Repair Instructions - Water Bath Reset Thermostat

Replacing the reset thermostat on a TWB water bath with an Omron Controller

To suit: TWB Uncirculated Baths from 2019 onwards

Approvals		
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Safety Reminder

All work should be undertaken by a licenced electrician.

These instructions do not purport to address all potential safety issues, if any, associated with the product's use. It is the responsibility of the user of these instructions to establish appropriate safety and health practices and determine the applicability of regulatory limitations before use.
Before attempting any of the following, perform the actions listed below:
• Turn OFF power to the machine.
• Unplug the machine.

Summary

These instructions how to replace a safety thermostat on a water bath.

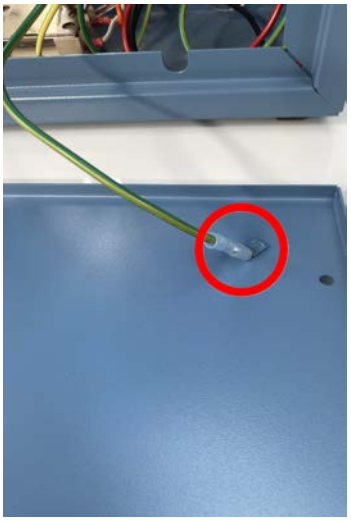
Tools Required	
Screw Driver	Small Flat Head
Screw Driver	Small Philip's Head
Spanner	17mm Open Ended
Spanner	10mm Open Ended

Kit Contents		
Item	Description	Quantity
40920	Manual Reset Thermostat 120C	1
	EGO Gland kit	1

Section 1: Preparation

Turn off the water bath. Unplug the power cord from the water bath and the power point. Allow the bath to cool, empty the water and ensure it is dry.

Remove the screws on the blue side of the electric box.



Remove the side panel and disconnect the earth wire.

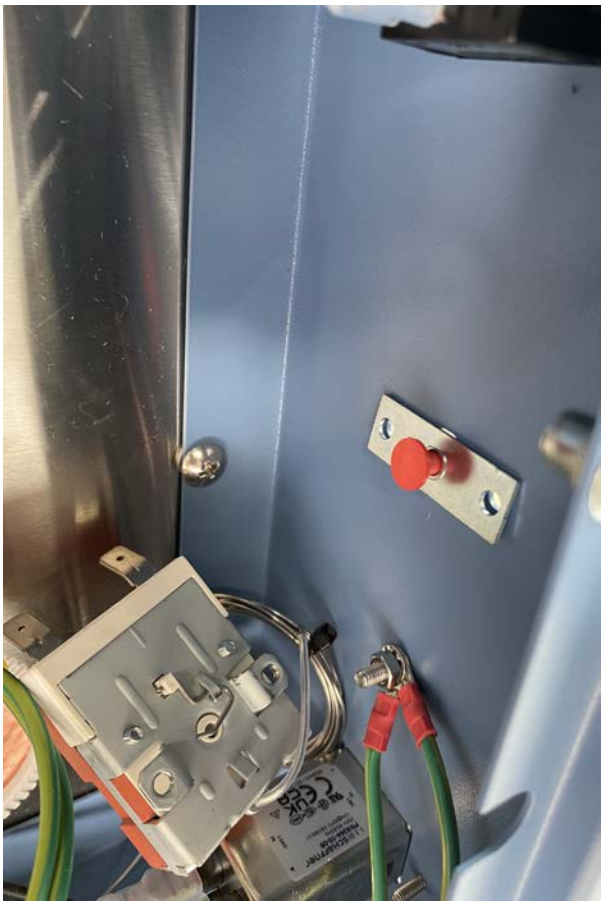
Twist off the retaining clips to remove the thermostat bulb from the heating element, taking care not to damage it.

