

Installing New Titanium Heater Element Spare Part Assembly into SP750 or SP1000 units



**ALL ELECTRICAL WORK TO BE PERFORMED BY
SUITABLY QUALIFIED ELECTICAL 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.

Parts Required

- New Heater Element Spare Part Assembly
SP750 - Q80036T (2.0KW) or Q80038T (3.0KW)
SP1000 - Q80045T (2.0KW) or Q80046T (3.0KW)
- 5x Cable Ties – 100mm long x 2-3mm wide
- This instruction guide at hand – comes in Q80036T, Q80038T, Q80045T & Q80046T

Tools Required

- No. 2 Philips Head/Pozi Screw Driver
- No. 1 Philips Head/Pozi Screw Driver
- Long Nose Pliers – May be required to remove cable connectors off connections
- Side Cutters

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DAVEY

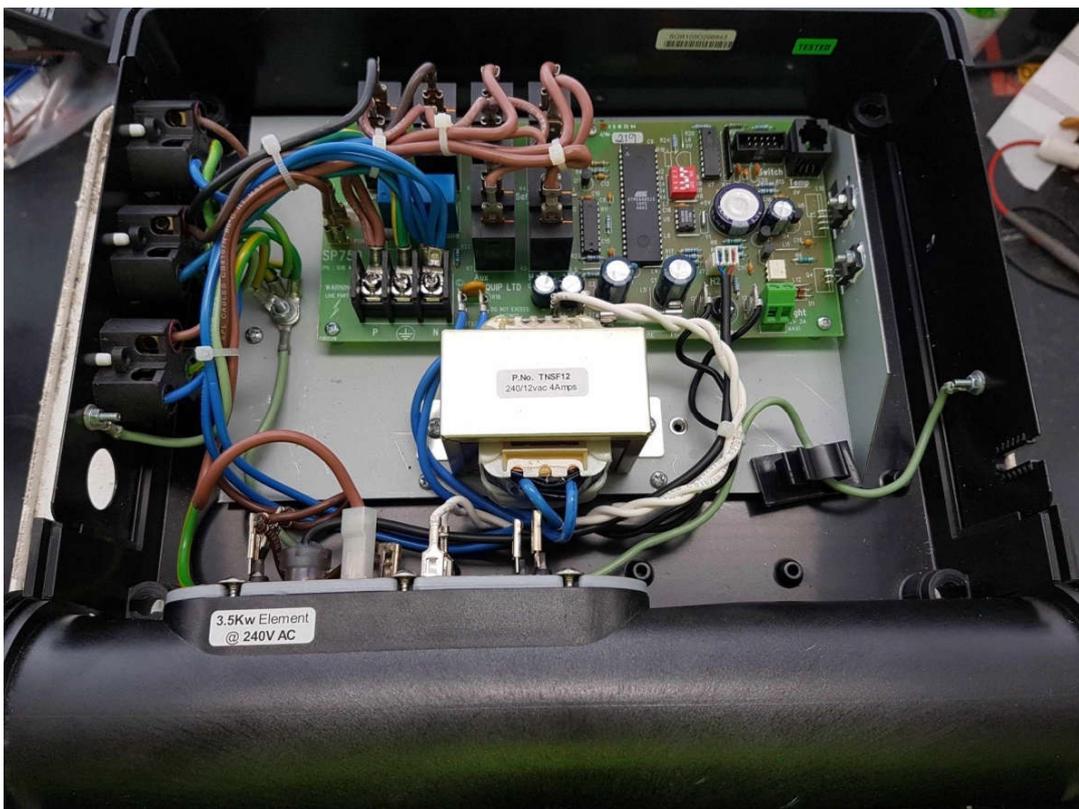
**If assistance is required, please contact Davey in your state
on 1300 282 839 and ask for the Service Dept.**

Note:

Product specifications may change without notice.
Images are indicative only, product appearance may change slightly.
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SP750 Element Changeover Procedure

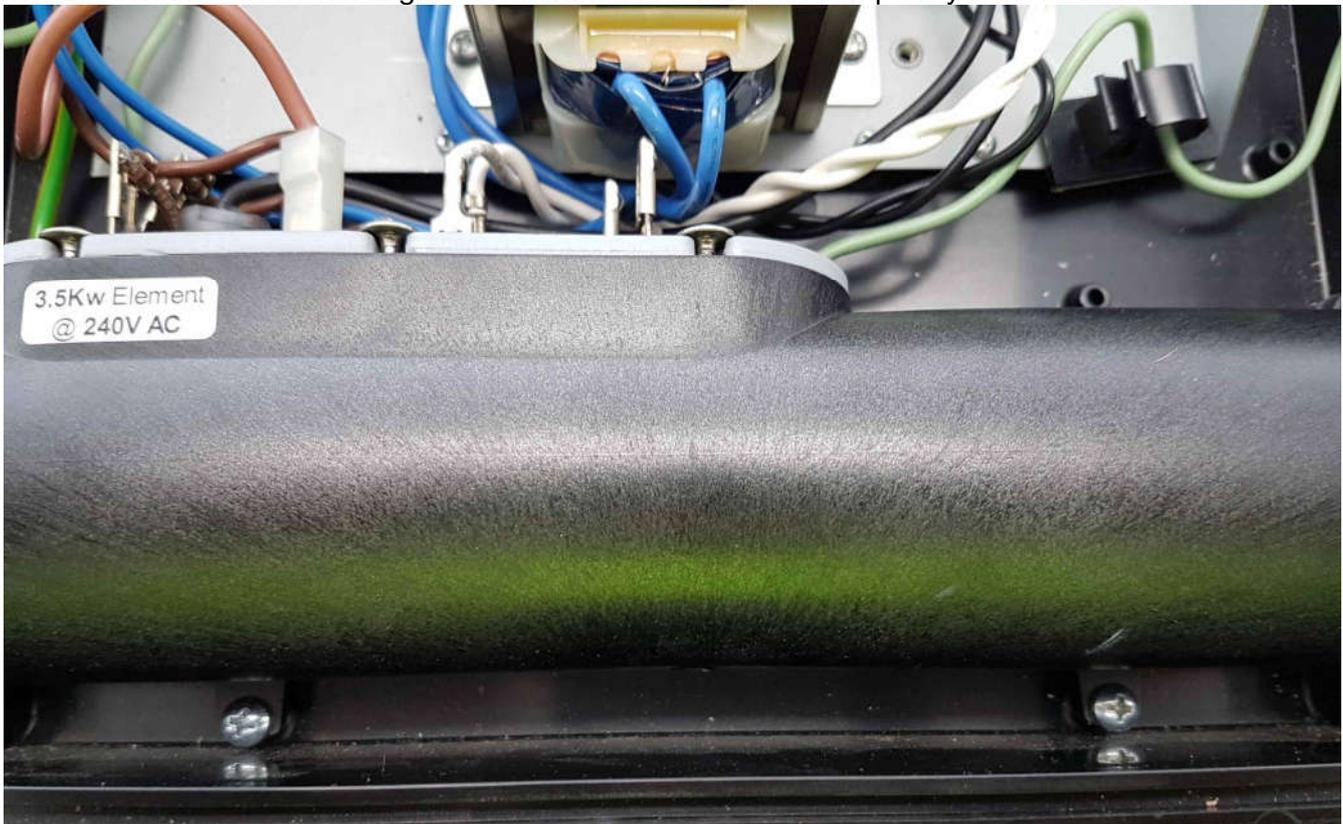
1. Read through this instruction guide first so that you have a basic understanding of what you are carrying out.
2. Turn power to the spa off at the electrical switch board, remove the lid and disconnect mains cable from the controller and make it safe. Undo the barrel union nuts from the heater element.



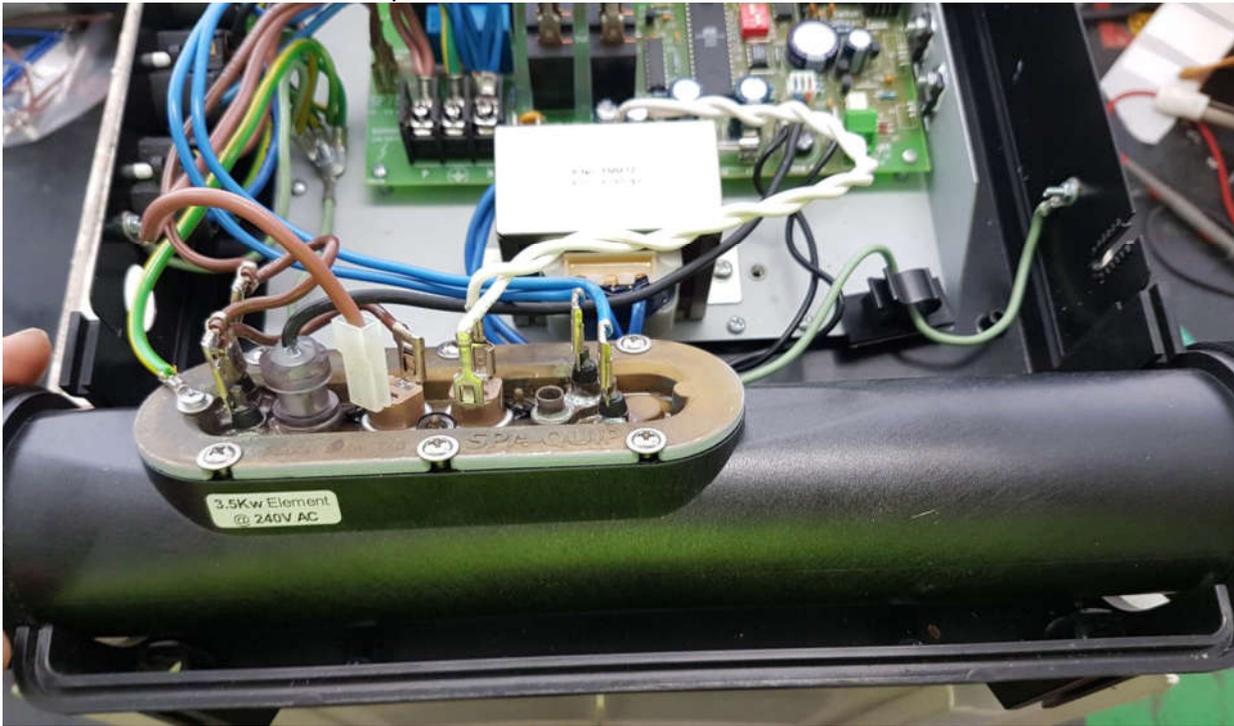
3. Cut the cable ties from around the mains wires near the sockets and that are on the water sensor and white wires towards the middle of the unit. **Do not** cut the ones on top of the relays!



