

DELIVERY TEMPERATURE ADJUSTMENT FOR 50°C COMPLIANT APPLIANCES

These instructions must be read in conjunction with the Operation / Installation manual supplied with the appliance.

Application

This instruction applies only to appliances labelled "Compliant to 50°C" on the front cover.

These appliances are fitted with this "50°C Compliant" warning shown.

If this warning is not fitted, the appliance is **NOT** "50°C Compliant" and this instruction does not apply.



Background

"50°C Compliant" appliances are 'factory set' to deliver a maximum temperature not exceeding 50°C. However, they have an incremental adjustment mechanism that allows the installer to increase the appliance delivery temperature incrementally from the 'Factory Set' value to temperatures exceeding 50°C. This is intended to enable compensation for temperature losses in the pipework between the water heater and any outlets and achieve the required temperature at the outlet. This document contains the procedure steps for carrying out such adjustment.

Procedure Steps - Delivery Temperature Adjustment

- Carry out installation of the appliance in accordance with the Operation / Installation manual supplied with the appliance.
- Measure the maximum hot water temperature from the sanitary fixture used primarily for the purposes of personal hygiene that is closest to the water heater (for example, a shower outlet in the bathroom closest to the water heater) as follows:
 - Set the water controller (if fitted) to the maximum temperature (this should be 50°C).
 - Open the hot tap to the outlet wide to achieve maximum flow rate (ensure the cold tap to this outlet remains shut).
 - Let the water run for a short period to allow flow rate and temperature to stabilise.
 - Measure the stabilised hot water temperature.



- In step (b) above, do not commission this appliance and contact Rinnai if the maximum temperature displayed on water controllers and / or the water temperature from any sanitary fixture exceeds 50°C.**
- Ensure building occupants do not have access to any hot water outlets during this procedure.**

- If the temperature in step (b) is less than 50°C, perform delivery temperature adjustment to increase the delivery temperature in accordance with the guidance notes for Table 1 below. If the temperature in step (b) equals 50°C no adjustment is necessary.
- After carrying out delivery temperature adjustment re-confirm the maximum hot water temperature from ALL outlets primarily used for the purposes of personal hygiene (for example, all bathroom shower and basin taps). In accordance with Step (b) above.



If the hot water temperature from ANY outlets used primarily for the purposes of personal hygiene exceed 50°C after temperature adjustment in step (c) has been performed, check your work and repeat the temperature delivery adjustment procedure as required.

Temperatures exceeding 50°C from any outlet primarily used for the purposes of personal hygiene do not comply with AS3500 and may contravene local regulations.

- Confirm 'non temperature' dipswitch settings in accordance with Tables 2, 3 and 4.




It is important to carry out Step e. as 'non temperature' dipswitch settings may have accidentally been moved during the delivery temperature adjustment procedure. This could result in appliance malfunction.

Guidance Notes for Table 1 "Delivery Temperature Increase Steps" (Table 1 is overleaf)

- The greater the temperature loss from pipework between the water heater and outlets, the lower the delivery temperature of water flowing through outlets.
- The temperature loss from pipework between the water heater and outlets is affected by pipe length, flow rate and seasonal variations in ambient air and water temperatures.
- Temperature loss is typically lower at shorter pipe lengths and higher flow rates. This is taken into consideration in the operating and measurement parameters specified in Procedure Step (b) above.
- For a given installation, temperature loss is typically greatest in winter when ambient air and water temperatures are lowest. Conversely, temperature loss is typically lowest in summer when these ambient temperatures are highest. It follows that the delivery temperature of water flowing through outlets is typically higher in summer than it is in winter. The installer is to take into consideration the effects of these seasonal variations in ambient temperatures when carrying out temperature adjustments.



Dipswitches Explained



IMPORTANT

OFF / ON

Indicates dipswitch is OFF

Indicates dipswitch is ON

For SW1 the **ON** position is towards the **RIGHT**.

For SW2 the **ON** position is towards the **FRONT**.

For normal operation combustion dipswitch positions seven (7) and eight (8) of SW1 **MUST BE** in the **OFF** position.

On some water heater models SW2 will have six (6) dipswitches instead of four (4). Where this is the case dipswitch positions five (5) and six (6) **MUST BE** in the **OFF** position.

