

# INSTANT BOILING WATER DISPENSERS



Models 2.5, 5, 7.5 Litre

This boiling unit must be installed and serviced by a qualified person. Please leave this guide with the owner. This page intentionally left blank.

## CONTENTS

1.	PREFIX	4
2.	IMPORTANT NOTES AND WARNINGS	5-6
3.	PRODUCT SPECIFICATIONS	7-8
	3.1 Specifications Table	7
	3.2 Diagram: Dimensions	8
	3.3 Dimension Table	8
4.	INSTALLATION	9-10
	4.1 Heater Mounting and Water Connection	9
	4.2 Electrical Connection	10
5.	OPERATION	11
6.	SERVICING	12
7.	TROUBLESHOOTING	13-14
	7.1 Fault Finding Guide	13
	7.2 Self Diagnostics	14
8.	WIRING DIAGRAM	15
9.	SPARE PARTS LIST	16

## What Do the Symbols Used Mean?

Danger notices and safety information has been clearly marked throughout these instructions. The following symbols are used to draw your attention to these important warnings:



#### Type and Source of Danger!

Failure to observe this danger notice may cause physical injury or death.

## 1. PREFIX

This manual contains important information about the installation, operating and maintenance of the Bromic Instant Boiling Water Dispensers. Please pay close attention to the important safety information shown throughout this instruction manual. Any safety information will be accompanied by the following safety alert symbols:



- READ THIS MANUAL CAREFULLY before installing or servicing this product.
- Improper installation, operation, or maintenance can result in death, severe injury, or property damage.
- Installation & servicing MUST be carried out by a licensed and authorised technician in accordance with local electrical and plumbing codes (NCC VOL.3 & AS/NZS 3500.4).

## 2. IMPORTANT NOTES AND WARNINGS









- Read all instructions before installing or using this appliance.
- Installation must be performed by a qualified technician and is subject to the requirements of the applicable regulatory authority, including compliance with AS/NZS 3500.4, Clause G12 of the NZ Building Code, the NCC VOL. 3 – Plumbing Code of Australia, associated reference standards, and all other relevant national and local regulations.
- For continued safety of this appliance it must be installed, operated and maintenance in accordance with the manufacturer's instructions. Any other use not recommended by the manufacturer may cause fire, electric shock, injury or death.
- The installer must supply and install all necessary valves in accordance with local regulations and standards.
- Retain this manual for future reference.
- Improper installation, adjustment or alteration and failure to follow the warnings and instructions in this manual could result in severe personal injury, death or property damage.
- The manufacturer is not responsible for any damage that could happen from improper use. The manufacturer emphasises that this appliance should be used in a responsible manner and that all procedures, warnings, and safety instructions contained in this booklet be followed strictly.
- Check the appliance for damage. Do not operate a damaged unit.
- Check for damage to the appliance regularly. If damage to the appliance is suspected, immediately disconnect the appliance at the isolation point and discontinue use. Contact the supplier or qualified person to repair. Do not open equipment.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.
- Water with a temperature higher than 40°C has the potential to cause serious burns, especially for children.
- Keep packaging material out of reach of children.
- Do not attempt to alter the appliance in any manner.
- Do not perform any maintenance until the appliance has been switched off disconnected with power, and water inlet has been shut-off, plus water inside the unit is not hot enough to scald.
- Do not operate the appliance with panels, covers, or guards removed. Always disconnect the appliance from the power supply before removing the cover.
- If the appliance has not been used, or will not be used for a long period of time, disconnect power supply.
- Appliance is not to be installed in locations where freezing can occur.
- The outlet piping material connected to this appliance shall not be plastic. Refer to national and local plumbing code for further details.
- If the power cord is damaged, it must be replaced by the manufacturer, their service agent, or a similarly qualified professional to prevent any hazards.
- During the normal operation of the Boiling Water unit the vent/overflow connection may discharge small quantities of steam and condensate, so it is ESSENTIAL that the drainpipe is attached to the vent/overflow connection. This drainpipe must discharge to waste at a point where no scald injury or inconvenience is caused.
- Ensure that the vent/overflow line remains open because the Boiling Water unit tank is not designed to be pressurized. It is recommended to install an air break in the vent/overflow drain line, no more than 300 mm from the Boiling Water unit.
- The unit is not suitable for installation in an area where a water jet could be used. This unit must not be cleaned using a water jet.
- Make sure the appliance is placed in an accessible location with proper clearance mentioned in Section 4 Installation. It must be installed upright with its base in a horizontal position.
- The power cord and general power outlet must be positioned safely and be easily accessible after installation.
- The cold-water supply connected to this appliance must be potable and comply with local authority guidelines.



