

SUPREME COUNTER TOP

Fitting Instructions and User Guide

INTRODUCTION

Thank you for purchasing a Heatrae Sadia Supreme. The boiling water heater is manufactured to the highest standards and has been designed to meet all the latest relevant safety specifications.

This Heatrae Sadia water heater must be installed (Sections 1-6), commissioned (Section 7) and maintained (Sections 8-11) by a competent person. Please read and understand these instructions prior to installing your Heatrae Sadia water heater. Following installation and commissioning the operation of the heater should be explained to the user (Section 12) and these instructions left with them for future reference.

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 the use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

COMPONENT CHECKLIST

Before commencing installation check that all the following components have been supplied with your Supreme heater.

- Flexible water inlet hose
- Drip tray
- User instructions
- Warranty card

TECHNICAL SPECIFICATIONS

Electrical rating 2.8 - 3.0 kW 230 - 240V ~

Capacity 9 Litres

Weight (full) 29kg

Rated pressure 0MPa (0 bar)

Minimum supply pressure 0.02MPa (0.2 bar)

Maximum supply pressure 1.0MPa (10 bar)

Nominal commissioning time 45 minutes

1.0 GENERAL INSTALLATION POINTS

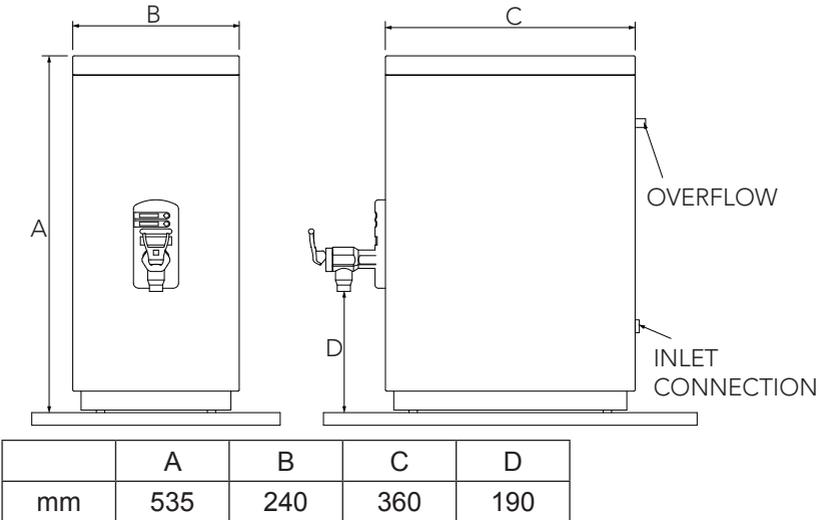
- 1.1 Wherever possible the Supreme should be supplied directly from a rising main. If fed from a cold water feed cistern, the cistern must comply with the Water Regulations Guide (clause R27.2).
It should be noted that water quality may be reduced when supplied from a cistern and additional forms of water pre-treatment may be necessary.
- 1.2 In hard water areas, heated water will produce limescale which will be deposited within the heater. If this is not regularly removed it will impair the operation of the heater. Where rapid and excessive scale build up is likely to occur the use of a proprietary scale reducing device may be beneficial.
- 1.3 The installation must be carried out in accordance with the relevant requirements of:
 - The appropriate Building Regulations either The Building Regulations, The Building Regulations (Scotland) or Building Regulations (Northern Ireland).
 - The Water Fittings Regulations or Water Byelaws in Scotland.

2.0 INSTALLATION - LOCATION

- 2.1 The Supreme stores and dispenses water at, or close to, boiling point at all times it is switched on. Due caution must be taken when choosing a location for the product to minimise misuse. It is recommended that the unit be mounted in such a manner that the operator can stand directly facing the unit with the controls at a recommended height from the floor to the draw-off tap of 1200mm +/- 100mm.
- 2.2 Sufficient room should be left around the heater to allow access for maintenance and servicing.
- 2.3 Install the unit on a surface suitable for near boiling temperatures and the working weight of the unit.
- 2.4 The unit is not suitable for installation in an area where a water jet could be used.

