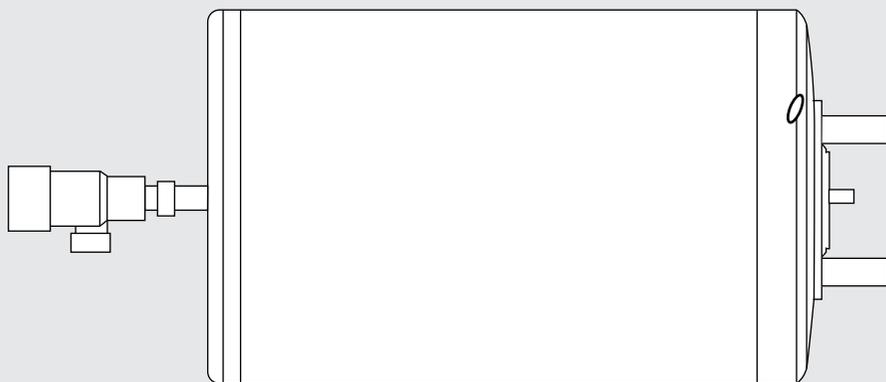


# HEATRAESADIA

SMARTER | CLEANER | WARMER

## Multipoint Horizontal 30 and 50 litre Fitting Instructions



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The HWA Charter Statement requires that all members adhere to the following:

- ▶ To supply fit for purpose products clearly and honestly described.
- ▶ To supply products that meet, or exceed appropriate standards and building and water regulations.
- ▶ To provide pre and post sales technical support.
- ▶ To provide clear and concise warranty details to customers.

**i** This product can be used by children aged from 8 years and above and persons with reduced physical sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the product in a safe way and understand the hazards involved. Children shall not play with the product. Cleaning and user maintenance shall not be made by children without supervision. Children must be supervised to ensure they do not play with the product.

# 1. Introduction

## 1.1 General

The following instructions are offered as a guide to the user and installer.

The installation must be carried out by a competent plumbing and electrical installer in accordance with Building Regulation G3 (England and Wales), Technical Standard P3 (Scotland) or Building Regulation P5 (Northern Ireland) and the Water Fitting Regulations (England and Wales) or Water Byelaws (Scotland).

## 1.2 Symbols used

In these instructions, various risk levels are employed to draw the user's attention to particular information. In doing so we wish to safeguard the user, avoid hazards and guarantee the correct operation of the appliance.



### **DANGER**

Risk of dangerous situation causing slight physical injury.



### **WARNING**

Risk of dangerous situation causing slight physical injury.



### **CAUTION**

Risk of material damage.



Signals important information.

## 1.3 Abbreviations

- ▶ RCD – Residual current device
- ▶ MCB – Miniature circuit breaker

## 1.4 Liabilities

### **Manufacturer's liability**

Our products are manufactured in compliance with the requirements of the various applicable European Directives.

This product complies with the requirements of the CE marking directive.

In the interest of UK customers, we are continuously endeavouring to make improvements in product quality. All the specifications stated in this document are therefore subject to change without notice.

Our liability as the manufacturer may not be invoked in the following cases:

- ▶ Failure to abide by the instructions on using the product.
- ▶ Faulty or insufficient maintenance of the product.
- ▶ Failure to abide by the instructions on installing the product.

### **Installer's liability**

The installer is responsible for the installation and the commissioning of the product. The installer must respect the following instructions:

- ▶ Read and follow the instructions given in the manuals provided with the product.
- ▶ Carry out installation in compliance with the prevailing legislation and standards.
- ▶ Perform the initial start-up and carry out any checks necessary.
- ▶ Complete the commissioning checklist.
- ▶ Explain the installation to the user.
- ▶ If maintenance is necessary, warn the user of the obligation to check the product and maintain it in good working order.
- ▶ Give the instruction manual to the user.

### **User's liability**

To guarantee optimum operation of the product, the user must respect the following instructions:

- ▶ Read and follow the instructions given in the manuals provided with the product.
- ▶ Call on qualified professionals to carry out installation and initial start-up.
- ▶ Get your fitter to explain your installation to you.
- ▶ Have your required checks and services done.
- ▶ Keep the instruction manuals in good condition and close to the product.

## 2. Safety

### 2.1 General safety warnings



#### **DANGER**

This product is unvented and as such becomes pressurised when in operation. The combination of pressurisation and hot water could lead to serious physical injury if the safety instructions in this manual are not adhered to.



