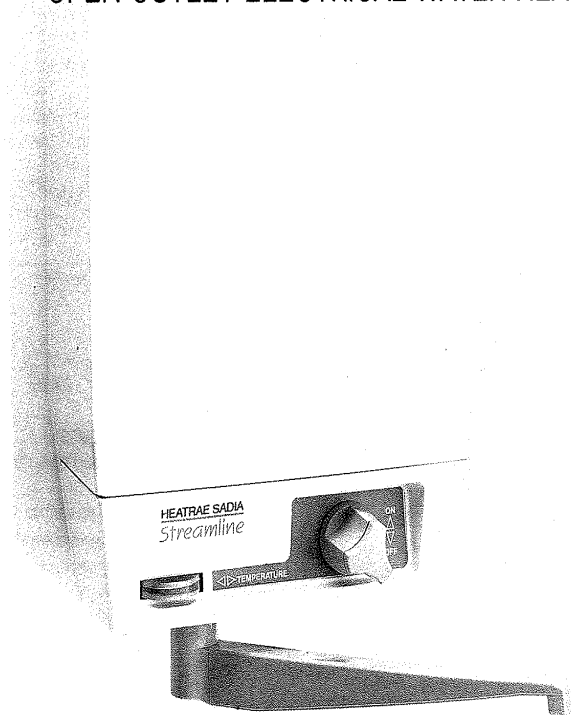


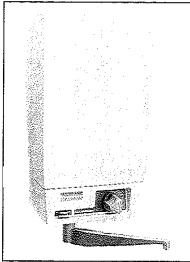
STREAMLINE

OVER/UNDERSINK SINGLE POINT-OF-USE
OPEN OUTLET ELECTRICAL WATER HEATER

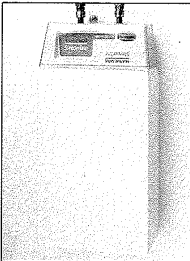


HEATRAE SADIA

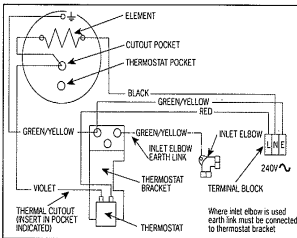
The quality name in water heating



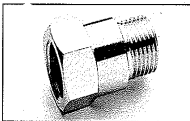
STANDARD OVERSINK MODE



STANDARD UNDERSINK MODE



WIRING DIAGRAM 240V 1 & 3 kW



FLOW REGULATING VALVE

Fitting and using th

IMPORTANT - PLEASE READ CAREFULLY BEFORE INSTALLATION

DESCRIPTION

Streamline is a versatile, single point-of-use, open-outlet water heater for installation in either Over- or Undersink modes. It is available in 7 and 10 litre capacities and with 1 or 3kW heater elements. Before installation, ensure you have the correct configuration.

If used in Undersink mode, a Heatrae Sadia tap accessory kit will also be required.

STANDARD SUPPLY AND ACCESSORIES

Streamline is always supplied in Oversink mode. If using Undersink, pay careful attention to the preparation instructions in that section.

Various accessory packs are available. Follow the instructions in this booklet for installation of the heater, then specific instructions found in whichever pack is chosen.

VENTING

Streamline is an open outlet heater and needs either a vented tap or spout.

THE OUTLET OF THIS HEATER ACTS AS A VENT AND MUST ONLY BE CONNECTED TO HEATRAE SADIA TAPS OR SPOUTS. THESE FITTINGS MUST NEVER BE BLOCKED, RESTRICTED OR MODIFIED IN ANY WAY.

It is normal for the tap or spout to drip during heating.

TURNING THE ELEMENT

Streamline is supplied ready for Oversink use.

WHEN USING THE UNDERSINK MODE THE ELEMENT MUST BE TURNED THROUGH 180° SO THAT THE EARTH POST IS AT THE 12 O'CLOCK POSITION. See page 5 for details.

