

## WARRANTY

In addition to your legal rights, Rheem New Zealand Limited makes the following promise to the owner. We will repair or, if necessary, replace a defective boiling water unit or part of it, which has failed due to faulty manufacture on the following terms and conditions:

### WARRANTY PERIOD

AGE OF BOILING WATER UNIT FROM THE DATE OF INSTALLATION	WARRANTY COVERS ALL BOILING WATER UNITS DOMESTIC, COMMERCIAL OR INDUSTRIAL
Up to (1) year	Free replacement of failed component, or if necessary, replacement of the Boiling Water Unit, free of charge, including labour.**
More than (1) year but less than (5) years	Where an inner tank fails it will be supplied free of charge, installation and labour cost will be charged to the owner.

\*\* Refer to item 3, Warranty Conditions.

Should your boiling water unit need service under warranty, please call RHEEM SERVICE on 0800 657 335 or refer to the yellow pages under Water Heaters for your nearest local service agent.

### WARRANTY CONDITIONS:

- 1.The Boiling Water Unit must be installed in accordance with the installation instructions, supplied with the Boiling Water Unit, the NZ Building Code, NZ Electrical Regulations and all relevant statutory requirements of the area in which the Boiling Water Unit is to be installed.
- 2.Where a failed component or Boiling Water Unit is replaced under Warranty, the balance of the original Warranty Period will remain effective. The replaced part or Boiling Water Unit does not carry a new Warranty.
- 3.Where the Boiling Water Unit is installed outside the boundaries of a metropolitan area as defined by Rheem New Zealand Ltd, or beyond 25 km from a regional Rheem branch office, or a Rheem Authorised Service Centre, the cost of transport, insurance and travelling costs between the nearest Rheem Authorised Service Centre's premises and the installed site will be for the account of the owner.
- 4.The Warranty only applies to the Boiling Water Unit and therefore does not cover any plumbing or electrical parts supplied by the installer and not an integral part of the Boiling Water Unit, e.g. pressure limiting valve, stop cock, electrical switches, pumps or fuses.

## WARRANTY INFORMATION

### WARRANTY EXCLUSIONS:

REPAIR AND REPLACEMENT WORK WILL BE CARRIED OUT AS PER THE RHEEM WARRANTY (ABOVE), HOWEVER THE FOLLOWING EXCLUSIONS MAY CAUSE THE BOILING WATER UNIT WARRANTY TO BECOME VOID, AND MAY INCUR A CHARGE FOR SERVICE AND COST OF REPLACED PARTS.

- 1.Accidental damage; Acts of God; failure due to misuse; incorrect installation, attempts to repair the unit other than by a Rheem Authorised Service Agent, or the Rheem Service Department.
- 2.Where it is found that there is nothing wrong with the boiling water unit; where the complaint is related to low or high water pressure; where there is no flow of hot water due to faulty plumbing or a blocked filter; where water leaks are related to plumbing work and not the boiling water unit or its components, where there is a failure of electricity or water supplies.
- 3.Where the boiling water unit or its component has failed directly or indirectly as a result of high water pressure.
- 4.Where the boiling water unit is located in a position that does not comply with the Rheem installation instructions or relevant statutory requirements causing the need for major dismantling or removal of cupboards.
- 5.Subject to any statutory provisions to the contrary claims for damage to furniture, carpets, walls, foundations, or any other consequential loss either directly or indirectly due to leakage from a boiling water unit.
6. Repairs to the boiling water unit due to scale formation in the waterways when the heater has been connected to a harmful water supply as outlined in the owners guide.

Contact details:

