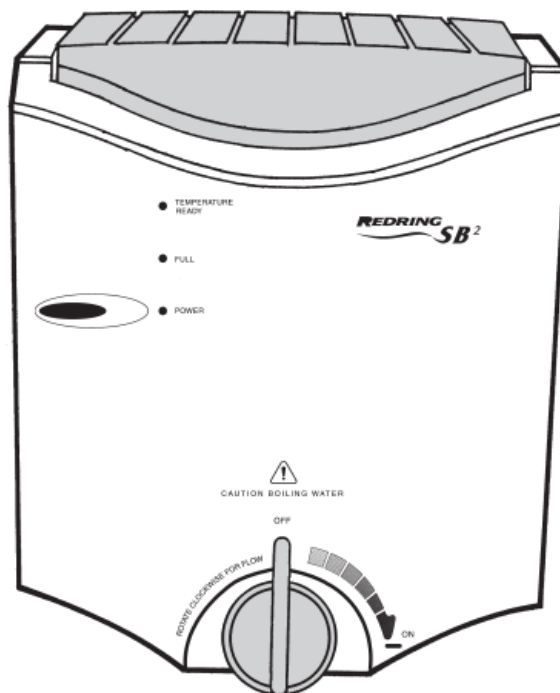


# THE **REDRING** *SB<sup>2</sup>*



## **BOILING WATER DISPENSER INSTALLATION & OPERATING INSTRUCTIONS**

### **IMPORTANT:**

**This booklet should be left with the user after installation and demonstration**

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**THIS APPLIANCE 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 APPLIANCE IN A SAFE WAY AND UNDERSTAND THE HAZARDS INVOLVED.**

**CHILDREN SHALL NOT PLAY WITH THE APPLIANCE.**

**CLEANING AND USER MAINTENANCE SHALL NOT BE MADE BY CHILDREN**

### Redring After Sales Service

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

**Please call our technical team on: 0844 372 7766**

**Or alternatively email us on: [Service.request@redringxpelair.com](mailto:Service.request@redringxpelair.com)**

Many Spare parts can be also be supplied by contacting us as shown above

Remember to quote the exact model of SB<sup>2</sup> unit, as written on the front of the unit and on this leaflet. It may also be of use to have a note of the model and serial number as stated on the underside of the unit.

Make a note of those numbers here, and be sure to quote them if you call for advice.

**Model Number:** \_\_\_\_\_ / **Serial Number:** \_\_\_\_\_

**Note: You may be charged for a service call if you do not have the serial number.**

## Important Notes

- This appliance is intended to be used in household and similar applications such as:-
  - staff kitchen areas in shops, offices and other working environments;
  - farm houses;
  - by clients in hotels, motels and other residential type environments;
  - bed and breakfast type environments.
- All installations must be undertaken by a competent installer. If in any doubt, advice and assistance should be sought from a qualified plumber and/or electrician.
- Installation and wiring must conform to the current BS.7671 (IEE Wiring Regulations) and the Water Fitting Regulations. Local regulations may apply in other countries.
- The steam vent connection **MUST BE MADE**, (see page 4)
- A means for disconnection in all poles must be incorporated in the fixed wiring in accordance with the wiring rules.
- Check that the mains supply matches the electrical rating on the product. The rating plate is located on the bottom edge of the unit.
- Frost Protection: This appliance should be located where the ambient air temperature is between 5°C and 50°C. If the temperature may fall below 5°C when the appliance is not in use, do not turn off the appliance electrically. This safeguard does **NOT** offer protection to the connecting pipe work and fittings. The unit should not be operated if freezing is suspected. Allow the unit to thaw completely.
- This unit must not be cleaned by, or installed in an area cleaned by a water jet.
- **THIS APPLIANCE, AND ALL METAL PIPEWORK CONNECTED TO IT, MUST BE EARTHED.**
- If you have any queries about installing this product or after it has been installed, please contact our Customer Service Helpline on 0844 372 7766 or alternatively email us on [Service.request@redringxpelair.com](mailto:Service.request@redringxpelair.com) Customers outside the U.K. should contact their local distributor.
- This product may need to be descaled regularly. The frequency of descaling will depend on the water supply hardness.

