

DAVEY

Installing New Thermal Overload Kit into Titanium Heater Element



ALL ELECTRICAL WORK TO BE PERFORMED BY SUITABLY QUALIFIED ELECTRICAL PERSONNEL.



Always disconnect from electrical supply BEFORE any work is carried out.



Close off all valves so that water cannot drain from the spa, otherwise drain spa first.



Read these instructions in full before beginning the work.

Please pass these instructions on to the operator of this equipment.

Parts required:

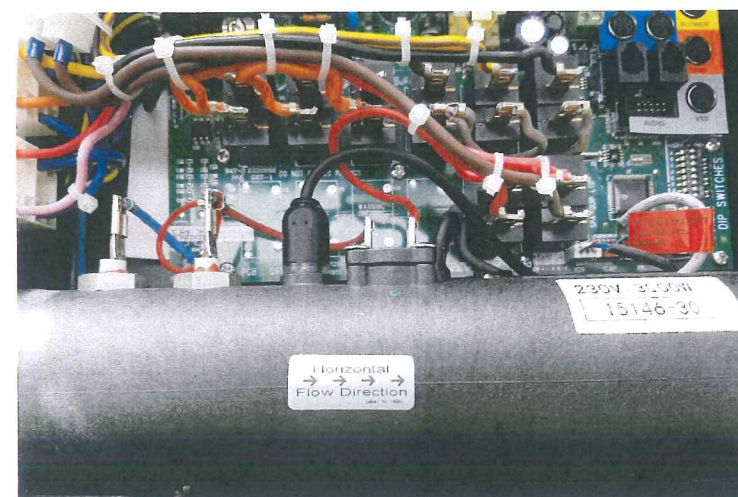
- New Thermal Overload Assembly – Part No. 32997
- This instruction guide at hand

Tools required:

- No. 2 Philips Head/Pozi Screw Driver
- Small Flat Blade Terminal Screw Driver
- Long Nose Pliers – May be required to remove cable connectors off connections

Procedure

1. Read through this instruction guide first so that you have a basic understanding of what you are carrying out.
2. Turn power to the spa off at the electrical switch board, remove the lid and disconnect mains cable from the controller and make it safe. Undo the barrel union nuts from the heater element. Remove the controller from under the spa.



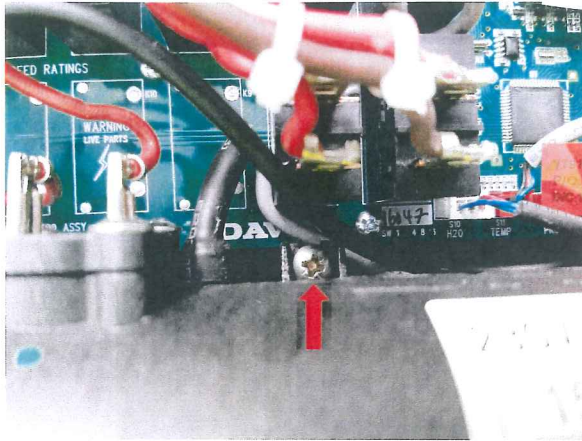
3. Whomever is carrying this out will need to take a photo of the element wire connections or make a drawing of these noting the colours of the wires and where they go.



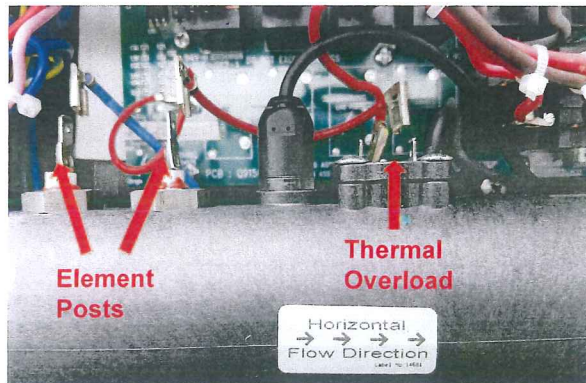
If assistance is required, please contact Davey in your state on 1300 282 839 and ask for the Service Dept.

Note:
Product specifications may change without notice.
Images are indicative only, product appearance may change slightly.
© Davey Water Products

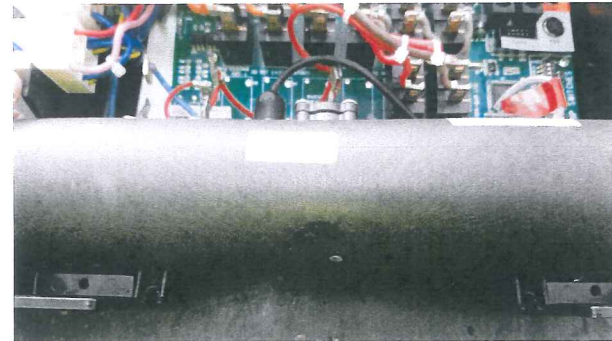
4. Loosen the upper element retaining screw (if it is fitted) and remove the lower 2 tube retaining screws.