4. Loosen the screws holding the element tube feet. Do not completely remove them!



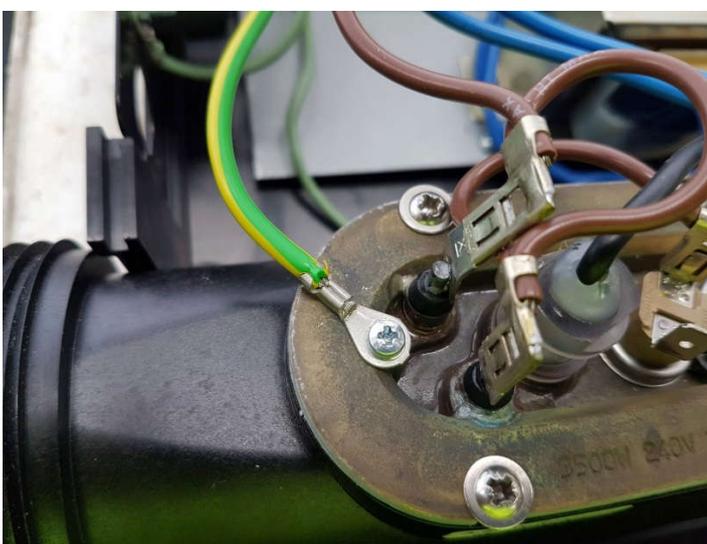
5. Tilt the element upwards, slipping the element feet from under the screws, so that you have easier access to the wires on top of the element.



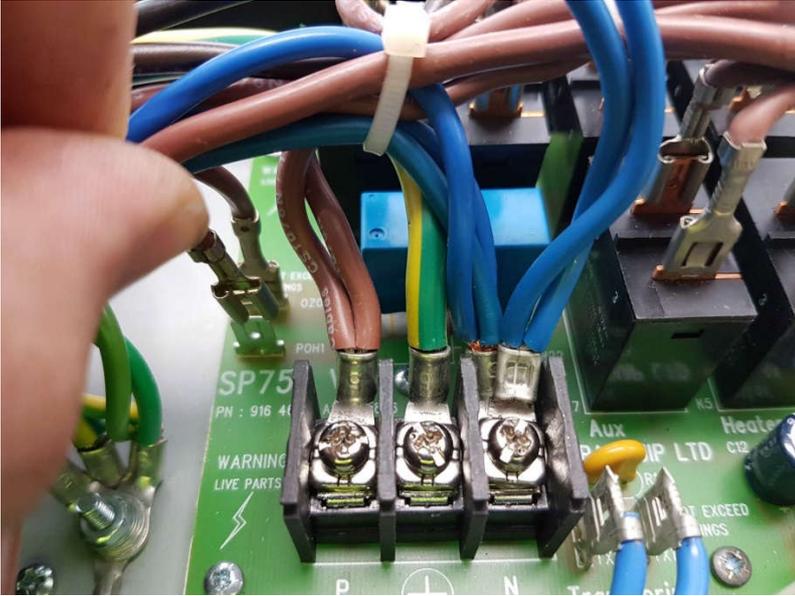
6. Remove the white wires from the top of the element and remove the brown active wire that comes from the heater relay off the top of the element.



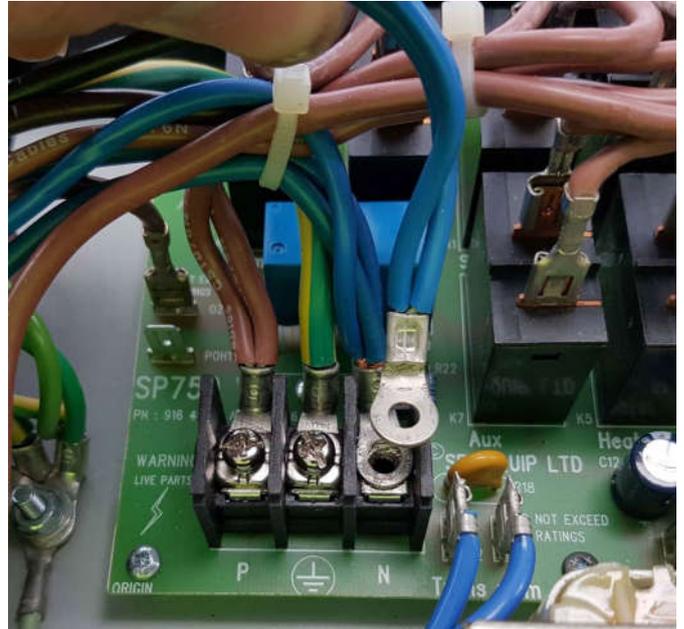
7. Remove the element earth screw and remove the green/yellow earth wire.



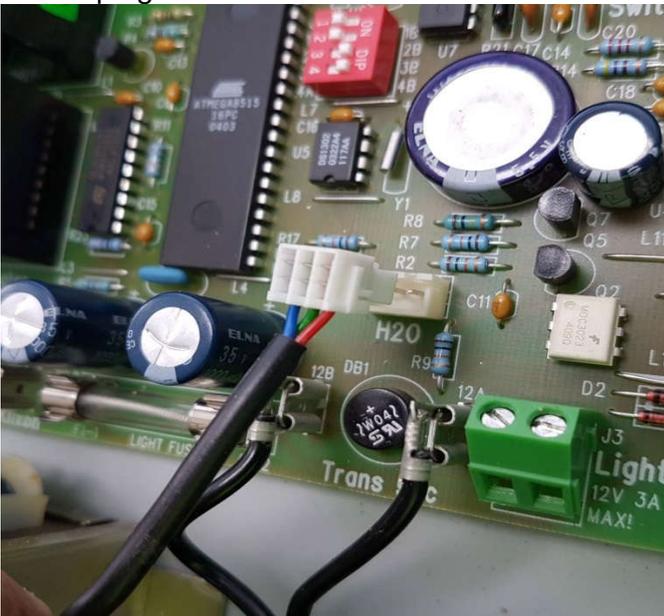
8. Remove the brown POH wire from the circuit board.



9. Remove the neutral wire screw from the terminal block and remove the blue element neutral wires.



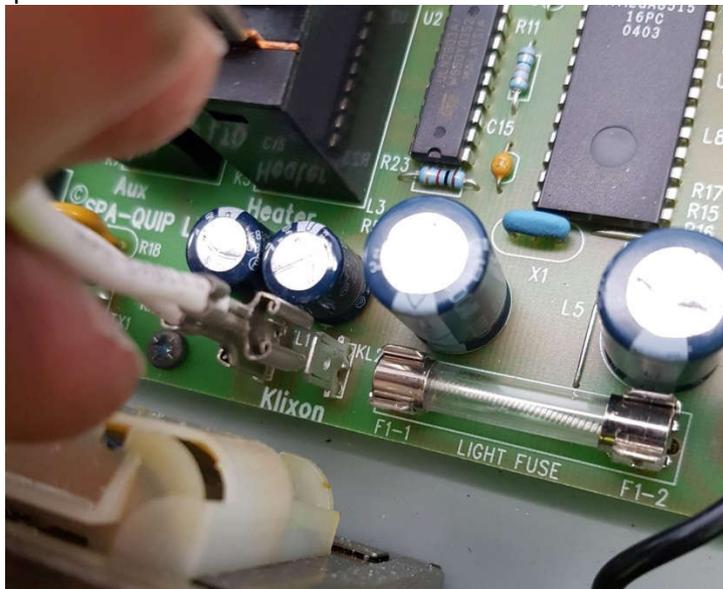
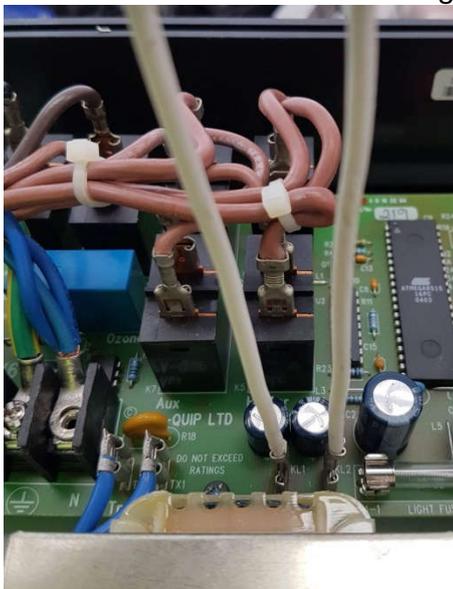
10. Unplug the water sensor from the circuit board.



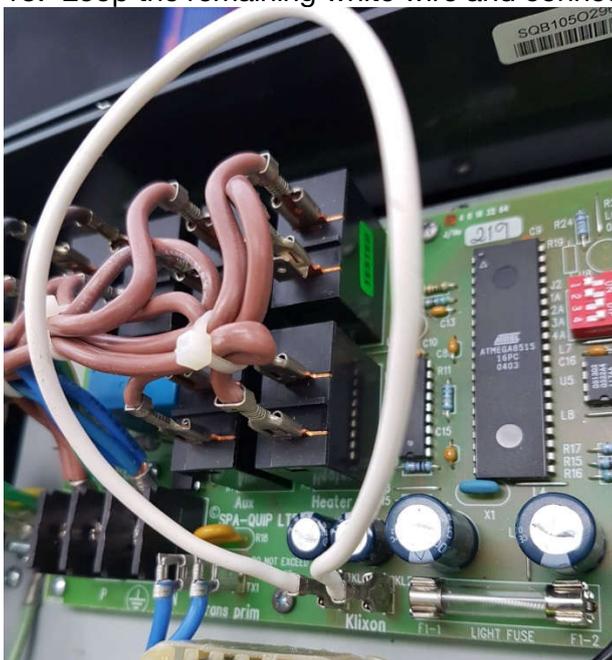
11. Remove old element from unit and place in the new Titanium Heater Element assembly. Keep the new element assembly on an upward tilt so that wire connections are easier to do.



12. Unwind the white wires and remove the white wire that is connected to the KL2 terminal. The removed white wire is no longer required and can be discarded.



13. Loop the remaining white wire and connect it onto the KL2 connector.



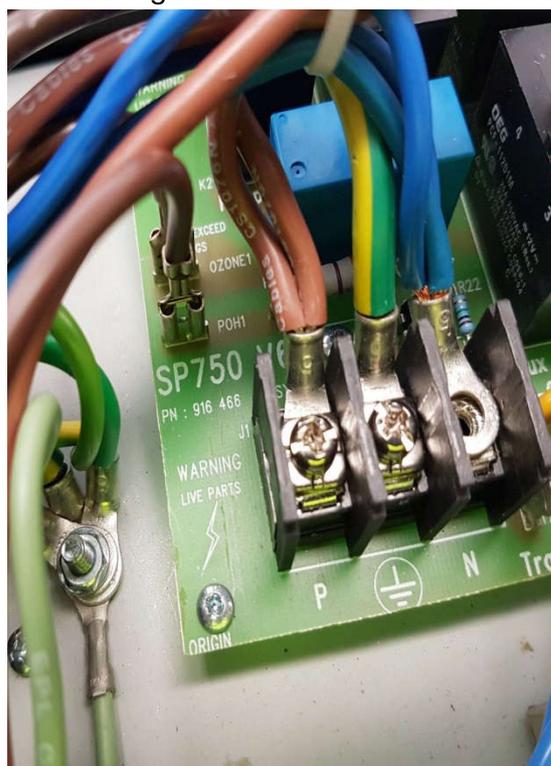
14. Remove the new element earth screw and place the green/yellow earth wire onto the new element and secure it with the screw. Make sure that the earth wire is coming from the left hand side of the controller and is parallel to the heater tube; otherwise you will not be able to sit the element in the correct position later on.