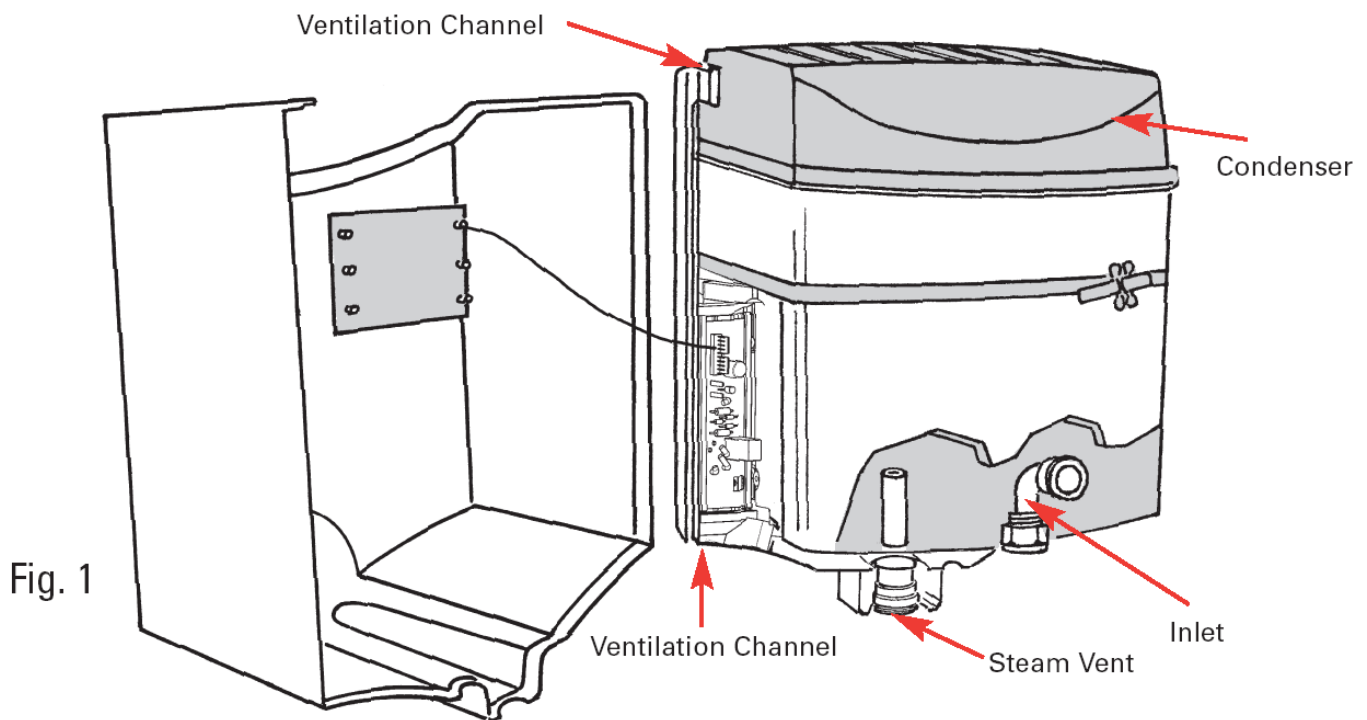
## What the installer will need

- A means for disconnecting the fixed wiring in all poles in accordance with the wiring rules (ie. 13A fused double pole isolating switch).
- Suitable length of 1.0mm<sup>2</sup> 3-Core multi-strand PVC insulated mains cable that complies with BS.6500.
- Suitable lengths of Ø15mm copper pipe.

## Where to locate the SB<sup>2</sup>

- We recommend that the unit is installed on a suitable wall, at shoulder height and over a sink, with accessible area to maintain unit if and when required.
- Adjacent to the means for disconnecting the fixed wiring in all poles in accordance with the wiring rules (ie: 13A fused double pole isolating switch).
- Available mains cold water supply and drainage facility.
- DO NOT install the SB<sup>2</sup> within reach of a person using a bath or shower.
- This unit must not be installed in an area cleaned by a water jet.
- DO NOT obstruct the ventilation channel in the backplate.

## Installing the water supply and steam vent pipes



The unit must be connected to cold, mains fed, drinking water only.  
Pressure range between 0.069 MPa (0.7 bar / 10 psi) and 1.0 MPa (10.0 bar / 140 psi).

### DO NOT connect to a storage tank

- Isolate the water supply
- Lay in the Ø15mm water supply pipe to the location of the inlet connection (Fig.1). Check that the water supply position gives enough space under the unit for it to be used properly. Flush through the water supply before making the final connection so that any debris is removed.
- **Note: The inlet elbow contains a flow regulator: THIS MUST BE USED IN INSTALLATION**
- Lay in the Ø15mm drainage pipe to the location of the steam vent connection (Fig.1). Connection is made using the push-fit adaptor provided.
- The steam vent connection must be taken directly to the sink below, if there is one, or via a tundish to a suitable drain.  
**If a sink is used it must be able to withstand boiling water and have an overflow connection.**
- **Note: The steam vent outlet also acts as an overflow.**