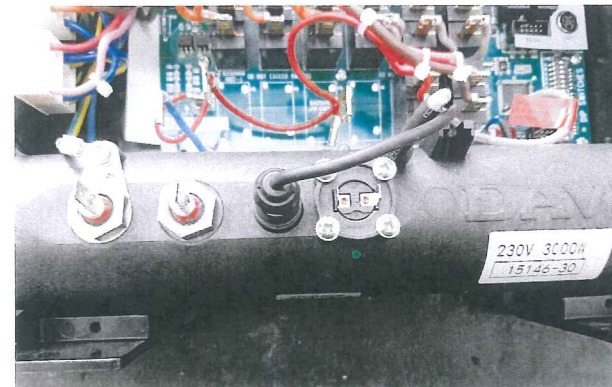
5. Disconnect the 4 wires from the element tube assembly using the pliers – 2x thermal overload connectors and the connectors on the element posts.



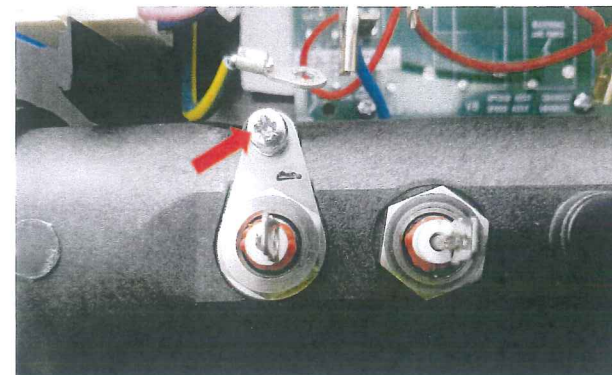
6. Lift the bottom of the tube slightly and slide the tube retaining tab from under the upper retaining screw lifting the tube out in the one motion. Do not lift too high or you will damage the sensor wires – disconnect these if you feel the need to.



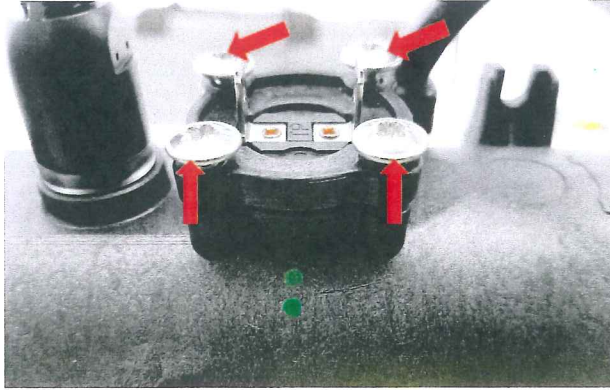
7. Stand the element tube up using the shape of the controller base to assist with stabilising it.



8. Undo the earth screw and remove earth wire. Replace earth screw into tube as to not lose it.



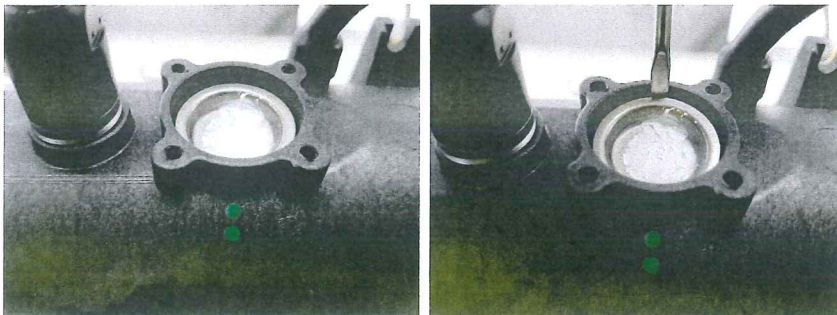
9. Evenly loosen the 4 retaining plate screws.



10. Remove the retaining plate along with the thermal overload.



11. Now the thermal overload cup can be seen. Remove the O-ring that sits between the retaining plate and this cup. Gently lift the cup using the Small Flat Blade Terminal Screw Driver and remove.



12. Check under where the cup sits for debris and any damage to the tube. Clean out any debris and if the tube is damaged replace the element assembly.



