
TEMPERATURE CONTROL

CONTROLLERS

The Rheem 874 and 876 series can be installed with Rheem controllers to enable the user to control the temperature of the delivered water from the outlet of the water heater. There are two families of Rheem controllers suitable for installation with this water heater. These are the standard controllers and the Deluxe controllers.

Standard Controllers

There are three types of standard controller. They are the Kitchen controller (Rheem AU - Part 299850, NZ - Part A299850), Bathroom 1 controller (Rheem AU - Part 299851, NZ - Part A299851) and the Bathroom 2 controller (Rheem AU - Part 299852, NZ - Part A299852). These part numbers include the controller cable supplied with the controller.

The standard controllers are identified by a 'K' (Kitchen controller), 'B1' (Bathroom 1 controller) or 'B2' (Bathroom 2 controller) located on the front bottom left hand corner of the standard controller.

Deluxe Controllers

There are three types of Deluxe controller. They are the Kitchen Deluxe controller (Rheem AU - Part 299858, NZ - Part A299861), Bathroom 1 Deluxe controller (Rheem AU - Part 299859, NZ - Part A299862) and the Bathroom 2 Deluxe controller (Rheem AU - Part 299860, NZ - Part A299863). These part numbers include the controller cable supplied with the controller.

The Deluxe controllers are identified by a 'K' (Kitchen Deluxe controller), 'B1' (Bathroom 1 Deluxe controller) or 'B2' (Bathroom 2 Deluxe controller), located under the front panel, to the bottom left hand corner adjacent to the BATH FILL VOLUME label.

The Deluxe controllers offer additional functions to the standard controllers. These are:

- An assistance call function, which provides a voice prompt when pressed and will sound on all controllers. This is useful should a family member require assistance when in the bathroom.
- A Bath Fill function, which is designed to allow the water heater to deliver a selected volume of water at a selected temperature.

Bath filling takes place when the hot tap is opened. When the set volume has been delivered, the water flow from the water heater ceases.

Note: The bath level should be monitored periodically while this function is in use to avoid the possibility of the bath overflowing. The Bath Fill function should also be used with caution until you are familiar with its operation.

⚠ Warning: Baths should not be left unattended whenever young children are present.

⚠ Warning: Temperature controllers **must not** be fitted to this water heater (874 series) if it is installed as an in-series gas booster with a solar water heater system because water at a temperature much higher than the controller setting can be delivered. If a solar water heater is installed to an existing water heater installation, then all controllers **must be** disconnected and removed.

Notes:

- Where more than one controller is installed, the second or third controller must be of the same family.
 - A standard controller can only be installed with another standard controller(s) and a Deluxe controller can only be installed with another Deluxe controller(s). A standard controller(s) and a Deluxe controller(s) cannot be connected to the same water heater.
 - One, two or three controllers can be installed. Only one of each type of controller can be connected to the water heater. Therefore, a maximum of three controllers only can be connected to each water heater.
 - A Bathroom 2 controller can only be installed if a Bathroom 1 controller is installed and a Bathroom 2 Deluxe controller can only be installed if a Bathroom 1 Deluxe controller is installed.
 - Other manufacturers' controllers are not suitable to and cannot be installed with this water heater.
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TEMPERATURE CONTROL – STANDARD

STANDARD CONTROLLER FUNCTIONS

If one or more controllers are installed, at least one must be on for the water heater to operate. If all controllers are off, the water heater will only deliver cold water.

on / off (⏻) button – This button must be pressed once to turn on the controller.

A controller cannot be turned on if water is flowing from a hot tap.

To turn off a controller, press the on / off (⏻) button once. The light will go out.

A controller can be turned off whilst water is flowing.

on / off operating light – The on / off operating light on the on / off (⏻) button will glow when the controller is turned on.

The light will go out when the controller is turned off.

priority light – This light will glow on a controller when that controller has priority.

The Bathroom controller(s), if they are turned on, have priority over the Kitchen controller.

