

SERGE BARIL PST-TJ

TEE SPLICE CONNECTION KIT

FOR ORDINARY AND DIVISION 2 HAZARDOUS LOCATIONS

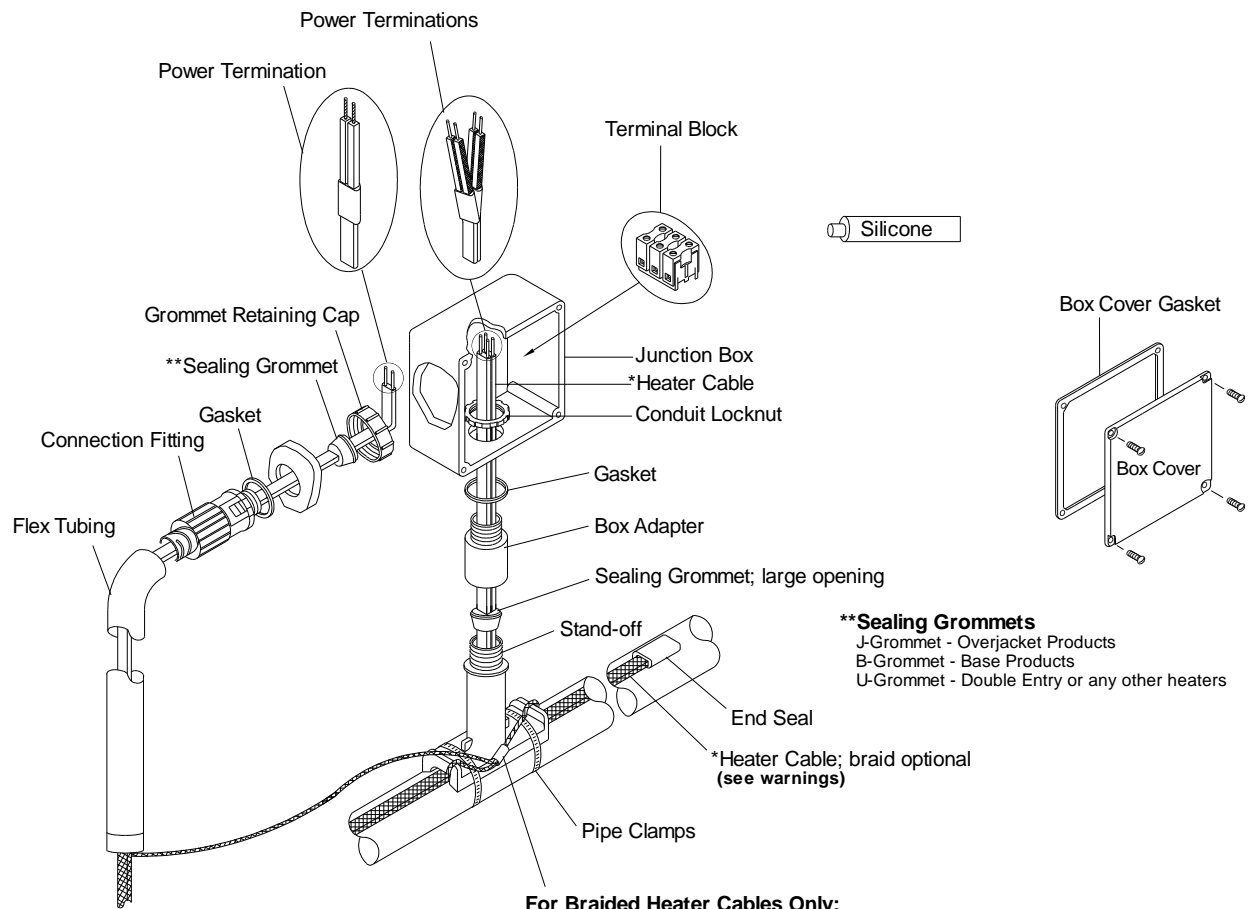
INSTALLATION INSTRUCTIONS

Description:

The PST-TJ Tee Splice Connection Kit is for use with all versions of Serge Baril's FPS, SCS & CCA heater cables. Compatible for use with any vendor's heater cables smaller than 11mm (0.44") dia.

