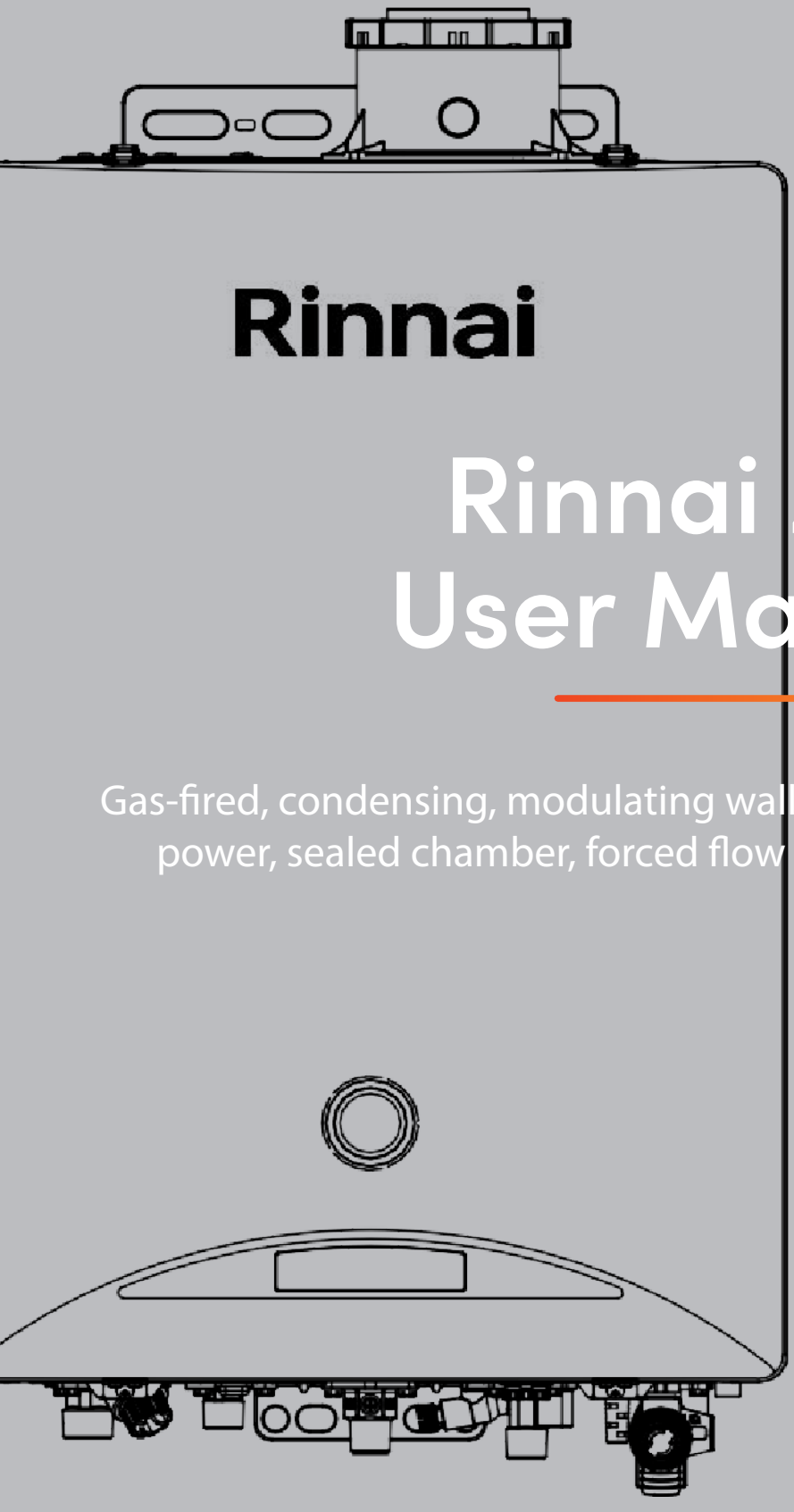
Central Heating
TRADE

by Rinnai



Rinnai Zen User Manual

Gas-fired, condensing, modulating wall-hung boilers with adjustable power, sealed chamber, forced flow with Wifi room thermostat

Download Zen Gas Boiler Commissioning Guide Here

Rinnai

The Rinnai gas-fired combi-boilers are CE certified under Regulation 2016/426/EU and Directive 2014/53/EU.

Zen I24 - ZI24 - REB-KBI2424FF
Zen I34 - ZI34 – REB-KBI3535FF

IMPORTANT SAFETY INFORMATION

Meaning of the symbols used in the manual for important information concerning your safety:

IMPORTANT	Indicates a situation of potential serious danger, to respect and follow carefully.
ATTENTION	Indicates a potentially hazardous situation which, if not avoided, may lead to injury or property damage.
WARNING	Indicates important information.
NOTE	Information on the correct use, installation and operation of the product.
	Indicates a potential condition of serious danger which must be complied.
	Indicates a condition which should be avoided.
	Indicates a ground connection for the prevention of an electric shock.
	Warns of a risk of fire. Keep the area clean and free from flammable materials.
	Warns of a risk of injury or property damage when contacting.

IMPORTANT

The appliance must be installed by qualified personnel only.

It is possible to install Zen boilers in outdoor areas, always open-air and well ventilated, or in partially protected areas (not exposed to direct rain).

It is always mandatory to install an approved exhaust system.

Use the appliance exclusively for the use for which it was designed.

Rinnai boilers from the Zen range have been designed for wall installations only. They are built for domestic or similar uses, for the production of domestic hot water and the heating of water at a temperature lower than that of boiling at atmospheric pressure. They must be electrically powered, connected to a gas, heating and a domestic hot water distribution system suited to their performance and power.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure they do not play with the appliance.
If the supply cord is damaged, it must be replaced by a licensed tradesperson. This must be a genuine replacement part available from Rinnai.
DO NOT:

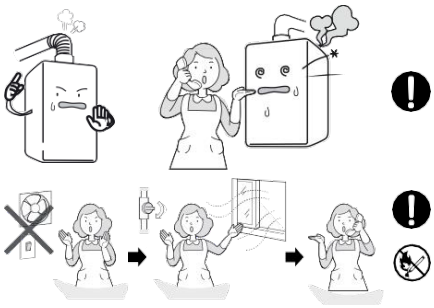
- Touch the unit cover or the flue outlet
- Insert objects into the flue outlet
- Spray water directly into the flue outlet
- Spray aerosols in the vicinity of this appliance while it is operating
- Use or store flammable materials near this appliance
- Place articles on or against the water heater
- Store pool chemicals near this appliance
- Modify this appliance Keep trees, shrubs, and other obstructions well clear of the flue outlet

Only a professional licensed company is authorized to install Rinnai gas appliances. The installation must follow the requirements the Manufacturer's installation instructions, Current AS/NZS 3000, AS/NZS 3500, AS/NZS 5601.1 & G12/AS1 and all other relevant local codes & standards.

Do not make any changes to the appliance: do not attempt to repair, replace components, open sealed parts or disassemble the appliance. Any tampering can lead to risks to health, damage to property, compromise the safety and proper functioning of the product: for any type of repair, modification of settings or maintenance of the product and its accessories, we recommend contacting the Rinnai technical service center.

Use only original Rinnai parts.

If you notice unusual noises, smells or vibrations, stop the appliance immediately and contact CHNZ or your local installation company.

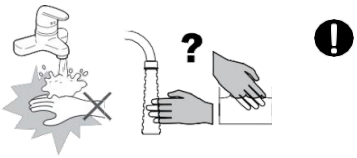


If you smell gas:

- close the main gas tap;
- open doors and windows to ventilate the room;
- contact your technician and wait outside the house.

In the event of an earthquake, fire, gas leaks, noises, stop the gas andelectricity supply and open doors and windows.

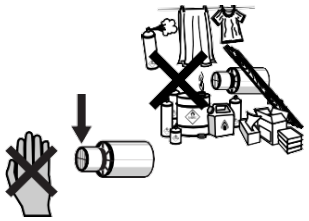
Water temperature over 50°C can cause severe burns instantly or even death from scalding. Hot water at 60°C can severely burn a child in less thana second. At 50°C it takes five minutes. Always test the temperature of the water before any use. To prevent these risks, Rinnai recommends to consider setting your hot water production at a maximum temperature of 50°C. in all cases CHNZ recommends a tempering valve to be installed.



Do not store flammable objects near the appliance: it could cause a productfailure or fire. Do not spray aerosols in the vicinity of this appliance while itis in operation.

