

## PRESET TEMPERATURE ADJUSTMENT

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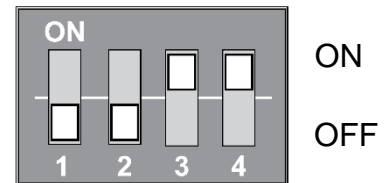
***Voltages up to 240 volts will be present within the water heater, take care not to touch wiring terminals. Use an insulated tool when operating the DIP switches or MIN and MAX buttons.***



***If this water heater is used as an in-series booster for a solar water heater it must have the outlet temperature set at 70°C in order to comply with the requirements of AS 3498.***

To adjust the preset temperature:

1. Remove the front cover from the water heater.
2. Turn DIP SWITCHES 3 and 4 on (up position). Refer to area 'D' on page 33 for dip switch location. The current preset temperature is displayed on the OK Monitor.



3. Press the MIN or MAX button, located under the DIP Switches, until the desired temperature is displayed. Available temperatures are:

Rheem 874 Series / Solahart 60° models:

38°C, 40°C, 42°C, 43°C, 48°C, 50°C, 55°C, 60°C, 65°C, 70°C and 75°C.

Rheem 876 Series 50° models:

38°C, 40°C, 42°C, 43°C, 45°C, 48°C, and 50°C.

Turn DIP SWITCHES 3 and 4 off (down position). The temperature display is now turned off.

4. Refit the front cover to the water heater.

## FINE TEMPERATURE ADJUSTMENT

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The maximum outlet temperature of a 48°C model may be adjusted to compensate for temperature losses in the pipe work between the water heater outlet and sanitary fixtures.

After adjustment, the water temperature from the first tap in the hot water pipe work after the water heater used for personal hygiene purposes, such as in a bathroom or ensuite **MUST NOT** exceed:

- 48°C if a temperature controller is connected to the water heater, or
- 50°C if a temperature controller is not connected to the water heater.

If there is a tap, such as a kitchen or laundry tap, in the hot water pipe work between the water heater and the first tap used for personal hygiene purposes, then it is possible for a water temperature to be delivered from that tap of up to 3°C higher than the setting shown on the controller.

It is necessary to have the electrical supply to the water heater switched on during stages of the outlet temperature compensation adjustment procedure.

**Note:** The preset outlet temperature setting of the water heater must be set at 48°C prior to the commencement of this procedure.



***Voltages up to 240 volts will be present within the water heater, take care not to touch wiring terminals. Use an insulated tool when adjusting settings.***

1. Switch DIP SWITCH 3 to the on (up) position on the PCB.
2. Push the MAX button to increase outlet temperature set point. Continue to press MAX button until correct temperature is achieved at first tap used for personal hygiene purposes. The maximum outlet temperature setting is 54°C.
3. Once correct temperature set point is selected, switch DIP SWITCH 3 to the off (down) position on the PCB.

## **SEQUENCE OF OPERATION**

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Refer to 'Sequence of Operation Component Diagram' on page 12 to view components shown in brackets e.g. **(1)**

1. When a hot water tap **(1)** is opened, cold water (or preheated water if a solar preheater is installed) enters the water heater and passes through the Water Flow Sensor **(3)** and Heat Exchanger **(19)**. Note: the inlet water temperature must be less than or equal to 58°C and less than or equal to the set point temperature minus 2°C for operation to occur past this point; otherwise water will pass straight through the heat exchanger and fan and burner operation will not occur (for more information on this subject refer to the section titled 'In-series Gas Boosting' on page 13).
2. The Water Flow Sensor **(3)** sends a pulse signal to the PCB **(27)**. Once the pulse signal reaches a pre designated frequency (at minimum flow rate) the PCB **(27)** activates the Fan Motor **(25)** and the Fan **(24)** starts rotating.
3. After the Fan **(24)** completes a pre purge, the Gas Inlet Solenoid Valve **(9)** is activated. Then Step 1 - Gas Solenoid Valve 2 **(11)** is activated, the Proportional Gas Flow Regulating Valve **(13)** adjusts the gas flow rate through Steps 2 – 6, to ensure adequate gas for ignition and gas is then supplied to the Burner **(15)**. (See page 12 Stepping gas rate change sequence).
4. At the same time the Gas Solenoid Valves open the Igniter **(16)** starts sparking continuously and ignites the gas at the Burner **(15)**. After the flame sensor **(18)** detects burner flame, the Proportional Gas Valve **(13)** begins to control the gas flow rate. If there is a difference between the hot water temperature detected by the Hot Water Outlet Thermistor **(6)** and that set on the water heater or selected on the remote controller (if fitted) the PCB **(27)** adjusts the hot water temperature by opening and closing the Gas Solenoid Valves 1 **(10)**, 2 **(11)** and 3 **(12)** and adjusting the Proportional Gas Flow Regulating Valve **(13)**. The water flow rate is also adjusted via the Water Flow Servo Motor **(7)** to ensure the selected temperature of hot water is delivered.
5. As the gas flow rate, controlled by the Proportional Gas Flow Regulating Valve **(13)** changes the PCB **(27)** varies the speed of the Fan Motor **(25)** to maintain the correct air gas mix ratio.
6. When the hot tap **(1)** is closed, the pulse signal from the Water Flow Sensor **(3)** stops and the burner flame is extinguished by closing Gas Solenoid Valves 1 **(10)**, 2 **(11)**, 3 **(12)** and the Gas Inlet Solenoid Valve **(9)**. The post purge operation then commences.
7. Once the post-purge operation ends (up to 6 minutes) power to the Fan Motor **(25)** is cut and the Fan **(24)** stops.