**RHEEM SERVICE DEPARTMENT**  
475, Rosebank Road, Avondale, Auckland  
Phone: 0800 657 335; Fax: 0800 657 337

**LAZER**  
CONSTANT BOILING WATER

# OWNERS GUIDE & INSTALLATION INSTRUCTIONS

## CLASSIC SERIES POWDER COATED / STAINLESS STEEL

Models 3, 5, 7.5, 10, 15, 25, & 40 Litre



IMPORTANT, PLEASE LEAVE WITH THE OWNER

**CONTENTS**

1. WARNING .....3  
 2. WATER QUALITY .....3  
 3. INSTALLATION .....3  
     A. Location .....3  
     B. Opening the Unit .....3  
     C. Minimum Clearance .....3  
     D. Mounting .....3  
     E. Water Supply Connection .....3  
     F. Overflow / Vent Connection Importance .....4  
     G. Drain Connection .....4  
     H. Tap Outlet .....5  
     J. Electrical Requirements .....5  
 4. OPERATION .....5  
*MOUNTING DIMENSION SPECIFICATION FOR ALL MODELS – drawing* .....6  
*DIMENSION SPECIFICATION FOR ALL MODELS – drawing* .....7  
 5. FOR UNITS WITH A TIMER .....8  
     A. Setting The Clock .....8  
     B. Setting the Timer to STD/Auto Mode .....8  
     C. Setting Sleep Delay Times .....8  
     D. Setting On/Off Times .....8  
     E. Filter Life .....9  
     F. Service Menu .....9  
 FAULT FINDING GUIDE .....10  
 NOTES .....11

**PRODUCT ERROR CODES**

<b>Error</b>	<b>Code</b>
Hot Thermistor Fault – O/C, S/C	<b>A</b>
Heating Triac S/C – uncontrolled temperature rise	<b>C</b>
Expired Filter	<b>E</b>
Calibration Time Out	<b>G</b>
Low Level Probe Fault	<b>H</b>
High Level Probe Fault	<b>J</b>
Water Heating Fault – Element not heating	<b>L</b>
Internal Software Reset, no action required	<b>M</b>
Rapid Temperature Rise – empty tank	<b>N</b>

**NOTES:**

### G) Keypad Lock

This function is for extra security to prevent tampering with the unit settings. Default setting is disabled. (Prog>Keypad Lock>Accept)  
The message “Keylock Enabled” will display on screen. Press **Accept** key.

“**Keypad locked**” message will display on screen every time a timer button is pressed.  
To deactivate this function press **Progr** and **Up** buttons simultaneously for a period of 5 seconds.

## LAZER BOILING WATER UNIT: FAULT FINDING GUIDE

*\*\*It is strongly recommended that any REMEDY be carried out by a qualified service person\*\**

SYMPTOMS	POSSIBLE CAUSE	REMEDY
1. The unit does not fill with water	There is no power supply	Check the electrical supply.
	There is no water supply	Check the water supply.
	The inlet strainer is blocked	Check the Inlet Strainer, clean or replace.
	Electronic Controller failure	Test the electronic controller.
	Solenoid Valve failure	Check resistance of the solenoid, replace if broken.
2. The unit fills water to low level and does not heat	The Filter is blocked (If unit is supplied with an inlet water filter)	Check the filter, replace if blocked (see section 5E for re setting the filter)
	Thermal cut-out has tripped	Reset the thermal cut-out.
	Heating element failure	If the heating element is properly wired, then check its resistance. Replace if broken.
	Electronic Controller failure	Test the electronic controller.
3. The unit boils continuously	Thermistor failure	Replace the thermistor.
	Low Air Pressure	Recalibrate the unit (see section 5F sub section iv) for how to recalibrate the unit
	Electronic Controller failure	Test the electronic controller.
4. The unit overflows	Thermistor failure	Replace the thermistor.
	Incoming water pressure is too high	Reduce incoming water pressure.
	Solenoid valve failure	Turn the unit off. If water still overflows, replace the solenoid valve.
5. There is no water from the tap	Level probe failure	Clean the level probe Replace the level probe
	The unit did not fill with enough water	See 1. & 2. above.
	The tap diaphragm is disconnected from its spindle	Drain water out of the unit (see paragraph 6 on page 4). When unit is empty, disassemble and repair the tap.

## LAZER BOILING WATER UNIT INSTALLATION AND OWNERS GUIDE

Thank you for choosing our Lazer Boiling Water Unit. Please take a few minutes to read this booklet because it contains important information about the correct installation and operation of your Lazer unit.

### 1. ⚠️ WARNING:

This Lazer unit produces boiling water (third degree burns may occur) and care should be taken at all times when using it. This unit is not intended for use by infirm persons and young children should be supervised to ensure that they do not play with the unit.

