REDRING®

AUTOSENSOR

OPERATING AND INSTALLATION INSTRUCTIONS

IMPORTANT;

This booklet should be given to the customer after installation and demonstration

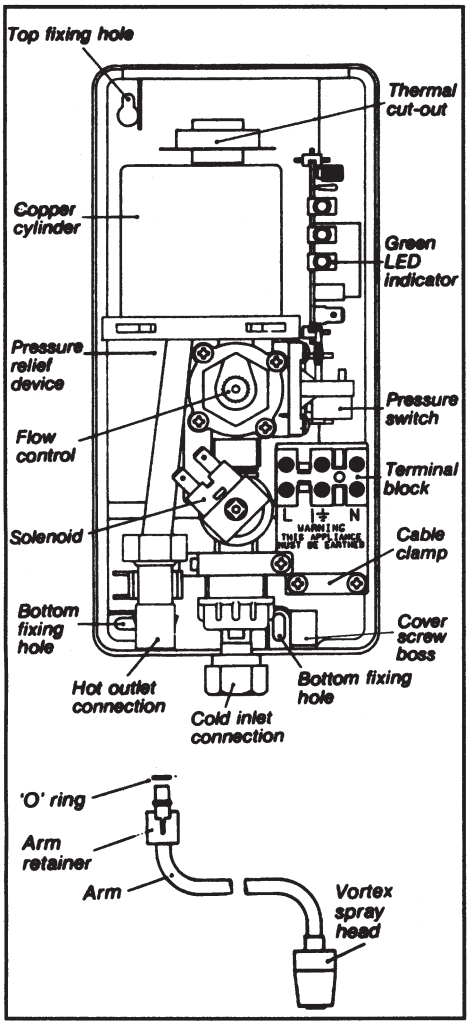


Diagram 1

How the Autosensor Works

The Autosensor transmits an infa red beam which when reflected by your hand switches on the water to the unit.

It can be turned off by this method. However, if no "off" signal is received then the Autosensor will switch itself off after 20 seconds.

1) The water is then heated instantaneously as it flows over the element in the copper cylinder.

2) The required water temperature is achieved by adjusting the flow rate. The graph below shows the relationship of temperature to flow rate.

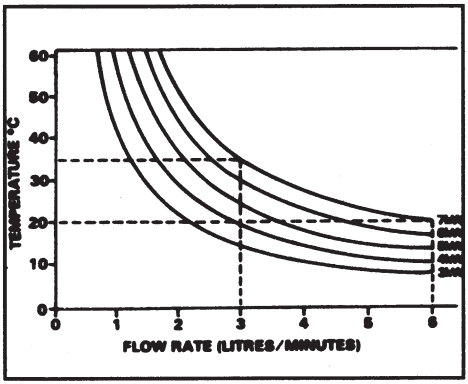


Diagram 2

The temperature of the incoming water can vary considerably throughout the year, from 5°C to 20°C. This means that in Winter the water flow rate will be less than in Summer to achieve the same required temperature.

3) The heating element is only switched on when sufficient water is flowing. This is done automatically with a pressure switch (see main diagram).

4) If the water supply pressure falls to a level where the stabiliser can no longer control the flow within limits, the pressure switch will operate and switch the power off.

5) The flow of the water is automatically held at the level set by the user, even though the supply pressure may very. This is done with a stabiliser built into the flow control valve behind the knob.

6) As a further safeguard another switch (known as a thermal cut-out) is fitted on the top of the copper cylinder to switch the power off if the water temperature climbs above a set limit. The switch operates with a click and will automatically reset when cold water is run through the unit.

7) The green LED indicator is fitted to show when the element is working.

8) The pressure relief device is there to safeguard against extreme abuse conditions.

Installation Procedure

The installation and wiring must be supervised by a qualified electrician.

We recommend that the installation is done in the following sequence:-

WARNING: DO NOT install the unit where it may be subject to freezing.

A) ELECTRICAL CONNECTIONS
Remove the cover retaining screw which is located on the underside and lift off the front cover.

Decide the entry position for the electrical cable. If top or bottom is chosen then remove the relevant recess in the backplate with a sharp knife.

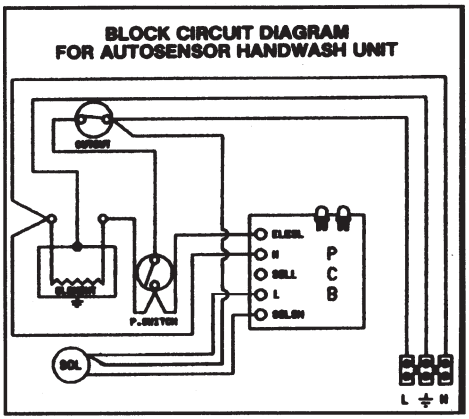
The electrical installation must be in accordance with BS7671 (I.E.E. regulations).

The electrical requirements are:-

240V 13 amps 2.5mm² conductor for the 3.0kW unit.

In order to provide means of isolation the heater must be permanently connected to the electricity supply through a double pole switch with a contact separation of at least 3mm in each pole and mounted in a convenient position.

Unscrew the cable clamp to allow the cable to enter. Cut back outer insulation of cable to 44mm, and remove 8mm of inner insulation then feed mains cable through the hole and connect the cable to the terminal block making sure that the screws are VERY tight. Rear entry does not require cable clamp.