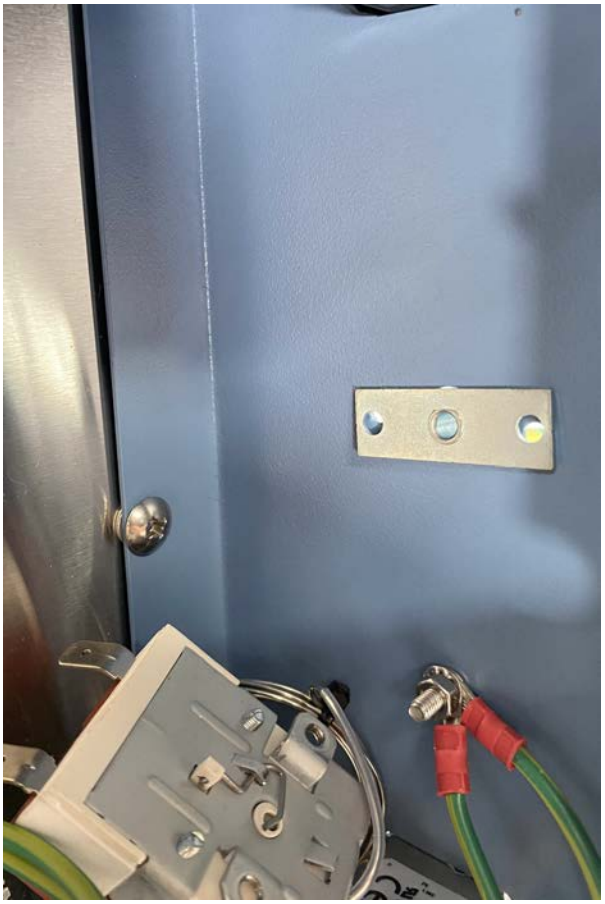
Turn the water bath on its side, unscrew the bottom panel, and disconnect the earth lead to remove it.

Section 2: Thermostat Removal

Locate the thermostat on the right hand side of the electrical box and disconnect the spade clips from the top of the thermostat. Take note of the wiring orientation.

Unscrew the red cap from the thermostat to reveal the red reset button. Unscrew the reset thermostat via the two screws either side of the red reset button.





Remove the red reset button and set it aside until the new reset thermostat is installed.

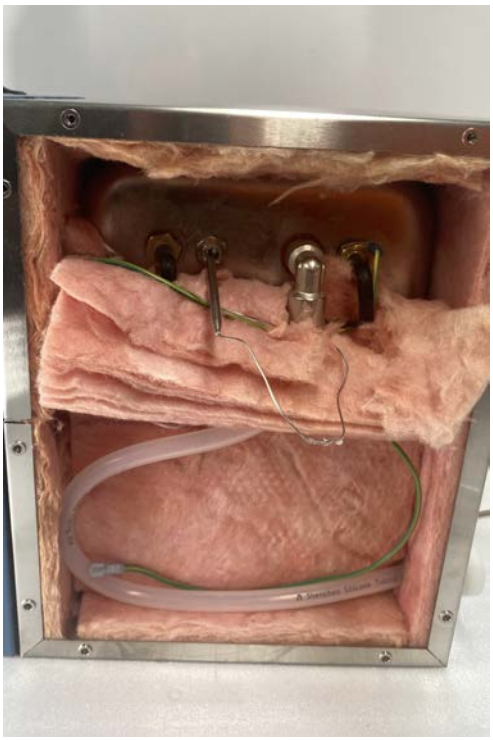
Fold back the insulation to reveal the EGO gland and thermostat capillary.

Note: It is advised to use disposable gloves when handling insulation

The main gland body is an M12 thread with sealing washers and back nut. The split nut fits inside the main gland body. The nut, compression washer and compression disks are all split to allow them to slip over the capillary line on your thermostat after the main gland has been secured. For clarity, the picture on the right is an expanded form of the EGO gland.

Hold the back nut with a 17mm spanner and use a 10mm spanner to unscrew the split nut.

Once the split nut is removed, use a small flat head screw driver to push the split washer from inside the of the bath. This will remove the two split washers and a compression washer. Remove and clean any old silicone from the area.