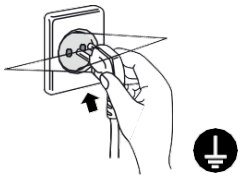
Do not insert objects into the flue outlet. Do not spray water directly into theflue outlet. Keep, trees, shrubs, etc. well clear of the flue outlet. On colder days steam may discharged from the flue outlet. This condition is normal forhigh efficiency appliances and does not indicate a fault.

Do not touch the unit cover or the flue outlet.



Before connecting the mains cable, check that the power supply is suitable:make sure that the electrical system is up to standard and has a good earthconnection; otherwise, the appliance may be damaged or malfunctioning.

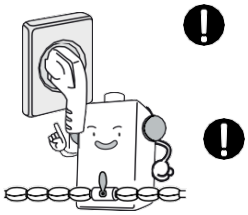
It is not recommended to extend the supplied electrical cable (eg through theuse of extension cords or multiple sockets). In case of damage, replace theelectric cable with an original one. Replacement may only be performed by Rinnai authorized technical personnel.



After installation (or long periods of inactivity) it is advisable to let the hot water run before the use.

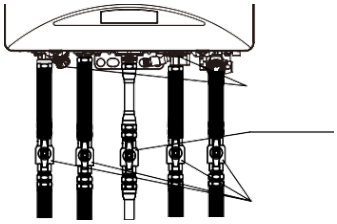
It is recommended the installation of a system to collect and drain water under the appliance in the case of waterleakage to prevent material and property damages.

Frost protection: Make sure that the power cord of the appliance isplugged-in, and the electrical power is always available.



In the event of a power failure the water heater will not operate without electricity. If the power fails water heating will cease. When the power is restored the water flow may need to be stopped and restarted (and a controller, if fitted, switched on) in order for water heating to continue.

The frost protection system activates only when the appliance is electricallypowered. All pipes must be wrapped with insulating materials to prevent heat loss. The thickness of insulation should be between 25mm and 50mm according to outdoor temperatures.



If extremely freezing conditions are expected, turn off water and gas, and drain all water from the appliance. If power and the automatic frost protection are connected, freezing will be prevented. (Anti-frost protection is fitted as standard equipment on all hot water units). If water pipes are frozen, there would not be water flow in the system. Use a heat source (e.g. hair dryer) to unfreeze the frozen components and pipes.

Before using the appliance after defrosting contact the CHNZ service to verify possible damages.

Rinnai, constantly striving to improve the products, reserves the right to modify the details given in this documentation at any time and without notice.

From the time this manual is printed and attached to the product, to the time the product is purchased and installed, the instructions and warnings may have changed: for your interest and your protection we recommend that You follow the instructions and warnings reported on the most recent version of the manual, please visit Central Heating New Zealand's website to obtain this information

Rinnai disclaims any liability due to printing or transcription errors and reserves the right to update and change any technical and commercial lists without prior notice.

Dear Customer, our compliments for having chosen a Rinnai top-quality product, able to assure well-being and safety for a long period of time. As a Rinnai Customer you can also count on a qualified after-sales service to guarantee a constant efficiency of your appliance.

The following pages are very important and contain useful instructions and suggestions on the correct use of Your appliance.

GENERAL ADVICE

Rinnai products are provided with a packaging suitable for transport. The product must be stored in dry environments and protected from bad weather.

This manual is part of the product and must be left to the new user in the case of property change of the appliance. The manual must be kept in a safe place and carefully consulted as all warnings provide important safety instruction for the installation, the use and the maintenance.

This manual contains technical information on how to install the product: for any issue related to the installation, comply with the national and local laws in force and technical standards. According to legislation in force, the systems must be designed by qualified technicians. Installation and maintenance must be performed in compliance with the regulation in force, according to the manufacturer's instructions and by qualified personnel.

An improper installation or assembly of the appliance (components, accessories, kits, etc.) can cause unexpected problems to people, animals and property.

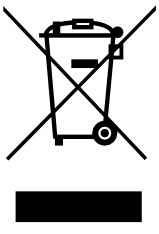
The product must be destined to the use for which it is designed for. Any other use will be considered as improper and therefore potentially dangerous.

In case of any errors in the installation, the use or the maintenance due to non compliance with local regulation, Standards or manufacturer's instructions, the manufacturer is excluded from any contractual and extracontractual liability for any damages and the appliance warranty is invalidated.

The user may not install or adjust the appliance in any way that requires the removal of the front cover of the unit: to remove the front cover of the unit you must be certified competent to do so.

IMPORTANT

According to local laws in force, heating and hot water systems are subject to regular maintenance and regular checking of the heating performance. To comply with these obligations we invite you to contact Central Heating New Zealand.



Information on disposal of the product: the symbol shown here indicates that, according to the laws and local regulations, the product must not be disposed of with household waste. At the end of its life, the appliance must be delivered to a collection point identified by local authorities. The separate collection and recycling of the product at the time of disposal will help conserve natural resources and ensure that it is recycled in order to protect health and the environment.

For further information on regulations related to the installation of the water heater or to find out your closest authorized Rinnai service company you can contact:

CENTRAL HEATING NEW ZEALAND 03 357 1233

WARRANTY

Dear Customer,

Our compliments for having chosen a Rinnai product.

The standard Rinnai warranty does not affect the terms of the legal warranty on customer's good and relates to Rinnai products purchased. This product is warranted via Central Heating New Zealand (CHNZ) for a period of 5 years. Please refer to our terms & conditions for further details including criteria require to meet our warranty and relevant parts covered.

WHAT IS COVERED?

The warranty covers any defects in materials or workmanship when the product is installed and operated according to installation instructions, subject to the terms within this limited warranty document. This warranty applies only to products that are installed by a registered gas engineer. Improper installation may void the warranty. This warranty extends to the original purchaser and subsequent owners, but only while the product remains at the site of the original installation. The warranty only extends through the first installation of the product and terminates if the product is moved or reinstalled at a new location.

WHAT WILL CHNZ DO?

CHNZ will repair or replace the product or any part or component that is defective in materials or workmanship, except as set forth below:

- all repairs must be performed using genuine Rinnai parts.

- all repairs or replacements must be performed by a registered gas engineer.

Replacement of the entire product or replacement of any parts may only be authorised by Rinnai.

CHNZ does not authorise any person or company to assume for it any obligation or liability in connection with the replacement of a product or heat exchanger. If CHNZ determines that repair of a product is not possible, CHNZ will replace the product with a comparable product, at CHNZ's discretion. If a component or product returned to CHNZ isfound to be free of defects in material or workmanship, or damaged by improper installation the warranty claim may be denied.

HOW DO I GET SERVICE?

The system must be serviced annually to ensure warranty applies to the appliance. Please contact the installation company to undertake the service

Proof of date of purchase is required to obtain warranty service. You can show proof of purchase with a dated invoice or by completing and returning the enclosed warranty registration card.

Receipt of warranty registration by Rinnai will constitute proof-of-purchase for this product. However, warranty registration is not necessary in order to validate this warranty.

WHAT IS NOT COVERED?

This warranty does not cover any failures or operating difficulties due to accident, abuse, misuse, alteration, misapplication, acts of God, improper installation, improper maintenance or service, inadequate water quality, scale buildup, freeze damage or for any other causes other than defects in materials or workmanship. This warranty does not apply to any product whose serial number or manufacture date has been defaced.

CHNZ is not liable for any special, incidental, indirect or consequential damages that may arise, including damage toperson or property, loss of use, failure to install drain pan under unit, or any inconvenience. This warranty does not effect your statutory rights as defined by NZ laws.

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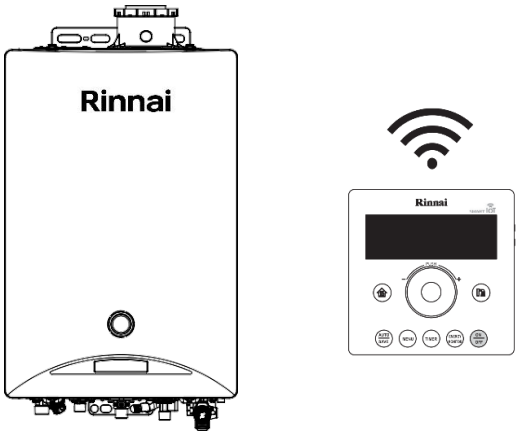
1. USER'S INSTRUCTIONS

The following section shows the instructions for a correct use of the product.
It is intended for the use of qualified technical personnel and of the final user of the product.

