

SERGE BARIL PST-PJ

STANDARD POWER CONNECTION KIT FOR ORDINARY AND DIVISION 2 HAZARDOUS LOCATIONS

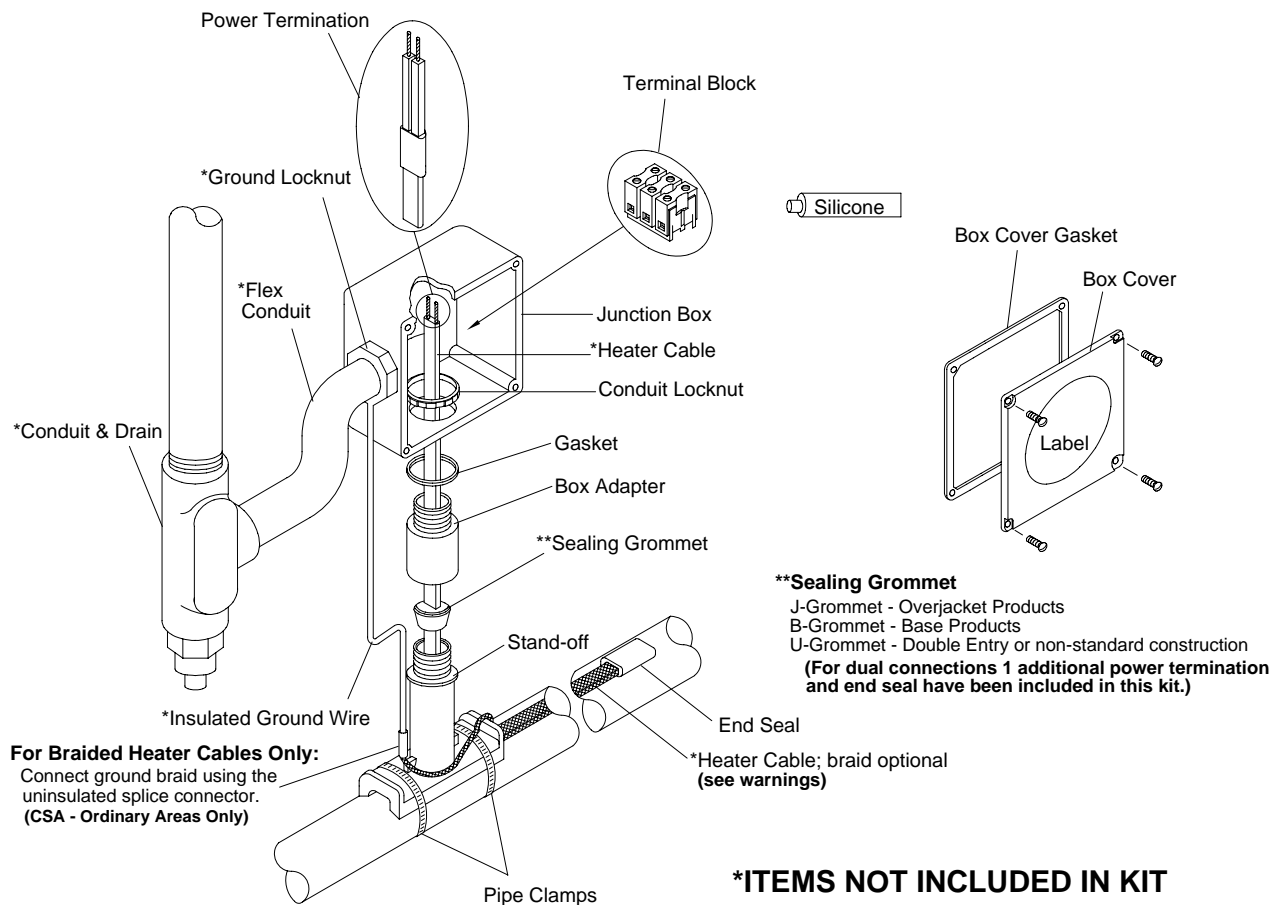
INSTALLATION INSTRUCTIONS

DESCRIPTION

The PST-PJ Standard Power 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	1 Power Termination
1 Box Cover Gasket	1 Box Adapter
1 Box Cover	1 Gasket
1 Label	1 Uninsulated Splice Connector
1 Terminal Block	1 End Seal
1 Conduit Locknut	2 Pipe Clamps
1 Sealing Grommet	1 Tube of Silicone
1 Stand-off	



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.
- 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 the junction box, electrical connections should be moisture proofed by use of a coating or sealant.