Priority means that controller has control of the water heater temperature setting.

The water temperature setting can only be adjusted by the controller that has priority.

in use light – This light will glow on all controllers, whether they are on or off, when hot water is flowing, regardless of which controller has priority.

display panel – The current temperature setting is displayed on all controllers (whether hot water is flowing or not), when any controller is on.

If all controllers are off, then the display remains blank.

The water volume can also be displayed on the Kitchen controller. The x 10L symbol glows when the water volume is displayed.

up (▲) button – The up (▲) button increases the temperature and water volume settings.

Refer to [“Temperature Adjustment – Standard Controller”](#)

down (▼) button – The down (▼) button decreases the temperature and water volume settings.

Refer to [“Temperature Adjustment – Standard Controller”](#) and [“Water Volume Function”](#).

water volume (👑) button (Kitchen controller only) – This feature enables an alarm to sound when a set volume of water has flowed through the water heater.

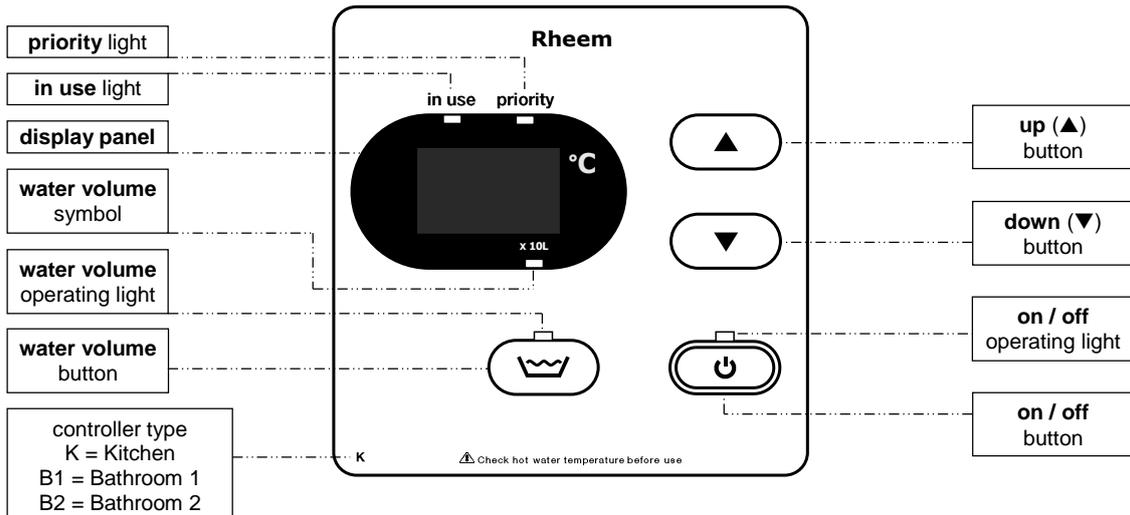
Refer to [“Water Volume Function”](#).

water volume operating light – The water volume operating light on the water volume (👑) button will glow when the water volume (👑) button is pressed and the water volume function is turned on.

The light will go out when the water volume (👑) button is pressed and the water volume function is turned off.

water volume symbol – The x 10L symbol below the display panel glows when the water volume function is turned on and the water volume is displayed.

STANDARD CONTROLLER



Note: water volume (👑) button, water volume operating light and water volume symbol are on the Kitchen controller only.

SILENCING A CONTROLLER – STANDARD

The controller emits a sound whenever a button is pressed. This sound can be turned off to provide silent operation.

To turn off the sound:

- Press the on / off (🔌) button, to deactivate the controller (on / off operating light is off).
- Press and hold the up (▲) button.
- Press the on / off (🔌) button, whilst the up (▲) button is pressed.

The sound for the controller is deactivated. Repeat this procedure on the other controllers if you wish to deactivate their sound. To restore the sound, repeat this procedure.

