



The New Lazer Wall Hung Range

Rheem has introduced a new range of wall hung automatic boiling water units to replace the existing Classic and Designer models. These units are smarter and more energy efficient than previous Rheem units or competitors.

At a Glance

- Designer Series deleted from range
- Timer included standard on all models made
- Construction redesigned so that the same performance is able to be delivered from a smaller overall package
- 2.5L replaced by 3L, and new 10L model introduced

Features

The new Lazer range is packed with energy saving features which set it apart from its competitors. Some of these features have always been available, whilst others are new.

A) Front Panel – a new front panel has been designed which houses the timer interface. The display indicates the current time of day and day, as well as the mode the unit is currently in. Depending on the status of the mode, the display may also show other information.

The panel has four user interface buttons. These are:

1. **Prog** – pressing this button opens the **menu**. The menu contains the following options:
 - Clock – sets the 24 hour clock time.
 - Timer STD/Auto – places the timer in standard (on 24/7) or Auto (on and off based on programmed times) modes.
 - Set ON/OFF Times – allows the user to change the default timer settings.
 - Sleep Delay Time – allows the user to programme when the Sleep mode activates.
 - Filter Life – allows the user to check remaining filter life, reset the filter life counter, adjust the length of the filter life counter.
 - Service Menu – contains fields relevant to service personnel.
2. **Accept** – pressing this button acknowledges and accepts the display on the screen.
3. **Cancel** – cancels the request and returns user to the display screen.
4. **UP** – allows the user to scroll through the menu or alter the values of settings.

Timer - a timer has been developed which allows the user to programme when the unit should be On or Off. The timer is factory set to activate at 7:00am and de-activate at 5:30pm Monday to Friday, and is set to be Off Saturday and Sunday. This is “Auto Mode” and needs to be activated. The Timer has two modes – STD (standard) and Auto. In STD mode, the unit



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operates 24/7. In Auto mode, the preset timings are activated. The unit is factory set in STD mode.

Changing the Auto times is simple and intuitive and is included in the owners guide. See [owners guide](#) for more information.

A manual override is included and the unit will activate when any one of the user interface buttons is pressed (the screen prompts the user to press a button to activate when in the Off mode). The unit will automatically de-activate at the next programmed time out.

Sleep mode – as well as the timer, the new Lazer also has a Sleep mode. When the timer is set to Auto mode, the unit recognises when the unit has not been used for the preset sleep time and reduces the stored water temperature to a minimum of 85°C to conserve energy.

The Sleep mode activation settings are Off, 1, 2, 3, 4, 5, 6 hours. The unit is factory set to the Off setting.

Note: If manual override has been activated and the Sleep mode is set for any time other than Off, the unit will power down accordingly.

Automatic Boiling Point Calibration – the new Lazer has an auto boiling point calibration function. At first start up, the Lazer will determine the boiling point and automatically calibrate an offset below this.

The boiling point of water is 100°C at sea level and reduces in temperature depending on the altitude above sea level. As follows:

- 300 - 600 metres - 97°C
- 600 - 1200 metres - 96°C
- 1200 meters and over - 95°C

As the Lazer approaches the set point during normal operation, the power to the element is reduced proportionally to the temperature rise to a minimum of 20% of power to prevent overshoot, which means more accurate control.

Notes:

- During initial calibration steam may be visible at the vent for a short time. A removable label is provided to advise the installer of this.
- Previously, the boiling point calibration of Lazer was required to be set manually by a qualified technician.

Filter Change – The Lazer can advise when a filter (not supplied with unit) requires replacement. The amount in litres that a filter can deliver can be programmed into the Lazer memory. The Lazer will count the litres drawn off and the display will advise the user that the filter is due for replacement at the pre-determined volume.

B) Cabinet Size – The Lazer range has undergone a trimming exercise and all units from 7.5L downwards are now smaller. In fact, the internal components of a 7.5L fit inside the old 5L casing. The new 5L fits inside the old 2.5L casing and a new 3L model has been created which is the smallest wall hung boiling water unit available. A new 10L model was created and fits inside the old 7.5L casing.