- If the appliance is situated in an area where the ambient temperature can drop below 5°C when not in use, do not turn off the power. This measure does not protect the connecting pipes and fittings.
- In areas with hard water where mineral scale build-up can occur, appropriate maintenance measures should be considered. Suitable water treatment may be required.
- This appliance is intended for indoor use only and must not be installed outdoors or exposed to weather conditions.
- The appliance must operate within ambient temperatures ranging from 5°C to 50°C.
- This appliance is designed for use in staff kitchen areas in shops, offices, and other work environments, as well as farmhouses and by guests in hotels, motels, and other residential settings; bed and breakfast environments; catering, and similar non-retail applications.

## 3. PRODUCT SPECIFICATIONS

## 3.1 SPECIFICATIONS TABLE

Bromic Instant Boiling Water Dispensers	2.5L	5L	7.5L			
Part number	2850205	2850215	2850225			
Storage Capacity (Litres)	2.5	5	7.5			
Max. Water Supply Pressure (kPa)	800	800	800			
Min. Water Supply Pressure (kPa)	50	50	50			
Cold Water Connection		1/2" BSP				
Overflow Vent Connection		1/2" BSP				
Supply Voltage	220	) - 240 Volts AC 50	) Hz			
Electrical Connection	10A 3pin plug					
Heating Element (kW)	1.8	2.0	2.0			
Approx. Weight Empty (kg)	6.6	8.5	8.7			
Approx. Weight Full (kg)	10.7	16.3	18.3			
Approx. Time to Heat, to Full Capacity (mins)	12	15	22			



Unlike traditional water heaters, which need to fill the tank before heating the water, this Bromic Instant Boiling Water Dispenser uses step-by-step heating technology. The advantages include:

- **1. Energy Efficiency:** Step-by-step heating gradually heats the water based on demand, avoiding the energy waste of heating an entire tank, thereby significantly improving energy utilization efficiency.
- 2. Rapid Hot Water Supply: Since it doesn't require waiting for the entire tank to heat up, step-by-step heating provides hot water more quickly, reducing waiting time and enhancing user experience.
- **3. Consistent Water Temperature:** Step-by-step heating can adjust the heating power in real-time according to water usage, ensuring a stable water temperature without sudden changes.
- 4. Extended Lifespan: Because the tank does not undergo frequent extensive heating and cooling cycles, step-by-step heating can reduce wear and tear, extending the lifespan of the water heater. This innovative heating method not only improves the performance and user experience of the water heater but also makes a positive contribution to energy saving and environmental protection.

### 3.2 DIAGRAM: DIMENSION SPECIFICATIONS





FRONT VIEW

SIDE VIEW

DETAIL A1 ENLARGED MOUNTING HOLE



## 3.3 DIMENSION SPECIFICATION TABLE

		DIMENSION (mm)															
Model	A	в	с	D	E	F	G	н	I	J	к	L	М	N	Ρ	R	S
2.5L	275	165	365	263	82	243	110	33	28	95	93	18	49	45	20	198	16
5L	320	195	448	293	82	273	110	33	28	95	93	18	49	45	20	198	16
7.5L	320	195	448	293	82	273	110	33	28	95	93	18	49	45	20	198	16