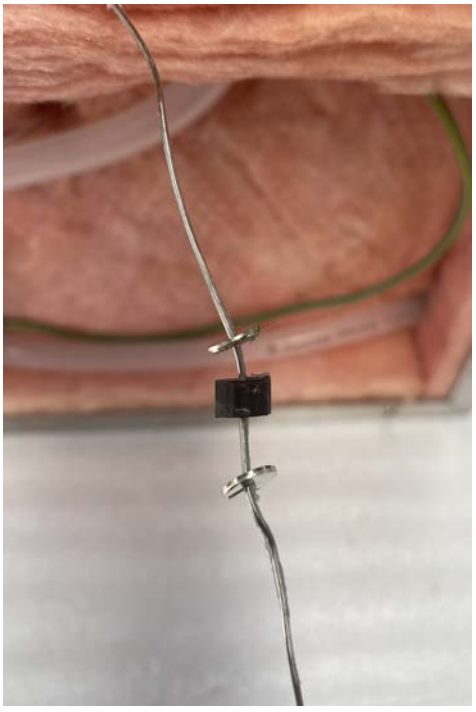
Once the the compression washer and split washer has been removed you can thread the reset sensor through the hole at the bottom of the bath and subsequently through the larger porthole leading from the area under the bath into the electrical box.

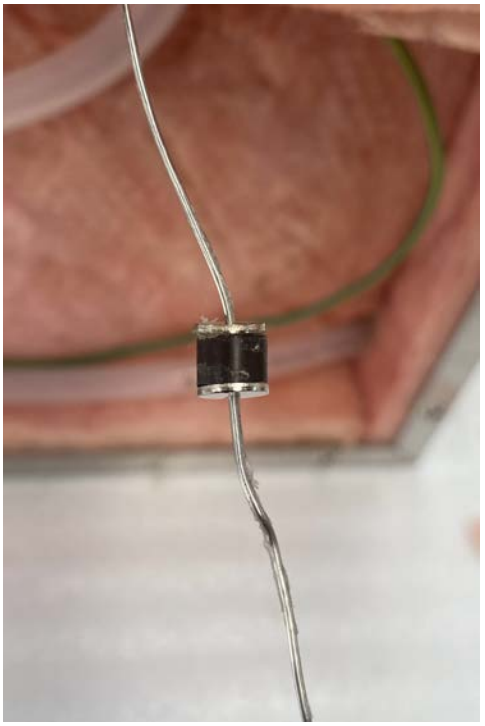
Section 3: Installation of the new Thermostat

Note: Be careful not to damage the thermostat bulb capillary.

Thread the reset thermostat through the port hole on the inside of the electrical box

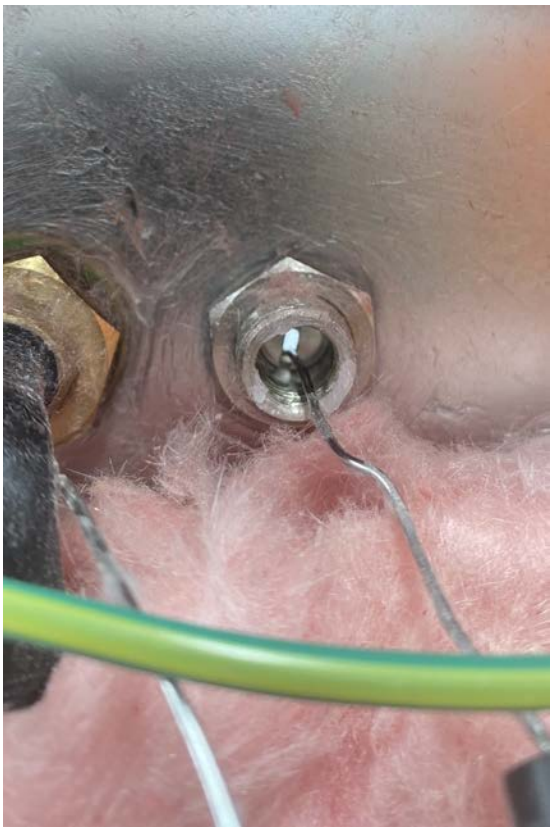
Once through the electrical box, push the thermostat bulb through the EGO gland (Main Gland)