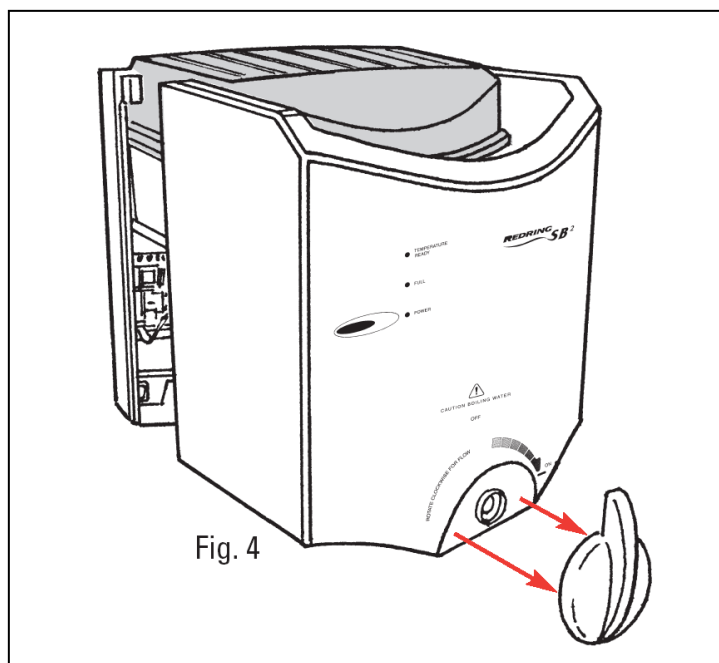
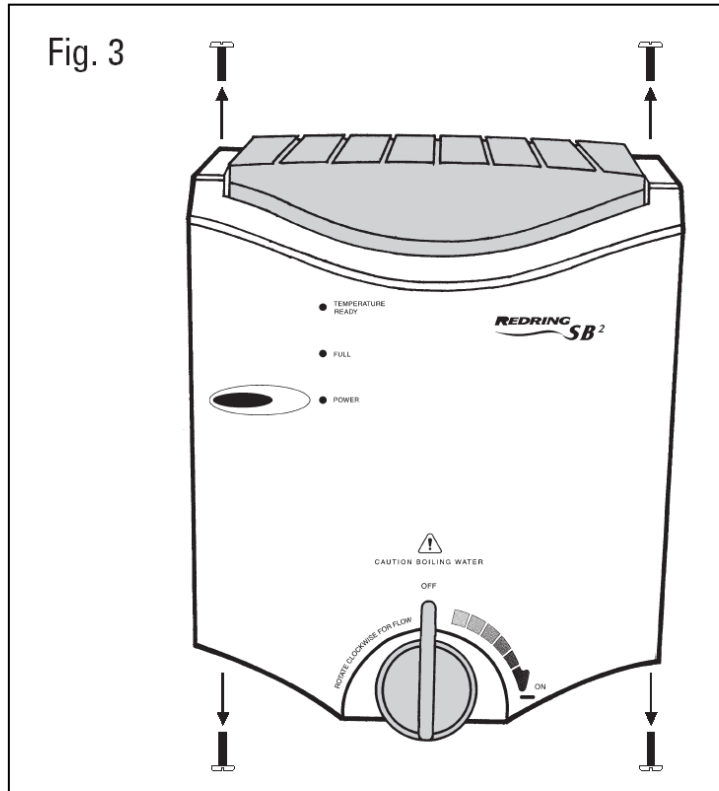
## Installing the mains supply

If a mains supply is not already available.

- Install a means for disconnecting the fixed wiring in all poles (ie. 13A fused double pole isolating switch) adjacent to where the unit will be fixed.

## Removing the front cover

- Remove the screw from the bottom and top edge of the unit (Fig.3).
- Support the front cover and remove the flow knob (Fig.4).
- Pull the front cover away from the unit and carefully remove the flying-lead and plug from the back-plate connector (Fig 5a and Fig.5b).