### 2. WATER QUALITY

Caution is suggested if the Boiling Water Unit is to be connected to a water supply with a high content of silica or calcium. Water supplies of this nature may be detrimental to the unit's operation and may cause the warranty to become void. For further information relating to the guidelines of water quality, contact your supplier for advice.

### 3. INSTALLATION

This boiling water unit shall be installed by a qualified service person. AS/NZS 3500.4 provides installation guidelines and it must comply to all relevant statutory and local body requirements of the state in which the Boiling Water Unit is installed.

#### A. LOCATION

This unit is designed for interior installation only.

#### B. OPENING THE UNIT

To remove the jacket from models 3, 5, 7.5 & 10 L remove the 4 retaining screws at the top and bottom and pull the jacket forward. For models 15, 25 and 40 L unscrew the lid at the top and service plate on the left hand side.

### C. MINIMUM CLEARANCES

For ventilation reasons, all units require a minimum clearance of 50mm on all sides. For ease of servicing (where there is sufficient space) we recommend 300mm clearance from the top of all units. For element replacement reasons we recommend clearance of 150mm from the right hand side of 3 to 10 litre units and 300mm from the left hand side of the 15 to 40 litre units.

### D. MOUNTING

The Lazer when installed is suspended from mounting screws located into keyhole slots at the back of the unit (refer to the Mounting Dimension Specification on page 6). Be sure that the mounting screws are securely inserted into the keyhole slots. The screws MUST be anchored in such a way, that they will hold the weight of the unit when filled with water, (refer to the specification table on page 5).

### ⚠️ WARNING:

Before drilling into the wall make sure that the screw positions avoid any pipe-work or electrical cables. Allow 4 mm clearance between the screw head and the wall for locating the unit.

### E. WATER SUPPLY CONNECTION

Cold mains pressure water (refer to specification table on page 5 for minimum water pressures) must be piped and connected to the ½" BSP inlet fitting located on the left hand side underneath the unit. An accessible isolating valve must be installed near the unit.

This unit contains an inlet strainer on the water inlet connection (refer to figure 1). To ensure continuing satisfactory operation, it is suggested that the inlet strainer be serviced every six months by a qualified service person. Where poor water quality is present it is recommended to install an additional auxiliary filter.

For rear entry connection on 3-10 Litre models, we recommend that you use a braided flexible hose with a 90° elbow for ease of connection.

## F. OVERFLOW / VENT CONNECTION IMPORTANCE

Connect a 15 mm (½”) pipe to the overflow/vent connection (½”BSP nipple). This pipe is to be made of a material such that continuous steam will not degrade it (i.e. copper). This pipe must have a continuous fall, not exceeding 3 metres in length and / or contain no more than 4 bends (refer to figure 2).

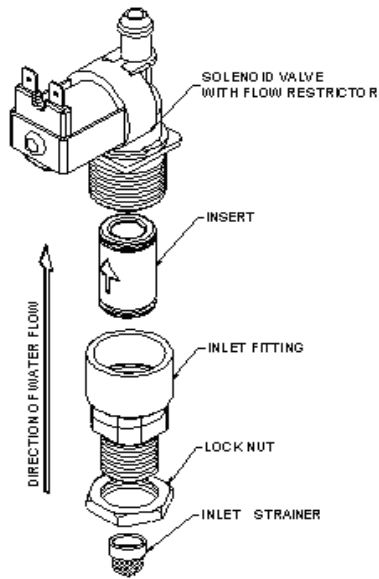


Figure 1: Water Connection

If the site situation requires a pipe length exceeding 3 metres, then discharge the overflow/drain into a tundish.

The drain pipe work must not exert a pressure of more than 1 metre of head on the Lazer boiling unit (refer to figure 2).

During normal operation of the Lazer, the overflow/vent connection may discharge small quantities of steam and condensate, so it is ESSENTIAL that the drain pipe is attached to the overflow vent connection. This drain pipe must discharge to waste at a point where no scald injury, nuisance nor inconvenience is caused to people in the immediate vicinity.

### ⚠ WARNINGS:

Ensure the overflow/vent line remains open because the Lazer’s tank is not designed to be pressurised. Where freezing may occur, protect the pipes and install an air break. It is recommended to install an air break in the overflow/vent drain line, no more than 300 mm from the Lazer unit. Also it is important to connect the overflow/vent and water inlet correctly. Incorrect connection of pipe work may damage the unit.

