

HEATRAE SADIA

The quality name in water heating

Installation and User Instructions for the MULTIPOINT 30 and 50 litre Unvented Water Heaters



Please read and understand these instructions before starting work.

Please leave this leaflet with the user following installation

36 00 5720 Issue 03

MULTIPOINT 30/50

Please read and understand these instructions prior to installing your Multipoint unvented water heater. Particular attention should be paid to the section headed **IMPORTANT INSTALLATION POINTS**. Following installation and commissioning the operation of the heater should be explained to the customer and these instructions left with them for future reference.

TECHNICAL SPECIFICATIONS

Electrical rating	2.75/3kW 230/240V ~
or	0.9/1kW 230/240V ~
Capacities	30 or 50 litres
Weight (full)	30 litre - 42.5kg
.....	50 litre - 69.3kg
Rated pressure	6 bar
Minimum recommended supply pressure	0.8 bar
Temperature/Pressure Relief Valve	90°C/7 bar

COMPONENT CHECK LIST

Before commencing installation check that all the following components have been supplied in the Installation Kit.

- Expansion Vessel 3/4”BSP male, precharge pressure 3.5 bar c/w wall mounting bracket
- Combined Pressure Reducing Valve/Strainer 1/2”BSP female, factory set at 3.5 bar
- Single Check Valve 15mm x 15mm compression
- Pressure (expansion) Relief Valve 1/2”BSP male inlet, 1/2”BSP female discharge, factory set at 6 bar
- Tundish 1/2”BSP male inlet, 3/4”BSP female outlet
- Wall mounting bracket set
- Self adhesive Levelling Feet (2 off)
- Moulded plastic Spacer

1.0 IMPORTANT INSTALLATION POINTS

1.1 The Multipoint unvented water heater is factory fitted with a Temperature/Pressure Relief Valve. The factory fitted Temperature/Pressure Relief Valve must not be removed, blocked or restricted in any way. **FAILURE TO PROVIDE ADEQUATE TEMPERATURE AND PRESSURE RELIEF WILL INVALIDATE ANY GUARANTEE AND LEAD TO A DANGEROUS INSTALLATION**

1.2 Expansion **must** be accommodated within the system. Use of the Expansion Vessel and Check Valve provided in the Installation Kit will fulfill this function.

1.3 The installation of this water heater is covered by Building Regulation G3. In order to fulfill the requirements of this Regulation the heater should be installed in

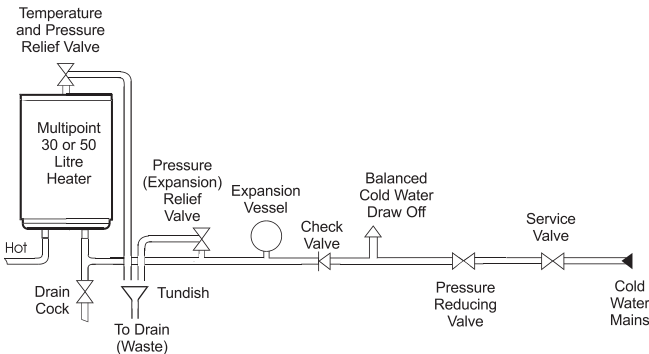
to fulfill the requirements of this Regulation the heater should be installed in accordance with these instructions by a competent installer (i.e. an installer trained in the installation of unvented water heating systems). All the control and safety valves provided in the Installation Kit **must** be used and plumbed in accordance with Diagram 1.

1.4 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.

WARNING: IF WATER FLOWS FROM THE PRESSURE RELIEF VALVE OR TEMPERATURE/PRESSURE RELIEF VALVE THE ELECTRICITY SUPPLY MUST BE SWITCHED OFF IMMEDIATELY. CONTACT THE HEATRAE SADIA SERVICE TEAM (Tel: 08701 600125) OR AN APPROVED INSTALLER.