ELECTRICAL REQUIREMENTS

1. Electrical installation should be performed by a competent person to current IEE regulations.

2. Connect only to a 240V ac earthed supply.

3. Use cable of sufficient size to carry 15.5A, (2.5mm² recommended).

4. A double pole isolating switch having a contact separation of at least 3mm in each pole must be incorporated in the supply.

5. **WARNING: THIS APPLIANCE MUST BE EARTHED**

PLUMBING

1. Connection: Direct to a cold water main, pressure range 0.34-10 bar (5-145 psi), using 15mm outside diameter pipe (copper to BS 2871, stainless steel to BS 4127). INLET MUST ALWAYS BE ON THE RIGHT.

2. RESTRICT FLOW TO 7L/MIN. FAILURE TO DO THIS CAN RESULT IN DAMAGE TO THE HEATER. To do this **either** fit a Flow Regulating Valve (Heatrae Sadia part no. 95 970 115) which gives a constant fixed and tamperproof flow rate, **or** adjust the flow rate using the isolating valve.

3. A UKWFS listed isolating valve (not supplied) should be fitted between rising main and heater for servicing.

4. After connections to the heater have been made, DO NOT USE SOLDER JOINTS. Heat could damage the heater.

5. NEVER USE PLUMBERS' PASTE (BOSS WHITE). If necessary use only PTFE tape.

FREEZING

1. Protect by leaving heater switched on at normal setting, or minimum setting for long term economy.

2. If heater is off and freezing suspected, check water flow. Without flow, heater could be frozen.

ON NO ACCOUNT SWITCH ON THE ELECTRICAL SUPPLY AS THIS COULD BE DANGEROUS.

e Streamline water heater

PREPARING STREAMLINE FOR INSTALLATION

REMOVING THE COVERS

1. Remove Bottom Cover first. If the flow Control Knob is on, pull off the end cap and remove screw. Remove Screw A (Fig 1) and lift off cover in the direction shown.

2. Release Front Cover by undoing 2 screws B (Fig 2) on top of the heater, spring bottom edges of cover outwards to disengage snap clips and ease forward.

SETTING THE TEMPERATURE

Ask the owner which temperature range is required and set before installation.

Note: Water at 54°C can scald. If being used by children, aged or infirm people, temperature setting of 40°C is recommended.

1. The thermostat gives an extended temperature control range (Fig 3) as follows:

LOCATING PIN in position A	15° to 60°C Restricted range
LOCATING PIN in position B	40°C Locked handwash position
LOCATING PIN in position C	
Thermostat set to MINIMUM	5° C Frost protection setting
Thermostat set to MAXIMUM	90° C Maximum setting

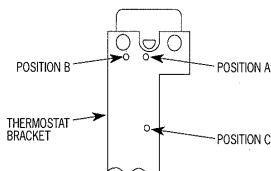


FIG 3

MOUNTING BRACKET

1. Two pairs of slots in the heater back plate (Fig 5), slotting over lugs on the mounting bracket (Fig 4), form the principal means of fixing Streamline.

2. The bracket is mounted on the wall with lugs upwards.

3. Once suspended, the heater has a third fixing point A, in the centre of the back plate (Fig 5).

CABLE AND PIPING ACCESS

1. The heater takes bottom entry of piping through a Thinned Section A (Fig 6). Thinned Section C is used only with Tap Pack E and should not otherwise be removed.

2. Electric cable can be bottom entry through the Cable Clamp or rear entry through Thinned Section B (Fig 6). On rear entry ensure sharp edges are removed.