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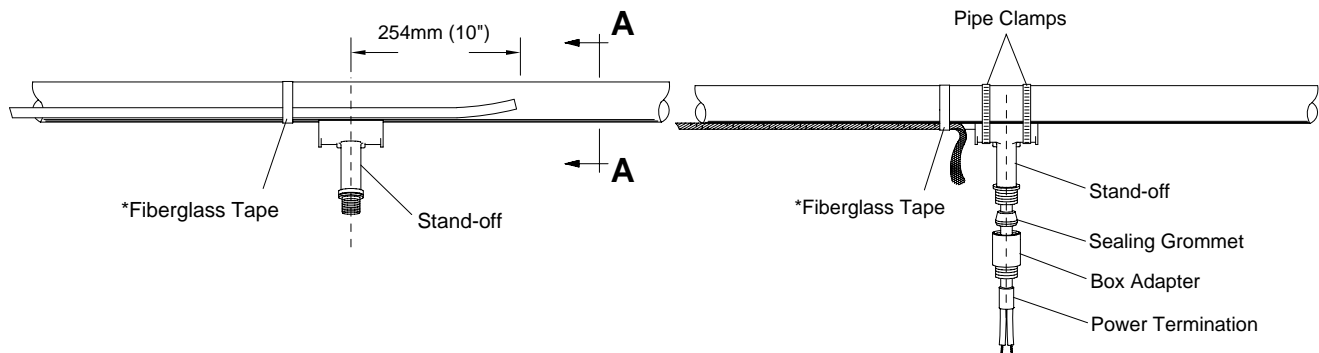
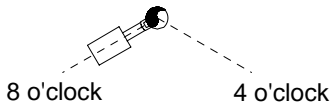
STANDARD POWER CONNECTION KIT FOR ORDINARY AND DIVISION 2 HAZARDOUS LOCATIONS

INSTALLATION INSTRUCTIONS

STAND-OFF POSITIONING

Section View A A

(recommend installing at the
4 or 8 o'clock positions.)



WARNING:

Do not place pipe clamps
over the heater cable.

*ITEMS NOT INCLUDED IN KIT

- 1 Mark pipe where stand-off will be mounted.
- 2 **For 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.

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

Proceed to step 3 below.

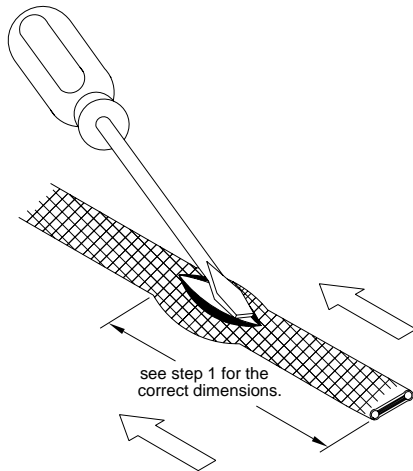
- 3 Push heater cable through the bottom opening of stand-off.
- 4 Place stand-off on the pipe and fasten with pipe clamps.
- 5 Slide the sealing grommet over the heater cable and position inside stand-off opening.
- 6 Apply silicone around the heater cable on top of the sealing grommet and fill any voids in sealing grommet.
- 7 Slide the box adapter over the heater cable and tighten securely to stand-off.
- 8 Prepare heater cable 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 cable, see sheet 7 of 8.

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INSTALLATION INSTRUCTIONS

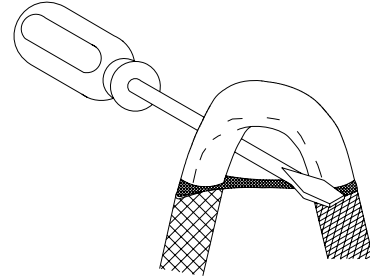
BRAIDED PRODUCTS



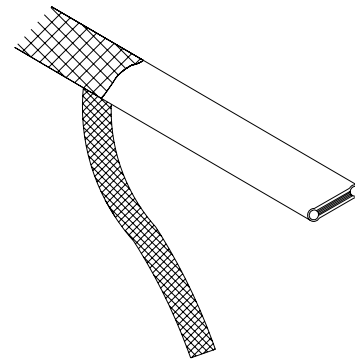
- ❶ **For External Braid Connection:**
Move braid back 305mm (12") to create a bulge.