TEMPERATURE SETTINGS – STANDARD CONTROLLER

The temperature settings of each type of controller are:

- Bathroom 1 & 2 37°C to 46°C (in 1°C increments), 48°C, 50°C
 - Kitchen 37°C to 46°C (in 1°C increments), 48°C, 50°C*, 55°C**, 60°C
- * limited to 50°C on an 876 series model.
** NZ – limited to 55°C.

Temperature settings

37	38	39	40	41	42	43	44	45	46	48	50	55	60
warm			average hot shower				hot			very hot			

The installation of a Bathroom controller(s) only (i.e. no Kitchen controller) limits the temperature setting of the water heater to a maximum of:

- 874 series 50°C
- 876 series 50°C

regardless of the preset outlet temperature setting of the water heater.

The installation of a Kitchen controller will allow a maximum temperature setting of:

- 874 series 60°C – AU 55°C – NZ
- 876 series 50°C

regardless of the preset outlet temperature setting of the water heater.

If there is no controller installed, the water heater defaults to the preset outlet temperature setting. This may be up to:

- 874 series 75°C
- 876 series 50°C

Refer to [“How Hot Should The Water Be?”](#).

On a building fitted with a temperature limiting device such as a tempering valve and where an 874 series water heater is installed without a separate untempered hot water line to the kitchen, laundry or other non-ablution area, although the Kitchen controller will be able to display temperatures above 50°C and the water leaving the water heater will be at the set temperature, the maximum water temperature which can be delivered to the hot water outlets in these locations is determined by the temperature setting of the temperature limiting device. This is usually 50°C.

On a building fitted with a temperature limiting device set to 50°C, to enable the delivery of water temperatures above 50°C to the kitchen, laundry or other non-ablution area, separate untempered pipe work must be installed from the water heater to the hot water outlets in these locations.

TEMPERATURE ADJUSTMENT – STANDARD CONTROLLER

- A controller must be on and have priority to be able to adjust the temperature setting.
- The temperature adjustment is made by pressing the up (▲) button or down (▼) button.
- The maximum temperature setting for the controllers are:

	Kitchen	Bathroom
874 series	60°C – AU, 55°C – NZ	50°C
876 series	50°C	50°C

- Each press of the up (▲) button will increase the temperature setting by one increment.
 - Pressing and holding the up (▲) button will scroll the temperature setting up to a maximum 43°C if there is hot water flowing or 45°C if there is no hot water flowing.
 - From the 45°C setting, the up (▲) button must be pressed once for each increase in temperature increment.
 - The temperature setting cannot be increased above 43°C whilst hot water is flowing.
 - The minimum temperature setting for each type of controller is 37°C.
 - Each press of the down (▼) button will decrease the temperature setting by one temperature increment.
 - Pressing and holding the down (▼) button will scroll down the temperature setting.
 - The temperature setting can be decreased from any temperature setting whether the hot water is flowing or not.
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KITCHEN CONTROLLER – STANDARD

The Kitchen controller allows the user to select the temperature setting for the hot water to be used in the kitchen and laundry. It has a minimum temperature setting of 37°C and a maximum temperature setting of:

- 874 series 60°C – AU 55°C – NZ
- 876 series 50°C

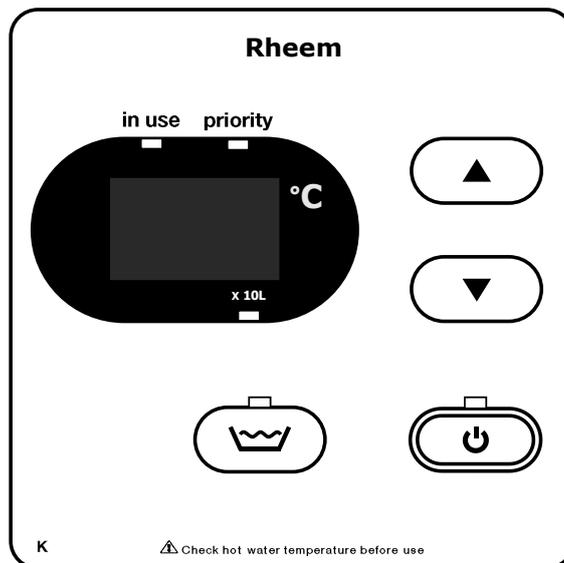
The Kitchen controller does not have priority if a Bathroom controller is on.