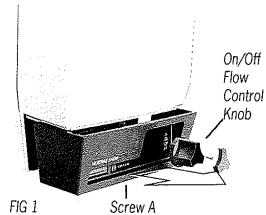
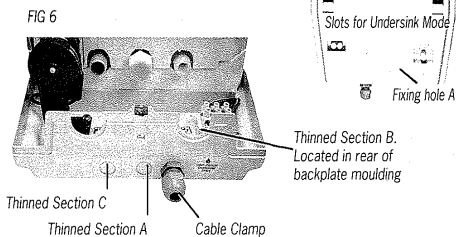


FIG 1

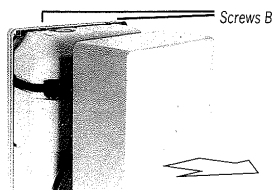
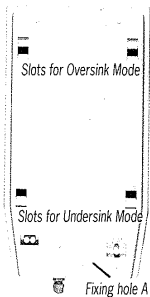


FIG 2



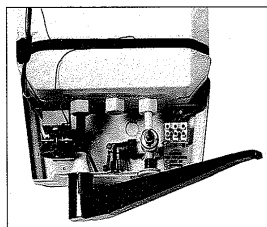
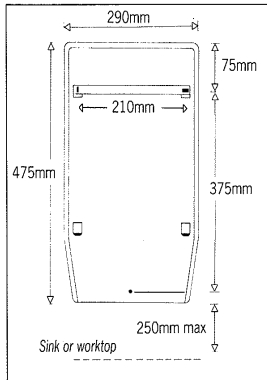
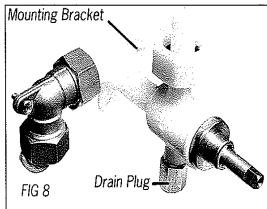
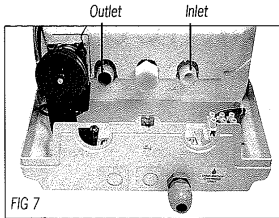
FIG 4 MOUNTING BRACKET

FIG 5



HEATRAE SADIA

The quality name in water heating



INSTALLATION - OVERSINK MODE

INLET AND OUTLET

1. Inlet is always on the right and outlet to the left.
2. Leave the red plastic caps in place until ready for assembly.

Two threaded holes for securing the Flow Control Valve, are located in the backplate.

ASSEMBLING THE FLOW CONTROL VALVE

1. Flow Control Valve components are found behind the bottom cover. Assemble as shown in Fig 8.
2. Remove the red cap from the Inlet. Slide the Flow Control Valve into the Inlet until the Mounting Bracket lines up with holes. Fix using screws and washers provided.
3. Tighten the plastic nut to the Inlet finger-tight plus $1/2$ turn more. DO NOT OVERTIGHTEN. Support while tightening.
4. Connect the earth wire (green/yellow) from the brass elbow to the thermostat bracket by removing a fixing screw and replacing it through the earth wire ring termination.

FIXING TO THE WALL

1. Select a suitable location on a flat wall. Check for services beneath the surface. If using rear entry electrical connection knock out Thinned Section (B) (Fig 6) and remove sharp edges with file.
2. Mark an approximate position for the heater leaving at least 75mm between casing and sidewall for servicing.
3. Mark position for mounting bracket as shown in Fig 9. Drill and fix the bracket horizontally using screws and plugs provided. Hang Streamline on the bracket and repeat fixing procedure for the third fixing hole.

WATER CONNECTIONS

1. Remove the Thinned Section A (Fig 6), insert piping and make a joint with the Flow Control Elbow.
2. Support the valve while tightening and DO NOT OVERTIGHTEN. If necessary, use only PTFE tape. DO NOT USE PLUMBERS' PASTE.

ASSEMBLING THE SPOUT

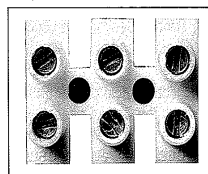
1. Assemble the spout as shown in Fig 10.
2. Fit the spout into the outlet boss, locating the white grooved section into the bottom casing. Tighten the nut finger-tight plus $1/2$ turn more. DO NOT OVERTIGHTEN.