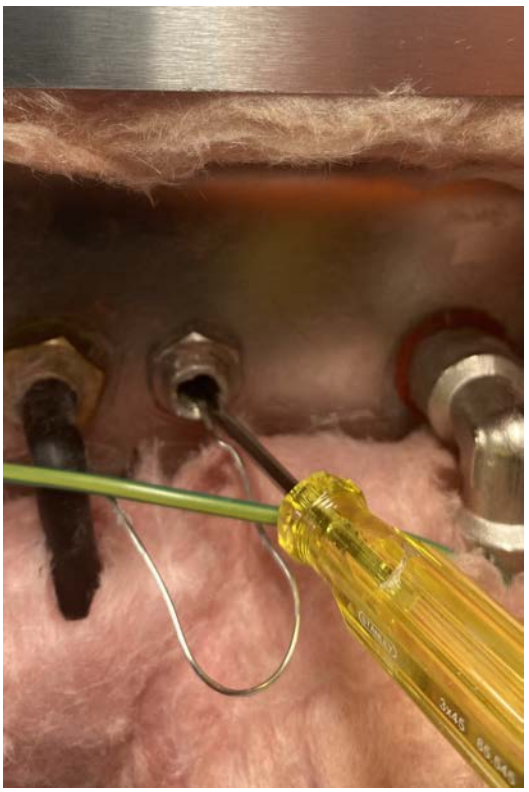


Carefully install the new split washers (x2) and the split compression washers (as shown in the above picture.

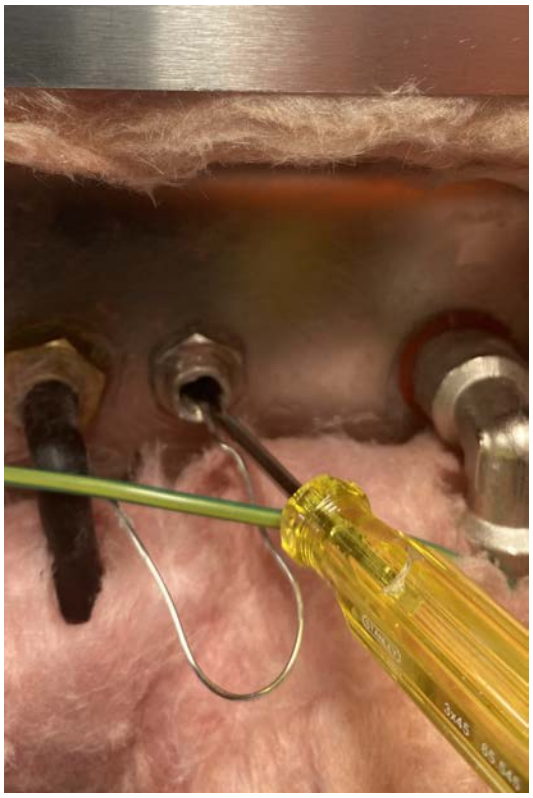
Each component needs to be threaded and installed individually into the cable gland, but the compression fitting needs to be sandwiched between the compression washers.

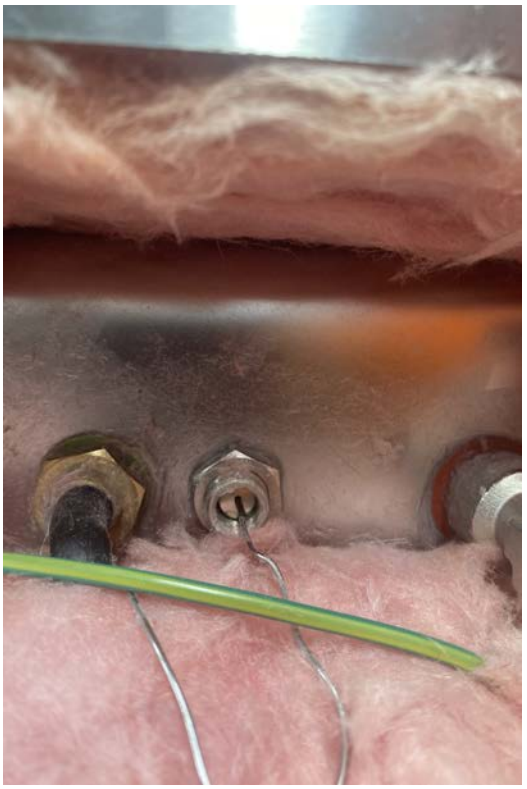


Carefully place one split washer onto the thermostat capillary and slide it onto the main gland until it is seated and slowly push it into place with a small flat head screw driver.