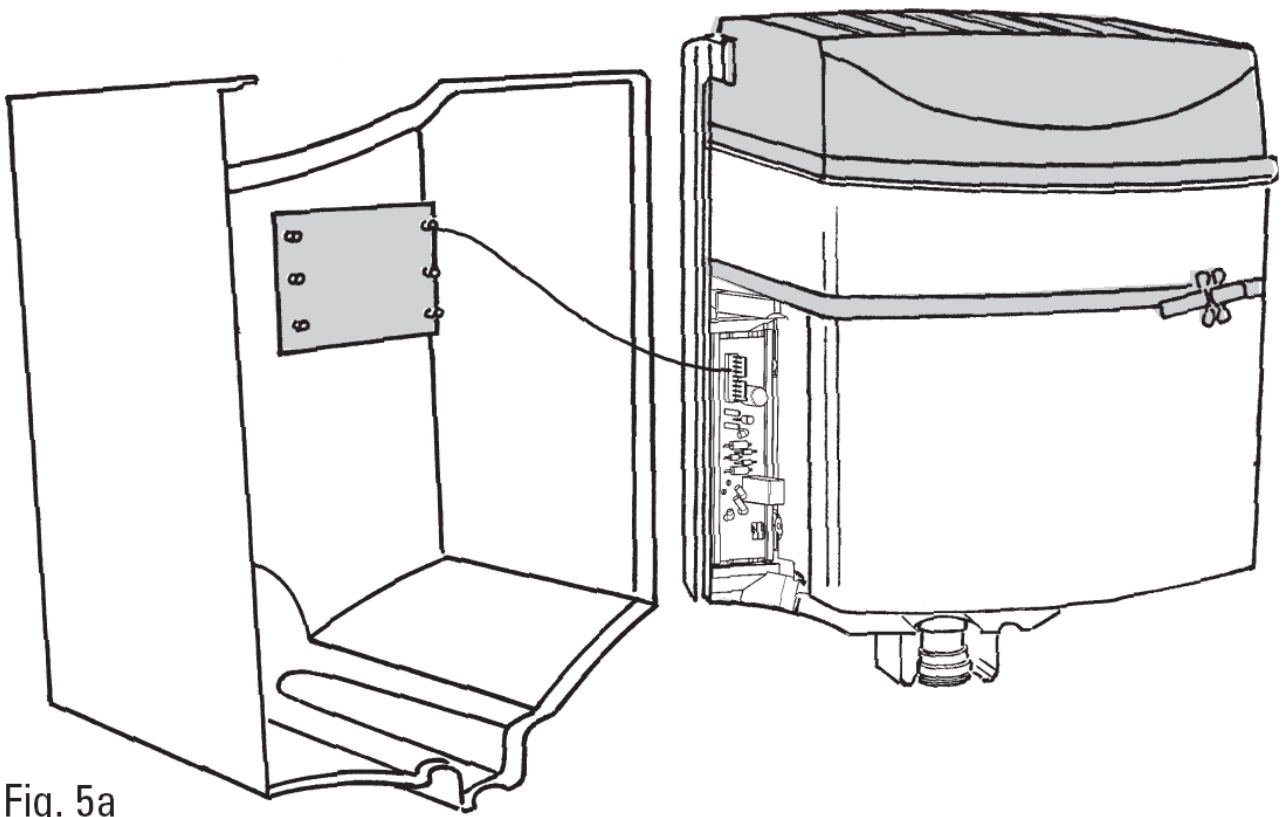


Fig. 5a

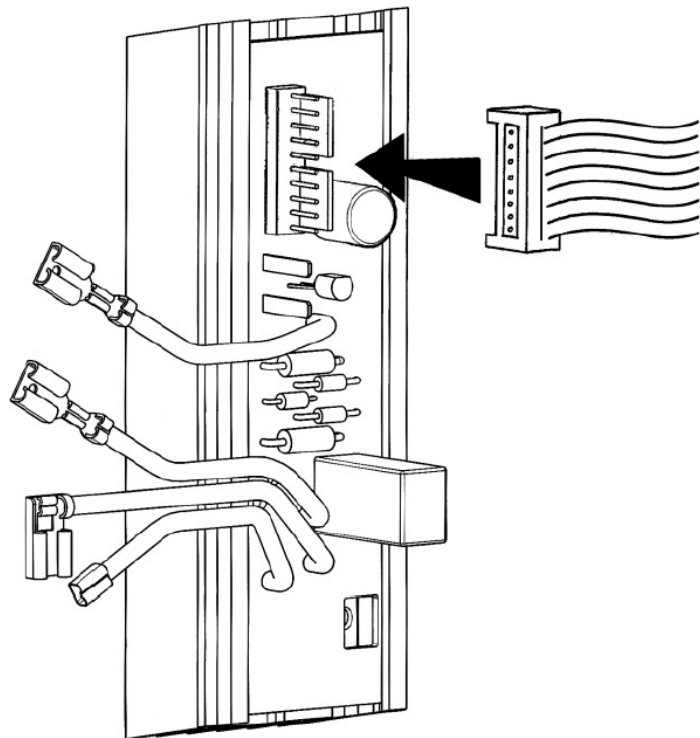


Fig. 5b

## Fixing the unit to the wall

- Use the wall mounting bracket supplied and the two lower fixing holes.  
Ensure that the wall mounting bracket is mounted horizontally.
- An extra top fixing point is available by temporarily removing the condenser assembly.