3.0 DIMENSIONS

Figure 01: Dimensions



4.0 INSTALLATION - WATER SUPPLY

- 4.1 A WRAS listed isolating valve should be fitted to the cold supply to facilitate servicing the heater.
- 4.2 **Before connecting the unit the supply pipe must be thoroughly flushed out to ensure that foreign matter does not block or enter the solenoid valve.**
- 4.3 The unit must be connected to a potable water supply using the food grade hose provided, in a manner which complies with UK water regulations. The hose should be connected to a ½” (15mm) drinking water supply via an appropriate isolating valve. The supply must provide a constant pressure of between 20 KPa and 1000 KPa (0.2 to 10 Bar), via an isolating stop cock fitted near the unit.
- 4.4 If the water supply contains excessive solids in suspension it is recommended that a fine mesh “in line” water filter is fitted in the pipe work after the stop cock. Failures due to scale and sediment are not covered by the warranty.

5.0 INSTALLATION - VENT PIPE

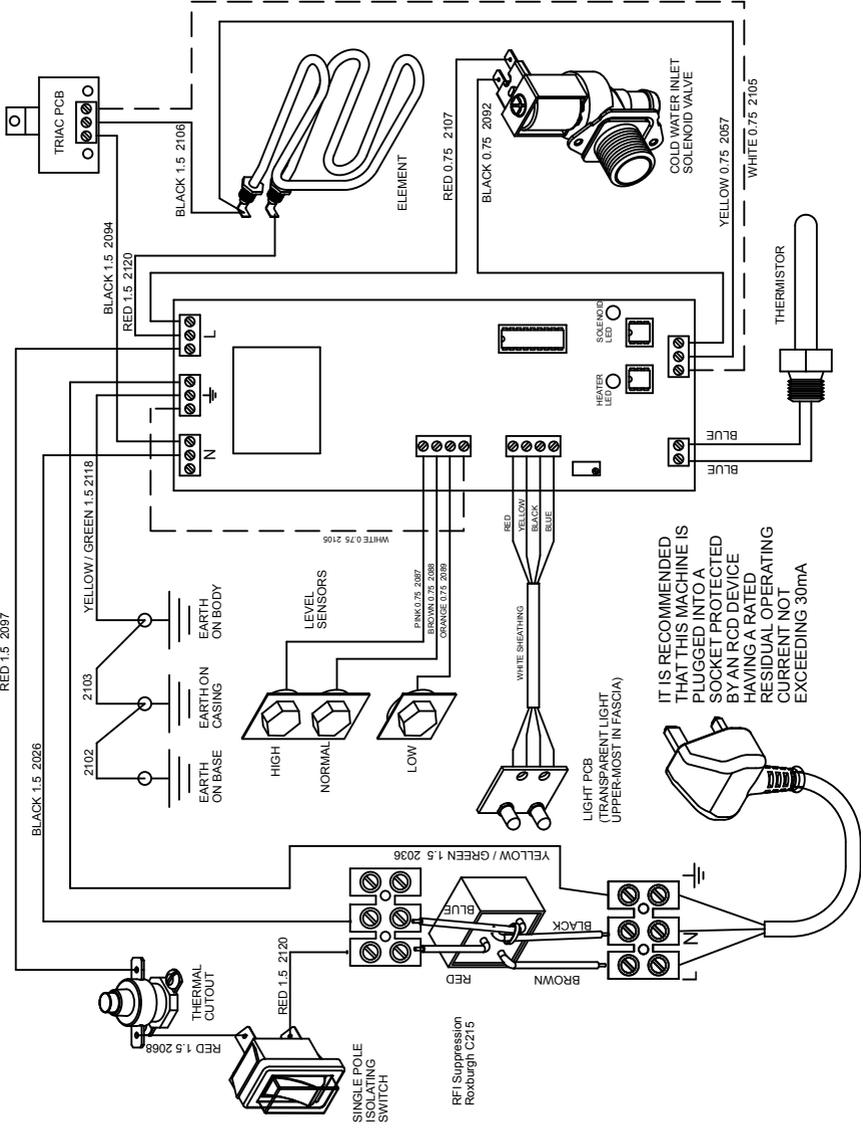
NOTE: It is not advisable to create a permanent connection to the vent which cannot be removed if maintenance is required.