8

## 4. INSTALLATION



- Installation must be performed by a qualified technician in compliance with AS/NZS 3500.4 Plumbing and drainage: Heated water service and Clause G12 of the NZ Building Code as well as all other current national and local regulations.
- Heater must be connected to main/potable water supply only.
- Do not connect the appliance to the electric mains until the appliance has been connected to water supply and all the connections are correct, leak tight and full.
- The mounting wall must be able to support the product weight when full of water as shown on page 7.
- Sufficient space is provided to install the appliance, cable and plumbing.
- The appliance must be connected to mains/potable water supply with working pressure of: 50-800kpa (0.5bar 8bar).
- Occasionally steam and/or boiling water may discharge through a vent outlet or the tap. Ensure that the body is located so that a vent outlet safely dispenses into the drip tray or sink connected to waste if plumbed to a safe location.
- This appliance is only suitable for indoor installation.
- Ensure the circuit breaker and the isolation switch are suitably sized for the appliance.
- Do not tamper with any of the installed safety devices.
- The appliance must be placed upright with its base in a horizontal position.
- All units require a minimum clearance of 50mm on all sides. However, we recommend leaving sufficient clearance for servicing.

## 4.1 HEATER MOUNTING AND WATER CONNECTION



#### 4.1.1 POSITIONING

- Place the carton template (on the external packaging box) on the wall. Mark corners of the appliance on the wall.
- Drill holes as shown on the template.

#### 4.1.2 FASTENING

- Remove screws from case (4-off); Remove the case;
- Use suitable wall screws (not supplied) to mount the appliance to the wall. The screws MUST be anchored in such a way, that they will hold the weight of the unit when the tank is full of water. (refer to the spec Page 7)

#### 4.1.3 PLUMBING

- Ensure the cold-water supply is turned off before connection to the inlet connection.
- An isolation valve (not supplied) must be fitted to the water supply.
- Please ensure that the mains cold water supply is connected to the indicated water inlet connection of the appliance (at the base of the solenoid valve) and that the unit vent connection always has a free flow of air into and out of the boiling water chamber.
- Fit the appropriate connection to the appliance's cold-water inlet (1/2" BSP).
- All venting pipework must have a continuous fall, not exceeding 3 meters in length and contain no more than 4 bends. This pipe is to be made of a material such that continuous steam will not degrade it (i.e. copper)



#### 4.1.4 DRAINING

Turn off the unit and open the tap until water stops flowing. Remove the unit from the wall and take off the cover. Locate the drainage screw at the bottom of the tank and unscrew it to completely drain the remaining water. Reinstall the drainage screw back into the tank, taking care not to apply excessive torque, as this could damage the sealing washer.

**Warning**: Before draining the unit, ensure the appliance has been switched off (disconnected with power), and water is not hot enough to scald.

#### **IMPORTANT:**

Installation & maintenance must be performed by a qualified technician in compliance with AS/NZS 3500.4 Plumbing and drainage: Heated water service and Clause G12 of the NZ Building Code as well as all other current national and local regulations.

## 4.2 ELECTRICAL CONNECTION



- Do not connect the appliance to the electrical mains until all water connections are secure and the cover is in place.
- Do not loosen the cord grip or pull excess cord into the boiling water unit. If the supply cord of this unit is damaged, it must be replaced by the manufacturer or a qualified service person.
- This appliance must be earthed. Check the earthing by using a resistance meter between the power plug and the cover fixing screw, and then the tap. The electrical resistance must not exceed 1 ohm.

## 5. OPERATION

#### TO TURN ON AND FILL THE BOILING WATER UNIT:



#### Do not turn on the appliance until the outer cover has been correctly installed.

- Switch on the mains water supply and then connect the appliance to the power source. Inspect all connections for any possible leaks and repair if necessary. Wait 15-30 minutes for the water to heat to the boiling set temperature.
- To dispense boiling water, press the lever. For continuous flow, push the lever to lock it in place. If the lever does not lock, rotate it 180° before dispensing.



#### Water Supplies

This Boiling Water Unit is designed to match the water quality conditions typical in most metropolitan areas of Australia and New Zealand. However, certain water supplies are known to negatively affect the unit's performance and longevity. If there is any doubt about your water quality, consult your local water authority. Ensure that your Boiling Water Unit is connected to a water supply meeting these guidelines to maintain the validity of the warranty.

**Caution**: If the Boiling Water Unit is to be connected to a water supply with a high content of silica or calcium, extra caution is advised. Such water supplies may be detrimental to the unit's operation and may void the warranty. For further information regarding water quality guidelines, contact your local service agent for advice.

