



# R2339 Wireless Remote / Thermostatic Controller Operation Manual

# SUITABLE FOR HEATER MODELS: RIB2310MN/A & RIB2310ML/A





# This appliance shall be installed in accordance with:

- Manufacturer's Installation Instructions
- Current AS/NZS 3000 & AS/NZ 5601
- Local Regulations and Municipal Building Codes

This appliance must be installed, serviced and repaired by an Authorised Person.





Distributed and serviced in Australia under a Qualit System certified as complying with ISO 9001 b SAI Global Congratulations on the purchase of your Rinnai Sapphire gas log flamefire. We trust you will have many years of comfort and enjoyment from your appliance.

BEFORE PROCEEDING WITH THE OPERATION OR INSTALATION OF YOUR NEW REMOTE CONTROLLER PLEASE READ THIS MANUAL THOROUGHLY AND GAIN A FULL UNDERSTANDING OF THE REQUIREMENTS, FEATURES AND OPERATION OF YOUR NEW CONTROLLER.

# TABLE OF CONTENTS

SAFETY & CARE	1
CONTROLLER SAFE HANDLING & CARE	1
BATTERY SAFETY & DISPOSAL INSTRUCTIONS	1
REMOTE / THERMOSTATIC CONTROLLED OPERATION	2
REMOTE CONTROLLER - BATTERY INSTALLATION	
REMOTE CONTROLLER - SYNCHRONISATION.	
REMOTE CONTROLLER - MANUAL OPERATION	-
REMOTE CONTROLLER - AUTOMATIC OPERATION	
WIRELESS CONTROLLER / THERMOSTAT	5
TO TURN YOUR HEATER ON WITH REMOTE / THERMOSTATIC CONTROL	
MODES OF OPERATION	
PROGRAMMING OF PROGRAM MODES	
GENERAL OPERATION CHARACTERISTICS 1	
TROUBLE SHOOTING CHECKLIST 1	1
WARRANTY & PURCHASE RECORD 1	
WARRANTY 1	
PURCHASE RECORD 1	2
CONTACT INFORMATION	3

# **CARTON CONTENTS**

Ensure that the components listed below are present before proceeding.









Wireless remote/thermostatic control
Wall mount

3 AA batteries (x2)4 These Operating Instructions

# **SAFETY & CARE**

### CONTROLLER SAFE HANDLING & CARE

- Clean your controller with a lightly dampened cloth; **DO NOT** use harsh abrasives or solvents to clean any part of the controller, doing so may result in damage to the finish of the controller.
- **DO NOT** place your controller in a position where it may be easily damaged, i.e. on the floor or on a seat or under a heavy object.
- **DO NOT** leave your controller in direct sunlight.
- DO NOT expose your controller to excessive humidity or submerse it in fluid.
- **DO NOT** carry your controller around in pants pockets or purse, risk of damage to the screen may occur.
- **DO NOT** leave your controller on top of a free standing unit where it may be affected by the heat of an operating appliance.
- **DO NOT** dismantle, or otherwise modify the controller, attempting to do so may damage or affect the operation and will void your warranty.

### **BATTERY SAFETY & DISPOSAL INSTRUCTIONS**

Please follow the instructions below for safe handling and proper disposal of each type of your controller batteries.

- **DO** read the instructions on packaging of batteries. Make sure to insert new batteries correctly, following the symbols for positioning the positive (+) and negative (-) ends of each battery.
- DO replace batteries with the size and type specified in your Rinnai product's Operation / Installation manual.
- Exchange both spent batteries from the controller at the same time, do not mix old and new batteries.
- **DO** store batteries in a cool, dry place at normal room temperature. Remove batteries from devices that will be stored unused for extended periods.
- **DO** dispose of batteries according to the local laws and regulations of your region. Some batteries may be recycled, and may be accepted for disposal at your local recycling centre. If you are not able to identify the applicable rules in your area, please check the instructions of the battery manufacturer.
- Batteries may present a risk of fire, explosion, or chemical burn if mistreated.
- **DO NOT** disassemble, puncture, modify, drop, throw, or cause other unnecessary shocks to batteries.
- **DO NOT** dispose of batteries in a fire or incinerator, or leave batteries in hot places such as a car left in direct sunlight.
- DO NOT store batteries near an oven, stove, or other heat source.
- **DO NOT** connect batteries directly to an electrical source, such as a domestic power outlet or car power-point.
- DO NOT place batteries into a microwave oven, or into any other high-pressure container.
- DO NOT immerse batteries in water or otherwise get them wet.
- **DO NOT** short circuit batteries; for example, do not carry loose batteries in a pocket or purse with other metal objects, which may inadvertently cause a battery to short circuit.
- **DO NOT** use batteries, or charge rechargeable batteries, that appear to be leaking, discoloured, rusty, deformed; emit an odour; or are otherwise abnormal.