- 5.1 The vent / overflow pipe must be extended and laid with a continuous fall, discharging to a safe and visible point. The pipe should not be directly connected to a closed waste, as taste problems may occur and should never be allowed to become blocked or restricted. One way this could be connected is via a tundish arrangement. The vent pipe material must be capable of conveying boiling water. If the machine is operated without the overflow pipe being extended as advised, any subsequent damage incurred will be the responsibility of the installer.

6.0 INSTALLATION - ELECTRICAL REQUIREMENTS

- 6.1 The unit is supplied with a fitted plug and lead and should be plugged into a 240v 13A electrical socket, capable of carrying a load of 3kW. If the supply cord is damaged it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a hazard.
- 6.2 The installation of a residual current device (RCD) having a rated residual operating current not exceeding 30 mA is advisable.
- 6.3 This appliance must be earthed.
- 6.4 The installation, supply cable and circuit protection must conform to the latest BS7671 'Requirements for electrical installations' (IEE Wiring Regulations).
- 6.5 If the Supreme is not used for significant periods of time running costs can be reduced by switching the unit off. It is recommended that this is done automatically by incorporating a suitable timeswitch in the supply to the unit. The use of accessory No. 95 970 124 is recommended. The timeswitch can then be set to switch the unit on for a suitable period to allow it to heat up before it is next to be used. NOTE: If a timeswitch is used, it must be capable of switching 13 Amps resistive load.

Diagram 02: Wiring Schematic



7.0 COMMISSIONING

- 7.1 Check that all electrical, water, and vent pipe connections have been made and are secure.
- 7.2 Turn on the water supply and then switch on the electrical supply. Ensure that the On/Off switch is in the On position. (Located at the rear).
- 7.3 The Wait/Ready light will flash yellow (indicating below temperature) and the unit will slowly fill with water (1.2 L/Min). When water passes the low level sensor (just below tap level) the element will also be energised. When the normal operating water level is reached the solenoid will be disabled and the element will continue to heat the unit until the full operating temperature has been reached. At this point the Wait/Ready light will show solid orange indicating that the unit is full and up to temperature.
- 7.4 Check for leaks.

Subsequent Use

- 7.5 After the unit has finished the commissioning cycle, and water is drawn from the tap, water will be replaced in short cycles (small amount of water and then heat). The solenoid and element will never be on at the same time unless the unit is switched off and on again (re-setting commission mode). In normal use the unit will always be at operating temperature indicated by the Wait/Ready light showing a solid (not flashing) colour. When the unit is full and ready, the light will be orange and when the unit is only part full the light will be yellow.

8.0 MAINTENANCE

NOTE: Maintenance must be carried out by competent persons. Competent - i.e. trained, experienced, qualified.

Disconnect the electrical supply before removing the cover.

WARNING: Electronics control by switching 'N' (neutral). In some instances neutral terminations will be at 240 volts with respect to earth.

- 8.1 The production of scale is a natural phenomenon and commonly occurs in hot water systems. The nature of the scale produced and its rate of formation varies widely throughout the country.
- 8.2 To ensure continuous, reliable operation, the unit should be regularly de-scaled by a suitably qualified engineer. Suitable chemical descalants must only be used if the manufacturers recommendations are strictly adhered to. This is to prevent health and safety issues, taste problems and potential damage to the appliance. Misuse of such chemicals is not covered by the product warranty.
- 8.3 The Supreme incorporates an electronic scale conditioning function which will reduce the rate of scale deposition in hard water areas. However, some deposits may still occur in the storage tank; these should be periodically removed.
- 8.4 The amount of usage of the unit will also determine the quantity of scale build up. A regular inspection of the tank every 6 to 12 months will provide longer life of the product and optimum performance (removal of the steam plate assembly will give access to the storage tank).