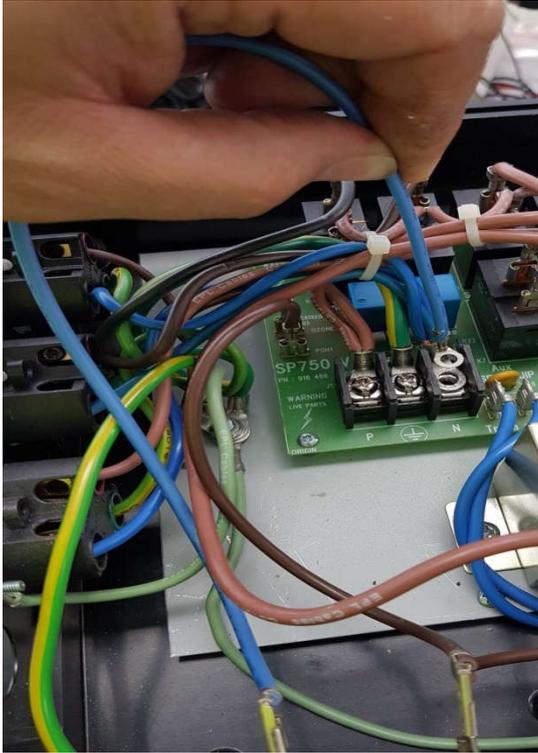
15. Connect the element brown active wire from the heater relay to the vacant connector on the thermal overload of the new element.



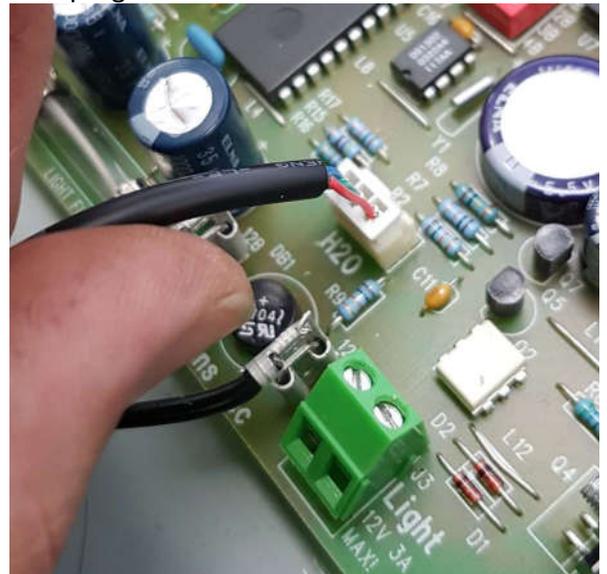
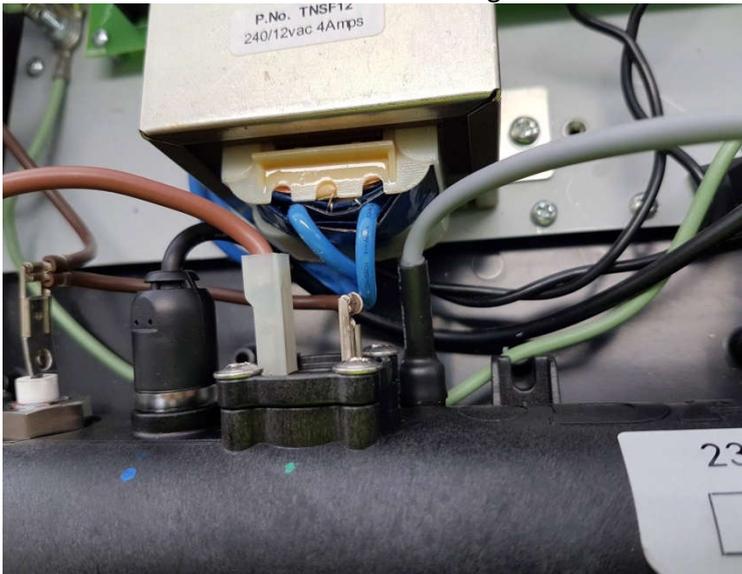
16. Connect the brown wire from the element wiring to the POH1 connector on the circuit board.



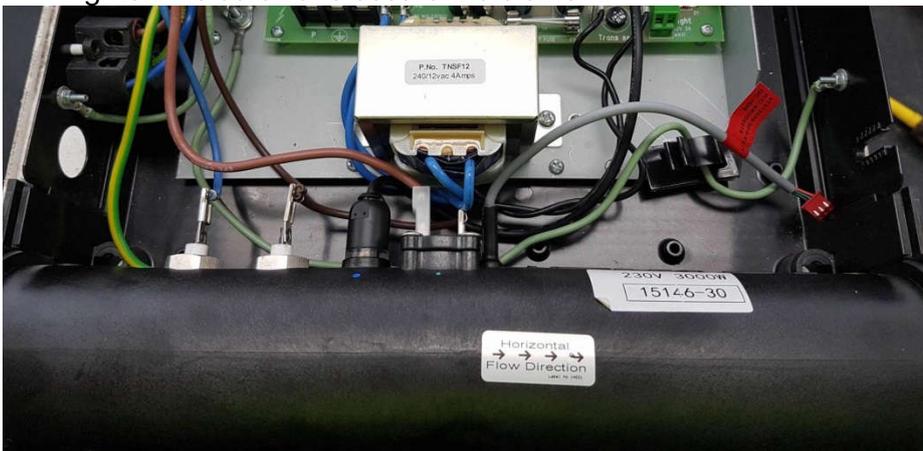
17. Connect new element blue neutral wire to screw terminal block and secure it with the screw.



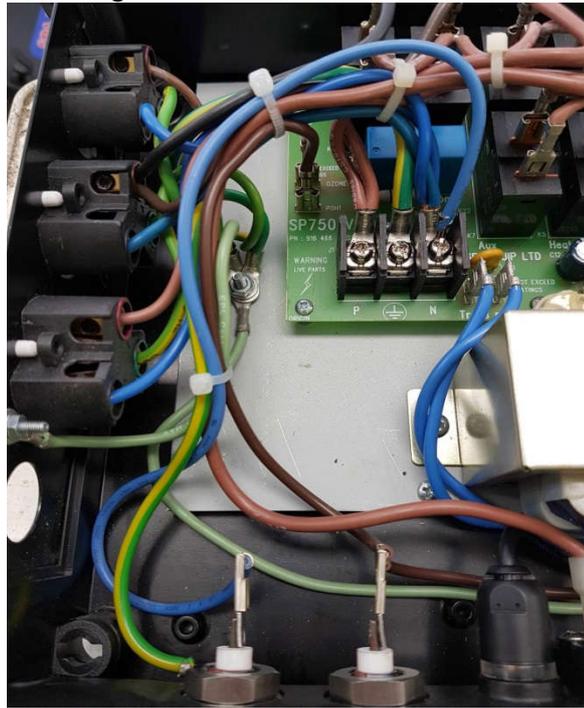
18. Position the black water sensor cable underneath the other wires so that it cannot be damaged when the element is laid flat. Plug in the new water sensor plug onto the circuit board.



19. Gently lay the element into the unit, slipping the element tube feet under the screws in the bottom. Tighten the screws to secure the element.



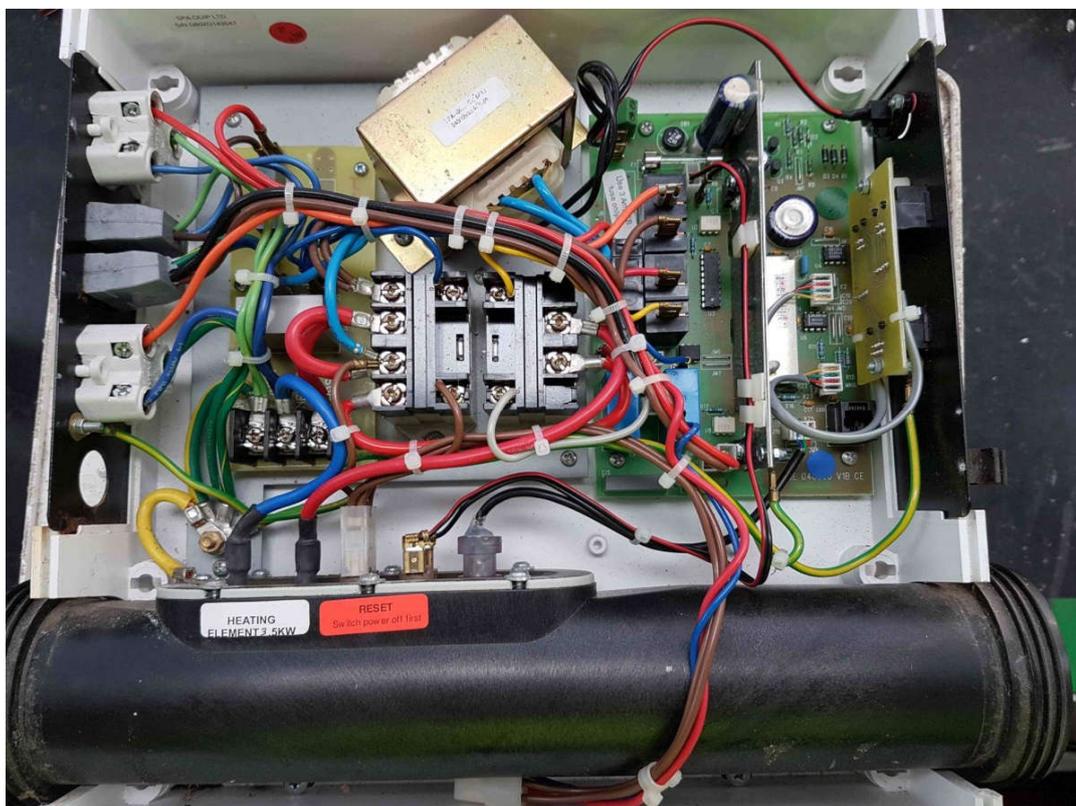
20. Loop the grey temp sensor cable and cable tie the water sensor, temp sensor and white wire to the black transformer wires. Cable tie the mains wires together.