Diagram 1 Schematic Installation Diagram



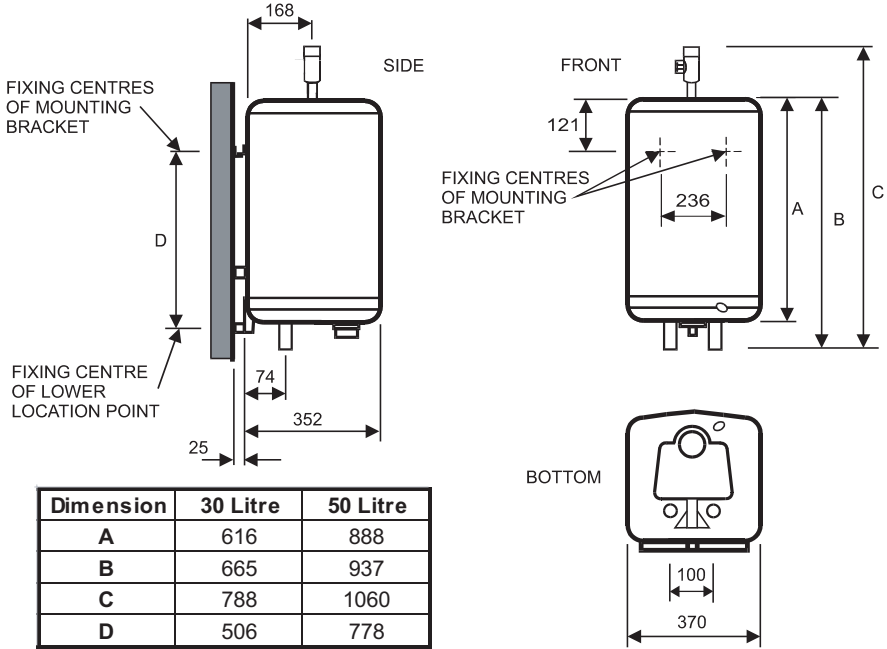
2.0 INSTALLATION - GENERAL REQUIREMENTS:

- 2.1** The Multipoint must be installed by a competent installer in accordance with Building Regulation G3.
- 2.2** National Wiring rules may contain restrictions concerning the installation of these units in bathrooms.
- 2.3** The unit should be vertically wall mounted using the wall bracket and levelling feet supplied. The water connections must always be on the bottom of the unit.
- 2.4** Enough space should be left below the unit for pipe connections and above the unit for access to the Temperature/Pressure Relief Valve. Refer to Diagram 2 and the Dimensions Table to determine a suitable position for the heater.

2.5 NOTE: Ensure that the wall can support the full weight of the unit (see TECHNICAL SPECIFICATIONS) and that there are no hidden services (electricity, gas, or water) below the surface of the wall.

2.6 DO NOT install where the unit may freeze.

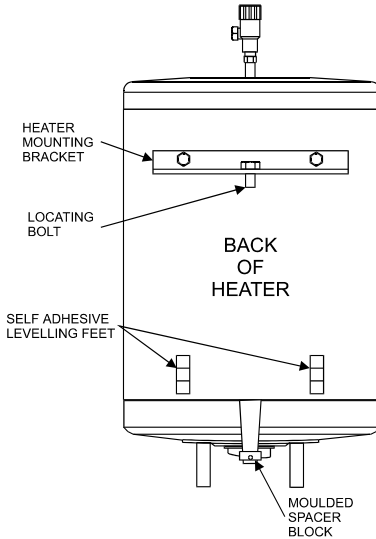
Diagram 2 Dimensions



3.0 INSTALLATION - WALL MOUNTING

- 3.1** Using Diagram 2 and the Dimensions Table as a guide mark the position of the wall mounting bracket and lower location point. Drill and plug the wall with suitable fixings, fix the wall bracket to the wall.
- 3.2** Fit the heater wall bracket to the rear of the unit using the screws provided ensuring the central location bolt is pointing towards the bottom of the unit.
- 3.3** Remove the backing paper from the self adhesive pads of the Levelling Feet and affix them to the lower back of the unit in the approximate positions shown on Diagram 3.
- 3.4** Hang the unit on the wall mounting bracket ensuring the location bolt locates in the hole in the wall bracket. Position the moulded spacer block between the tab on the bottom cover moulding and the wall. Insert a No. 10 x 2 1/2" long screw through the tab and spacer block and tighten into wall plug.

Diagram 3 Bracket and Levelling Feet Positions



4.0 INSTALLATION - PLUMBING


- 4.1 Refer to the section IMPORTANT INSTALLATION POINTS. Plumb in the valves in the sequence shown in Diagram 1. Ensure the valves are installed in the correct orientation by reference to the direction of flow arrows marked on them. The Expansion Vessel should be supported by its own wall bracket (supplied), **do not** rely on the pipework alone to support it.
- 4.2 The water connections to the unit 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.
- 4.3 The INLET is marked BLUE, the OUTLET is marked RED. Several hot outlets via conventional taps can be served, however, individual site demands should be considered when choosing capacity and the number of outlets to be served.
- 4.4 It is recommended that a WRAS Listed isolating valve is fitted on the cold water supply to the heater.
- 4.5 A drain cock must be fitted below the heater in the inlet pipework. It must be sited between the heater and the Check Valve (see Diagram 1).
- 4.6 Plumbers Paste must not be used as it can impair the operation of the valves.