9.0 SERVICE

- 9.1 When the green service indicator light on the front of the unit is showing solid colour, the machine has been starved of water for in excess of 20 minutes and the solenoid valve has been disabled to prevent damage to the solenoid coil through overheat. To re-energise the solenoid, the unit must be disconnected from the electrical supply and then switched back on, after first reinstating the water supply.
- 9.2 If the unit requires servicing the service indicator will flash a sequence of light pulses. A 2 times or 3 times light pulse generally indicates that the low or normal level sensors require de-scaling.
- 9.3 A 4 times light pulse means the water level has reached the high level sensor and the likelihood is that the normal level sensor requires de-scaling, or the machine has over-filled due to debris trapped in the solenoid valve. The debris can be removed by drawing plenty of water from the dispense tap, causing the solenoid valve to operate and flush out the obstruction. The machine will reset itself once the problem has cleared. If this does not rectify the problem, turn off the water supply and remove the flexible hose to check for debris in the solenoid valve's filter. The unit can be used normally while the service indicator is flashing a 4 times pulse. For further assistance, contact the Heatrae Sadia Service Department, telephone 0844 871 1535, fax 0844 871 1528.
- 9.4 To gain access to internal components, the lid must be removed. The lid 'pops' off in an upward motion. Beneath the lid there are four screws holding the steam trap in place. Removing these will allow the steam trap to be removed and access to the tank will be gained. To gain access to the rear components the rear panel must be removed which is held in place by six screws.

NOTE: Whenever the body lid has been removed from the unit a new lid gasket may be required to ensure a steam-tight joint. Damage to the unit caused by a poor lid seal is not covered by warranty.

- 9.5 Scale deposits should be removed from all internal surfaces, particularly the heating element, thermistor, and level sensors by gently tapping or scraping. If the deposits are soft, use a nylon pad and flush out. Abrasive cleaning materials containing scouring powders and detergents must not be used, as such materials can cause taste problems.
- 9.6 Suitable chemical de-scalants must only be used in accordance with the manufacturers recommendations. This will prevent health and safety issues, taste problems, and potential damage to the appliance. All trace of these chemicals must be removed from the appliance before re-commissioning the unit . Misuse of such chemicals is not covered by the product warranty.

IMPORTANT Before re-commissioning the unit, it is important that all scale and moisture is removed from the level sensor insulating gaskets to avoid a false signal being transmitted through the scale to the unit body. Failure to remove this scale and/or moisture could cause the sensor to indicate to the PCB that water is covering the element, whether or not water is present. In this situation the PCB could energise the element causing failure. If in doubt, protect the element by hand filling with water to the level of the draw-off tap before switching on the electrical supply to the unit.

9.7 General function

The printed circuit board (PCB) controls the heating and filling functions of the unit by monitoring the thermistor and level sensors. The PCB also controls the external light unit to indicate the current state of the appliance. Red and yellow LED'S on the circuit board indicate whether the PCB has energised the element or solenoid respectively.

Should an element fail and need to be replaced, it may be necessary to replace the lid gasket to ensure a steam-tight joint. Note: the element has a permanent 'Live' feed, and the 'Neutral' is switched.

9.8 Printed Circuit Board replacement (PCB)

In the event of a PCB failing and a replacement being required, full instructions will be supplied. It is important to note however, that the Triac PCB must be securely mounted against the copper heat-sink to ensure reliable heat dissipation. Heat transfer compound is also supplied with all replacement circuit boards.

9.9 Adjusting the Water Temperature Set Point

The temperature potentiometer (Pot) is pre-set at Heatrae Sadia and will only require adjustment in exceptional circumstances. Contact Heatrae Sadia for advice.

Water boils at different temperatures depending on barometric pressure. The temperature should not be tuned higher than 98°C, or over boiling may occur during low barometric pressure conditions causing the unit to trip the overheat cut-out device.

9.10 On / Off Switch

The On / Off switch is positioned at the rear of the machine. When in the off position the unit will cease to function & the light on the fascia will go out.

NOTE: This switch must not be used to isolate the electrical supply for servicing / maintenance. When maintaining / servicing the unit the power cord must be removed from the mains supply.

10.0 FAULT FINDING

YOUR HEATRAE SADIA SUPREME SHOULD GIVE TROUBLE FREE OPERATION. HOWEVER SHOULD A FAULT OCCUR THE TABLE BELOW SHOULD ALLOW MOST FAULTS TO BE IDENTIFIED. FAULT FINDING SHOULD ONLY BE CARRIED OUT BY A COMPETENT PERSON.