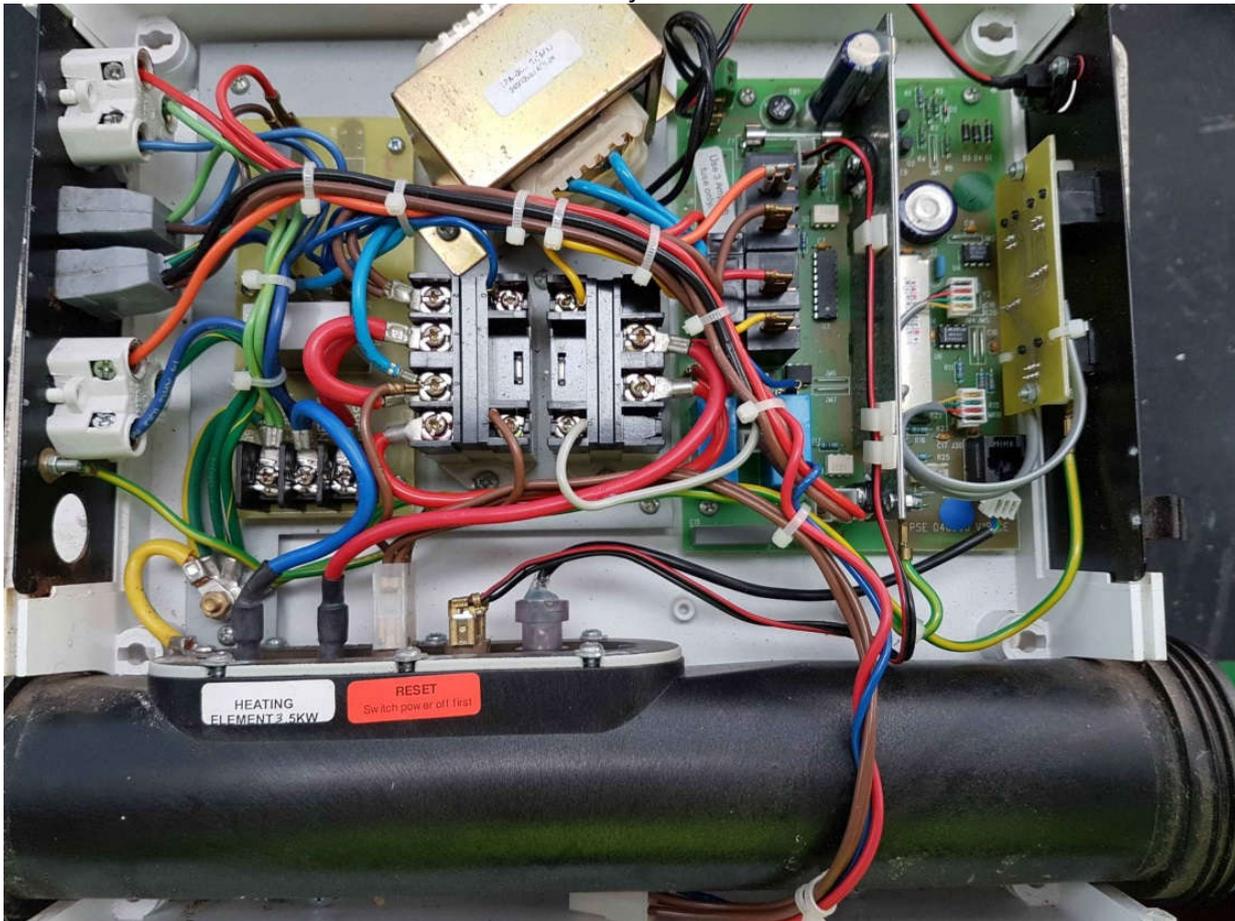
21. Check all connections are done correctly. Reattached the mains cable and place the lid back on the controller. Reconnect the plumbing to the heater tube.
22. Open the valves that you closed off earlier and or refill the spa.
23. Turn the power to the spa back on and check that the unit does not display any error messages, especially when the heater indicator turns on.
24. If no error messages then the job is complete.

SP1000 Element Changeover Procedure

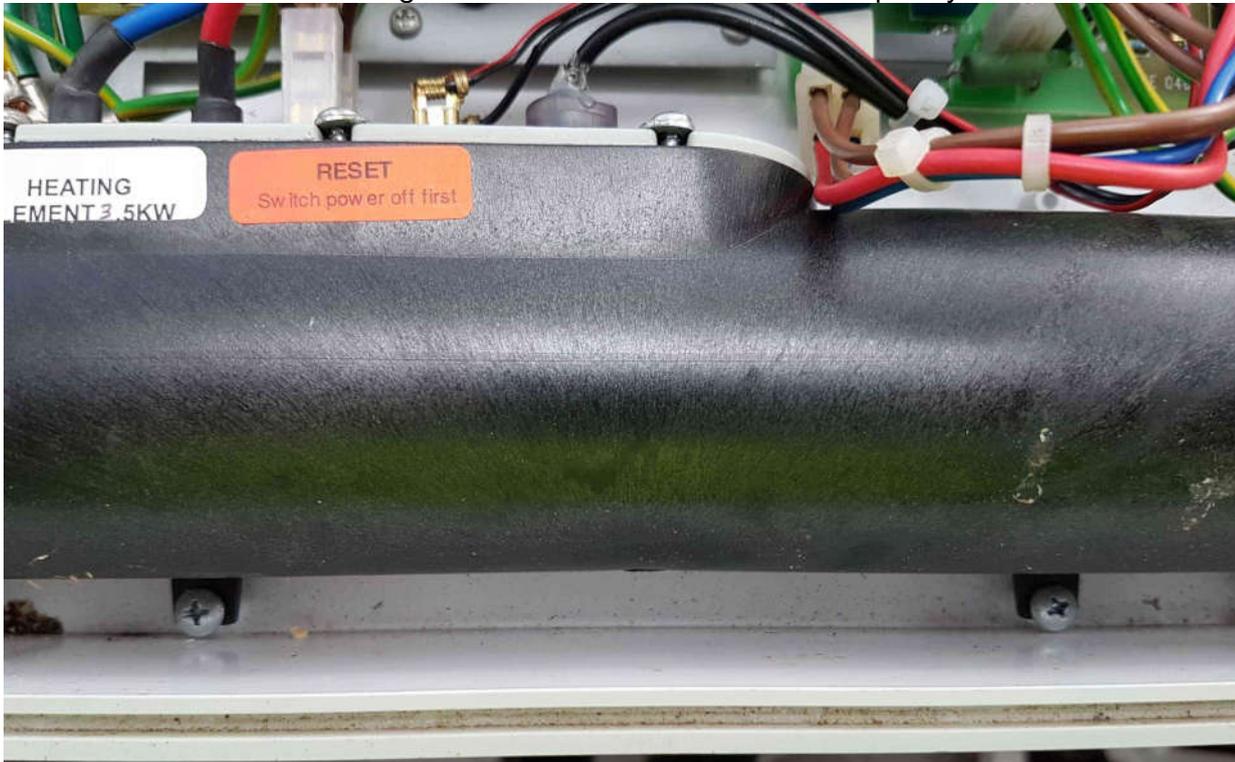
1. Read through this instruction guide first so that you have a basic understanding of what you are carrying out.
2. Turn power to the spa off at the electrical switch board, remove the lid and disconnect mains cable from the controller and make it safe. Undo the barrel union nuts from the heater element.



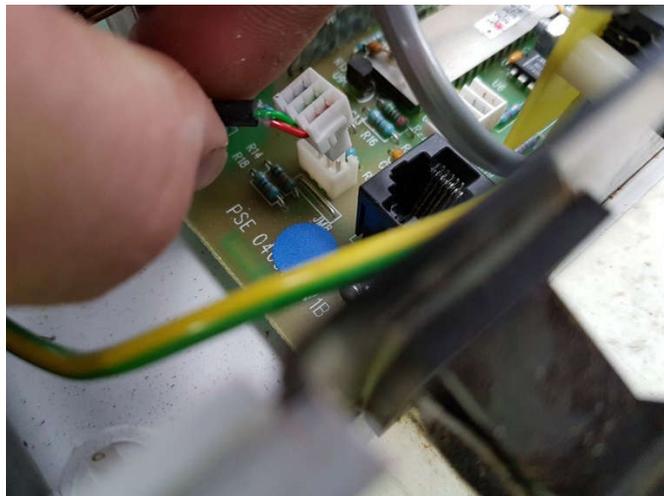
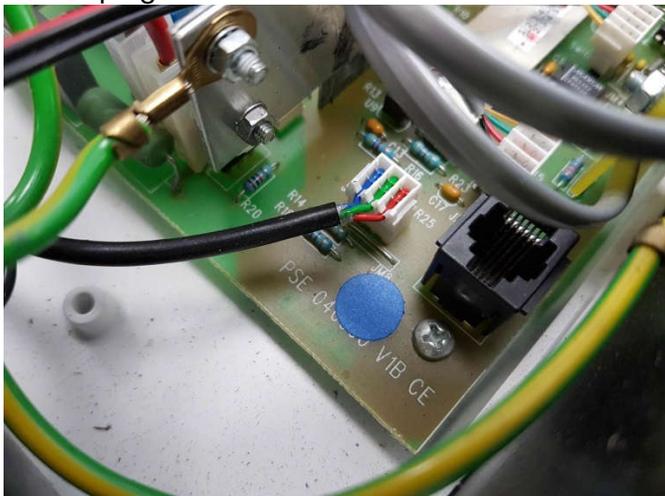
3. Cut the cable ties from around the heater wires and the one(s) that are on the water sensor cable and black & black/red wires. **Do not** cut any of the other ones!



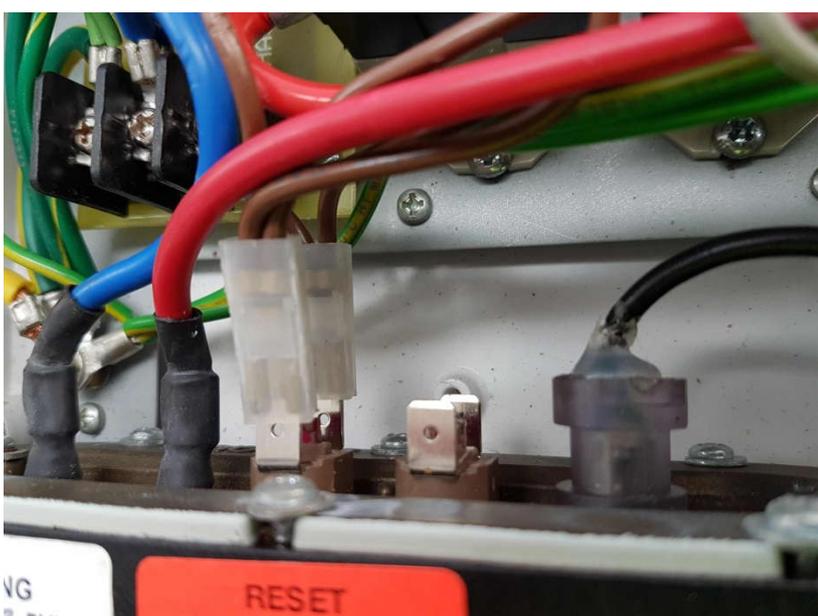
4. Loosen the screws holding the element tube feet. Do not completely remove them!