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

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



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



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

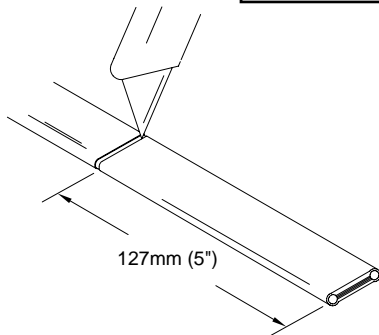
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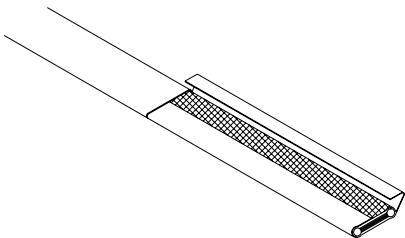
OVERJACKET PRODUCTS

⚠ WARNING:
DO NOT CUT BRAID

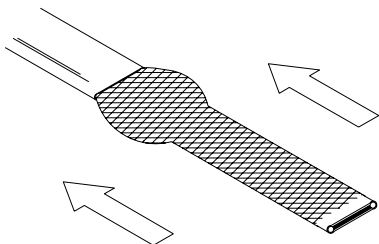


- 1 Lightly cut around heater overjacket 127mm (5") from the end. Bend cable to break the overjacket.

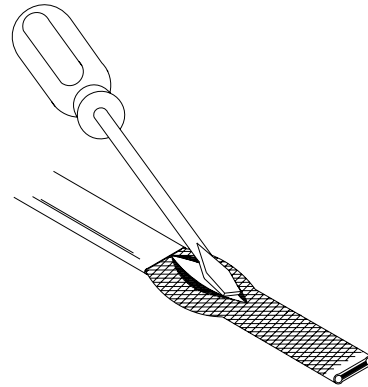
- 2 Lightly cut overjacket up the center between first cut mark and the cable end. Bend cable to break the overjacket.



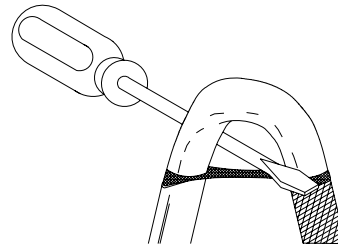
- 3 Remove overjacket from heater cable.



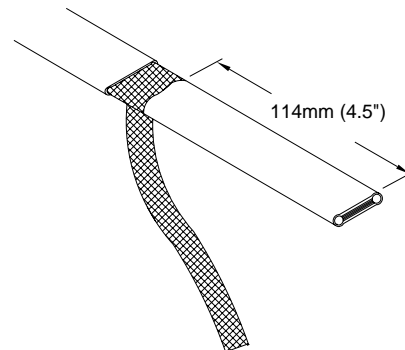
- 4 Move braid back toward the overjacket, creating a bulge.



- 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.

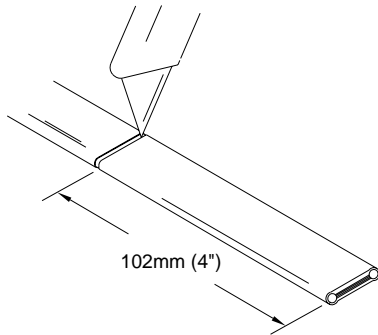
- 8 Proceed to "FPS, SCS & CCA Products", sheet 5 of 8.

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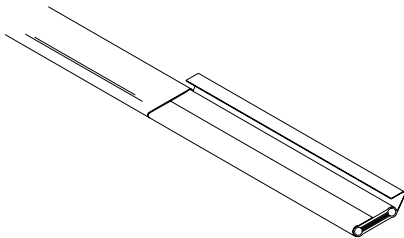
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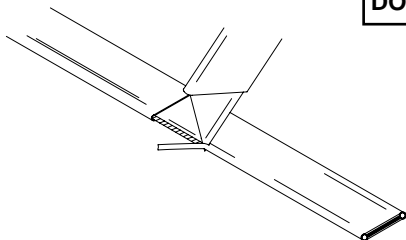
FOR ALL SERGE BARIL FPS, SCS & CCA PRODUCTS
(See sheet 6 of 8 for an alternate method of SCS products.)



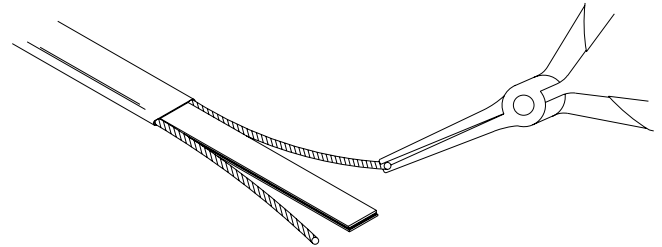
- 1 Lightly cut around heater outer jacket 102mm (4") from the end. Bend cable to break outer jacket.
- 2 Lightly cut the outer jacket up the center between the first cut mark & the cable end. Bend cable to break outer jacket.



