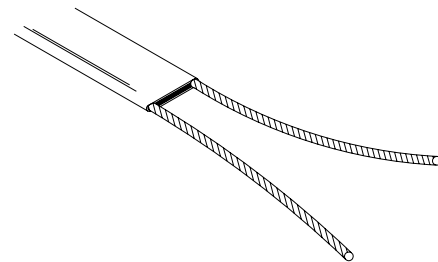
- 1 Lightly cut around heater outer jacket 102mm (4") from the end. Bend cable to break outer jacket.
- 2 Lightly cut the outer jacket up the center between the first cut mark & the cable end. Bend cable to break outer jacket.



- 5 Starting at the end, pull each bus wire away from the core material.
- 6 Remove exposed core material.

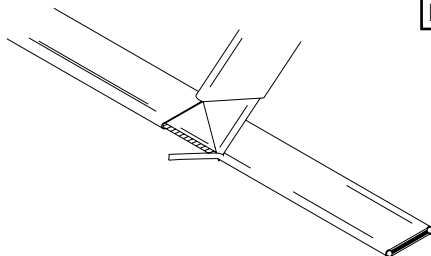


- 3 Remove the jacket from the heater cable.



- 7 Cut 6mm (0.25") off the end of each bus wire.
- 8 Proceed to "Power Termination", sheet 7 of 8.

**⚠ WARNING:**  
**DO NOT CUT BUS WIRES.**



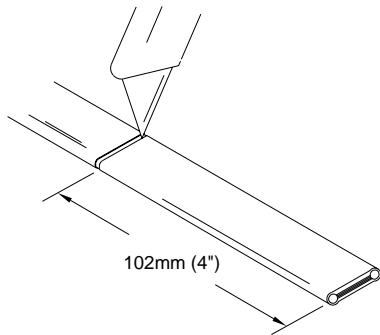
- 4 Shave the core material from the outside of each bus wire.



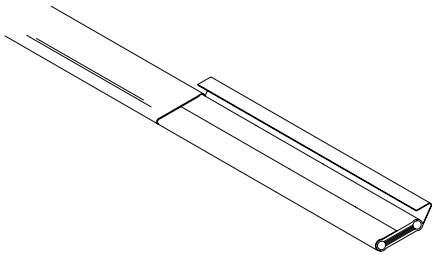
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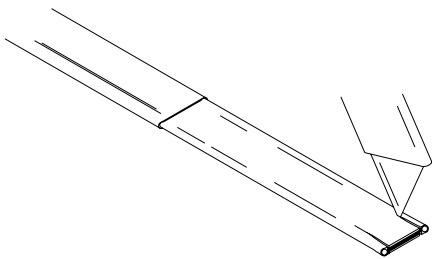
### SCS PRODUCTS ALTERNATE METHOD



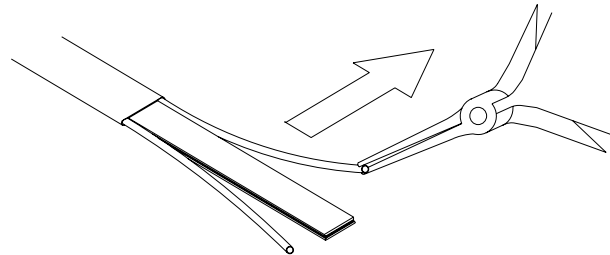
- 1 Lightly cut around heater outer jacket 102mm (4") from the end. Bend cable to break outer jacket.
- 2 Lightly cut the outer jacket up the center between the first cut mark & the cable end. Bend cable to break outer jacket.



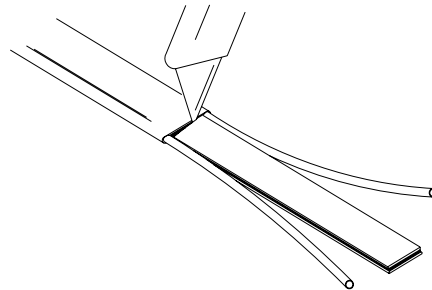
- 3 Remove the jacket from the heater cable.



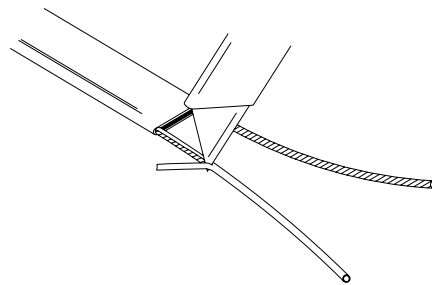
- 4 Make a cut inside each bus wire.



- 5 Starting at the end, in the same plane as the cable, pull each bus wire away from the core material.



- 6 Remove exposed core material.



- 7 Remove the remaining core material off the outside of each bus wire.
- 8 Cut 6mm (0.25") off the end of each bus wire.
- 9 Proceed to "Power Termination", sheet 7 of 8.