5.0 INSTALLATION - ELECTRICAL REQUIREMENTS

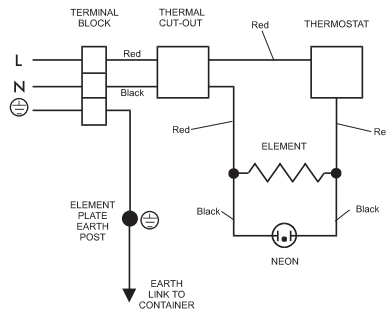
WARNING: This appliance must be earthed. It is suitable for a.c. supply only. Disconnect the electrical supply before removing the terminal cover. Installation must be in accordance with the current I.E.E. Wiring Regulations.

5.1 The unit is supplied fitted with a 1.0m 3 core 1.5mm² flexible cable. The electricity supply should be fused 13 Amp for a 3kW model and 5 Amp for a 1kW 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 diagram below.

5.2 The wires are colour coded as follows:

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

Wiring Diagram



6.0 INSTALLATION - DISCHARGE PIPE REQUIREMENTS

It is a requirement of Building Regulation G3 that any discharge from an unvented system is safely conveyed to where it is visible but will not cause danger to persons in or about the building.

The Tundish supplied and the discharge pipes should be fitted in accordance with the Requirements and Guidance Notes of Building Regulation G3. These are essentially as follows:

G3 Requirement

6.1 Discharge pipe **MUST** terminate in a **SAFE, VISIBLE** position.

G3 Guidance

6.2 Tundish should be within 500mm of the Temperature/Pressure Relief Valve and, wherever possible, be in a visible position.

6.3 Discharge pipe should have a vertical fall of at least 300mm from the Tundish.

6.4 Minimum discharge pipe size should be one pipe size larger (22mm) than the Temperature/Pressure Relief Valve discharge port.

- 6.5 Maximum total hydraulic resistance of the discharge pipe should not exceed that of 9m of straight pipe.
- 6.6 Discharge pipe should have a continuous fall (minimum 1:200).
- 6.7 The discharge pipe should not be blocked or used for any other purpose.

Information Sheet No. 33 available from the British Board of Agreement gives further advice on discharge pipe installation.

7.0 COMMISSIONING

- 7.1 Do not switch on the electrical supply until the unit has been filled with water and checked for leaks.
- 7.2 Check that all installation, electrical and discharge pipe requirements have been met.
- 7.3 Check that all water and electrical connections are tight.
- 7.4 Open a hot water tap, turn on mains water supply to the heater.
- 7.5 Allow unit 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.
- 7.6 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.
- 7.7 Switch on the electrical supply. The indicator light will illuminate during heating. When the set temperature is reached the indicator light will go out.
- 7.8 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 in 7.9 or 7.10 below. Always switch off the electrical supply before removing the terminal cover.
- 7.9 **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 rectangular depressions on the bottom 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.

7.10 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.

8.0 MAINTENANCE - DESCALING

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

- 8.1** Switch off and disconnect the electrical supply. Turn off the water supply to the unit.
- 8.2** Open a hot tap to relieve any system pressure. Empty unit by opening the drain cock in the inlet pipework.
- 8.3** Remove the terminal cover by using a large flat bladed screwdriver to depress the 4 snap lugs located in the 4 rectangular depressions on the bottom cover.
- 8.4** Disconnect the electrical terminations to the element. Disconnect earth links to the earthing stud. Withdraw the thermostat and thermal cut-out capillary tubes from the pocket on the element plate.
- 8.5** Remove the element plate assembly by unscrewing the five securing screws, tapped jacking holes are provided (NOTE: a quantity of water may still be present in the container, it is recommended that a container be placed under the unit to collect any spillage). 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.
- 8.6** Re-assemble the element plate assembly fitting a new sealing gasket. Rewire the unit with reference to the Wiring Diagrams.
- 8.7** Re-commission the unit following the **INSTALLATION** and **COMMISSIONING** instructions.

9.0 MAINTENANCE - SAFETY VALVES

- 9.1** The Temperature/Pressure Relief Valve and the Pressure (expansion) Relief Valve should be regularly checked. 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 (NOTE: the water discharged may be very hot). Ensure the valve(s) reseat correctly when released.
- 9.2** Clean the strainer incorporated in the Pressure Reducing Valve. To inspect and clean the strainer turn off the mains water supply to the heater and open a hot tap to relieve the system pressure. Unscrew the black cap from the Pressure

Reducing Valve and remove. The strainer will be removed with the cap. Wash any particulate matter from the strainer under clean running water. Replace the cap assembly ensuring the sealing ring is correctly fitted. Do not use any other type of sealant. Close hot tap, open mains stop cock and check for leaks.