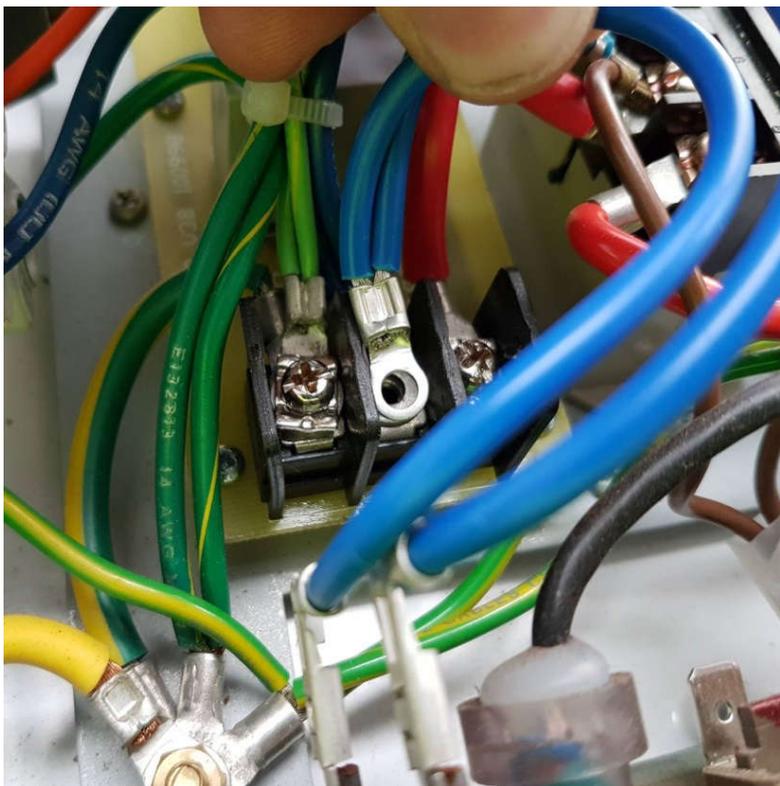
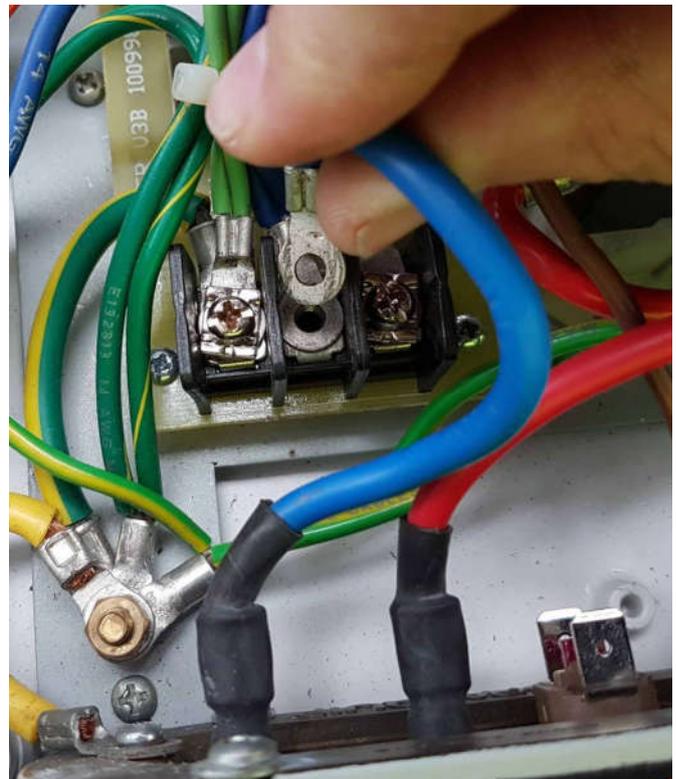
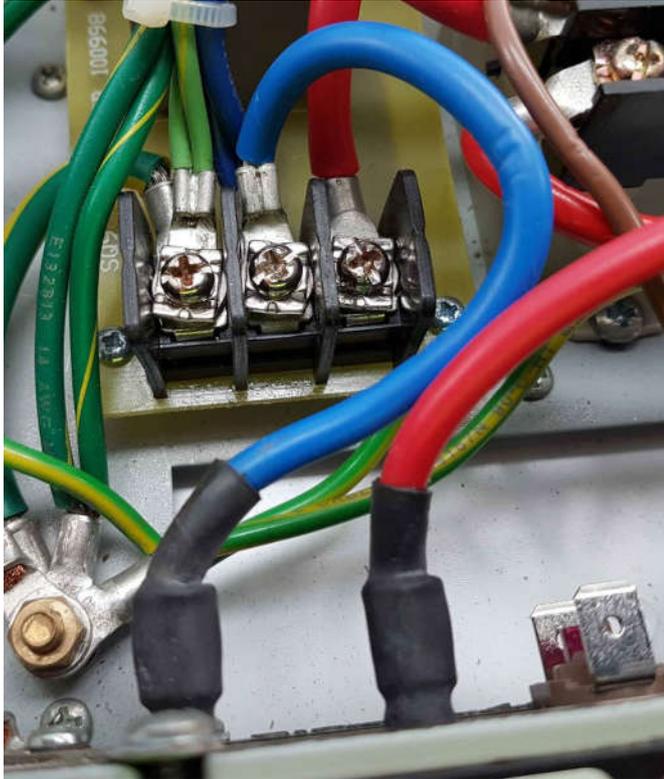
5. Unplug the water sensor from the circuit board.



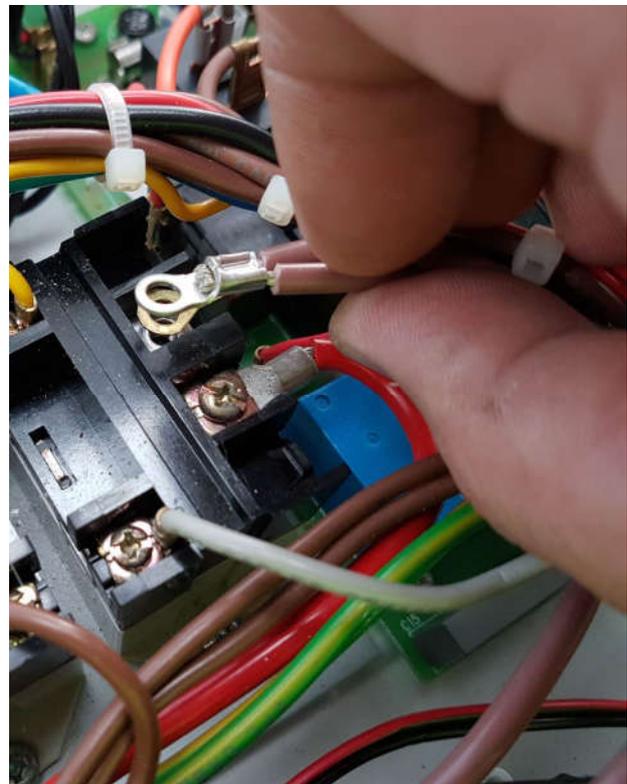
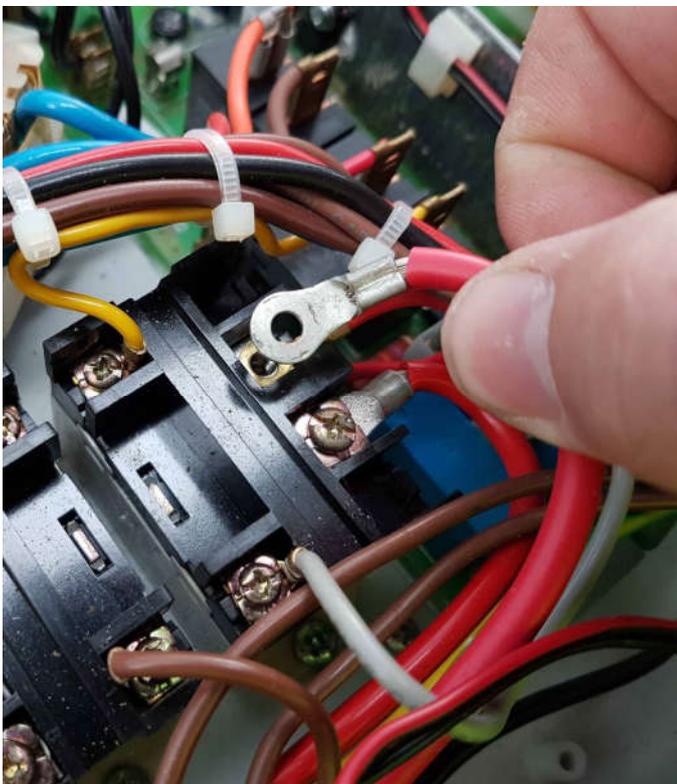
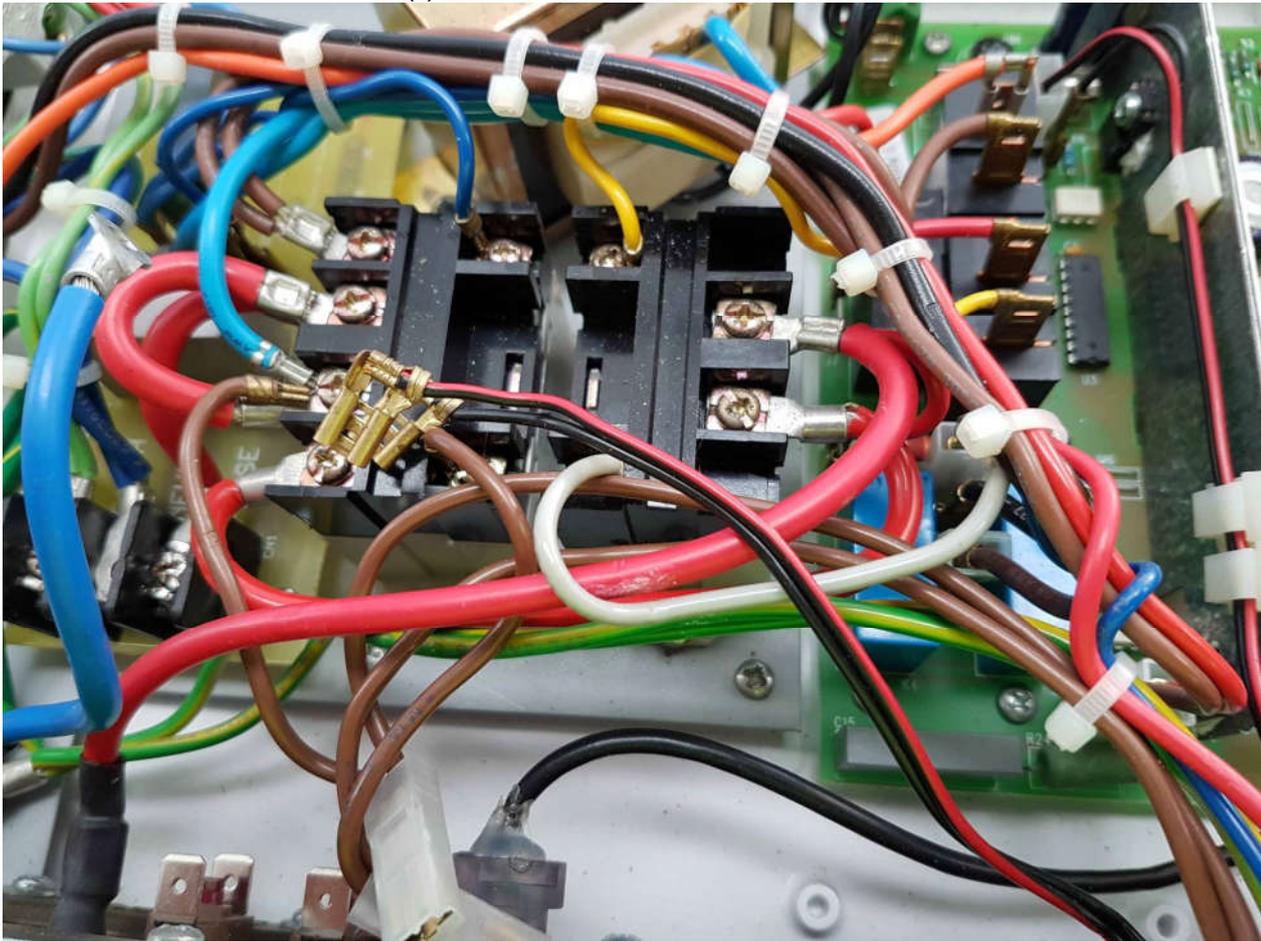
6. Disconnect the 12VDC black & black/red wires and the brown 240VAC wires from the thermal overloads.