#### **WARNING**

- ▶ Only competent persons having received adequate training are permitted to work on the product and the installation.
- ▶ Do not tamper with the safety valve supplied.
- ▶ Before any work, switch off the mains supply to the appliance.
- ▶ Do not switch on if there is a possibility that the water in the appliance is frozen.



#### **CAUTION**

Do not operate immersion heater until the product has been filled with water.

### 2.2 Recommendations



#### **CAUTION**

- ▶ Annual maintenance is recommended by a competent person.

### 2.3 Specific safety instructions



#### **WARNING**

DO NOT operate the product if:

- ▶ Water ceases to flow during use.
- ▶ Water has entered inside the product because of an incorrectly fitted cover.
- ▶ If the appliance is damaged.

(in all cases turn off mains power and isolate water supply)

- ▶ If water discharges from the temperature/pressure relief valve on the product shut down. Do not turn off any water supply. Contact a competent installer for unvented water heaters to check the system.
- ▶ Do not tamper with any of the safety valves fitted to the system. If a fault is suspected contact a competent installer.
- ▶ DO NOT bypass the thermal cut-out in any circumstance.

### 3. Technical specification

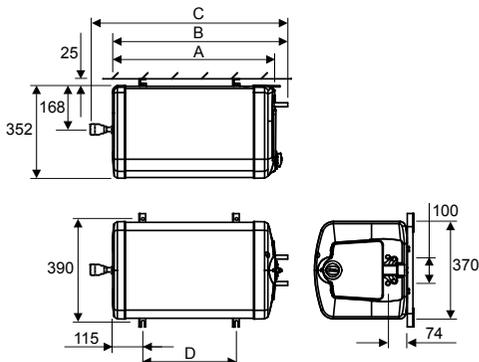
#### 3.1 Technical data

Electrical rating	3kW@240V~/2.75kW@230V~	
Capacities	30 or 50 litres	
Weight (full)	30 litre - 42.5kg	50 litre - 69.3kg
Rated pressure	0.6MPa (6 bar)	
Minimum recommended supply pressure	0.08MPa (0.8 bar)	
Maximum supply pressure to PRV	1.6MPa (16.0 bar)	
Combined pressure reducing valve	0.35MPa (3.5 bar)	
Pressure relief valve	0.6MPa (6 bar)	
Expansion vessel pre-charge	0.35MPa (3.5 bar)	
Temperature/Pressure Relief Valve	90°C/0.7MPa (7 bar)	

Supplier's name or trade mark	Multipoint	
	30H	50H
Supplier's model identifier	30.0	50.0
Storage volume V in litres	30.0	50.0
Mixed water at 40 °C V40 in litres	38.5	61.4
The declared load profile	S	M
The water heating energy efficiency class of the model	D	D
The water heating energy efficiency in %	29.3	34.7
The annual electricity consumption in kWh	629	1482
Daily fuel consumption in kWh	3.09	7.02
The thermostat temperature settings of the water heater, as placed on the market by the supplier	60°C	
Specific precautions that shall be taken when the water heater is assembled, installed or maintained and disposed of at end of life	See Section 3 to 11	

Table: Technical parameters in accordance with European Commission regulations 814/2013 and 812/2013

#### 3.2 Dimensions and connections



Dimension	30 litre	50 litre
A	616	888
B	665	937
C	788	1060
D	355	627

Figure 1

#### 3.3 Electrical diagram(s)

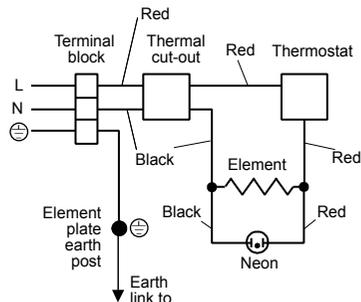


Figure 2 – wiring diagram

## 4. Description of the product

### 4.1 General description

This product is a purposed designed unvented water heater. The product has a copper inner vessel, which ensures an excellent standard of corrosion resistance. The outer casing is a combination of resilient thermoplastic moldings and painted steel.

The product is supplied complete with all the necessary safety and control devices needed to allow connection to the cold water mains. These components are preset and should not be tampered with.

### 4.2 Operation principle

The product is used to heat and store hot water for use in domestic applications.