Kit Contents:

1 Junction Box	3 Power Terminations
1 Box Cover Gasket	1 Box Adapter
1 Box Cover	2 Gaskets
1 Terminal Block	1 Uninsulated Splice Connector
1 Conduit Locknut	1 End Seal
2 Sealing Grommets	1 Tube of Silicone
1 Stand-off	2 Pipe Clamps
1 Connection Fitting	1 Flex Tubing
1 Grommet Retaining Cap	



For Braided Heater Cables Only:
Connect ground braid from all heater cables
using the uninsulated splice connector.
(CSA - Ordinary Areas Only)

*ITEMS NOT INCLUDED IN KIT

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

- 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.



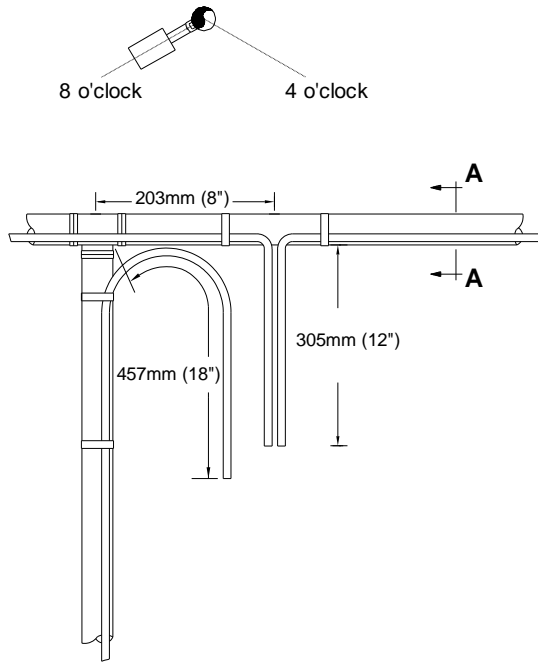
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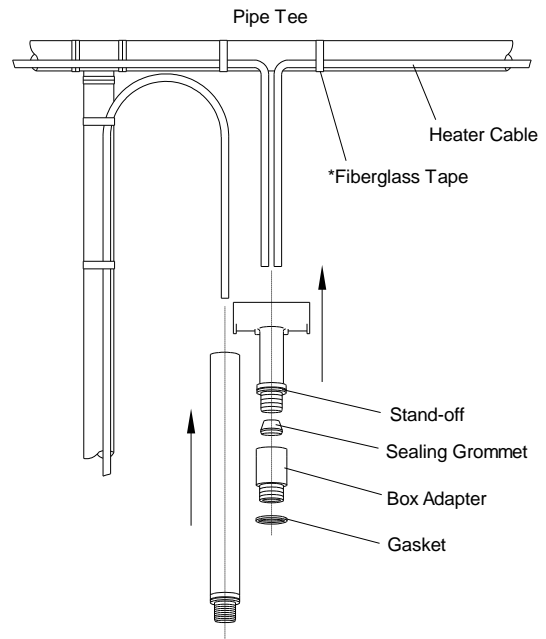
STAND-OFF POSITIONING

Section View A A



⚠ WARNING:

Do not place pipe clamps
over the heater cable.



*ITEMS NOT INCLUDED IN KIT.

- 1 Cut heater cables to lengths shown.
- 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 the two 305mm (12") length heater cables through the bottom opening of stand-off.
- 4 Place stand-off on pipe and fasten with pipe clamps.
- 5 Slide the large opening sealing grommet over the two heater cables and position inside stand-off opening.

- 6 Apply silicone around the heater cables at top of sealing grommet and fill any voids in sealing grommet.
- 7 Slide the box adapter over the two heater cables and tighten securely to stand-off.
- 8 Install flex tubing over the 457mm (18") length heater cable; tape at pipe tee with fiberglass tape. (Fiberglass tape is not included in kit.)
- 9 Slide the sealing grommet over the single heater cable and position inside the connection fitting.
- 10 Apply silicone around the heater cable at top of sealing grommet and fill any voids in sealing grommet.
- 11 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.
- 12 Terminate heater cables, see sheet 7 of 8.