#### **Saturation Index Guidelines**

The saturation index measures whether water is likely to cause scaling or corrosion. In water with a tendency to form scale, calcium carbonate may build up on hot metallic surfaces like the heating element. The warranty is void if the saturation index is above +0.80. Conversely, in corrosive water, the water can damage copper parts, leading to failure. The warranty does not apply if the saturation index is below -1.0. The warranty is valid for units connected to water with a saturation index between -1.0 and +0.80, assuming all other water quality criteria are satisfied.

## 6. SERVICING

To ensure the optimal performance and longevity of your boiler unit, regular servicing is essential. The frequency of service depends on the quality of the water in your area. Do not perform any maintenance until the appliance has been switched off - disconnected with power, and water inlet has been shut-off, plus water inside the unit is not hot enough to scald.

#### Servicing Frequency

- Harsh Water Areas: Every 6 months
- Normal Water Areas: Every 12 months

Additional Considerations:

- Qualified Personnel: Ensure that all servicing is conducted by certified technicians to meet the warranty and ensure the appliance's safety.
- Documentation: Write detailed records of all maintenance activities, including dates and tasks performed, for warranty and service history purposes.
- Water Quality: If you are unsure about the water quality in your area, consult your local water authority for guidance. Regular maintenance is especially crucial in areas with poor water quality.
   In such regions, installing an additional auxiliary filter is advisable to protect the appliance. It is recommended that the inlet stainer be serviced every six months by a qualified service person.
- Excessive Residue and Calcium Carbonate Build-Up: Regularly check for excessive residues and calcium carbonate build-up on all components. These should be cleaned or replaced if necessary to ensure the efficient operation of the boiler unit.

#### Water Level Probe Maintenance Instructions

Special care must be given to the water level probes during servicing. Follow these steps to ensure proper maintenance:

- **1.** Accessing the Probes:
  - There are three water level probes located inside the water tank.
  - To access the probes, disconnect the plugs and carefully pull the probes out upwards from the top of the tank.

#### 2. Assessing and Cleaning the Probes:

- Examine the condition of each level probe.
- If a probe is scaled up, remove the scale either by gently scraping it off or using a scourer sponge.
- Ensure all scale is completely removed until the metal surface of the level probe is fully exposed.
- Important: Be careful not to damage the silicone housing at the top of the level probe.

#### 3. Reinstalling the Probes:

- After cleaning, carefully place each level probe back into the water tank (from top).
- Reconnect the level probe wiring by securely inserting the male and female plugs into each other.

By following these steps, you will ensure the water level probes function correctly and maintain the performance of your water heater.

## 7. TROUBLESHOOTING

## 7.1 FAULT FINDING GUIDE

Symptom	Possible Cause(s)	Solution				
	There is no power supply	Check the electrical supply				
	There is no water supply	Check the water supply				
The unit does not fill	The filter is blocked	Check the filter, clean or replace				
with water	Electronic Controller failure	Test the Electronic Controller				
	Solenoid Valve failure	Check resistance of the solenoid, Replace if broken				
	Probe fixing silicon failure	Check the silicone or replace				
	Thermal cut-out tripped	Reset the Thermal cut-out				
The unit fills water to low level and	Heating Element failure	If the Heating Element is properly wired, then check its resistance				
does not heat	Heating Element failure	Test the Electronic Controller				
	Thermistor failure	Replace Thermistor				
The unit boils	Electronic Controller failure	Test the Electronic Controller				
continuously	Thermistor failure	Replace Thermistor				
	Incoming water pressure is too high	Reduce incoming water pressure				
	Solenoid valve failure	Disassemble the solenoid valve and blow air through it. If air flows through, replace the solenoid valve				
The unit overflows	Level probe failure	Clean the level probe Replace the level probe				
	The wire connection at the level probe is loose	Check the wire connection and ensure it is securely connected				
	The unit did not fill with enough water	See 1. &2. Above				
There is no water from the tap	The tap diaphragm is disconnected from its spindle	Drain water out of the unit When the unit is empty, disassemble and repair of the tap				
	The venting pipe is blocked or obstructed	Check the venting pipe and ensure it is not obstructed				
No electrical power	Power Supply failure	Will restart automatically when electrical power is restored				
to unit	Fuse failure	Check the fuse on PCB, replace if needed				
No water to unit	Mains water supply failure.	<ul> <li>When water supply restored;</li> <li>1. Continue to use as normal and the refilling process will automatically restart.</li> <li>2. Switch off electrical supply for 30 seconds &amp; switch on again.</li> </ul>				