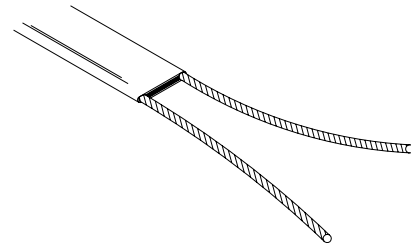
- 3 Remove the jacket from the heater cable.



- 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.

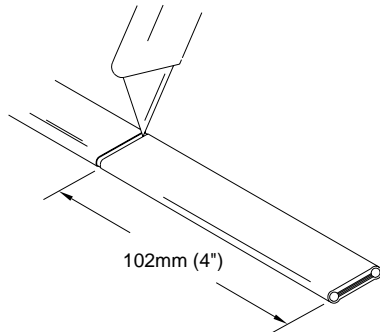


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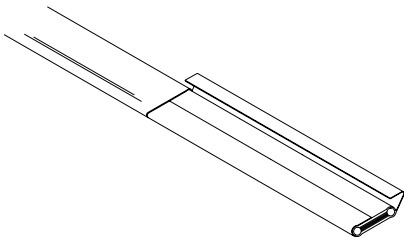
INSTALLATION INSTRUCTIONS

SCS PRODUCTS ALTERNATE METHOD

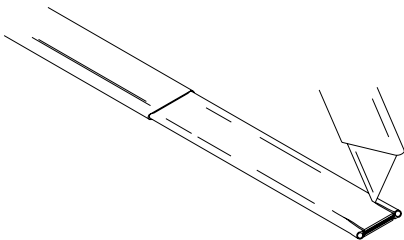


- 1 Lightly cut around heater outer jacket 102mm (4") from the end. Bend cable to break outer jacket.

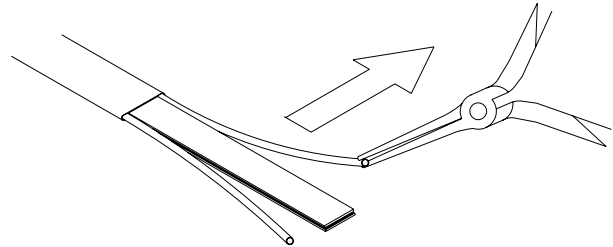
- 2 Lightly cut the outer jacket up the center between the first cut mark & the cable end. Bend cable to break outer jacket.



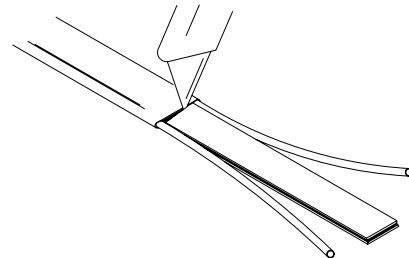
- 3 Remove the jacket from the heater cable.



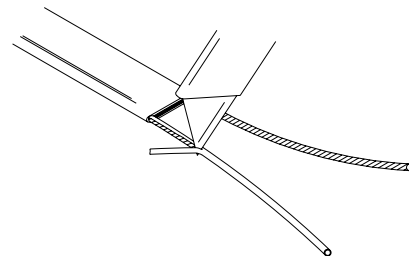
- 4 Make a cut inside each bus wire.



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



- 6 Remove the 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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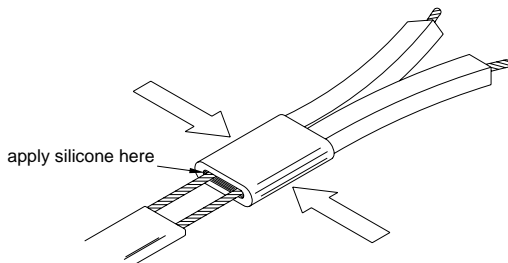
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INSTALLATION INSTRUCTIONS

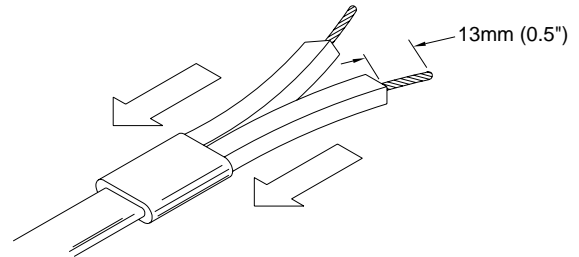
POWER TERMINATION

WARNING:

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

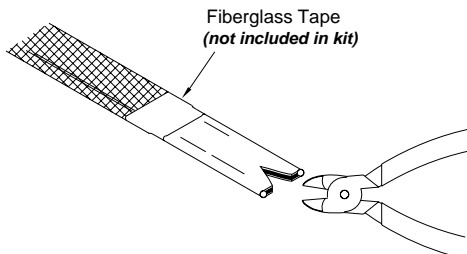


- 1 Insert bus wires into power termination.
- 2 Squeeze power termination opening and fill with silicone.