Notes on the Kitchen controller:

- The controller cannot be turned on whilst a hot tap is open.
- The Kitchen controller must be on and have priority in order to adjust the temperature setting on the Kitchen controller.
- The Bathroom controller(s) can be turned off from the Kitchen controller.
 - Press and hold the on / off (⏻) button on the Kitchen controller for three seconds.

This turns off all the controllers and the displays go blank.

If hot water is flowing from a hot tap, it will go cold.



Kitchen Controller

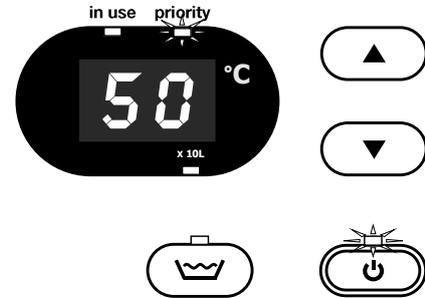
To operate the Kitchen controller:

1. Turn off the Bathroom controller(s)

- If a temperature setting is displayed and the priority light is not glowing, it is necessary to turn off the Bathroom controller(s) to gain priority.
- Refer to the [notes on the Kitchen controller](#).

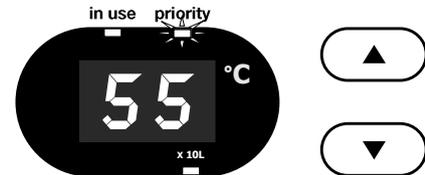
2. Turn on the Kitchen controller

- Press the on / off (⏻) button.
The on / off operating light and the priority light will both glow.
The previous Kitchen controller temperature setting will be displayed on the temperature display panel.



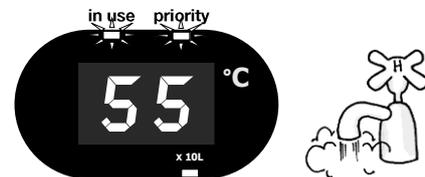
3. Select the temperature setting

- Press the up (▲) button or down (▼) button.
- Refer to [“Temperature Adjustment – Standard Controller”](#).
The selected temperature setting will be displayed on all controllers.



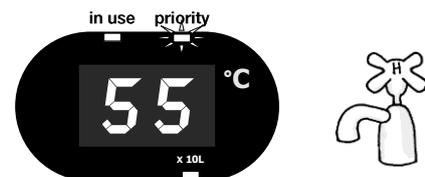
4. Open the hot tap.

The in use light will glow on all controllers.



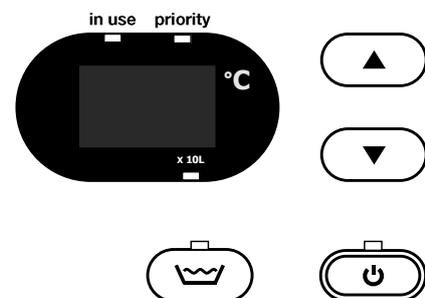
5. Close the hot tap.

The in use light will go out on all controllers, if no other hot tap is open.



6. Turn off the Kitchen controller

- Press the on / off (⏻) button.
The priority light and on / off operating light will go out and the temperature display will go blank.



Important: Turn off the Kitchen controller after hot water usage is finished in the kitchen and / or laundry.

