

INSTALLATION INSTRUCTIONS FOR HT-525 HEATER OPTION

Parts list for HT-525 Heating Option

1. 2ea. Orange Heating Panels, one rectangular and one rounded
2. 1ea. Thermostat, w/2ea. 4-40x1/4" screws & #4 lockwashers & nuts
3. 1ea. Thermal Shut-off, (attached to thermostat)
w/ 1ea. 4-40x1/4" screw & #4 lockwasher & nut
4. 1ea. Green Grounding Wire with Ring Lug, w/ 1ea. 4-40x1/2" screw & nut
5. 1ea. Black Hook-up Wire attached to thermostat
6. 1ea. White Mounting Bracket for Wiring Box
7. 1ea. 2 1/2 x 2 1/2" Weatherproof Wiring Box
8. 1ea. Bolt & Nut with hold drilled through bolt for wires
9. 1ea. P-11 Cable Gland
10. 3ea. Wire Nuts
11. 4ea. Lengths of 1/8" heat shrink tubing
12. 4ea. Small cable ties.

Before installing heater, 4 holes will need to be drilled into the can. Before drilling, remove collector funnel, turn can upside-down and, by unscrewing the two outermost screws located besides the larger adjustment holes, release the entire tipping mechanism and remove it from the can. If there is cable attached, it will have to be detached as well.

With can upright, measure and mark for four holes. The first hole will be located 3" from the top of the can and 3" to the right of the side bracket. This hole will be drilled with a 7/16" drill bit. The three remaining holes listed below will be drilled with a #36 drill bit.

For the second hole, measure down 1 1/2" from top of can and 1 1/2" to the left of the side bracket. The remaining two holes will be below this one, forming an imperfect triangle.

For the third hole, measure down 2-5/8" down from top of can and 1-3/16" to the left of the side bracket.

The fourth hole is exactly parallel with the third hole (2-5/8" from top) and will be 2-1/8" to the left of the bracket. These will be the mounting holes for the thermostat, and the holes in the thermostat, center to center, are 15/16" apart. These two holes must be exact in order to fit the thermostat.

Unscrew the 4 plastic screws and remove top of waterproof box. Insert large bolt through hole in waterproof box and hole in white bracket and attach both items to can through largest hole that was drilled to the right of the side bracket. Tighten bolt with nut on the inside of the can.

After the holes are drilled, and box is attached, the heater panels can be installed. The first panel to install is the long rectangular one that goes into the can. The round panel will be installed on the underside of the cone shaped inner collector.

In order to install the heater panel into the TR-525 rain gauge can, follow directions below:

Remove paper backing from rectangular heat panel and carefully curl it into a roll with the wires to the inside of the roll and the sticky side facing out.

Place outer edge of heater panel approximately 1/8" from the left side of the inner side bracket and as close to the bottom of the can as possible.

Carefully smooth the heater panel onto the inner surface of the can, pressing out any bubbles as you go. Thread top white wire from heater panel through nut into box.

Attach thermostat with solder posts and thermal shutoff pointing up. Thread black hook-up wire from thermostat through bolt into box.

Remove 4-40x1/4" screw from center of side bracket and replace with 4-40x1/2" screw. Attach green wire by ring lug and tighten with nut. Thread green wire through bolt into box.

The next step is to attach the round heater panel to the underside of the collector funnel. BEFORE removing backing paper, place the heater panel around the inside cone to fit, so that it is clear exactly where it should be placed when the backing is removed. THE PANEL WILL NOT MOVE ONCE IT IS STUCK ONTO THE COLLECTOR FUNNEL, SO PLACEMENT MUST BE MADE CAREFULLY. When correct placement is evident, remove backing paper and attach panel to funnel.

Slide a piece of shrink tubing over unconnected wire on shut-off, then solder the shut-off wire to the white wire of the funnel heating panel that is nearest the edge. Cover the soldered joint with the shrink tubing and shrink.

Slide a piece of shrink tubing over the unattached white wire coming from the lower heater panel inside the can. Solder this wire to the other white wire coming from the top heater panel on the funnel. Slide the tubing over this solder joint and shrink. Use small cable ties to secure wires so that they do not interfere with tipping mechanism.

The heater is now installed. Replace the tipping mechanism into the can with the tallest portion lined up next to the side bracket. The cable gland may be inserted into whichever hole on the waterproof box will best suit your installation and the wires may be connected by the wire nuts to corresponding cable (not provided) inserted through the cable gland into the box. The White wire is "HOT", Black is "NEUTRAL" and Green is "GROUND".

Re-attach the box top with plastic screws. Installation of the HT-525 Heating Option is now complete.