- 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

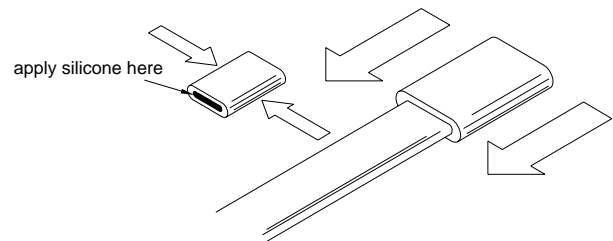


- 1 **Braided Products:**
Cut braid back 25mm (1") & tape in place with fiberglass tape (not included in kit).

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

Overjacket Products:

The 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.

WARNING:

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

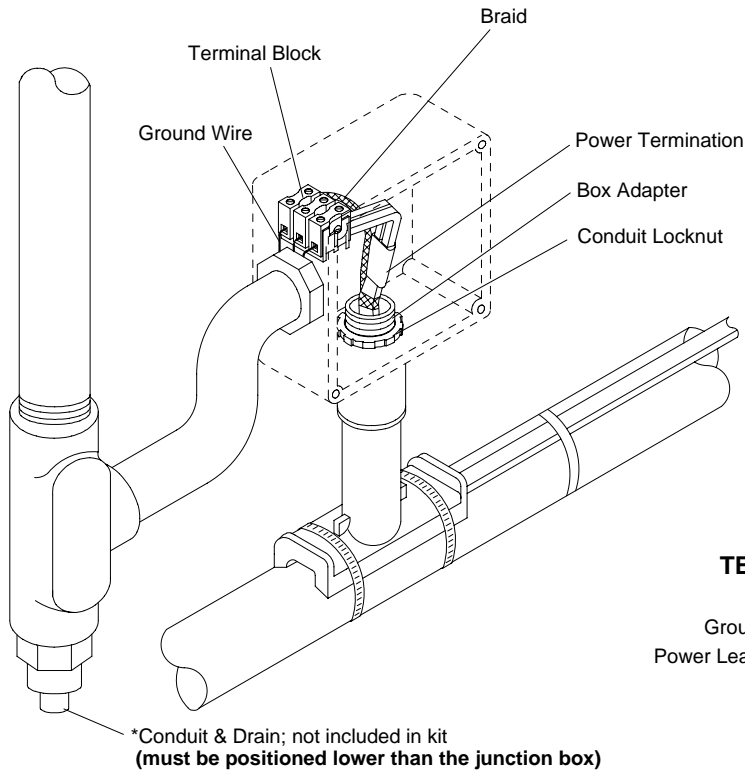


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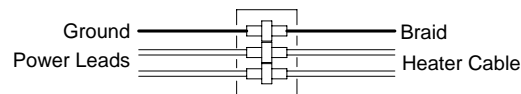
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INSTALLATION INSTRUCTIONS

POWER CONNECTION



TERMINAL BLOCK CONNECTION



Note: This detail shows internal grounding of braid.

- 1 Place gasket on box adapter.
- 2 Position junction box on box adapter and secure it with the conduit locknut.
- 3 Connect bus & power wires to terminal block.
- 4 Ground Connection:
For External Ground Connected Heaters:
Connect ground braid to the ground wire using the uninsulated splice connector. *See diagram on sheet 1 of 8.*

For Internal Ground Connected Heaters:

- Connect ground wire to the terminal block. *See diagram above.*
- Connect braid to the terminal block. *See diagram above.*

- 5 **For Overjacket BT or BA Products Only:**
Apply silicone at point braid leaves the overjacket.
- 6 Push all wires, cable and terminal block inside junction box.
- 7 Place the box cover and box cover gasket onto the junction box.
- 8 Fill-in the voltage, catalog number & wattage blocks on the label with the actual field installed data.

SERGE BARIL & ASS. INC.

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Sheet 8 of 8
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