

Trouble Shooting

All Models

Redring SB Professional

On Wall Boiling Water Heater

Models:

1070800E	2.5 ltr
1070810E	5 ltr
1070815E	7.5 ltr
1070820E	10 ltr
1070825E	15 ltr
1070830E	20 ltr
1070835E	25 ltr



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The General Operational Process

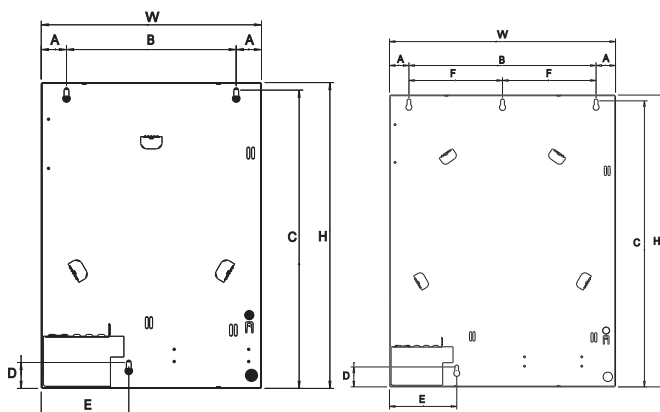
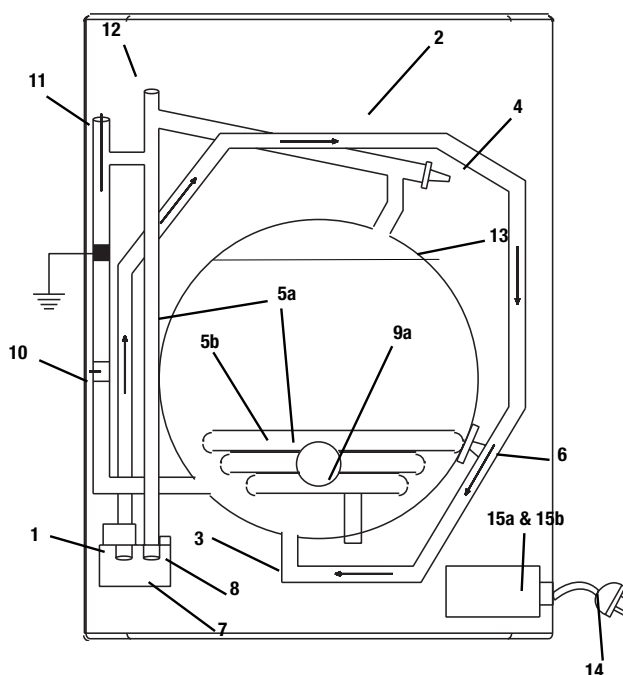
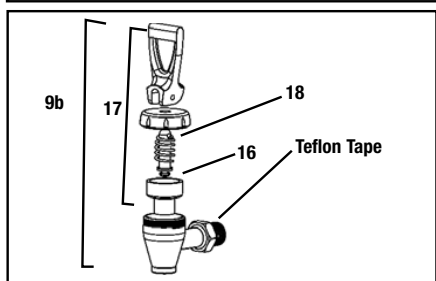
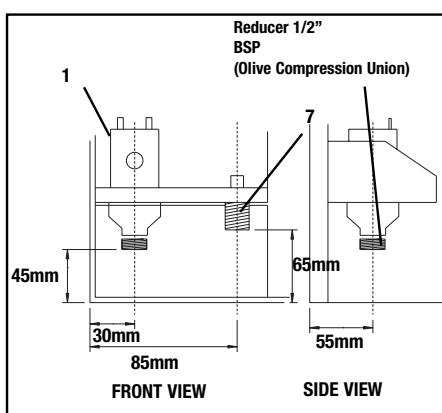
1. After fixing to wall and checking all connections, turn on power and water together.
2. The solenoid valve will now open and fill the tank until it reaches the low water level sensor.
3. When the low water level sensor is contacted, the filling process stops and the heating cycle starts, the heating will continue until the water reaches approximately 98-99°C.
4. Once this temperature is reached the heating stops and filling restarts, this process of heat/fill/heat/fill continues until the top water level sensor is reached. When water makes contact with the high water level sensor, the PCB isolates the filling cycle from this function, and the element controlled by the PCB remains in circuit to monitor for any heat top up's that may be required.
5. If any subsequent water is used and the unit drops away from the high level water sensor, the heat/fill/heat /fill process restarts until water is back at the high level water sensor and at maximum temperature.

Spare parts and diagrams for location and installation dimensions.