Symptoms	Possible Cause	Remedy
No lights on front of unit	On/Off switch in Off position	Switch to On position
	Thermal cut-out tripped	Reset and check for faults (i.e. scale on thermistor)
No boiling water available	Broken tap top	Replace tap top (or component)
	Normal level sensor holding signal	De-scale / Clean / Dry
	Thermal cut-out tripped (no lights lit on fascia)	Reset and check for faults (i.e. scale on thermistor)
	On / Off switch in off position	Switch to On position
Thermal cut-out trips regularly	Element failed	Replace element
	Excessive internal scale. (See 'service' page 11)	De-scale the unit (particularly thermistor)
	Faulty wiring to thermistors / faulty thermistors	Repair / replace as required
	Temperature controller needs adjusting	Lower operating temperature
	Element failed to earth	Replace element
Overflows	Defective PCB & / or triac PCB	Replace PCB & triac (sold as a matched pair)
	Dirt in solenoid valve.	Clean solenoid filter and "work the unit" or replace the solenoid - see service Instructions (page 11).
Overflows	Level sensors require de-scaling or replacing	De-scale / replace sensors
	PCB faulty	Replace PCB

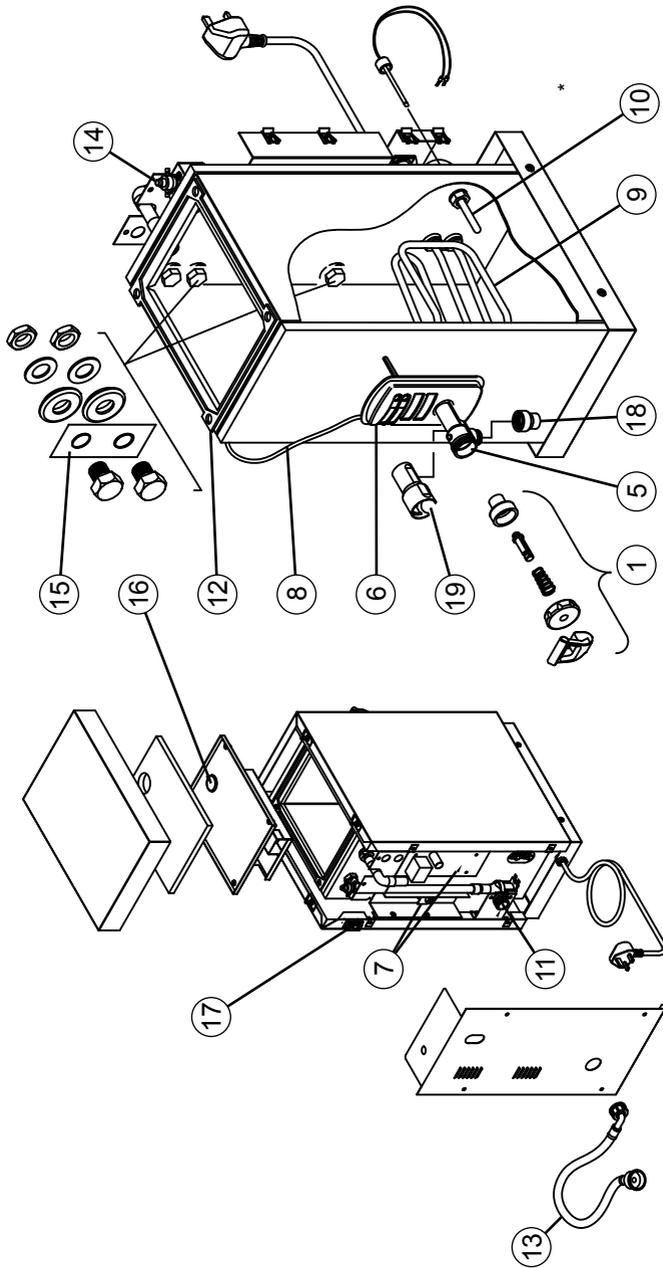
11.0 SPARE PARTS

The following comprehensive list of spare parts are available for your Supreme water heater.

DO NOT REPLACE WITH PARTS NOT RECOMMENDED BY HEATRAE SADIA - THIS WILL INVALIDATE YOUR GUARANTEE AND MAY RENDER THE INSTALLATION DANGEROUS.