1.1 FEATURES AND BENEFITS

Congratulations on purchasing the Rinnai Zen **CONDENSING** gas boiler, with **ADJUSTABLE POWER** (**RANGE RATED**), sealed chamber and forced flow, with **ELECTRONIC CONTROL OF TEMPERATURE** and **WiFi ROOM THERMOSTAT**.



Zen is a **PREMIXED** boiler with "**CONTINUOUS MODULATION ON GAS AND AIR**". It is equipped with a **LOW NOx EMISSION** metal fiber burner: the emission values make it one of the most environmentally friendly products on the market.

The Rinnai *Zen* boiler is a **FORCED FLOW** gas appliance, with **HIGH ENERGY EFFICIENCY**: these features make it extremely compact, guaranteeing considerable space savings and drastically reducing gas consumption.

The *Zen* '*I*' range is supplied with a **WiFi ROOMTHERMOSTAT** as a standard, showing the operating temperatures (heating and DHW), error codes and the advanced boiler regulation functions. By activating the **WiFi FUNCTION** and installing the **application 'Rinnai Boiler NZ '** it is possible to control and manage the main functions directly through your **SMARTPHONE**. The application allows the installation up to a maximum of ten users per command and the management of three different boilers: the whole family can enjoy maximum comfort.

THE NOISE DURING OPERATION IS EXTREMELY LOW.

The *Zen* series is equipped with a **SIPHON CONDENSATE TRAP FILLED WITH A NEUTRALIZER**: you can discharge condensate waste without the fear of damaging the drain or the disposal plant.

It is equipped with a **SAFETY SENSOR FOR EARTHQUAKES**: in case of medium or high seismic events, the boiler automatically isolates itself from the gas supply.

Hot water is exclusively produced in an **INSTANTANEOUS** way: it is not stored in tanks with limited capacity, always source of constant dispersions and high energy consumption.

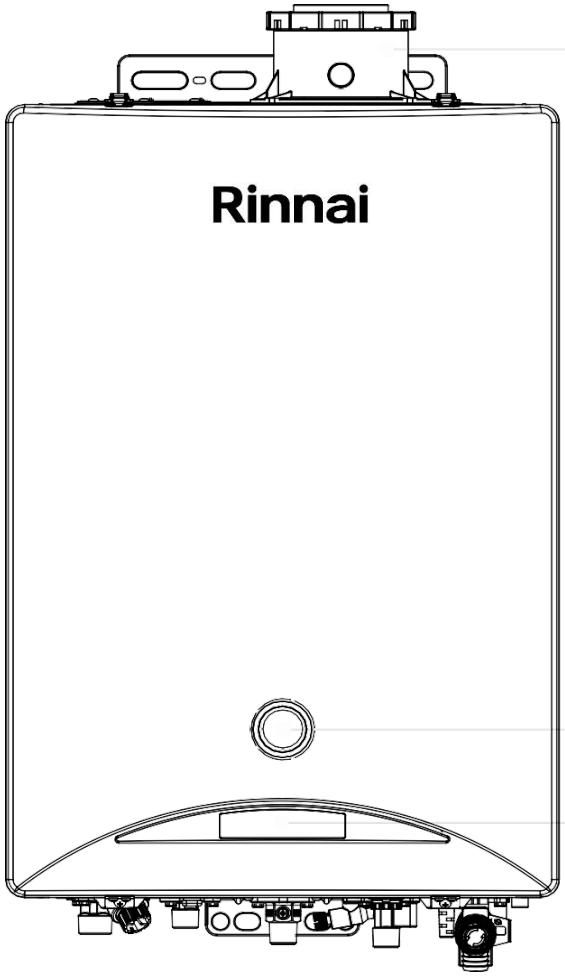
The appliance is equipped with a special safety and comfort function that **CONTROLS THE MAXIMUM TEMPERATURE** of the hot water supplied. The temperature can be adjusted to a precise value: this function is particularly useful when the appliance is installed at the service of children, patients or elderly people. If necessary, the temperature can be modified at will from the control panel (remote control), supplied as standard, to better serve the user. The temperature of the hot water supplied is constantly monitored by several internal sensors. A tempering valve must be installed by your registered gas installer at the hot water outlet.

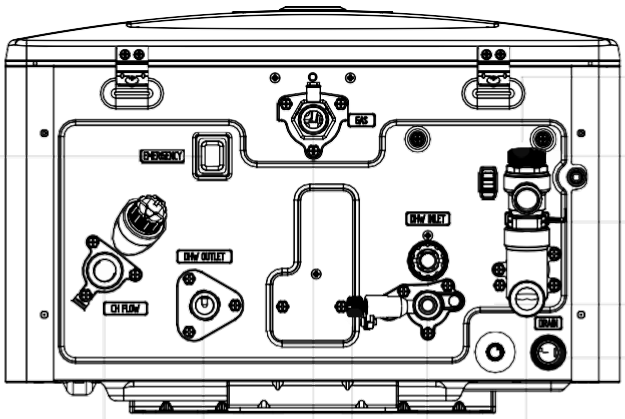
ERROR CODES are displayed on the remote control to facilitate technical assistance: they appear as flashing numeric codes on the display.

The *Zen* boiler range has an **'IP 5' PROTECTION RATING** and can be freely installed in **EXTERNAL ENVIRONMENTS**, directly exposed to weather/environment without additional protection (the correct installation of the flue gas fitting is necessary).

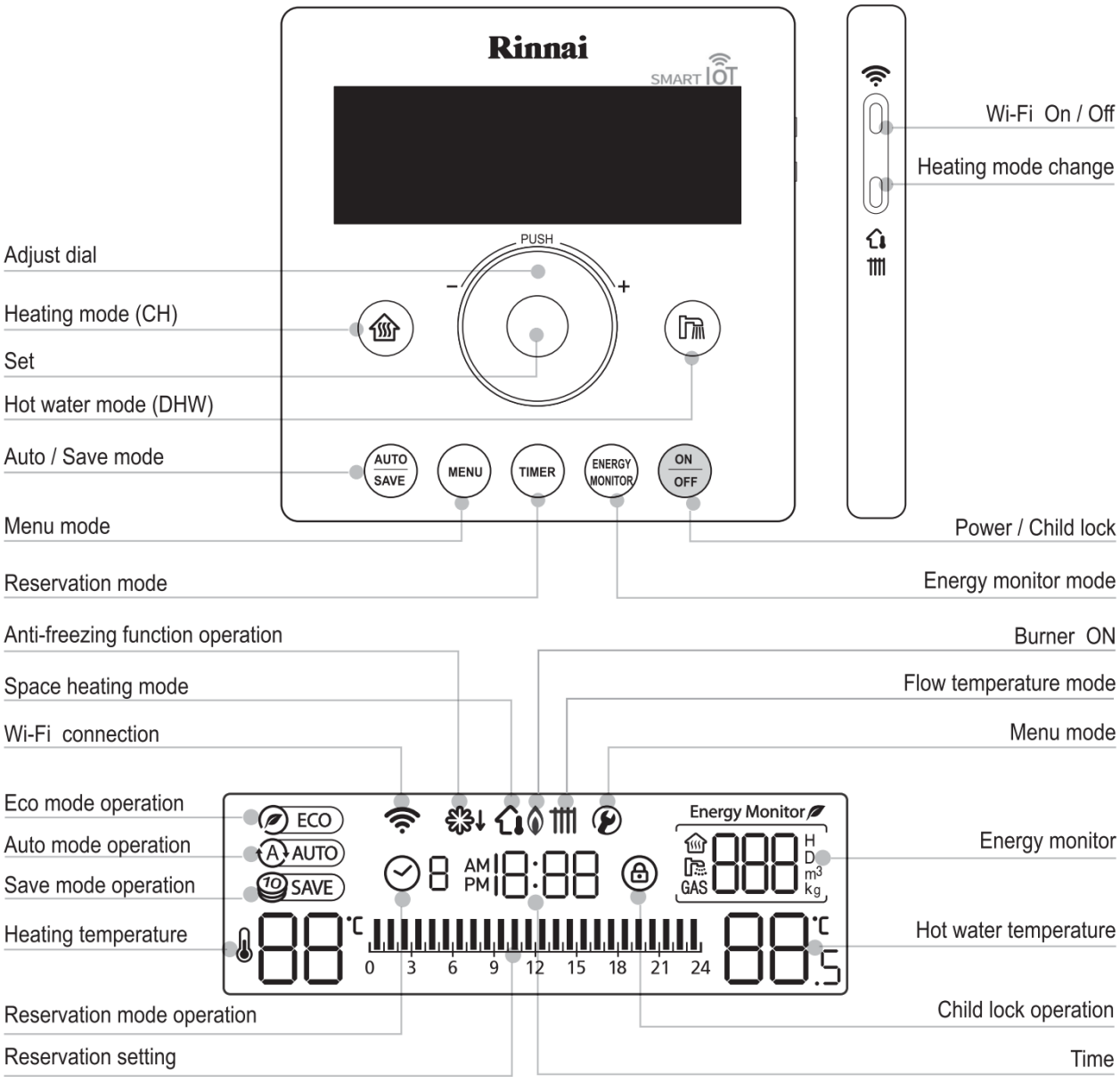
ANTIFROST PROTECTION is included as standard on each model: the appliance is protected down to -20°.