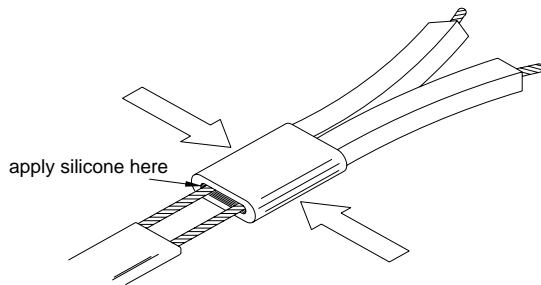
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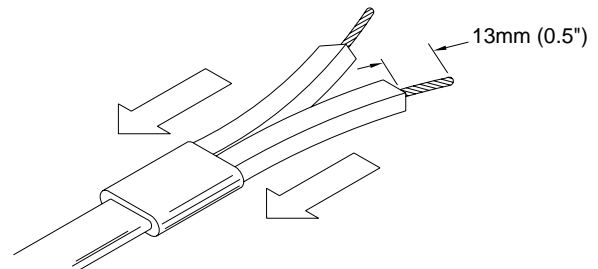
### POWER TERMINATION

#### WARNINGS:

- Bus wires must not touch or cross while inserting into power termination.
- Only power terminations / end seals specifically approved for the vendor's style and type of heater cable be used.



- 1 Insert bus wires into power termination.
- 2 Squeeze power termination opening and fill with silicone.



- 3 Push power termination to overlap jacket.
- 4 Silicone will set up in about 30 minutes with a complete cure after 24 hours.
- 5 Proceed to "Power Connection", sheet 8 of 8.

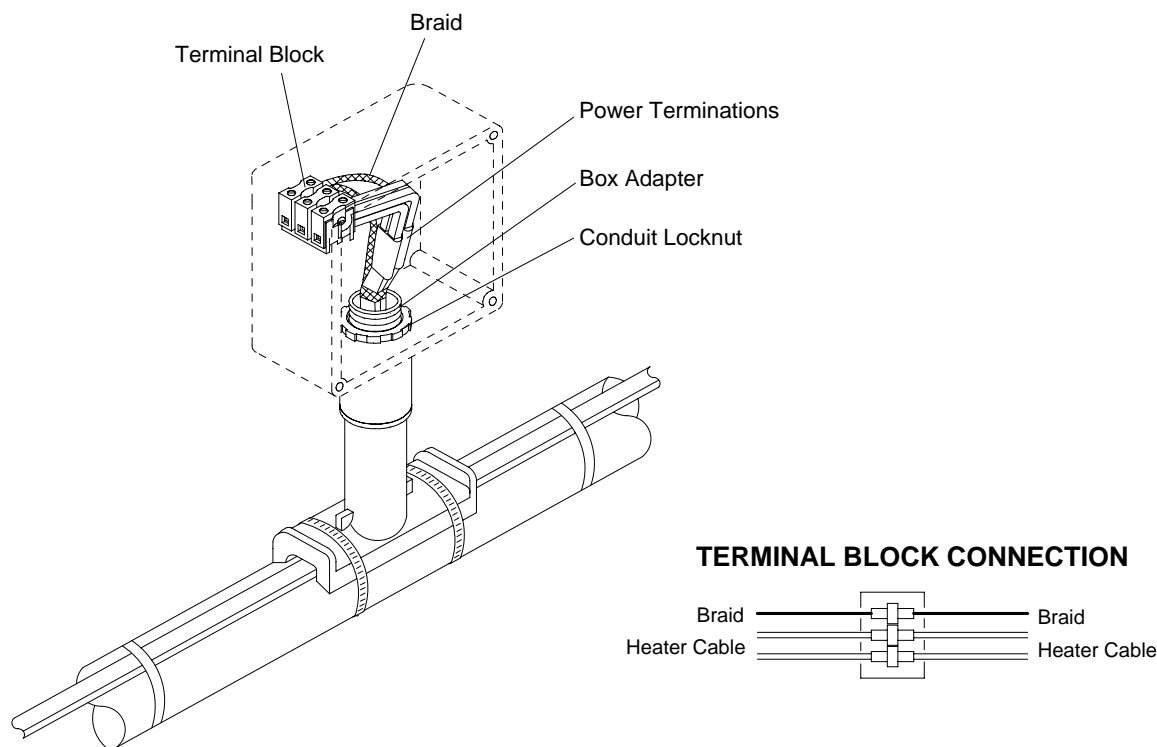
#### WARNING:

Do not megger or hi-pot until silicone is completely cured.

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## INSTALLATION INSTRUCTIONS

### POWER CONNECTION



**Note:** This detail shows internal grounding of braid.

- 1 Place gasket on box adapter.
- 2 Position junction box onto box adapter and secure it with the conduit locknut.
- 3 Connect bus and power wiring to the terminal block.
- 4 Ground Connection:

#### **External Ground Connected Heaters:**

Connect ground braid from both heater cables using the uninsulated splice connector.

**See diagram on sheet 1 of 8.**

#### **Internal Ground Connected Heaters:**

Connect ground wire and braid from both heater cables to the terminal block. **See diagram above.**

- 5 **Overjacket BT or BA Products Only:**  
Apply silicone at point braid leaves the overjacket
- 6 Push all wires, cables and terminal block inside junction box.
- 7 Place the box cover & box cover gasket onto junction box.

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Sheet 8 of 8  
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