

# TSRL Circuit Light Kit Installation Instructions

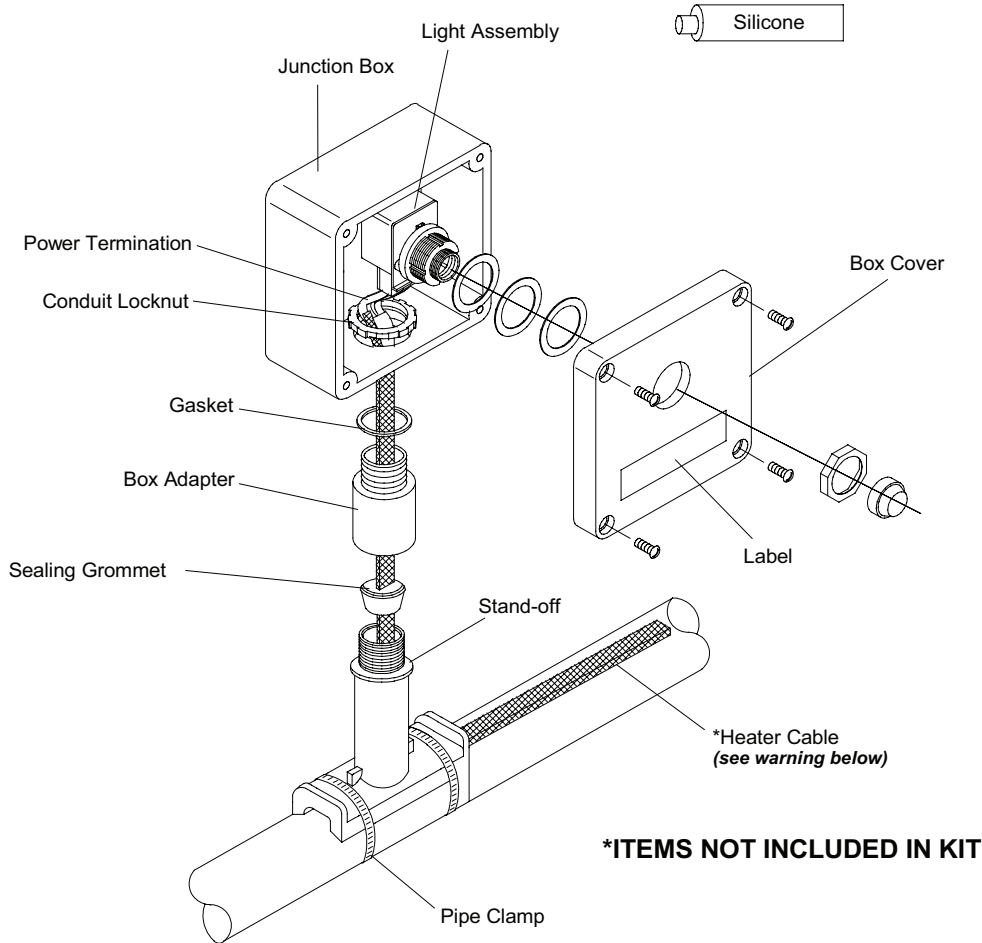
## Description

The TSRL Series End-of-Circuit Light Kit is for use with all versions of EasyHeat's self regulating heater cables for pipe tracing applications. It is also compatible with any other heater cables smaller than (.44") 11mm diameter.

**Note:** This kit provides termination material to connect power to the end of line light assembly through a pipe stand off for pipes up to 12" in diameter.

## Kit Contents

- |                   |                     |
|-------------------|---------------------|
| 1 Junction Box    | 1 Power Termination |
| 1 Conduit Locknut | 1 Box adapter       |
| 1 Sealing Grommet | 1 Gasket            |
| 1 Stand-off       | 1 Tube of Silicone  |
| 2 Warning Labels  | 2 Pipe Clamps       |
| 1 Light Assembly  |                     |