### G. DRAIN

#### ⚠ WARNING:

Before draining the unit, ensure the appliance has been switched off, and water is not hot enough to scald.

To drain 3-10L models, turn unit off and open tap until no water flows out. Remove unit from wall and tip over with tap open until unit is empty. For 15-40L units a drain plug is accessible from the bottom of the unit (note switch unit off before draining).

## **IMPORTANT**

**Installation and maintenance of the Lazer Boiling Water unit shall be carried out by a qualified service person. Your closest Rheem Service Centre can be contacted by telephoning 0800 657 335**

Press **(Accept)** button to confirm selection and the display reverts to the main menu. The unit will go into “Sleep” mode if it has **not** been used for the “Sleep Delay Time” period. The screen will display “Auto-Off Press Any Key to Heat”. To exit “Sleep”, push any Timer key or the tap lever. If you activate Sleep Delay Time we recommend that you also activate Temp Show On/ Off function.

## E) Filter Life

The Filter Life is factory set to OFF as the default setting.

Select the Appropriate Filter Mode

- i. Remaining Life
- ii. Filter Reset

i) To Select **Remaining Life** mode  
(Prog>Filter Life>Accept>Remaining Life)

**Display Shows:** “Remaining Life”  
“XXXX litres”

Press the **(Cancel)** or **(Accept)** button to revert back to the main menu.

ii) To Select the **Filter Reset** mode  
(Prog > Filter Life > Accept > Filter Reset > Accept)

**Display Shows:** “Filter Reset”

Press the **(Accept)** button to confirm selection at which time you are prompted “Are you sure?”. Press **(Accept)** once more and

**Display Shows:** “Set Filter Life”  
“OFF” or “XXXX litres”.

Pressing **(UP)** button changes the filter count in 1000 litres increments. to a maximum value of 14000 Litres. Press the **(Accept)** button to confirm selection.

## F) Service Menu

Select Appropriate Service Mode

- i. Error Codes
- ii. Boiling Temp
- iii. Calib Reset
- iv. Temp. Override
- v. Software Version
- vi. Temp Show ON/OFF
- vii. TB Treq

### i) Error Codes

(Prog>Service>Accept>Error Codes)

This function allows easy identification of problems occurring with the unit by service technicians (see details on page 10 – Product error codes).

### ii) Boiling Unit Display Temp

(Prog>Service>Accept>Boiling Temp)

**Display Shows:** “XXX °C”

This function displays the current hot water temperature. Press **(Cancel)** button to revert back to the main menu.

### iii) Calibration Reset

(Prog>Service>Accept>Calib.Reset>Accept)

**Display Shows:** “Calib. Reset”

This function recalibrates the boiling water unit to boiling point. Press the **(Accept)** button to recalibrate the boiling point. Press **(Accept)** again at the “Are You Sure” prompt. Press the **(Cancel)** button to revert back to the Main menu. The timer will now display **“Calibrating Do Not Interrupt”**. When calibration is complete the timer display reverts back to the main menu.

### iv) Temp. Override

(Prog>Service>Accept>Temp.Override>Accept)

This function allows to perform a fast unit calibration or to set the water temperature between 70°C and 99°C in 1°C increments.

### v) Software Version

(Prog>Service>Accept>Software Version>Accept)

This displays the Timer (first line) and Controller (second line) software versions.

### vi) Temp Show On/Off

(Prog>Service>Accept>TempShow ON/OFF)

This function allows the temperature of the water within the unit to be displayed permanently on the screen. Press the **(Accept)** button to confirm selection and the display reverts to the main menu.

### vii) TB Treq

(Prog>Service>Accept>TB Treq)

This function shows the user what temperature the unit calibrated to. Under the letters **TB** the boiling calibration temperature is displayed. Under the letters **Treq** the temperature the unit will maintain the water to is displayed.

## 5. For Units With Timer

### Timer Functions

- A. Set Clock
- B. Set Timer STD/AUTO
- C. Set ON/OFF Time\*
- D. Set Sleep Delay Time\*
- E. Filter Life
- F. Service
- G. Keypad Lock

\* ON/OFF Time & Sleep Delay Time only operate in AUTO Mode.