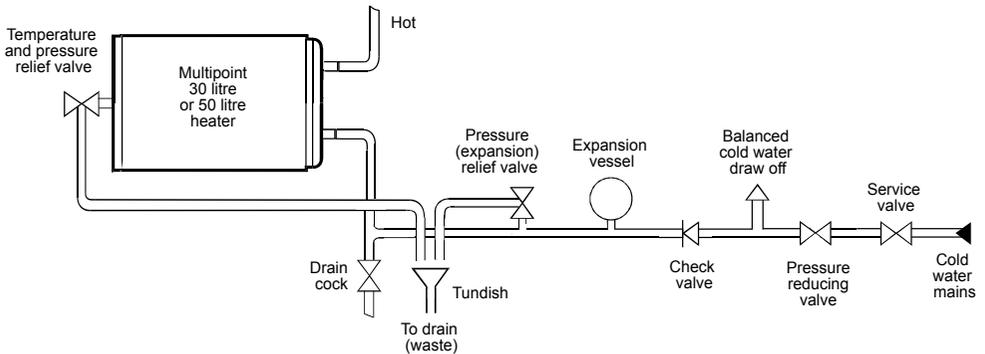
### 4.3 Standard delivery

- ▶ Product
- ▶ Expansion vessel
- ▶ Combined pressure reducing valve
- ▶ Single check valve
- ▶ Pressure relief valve
- ▶ Tundish
- ▶ Fixing bracket
- ▶ Screw pack
- ▶ Instructions

### 4.4 Mains connections

See figure 4 below.

Figure 4 – Installation diagram



## 5. Before installation

### 5.1 Installation regulations



#### WARNING

Installation of the product must be carried out by a qualified engineer in accordance with prevailing and national regulations as listed below.

- ▶ Building Regulations
- ▶ The Building Standards (Scotland)
- ▶ The Building Regulations (Northern Ireland)
- ▶ I.E.E Electrical Regs
- ▶ UK Water Regulations

### 5.2 Installation requirements

#### Water supply

In an unvented system the pressure and flowrate is directly related to the incoming water supply. For this reason it is recommended that the maximum water demand is assessed and the water supply checked to ensure this demand can be satisfactorily met.

- ▶ We suggest the minimum supply requirements should be 0.08MPa (0.8 bar) pressure.
- ▶ A 15mm cold water supply is recommended.
- ▶ The higher the available pressure and flow rate the better the system performance.
- ▶ The water supply must be of wholesome water quality (Fluid Category 1 as defined by the Water Supply Regulations 1999).

#### Outlet/terminal fittings (taps,etc.)

- ▶ The product can be used with most types of terminal fittings.
- ▶ It is not recommended for supplying a shower.
- ▶ All fittings, pipework and connections must have a rated pressure of at least 8 bar at 80°C.

### 5.3 Choice of location

- ▶ National Wiring rules may contain restrictions concerning the installation of these products in bathrooms.
- ▶ The product should be Horizontally wall mounted using the wall bracket supplied. The water connections must always be to the right of the product.
- ▶ For servicing leave the following minimum distances; 250mm on right hand side and 330mm on the left hand side. Refer to figure 1 and the dimension table to determine a suitable position for the product.



#### WARNING

Ensure that the wall can support the full weight of the product (see Technical specifications) and that there are no hidden services (electricity, gas, or water) below the surface of the wall.

## 6. Installation

### 6.1 General

After reading the previous sections in this booklet and choosing a good location for the product please install, paying attention to the following hydraulic, electrical and commissioning sections.

### 6.2 Water connections



#### WARNING

- ▶ Under no circumstances should the factory fitted temperature/pressure relief valve be removed other than a competent person. To do so will invalidate any warranty or claim.
- ▶ No control or safety valve should be tampered with or used for any other purpose.
- ▶ The discharge pipe should not be blocked or used for any other purpose.
- ▶ The tundish should not be located adjacent to any electrical components.

Refer to the Installation schematic (figure 4, page 6) to determine which valves and accessories are required.

Plumb in the valves in the sequence shown in the relevant figures 4, page 6.

- ▶ The water connections are 15mm diameter copper tubes suitable for compression fittings. Do not use solder joints as this will damage the heater and may prevent servicing under warranty.
- ▶ The INLET is marked BLUE, the OUTLET is marked RED. The WRAS listed isolating valve (supplied) must be fitted on the cold water supply to the product. Several hot outlets can be served.
- ▶ A drain valve must be fitted below the heater in the inlet pipework. It must be sited between the heater and the check valve (see figure 4 page 6).
- ▶ Plumbers Paste must not be used as it can impair the operation of the valves.
- ▶ The product MUST be fitted with a Pressure Relief Valve. The factory fitted Temperature/Pressure Relief Valve can fulfill this function.