## Connecting the water supply and vent pipes

- When the unit is fixed to the wall, make the final water supply and steam vent connections and secure the pipework.
- Switch the water supply back on.

## Connecting the mains cable

- Ensure the mains supply is isolated.
- Connect the mains cable from the SB<sup>2</sup> to the means for disconnection (ie. 13A fused double pole isolating switch).
- Ensure the cable clamps are firmly secured and the cable ends are tightened into the terminal block.

### Note:

The supply cable must be a minimum of 1.0mm<sup>2</sup> 3-Core multi-strand PVC insulated mains cable. The terminal block will not accept cable diameters above 1.5mm<sup>2</sup>.

Check that the mains supply matches the electrical rating on the product.

The rating plate is located on the bottom edge of the unit.

### IMPORTANT:

Connect the supply cable, complying with BS.6500, to this appliance in accordance with the following code:

**GREEN AND YELLOW (EARTH)** connect to the terminal marked “

**BLUE (NEUTRAL)** connect to terminal marked “N”.

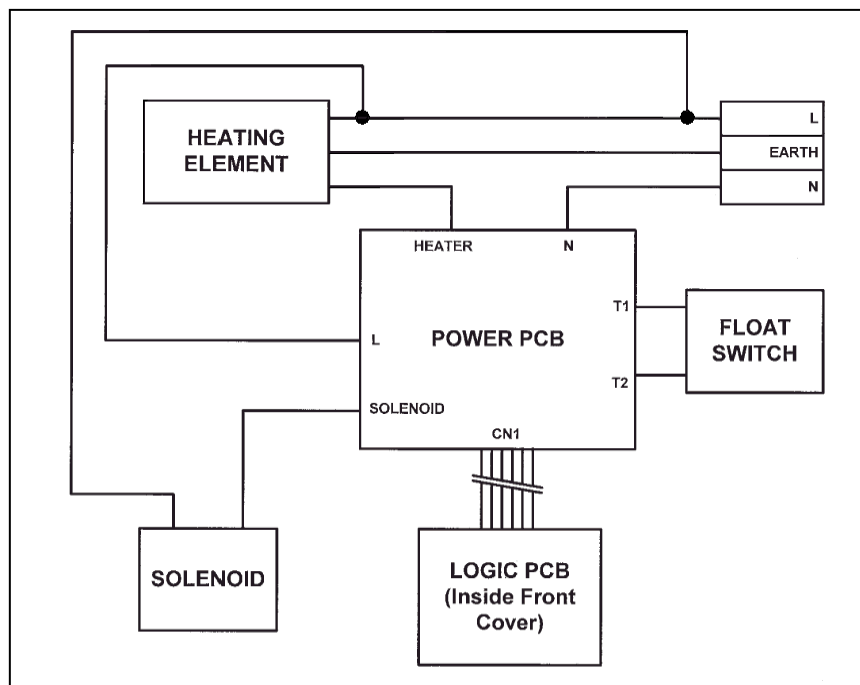
**BROWN (LIVE)** connect to terminal marked “L”.

**WARNING: THIS APPLIANCE, AND ALL METAL PIPEWORK CONNECTED TO IT, MUST BE EARTHED.**

## Replacing the front cover

- Support the cover and re-attach the flying-lead to the unit.
- Replace the front cover and secure using the top and bottom screws.
- Carefully replace the knob, ensuring correct alignment of the “D-Shaft”.
- Reconnect the mains supply.