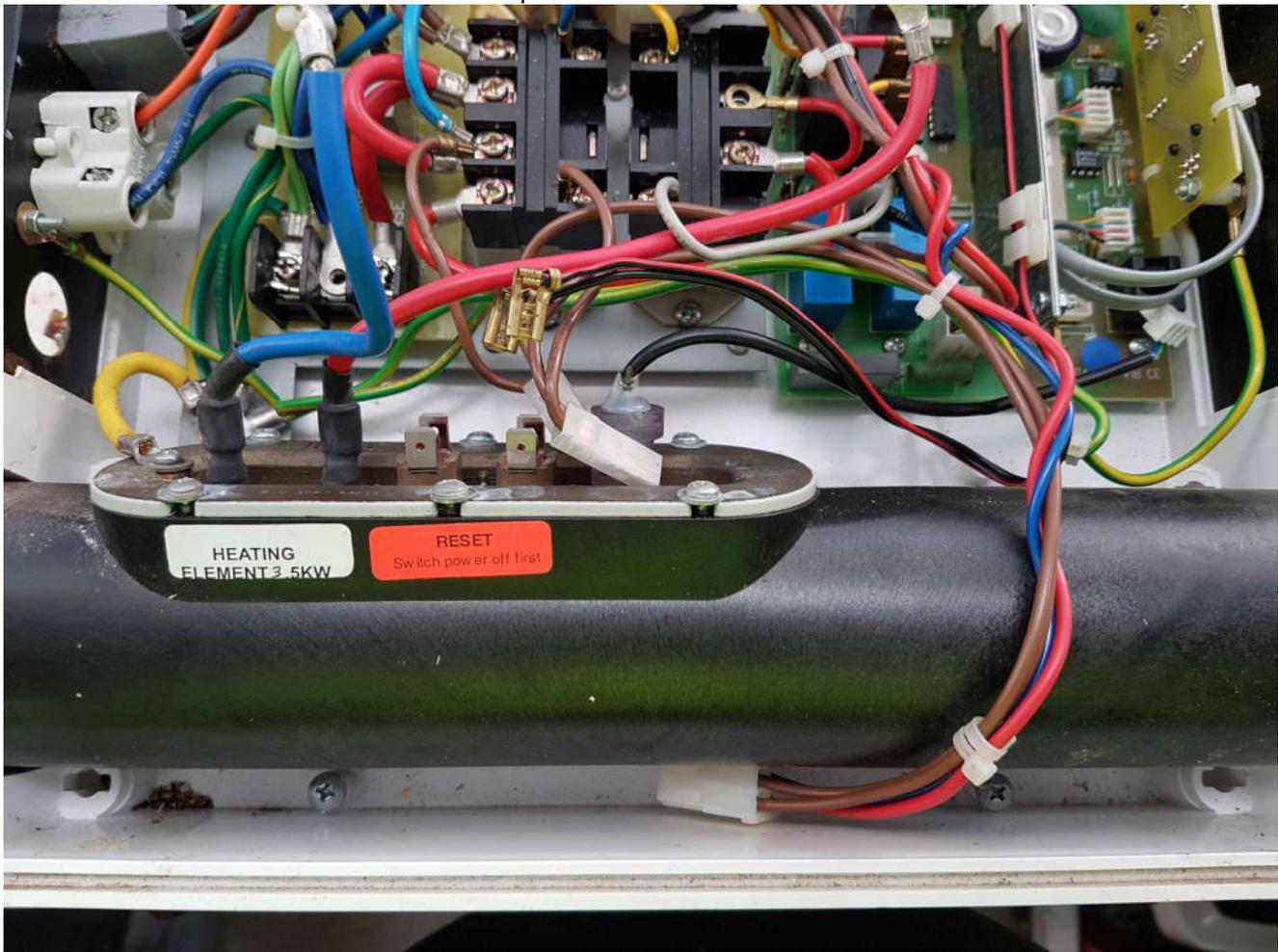
7. Remove the neutral wire screw from the terminal block and remove the blue element neutral wire(s).



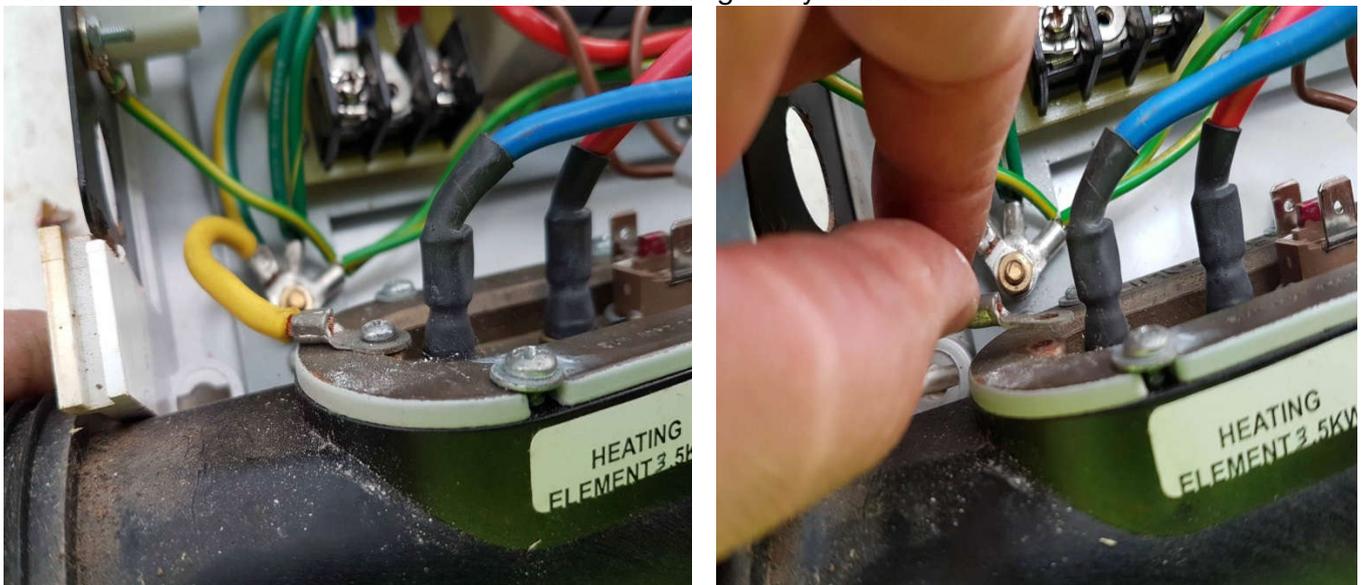
8. Remove the element active wire screw from the right hand large contactor and remove the red or brown active element wire(s).



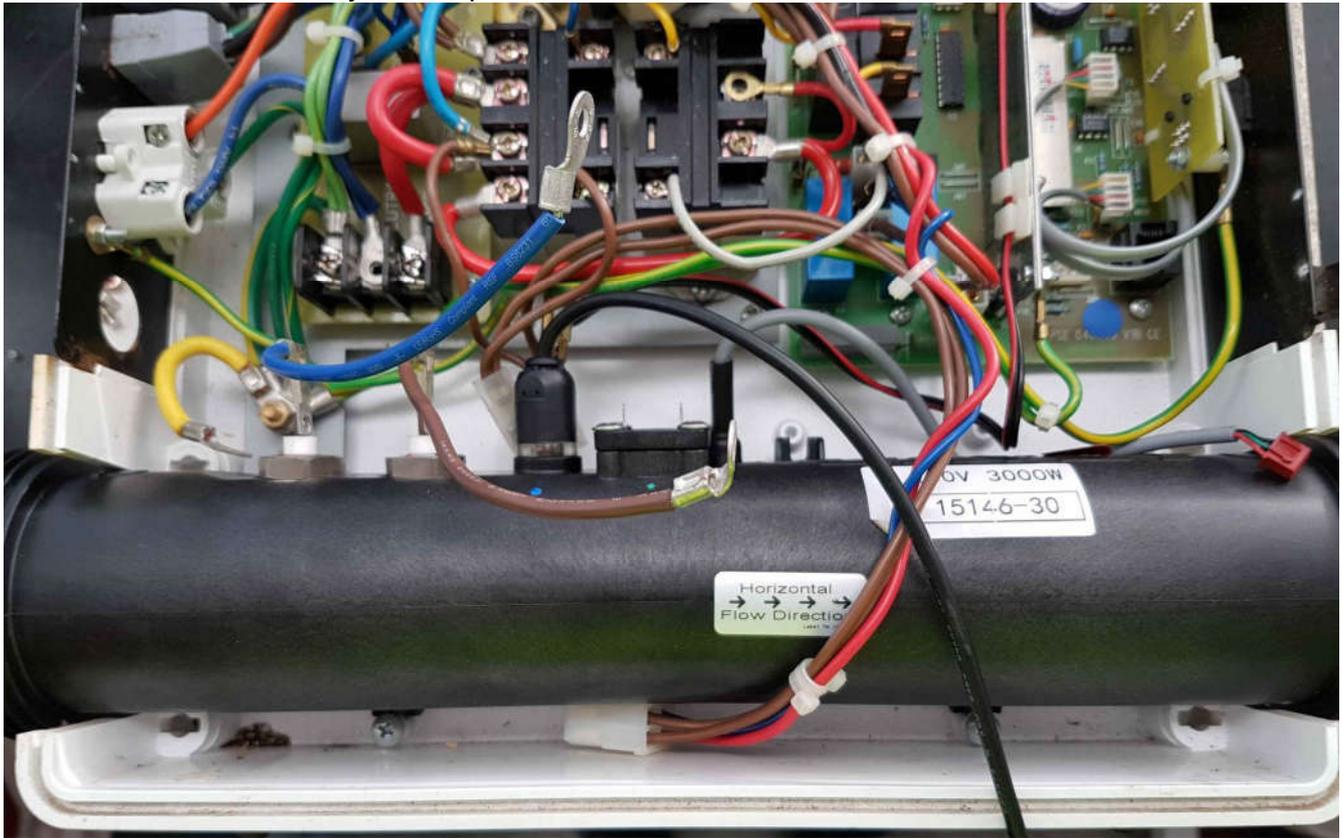
9. Tilt the element upwards, slipping the element feet from under the screws, so that you have easier access to the earth wire screw on top of the element.