#### WARNING

Failure to provide adequate pressure relief will invalidate any warranty and lead to a dangerous installation.

#### Discharge

- ▶ It is a requirement of Building Regulation G3 that any discharge from an unvented system is conveyed to where it is visible, but will not cause danger to persons in or about the building. The tundish and discharge pipes should be fitted in accordance with the requirements and guidance notes of Building Regulation G3. The G3 Requirements and Guidance section 3.50 - 3.63 are reproduced in the following sections of this manual. For discharge pipe arrangements not covered by G3 Guidance advice should be sought from your local Building Control Officer. Any discharge pipe connected to the pressure relief devices (expansion valve and temperature/pressure relief valve) must be installed in a continuously downward direction and in a frost free environment.
- ▶ Water may drip from the discharge pipe of the pressure relief device. This pipe must be left open to the atmosphere. The pressure relief device is to be operated regularly to remove lime deposits and to verify that it is not blocked.

#### G3 Requirement

“...there shall be precautions...to ensure that the hot water discharged from safety devices is safely conveyed to where it is visible but will not cause danger to persons in or about the building.”

The following extract is taken from the latest G3 Regulations

Discharge pipes from safety devices

#### Discharge pipe D1

- ▶ 3.50 – Each of the temperature relief valves or combined temperature and pressure relief valves specified in 3.13 or 3.17 should discharge either directly or by way of a manifold via a short length of metal pipe (D1) to a tundish.
- ▶ 3.51 – The diameter of discharge pipe (D1) should be not less than the nominal outlet size of the temperature relief valve.
- ▶ 3.52 – Where a manifold is used it should be sized to accept and discharge the total discharge from the discharge pipes connected to it.
- ▶ 3.53 – Where valves other than the temperature and pressure relief valve from a single unvented hot water system discharge by way of the same manifold that is used by the safety devices, the manifold should be factory fitted as part of the hot water storage system unit or package.

## Tundish

- ▶ 3.54 – The tundish should be vertical, located in the same space as the unvented hot water storage system and be fitted as close as possible to, and lower than, the valve, with no more than 600mm of pipe between the valve outlet and the tundish (see fig 15).

### Note:

- ▶ To comply with the Water Supply (Water Fittings) Regulations, the tundish should incorporate a suitable air gap.
- ▶ 3.55 – Any discharge should be visible at the tundish. In addition, where discharges from safety devices may not be apparent, e.g. in dwellings occupied by people with impaired vision or mobility, consideration should be given to the installation of a suitable safety device to warn when discharge takes place, e.g. electronically operated.

## Discharge pipe D2

- ▶ 3.56 – The discharge pipe (D2) from the tundish should:
  - (a) have a vertical section of pipe at least 300mm long below the tundish before any elbows or bends in the pipework (see fig. 15); and
  - (b) be installed with a continuous fall thereafter of at least 1 in 200.
- ▶ 3.57 – The discharge pipe (D2) should be made of:
  - (a) metal; or
  - (b) other material that has been demonstrated to be capable of safely withstanding temperatures of the water discharged and is clearly and permanently marked to identify the product and performance standard (e.g. as specified in the relevant part of BS 7291).
- ▶ 3.58 – The discharge pipe (D2) should be at least one pipe size larger than the nominal outlet size of the safety device unless its total equivalent hydraulic resistance exceeds that of a straight pipe 9m long, i.e. for discharge pipes between 9m and 18m the equivalent resistance length should be at least two sizes larger than the nominal outlet size of the safety device; between 18 and 27m at least 3 sizes larger, and so on; bends must be taken into account in calculating the flow resistance. See figure 5, table 5 and the worked example.

### Note:

- ▶ An alternative approach for sizing discharge pipes would be to follow Annex D, section D.2 of BS 6700:2006 Specification for design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages.