Warranty does not cover damage caused to the controller by incorrect, damaged, or leaking batteries.

- **DO NOT** touch leaking batteries directly; wear protective material to remove the batteries and dispose of them properly immediately.
- DO NOT reverse the polarity (positive and negative terminals) of batteries.
- **DO NOT** mix used and new batteries, or install used batteries in other equipment.
- **DO NOT** charge non-rechargeable batteries, or use unspecified charging instructions or equipment for rechargeable batteries.
- DO NOT continue to charge batteries beyond the specified time.
- DO NOT give batteries to young children, or store batteries where children may access them.
- DO NOT put batteries in mouth. If swallowed, contact physician or local poison control centre immediately.

For further enhanced comfort and convenience the Sapphire heater can be both remotely and thermostatically controlled through the use of a wireless wall mountable controller / thermostat.

The wireless controller / thermostat is an optional extra available through your Rinnai stockist.

# **DISPLAY LAYOUT & FEATURES**



1	Time of day with <b>'AM'</b> or <b>'PM'</b> display	Displays time of the day in hours and minutes, 'AM' or 'PM'. The time is displayed when the thermostat is 'ON' or 'OFF'.
2	Day of the week	Displays the current day of the week. The day is displayed when the thermostat is 'ON' or 'OFF'.
3	Current Room temperature display	Displays the current temperature. The temperature range is 7°C - 32°C.
4	Setting Temperature with ' <b>SET</b> ' display	When the thermostat is 'ON', the programmed (set) temperature will be displayed.
5	Transmit indicator	Indicates that the thermostat is transmitting to the receiver, the symbol will appear on the LCD for 1 sec.
6	Battery Low indicator	Indicates when the battery power is below an acceptable level.
7	Automatic mode indicator	Indicates if the thermostat is in automatic mode.
8	Program mode indicator	Indicates that the thermostat is in programming mode.
9	Manual mode indicator	Indicates if the thermostat is in manual mode.

### **BUTTON LAYOUT & FEATURES**

ROOM ()	(10) Setting 'UP' Button	Increase hours, minutes, day or temperature.				
<u>20 č</u>	(1) 'OK' Button	Accepts the current function and advances to the next function.				
	(12) 'PWR' (Power) Button	Switches the thermostat 'ON' and 'OFF'. To turn 'ON' press and release the ' <b>PWR'</b> and ' <b>OK'</b> Buttons at the same time this will turn the thermostat 'ON' to the most recently programmed working mode. Toggles between automatic, manual and flame mode.				
SU MO TU WE TH FR SA	(13) <b>'A/M</b> ' Button					
	(14) <b>'T</b> ' (Time) Button	Initiates time and day of the week programming (must press and hold for 2 or more seconds when the thermostat is 'OFF').				
	(15) Setting ' <b>DOWN</b> ' Button	Decrease hours, minutes, day or temperature.				
$\begin{array}{c} 13 \\ 14 \\ 15 \end{array}$	(16) 'P' (Program) Button	Initiates the programming mode (must press and hold for 2 or more seconds when the thermostat is 'OFF').				
	17 Flame Indicator	Indicates the flame setting.				
		The Flame symbol graphically indicates which of the 7 graduated settings between Low and High flame when the burner is on.				
		In AUTO or MANUAL temperature mode, if the burner is OFF due to room temperature being reached the symbol will modulate UP and DOWN. This is to indicate that the unit is still ON even though there are no flames visible in the appliance.				
		appliance.				