BATHROOM CONTROLLERS – STANDARD

The Bathroom controller(s) allows the user to select the temperature setting for the hot water to be used in the bathroom. They have a minimum temperature setting of 37°C and a maximum temperature setting of:

- 874 series 50°C
- 876 series 50°C

The Bathroom controllers operate in tandem. Whenever an operation is selected on one Bathroom controller, it is also set on the other Bathroom controller. The Bathroom controllers automatically have priority if they are on.

Important: It is important to turn on the Bathroom controller before opening a hot tap in the bathroom (priority is automatically gained). If the Bathroom controller is not on and the Kitchen controller is on (has priority), then it is possible to receive water at a temperature higher than expected from a hot tap in the bathroom. This temperature could be up to:

- 874 series 50°C if a temperature limiting device is installed in the hot pipe to the bathroom or up to 60°C – AU or 55°C – NZ if a temperature limiting device is not installed.
- 876 series 50°C

Notes on the Bathroom controllers:

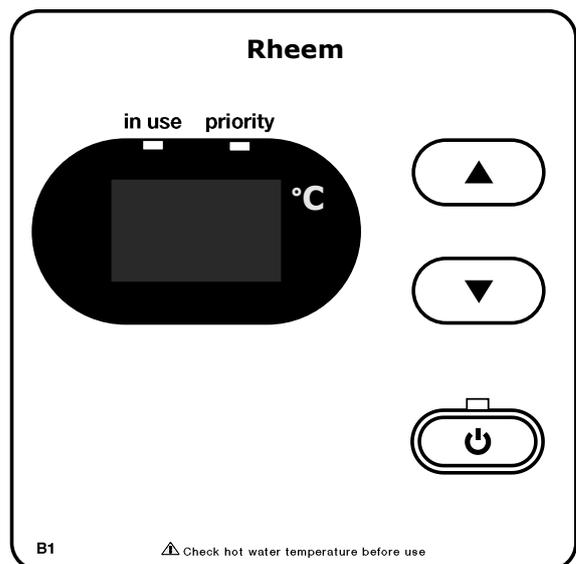
- The controller cannot be turned on whilst a hot tap is open.
- When a Bathroom controller is turned on, it gains priority from the Kitchen controller.
- The Bathroom controller must be on in order to adjust the temperature setting on the Bathroom controller.
- The Kitchen controller can be turned off from a Bathroom controller.
 - Press and hold the on / off (⏻) button on a Bathroom controller for three seconds.

This turns off all the controllers and the displays go blank.

If hot water is flowing from a hot tap, it will go cold.
- **⚠ Warning:** It is advised to leave the Bathroom controller on after hot water usage is finished in the bathroom. **Turning off a controller in one bathroom will also turn off the controller in the other bathroom.** The Kitchen controller will gain priority if it is on and the temperature setting can be up to:
 - 874 series 60°C – AU 55°C – NZ
 - 876 series 50°C

If a hot tap is open in another bathroom, the water will be delivered at:

- For an 874 series model – up to 50°C if a temperature limiting device is installed in the hot pipe to the bathroom or up to 60°C – AU or 55°C – NZ if a temperature limiting device is not installed.
- For an 876 series model – up to 50°C.



Bathroom Controller

To operate a Bathroom controller:

1. Turn off the Kitchen controller

- If a temperature setting is displayed and the priority light is not glowing, it is advised to turn off the Kitchen controller.

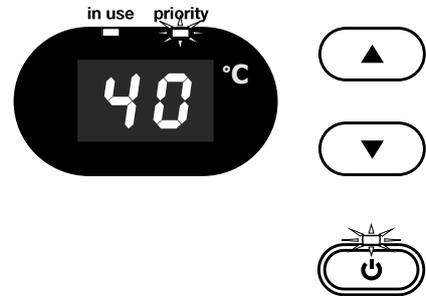
Refer to the [notes on the Bathroom controllers](#).

2. Turn on the Bathroom controller

- Press the on / off (⏻) button.