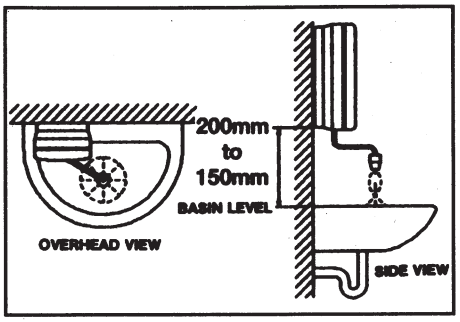


Schematic Wiring Diagram

WARNING - THIS APPLIANCE MUST BE EARTHED

All metal pipework to the unit must be electrically cross bonded to ensure earth continuity to conform with BS7671 (I.E.E. wiring regulations).

B) FIXING THE UNIT TO THE WALL
The unit should be sited so that all the spray is contained in the sink (see diagram for mounting height). A keyhole slot is provided on the top hole to assist installation. Mark the position of the three fixing holes and drill the wall to take the wall plugs and No. 8 screws provided. Fix the unit to the wall. The heater must be installed in the vertical position.



Siting Diagram

C) PLUMBING

The heater should be connected to mains cold supply having a minimum running pressure of 69kPa (0.69bar/10p.s.i.) and a maximum of 690kPa (6.9bar/100p.s.i.). The heater can be fed from a storage tank provided this has a minimum head of 7 metres (23 feet).

The inlet connection is a standard 15mm compression fitting. When the nut is being tightened the inlet adaptor **MUST** be held to prevent damage to the inlet coupling. It is recommended that the pipework be flushed through before the unit is connected.

It is recommended that a W.R.A.S. (Water Regulations Advisory Service) listed isolating valve is fitted between the rising main and the unit. This is to allow the unit to be serviced without having to turn off the water at the main stop valve.

Push assembled arm into heater outlet and slide the retainer over the teeth until they both click into position.

The Autosensor is designed to have an open outlet and should only be used with the fittings recommended by Redring.

WARNING: DO NOT FIT A TAP ON THE OUTLET.

D) COMMISSIONING

Hook on front cover and fasten with screw on the underside. Push on knob.

Check the operation of unit, by placing hand in front of sensor (approx. 50mm (2") away) and adjust flow rate to give warm water. Check that the autosensor automatically turns off after approx. 20 seconds and that you can turn it on and off.

DEMONSTRATE OPERATION TO USER.

Water too HOT	Increase Water flow. Increase pressure of water supply	Turn knob anti-clockwise. Fully open stop cock.
Water too COLD	Decrease water flow.	Turn knob clockwise until correct temperature is reached
Water takes longer to heat up	Thermal cut-out operated after previous use.	Will automatically reset when cools down.
Water flow stops while using unit	Unit automatically timed out (20 secs)	Re-activate by passing hand in front of unit

Professional service

If the previous checks fail to restore the performance you should seek professional help.

The person who installed the unit is probably the best one to repair it and is certainly the person to contact if you have a problem in the guarantee period.

The following additional check list is provided for the benefit of the qualified serviceman.

WARNING: SWITCH OFF THE ELECTRICITY AT THE ISOLATING SWITCH BEFORE REMOVING THE COVER TO MAKE CHECKS.

Water too COLD	Check circuit through thermal cut-out. Check circuit through microswitch on pressure switch. Check element circuit Check tightness of electrical connections
Water too COLD	Remove and check inlet filter of solenoid valve. Clean if necessary.
Water leak from tube at base	Pressure relief device blown. Check for cause of high pressure and remove it. Replace the pressure relief disc.

Redring Service
We offer a technical advisory service on the telephone to contractors and other customers with problems in the field.

TEL: +44 (0)8709 000430

FAX: +44 (0)8709 000530

Remember to quote the exact type of unit, as written on the front of the unit.

ADDITIONAL ACCESSORIES Cat. No.
380mm Spray arm Extended 93-768322
100mm Spray arm Short 93-768330

Ask your local dealer or contact Redring Sales for further information.
TEL: +44 (0)8709 000430
FAX: +44 (0)8709 000530

How to use the Autosensor Handwash

To operate the Autosensor just pass your hand in front of the green sensor lens. It can also be turned off the same way. The Autosensor will automatically turn off after about 20 seconds.

In the majority of cases the unit will provide a suitable water temperature for washing hands. However, in extreme conditions i.e. Mid-Winter or Mid-Summer, the flow can be adjusted to suit, clockwise for warmer or anti-clockwise for cooler. A few seconds should be allowed for the water to reach a steady state.

The green LED indicator on the front of the Autosensor shows when the heating element(s) are working.

The patented "Vortex" spray head supplied results in no descaling being required, and therefore needs very little maintenance.

WARNING: DO NOT SWITCH THE UNIT ON IF YOU SUSPECT IT TO BE FROZEN. WAIT UNTIL YOU ARE SURE THAT IT HAS COMPLETELY THAWED OUT.

GUARANTEE

We, Applied Energy Products Ltd., guarantee that should this instant water heater prove to be defective by reason of faulty workmanship or material within 36 months (outside of UK contact your local distributor) of the date of purchase or commencement of hire purchase we will replace the defective parts FREE OF CHARGE on condition that:

(a) **The appliance has been correctly installed and used only on the supply circuit or voltage stamped on the rating plate.**

b) **The appliance has been used in accordance with these instructions and has not been tampered with or otherwise subject to misuse, neglect or accident.**

c) **The appliance has not been taken apart, modified or repaired except by a person authorised by us.**

d) **EVIDENCE of the date of purchase in the form of an invoice, receipt (or hire purchase documents) is included with the appliance if returned under guarantee.**

REDRING

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