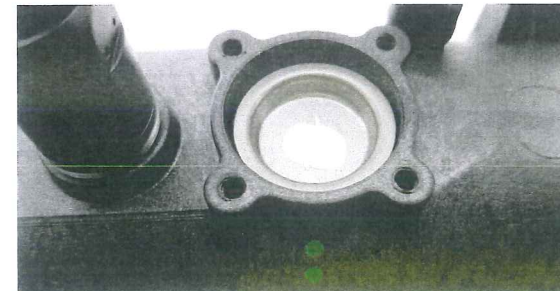
13. Open the 32997 kit bag and lay out the items. Please note the O-ring numbers.



14. Place O-ring 3 onto the bottom of the cup with thermal paste in it.



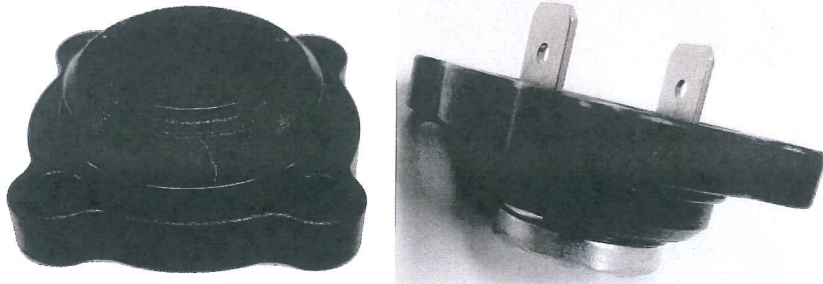
15. Place the cup with O-ring 3 into the element tube. Gently press around the outer edge to allow it to settle the O-ring into position.



16. Place O-ring 2 on top of the cup. Make sure that it is not twisted and is sitting flat.



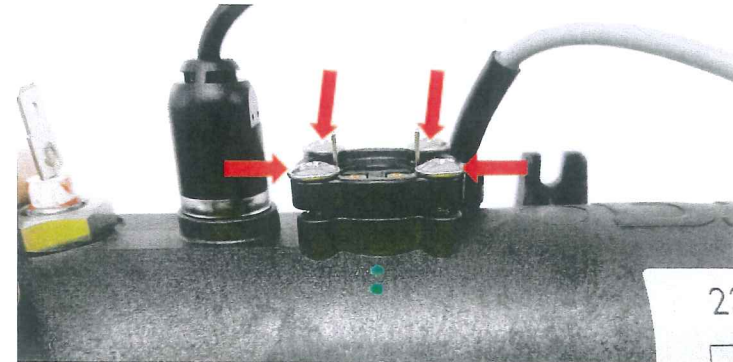
17. Place O-ring 1 onto the retaining plate. Make sure that it is not twisted and is sitting flat. Fit the thermal overload into the retaining plate. As the plate is moulded to the thermal overload shape the thermal overload only goes in one way.



18. Place the retaining plate and thermal overload into the tube.



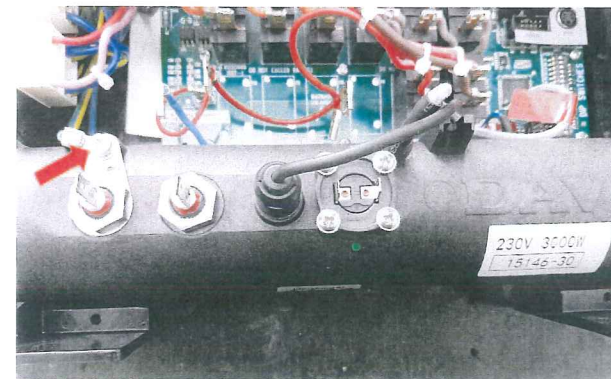
19. Place the screws into the retaining plate and evenly tighten them down. Tighten the screws in a cross pattern to achieve this.



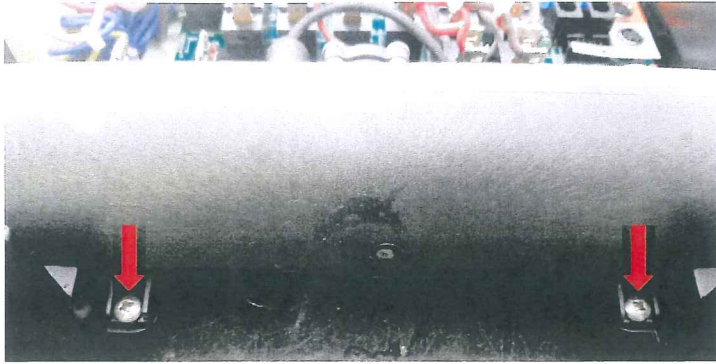
20. There should be a very small gap between the tube and the retaining plate where the O-ring is firmly held in place.