### **REMOTE CONTROLLER - BATTERY INSTALLATION**

Carefully remove the battery compartment cover panel from the rear of your controller hand-set and correctly insert the two AA batteries supplied ensuring '+' and '-' polarity is correct.

When installing your batteries your remote control will display the 'Initial Set-up Screen'. The screen will display the following:

- Current room temperature in °C
- Default time setting of *I2*<sup>:</sup>*DΩ*<sup>™</sup>
- Default day of the week setting 'MO' Monday.

When batteries are changed all settings other than synchronisation are lost and the controller will revert back to the 'Initial set -up screen'.

Synchronisation must be carried out when a new controller has been purchased. The heater will not respond or operate to any function until synchronisation has been carried out.

### **REMOTE CONTROLLER - SYNCHRONISATION.**

Before proceeding with synchronisation ensure that the gas and electricity are connected.



Two controllers CAN NOT be used at the same time!

### Synchronisation of Controller & The Heater

- Step 1). Turn the power off at the power point for a minimum of 30 seconds, synchronisation will not be possible unless the minimum 30 seconds has been observed.
- Step 2). Ensure the remote control is turned OFF, to turn OFF press and release the 'PWR' button once.
- Step 3). Turn the power ON at the power point, the blue power operation indicator **b** on the push button control panel will flash once. The controller can now be synchronised with the heater.
- Step 4).On the controller in quick succession press the following sequence of buttons: '**P**' > '**T**' > '**UP**'.

The LCD display will show 'L/C' (Learn Code) for 2 seconds then return to the normal 'OFF' state display. The blue power operation indicator **(b)** on the push button control panel will flash once to indicate that synchronisation has been accepted.

### To restore factory default settings

With the thermostat 'OFF', press the following sequence of buttons 'P' > 'T' > 'T' > 'DOWN'.

### **REMOTE CONTROLLER - MANUAL OPERATION**

### Turning 'ON' and 'OFF'

Press 'ON'/'OFF' button of the Push Button Control Panel a once the Power Indicator LED b, will illuminate blue. Press the '**OK**' and '**PWR**' button at the same time to turn 'ON'/ ignite the heater. This is a safety feature to reduce the accidental activation of the heater.

The unit first lights the pilot and then after a short period switches to the 'HIGH' flame setting.

To turn 'OFF' press and release the 'PWR' button once.

### Changing the temperature

The Sapphire has temperature increments of 1° which can be changed using the '**UP**' and '**DOWN**' buttons. The temperature control range is 7 - 32°C

### Change between Celsius - °C and Fahrenheit - °F

The thermostat temperature display can be set to °C or °F. The default is °C. With the controller 'OFF', press the following sequence of buttons: 'P' > T' > T' + A/M' to toggle between °C or °F.

Change between manual, automatic and flame modes

Press and release the 'A/M' button.



Synchronisation MUST BE performed within 30 seconds of the power being turned ON, if more than 30 seconds has elapsed repeat steps 1 through 3.

# **REMOTE CONTROLLER - AUTOMATIC OPERATION**

Setting the Current Time and Day of the Week



Step 1. With the controller 'OFF', press and hold the 'T' button (1) for approximately 2 seconds. 'TIME', 'HOUR' and 'AM or PM' will flash.

If no buttons are pressed within 10 seconds the display will revert back to 'Initial Set-Up Screen' retaining the last entered setting.

- **Step 2.** To select the hour push the '**UP**' button (10) or '**DOWN**' button (15) until the desired hour is chosen, note that AM or PM is chosen by cycling through the 12 hour range.
- **Step 3.** Press the **'OK'** button (1) to enter the selected hour and AM or PM. **'TIME'** + **'MINUTES'** + **'AM or PM'** will flash.



- Step 4. To select the minutes push the 'UP' button 10 or 'DOWN' button 15 until the desired minutes are chosen.
- Step 5. Press the 'OK' button (1) to enter selected minutes, One of the days SU, MO, TU, WE, TH, FR or SA will flash.
- Step 6. To select the hour push the 'UP' button (10) or 'DOWN' button (15) until the desired day is chosen.
- **Step 7.** Press the '**OK**' button (1) to enter the selected day and to complete time and day setup.