### To select a Timer Mode

Press the **(Prog)** button until the desired mode is displayed on the screen. Press the **(Accept)** button to confirm selection. Pressing **(Cancel)** button at any time returns the unit to the main menu. Any functions previously accepted will be retained.

**Note:** The display will revert back to main menu from any mode if a button has not been pressed for 1 minute.

### A) Setting the Clock

Select the clock mode  
(Prog>Clock>Accept)

**Display Shows:** "Set Clock Day".

Press the **(UP)** button until the desired day appears on the screen and press the **(Accept)** button to confirm selection.

**Display Shows:** "Set Clock HOUR"

Press the **(UP)** button until the desired hour (24 Hour Time) appears flashing on the screen and press the **(Accept)** button to confirm selection.

**Display Shows:** "Set Clock MIN"

Press the **(UP)** button until the desired minute appears flashing on the screen.

Press the **(Accept)** button to confirm selection and the display reverts to the main menu.

### B) Set Timer to STD/AUTO Mode

Select the Timer STD/AUTO mode  
(Prog>Timer STD/AUTO>Accept)

**Display Shows:** "STD"

Pressing the **(UP)** button alternates the "STD"/"AUTO" icons. STD operation means the unit operates **24 hours** a day.

Auto mode reverts the unit to operate at the preset times on the timer. Press the **(Accept)** button to confirm selection and the display reverts to the main menu. If the timer is in AUTO mode, pushing any timer key will reactivate the unit. The unit will operate normally until the next programmed "Off" time.

### C) To Set ON/OFF Times

Select the Timer ON/OFF mode  
(Prog>Set ON/OFF times>Accept)

**Note:** to set the unit to be in off mode for an entire day, set the "on" and "off" times to be the same eg: On = 0:00 Off = 0:00

**Display Shows:** "SUN" "7:00 – 7:00"  
"Set ON hour".

Press the **(UP)** button until the desired hour appears on the screen and press the **(Accept)** button to confirm selection.

**Display Shows:** "SUN" "7:00 – 7:00"  
"Set ON minute".

Press the **(UP)** button until the desired minute appears on the screen and press the **(Accept)** button to confirm selection.

**Display Shows:** "SUN" "7:00 – 7:00"  
"Set OFF hour".

Press the **(UP)** button until the desired hour appears on the screen and press the **(Accept)** button to confirm selection.

**Display Shows:** "SUN" "7:00 – 7:00"  
"Set OFF Minute".

Press the **(UP)** button until the desired minute appears on the screen and press the **(Accept)** button to confirm selection and advance to the next day.

**Display Shows:** "MON" "7:30 – 15:30"  
"Set ON hour".

**Note:** Continue with same procedure for Monday through to Saturday.

### D) To Set Sleep Delay Time.

Select the Sleep on/off mode (Prog>Sleep DelayTime>Accept)

**Display Shows:** "Sleep DelayTime"  
"OFF".

The sleep function puts the unit in a standby mode after a user defined period. The Sleep Delay will be factory set to OFF as the default setting. Pressing the **(UP)** button increases the delay time up to 6 hours.

## H. TAP OUTLET

To prevent damage during transport the tap is wrapped and placed within the boiling water unit.

The tap is connected to the tap extension by a chrome-plated nut and tightened using a 29 mm AF spanner.

### J. ELECTRICAL REQUIREMENTS:

#### ⚠ WARNING:

This boiling water unit contains electronic equipment and insulation tests must only be conducted between neutral and earth or between active and earth. A minimum insulation test result of 660 kΩ (approximately) is normal for this unit and complies with AS/NZS 3760:2003 clause 2.3.3.2.1 for 3 to 15 litre products and AS/NZS 3000:2007 clause 8.3.6.2(ii) for 25 and 40 litre products.

- 220 –240 Volts AC, 50 Hz, Single Phase
- 10 Amps on 3, 5, 7.5, 10 & 15 litre models
- 15 Amps on 25 litre model
- 20 Amps on 40 litre model

A flexible cord is supplied on all 3, 5, 7.5, 10 and 15 Litre models. Do not loosen the cord grip or pull excess cord into the Lazer. If the supply cord of this unit is damaged, it must be replaced by the manufacturer or a qualified service person.

