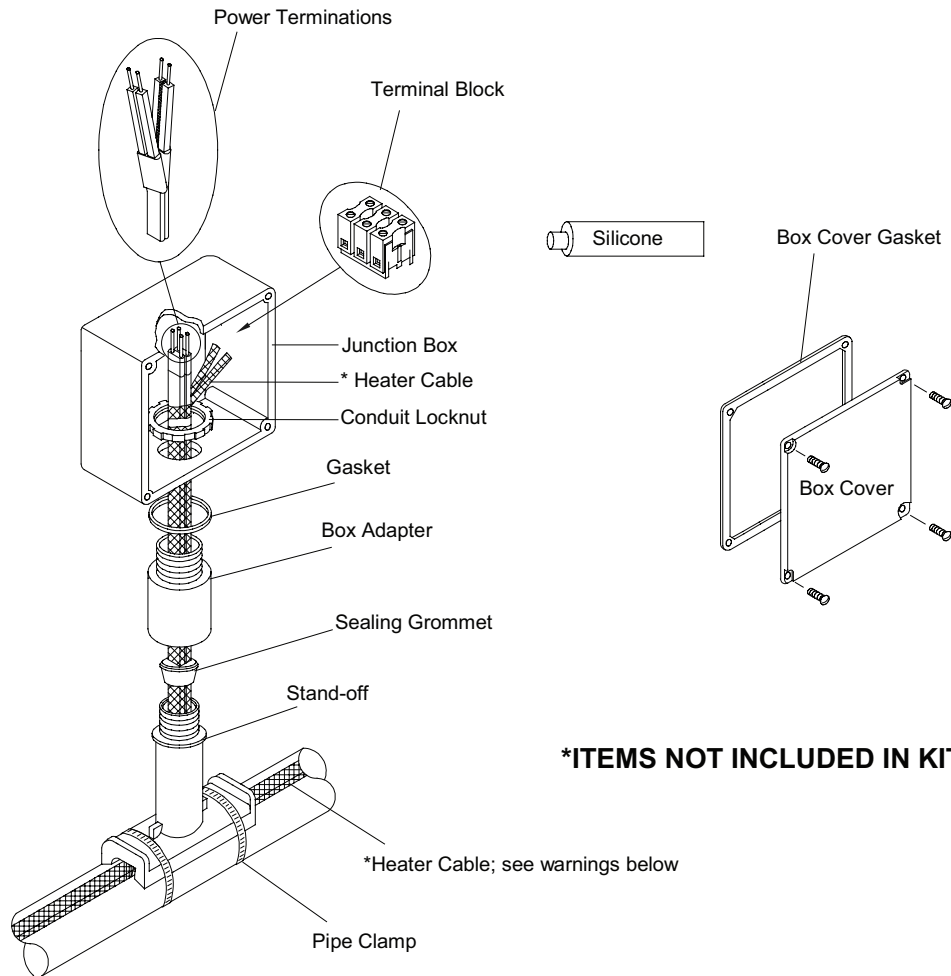# TSRS TSRS Splice Kit Installation Instructions

Description

The TSRS Splice Connection Kit is for use with all versions of EasyHeat's self regulating heater cables smaller than 0.44" (11mm) in diameter. It is also compatible with any other manufacturer's heating cables that fit the size specification. This kit contains materials to splice two heating cables together.