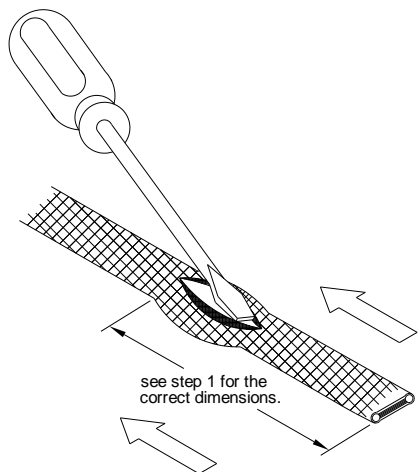
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BRAIDED PRODUCTS



1 External Braid Connection:

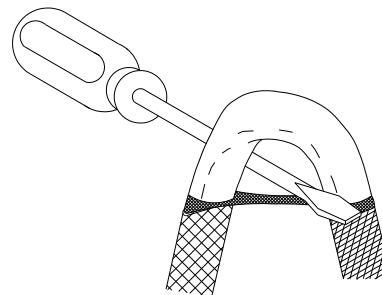
For heater cable going through the flex tubing -
move braid back 457mm (18") to create a bulge.

For heater cable going through the stand-off -
move braid back 305mm (12") to create a bulge.

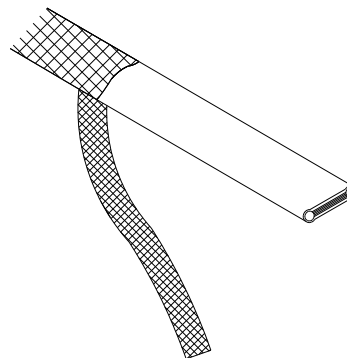
Internal Braid Connection:

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.



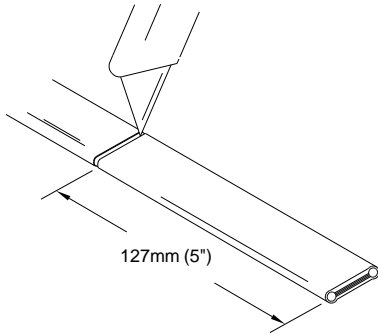
- 4 Pull the braid tight.
5 Proceed to "FPS, SCS & CCA Products", sheet 5 of 8.

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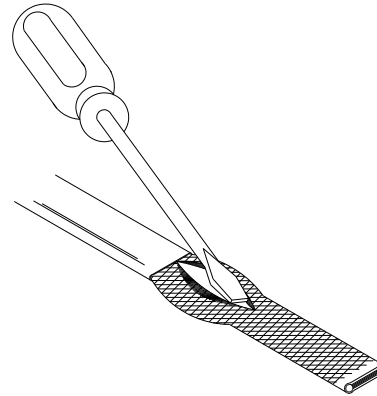
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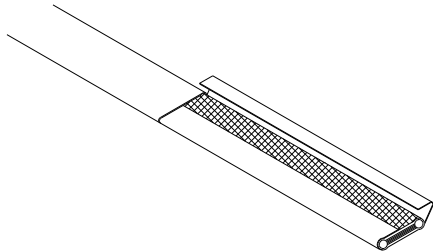
OVERJACKET PRODUCTS



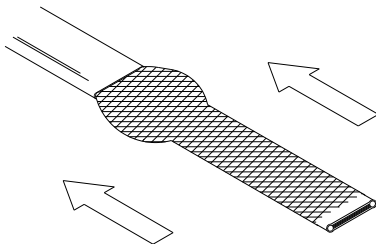
WARNING:
DO NOT CUT BRAID.



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

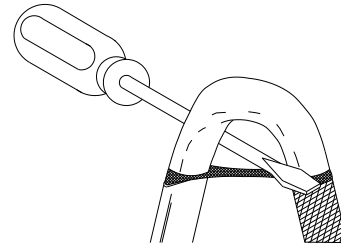


break the overjacket.

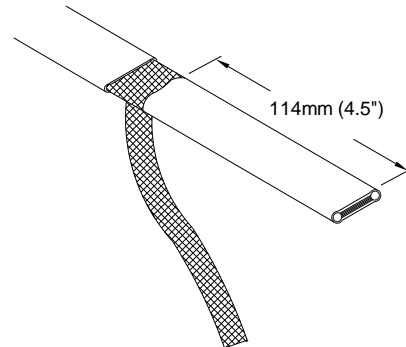


- 3 Remove overjacket from heater cable.
- 4 Move braid back toward the overjacket, creating a bulge.