ELECTRICAL CONNECTION

1. If using bottom entry, remove the red plug from the cable clamp, insert the cable and nip up the outer nut of the clamp. If using rear entry, feed the cable through knocked out section in back plate.

2. Make connections to the terminal block: red or brown to L black or blue to N: green/yellow to E.

LIVE NEUTRAL EARTH



FINAL ASSEMBLY AND TESTING

WARNING: BEFORE SWITCHING ON, ENSURE HEATER IS FULL OF WATER.

1. CHECK EARTH POST ON ELEMENT PLATE IS IN THE 12 O'CLOCK POSITION.
2. Check Thermostat capillary is held in position and not touching element terminals.
3. CHECK WATER INLET IS ON RIGHT HAND SIDE.
4. Turn on water and fill heater until water flows freely from the spout. With the Flow Control fully open, adjust the flow restrictor to 7 litres per minute maximum (page 2). Turn off flow.
5. Check for leaks. Refit covers. Fit the Flow Control Knob using screw provided.
6. Check temperature setting (page 3). Switch on power. The water in the container will expand during heating and cause the spout to drip. THE OWNER SHOULD BE MADE AWARE OF THIS to avoid erroneous complaints about leaky spouts.

INSTALLATION - UNDERSINK MODE

INTRODUCTION

For the purposes of these instructions, Undersink Mode means the water connections and temperature control are at the top of the heater. The heater itself can be located undersink or any other convenient location. THE INLET IS ALWAYS ON THE RIGHT AND OUTLET TO THE LEFT.

TURNING THE ELEMENT

1. Streamline is always supplied ready for Oversink use. WHEN USED IN UNDERSINK MODE, THE ELEMENT MUST BE TURNED THROUGH 180°.
2. Remove foam insert from centre of container insulation.
3. Remove the thermostat capillary tube from the element plate.
4. Undo 6 fixing screws and remove the element plate. ROTATE THROUGH 180° AND REPLACE. The element should now be pointing downwards. (To assist breaking the seal, screw equally 2 screws into holes B).
5. Replace and tighten equally the 6 screws. Replace the capillary tube and refit its clip onto the threaded post using the nut and washer supplied.
6. THE EARTH ATTACHMENT SHOULD NOW BE LOCATED VERTICALLY IN THE 12 O'CLOCK POSITION.
7. Replace foam insert.

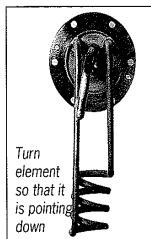
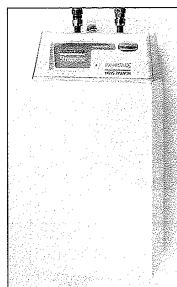


FIG 12

FIXING TO THE WALL

1. ALLOW 75 - 100mm BETWEEN THE BOTTOM OF THE HEATER AND THE CUPBOARD TO FACILITATE SERVICING.
2. Select a flat wall space and check for services beneath the surface.
3. Mark position of mounting bracket as shown in Fig 13. Drill and secure horizontally using screws and plugs provided. Hang Streamline, mark the third hole and fix as above.



STANDARD UNDERSINK MODE

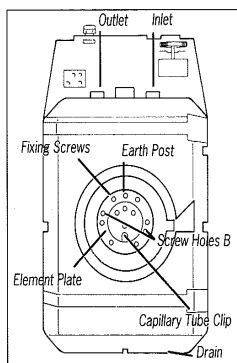


FIG 11

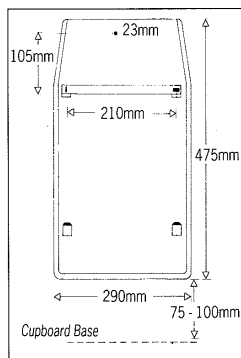


FIG 13

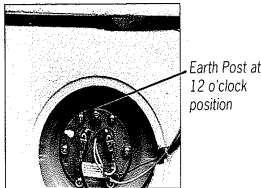
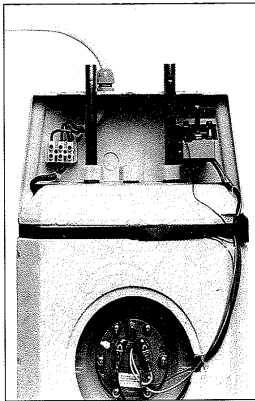