The 25 and 40 litre models must be installed with fixed wiring. A means of disconnection from all active (phase) conductors of the power supply must be incorporated during installation in accordance with the wiring rules.

## 4. OPERATION

When the installation is complete, first turn on the water supply before switching on the power.

#### ⚠ IMPORTANT:

On initial start-up the timer screen will display "CALIBRATING DO NOT INTERRUPT". The unit automatically runs through a set-up cycle to detect the boiling point of water. This will take between 18 to 30 minutes (depending on the unit capacity) and steam will discharge from the vent pipe for a short time. Do not operate the tap during the set-up cycle because it may affect the unit operating temperature.

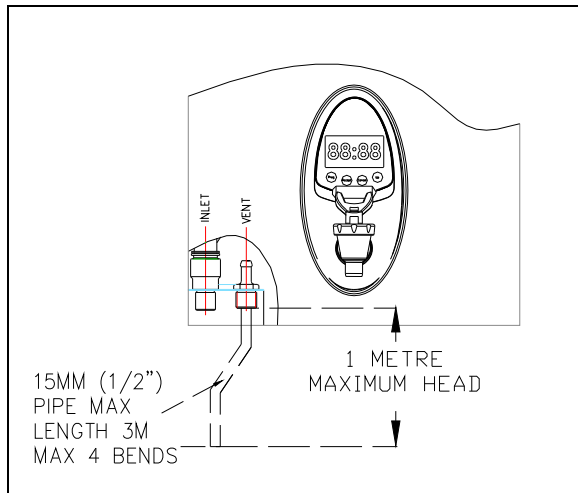
The unit is programmed to automatically operate 24 hours a day, 7 days a week. It is highly recommended for the user to program the timer (if the unit supplied has one), as this will increase the life of the unit, and consume less power (see Section 5 for how to program the timer).

The electronic controller constantly monitors and controls the water level and water temperature to optimise the boiling water delivery.

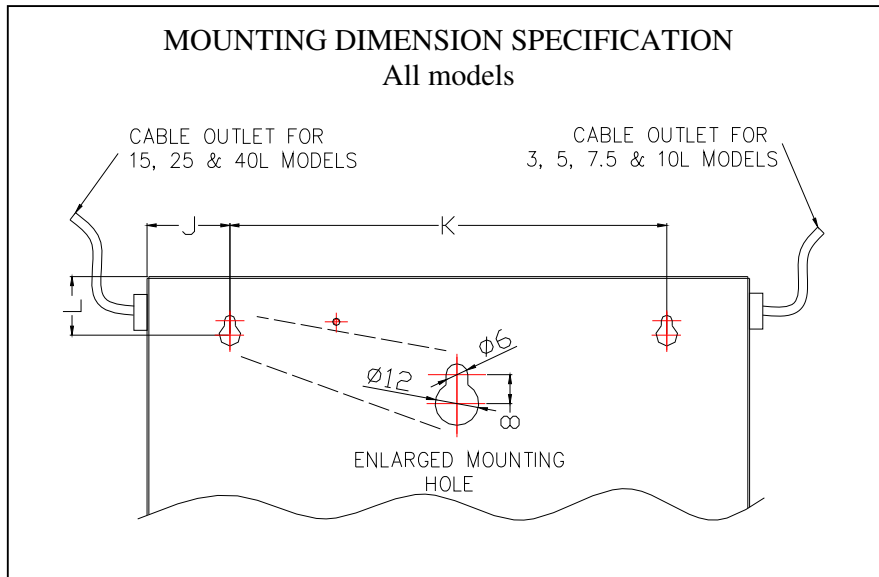
Operation based on an inlet water temperature of 18°C		
Lazer Size	Approx Recovery Litres / Hour	Approx. time to heat full Capacity (in minutes)
3.0 L	17.5	12
5.0 L	21	15
7.5 L	21	22
10 L	21	29
15 L	21	40
25 L	33	40
40 L	41	50