- ▶ 3.59 – Where a single common discharge pipe serves more than one system, it should be at least one pipe size larger than the largest individual discharge pipe (D2) to be connected.
- ▶ 3.60 – The discharge pipe should not be connected to a soil discharge stack unless it can be demonstrated that the soil discharge stack is capable of safely withstanding temperatures of the water discharged, in which case, it should:
  - (a) contain a mechanical seal, not incorporating a water trap, which allows water into the branch pipe without allowing foul air from the drain to be ventilated through the tundish;
  - (b) be a separate branch pipe with no sanitary appliances connected to it;
  - (c) if plastic pipes are used as branch pipes carrying discharge from a safety device they should be either polybutylene (PB) to Class S of BS 7291-2:2006 or cross linked polyethylene (PE-X) to Class S of BS 7291-3:2006; and
  - (d) be continuously marked with a warning that no sanitary appliances should be connected to the pipe.

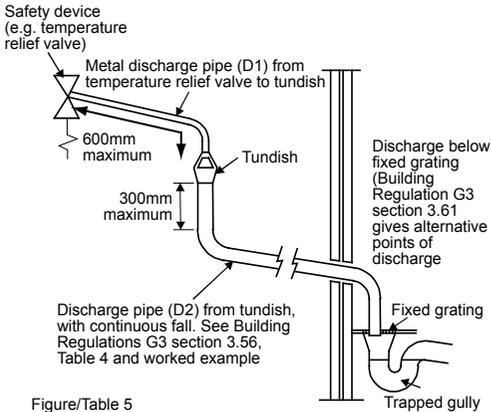
### Note:

- ▶ 1. Plastic pipes should be joined and assembled with fittings appropriate to the circumstances in which they are used as set out in BS EN ISO 1043-1.
- ▶ 2. Where pipes cannot be connected to the stack it may be possible to route a dedicated pipe alongside or in close proximity to the discharge stack.

## Termination of discharge pipe

- ▶ 3.61 – The discharge pipe (D2) from the tundish should terminate in a safe place where there is no risk to persons in the vicinity of the discharge.
- ▶ 3.62 – Examples of acceptable discharge arrangements are:
  - (a) to a trapped gully with the end of the pipe below a fixed grating and above the water seal;
  - (b) downward discharges at low level; i.e. up to 100mm above external surfaces such as car parks, hard standings, grassed areas etc. are acceptable providing that a wire cage or similar guard is positioned to prevent contact, whilst maintaining visibility; and
  - (c) discharges at high level: e.g. into a metal hopper and metal downpipe with the end of the discharge pipe clearly visible or onto a roof capable of withstanding high temperature discharges of water and 3m from any plastic guttering system that would collect such discharges.

- ▶ 3.63 – The discharge would consist of high temperature water and steam. Asphalt, roofing felt and non-metallic rainwater goods may be damaged by such discharges.
- ▶ Worked example of discharge pipe sizing
- ▶ Fig. 15: shows a G1/2 temperature relief valve with a discharge pipe (D2) having 4 No. elbows and length of 7m from the tundish to the point of discharge.
- ▶ From Table 5:
- ▶ Maximum resistance allowed for a straight length of 22mm copper discharge pipe (D2) from a G1/2
- ▶ temperature relief valve is 9.0m.
- ▶ Subtract the resistance for 4 No. 22mm elbows at 0.8m each = 3.2m
- ▶ Therefore the permitted length equates to: 5.8m
- ▶ 5.8m is less than the actual length of 7m therefore calculate the next largest size.
- ▶ Maximum resistance allowed for a straight length of 28mm pipe (D2) from a G1/2 temperature relief valves equates to 18m.
- ▶ Subtract the resistance of 4 No. 28mm elbows at 1.0m each = 4.0m
- ▶ Therefore the maximum permitted length equates to: 14m
- ▶ As the actual length is 7m, a 28mm (D2) copper pipe will be satisfactory.



Figure/Table 5

Valve outlet size	Minimum size of discharge pipe D1	Minimum size of discharge pipe D2 from tundish	Maximum resistance allowed, expressed as a length of straight pipe (ie no elbows or bends)	Resistance created by each elbow or bend
G1/2	15mm	22mm	Up to 9m	0.8m
		28mm	Up to 18m	1.0m
		35mm	Up to 27m	1.4m
1.4m	22mm	28mm	Up to 9m	1.0m
		35mm	Up to 18m	1.4m
		42mm	Up to 27m	1.7m
G1	28mm	35mm	Up to 9m	1.4m
		42mm	Up to 18m	1.7m
		54mm	Up to 27m	2.3m

## 6.3 Electrical connections



### WARNING

- ▶ Disconnect from the mains electrical supply before removing any covers.
- ▶ This product must be earthed. It is suitable for a.c. supply only.
- ▶ Disconnect the electrical supply before removing the terminal cover.
- ▶ Installation must be in accordance with the current I.E.E. Wiring Regulations.