FIG 14



WATER AND ELECTRICAL CONNECTIONS

1. Remove the red caps from the Inlet and Outlet plus white grommets. YOUR HEATRAE SADIA TAP PACK INCLUDES A SPLASH SHIELD ASSEMBLY WHICH MUST BE FITTED. Connect the white plastic nuts to the Inlet and Outlet bosses. DO NOT OVERTIGHTEN.

Connections from the heater to the tap set must be via the compression nuts on the Splash Shield Assembly. Refer to the Tap Pack instructions for details. If necessary use only PTFE tape, NEVER USE PLUMBER'S PASTE.

2. If using the cable grip, remove the red plug, insert the cable and nip up the outer clamp nut.

3. Make connections to the terminal block: red or brown to L; black or blue to N; green/yellow to E.

FINAL ASSEMBLY AND TESTING.

WARNING: BEFORE SWITCHING ON, ENSURE HEATER IS FULL OF WATER.

1. CHECK EARTH POST ON ELEMENT PLATE IS IN 12 O'CLOCK POSITION.

2. CHECK WATER INLET IS ON RIGHT HAND SIDE.

3. CHECK THERMOSTAT CAPILLARY IS HELD IN POSITION AND DOES NOT TOUCH ELEMENT TERMINALS.

4. Please leave warning label attached for future reference.

5. The drainage slot in the centre of the backplate lower edge must be opened by removing the adhesive tape covering it. The slot in the centre of the backplate top edge must be closed by affixing the adhesive tape provided over the slot.

6. Turn on the water and fill until water flows freely from the Outlet. With the hot tap fully open, adjust the flow restrictor as specified on page 2. Turn off the flow.

7. Check for leaks and refit covers and securing screws ensuring splash shield assembly is correctly located.

8. Set the thermostat in mid position, switch on the power. Water in the container will expand during heating causing the tap to drip. THE OWNER SHOULD BE MADE AWARE OF THIS to avoid erroneous complaints about leaky taps.

FAULT FINDING

SYMPTOM	POSSIBLE CAUSE	REMEDY
No hot water	No water in heater Blown cut-out or open circuit element Faulty thermostat Heater installed incorrectly	Fill as detailed on page 5 or 6 Replace cut-out or element and check water heater is filled with water before switching on Replace thermostat Check fitting instruction followed fully
No water when valve turned on	Blockage in valve or vented tap Insufficient mains pressure	Dismantle and clean as necessary Check for minimum water pressure (see page 3)
Excessive expansion of tank	Too much back pressure	Fit flow reducing valve and adjust flow rate as detailed on page 2
Water too hot	Faulty thermostat Element fitted incorrectly	Replace thermostat Check element is in correct position for the particular mounting mode. Earth post must always be in 12 o'clock position
Any problems which cannot be solved using the above chart should be directed to the Service Department at Heatrae Sadia.		

