

# HEATWAVE<sup>®</sup> REPAIR KIT INSTRUCTIONS



**WARNING:** *These instructions are intended for the cable being installed by Heatizon Systems. Please follow instructions carefully and call 888-239-1232 for any questions.*

## Kit Components:

- 1 x 7.87” heat shrink tube with epoxy. Size 12/3 (diameter in inches not counting epoxy, before / after shrink) for cables with diameter  $\geq 0.12$ ”
- 1 x 11.811” size 6/2 heat shrink tube with epoxy, for cables with diameter  $< 0.12$ ”
- 4 x 1.18” size 4/1 heat shrink tubes with epoxy for insulating the butt splices, 5 x parallel butt splices for splicing the resistive conductor with the stranded copper wire.
- 2 x series butt splices, for splicing the shielding jacket, 4 x 1.18” green – yellow butt splices, for insulating the grounding shield
- 2 x 7.87” 1.5mm<sup>2</sup> copper connecting conductor.

## Tools:

- Wire stripper.
- Crimper for connectors
- Heat gun or propane/butane torch

## Basics of a Successful Repair:

- When stripping the cable jacket from the conductor, take care not to damage the integrity of the protective screen or the insulation for the resistive conductor.
- When stripping the internal insulation from the resistive conductor or the cold lead, take care not to cut into any conductor.
- Strip each cable in such a way as to keep the internal connections for overlapping.
- Before stripping the metal butt splices, slide the heat shrink tubes over the conductor (cable).
- Never crimp one resistive conductor onto another, rather always use a transition copper wire (always add two connectors, in series).
- Crimp the metal butt splices with pliers intended for this purpose.
- After shrinking the internal heat shrink tubes, wait until the material cools down and only then shrink the external heat shrink tubes.
- Heat the heat shrink at a temperature of 248°-392°F. or 120 to 200°C. Never use higher temperatures (Yellow flame – propane – butane or a heat gun is recommended).
- Heat the heat shrink from the center of the connection to the edge, so that the excessive epoxy can always flow out at the edges of the connection.
- The jacketing heat shrink must overlap the cable jacket on both sides of the connector for a length of at least 3/8”.



## Repair Procedures:

- Clean the cable thoroughly. Expose the heating element (cut away the substrate above) at a sufficient length (approx. 12 inches) of the damaged cable, so there will be room for making two connections. (fig. 1)
- Strip the wire at the ends of the cables. (fig. 1)
- Slide on the heat shrink tubes. (fig. 2)
- Insert cable into splice(s). (fig. 3)
- Crimp the butt splice(s). (fig. 4)
- Place a 4/1 heat shrink tube over the connection. (fig.5)
- Shrink the heat shrink tubes equally. (fig.6)
- The second connection can be completed after the first connection has cooled down using the same procedure. (fig. 5 & 6)
- Slide on the outer heat shrink tube and shrink it. (fig. 7)

Single Conductor

Dual Conductor