## Schematic Wiring Diagram



## Operating Instructions

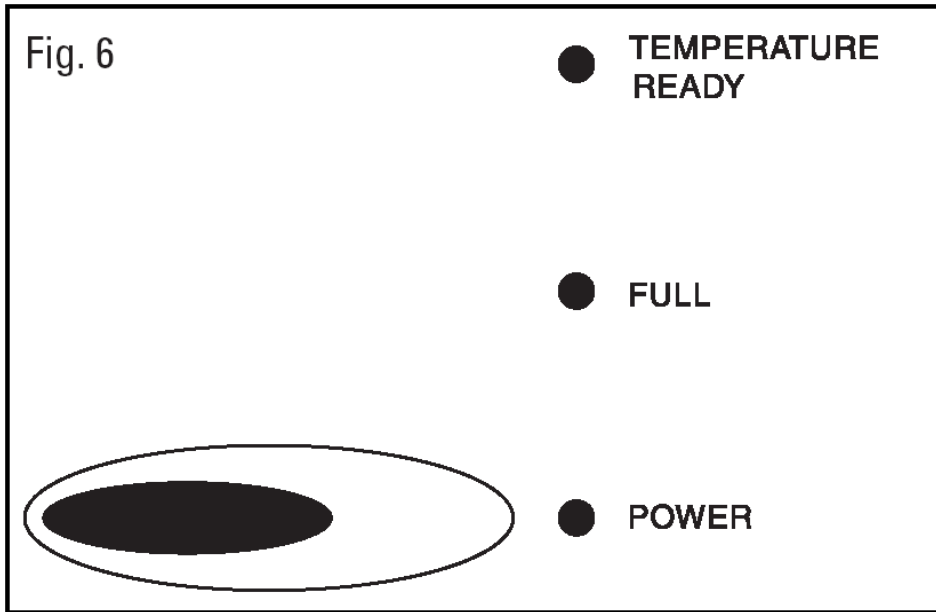
### General Product Description

The SB<sup>2</sup> is a wall mounted, self-calibrating and self-filling boiling water heater. It can be used for making cups of tea or coffee and even soups and hot snacks. A special condenser traps steam and returns droplets to the tank, minimising waste and saving energy.

The water temperature is set and automatically maintained by the SB<sup>2</sup> and the unit is powered down with the “Power” button. Water is dispensed by rotating the front cover knob clockwise.

### How to operate the SB<sup>2</sup> (see Fig.6)

- Make sure the electricity and water are turned on.



- Use the “POWER” button to switch on the SB<sup>2</sup> on and to power down. The SB<sup>2</sup> should be switched off at the mains if the water is not required e.g. at weekends, holidays etc.

**POWER light:** when the SB<sup>2</sup> is on the POWER light will come on.

**FULL light:** Full light comes on when the tank is full of water. The SB<sup>2</sup> fills up automatically and this can take up to 10 minutes if the tank is completely empty.

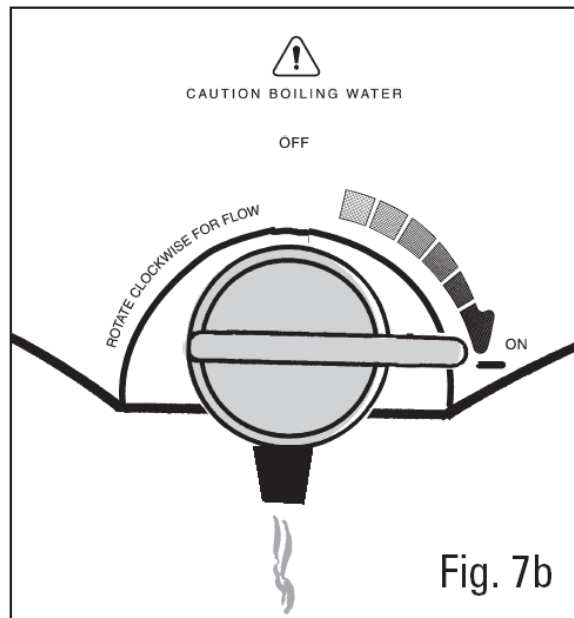
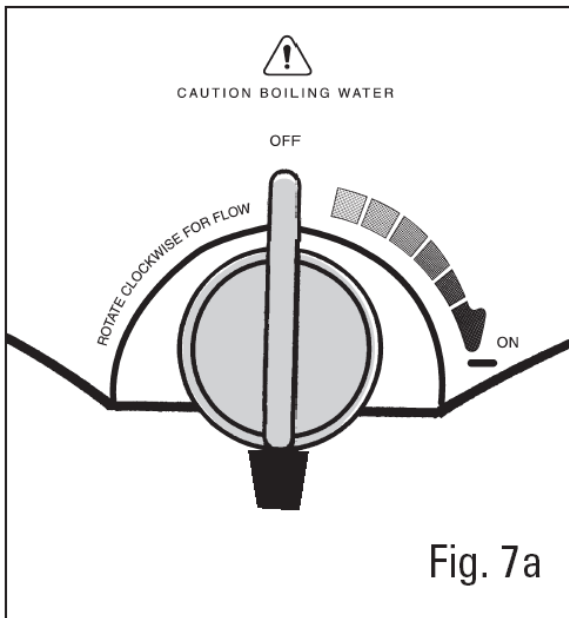
**TEMPERATURE READY light:** TEMPERATURE READY light comes on when the water is hot enough to use. This can happen even when the tank is not completely full of water.



## Please Note:

- The SB<sup>2</sup> can take several minutes to reach the required temperature, depending on usage and tank capacity.
- To avoid energy wastage, the SB<sup>2</sup> will automatically reduce the temperature by 10°C if the unit is not used for more than 60 minutes.  
The SB<sup>2</sup> will automatically go back to boiling when the water is used.
- When the SB<sup>2</sup> is switched on at the local isolator and the POWER button is pressed, it will start by self-calibrating. This can take up to 20 minutes to complete and includes automatically **boiling the water for 30 seconds**.
- When first installed, it is recommended that the initial tank of boiling water is fully drawn off and discarded. Allow the tank to re-fill and the TEMPERATURE READY light to come on, before using the SB<sup>2</sup>

## Dispensing water from the SB<sup>2</sup>:



- Place your cup under the red spout at the bottom of the unit.
- Turn the knob clockwise to fill your cup (Fig.7b).
- Turn the knob anti-clockwise to OFF (Fig.7a).