Spare Parts

Ref	Part No	Description
1	1311010	Water Solenoid Valve
2	1311044	Condenser Assembly
3		Cold Water Inlet To Tank
4	1311043	Thermistor Steam Sensor
5a		Element & Tank Assembly
5b	1311032	Element Assembly 5 to 25 Litre
6	1311006	Manual Rest Thermostat (boil dry protection)
7		Steam Vent Outlet (half inch BSP)
8	1311022	Auto Reset Thermostat (steam vent overflow)
9a		Water Outlet Fitting (half inch BSP)

9b	1311056	Tap Assembly
10	1311082	Sensor (minimum water level)
11	1311048	Probe (maximum water level)
12		Steam Vent Outlet
13		Maximum Water Level
14	1310842	Power Cord & Plug Assembly
15a	1311045	Control Board Assembly (2.5 Litre)
15b	1311042	Control Board Assembly (5 to 25 Litre)
16	1311058	Tap Cup Seal
17	1311060	Tap Insert
18	1310732	Tap Spring



2.5- 15L

20-25L

Wall Mounting Dimensions (mm)

	2.5L	5-7.5L	10-15L	20-25L
A	56.4	41.4	41.4	41.4
B	198.0	278.0	335.0	399.0
C	418.45	488.45	545.45	609.45
D	42.45	42.45	42.45	42.45
E	143.4	143.4	143.4	143.4
F				200
H	430.8	500.8	557.8	621.8
W	310.8	360.8	417.8	481.8

Problem Solving

Symptom	Solution
Unit filling to low level but not heating	<ol style="list-style-type: none"> 1. Possible faulty PCB 2. Check Element 3. Check all wiring connections
Unit not filling	<ol style="list-style-type: none"> 1. Check top probe (No.11 page 3) and ensure that the probe is not in contact with tubing. Also check for scale build up. 2. Check solenoid valve (No.1 page 3) with multimeter set to K Ohms scale, it should read between 3.9 - 4.2. 3. Check water supply. 4. Turn pwer supply on then off to see if you can hear the "squirt" of water from the solenoid valve.
Unit continually boiling	<ol style="list-style-type: none"> 1. Replace thermistor steam sensor (No.4 page 3) 2. If above does not solve problem, replace PCB (No.15a or 15b page 3). 3. Check the thermistor is positioned correctly.
Manual reset thermostat (Unscrew) (Element boil dry protection)	<ol style="list-style-type: none"> 1. Check water supply to tank. 2. Check element. 3. Replace manual reset.
Tap leaking	<ol style="list-style-type: none"> 1. Replace tap cup seal (No.15 page 3) 2. Replace tap assy (No.9 page 3). Re-tape with teflon.
Unit slow in "Heat/Fill" cycle	<ol style="list-style-type: none"> 1. Water transfer hole in the cold water supply tube may be blocked. Check and clear blockage. (the hole is positioned above the thermistor sensing probe, linking the cold supply and condensor tubes)

NOTE: Ensure all Earth connections are secure, failure to do so will cause the unit to operate irratically

Tank access and replacing parts

Task	Operation
Front cover removal	<ol style="list-style-type: none"> 1. Turn power and water off 2. Drain unit via tap, be carefull of boiling water. 3. Remove the tap assy by unscrewing counter-clockwise 4. Undo self-tapping screws, 2 at top and 2 at bottom of case. Remove the cover by drawing towards you.
Replace Solenoid	<ol style="list-style-type: none"> 1. Directions as above in Cover Removal. 2. Disconnect wires to valve. 3. Disconnect the water fitting attached to valve. 4. Unscrew securing screws fixing valve. Remove old valve and replace with new valve. 5. Re-connect fitting, turn on water and check for leaks. 6. Refit case and return to operation.
Replace Element	<ol style="list-style-type: none"> 1. Directions as above in Cover Removal. 2. Disconnect element wiring. 3. Disconnect wiring from the manual re-set thermostat and remove by unscrewing. 4. Remove the panel at the top of the tank, then the 3 nuts securing the element, 2 at the bottom and 1 on the side of tank. 5. Remove the element through the top opening. 6. Replacement is the reverse procedure. 7. Refit case and return to operation. <p>NOTE: After replacing the element the top panel must be re- sealed to ensure water tight operation.</p>
Replace Tap assembly	<ol style="list-style-type: none"> 1. Directions as above in Cover Removal. Steps 1-3. 2. Re-fit the new tap assembly. 3. Ensure new thread seal tape is applied.
Replace Manual Re-Set Thermostat	<ol style="list-style-type: none"> 1. Directions as above in Cover Removal. 2. Remove the connecting wires, unscrew the cutout. 3. Replacement is the reverse procedure.
Replace PCB.	<ol style="list-style-type: none"> 1. Directions as above in Cover Removal. 2. Disconnect connecting wires and unscrew PCB. 3. Replacement is the reverse procedure. 4. Refit case and return to operation. <p>NOTE: PCB wiring is colour coded please ensure that the wires go back onto the same connection terminals. All connections are 240 volt, take great care. The temperature is non-adjustable. PCB No.181801 is for 2.5 ltr. PCB No.181815 is for 5ltr and larger.</p>

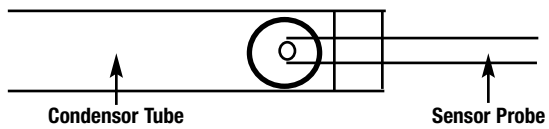
Tank access and replacing parts con't.

Task

Replace Thermistor Steam Sensor

Operation

1. Directions as above in Cover Removal.
2. Remove PCB cover plate.
3. Remove the thermistor.
4. The probe end of the thermistor pushes into the condenser tube so that the tip just covers the hole drilled in the condenser tube.
5. Re-connect the sensor to the PCB at either NTC 1 or NTC 2, in any order.



Notes

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