1.2 MAIN COMPONENTS

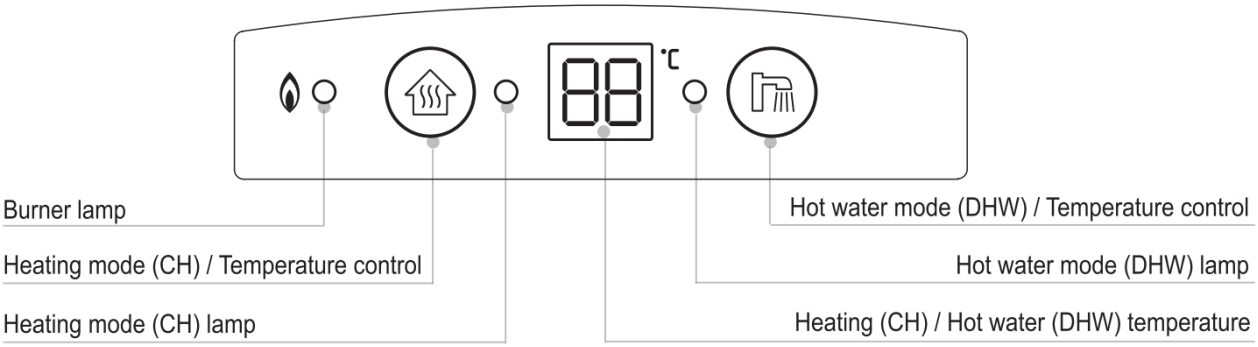




Wi-Fi REMOTE CONTROLLER



BODY CONTROLLER



1.3 OPERATION

Before turning on the boiler, it is advisable to know how it properly works.

The operation of the boiler and the main functions that can be activated are described below.

IMPORTANT

Before using the boiler, make sure that the heating circuit is always filled correctly: when the system is still cold, the pressure gauge on the front panel must indicate a value in the green sector (1.0 ÷ 1.5bar). If necessary, restore the correct value by operating the fill/load tap at the base of the boiler.

When the boiler is electrically connected, an automatic venting program is activated. It can last from 60 to 120 minutes depending on the system. It is necessary to wait until the end of the cycle to allow the expulsion of all the air that was formed in the installation phase (or in the period of non-use). Press a button on the remote control causes the early stop of the venting cycle and can cause problems. A particular noise can be a sign of the presence of air bubbles still circulating in the pipes: unplug the boiler and re-plug it to repeat the venting cycle.

Once the boiler has been installed & commissioned by a registered gas fitter with the controller connected to the boiler we can commence configuration of your heating system. Please note the Rinnai Zen boiler can be operated from the remote controller or via the panel on the boiler.

This basic configuration allows to:

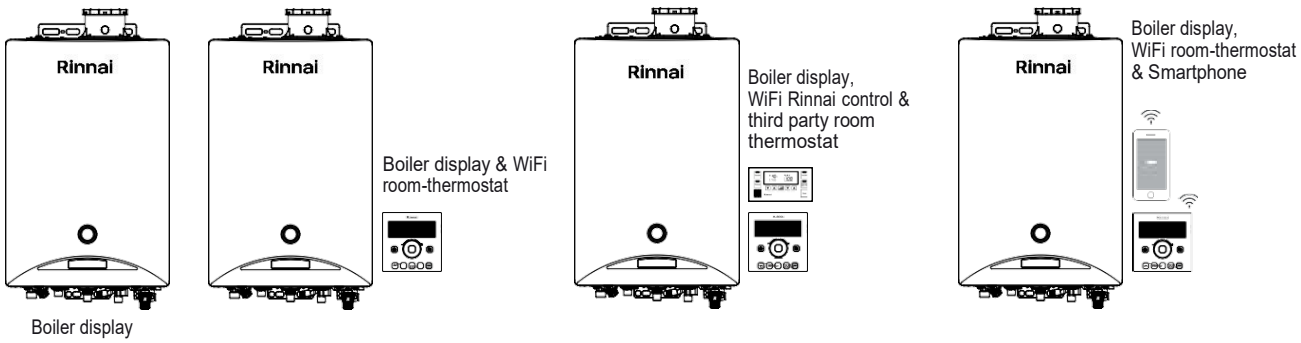
- activate/deactivate the heating mode and adjust the flow temperature of the heating system;
- activate/deactivate the hot water supply, adjusting the temperature of the hot water;
- check for malfunctions and error codes.

A second operation mode is by connecting the Rinnai WiFi thermostat, which is supplied as a standard with the appliance. The main features available are:

- select the heating mode (room temperature or flow temperature mode);
- activate/deactivate the heating mode and adjust the flow temperature of the heating system;
- activate/deactivate the hot water supply, adjusting the temperature of the hot water;
- special functions use (fast heating; hot water pre-heat; Auto mode, Save, Reservation, etc);
- check for malfunctions and error codes;
- monitor the energy consumption;
- adjustment of boiler's operation parameters;
- operation of the boiler through the 'Rinnai Boiler NZ ' app and your own smartphone.

A third operation mode is made by connecting the boiler a third party thermostat in conjunction to the Rinnai WiFi one: in this configuration the Rinnai remote is no more controlling the room temperature, but it can be still used to adjust the hot water temperature. The third party thermostat is in control of the room heating temperature.

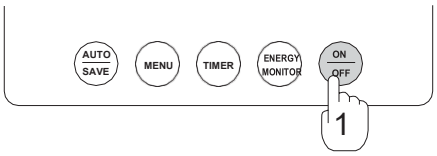
By activating the WiFi mode, the boiler can be operated and programmed by Your own Smartphone through the 'Rinnai Boiler NZ ' application (up to ten users can register and control the boiler). The main functions are all available and always handy; more advanced and more specific ones are available, to manage and program the boiler. The application is equipped with a simple introductory guide that explains its operation quickly and easy. **The specific user manual for the application is available on the Internet site:*www.centralheating.co.nz***



1.4.1 INITIAL SETTINGS

Turn the boiler On/Off

When first operated, by pressing the button (ON/OFF) (1) on the WiFi thermostat:

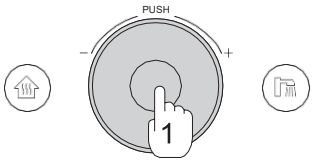


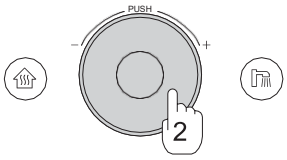
the display lights up, the 'clock' flashes and the boiler can now operate.

If the button (ON/OFF) is pressed during the boiler's operation, the display turns off and the boiler stops operating.

Time setting

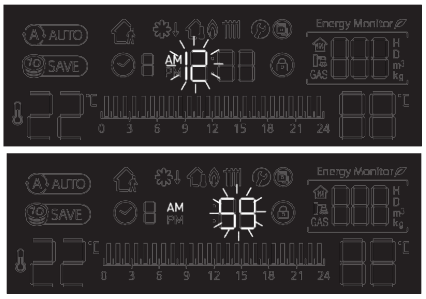
It is possible to adjust the 'time' only when main functions (central heating and hot water heating) are not activated: check that their icons, on the sides of the adjusting dial, are not illuminated. If they are illuminated, it is necessary to deactivate the function by pressing the icon on the panel.





To set the time on the WiFi remote follow the procedure:

- Press and keep pressed for three seconds the adjusting dial (**1**):
  a 'beep' is heard and the 'hour' flashes;
- Rotate the knob to set the desired hour (**2**);
- To confirm the hour, press the knob once (**1**):
  a 'beep' is heard and the 'minute' flashes;
- Rotate the knob to set the desired minute (**2**);
- Press the knob once to confirm the time set (**1**):
  a 'beep' is heard and the 'time' is set.