- ▶ The product is supplied fitted with a 1.0m 3 core 1.5mm<sup>2</sup> flexible cable on the 3kW model. The electricity supply should be fused 13 Amp for a 3kW model and be via a double pole isolating switch with a contact separation of at least 3mm in both poles. Refer to the schematic wiring diagrams (figure 3.3 page 5).

The wires are colour coded as follows:

Green and Yellow	EARTH
Brown	LIVE (L)
Blue	NEUTRAL (N)

## 7. Commissioning

### 7.1 General

After filling the installation with water in the previous section please follow the following steps to complete the installation of the product.



### WARNING

DO NOT switch on the product until it has been filled with water.

### 7.2 Checklist before commissioning

- ▶ Check all water connections for leaks and rectify as necessary.
- ▶ Check that all installation, electrical and discharge pipe requirements have been met.
- ▶ Check that electrical connections are tight.

### 7.3 Commissioning procedure

- ▶ Open a hot water tap; turn on mains water supply to the product.
- ▶ Allow product to fill and leave hot tap running for a short while to purge any air and flush out the pipework. Close the hot tap and check the system for leaks.
- ▶ Manually test the operation of the Temperature/ Pressure Relief Valve and, if fitted, the Pressure (expansion) Relief Valve. Ensure water flows freely from the valve(s) and through the discharge pipes.
- ▶ Switch on the electrical supply. The indicator light will illuminate during heating. When the set temperature is reached, the indicator light will go out.
- ▶ The set temperature can be adjusted by rotating the knob located in the terminal cover. It is possible to lock the thermostat knob in either the mid-range or a "hot" position by following the procedures below. Always switch off the electrical supply before removing the terminal cover.

## 8. Operation

### 8.1 General



#### WARNING

- ▶ Do not block or restrict the discharge from any safety valve fitted.
- ▶ Do not tamper with any safety valve fitted.
- ▶ If water discharges from any safety valve fitted, switch off the electrical supply to the product immediately. Contact the Heatrae Sadia Service Team (Tel: 0844 8711535) or an approved installer. Do not turn the electrical supply on again until the product has been checked and approved by a qualified installer.

- ▶ Setting the “mid-range” position:  
Rotate the thermostat knob to the mid position. Remove the terminal cover by using a large flat bladed screwdriver to depress the four snap lugs located in the four top rectangular depressions on the cover. Holding the thermostat knob in position turn the terminal cover over and remove the backing disc from the underside of the cover. Turn the backing disc over and refit to the knob ensuring the notch locates with the boss on the underside of the cover. Refit the terminal cover, the thermostat will now be locked in the “mid-range” position.
- ▶ Setting the “hot” position:  
Rotate the thermostat knob to mid-way through the hot graduated range (red graphic). Follow the procedure detailed above; however in this case the knob should be held in the “hot” position previously set. When the terminal cover has been refitted the thermostat will be locked in the “hot” position. This position is recommended when using the heater in conjunction with a thermostatic blending valve.
- ▶ Water may drip from the discharge pipe of the pressure relief device - this pipe must be left open to atmosphere.

- ▶ The product stores water at the temperature set on the adjustable thermostat. This can be set to give temperatures in the range of 10 to 75°C. To avoid any risk of freezing when the product is not in use for long periods during the winter months, do not switch off the electrical supply and set the thermostat to its minimum position. N.b. this will not protect other system pipework.
- ▶ The thermostat can also be locked in either the mid-range or a “hot” (recommended when using in conjunction with a Thermostatic Blending Valve) position. To lock the thermostat position, the instructions given under Section 7 page 12 should be followed. We recommend that this procedure is carried out by a qualified electrician.
- ▶ The indicator light will be illuminated when the product is heating.

## 9. Maintenance

### 9.1 General

#### Maintenance requirements

Unvented hot water systems have a continuing maintenance requirement in order to ensure safe working and optimum performance. It is essential that the relief valve is periodically inspected and manually opened to ensure no blockage has occurred in the valves or discharge pipework. Maintenance of this appliance should only be carried out by a suitably qualified person. Failure to do so could invalidate the warranty



#### WARNING

Disconnect from all electrical supplies before beginning any work on the product. Water contained within the product may be very hot!