1.	Tap assembly.....	95 605 098
5.	Draw off tap body	95 605 174
6.	Plastic moulded facia kit.....	95 614 130
7.	PCB inc Triac.....	95 615 074
8.	Light PCB	95 615 075
9.	3kw element	95 601 725
10.	Thermistor assembly kit.....	95 612 648
11.	Solenoid valve	95 605 173
12.	Body lid gasket	95 611 024
13.	Water inlet hose 1M.....	95 607 392
	Water inlet hose 2M.....	95 607 684
14.	Manual reset thermal cutout	95 612 649
15.	Level probes kit	95 607 393
16.	Body lid gromet.....	95 607 394
17.	Single pole on/off switch (inc cover)	95 613 007
18.	Tap nozzle kit.....	95 604 017
19.	Tap heat shield	95 607 395

Figure 03: Exploded view



12.0 USER INSTRUCTIONS

- 12.1 Once installed the filling and heating cycles of the Supreme are completely automatic.
- 12.2 To dispense water, place a suitable container under the outlet spout, the tap handle should be pulled down and towards (or pushed away from) the user. The water dispensed will at all times be boiling, or close to boiling point so due caution must be taken when using the product.
- 12.3 If the handle is pulled all the way down it will stay open even when the user lets go.
- 12.4 The tap handle is spring loaded so that when released (as long as it has not been pulled all the way down) it will spring back to the “off” position (no flow).
- 12.5 The Supreme is fitted with two indicators to give a visual indication of the unit’s status:

WAIT/READY When fully illuminated indicates that the stored water is hot enough to use.

SERVICE See service section (section 9.0, page 11) for the service light status.

- 12.6 If the Supreme is not used for a few days the water may become “stale”. In these instances it is advisable to draw off the contents and discard the water at least twice to remove the “stale” water. This will ensure that “freshly” boiled water is used to make your drinks etc.

GUARANTEE

This Supreme water heater is guaranteed for a period of two years from the date of purchase, provided:

1. The unit has been installed in accordance with these instructions and all necessary inlet, vent, and electrical connections have been fitted correctly.
2. Any valves or controls are of Heatrae Sadia recommended type.
3. The unit has not been tampered with and has been regularly maintained as detailed in the maintenance instructions.
4. The unit has been used only for heating potable water.
5. It has been installed in the UK.

The unit is not guaranteed against damage by frost or due to the build up of scale. Please note that if Heatrae Sadia personnel or agents are requested to descale a unit, this work will be chargeable.

This guarantee does not affect the statutory rights of the consumer.

The policy of Heatrae Sadia is one of continuous product development and, as such, we reserve the right to change specifications without notice.

ENVIRONMENTAL INFORMATION

This product is manufactured from many recyclable materials. At the end of its useful life it should be disposed of at a Local Authority Recycling Centre.

Spares Stockists

For the fast and efficient supply of spares please contact the stockists listed below.

Electric Water Heating Co.
2 Horsecroft Place, Pinnacles
Harlow, Essex, CM19 5BT
Tel: 0845 0553811
E-Mail: sales@ewh.co.uk

SPD
Units 9 & 10 Hexagon Business Centre
Springfield Road, Hayes
Middlesex, UB40 0TY
Tel: 020 8606 3567

Parts Center
Tel: 0845 270 9800
www.partscenter.co.uk

Newey & Eyre
Specialist Products Division
Please contact your local branch

UK Spares Ltd.
Unit 1155 Aztec West
Almondsbury, Bristol
BS32 4TF
Tel: 01454 620500

William Wilson Ltd.
Unit 3A, 780 South Street
Whiteinch, Glasgow, G14 OSY
Tel: 0141 434 1530

Advanced Water Company Ltd
Unit DS Enterprise Way
Vale Park, Evesham
Worcs, WR11 1GS
Tel: 01386 760066

HEATRAE SADIA

The quality name in water heating

Heatrae Sadia Heating
Hurricane Way Norwich NR6 6EA
www.heatraesadia.com

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Service: 0844 871 1535
Service Fax: 0844 871 1528
Service Email: heatraesadiaservice@heateam.co.uk

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