VOLTAGE	CATALOG NUMBER
120V	TSRL112
208V	TSRL812
240V	TSRL212
277V	TSRL712

## ⚠ 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)

## Cable Installation

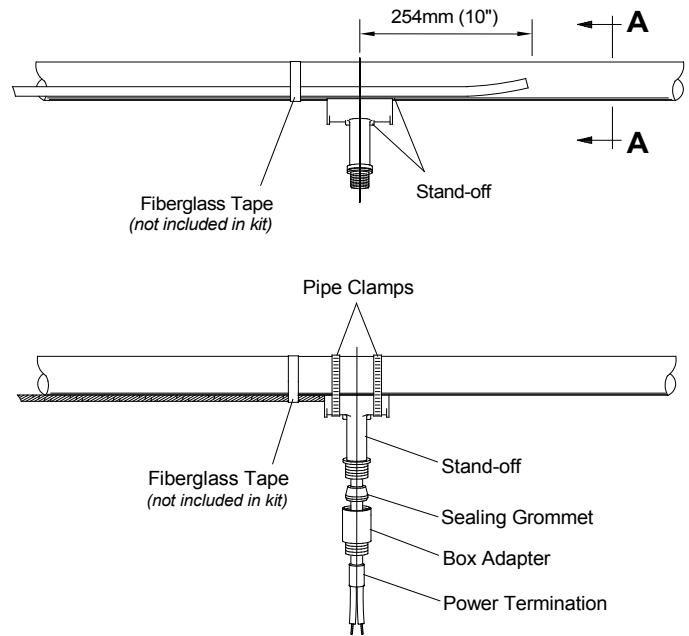
Install cable on pipe in either straight or spiral method according to pipe heat requirements. Secure cable every 24" using fiber glass tape or equivalent.

## Cable Termination

1. Mark pipe where stand-off will be mounted.
2. Push heater cables through the bottom opening of stand-off.
3. Place stand-off on the pipe in line with cable and fasten with pipe clamps.
4. Slide the sealing grommet, beveled end first, over the heater cable and position inside stand-off opening.
5. Apply silicon around the heater cable sufficient to fill all voids in sealing grommet.
6. Slide the box adapter over heater cable and tighten securely to stand-off.
7. Prepare heater cable for power termination according to Cable-Stripping procedures.
8. Connect light per electrical connection procedures.

### **⚠ WARNING!**

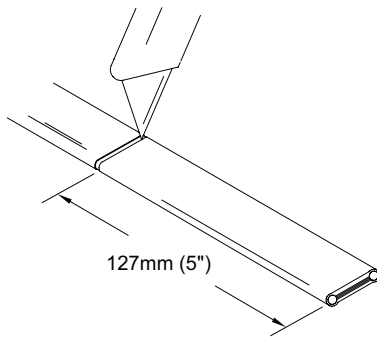
- Do not place pipe clamps over the heater cable



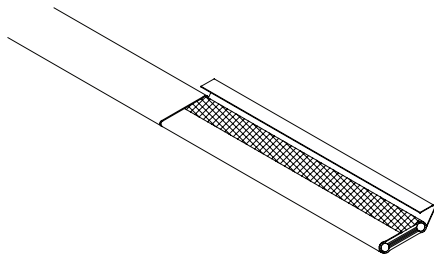
## Cable Stripping Procedure

**FOR CABLES WITHOUT OVERJACKET (BRAID ONLY), PROCEED DIRECTLY TO STEP 4.**

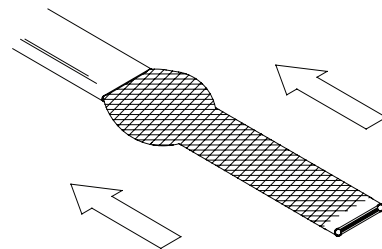
1. Lightly cut around heater overjacket 5" (127mm) from the end. Bend cable to break overjacket.



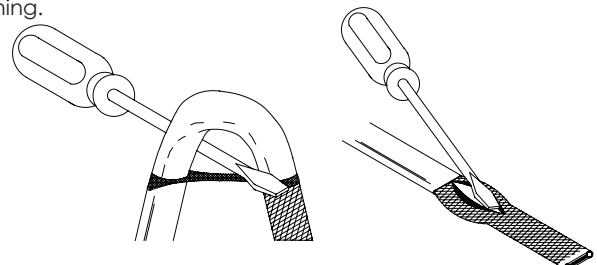
2. Lightly cut overjacket up the center between first cut mark and the cable end. Bend cable to break overjacket.



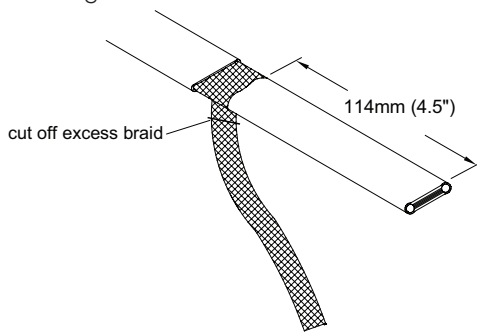
3. Remove overjacket from the heater cable.
4. Move braid back toward the overjacket, creating a bulge. (For cables without an overjacket, apply a ring of electrical tape 5" from the end of the cable. Then move braid back towards the tape creating a bulge).