Kit Contents

1 Junction Box
1 Terminal Block
1 Conduit locknut
1 Sealing Grommet
1 Stand-off
1 Uninsulated Splice Connector

2 Warning Labels
2 Power Terminations
1 Box Adapter
1 Gasket
1 Tube of Silicone
2 Pipe Clamps

Power Terminations

Terminal Block

Silicone

Box Cover Gasket

Junction Box
* Heater Cable
Conduit Locknut

Gasket

Box Adapter

Box Cover

Sealing Grommet

Stand-off

*ITEMS NOT INCLUDED IN KIT

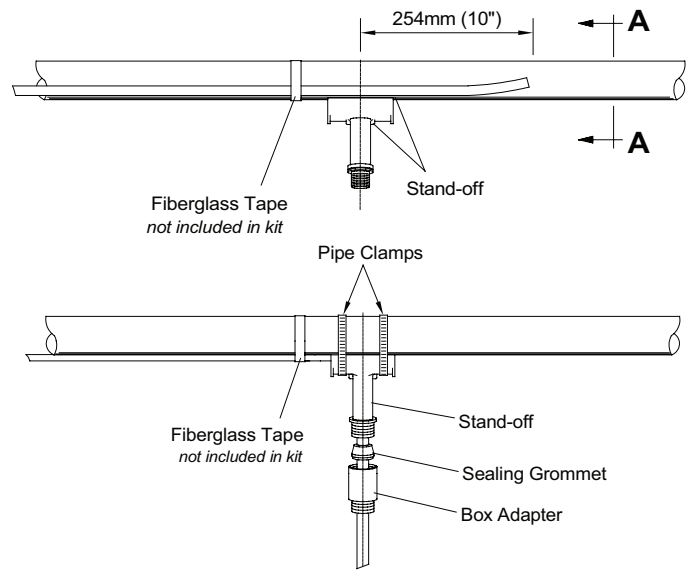*Heater Cable; see warnings below

Pipe Clamp

⚠ WARNINGS!

• Article 427 of the National Electrical Code requires that all heaters shall have grounded metal coverings and branch circuit may require 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 suitable means!

• Minimum installation temperature -40°C (-40°F)

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Cable Termination

1. Cut heater cables to lengths shown.
2. Push the two 10" (254mm) length heater cables through the bottom opening of stand-off.
3. Place stand-off on pipe and fasten with pipe clamps.
4. Slide the sealing grommet beveled end first, over the two heater cables and position inside stand-off opening.
5. Apply silicone around the heater cables at top of sealing grommet and fill any voids in sealing grommet.
6. Slide the box adapter over the two heater cables and tighten securely to stand-off.
7. Prepare heater cables for power termination according to cable stripping procedures.
8. Complete the electrical circuit according to the wiring connection procedures.

⚠ WARNING!

• Do not place pipe clamps over the heater cable

254mm (10")
A
A
Fiberglass Tape
not included in kit
Stand-off

Pipe Clamps
Fiberglass Tape
not included in kit
Stand-off
Sealing Grommet
Box Adapter

Cable Stripping Procedure

FOR CABLES WITHOUT OVERJACKET (BRAID ONLY), PROCEED DIRECTLY TO STEP 4.
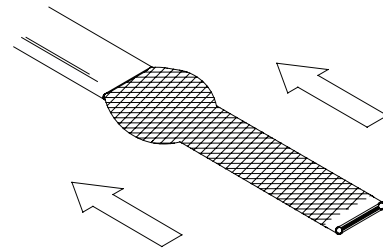
1. Lightly cut around heater overjacket 5" (127mm) from the end. Bend cable to break overjacket.
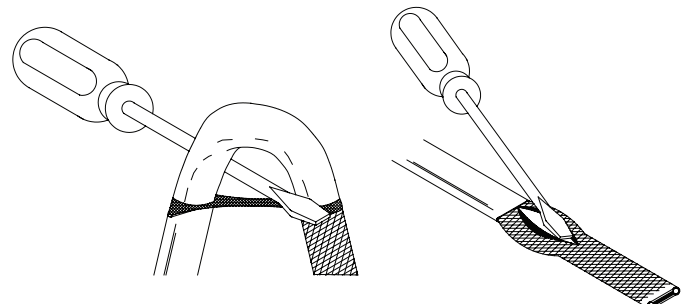
127mm (5")
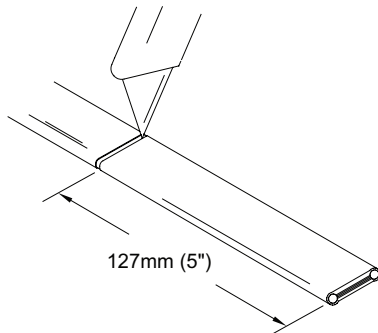
2. Lightly cut overjacket up the center between first cut mark and the cable end. Bend cable to break overjacket.