### To adjust time for Daylight Saving time

To adjust time or to adjust for daylight savings follow Steps 1 and 2 then press '**OK**' button (11), three times to keep the minutes and the current day.



When changing batteries all settings will be lost and the controller will revert back to the 'Initial setup screen'. Re-setting of time, date and programming will be necessary.

### WIRELESS CONTROLLER / THERMOSTAT

The wireless controller is designed to be wall mounted on a bracket, (bracket supplied with the controller), within 20m of the heater.

The controller houses the thermostat which senses room temperature and communicates back to the Sapphire via Radio Frequency.

#### The ideal position for the controller is:

- Away from possible drafts in the room.
- · Away from direct sunlight.
- Suitable distance away from the heater (not exceeding 20 metres).
- Ideally 1.5 m from the floor (approximately at chest height).

# Controller Specifications

Battery: 2 x AA batteries. Battery Life: Approximately 12 months. Dimensions: Height: 140 mm, Width: 80 mm, Depth: 20 mm.

#### Additional information about Remote Thermostat Control Buttons



# Additional information about Remote Thermostat Control Opertation

Character Diagnostic Check. To check the display characters on the remote control turn the controller 'off' by pressing the **'PWR'** button then press **P** - **T** - **T** - **OK** in rapid succession.



The remote will then commence automatically cycling through all the display characters, finally displaying the full screen as shown below.

This process takes approximately 20 seconds and does not affect any programming.



If any of the characters are not displayed contact your Rinnai stockist for a replacement controller. The Fan and Snowflake symbols displayed are not utilized in the operation of the Sapphire heater.

### TO TURN YOUR HEATER ON WITH REMOTE / THERMOSTATIC CONTROL

#### BEFORE PROCEEDING ENSURE THE GAS AND ELECTRICITY ARE TURNED ON.

When the heater is in the OFF/STANDBY condition (power supply connected and switched on) the blue LED Power Indicator will double flash. This is normal. However before remote / thermostatic control can be used the heater must be taken out of the OFF/STANDBY condition, do this as follows:

Press 'ON'/'OFF' button a once the electronic ignition sparker will be able to be heard.

Step 1. The electronic ignition stops when the pilot flame has been established. The main burner then ignites off the pilot. Once the main burner has ignited the heater can the be operated by remote / thermostatic control.

### MODES OF OPERATION

To Turn Remote 'ON' or 'OFF'



**Step 1.** To turn 'ON' - press and release the '**OK**' button (1) and '**PWR**' button (12) at the same time. The display will now include the setting temperature and the mode of operation.

Step 2. To turn 'OFF' - press the 'PWR' button 12 only.

#### Manual Temperature Mode

- Temperature can be set at any level.
- Time and day of week does not need to be programmed to operate.



- Step 1. With the controller turned 'ON', press and release the 'A/M' button (13) until the word 'MANUAL' appears on the LCD.
- Step 2. Press press the 'UP' button 10 or 'DOWN' button 15 to increase or decrease the temperature in increments of 1°C.

a

С

Rinnai

d

# Automatic Timer Mode

- In automatic timer mode temperature is regulated to the programmed level and time.
- Time and day of week MUST BE set.



- Step 1. With the controller turned 'ON', press and release the 'A/M' button (13) until the word 'AUTO' appears on the LCD.
- **Step 2.** At any time press the '**UP**' button (10) or '**DOWN**' button (15) to increase or decrease the temperature in increments of 1°C.

### Flame Mode

• Temperature control is over ridden and the flame size can be set to any setting from F7 highest to F1 lowest.

When the fire first ignites it remains on highest flame for the first 60 seconds before changing to the selected flame height.

• Time and day of week does not need to be programmed.



- **Step 1.** With the controller turned 'ON', press and release the '**A/M**' button (13) until the letter '**F** with a number and the flame symbol (17) appear on the LCD panel.
- Step 2. Press the 'UP' button 10 or 'DOWN' button 15 to increase or decrease the flame height.

