

**Fitting Instructions for Immersion Heater Types:
SH 3xxx-xAxxxx**

3kW Heaters conform to EN 60335-2-73:2003 + A1:06 +A2:09 and are Nemko approved

1. Check that the heater rating label shows the voltage that conforms to your mains supply.
2. Install the heater into the water tank or cylinder using the O-ring or gasket supplied. Use a shaped immersion heater spanner- Stillsons should not be used. The heater may be installed into a tank of any size, suitable to take this heater when installed in a horizontal manner, (if the heater is 18" or greater, it may be installed vertically), ensure that the heater is always fitted below water level, such as a cistern-fed tank, if applicable.
3. It is essential that the installer checks that the water level within the tank or cylinder is such that the water will always fully cover the heating element by a depth of at least 100mm. Under NO circumstances must the heater be allowed to run dry - serious damage may result to the heater in addition to danger of personal injury and damage to property.
4. Check the heater for possible water leakage before moving on to the wiring stage.
See overleaf for schematic wiring diagram.
5. The heater is to be wired with cable having a minimum size of 2.5 sq mm. 90°C elastomer insulated H05 BN4-F sheathed cable to BS EN 50525. The heater MUST be fully earthed and wired through a double pole switch having a contact separation of at least 3 mm in accordance with the wiring rules. Ensure all terminal connections are securely made and there are no loose strands. Do not use excessive force when tightening terminals.
6. **NEMKO** approval will only apply to Approved Heaters if the following thermal controls are used:

Cotherm TSE and DIAMOND H WTS. The heater conforms to the EEC Directive BS EN 55014-1:2006+A2:2011 for Electromagnetic compatibility.

Warning: Before making any adjustments within the heater terminal cover, isolate the heater from the mains electricity supply. **DO NOT COVER** the heater cap.

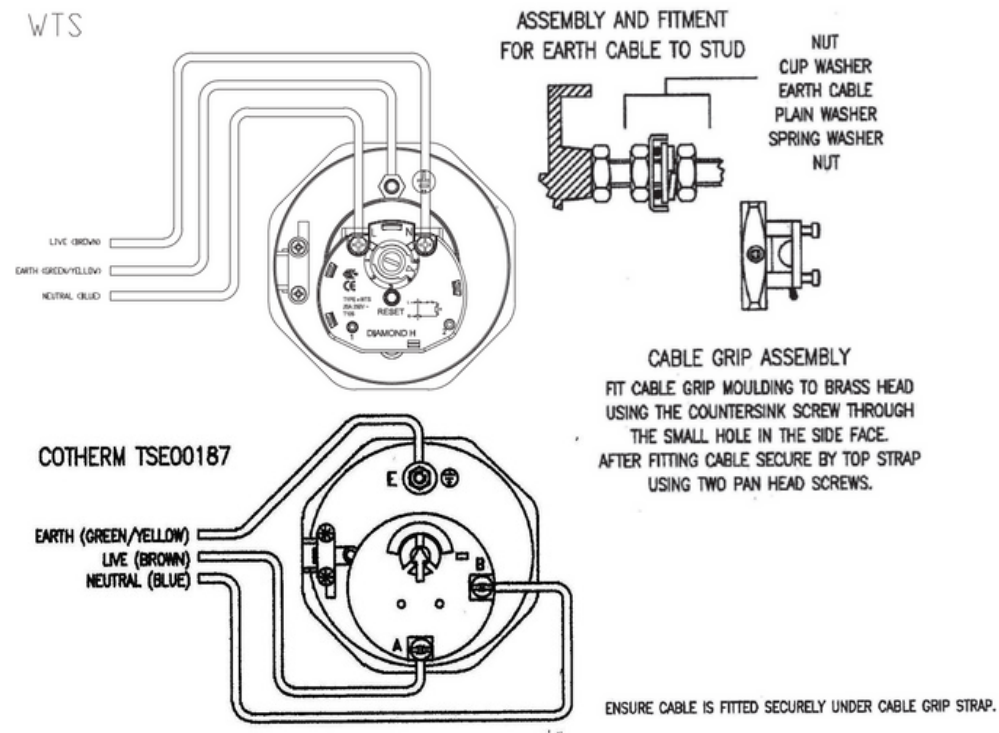
This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by person responsible for their safety. Children should be supervised to ensure that they do not play with this appliance.

7. In the event of the manually resettable cut-out within the thermostat operating range, isolate the heater from the mains supply before removing the terminal cover. Investigate and identify the cause for the operation of the cut-out, and rectify if possible before manually resetting the device by pressing the small button located on the top of the thermostat housing. At the same time, to prevent re-occurrence. Refer to FAQ's on our website.

It must be noted that if the cylinder is also heated by a secondary source such as solar-energy, or by an oil or coal fired boiler producing heat higher than the cut-out pre-set temperature, this can also cause the cut-out operate. It is not recommended that the thermostat is set higher than 60°C.

8. **Important:** It is not necessary for the heater to be removed to rectify any problems with the thermostat/cut-out. If the fault persists, the device can be replaced. Replacement thermostats can be obtained from the immersion heater manufacturer using the details overleaf.

9. Schematic Wiring Diagram, Earth Assembly Diagram and Cable Grip Fitment Details



PLEASE RETAIN THIS LEAFLET FOR FUTURE REFERENCE

IT IS THE INSTALLERS RESPONSIBILITY TO CHECK ALL CONNECTIONS, INCLUDING FACTORY MADE CONNECTIONS.

Warranty Information

All products carry a standard 12 month parts only warranty. Products that are deemed faulty can be returned for a replacement or credit at any time within this warranty period.

PLEASE SEE OUR WEBSITE FOR FURTHER DETAILS.

For Technical Help or Assistance - refer to FAQs on our website - www.backer.co.uk

Environmental Information:

Please note this product can be recycled at the end of its life cycle. If required, this product can be returned to Heatrod Elements Ltd for disposal.

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