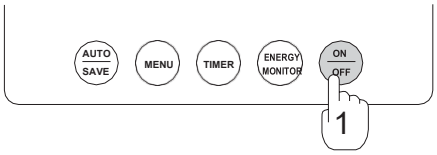


'Child-lock' function

To prevent tampering and to increase the security, the WiFi thermostat is equipped with a 'key lock' function.

To activate the 'Child-lock' function follow the procedure:

- Ensure the thermostat is switched On (press the button (ON/OFF) to switch it On);



- Press and keep pressed the button (ON/OFF) (1) for three seconds:

  a voice prompt is heard and the display shows the icon (lock);

NOTE

To deactivate the lock function it is possible to follow the locking procedure or to keep the heating key pressed for three seconds.

When the key lock function is active:

- **the icon shown on the display flashes when the keys of the thermostat are pressed;**
- **by pressing the button (ON/OFF) the thermostat will not switch Off;**
- **in the case of malfunction, to reset the error code flashing on the display, it is necessary to unlock the thermostat first;**
- **the lock function is active on the WiFi remote only: the boiler display will not be locked.**

1.4.2 HEATING FUNCTION (CH)

The heating function will also be mentioned as **CH**.

Using the Rinnai WiFi room thermostat, it is possible to choose between one of the two heating modes: by pressing the button of fig.1, on the right side of the WiFi thermostat, you select the desired heating mode and the relevant symbol appears on the display. To change the heating mode, it is necessary that the heating function is deactivated (the display must appear empty).

- **'Space-heating' mode**:

the Rinnai remote control is equipped with a temperature sensor that constantly monitors the temperature of the environment in which it is installed.

The boiler mantain the room heated according to the temperature set on the remote control: when the temperature detected in the room is higher/lower than the set temperature, the boiler stops/activates accordingly. The preset temperature is 22°C; it is possible to select temperatures ranging from 5°C to 40°C.

The room thermostat should be installed in an optimum location in the dwelling, typically the hallway.

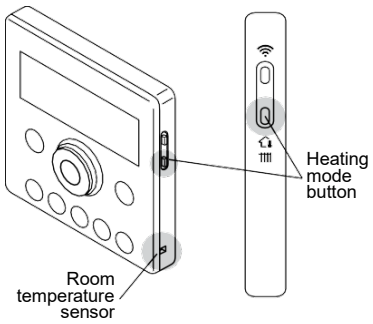


Fig.1

- **'Flow-heating' mode** (default setting):

The Rinnai remote control allows you to adjust the flow temperature of the heating system. When the measured temperature is higher/lower than the set temperature, the boiler stops/activates accordingly. The preset temperature is 55°C; it is possible to select temperatures ranging from 35°C to 80°C. the boiler should be left at the temperatures set by the commissioning installer/engineer.

Heating temperature setting

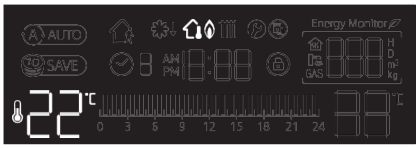
<u>To set the heating temperature follow the procedure</u>:

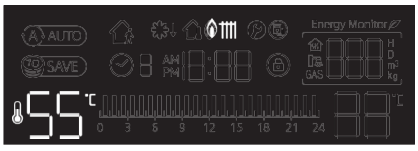
- Press once the heating mode button (**1**):

  a 'beep' is heard and the button lights up; on the display the temperature value previously selected is flashing;

  the boiler fires and the display shows the icon as soon as the burner is on;

  when the set temperature is achieved, the boiler switches the burner off and the icon of the flame is no more displayed.





- Rotate the adjusting dial (**2**) to modify the desired set temperature.

<u>To deactivate the heating function of the boiler follow the procedure:</u>

- Press once the heating mode button (**1**):

  a 'beep' is heard and the button turns off; the display does not show anymore the heating temperature value.

NOTE To verify the real water delivery temperature of the heating system (this may differ from the set temperature) it is necessary to keep the thermostat knob pressed for three seconds: the display shows the real value for ten seconds and then returns to normal display.

During normal operation, the boiler can operate at a pre-set regime which is particularly favorable for the reduction of polluting emissions and fuel consumption; during this operation the boiler operates at its maximum energy efficiency and the green "Eco" symbol shown on the side appears on the display.

1.4.3 DOMESTIC HOT WATER FUNCTION (DHW)

The hot water function will also be mentioned as **DHW**.

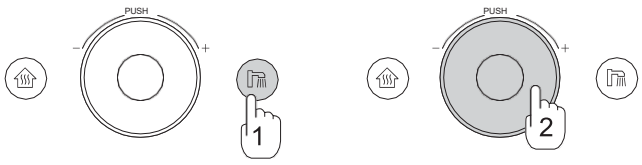
The production of hot water takes place in a direct and instantaneous way: you will never be without hot water as long as electric power, water and gas are guaranteed.

The appliance is equipped with a sensor that keeps the temperature of the supplied water under control: this is source of high comfort and extreme safety for every type of user.

It is always possible to activate the heating mode, during the hot water supply: this function will not be activated until the production of domestic hot water is completed.

It is possible to keep both CH and DHW functions activated but **the boiler always gives priority to the use of DHW mode with respect to CH**.

Hot water temperature setting



To activate and set the hot water temperature follow the procedure:

- Press once the hot water mode button (**1**):
  a 'beep' is heard and the icon lights up; on the display the previously selected temperature value is flashing;
  by opening a tap, the boiler fires and the display shows the icon as soon as the burner is on; the color of the hot water function button's led turns to orange.

- Rotate the adjusting dial (**2**) to modify the desired temperature.

To deactivate the DHW function of the boiler follow the procedure:

- Press once the hot water function button (**1**):
  a 'beep' is heard and the icon stops; the display does not show anymore the hot water temperature value.

ATTENTION

The selectable temperatures may vary between 35°C and 60°C.

For safety reasons, all the taps must be closed before a higher value than 55°C is set. Hot water must not be used during the operation.

In order to reduce gas consumption and to extend the water heater's life, Rinnai suggests to set the device's temperature on the minimum which is more suitable for the intended use. Use hot water on the pre-set temperature, so there is no need to mix it with cold water.

1.4.4 HOT WATER RAPID HEATING AND PRE-HEATING FUNCTION

Rapid heating

The rapid heating function can be used to quickly restore the suitable temperature in a cold environment: the boiler will operate at maximum power for twenty-five minutes, in order to create the right conditions for a sudden rise in temperatures in the installation.

At the end of this time interval, the boiler will go automatically back to the pre-set functioning.

To activate the rapid heating function, perform the following steps:

- Activate the heating mode, by pressing the button ;
- Press again & hold for three seconds:
  the display will show a temperature of 40°C if the boiler is set on the 'room temperature' mode; or 80°C if the boiler is set on the 'flow temperature' mode.

Ambient temperature mode

Flow temperature mode

To deactivate the rapid heating function:

- Turn the dial.

Hot water pre-heating function

The pre-heating function consents to prepare the boiler for the provision of domestic hot water and to benefit of a superior comfort: pre-heat function allows a faster delivery of hot water at the desired temperature shortening the time needed for its production.

When the function is activated, the hot water preparing circuit is immediately raised to the right temperature and mantained hot for thirty minutes (or until first use).

At the end of this time period (or after having used hot water), the boiler stops this function automatically in order to reduce wasted energy and minimize the consumption, then returns to normal operation.

To activate the hot water pre-heating mode, follow the procedure:

- Activate the DHW mode, by pressing the button ;
- Press again for three seconds:
  the symbol (in motion) will appear on the display, replacing the hot water temperature set before.

To deactivate the hot water pre-heating mode:

- Press & hold the button for three seconds.

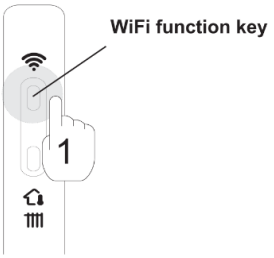
1.4.5 WIFI FUNCTIONS

It is possible to control the boiler through smartphone, by installing the free App 'Rinnai Boiler NZ ' and registering the suppliedWiFi thermostat: the information about the proper installation procedure are provided in the specific paragraph in the end of this handbook .

When the WiFi is on, this symbol will appear on the display

To activate or deactivate the WiFi function:

- Press the button (**1**) on the remote control's side.