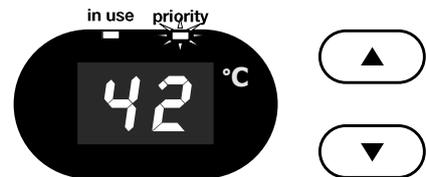
The on / off operating light and the priority light will both glow.

The temperature setting of 40°C will be displayed on the temperature display panel.



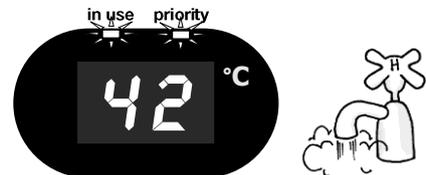
3. Select the temperature setting

- Press the up (▲) button or down (▼) button.
- Refer to [“Temperature Adjustment – Standard Controller”](#). The selected temperature setting will be displayed on all controllers.



4. Open the hot tap

The in use light will glow on all controllers.



5. Close the hot tap

The in use light will go out on all controllers, if no other hot tap is open.

It is advised not to turn off the Bathroom controller(s).



WATER VOLUME FUNCTION

The water volume function is designed to warn by an alarm (beeping sound), that a certain volume of water has been delivered from the water heater. **It does not stop either the flow of or the heating of water.** This function is useful if a bath is being filled, or measuring the water consumed by the use of a shower.

The water volume function can only be set by the Kitchen controller. Refer to the [notes on the water volume function](#).

To operate the water volume alarm:

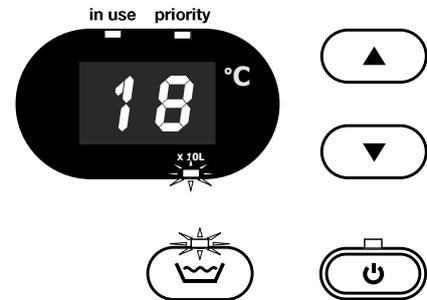
1. Turn on the water volume function

- Press the water volume () button.

The water volume operating light will glow.

The current set water volume (in litres divided by 10) will be displayed and the x 10L indicator will also glow.

E.g. the factory preset water volume of 180 litres is shown as 18 x 10L.



2. Adjust the water volume setting (if necessary)

- To adjust the water volume setting, press the up () button to increase the water volume or the down () button to decrease the water volume.

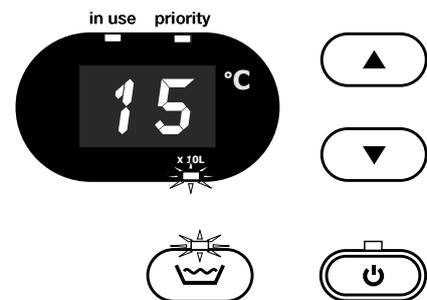
Each press of the up () button or down () button will change the water volume setting by 10 litres.

Pressing the up () button or down () button continuously will scroll the water volume setting.

Fifteen seconds after the water volume has been selected, the water volume operating light will start to flash and the selected water volume is set.

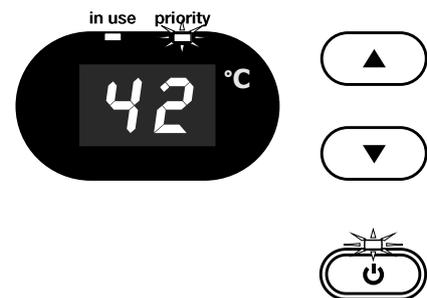
The water volume operating light will continue to flash until the alarm sounds.

A maximum of 500 litres (50 and x 10L displayed) and a minimum of 10 litres (1 and x 10L displayed) can be set with the water volume function.



3. Set the water temperature

- Turn on the controller for the room where the hot water is to be used.
- Gain priority (if using the Kitchen controller).
- Select the temperature setting.



4. Open the hot tap

The in use light will glow on all controllers.

Measurement of the water flow at the water heater will commence when a hot tap is open and the water volume operating light is flashing.

The alarm will sound when the set volume of water has passed through the water heater.