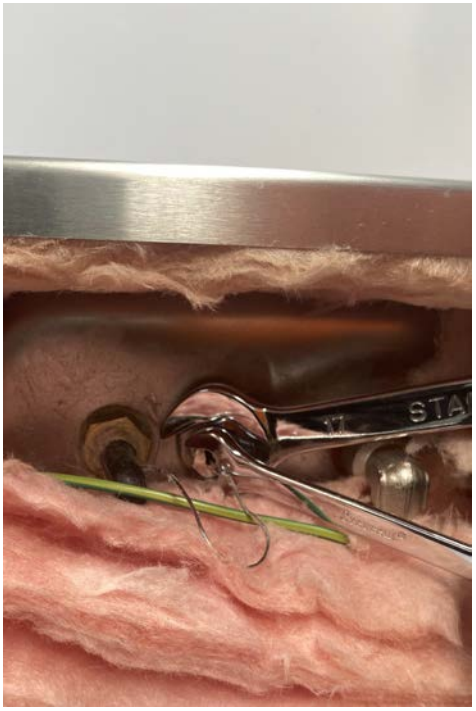


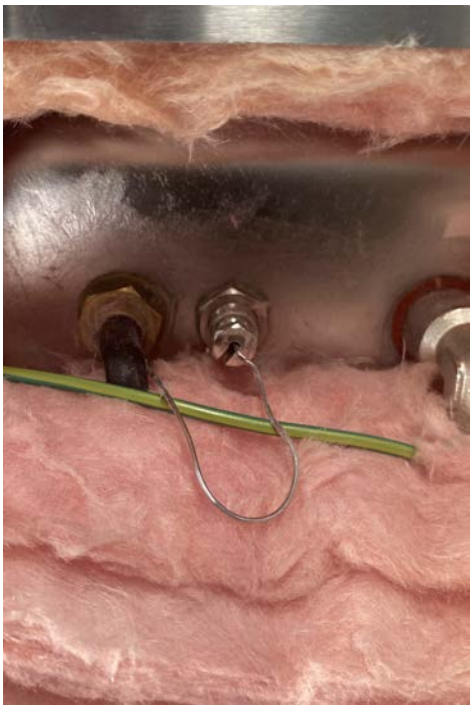
Place the split compression washer onto the thermostat capillary and slide it onto the main gland.





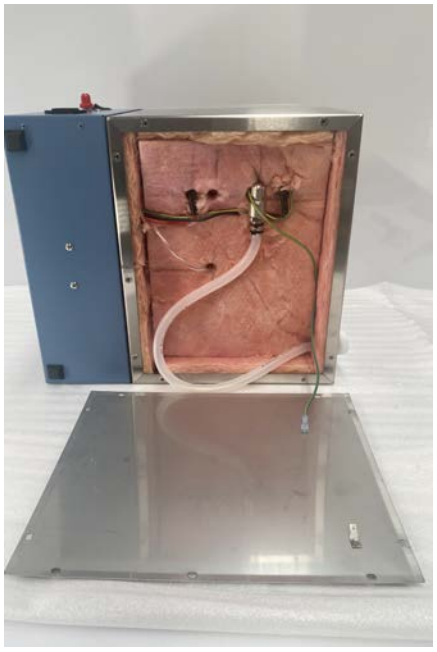
Place the second split washer washer onto the thermostat capillary and slide it onto the main gland until it is seated and slowly push it into place with a small flat head screw driver. Make sure the washers are seated correctly and not crushing the capillary.