## WARNING

- **SCALDING HOT WATER can be dispensed from the SB<sup>2</sup>.**
- **Never wash your hands directly from the unit.**
- **Some plastic cups can distort if they are filled with boiling water, so causing a danger of scalding.**
- **Do not use if heater is suspected of being frozen. Allow to thaw completely before use.**

## How to clean and descale your SB<sup>2</sup>

### Cleaning:

- Before cleaning or descaling, switch off the electricity at the isolating switch.
- It is recommended that the SB<sup>2</sup> surfaces are cleaned with a soft cloth.
- **Do not use abrasive or solvent cleaning fluids.**

### Descaling:

- **A suitably qualified person should carry out the descaling.**
- **Ensure the mains electricity supply is isolated.**
- If scale comes out with the hot water then the SB<sup>2</sup> may need to be descaled.  
This is done by removing the front cover and top condenser assembly and using a suitable kettle descaler (a packet has been supplied). Ensure unit is thoroughly flushed through after descaling.

## **Trouble Shooting**

**SELF HELP:** If the SB<sup>2</sup> is not working satisfactorily, make the following checks before calling out the contractor. Any one of these adjustments could restore the performance.

a) TEMPERATURE READY light is not on	This is normal: The water has not yet reached the set temperature. (See Table 3 on page 11 for approximate heat up times).
b) TEMPERATURE READY light is on but the FULL light is off	This is normal: Some water has been taken out of the tank so it is no longer full, but the water temperature is still hot enough to use. (The tank will automatically fill up again).
c) The FULL light is on but the TEMPERATURE READY light is off	This is normal: The tank will have automatically filled and the heater is still getting the water up to the boil. (See Table 3 on page 11 for approximate heat up times).
d) The POWER light is on but the TEMPERATURE READY and FULL lights are both off	This is normal: The tank is still filling up with water and the heater is still getting up to the boil. (See Table 3 on page 11 for approximate heat up times).
e) TEMPERATURE READY light is on but the water is not boiling	To avoid energy wastage, the SB <sup>2</sup> is designed to automatically reduce the temperature by 10°C if the unit is not used for more than 60 minutes. (The SB <sup>2</sup> will automatically go back to boiling when the water is used).
f) All the lights are out and the POWER button does not work	Ensure that the electricity supply is switched on at the local isolator, and then press the POWER button.
g) The water flowing from the outlet is sometimes only a trickle	The water in the tank has been drained out due to a high demand. Wait for the FULL and TEMPERATURE READY lights to come on again.
h) The SB <sup>2</sup> takes a long time to reach the selected temperature	When the SB <sup>2</sup> is first switched on it can take up to 18 minutes to reach the Boil setting. (See Table 3 on page 11 for approximate heat up times).
i) Steam and very hot water sometimes dribble out of the vent at the back of the SB <sup>2</sup>	Check that a pipe has been fitted to the steam vent. Contact your installer if missing. Use the POWER button to power down the unit and not the mains electrical local isolator. (This will reduce the amount of steam produced).
j) The water tastes different	The new SB <sup>2</sup> needs to be flushed out before being used first used. We recommend that the initial tank of boiling water is fully drawn off and discarded. Wait for the FULL and TEMPERATURE READY lights to come on, before using the unit.
k) Solid particles are visible in the water	Scale has built up inside the tank. As with all water heaters scale may build up inside the water tank. How quickly this build up occurs will depend on the hardness of the water and the usage of the SB <sup>2</sup> . Descale the SB <sup>2</sup> heater tank (This should be carried out by a suitably qualified person). We recommend the use of inline resin filters to protect the heater.

**PROFESSIONAL SERVICE:**

If the **SELF HELP** checks do not cover the symptom, you should seek professional help. The following additional checklist is provided for the benefit of the qualified service person.