- 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.

SERGE BARIL PST-TJ

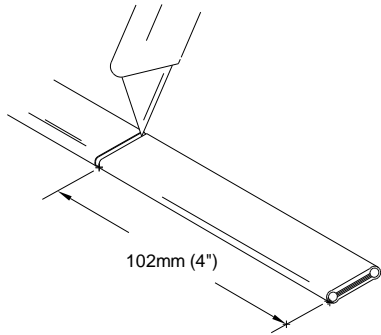
TEE SPLICE CONNECTION KIT

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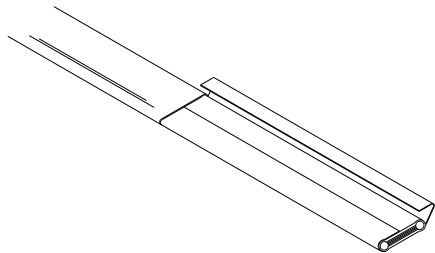
INSTALLATION
INSTRUCTIONS

FOR ALL SERGE BARIL FPS, SCS & CCA PRODUCTS

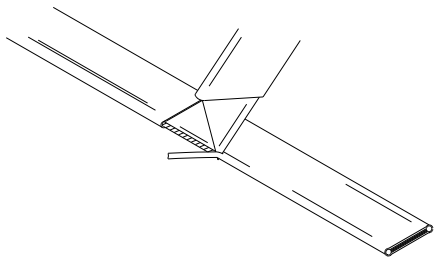
(See sheet 6 of 8 for an alternate method of SCS products.)



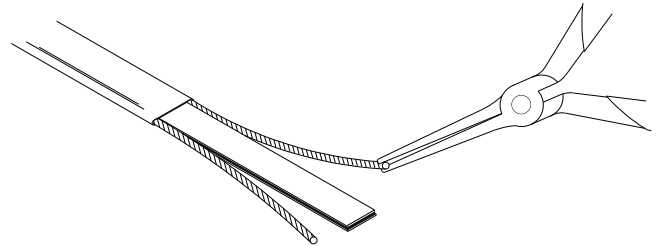
- 1 Lightly cut around heater outer jacket 102mm (4") from the end. Bend cable to break outer jacket.
- 2 Lightly cut the outer jacket up the center between the first cut mark & the cable end. Bend cable to break outer jacket.



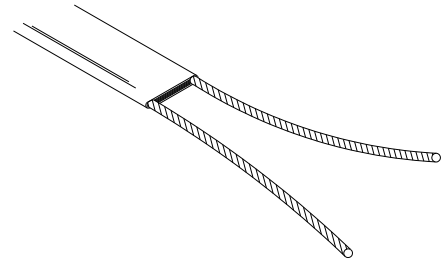
- 3 Remove the jacket from the heater cable.



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



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



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

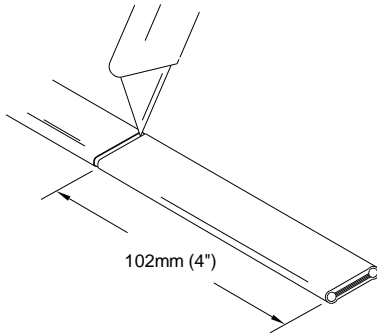
⚠ WARNING:
DO NOT CUT BUS WIRES.

SERGE BARIL PST-TJ TEE SPLICE CONNECTION KIT

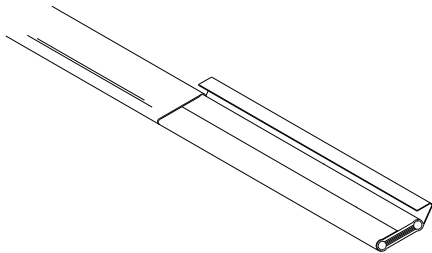
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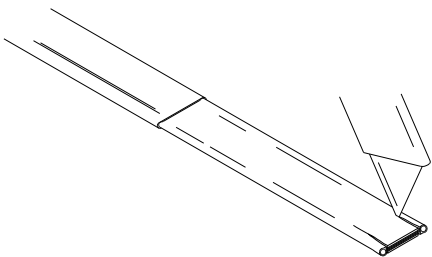
SCS PRODUCTS ALTERNATE METHOD