10. Remove the element earth screw and remove the green/yellow earth wire.

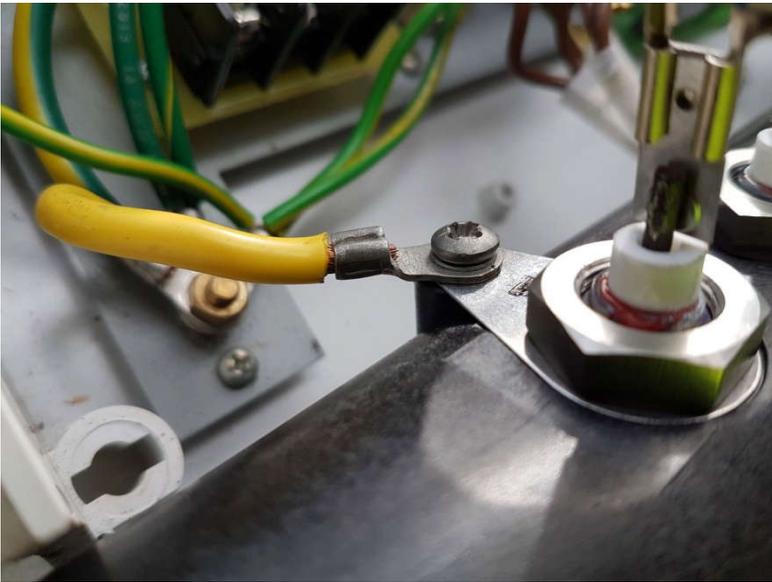


11. Remove old element from unit and place in the new Titanium Heater Element assembly. Keep the new element assembly on an upward tilt so that wire connections are easier to do.

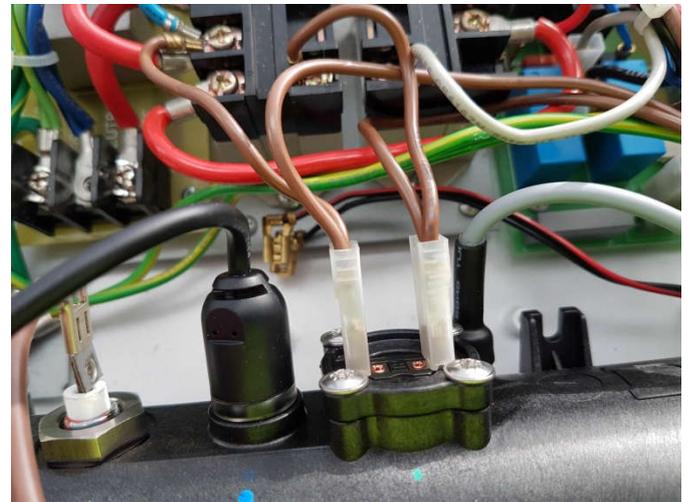
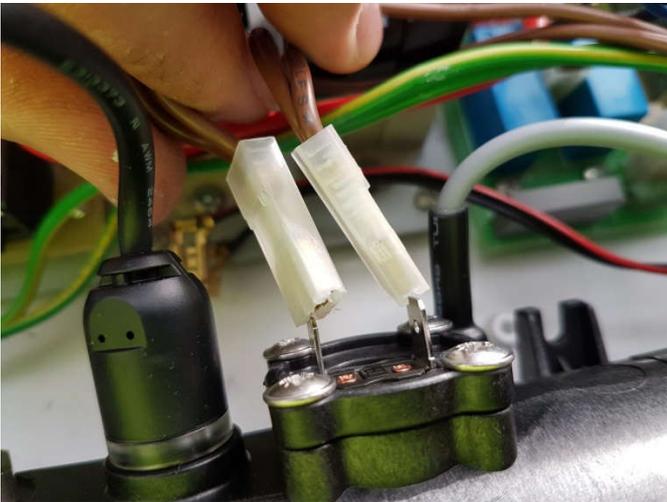


12. Remove the new element earth screw and place the earth wire onto the new element and secure it with the screw. Make sure that the earth wire is coming from the left hand side of the controller and is parallel to the heater tube; otherwise you will not be able to sit the element in the correct position later on.

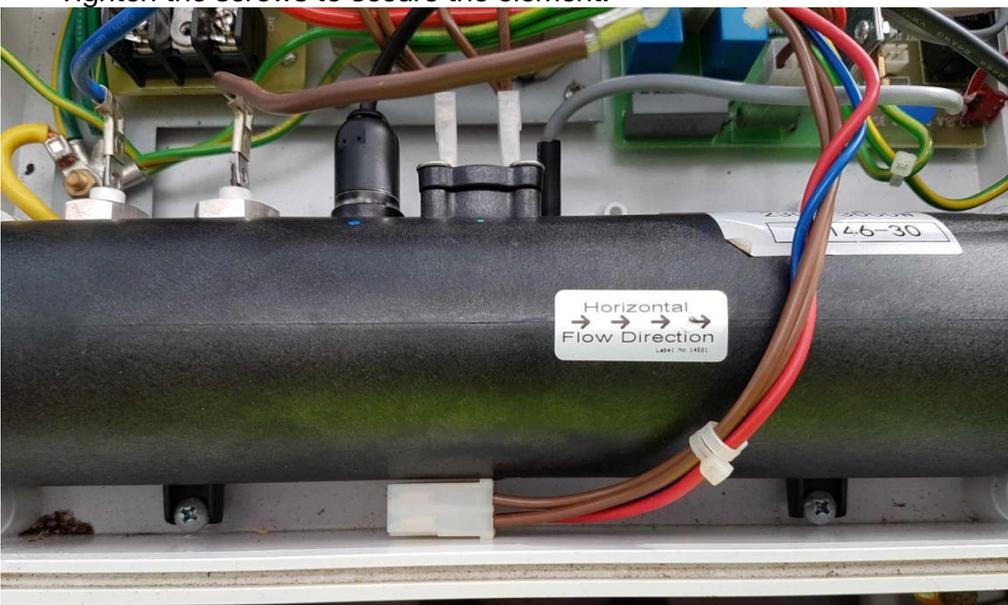




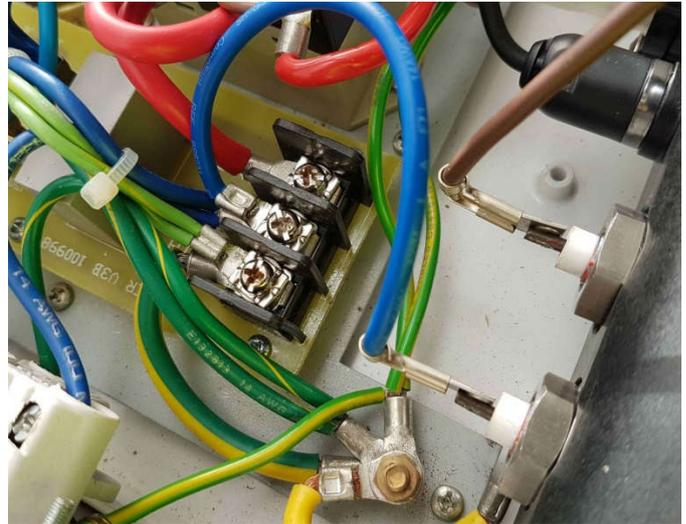
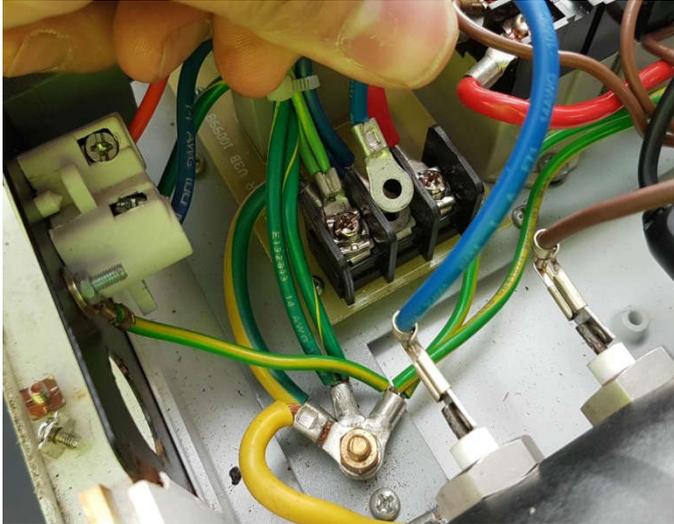
13. Connect the brown active wires from the left hand contactor to the thermal overload of the new element.



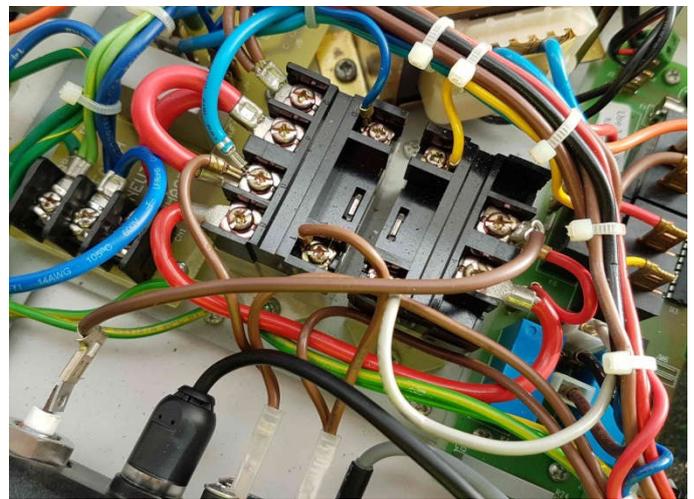
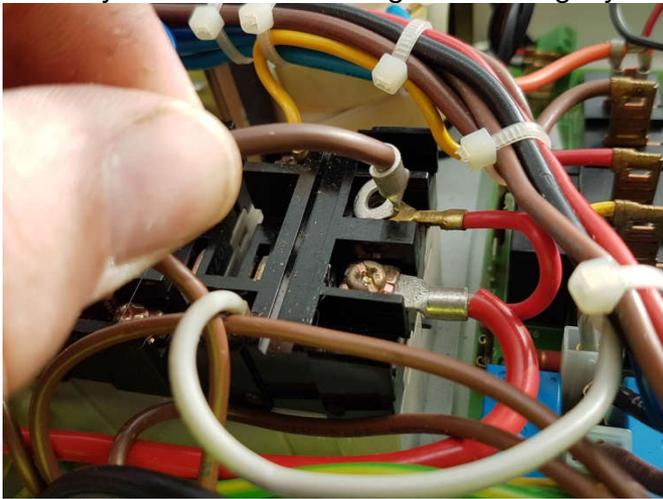
14. Gently lay the element into the unit, slipping the element tube feet under the screws in the bottom. Tighten the screws to secure the element.



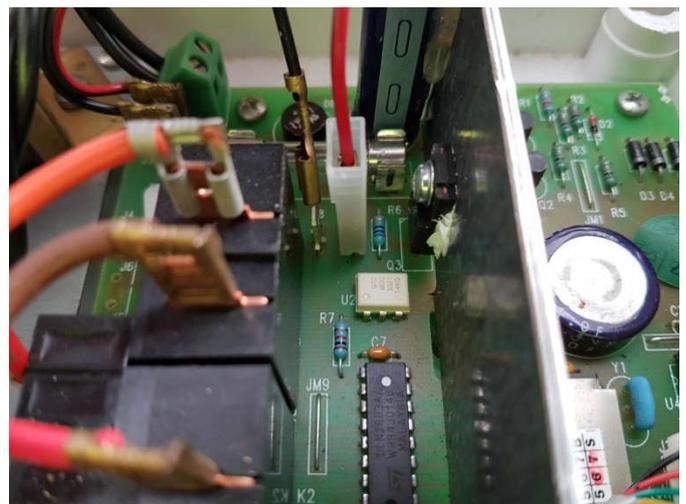
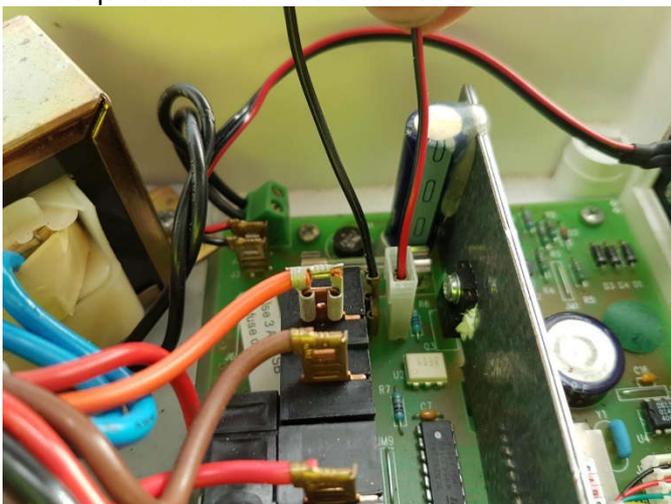
15. Connect new element blue neutral wire to screw terminal block and secure it with the screw.