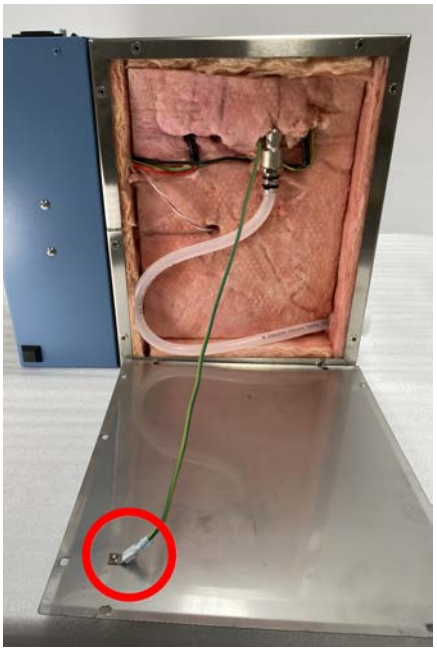




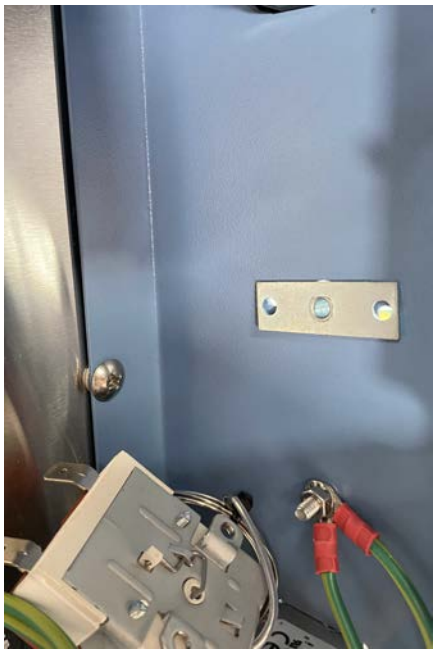
Lock the washers in using the split nut. Tighten firmly using a 10mm spanner

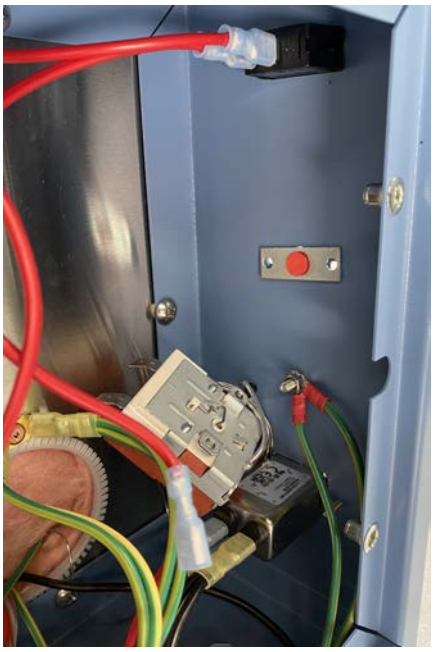
After the gland has been tightened reattach the reset thermostat bulb to the heating element carefully.





Reattach the earth wire to the base of the water bath and then screw the base back onto the bottom of the bath.





Insert the red reset button into the bracket on the inside of the electrical box.

When fixing the reset thermostat to the bracket, ensure that the red reset button sits on top of the spring and not underneath it.

Screw the reset thermostat back into the electrical box from the outside of the bath using the two screws on either side of the red button. Then screw the red cap back on over the red button.