SPARES

CODE	DESCRIPTION	CODE	DESCRIPTION
95604655	12" Chrome Spout (Commercial)	95608784	Inner Container 7lt
95604656	Telescopic Spout	95608785	Inner Container 10lt
95604659	12" Light Grey Spout (Domestic)	95608786	Outer case 7lt
95605435	Solenoid Valve c/w Flow Restrictor	95608787	Outer case 10lt
95605445	Thermostat Knob	95608789	Bottom Moulding - white
95605446	On/Off Knob	95611711	EP Gasket (Pk 10)
95605438	On/Off Control Valve	95611712	Grommet Set (Pk 10)
95606758	EPA 1kW	95612512	Thermostat
95606759	EPA 3kW	95612514	Printed Circuit Board
95607852	Foam Insulation 7lt	95612515	Thermostat Locking Pin
95607853	Foam Insulation 10lt	95612516	Wiring Set
95607854	Set of Foam Tie-straps	95612517	Over-Temperature Cut Out (128°C)

USER INFORMATION

IT IS NORMAL FOR THE TAP OR SPOUT TO DRIP DURING HEATING AS STREAMLINE IS AN OPEN OUTLET HEATER.

CONTROLS

When used Oversink, the heater has 2 controls: flow and temperature setting (see page 3 for temperature options available).

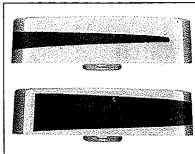


FIG 16

TEMPERATURE CONTROL

Temperature at minimum setting ideal for freezing protection. Move control anticlockwise for maximum setting.

DESCALING

In hard water areas, minerals build up on the element and in the bottom of the container, around the outlet. When this happens, there will be gradual fall off in flow. To descale, proceed as follows: Isolate electricity supply and turn off water. Remove both covers. Drain the heater through the appropriate boss.

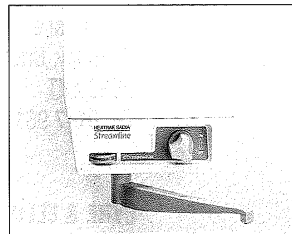


FIG 15 - Oversink model as normally supplied

OVERSINK MODE

Remove blank plug at the top left of heater. The outlet standpipe is now visible. Clean out the cross hole using a pipe cleaner or similar device. Check sealing washer in blank plug and re-seal. If in any doubt over the seal, replace with a new one. Remove element plate and inspect element. If scaled, clean, carefully by hand. DO NOT USE POINTED INSTRUMENT. Do not use de-scaling fluids.

UNDERSINK MODE

Remove outlet pipe from water heater. The outlet fitting will then be visible. Proceed as for Oversink.

GUARANTEE

Goods are guaranteed and sold subject to our standard conditions of sale. A copy of these conditions will be supplied on application. In the event of the unit being returned under the terms of guarantee, it should be despatched direct to your supplier and not to Heatrae Sadia Heating Ltd. The guarantee does not affect the statutory rights of the consumer.

WARNING: THIS HEATER IS NOT GUARANTEED AGAINST DAMAGE BY FROST.

HEATRAE SADIA SPARES STOCKISTS

HEATING REPLACEMENT PARTS & CONTROLS

P.O. Box 48, Tomlinson Road
Leyland
Preston
Lancashire
PR5 1JX
Tel: 01772 624 588

EDMUNDSON ELECTRICAL LTD

Unit 1-3
Railway Street Industrial Park
Railway Street
Gillingham
Kent
ME7 1YQ
Tel: 01634 576934

UK SPARES

Tower Lane
Warmley, Bristol
BS30 8XT
Tel: 0117 961 6670

WILLIAM WILSON LTD

94 Kinning Street
Glasgow
G5 8LW
Tel: 0141 4201 661

EYRE & ELLISTON

Unit 12, Spitfire Way
Airlinks Industrial Estate
Heston
Middlesex
TW5 9NR
Tel: 0181 573 0574

ELECTRIC WATER HEATING CO.

519 Barking Road
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E6 2LN
Tel: 0181 471 0037

HEATRAE SADIA

The quality name in water heating

Heatrae Sadia Heating Ltd., Hurricane Way, Norwich, Norfolk NR6 6EA,
For help with fitting and using the Streamline call: 01603 420330 (Fax 01603 420349)
For Information on other Heatrae Sadia products call: 01603 420110 (Fax 01603 420149)