1.4.6 AUTO MODE (AUTO)

Auto mode will be also indicated by the abbreviation **AUTO**.

The AUTO mode enables the boiler to adapt the regular flow temperature of the heating circuit to the values of the outdoor ambient temperature, in complete autonomy. The auto mode only works on the heating mode and not on the production of hot domestic water.

The device periodically monitors the external temperature in order to adjust the internal flow temperature by means of a sensor: in the cold seasons, the boiler will be able to adjust the heating circuit's water's temperature proportionally to the outdoor temperature reduction; the other way round, the boiler will lower the indoor temperature to adjust it to the rising outdoor temperature in the warmer seasons.

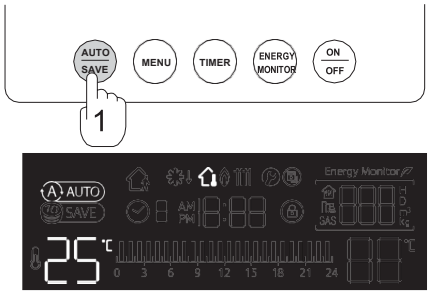
The device works autonomously, adjusting its own functioning to the actual temperatures of the current season. This provides a greater domestic comfort while reducing polluting emissions and fuel consumption.

To activate the AUTO mode, perform the following steps.:

- Press the button AUTO SAVE on the room-thermostat **once** (**1**):

  a light blue symbol will appear on the display A AUTO and the function is activated;

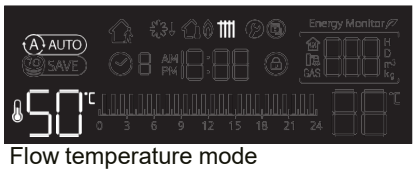
  if the heating mode is active, the display will appear as shown in the figure on the right;



Room temperature mode

To leave the AUTO mode:

- Press once the button AUTO SAVE, or the button .



Flow temperature mode

NOTE

When AUTO mode is on, the boiler will not consent you to modify the heating temperature: this value is entirely automatically managed. AUTO mode has to be disabled to change the temperature.

1.4.7 ENERGY-SAVING MODE (SAVE)

Energy-save mode will also be mentioned as **SAVE**.

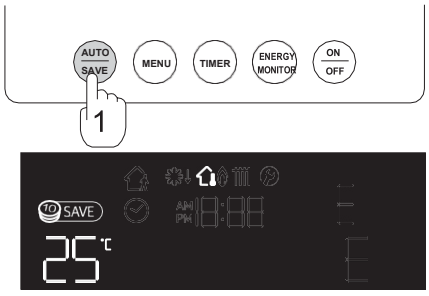
Energy-saving mode exclusively operates on the heating mode and not on the domestic hot water production. When the SAVE mode is on, the boiler modifies the on/off operation of the burner. IN SAVE mode, the upper temperature settings that the controller can be set to are limited (in order to reduce energy consumption). So the maximum selectable room temperature shall be 20°C and the maximum flow temperature shall be limited to 60°C.

To activate SAVE mode, perform the following steps:

- Press the button AUTO SAVE on the thermostat **twice** (**1**):

  the light blue symbol SAVE will appear on the display and the mode will be activated;

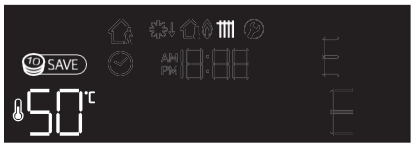
  if the heating mode is active, the display will appear as shown in the figure on the right;



Room temperature mode

To deactivate the SAVE mode:

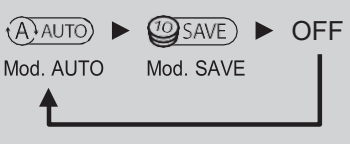
Press the button AUTO SAVE once, or the button



Flow temperature mode

NOTE

Press the button AUTO SAVE more than once and scroll through the AUTO and SAVE functions as shown in the scheme:



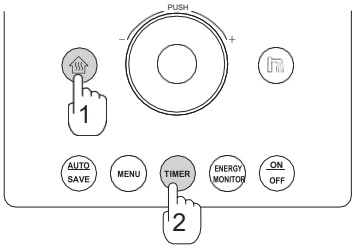
1.4.8 RESERVATION MODE (RESERVATION)

The functioning of the 'reservation mode' will also be mentioned as **RESERVATION**.

The Rinnai Wifi's thermostat consents you to set time slots for the heating mode every day. It is possible to program the favourite time slots during which the boiler must maintain a comfortable temperature and those during which it is allowed to reduce the temperature (night time or whenever nobody is at home).

The specific time reservation works both in 'room temperature' mode and in 'flow temperature' mode and works exclusively on the heating mode but not on the domestic hot water production.

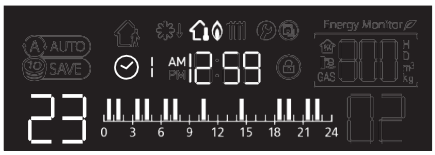
To activate and program the RESERVATION mode, perform the following steps.:



- set the intended time on the thermostat (see **par. 1.4.1**)
- Press button (**1**);
- Press button TIMER once (**2**):
  the icon 1 flashes on the display, meaning that the specific time

  The first time schedule of the RESERVATION mode has been activated;
- Press button TIMER several times to select the intended time slot:

1 ▶ 2 ▶ 3 ▶ 4 ▶ 5 ▶ OFF



  The programs from number one to three are predefined and cannot be modified, while the specific time programs number four and five can be personalized;
- to confirm the selection of the intended time in the program wait a few seconds: the icon of the intended specifics time slots will stop blinking.
- The specific time reservation will be completed by defining the temperatures **T1** (daytime) and **T2** (reduced) in the **menu A** (**parameters 6** and **7**) of the thermostat functions (see **par. 1.4.9**):

  the temperature T1 is used by the boiler during the intended and selected specific times (highlighted in orange in the time slot); but the temperature T2 is used during the unselected time slots.

To exit RESERVATION mode during the operation:

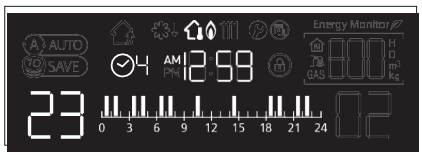
- Press the button TIMER: the boiler will go back to normal operation.

By re-activating RESERVATION mode, the system will re-open the previously selected program.

Personalizing the reservation mode

Only the programs four and five can be personalized. The use of '**RINNAI BOILER NZ'** application allows to select a more detailed time slots programming schedule.

To select the time slots, perform the following steps:



- Press button TIMER until it is possible to select a program 4 o 5;
- Turn the dial (**1**) and drag the orange flashing selector of the hour bar on the intended time;
- Press the dial (**2**) to confirm the selection of the intended time;
- Repeat the previous operations until you have completed the intended pattern;
- The reservation is completed when temperature **T1** (daytime) e **T2** (reduced) are defined in the **menu A** (**parameterss 6** and **7**) of the thermostat functions (see **par. 1.4.8**):
  the boiler uses temperature T1 in correspondence to the selected time slots (highlighted in orange in the time schedule); the temperature T2 is used during the unselected time slots.

1.4.9 PARAMETERS MENU

Rinnai WiFi thermostat allows the user to benefit from a great variety of parameters related to the boiler functioning. It provides important details on how to operator controller and assist with troubleshooting in the event of a fault.

IMPORTANT

For safety reasons, Rinnai suggests not to modify the parameter menus without having fully understood the meaning of the parameters themselves and their possible consequences on the boiler.

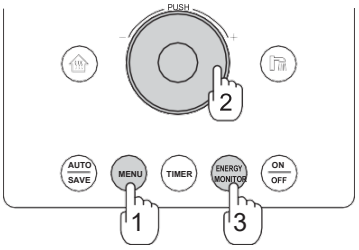
If in doubt, Please contact your local registered installer or CHNZ should you require assistance with the instructions in this section

Parameters are grouped by type and sub-divided in sub-menus:

Menu A ► B ► C ► D ► Exit

Menu A	Boiler and thermostat settings
Menu B	Services and maintenance
Menu C	Faulty History Mode
Menu D	Information

To enter and select the parameters menu, perform the following steps:



- press the button (MENU) (**1**);
- the following icons will appear on the WiFi thermostat:
  - - means that you have entered in the parameters menu;
  - A - indicates the selected menu: 'menu A';
  - 01 - indicates the visualized parameters: 'parameter 01';
  - 00 02 - indicates the value of the visualized parameters: '02'.
- press the button (MENU) several times to change menu:

the A menu and the B menu are accessible only if the heating (CH) and hot water (DHW) functions are deactivated.