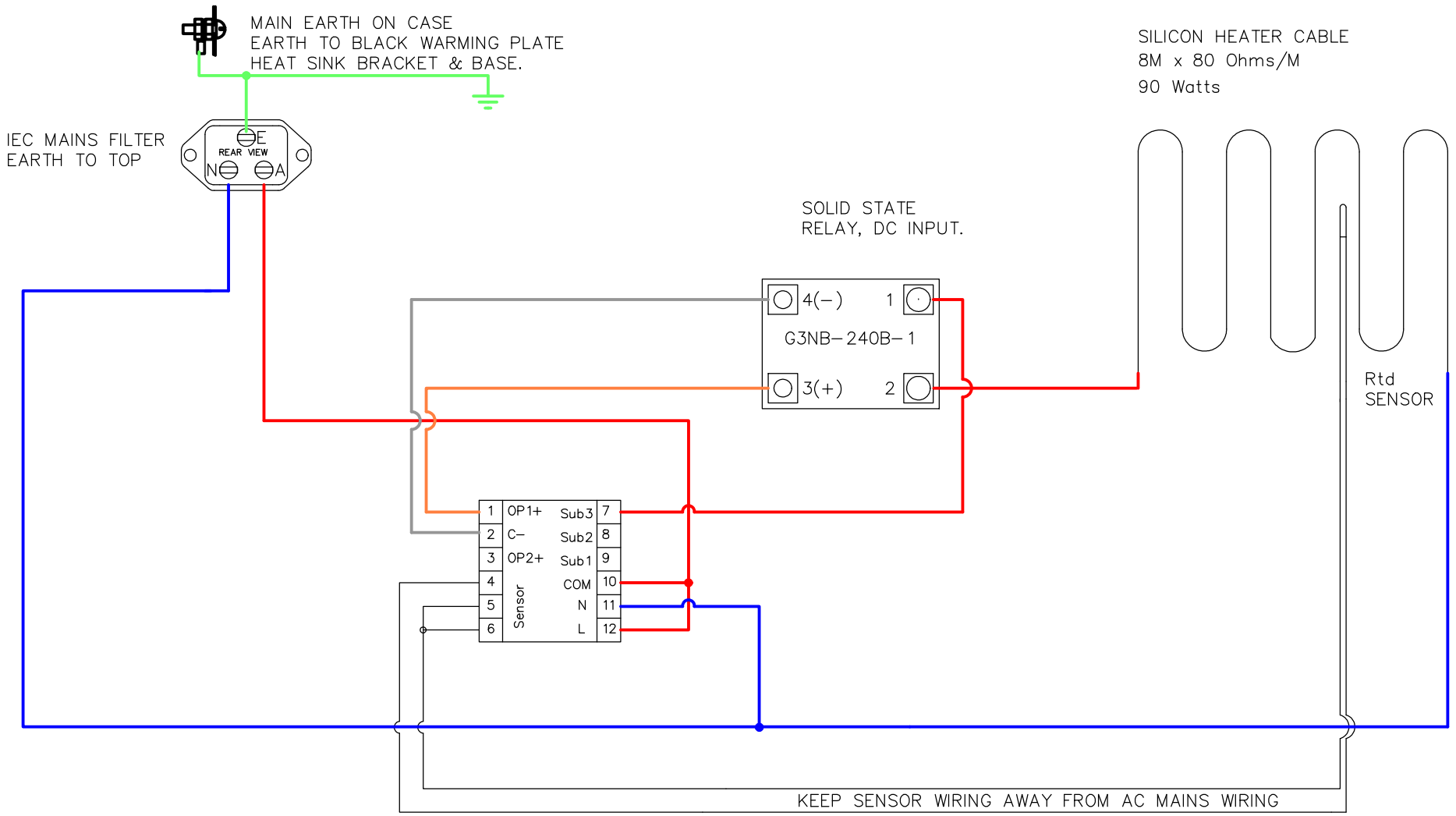
Once the reset thermostat has been fixed into place, reattach the spade clips (red wires) to the top of it.

Reconnect the earth wire to the cover panel

Section 4: Power ON

Screw the cover back onto the electrical box and plug in the power cord. The unit is now ready to turn on.

The reset thermostat can be easily tested by turning the bath on with no water and it would trip very quickly.



WIRE SIZE & TYPE: V105 1.0 sq.mm.

PRODUCT:	WARMING TRAY	13−07−22: Updated SSR and removed Fuse.
MODELS:	TWT−1	27−2−13: REPLACED 3216 CONTROLS WITH OMRON E5CC CONTROLS
DRAWING NO:	WT−1−ELEC	19/3/09: Replaced West 6100 with Eurotherm 3216. Configured with Over Temperature Alarm.
DESCRIPTION	Wiring diagram for TWT−1	15/9/05: Replaced mains IEC socket with filter.
ISSUE DATE:	13−07−22	10/8/05: Replaced BTC 901 with West 6100+, changed to Crydom SSR, changed heater cable.

Section 5: Support and Contact

Repair and Support is available over the telephone Monday through Thursday from 8:30am to 4pm and Friday 8:30am to 2pm. Please contact service@thermoline.com.au for email technical support.
You can also visit our website at www.thermoline.com.au for access to additional useful troubleshooting guides, operating manuals, and technical information.

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