The fan speed automatically adjusts to the corresponding flame height. It is not able to be selected by the operator. See the flame table below for flame height to fan speed relationship.

Flame Height	1	2	3	4	5	6	7
Fan Speed	HIGH	LOW	LOW	LOW	HIGH	HIGH	HIGH

### Manually Overriding The Set Program

At any time, the temperature or fan speed may be adjusted 'UP' or 'DOWN' similarly to operating in "Manual Temperature Mode" on page 7.



However, whenever the thermostat changes to a new time period, the temperature will be set automatically according to that period's setting.

### Flame Height And Fan Speed

The flame height and fan speed are not individually adjustable. Flame height and fan speeds are selected by the microprocessor according to the difference between the set temperature and the ambient temperature of the room.

The fan speed automatically adjusts to the corresponding flame height. The fan speed is not able to be selected by the operator. When the heater is operated in 'Manual Temperature Mode' the flame height is automatically selected by the microprocessor to achieve and maintain the 'set' temperature. As an example, if the room is much colder than the 'set' temperature, the flame height and corresponding fan speed will be high. As the room heats up and gets close to the 'set' temperature the flame height and corresponding fan speed will revert to lower settings. When the heater is operated in 'Flame Mode' the flame height is set by the operator.

### Flashing Small Flame Symbol 'on'

The small flashing flame symbol ① on the RF controller display indicates the room temperature is within 0.5°C of set temperature.



### Program Modes

The appliance can be programmed to operate during four separate periods in one day, resulting in a possible 28 operating periods per week. A weekday program can be set so the program is used Monday to Friday. Similarly, a weekend program can be set for Saturday to Sunday. The entire week can also have the same program.

	If you do nothing to change the programming the following default settings would be available if you set it to automatic mode.							
	Time Period	Start Time	Suggested Time Period Settings					
Factory default settings	Period 1	6:00 am	20°C	- Morning				
	Period 2	8:30 am	15°C	- Day time				
	Period 3	5:00 pm	21°C	- Evening				
	Period 4	10.30 pm	15°C	- Night time				
To revert back to the default settings once you have reset the periods, in rapid succession press the following sequence of buttons 'P' - 'T' - 'T' - 'DOWN'.								

### **PROGRAMMING OF PROGRAM MODES**



- Step 1. With the controller 'OFF', press and hold the 'P' button (16) for approximately 2 seconds. The LCD will display 'PROG'. '*Pd*' and the current time and the day 'MO' will flash.
- **Step 2.** To select the day range press the '**UP**' button (10) or '**DOWN**' button (15) until the desired day range has been chosen the day ranges are as follows:

MO→ TU→ WE→ TH→ FR→ MO TU WE TH FR→ SA→ SU→ SU - SA→ SU MO TU WE TH FR SA

Holding the 'UP' or 'DOWN' buttons for more than 2 seconds will scroll through the day ranges.



- **Step 3.** Press the 'OK' button (1) to enter the selected day range. The LCD will display '**PROG'**. '*P1*' and the '**TIME**' + '**HOUR**' + '**AM**' will flash.
- **Step 4.** To select the **'ON'** hour for **'P1'** push the **'UP**' button ① or **'DOWN'** button ① until the desired hour is chosen, note that AM or PM is chosen by cycling through the 12 hour range.
- **Step 5.** Press the **'OK'** button (1) to enter the selected hour and AM or PM. **'TIME'** + **'MINUTES'** + **'AM or PM'** will flash.
- Step 6. To select the 'ON' minutes for '*P1*' push the 'UP' button (10) or 'DOWN' button (15) until the desired minute is chosen.



- Step 7. Press the 'OK' button (11) to enter the 'ON' minutes. 'SET' + 'TEMPERATUTRE DIGITS' will flash.
- Step 8. To select the 'ON' temperature for '*P1*' push the 'UP' button ① or 'DOWN' button ① until the desired temperature is chosen.
- Step 9. Press the 'OK' button (1) to enter the selected temperature. The LCD will display 'PROG'. 'P2' and the 'TIME' + 'HOUR' + 'AM' will flash, this completes the programming for the 'P1 ON' period. Repeat steps 3 through 9 for 'PROG'. 'P2 OFF', 'P3 ON' and 'P4' 'OFF' periods.