By turning the dial (**2**) it is possible to change the parameter (or its value): the icon will be lit up.

By pressing the dial (**2**) it is possible to confirm the selection of the parameter (or its value): the icon is not blinking.

To exit the parameters menu is necessary to press the button (MENU) (**1**) more than once.

NOTE

After 20 seconds of inaction, the parameters menu will be automatically closed and the display will go back to its normal operating state.

Not to exit the parameters menu and to keep it forced active (for five minutes), press (ENERGY MONITOR): the symbol Ho (hold) will show up on the display.

Parameters of A menu

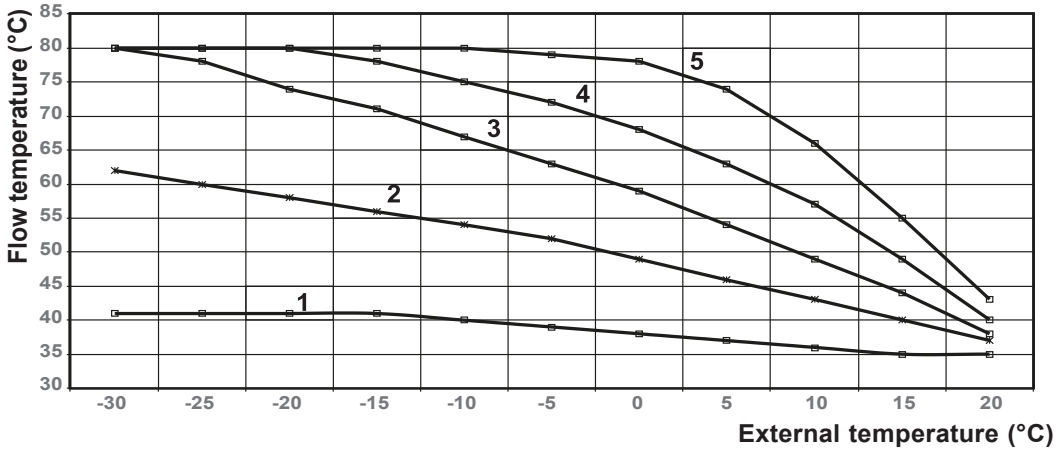
The A menu groups all the parameters concerning the thermostat settings and the boiler programming:

Nr par.	Parameter	Values	Parameter's description	Initial value
1	Thermostat language	EN, IT, ES	EN: English; IT: Italian; ES: Spanish.	EN
2	Loudspeaker volume	0~5 (OFF, 1~5)	Modifies the volume of the vocal messages of the thermostat.	3
3	Keyboard sounds	ON/OFF	Activates or deactivates the sounds of the buttons.	ON
4	Antifreeze signal / errors	ON/OFF	Acoustic alarm notifications for anti-frost and boiler functioning errors.	ON

Nr par.	Parameter	Values	Description parameter	Initial Value
5	Led brightness	1~3	Modifies the brightness of led CH e DHW.	2
6	Temperature T1 (daytime)	35~80°C 5~40°C	Programming of daytime temperature of thermostat.	75°C 21°C
7	Temperature T2 (reduced)	35~80°C 5~40°C	Programming of reduced temperature of thermostat.	55°C 16°C
8	Limit of maximum discharge temperature	35~80°C	Limits the max. flow temperature that the boiler can reach, in every kind of functioning/mode/function.	80°C
9	Climatic curve	1~5	Activated during AUTO mode, selects the climatic curve.	4
10	Climatic curve translation	-10~10°C	Transfers the values of the preselected climatic curve.	0°C
11	Compensation temp. thermostat	-10~10°C	Modifies the perceived temperature by the room thermostat.	0°C
12	Compensation temp. outer sensor	-15~15°C	Modifies the external temperature detected by an outer sensor.	0°C
13	Burner ignition delay	OFF, 1~50	It enables the boiler to delay the ignition of the burner to a max. of 500 seconds to assist slow opening zone valves or reduce short cycling issues Value x10 = delay	OFF
14	Frequence re-ignition CH	1~5	Modifies the 'OFF *forced stationary*' state of the burner, between two consecutive ignitions. Low value = longer waiting time	5
15	Positioning of the climatic sensor	OU/In	Defines the environment in which the climatic sensor has been installed: the sensor is pre-installed in the boiler (In), but it can be extended outside (OU).	In
16	Booster of delayed temperature CH	ON/OFF	In 'room temperature' mode, the flow temperature of the boiler changes when the differences between the pre-set temperature and the temperature detected by the thermostat changes. with this parameter, the flow temperature is incremented with respect to its normal value.	OFF
0	Reset parameters menu A	- -	The A menu's parameters are brought back to the initial settings.	- -

Climatic curves

The climatic curves (numbered from one to five), concerning **parameter 9** from **A menu are shown below**:



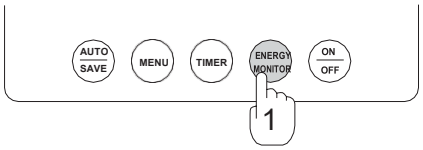
1.4.10 ENERGY MONITOR

The Energy monitor of the WiFi thermostat consents to monitor some boiler's parameters concerning the storage time of the main CH and DHW modes and gas consumption.

The monitor shows values that can change depending on the usage of the boiler, on the season and the gas pressure. If other gas-driven devices are installed, the values on the monitor may be different from the values detected by the direct reading of the gas meter.

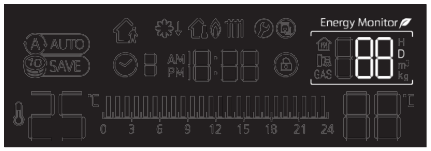
To use the Energy monitor follow the procedure:

- Press the button (ENERGY MONITOR) (**1**). Energy monitor will appear on the display :



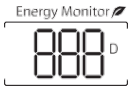
- Press the button (ENERGY MONITOR) (**1**) repeatedly to cycle through the parameters :

Days of use ▶ Hours CH ▶ Hours DHW ▶ Gas consumption ▶ OFF

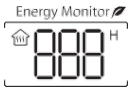


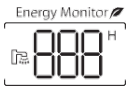
The figures on the Energy monitor can be cancelled by pressing & holding the button (ENERGY MONITOR) (**1**) for three seconds.

The menus of the Energy monitor will appear on the display:

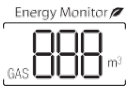


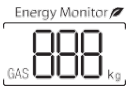
Days of use





Hours of burner ignition in:
heating (CH);
hot water production (DHW)





Gas consumption:
methane and propaned air in m^3;
LPG and propane in Kg

1.4.11 ANTIFROST PROTECTION

The boiler is equipped with an automatic anti-frost mode that protects the heating circuit from the cold temperatures, together with the circuit that produces hot domestic water for the device.

If the heating circuit temperature drops to 6°C (or the temperature in the boiler's location drops to 3°C), a first level of protection activates a pump. This operation makes the water flow through the heating circuit and through the domestic water circuit.

If the heating circuit's temperature falls below 5°C, a second level of protection also activates the boiler, for a maximum of 60sec. (or until the temperature in the circuit get back to 55°C for 2 sec. at least)

If the heating circuit temperature falls to 2°C (or the temperature in the environment where the boiler is installed falls to 5°C), electrical resistors are activated to protect the domestic water circuit only.

IMPORTANT

The symbol ❄↓ (fixed) is showed on the display of the thermostat when antifrost electrical resistances are activated.

When the boiler activates the circulating pump or briefly turns on the burner, the symbol ❄↓ starts blinking on the display.

If temperature drops below 0°C, the thermostat warns the customers by making beeping noises on an hourly basis: in such a situation, the boiler may freeze, getting irreparably damaged; it is recommended to improve its isolation condition and to provide more antifrost protection.

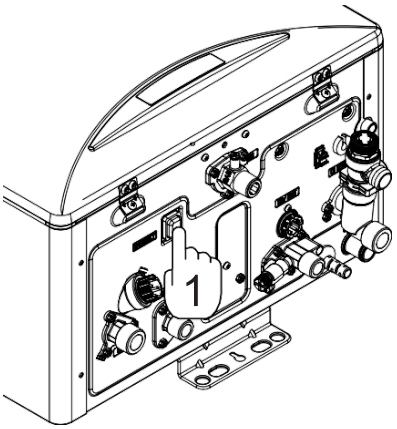
In conditions of normal operation, the boiler is protected until -20°C: only if the device is appropriately powered with proper gas flow and electrically powered, if the boiler is constantly powered and turned on, the boiler is not blocked and the appliance is not damaged. Particular attention to the condensate drainage system is required in order to protect it from freezing.