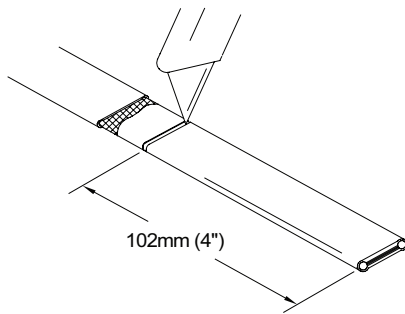
5. At bulge, separate the braid to make an opening.
6. While bending the heater cable, work it through the braid opening.



7. Pull the braid tight.

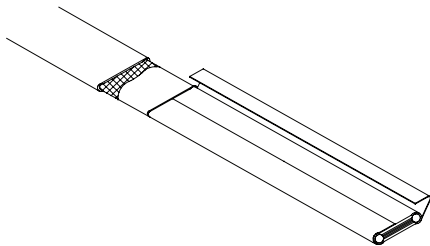


8. Lightly cut around heater jacket 4" (102mm) from the end. Bend cable to break outer jacket.

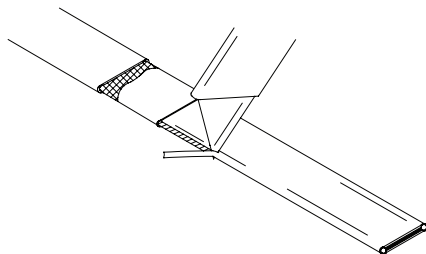


9. Lightly cut the outer jacket up the center between the first cut mark and the cable end. Bend cable to break outer jacket.

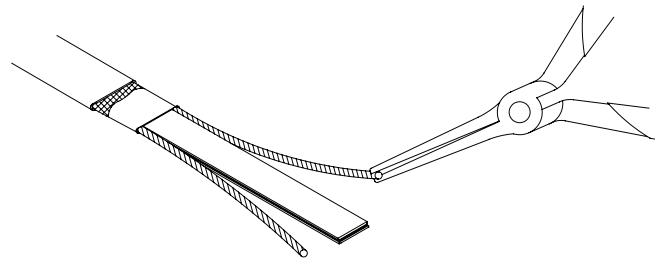
10. Remove the jacket from the heater cable.



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

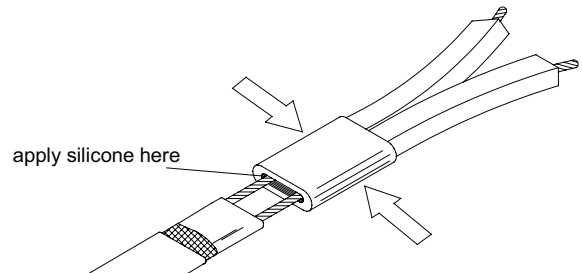


12. Starting at the end, pull each bus wire away from the core material.



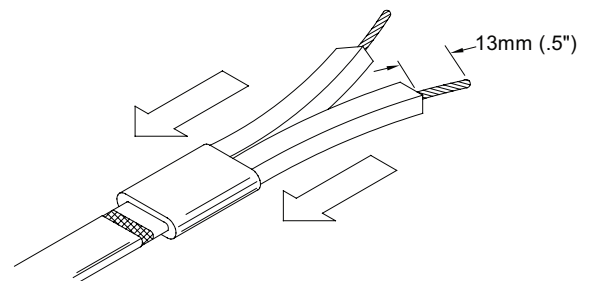
13. Remove exposed core material.

14. Insert bus wires into power termination.



15. Squeeze power termination opening and fill with silicone.

16. Push power termination opening and fill with silicone.



**⚠ 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.

## Electrical Connection

1. Place gasket onto the box adapter.
2. Position junction box onto the box adapter and secure it with the conduit locknut.
3. Place the two black compensating gaskets onto the light assembly base.
4. Insert power wires into screw connection of light assembly. No connection is necessary with ground braid.
5. Place the box cover onto the light assembly then install the clear trim washer and secure it with the ring nut.
6. Secure the box cover onto junction box.