Maintenance should be carried out by a competent person and any replacement parts should be authorised Heatrae Sadia spare parts.

It is recommended that maintenance is carried out annually and should include the checks detailed in the sections below.

Little maintenance is required, however in hard water areas the product will require periodic descaling to ensure efficient operation.

### 9.2 Standard inspection & maintenance operations

#### To descale:

- ▶ Switch off and disconnect the electrical supply. Turn off the water supply to the product.
- ▶ Open a hot tap to relieve any system pressure. Disconnect the plumbing connections to the product and remove from the wall bracket (note full weights of product). Empty the product by opening the drain valve in the inlet pipework.
- ▶ Remove the terminal cover by using a large flat bladed screwdriver to depress the 4 snap lugs located in the top 4 rectangular depressions.
- ▶ Disconnect the electrical terminations to the thermostat. Disconnect earth links to the earthing stud.
- ▶ Remove the element plate assembly by unscrewing the five securing screws, a tapped jacking point is provided. Remove any loose scale from the container. Carefully clean off any scale from the element and thermostat pocket. DO NOT clean scale from interior container walls.
- ▶ Re-assemble the element plate assembly fitting a new sealing gasket. Rewire the product with reference to the Wiring Diagrams. Refit the insulating pad to ensure the correct operation of the thermostat.
- ▶ Re-commission the product following the Installation and Commissioning instructions.
- ▶ The Temperature/Pressure Relief Valve and, if fitted, the Pressure (expansion) Relief Valve should be regularly checked. This is to remove lime scale deposits and to verify that it is not blocked. To check the valves:
  - Manually operate the valves by either twisting the cap or lifting the lever. Ensure water flows freely from the valve(s) and through the discharge pipes. Ensure the valve(s) reseal correctly when released.
- ▶ The Expansion Vessel, should have a precharge pressure of 0.35 MPa (3.5 bar). This can reduce over time and eventually require re-charging. To do this:
  - Turn off water supply to the product; open a hot tap to relieve system pressure.
  - Remove dust cap from top of Expansion Vessel
  - Check pre-charge pressure using a tyre pressure gauge. If the pressure is lower than 0.35 Mpa (3.5 bar) it should be recharged using a tyre pump (Schraeder Valve type). DO NOT OVER CHARGE.
  - Re-check pressure and when correct replace dust cap.
  - Turn on mains water supply and close hot tap.

## 10. Troubleshooting



### WARNING

Do not tamper with any of the safety valves or controls supplied with the cylinder as this will invalidate any warranty.

## 10.1 Fault finding

Disconnect the electrical supply before removing the terminal cover. It is recommended that any service operations on the product are carried out by a competent person.

Symptom	Possible cause	Remedy
Water not heating	A. Electrical supply fault	A. Check electrical supply
	B. Thermal cut-out tripped	B. Check cut-out, if operated reset and check thermostat operation. If necessary replace thermostat/thermal cut-out (see wiring diagram)
	C. Thermostat fault	C. Check thermostat operation. Replace if necessary
Discharge of water from pressure relief valve (continuously)	Excessive mains water pressure	Fit Pressure reducing valve Pack U1 and U2 (see important installation points)
Discharge of water from Pressure relief valve (intermittently)	A. Expansion in mains not possible	A. Fit pack U2 (see important installation points)
	B. Mains pressure exceeds 0.41 MPa (4.1 bar)	B. Fit packs U1 and U2
	C. Pack U1 fitted without pack U2	C. Fit pack U2 when using pack U1
	D. Pressure relief valve fault	D. Replace pressure relief valve
	E. Loss of pressure from expansion vessel	E. Check and if necessary re-charge Expansion vessel pre-charge pressure (see section 9)
Discharge of water from Temperature / pressure relief and/ or water/steam from pressure relief valve	Thermostat and thermal cut-out fault	Replace thermostats and thermal cut-outs
No water flow	A. Inlet vales incorrectly fitted	A. Check all vales are correctly installed in accordance with flow direction arrows
	B. Mains water supply not turned on	B. Check mains water supply is on
	C. Blockage in mains water supply	C. Check for obstructions. If pack U1 is fitted check the strainer is not blocked
'Milky water'	Oxygenated water	Water from a pressurised system releases oxygen bubbles when flowing. The milkiness will disappear after a short while

## 11. Decommissioning procedure

- ▶ Isolate electrical supplies and make safe
- ▶ Isolate the water supply
- ▶ Drain the product
- ▶ Remove product
- ▶ Cap pipework

### Environmental information

The Waste Electrical and Electronic Equipment (Producer Responsibility) Regulation 2004

This product is outside of the scope of the European Waste Electrical & Electronic Equipment Directive as interpreted within the UK.