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Plumbing Connections – Two plumbing connections are required:

½" cold water supply

½" vent

Electrical Connections - All units from 5L to 15L are supplied with a plug and lead with a 2.4kW heating element. The 3L model has a plug and lead and 1.8kW heating element. 25 and 40L units must be hard wired by the electrician and are supplied with 3.6 and 4.8kW heating elements respectively.

Range – Lazer is available in White Powder Coat in sizes 3, 5, 7.5, 10, 15, 25, 40L and Brushed Stainless Steel in sizes 7.5, 10, 15, 25, 40L. All models are supplied with a timer.

C) Design – The Lazer utilises state of the art technology to maintain boiling water at the ready and contains the following main components:

Internal tank is made of copper and is fully sealed, with venting through an overflow pipe located under the jacket skirt. A single tank design is utilised which reduces the surface area to volume ratio, thereby reducing heat loss (competitors use twin chambers).

New Electronic Control provides the logic to monitor and co-ordinate the functions of the boiling water unit, from its staged filling process, to heating, to maintaining fine temperature control of the water and all timer and service functions.

The heating element and thermistor maintain water at near boiling. Fine changes in temperature cause the heating element to energize, thereby providing more boiling water when it is needed most.

The water level probe is a stainless steel probe monitoring:

- low water level to ensure the heating unit cannot operate unless it is covered by water.
- high water level to ensure the maximum water level is not exceeded.

The solenoid valve controls the flow of water into the unit. Activation depends on the level and temperature of water in the unit.

Insulation is of rigid polystyrene foam.

D) Servicing

The Lazer only has two moving parts, one of them being the tap, and the other a solenoid valve. This makes the Lazer a much more reliable unit than its competitors.

In the Service Menu, service technicians can access fault codes which help diagnose where a problem may be.

E) Model Numbers - Model numbers have changed to identify models in the new range:

Series – (digits 1- 3) Lazer is denoted by the prefix **7**

White Powder Coat - **710** series

Stainless Steel - **720** series



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Capacity – (digits 4 - 6) the capacity convention has changed for ease of understanding.

Capacity	Old Description	New Description
2.5 / 3	025	003
5	050	005
7.5	075	007
10		010
15	150	015
25	250	025
40	400	040

Digits 7- 8 – NZ denotes models made for New Zealand.

Example – 710 065 NZ T0 is a 5L white powder coat model made for New Zealand and has a timer, but no filter

Frequently Asked Questions

The following questions may be asked by your customers:

Q1. What happens to the memory when power has been disconnected?

A1. The Lazer uses a “Super Cap” (super capacitor) to retain internal memory for a period up to 12 hours. During this time, all internal memory remains in tact. If power has been disconnected for more than 12 hours the Lazer reverts back to the following factory settings:

- Clock time will default to 0:0 and will need to be reset
- STD/Auto Mode reverts to “STD”
- Sleep mode reverts to “Off”
- However, the Timer on/off times and the filter count do not change as they are written into the flash memory

Q2. What is the operating temperature in Sleep mode?

A2. The water will drop to 85° Celsius and be maintained at that temperature +/- 2°. It will take the 3L model approx 1.5 minutes and the 5L model approximately 2 minutes to recover to boiling water from the time a button is pressed to de-activate Sleep mode.

Q3. Will the unit automatically recalibrate if power has been lost for more than 12 hrs?

A3. No. Once the unit has been calibrated there is no need for the calibration to activate again. In the portable building market, where it is conceivable that the unit may be located at a different altitude, the calibration function can be manually activated by accessing the Service Menu.

Q4 Can the Lazer be plumbed with hot water?

A4 Yes. Previous models of Lazer relied on sensing cold water to effect system modes of operation. The new controller does not rely on sensing cold water temperature and therefore the new Lazer series can be connected to a hot water supply.

Q5 What is the minimum supply pressure (either hot or cold)?

A5 The minimum supply pressure is 50 kPa