### SPECIFICATION CLASSIC SERIES

	3 Litre	5 Litre	7.5 Litre	10 Litre	15 Litre	25 Litre	40 Litre
Approx Weight (kg) Empty	6	8	9	10	15	17	19
Approx Weight (kg) Full	10	15	19	22	34	47	67
Minimum Water Pressure kPa	50	50	50	50	75	75	100
Maximum Water Pressure kPa	1000	1000	1000	1000	1000	1000	1000
Element Size kW	1.8	2.4	2.4	2.4	2.4	3.6	4.6



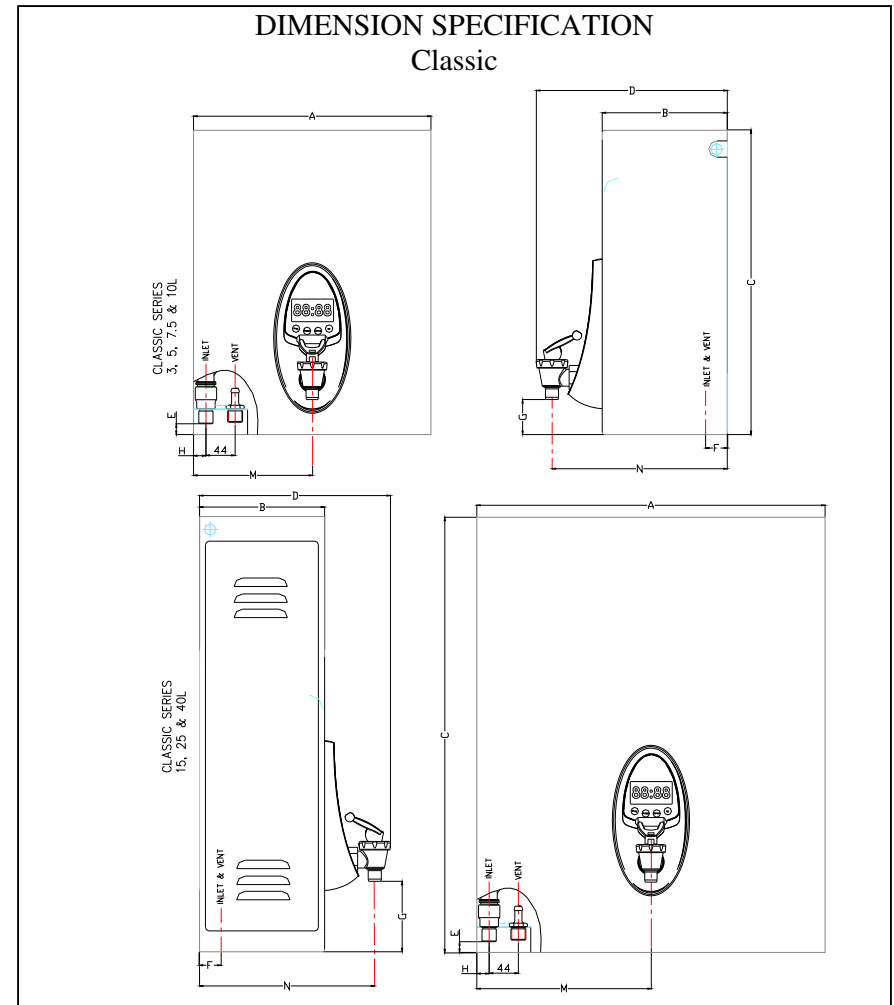
**Figure 2: Overflow / Vent Connection**



**Figure 3: Mounting Dimension Specifications**

<b>Classic Models</b>							
Dimension	3 Litre	5 Litre	7.5 Litre	10 Litre	15 Litre	25 Litre	40 Litre
J mm	46	46	46	46	75	75	75
K mm	189	241	241	241	340	340	340
L mm	31	31	31	31	20	20	20

6.



**Figure 4: Dimension Specification**

Dimension	3 Litre	5 Litre	7.5 Litre	10 Litre	15 Litre	25 Litre	40 Litre
A mm	283	334	334	334	490	490	490
B mm	143	176	176	176	180	235	325
C mm	400	430	515	615	615	615	615
D mm	234	267	267	267	271	326	416
E mm	40	40	40	40	8	8	8
F mm	50	50	50	50	32	32	32
G mm	53	53	53	53	103	103	103
H mm	18	18	18	18	32	32	32
N mm	212	245	245	245	249	304	394
M mm	142	167	167	167	245	245	245

7.