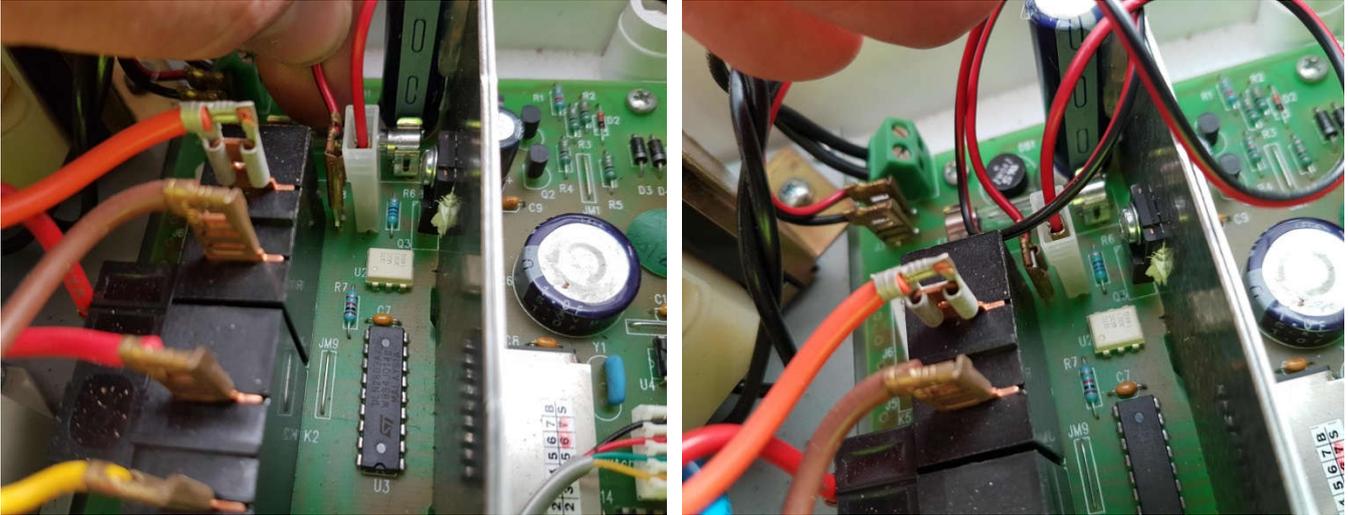
16. Connect new element brown active wire to right hand contactor and secure it with the screw. You may have to bend the ring terminal slightly to take the strain off the wire.



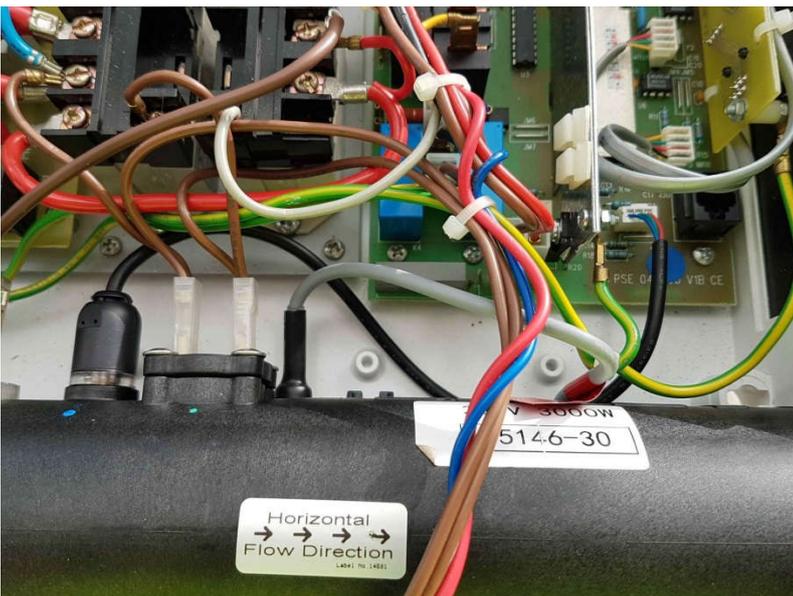
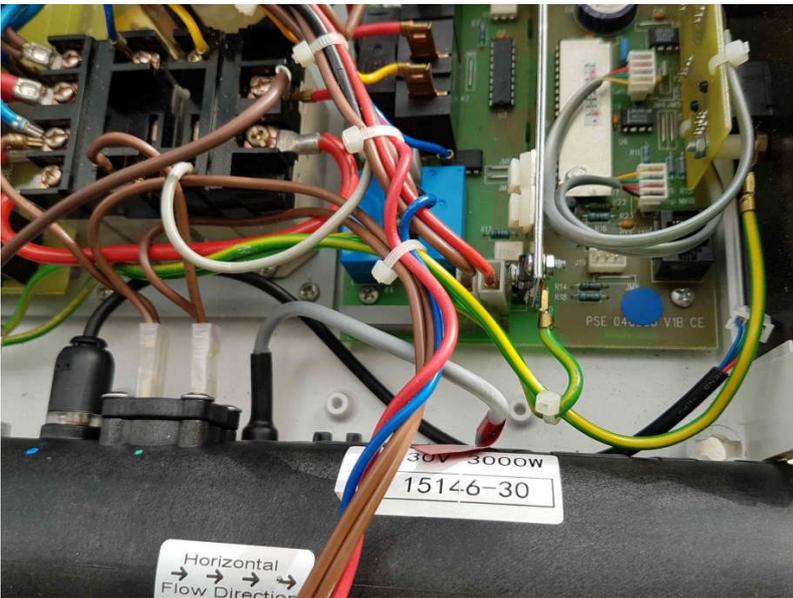
17. Remove the black & black/red wires from their clips. Separate the black and black/red wires and remove the black wire that is connected to the J8 terminal. The removed black wire is no longer required and can be discarded.



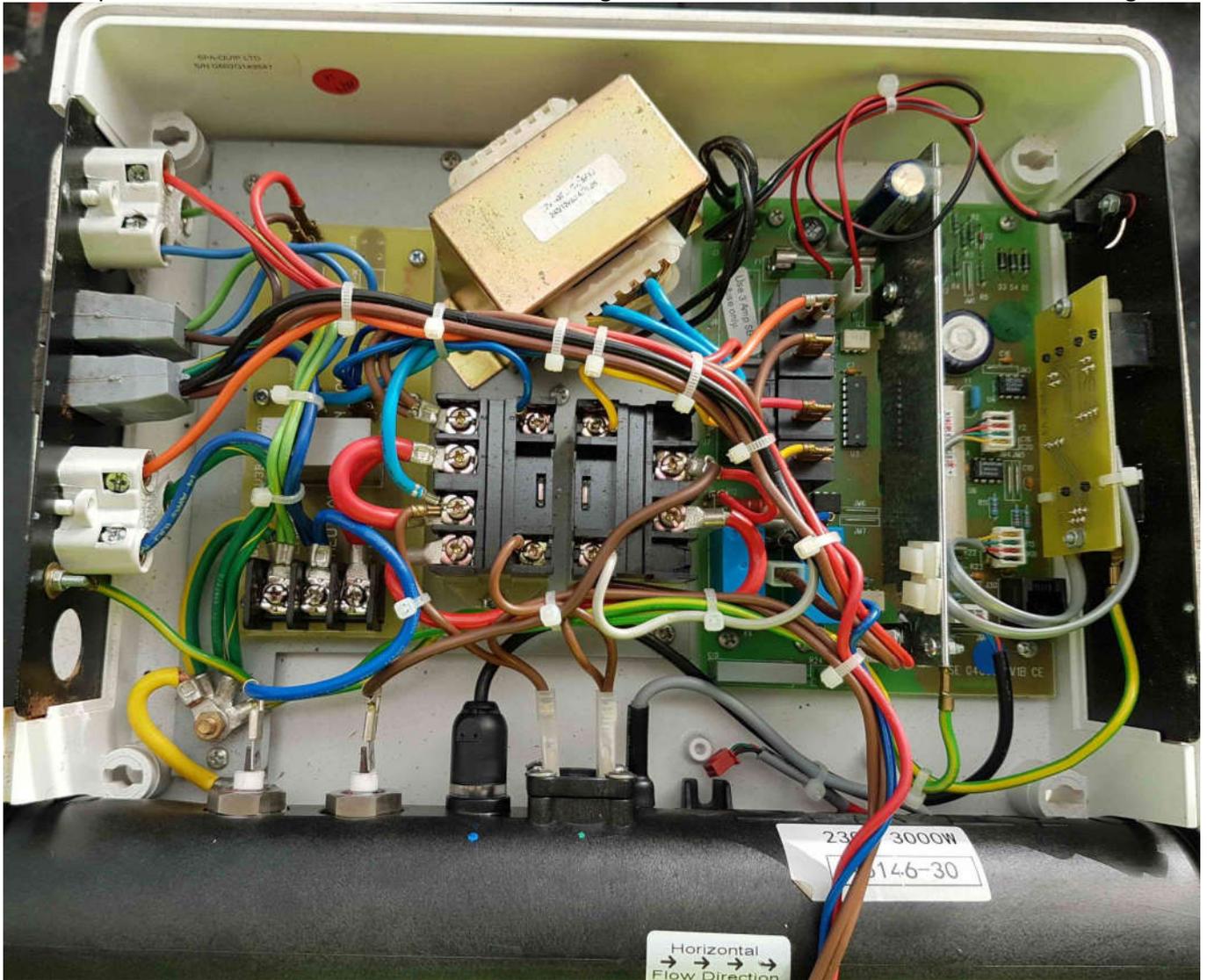
18. Loop the remaining black/red wire and connect it onto the J8 connector.



19. Route the black water sensor cable underneath the other wires and plug it onto the circuit board.



20. Loop the grey temp sensor cable and cable tie the water sensor and temp sensor cables together. Loop the black/red wire and cable tie it to the light socket wires. Cable tie the mains wires together.



21. Check all connections are done correctly. Reattached the mains cable and place the lid back on the controller. Reconnect the plumbing to the heater tube.
22. Open the valves that you closed off earlier and or refill the spa.
23. Turn the power to the spa back on and check that the unit does not display any error messages, especially when the heater indicator turns on.
24. If no error messages then the job is complete.