# **TROUBLE SHOOTING**

# **GENERAL OPERATION CHARACTERISTICS**



Before asking for a service call please check the following table as these characteristics are part of the normal operation of the appliance and do not indicate a fault.

CHARACTERISTIC	EXPLANATION
At ignition:	
Warm air does not start when the burner lights.	The fan is started automatically after a short delay. This is to allow the heat exchanger to warm up, helping to avoid cold draughts. This is normal operation.
Smoke or strange smells are produced on the first start up after installation.	This is caused by grease, oil or dust on the heat exchanger. This is to be expected and will cease after a short time.
Sharp clicking noises at ignition, or when the unit thermostat modulates to a lower or higher setting, or shuts down.	This is simply expansion and contraction noise from the heat exchanger. This is a normal operation sound.
During combustion:	
Dull clunking noise when the thermostat	This is the sound of the solenoid gas valves opening and closing to regulate the gas flow. These are normal operation noises.
When the appliance is turned off:	
Convection fan continues to run after turning + OFF'.	This is to remove residual heat from the heat exchanger and stops once the appliance cools sufficiently.

# TROUBLE SHOOTING CHECKLIST

Use the following chart to help determine whether a service call is required, however if you are unsure about the way your heater is operating, contact Rinnai or your local agent.

Fault Condition Probable Cause	Burners fail to ignite	Smell of gas	Fan Not Working	Minor soot deposits	Severe sooting	Glass, Condensating	Glass, Streaky lines	*Remote not working	
Not plugged in or turned off									Plug in power cord and turn power 'ON'.
Mains power failure			•						Re-ignition, when power restored.
(Initial Install) Air in gas pipe									Installer to purge air from gas supply.
Air in hose									Repeat Ignition procedure.
Ignition failure Flat battery for remote control *									Repeat Ignition procedure. Replace remote control battery.
Gas supply turned off								•	
Gas escape									Turn gas supply on at the meter or cylinder. Isolate gas supply, call Rinnai.
Inadequate flue system		•							Call Rinnai.
Insufficient gas pressure		-						-	Call Rinnai.
Log Misalignment									Call Rinnai.
Normal operation		-						-	No action is required.
									Fan not working - fan automatically comes on after
Normal operation									4 minutes not heat switch activated.
Normal operation									Allow heater to warm up.
Heat switch not activated						-			Allow heater to run on high for 4 minutes.
Possible fan fault			Ŏ						Call Rinnai.
Controller display blank									Replace batteries.
Control Panel Operation **									Refer to page 9 for solution.
Controller Not Synchronised									Refer to page 11 for solution.
* Only applicable when optional ren	note	contr	roller	is us	sed.		**(	Only	applicable if the remote controller is programmed.

# WARRANTY & PURCHASE RECORD

# WARRANTY

Warranty does not cover damage caused to the controller by; incorrect, damaged, or leaking batteries.

For full warranty terms and conditions for you remote controller / thermostat refer to the warranty booklet supplied with your Rinnai Sapphire heater.

	NAL RECEIPT MUST BE RETAINED AS PROOF OF PURCHASE.
PURCHASE RECORI	)
Purchased From Company Name:	
Company Address:	
Telephone:	
Mobile Phone:	
Purchase Date:	



# Rinnai Australia Pty. Ltd. ABN 74 005 138 769

### **Head Office**

10-11 Walker Street, Braeside, Victoria 3195 P.O. Box 460 Tel: (03) 9271 6625 Fax: (03) 9271 6622

Rinnai has a Service and Spare Parts network with personnel who are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance requires service, please call our Help Line. Rinnai recommends that this appliance be serviced every 2 years.

#### Internet: www.rinnai.com.au E-mail: enquiry@rinnai.com.au

#### **National Help Lines**

Sales & Service Tel: 1300 555 545\* Fax: 1300 555 655\*

\*Cost of a local call Higher from mobile or public phones.