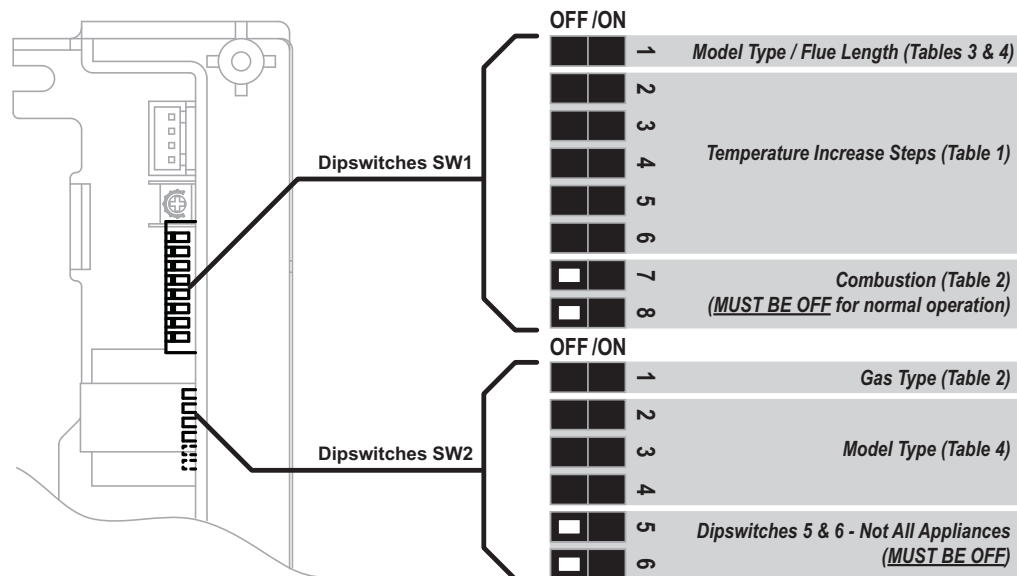


TABLE 1 - Delivery Temperature Increase 'STEPS' Dipswitch Settings

| FACTORY DEFAULT DELIVERY TEMPERATURE | | TEMPERATURE INCREASE STEP 1 | | TEMPERATURE INCREASE STEP 2 | | TEMPERATURE INCREASE STEP 3 | | TEMPERATURE INCREASE STEP 4 | |
|--------------------------------------|--|-----------------------------|--|-----------------------------|--|-----------------------------|--|-----------------------------|--|
| LOWEST DELIVERY TEMPERATURE | | SW1 | | SW1 | | SW1 | | SW1 | |
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| HIGHEST DELIVERY TEMPERATURE | | SW2 | | SW2 | | SW2 | | SW2 | |
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IMPORTANT - 1. Read 'Notes for Table 1' on previous page. 2. Confirm Non-Temperature Dipswitch settings in accordance with Tables 2, 3 and 4 on page 3.

TABLE 2 - Common Dipswitch Settings

| All Models Gas Type NATURAL GAS | All Models Gas Type PROPANE GAS | All Models Gas Pressure NORMAL COMBUSTION |
|---|---|---|
| <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> | <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> | <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> |

TABLE 3 - Flue Length Dipswitch Settings

| FFU (Internal) Models Only Short Flue: Total flue length less than 1.5 metres | FFU (Internal) Models Only Extended Flue: Total flue length 1.5 metres or greater |
|---|---|
| <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> | <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> |

TABLE 4 - Model Type Dipswitch Settings

| REU-VR1620W _x | REU-VR2024W _x REU-VRM2632W _x | REU-VR2426W _x REU-KM2635W _x | REU-VR2626WG REU-VRM2630W _x REU-VR3237W _x REU-VRM3237W _x REU-KM3237W _x | REU-VR2626WGP | REU-VR2632FFU _x REU-VRM2632FFU _x |
|---|---|---|--|---|---|
| <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> | <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> | <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> | <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> | <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> | <p>SW1</p> <p>OFF ON</p> <p>1 2 3 4 5 6 7 8</p> <p>SW2</p> <p>OFF ON</p> <p>1 2 3 4 5 6</p> <p>← (Refer to Table 3)</p> |