## 7.2 SELF-DIAGNOSTICS

This appliance is fitted with self diagnostics and indicative LED Lights.

The self diagnostic features programmed into the PC-board enables the unit to determine if a component is faulty or if there is a fault in heating and/or filling modes i.e. no water connected.

Diagnostic faults are indicated on the front LED's of the face plate. The respective LED will flash when a fault is detected.

#### FAULT 1: "NO WATER CONDITION FAULT"

This fault occurs when the unit goes through its filling modes and does not detect water filling into the tank after a set time period. The cause of this fault could be due to no water connection to the unit, a faulty level probe or faulty solenoid valve.

This fault will be indicated by flashing the "POWER LED" on the front face plate eg.



This fault can be corrected by identifying the cause (refer to Fault Finding Guide) and resetting the unit.

#### FAULT 2: "NOT HEATING FAULT"

This fault occurs when the PC-board has detected no change in the water temperature. The first possible cause of this fault could be due to the element not working, the element thermal cut out then needs to be reset. The second possible fault could be a lose power connection.

This fault will be indicated by flashing the "POWER" and "READY" LED's similtaniously on the front face plate eg.



This fault can be corrected by identifying the cause (refer to Fault Finding Guide) and resetting the unit.

#### FAULT 3: "FAULTY OPEN CIRCUIT THERMISTOR"

This fault will occur when the thermistor is faulty and not detecting the tempreture of the water. This fault will be indicated by flashing the "READY" LED on the front face plate as follows eg.



This fault can be corrected by checking for a loose connection or replacing the thermistor. The unit will remove itself out of this fault mode once normal operation has been restored.

## 8. WIRING DIAGRAM ON BOX



## 9. SPARE PARTS LIST

Part	Description
ELE-1,8	1.8KW ELEMENT(2.5L)
ELE-2,0	2.0KW ELEMENT(5, 7.5L)
РСВ	PC BOARD
VALVKIT	SOLENOID VALVE KIT
TAP-O/ASS	OUTLET TAP ASSEMBLY
WAT-PROBE	WATER LEVEL PROBE
THERMIS	THERMISTORS
SEALS	TANK/ELEMENT SEAL
TAP-SPAC	TAP OUTLET SPACER
ТАР-Н	TAP HANDLE
ТАР-САР	ΤΑΡ CΑΡ
TAP-SHAF	TAP SHAFT
TAP-SEAL	TAP SEAL
TAP-SPRING	TAP SPRING
DR-SCR	DRAIN SCREW
DR-SEAL	DRAIN SEAL
NUT-1/0	INLET/VENT NUT
VENT-ISH	INLET/VENT SILICONE HOSE
IN-STRAIN	INLET STRAINER
SSTRAY (purchase separately)	STAINLESS STEEL DRIP TRAY

## **10. WARRANTY**

Read all instructions before installing or using this appliance.

The Bromic Instant Boiling Water Dispenser Warranty for New Zealand and Australia covers both domestic, commercial, and industrial installations. The warranty includes repair or replacement of faulty components or, if necessary, the entire unit:

All Components: Covered for 2 years from the date of installation, including parts and labor.

Our goods come with guarantees that cannot be excluded under the Australian or New Zealand Consumer Law.

You are entitled to a replacement or refund for a major failure and compensation for any other forseeable loss or damage.

You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

## NOTES



## NOTES





#### SYDNEY HEAD OFFICE

10 Phiney Place, Ingleburn NSW 2565 Australia T: AU 1300 276 642 F: (+61) 1300 735 115 E: plumbing@bromic.com

BROMICHOTWATER.COM