**10.0 MAINTENANCE -
EXPANSION VESSEL PRECHARGE PRESSURE**

The Expansion Vessel should have a precharge pressure of 3.5 bar (51 p.s.i.). This can reduce over time and eventually require re-charging. To do this:

- 10.1** Turn off water supply to the unit; open a hot tap to relieve system pressure.
- 10.2** Remove dust cap from top of Expansion Vessel
- 10.3** Check pre-charge pressure using a tyre pressure gauge. If the pressure is lower than 3.5 bar (51 p.s.i.) it should be recharged using a tyre pump (Schraeder Valve type). **DO NOT OVER CHARGE.**
- 10.4** Re-check pressure and when correct replace dust cap.
- 10.5** Turn on mains water supply and close hot tap.

11.0 SPARE PARTS

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

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

DESCRIPTION	CODE NO.
Element plate assembly - 30/50 litre 3kW	95 606 926
Element plate assembly - 30/50 litre 1kW	95 606 925
Thermostat	95 612 667
Thermal cut-out	95 612 666
Indicator light	95 607 995
Element plate gasket	95 611 811
Pressure (expansion) Relief Valve	95 607 986
Temperature/Pressure Relief Valve	95 905 045
Check Valve	95 607 987
Expansion Vessel	95 607 988
Pressure Reducing Valve	95 607 989
Terminal cover c/w thermostat knob	95 614 184

12.0 FAULT FINDING

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

FAULT	POSSIBLE CAUSES	ACTION
Water not heating	1. Electrical supply fault	1. Check electrical supply
	2. Thermal cut-out tripped	2. Check cut-out, if operated reset and check thermostat operation. If necessary replace thermostat/thermal cut-out (see WiringDiagram)
	3. Thermostat fault	3. Check thermostat operation, replace if necessary
Discharge of water from Pressure Relief Valve (continuously)	1. Excessive mains water pressure	1. Check pressure from Pressure Reducing Valve. If greater than 3.5 bar (51 p.s.i.) replace.
	2. Pressure Relief Valve fault	2. Replace Pressure Relief Valve
Discharge of water from Pressure Relief Valve (intermittently)	Loss of pressure from Expansion Vessel	5. Check and, if necessary, re-charge Expansion Vessel pre-charge pressure (see Section 10)
Discharge of water from Temperature/Pressure Relief Valve and/or water/steam from Pressure Relief Valve	Thermostat and thermal cut-out fault	Replace thermostat and thermal cut-out
No water flow	1. Inlet valves incorrectly fitted	1. Check all valves are correctly installed in accordance with flow direction arrows
	2. Mains water supply not turned on	2. Check mains water supply is on
	3. Blockage in mains water supply	3. Check for obstructions. Check the strainer in the Pressure Reducing Valve 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.

NOTE: Use only Heatrae Sadia approved spare parts. Replacement of any parts with components not recommended by Heatrae Sadia will invalidate the guarantee and may render the installation dangerous.

13.0 ACCESSORIES

The heater 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 unit. Accessory Pack U3 (code no. 95 970 354) is recommended. Follow the installation instructions supplied with the valve for connection to the system.

14.0 USER INSTRUCTIONS

- 14.1** The Multipoint unvented heater 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 heater 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.
- 14.2** 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 Sections 7.9 or 7.10 should be followed. We recommend that this procedure is carried out by a qualified electrician.
- 14.3** The indicator light will be illuminated when the unit is heating.
- 14.4** To ensure the heater continues to operate at its optimum performance it should be periodically maintained in accordance with the instructions given under the Sections headed MAINTENANCE.

14.5 IMPORTANT NOTES TO USER

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 unit immediately. Contact the Heatrae Sadia Service Team (Tel: 08701 600125) or an approved installer.

Do not turn the electrical supply on again until the unit has been checked and approved by a qualified installer.

Guarantee

This water heater is guaranteed for a period of five years from the date of purchase with the exception of the element and thermal controls which are guaranteed for a period of two years provided:

1. The unit 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 unit has not been tampered with and has been regularly maintained as detailed in these instructions.
4. The unit has been used only for heating potable water.
5. Within 60 days of installation, the user completes and return certificate supplied along with proof of purchase to register the product.

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

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

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 to realise the full environmental benefits.

Insulation is by means of CFC-free polyurethane foam.

HEATRAE SADIA

The quality name in water heating

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

A division of B A X I G R ● U P

Main No:	01603 420100
Main Fax:	01603 420218
Sales:	01603 420110
Sales Fax:	01603 420149
Service:	08701 600125
Service Fax:	08701 600181