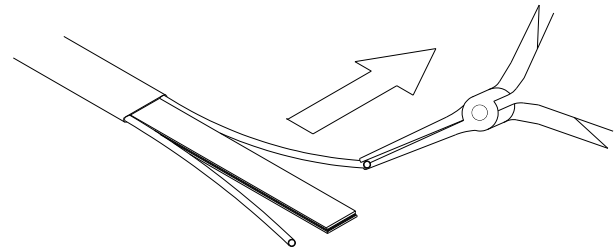
- 1 Lightly cut around heater outer jacket 102mm (4") from the end. Bend cable to break outer jacket.
- 2 Lightly cut the outer jacket up the center between the first cut mark & the cable end. Bend cable to break outer jacket.



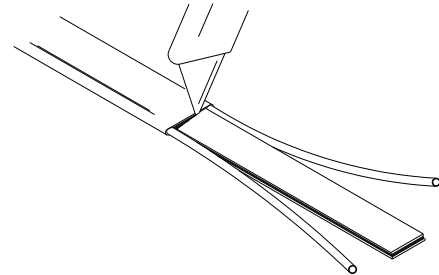
- 3 Remove the jacket from the heater cable.



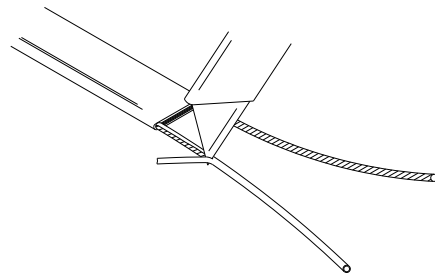
- 4 Make a cut inside each bus wire.



- 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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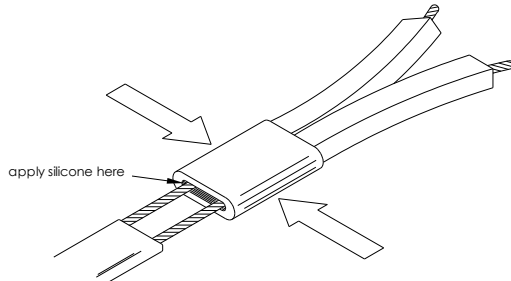
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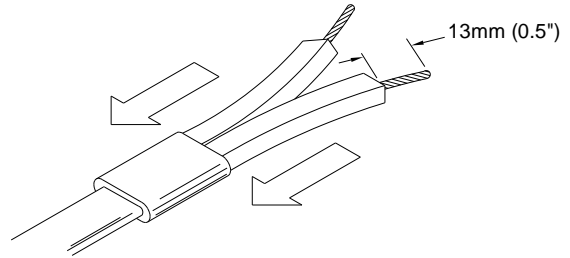
POWER TERMINATION

⚠️ 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.

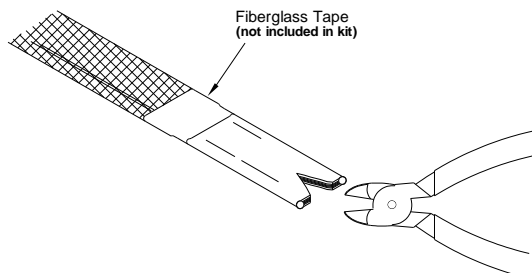


- 1 Insert bus wires into power termination.
- 2 Squeeze power termination opening and fill with silicone.



- 3 Push power termination to overlap jacket.
- 4 At this point, if you're installing the end seal, see the "End Seal" section below. Otherwise, proceed to "Power Connection", sheet 8 of 8.

END SEAL

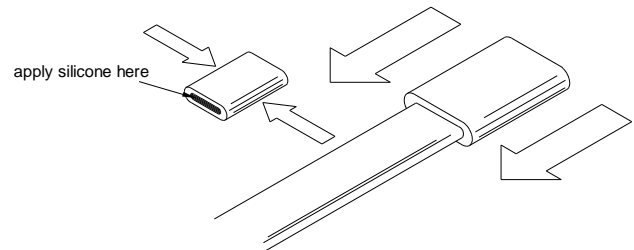


- 1 **Braided Products:**
Cut braid back 25mm (1") & tape in place with fiberglass tape (not included in kit).