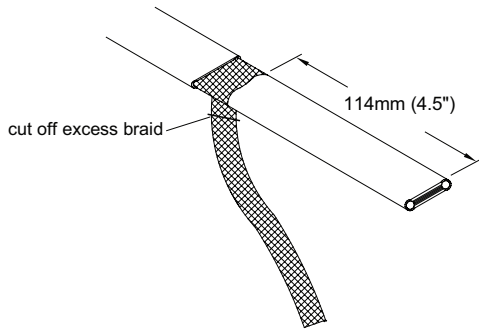3. Remove overjacket from the heater cable.
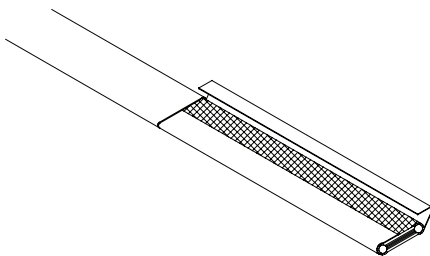
4. Move braid back toward the overjacket, creating a bulge. (For cables without an overjacket, apply a ring of electrical tape 5" from the end of the cable. Then move braid back towards the tape creating a bulge).
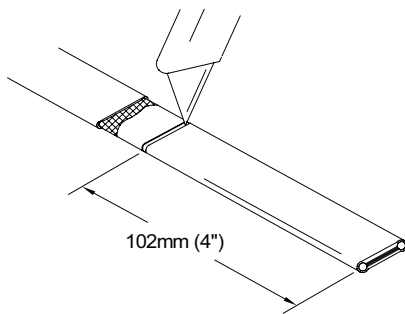
5. At bulge, separate the braid to make an opening.

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

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7. Pull the braid tight.
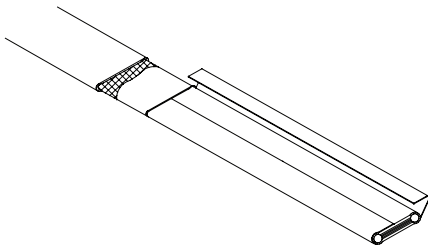
114mm (4.5")

cut off excess braid

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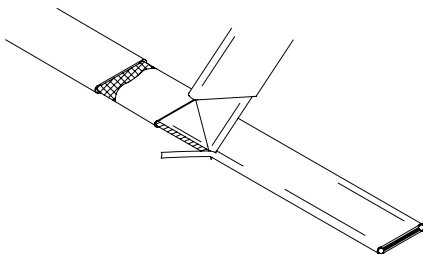
102mm (4")

9. Lightly cut the outer jacket up the center between the first cut mark and the cable end. Bend cable to break outer jacket.
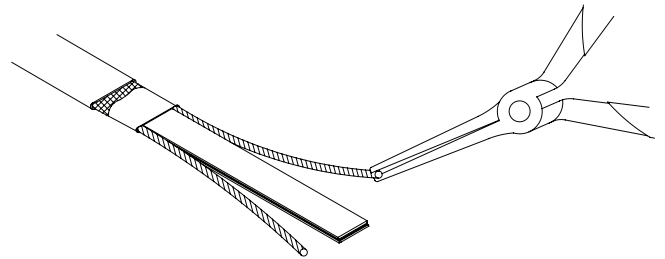
10. Remove the jacket from the heater cable.

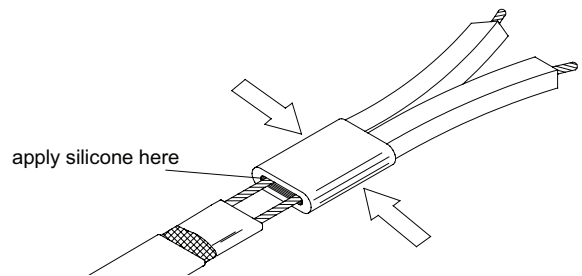11. Shave the core material from the outside of each bus wire.

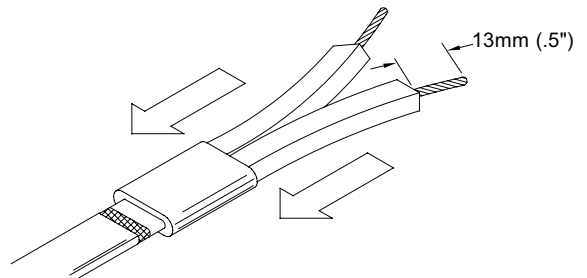12. Starting at the end, pull each bus wire away from the core material.

13. Remove exposed core material.

14. Insert bus wires into power termination.

apply silicone here

15. Squeeze power termination opening and fill with silicone.

16. Push power termination opening and fill with silicone.

13mm (.5")

⚠ WARNING!

• Do not cut or nick braid
• Do not cut or nick wires
• 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.

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Wiring Connection

1. Place gasket onto the box adapter.
2. Position junction box onto the box adapter and secure it with the conduit locknut.
3. Connect the bus wires and ground braid from both the heater cables to the terminal block, See diagram below.
4. Apply silicone at point braid leaves the overjacket.
5. Push all wires, cables and terminal block inside junction box.
6. Place the box cover and gasket onto the junction box.

Braid

Terminal Block

Power Terminations (2)

Terminal Block Connection

Ground Braid ———— Ground Braid

Heater Cable ———— Heater Cable

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