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

a) Unit fails to heat the water	<p>Check that the water supply is on and that its pressure is between 0.069 MPa (0.7 bar / 10 psi) and 1.0 MPa (10.0 bar / 140 psi).</p> <p>Check circuit through solenoid coil.</p> <p>Check circuit through the heating element.</p> <p>Check circuit through float switch</p> <p>If defective then replace.</p>
b) All the light are out and the POWER button does not work	<p>Ensure that the electricity supply is switched on at the local isolator.</p> <p>Ensure that the flying lead to the front cover is connected properly (see Fig.5a and 5b).</p> <p>Check the supply to the PCB. If supply OK then change PCB.</p>
c) Water flows continually from the steam vent pipe	<p>Check that the float switch operates correctly and switches the water solenoid on and off.</p>
d) The water tank takes more than 20 minutes to fill with water	<p>Check that the water supply is on and that its pressure is between 0.069 MPa (0.7 bar / 10 psi) and 1.0 MPa (10.0 bar / 140 psi).</p> <p>Check operation of the water solenoid and that water flows into the tank at a rate between 0.3 litres/minute and 1.0 litres/minute.</p> <p>Check circuit through the solenoid coil</p> <p>If defective then replace.</p>

**SB<sup>2</sup> Heat up times (table 3):**

CONDITION	APPROXIMATE HEAT UP TIME 2.5 Litre SB <sup>2</sup>	APPROXIMATE HEAT UP TIME 4 Litre SB <sup>2</sup>	WHAT ELSE HAPPENS
<p>SB<sup>2</sup> is switched on at the local isolator and the unit is empty of water.</p> <p>POWER button is pressed.</p>	<p>12 minutes (4 minutes filling 8 minutes heating)</p>	<p>18 minutes (5 minutes filling 13 minutes heating)</p>	<ul style="list-style-type: none"> <li>- POWER light comes on</li> <li>- then FULL light comes on</li> <li>- then TEMPERATURE READY light comes on</li> <li>- then steam comes out of vent for 30 seconds</li> </ul>
<p>SB<sup>2</sup> is switched on at the local isolator and the unit is already full of cold water.</p> <p>POWER button is pressed.</p>	<p>8 minutes</p>	<p>13 minutes</p>	<ul style="list-style-type: none"> <li>- POWER and FULL lights both come on</li> <li>- then TEMPERATURE READY light comes on</li> <li>- then steam comes out of vent for 30 seconds</li> </ul>

# GUARANTEE

## Terms and Conditions for UK (outside UK contact your local distributor)

We guarantee this product for a period of 24 months from the date of purchase.

Within the guarantee period we will resolve, **free of charge**, any manufacturing defects in the product resulting from faulty workmanship or material on condition that:-

- a) The product has been correctly installed and commissioned in accordance with our instructions and is being used on the supply circuit or voltage printed on the rating plate.
- b) The product has been used in accordance with these instructions and has not been tampered with or otherwise subject to misuse, neglect or accident.
- c) The product 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 or receipt will be required in order to qualify under the terms of this guarantee.
- e) SCALE PREVENTION: Formation of scale occurs with hot water heaters operating at high temperatures in hard water areas. We strongly recommend the use of in-line resin filters to protect the heater. The manufacturer guarantee DOES NOT cover these natural phenomena.
- f) For the service work to be undertaken free of charge, the work must only be undertaken by Redring Xpelair Group Limited, or our approved agents.
- g) Service under guarantee has no effect on the expiry date.  
The guarantee on any exchanged parts or product ends when the original guarantee period ends.

## EXCLUSIONS

This guarantee **DOES NOT** cover damage or defects arising from poor or incorrect installation, improper use or lack of maintenance, including the build-up of limescale.

It is the responsibility of the installer to check that the installation parameters meet the requirements of the products, and any relevant regulations.

If we are called out to a fault, which is subsequently identified as being an installation fault, we will make a charge, it is important that the routine checks are completed before calling us out, as many issues can be simply diagnosed and resolved.

A charge will be made where a call under the terms of the guarantee has been booked and a failure was not product related, or an engineer arrives and is not able to gain access.

We make no guarantees as to response time for repairs.

We will endeavour to achieve the most timely response possible but while we indicate an average response time, this should not be taken as a guarantee.

The guarantee applies to a repair or replacement (at our discretion) of the product subject to the conditions above, and **DOES NOT** cover compensation for the loss of the product or consequential loss of any kind.

This guarantee does not apply to the repair or replacement of pressure relief devices, descaling of the unit or damage caused by scale formation, or faults with isolating switches, electrical cable, fuses and/or circuit breakers.

**This guarantee does not affect your statutory rights.**

Full details of terms and conditions are available on request from:-

 **Redring Xpelair Group**

**REDRING XPELAIR GROUP LIMITED**

**NEWCOMBE HOUSE, NEWCOMBE WAY, ORTON SOUTHGATE, PETERBOROUGH PE2 6SE**

**TEL: +44 (0) 1733 456789 / FAX: +44 (0) 1733 319610**

**Website: [www.redring.co.uk](http://www.redring.co.uk)**