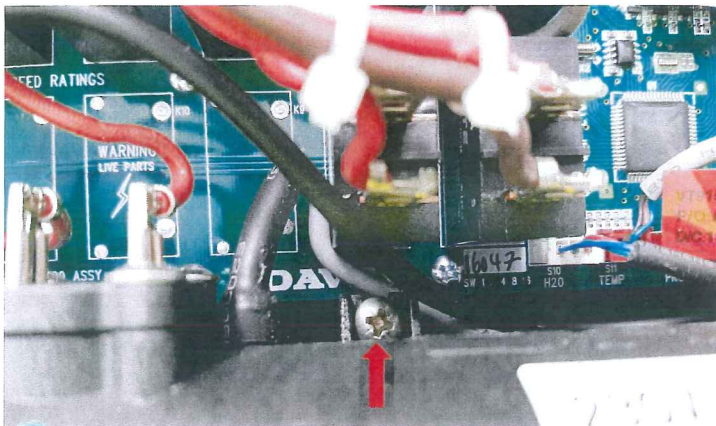
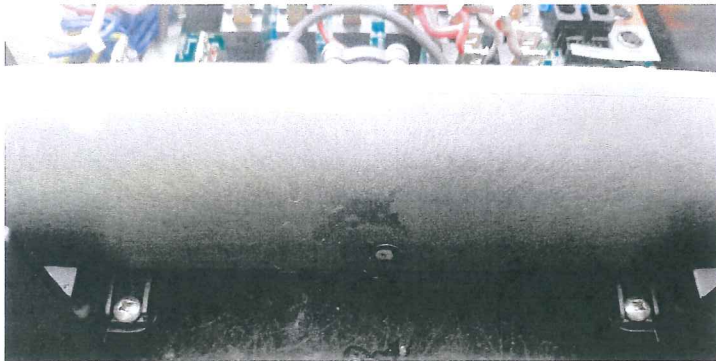
21. Remove the earth screw and place the earth wire onto the element and screw it down tight.



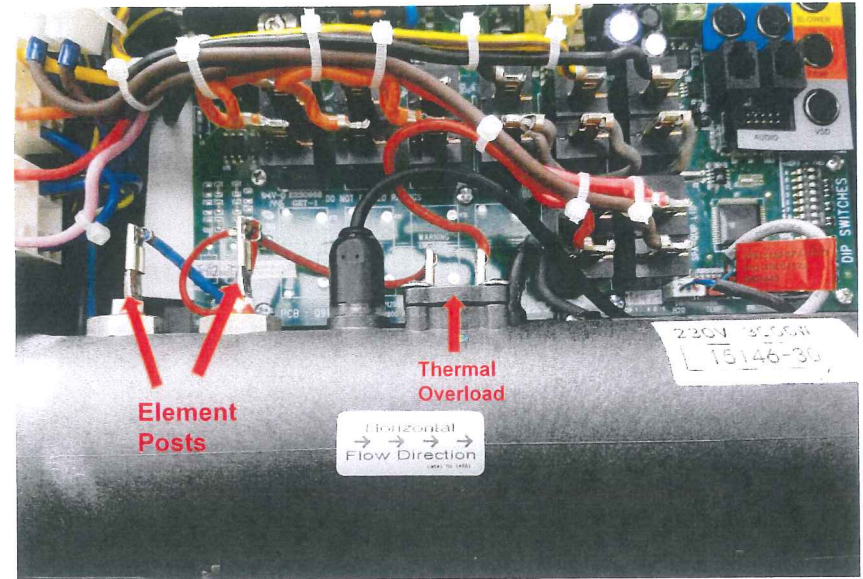
22. Lift the tube up and place it on an angle so that you can slide the tube retaining tab under the upper screw.



23. Slide and sit the tube down into the housing and replace and tighten the lower tube retaining screws and the upper tube retaining screw.



24. Connect the wires back onto the element posts and thermal overload. This will be as per your earlier photo or notation that you made.



25. Check all connections are done correctly.

26. Place the controller back into the spa. Reattach the mains cable and place the lid back on the controller. Reconnect the plumbing to the heater tube.

27. Open the valves that you closed off earlier and or refill the spa.

28. Turn the power to the spa back on. You may have to perform a software reset as per your user guide to clear the latched in error code.

29. Check that the unit does not display any error messages, especially when the heater indicator turns on.

30. If no error messages then the job is complete.