In the UK this product can therefore be disposed of through commercial non-WEEE waste facilities.

Heatrae Sadia does not accept any liability under the WEEE directive.

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 to realise the full environmental benefits.

Insulation of the product is by means of an approved CFC/HCFC free polyurethane foam with an ozone depletion factor of zero and a Global Warming Potential (GWP) of 3.1.

The product does not contain any substances harmful to health; it does not contain any asbestos.

## 12. Spare parts

The following comprehensive list of spare parts is available for your product. Please refer to the Rating Label on the side of your product before ordering to ensure the correct spare part is obtained.

Do not replace with parts not recommended by Heatrae Sadia - this will invalidate your warranty and may render the installation dangerous.

Description	Code No
Element plate assembly - 30/50 litre 3kW	95 606 933
Thermostat	95 612 667
Thermal cut-out	95 612 666
Indicator light	95 607 995
Element plate gasket	95 611 708
Pressure (expansion) Relief Valve	95 607 986
Temperature/Pressure Relief Valve	95 905 045
Check Valve	95 607 987
Expansion Vessel	95 607 675
Pressure Reducing Valve	95 607 989

## Accessories

The product can be used to supply several hot water outlets via conventional taps. It is not recommended for supplying a shower. Individual site demands should be considered when choosing capacity and the number of outlets to be served.

A Thermostatic Blending Valve can be used in conjunction with this product. Accessory Pack U3 (code no. 95 970 354) is recommended. Follow the installation instructions supplied with the valve for connection to the system.

## Warranty

The product warranty is for a period of five years from the date of purchase with the exception of the immersion heater and thermal controls which are covered for a period of two years provided:

1. The product has been installed in accordance with these instructions and all necessary inlet controls and safety valves have been fitted correctly.
2. Any valves or controls are of Heatrae Sadia recommended type.
3. The product has not been tampered with and has been regularly maintained as detailed in these instructions.
4. The product has been used only for heating potable water.
5. Within 60 days of installation, the user completes and returns the certificate supplied along with proof of purchase to register the product.

The product is not covered against damage by frost and the immersion heater is not covered against excessive scale build up.

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







# HEATRAE SADIA

SMARTER | CLEANER | WARMER

Electric Water Heating Co.  
2 Horsecroft Place  
Pinnacles  
Harlow  
Essex CM19 5BT  
Tel: 0845 055 3811  
E-Mail: sales@ewh.co.uk

SPD  
Special Product Division  
Units 9 & 10  
Hexagon Business Centre  
Springfield Road  
Hayes  
Middlesex UB4 0TY  
Tel: 020 8606 3567

Parts Center  
Tel: 0344 292 7057  
www.partscenter.co.uk

Newey & Eyre  
Unit 3-5 Wassage Way  
Hampton Lovett Ind. Estate  
Droitwich, Worcestershire  
WR9 0NX  
Tel: 01905 791500  
Fax: 01905 791501

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

Alternatively contact your  
local supplying merchant  
or wholesale branch or use  
our online stockist finder at  
www.interpartspares.co.uk

## SPECIFICATION ADVICE HOTLINE

t | 01603 420220 e | specifier@heatraesadia.com

## AFTER SALES SERVICE

t | 0344 871 1535 e | customer.support@heatraesadia.com

w | heatraesadia.com



## OUR NATIONWIDE NETWORK OF CUSTOMER SUPPORT ENGINEERS

Heatrae Sadia has its very own dedicated nationwide network of highly trained customer support engineers so you can have peace of mind that we're always here to help.

## PRODUCT RANGE

Full specification details on all our products are available to download from our website.

To support our corporate responsibility and sustainability charters and reduce our printed material we encourage you to download product brochures from our website.

In designing these files we have taken into account the need to access data on screen.

If you would like to receive a printed copy of our full product catalogue please call our literature hotline on 01603 420127.

Heatrae Sadia may introduce modifications to their products from time to time. Consequently, the details given in this brochure are subject to alteration without notice.

Please follow us online:



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