Overjacket Products:

Remove 13mm (0.5") of overjacket exposing the braid, then remove the 13mm (0.5") of exposed braid.

- 2 Make a 10mm (0.4") cut at the end of the heater cable.



- 3 Squeeze end seal and fill with silicone.
- 4 Push end seal over the heater cable.

Overjacket Products:

End seal should overlap the overjacket.

- 5 The silicone will set up in about 30 minutes with a complete cure after 24 hours.
- 6 Proceed to "Power Connection", sheet 8 of 8.

⚠️ WARNINGS:

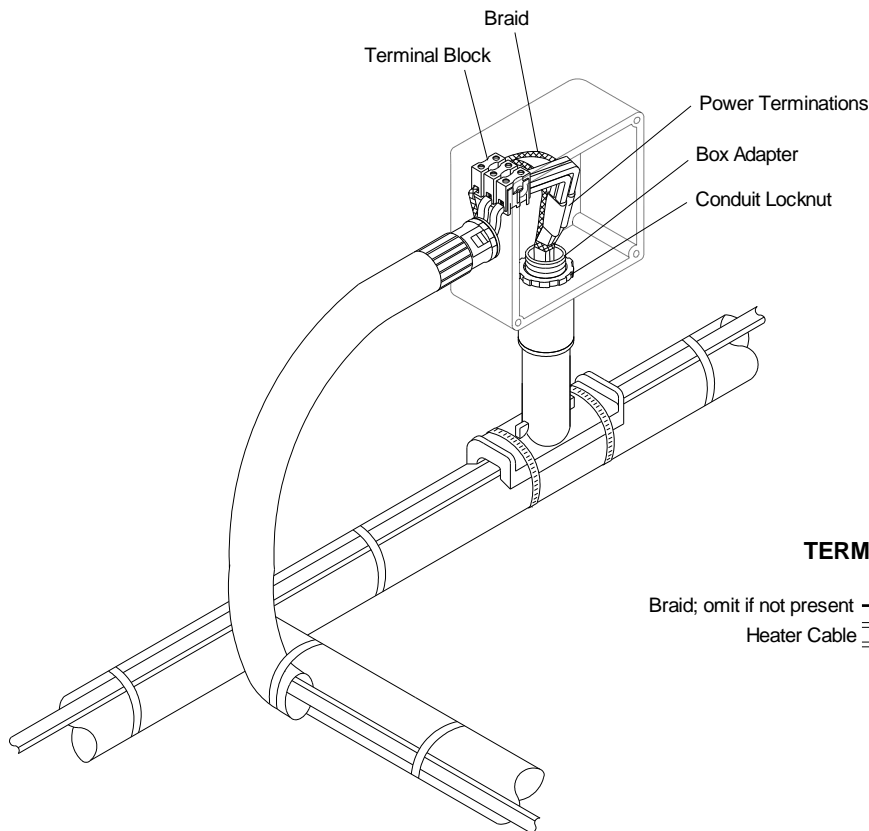
- Do not megger or hi-pot until silicone is completely cured.
- Braid must be kept away from, bus wires or shorting will occur.



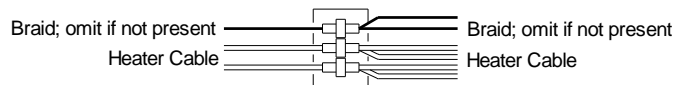
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TERMINAL BLOCK CONNECTIONS



POWER CONNECTION

Note: This detail shows internal grounding of braid.

- ❶ Place gasket on the box adapter.
- ❷ Position the junction box on the box adapter and secure it with the conduit locknut.
- ❸ Place gasket on the flex tubing assembly and connect to junction box using the grommet retaining cap. **(Braid if present, should be separated from the heater cable in a pigtail as it leaves the sealing grommet entering the enclosure.)**
- ❹ Connect bus & power wiring to terminal block.
- ❺ Ground Connection:
External Ground Connected Heaters:
Connect ground braid from all heater cables using the uninsulated splice connector.
See diagram on sheet 1 of 8.

Internal Ground Connected Heaters:

Connect ground braid from all heater cables to terminal block. *See diagram above.*

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

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Sheet 8 of 8