If the device is in danger of freezing because of very low temperatures, it should not be used during extended periods. It is recommended to make it safe by draining the boiler completely.

Frost/freezing damages are not covered by the guarantee.

1.4.12 EMERGENCY BUTTON

The boiler is equipped with an 'emergency button', which is situated at the base of the boiler casing, the use of which consents to use the boiler in critical conditions, within the proper limits.



If the WiFi thermostat is malfunctioning, it is possible to start the device and make it work as follows:

- discharge temperature of the heating installation to 52°C;
- domestic hot water temperature to 40°C.

It is not recommended to use the emergency button under normal conditions.

You can turn on the emergency switch if Rinnai thermostat is broken, so that you don't find yourself with no heating and domestic hot water. Call your local gas registered installer and/or CHNZ in order to repair or replace the appliance.

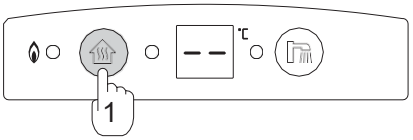
1.4.13 BOILER DISPLAY (INTEGRATED CONTROL PANEL)

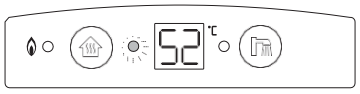
The boiler is equipped with an integrated control panel at the bottom of the front panel on the boiler. The Boiler display functioning instructions are described below.

Heating function (CH)

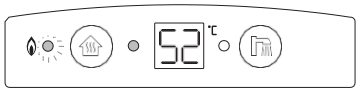
Press the button to activate the heating function(1):

The boiler display LED will light up. They indicate that:





- The heating mode is activated;



- The boiler's burner is on.

Press repeatedly the button to raise the temperature up until the display shows the intended temperature. To deactivate the heating mode, hold down the button for a few seconds.

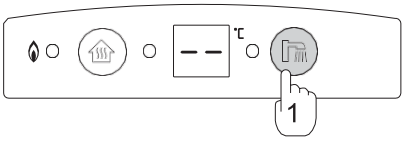
When the WiFi thermostat is connected and the boiler works in room temperature mode, it will not be possible to modify the flow temperature. This symbol will appear on the Boiler display: .

The display shows the selected discharge temperature: To see the 'actual' flow temperature, keep pressed the button for a second. The display will show the discharge temperature, temporarily (10 seconds).

Domestic hot water function (DHW)

To activate the domestic hot water function, press button (1):

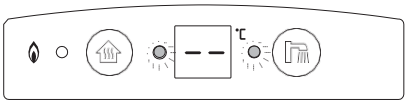
The DHW function is handled in a similar manner to the CH mode which was previously described. The LEDs have the same meaning.



Antifrost function - Boiler display

If the temperature in the boiler drops to 0°C, antifrost mode is activated.

The LEDs of CH and DHW modes will start blinking (until the alarm isdeactivated). The Boiler display will emit a repeated noise, every hour.



The acoustic alarm ceases when the boiler activates the burner, in order to avoid freezing. The LEDs will keep on blinking.

1.4 TROUBLESHOOTING

When the boiler does not work properly, it is possible to consult the following suggestions to detect and solve some common problems without technical aid:

Problem	Possible cause	Suggestion
If you smell gas	1. Stop the boiler and gas immediately. Open all the windows and doors. 2. Do not try to use any appliances: you may cause an explosion. 3. Contact your gas supplier. Periodically check the valve of the gas pipes /shut-off valve to ensure that there is no leakage.	
If you smell exhaust gas	1. Check the flue system searching for possible obstructions, disconnections or damages.	1. Stop the boiler immediately and contact CHNZ or your local registered gas installer/service person.
Ignition failure	1. Is there power to the boiler? 2. Is the set temperature lower than the current temperature? 3. Is the error code 11 shown on the display? 4. Is there gas supply to the boiler?	1. Confirm power supply to the boiler 2. Check that the set temperature on the display is higher than the current temperature. 3. Turn off the boiler, and turn it on again. 4. Open the gas supply valve.
Noise	1. Is the boiler well attached to the wall? 2. Is the noise from the air inlet/exha. pipe? 3. Does the noise come from hydraulic circuit?	1. Attach the boiler in the right way. 2. Call Rinnai service to check the flue system. 3. Remove air from the pipes opening the manual drain point.
The room is not hot enough	1. Is the CH mode on? 2. Is the set temperature too low? 3. Is the reservation mode/ outgoing mode on? 4. Is the hot domestic water being used? 5. Is the heating valve closed? 6. Is the remote control ON? 7. Is the CH return filter blocked? 8. Is there air in the pipes?	1. Press button CH on the remote control. 2. Adjust the heating temperature. 3. Adjust the period or cancel the outgoing mode. 4. Stop using domestic hot water. 5. Open the closed heating valves. 6. Connect the remote controller and adjust CH. 7. Clean the CH return filter. 8. Open the manual air drain point to remove air.
There is no hot water	1. Is DHW mode active? 2. Is there water supply to the boiler? 3. Is water pressure too low? 4. Is the water supply valve for cold water open?	1. Press the button DHW on the remote control. 2. Wait for the water supply availability. 3. If the cold water flow is lower than 2,3lit/min Or system pressure is low, the boiler will not operate 4. Open the valve.
The domestic hotwater is not hot enough	1. Is hot water temp. set too low? 2. Is hot water used in several places? 3. Is hot water mixed too much with cold water?	1. Adjust hot water temperature with the remote controller 2. When the hot water is used in several places the volume of the hot water decreases. 3. Adjust the amount of cold water used.

1.5.1 ERROR CODES

Rinnai products are equipped with a self-diagnostic system: in case of malfunctioning, a numerical error code appears on the control panel's display and starts blinking. This function will be useful to diagnose the problem and understand what possibly caused it. It consents to avoid, where possible, the external intervention of a registered gas installer or contact CHNZ. Take note of the blinking error code before performing maintenance request.

To restore the normal functioning of the device, it is necessary to keep pressed the button for a few seconds. In case the error remain, ask for CHNZ authorized technical assistance center.

Reset = press on/off button for few seconds

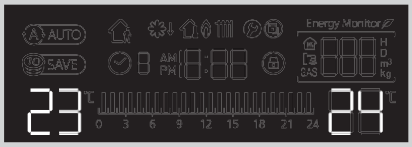
Error	Function	Possible cause	Suggestion
Fail 1,2	CH / DHW	Room thermostat or WiFi communication problem occurred	- If the same symptom occurs, please contact our service center for inspection.
Fail 3,4,6	CH / DHW	Error related to wireless router password, Internet connection status, and wireless router security settings	1. Check the password of the wireless router and the internet connection status of the wireless router. 2. Check the wireless router Internet security settings (WPA, WPA2).
Fail 5	CH / DHW	After 10 minutes in registration mode	Complete the room thermostat user registration within 10 minutes.
02	CH / DHW	Repeat Reset Problems	1. Unplug the power cord and reconnect. 2. If the same symptom occurs, please contact the official AS center.
07	DHW	Continue use of domestic hot water (>8h)	- Stop the domestic hot use and press the button DHW to reactivate the function; - If no one is using hot water, you could have a leak in your pipework: call a technician.
11	CH / DHW	Burner flame not detected	- Verify that the gas safety valve is open; - Press the button CH twice to deactivate the heating function and to re-activate it.
12	CH / DHW	Unusual extinguishing of the burner	- Verify the gas supply (turn on other gas utilities); - Contact the your local registered installer or CHNZ.
14	CH / DHW	Overheating, safety circuit's failure	- Turn off the boiler for at least 30 minutes; press the button CH or DHW. If the code remains, please contact immediately the Rinnai technical assistance service.
15	CH / DHW	Problem of water circulation in the hydraulic system (water pressure)	- Check the boiler's hydraulic feeding (water pressure); - Check that the plumbing pipe are not frozen ; - Verify the presence of air in the hydraulic circuit: disconnect the electric cable and reactivate the boiler (the de-aerating function will be repeated).
16	CH / DHW	Overheating CH	- Verify that at least a thermostatic valve is open; - Vent the air in the heating circuit; - Clean return line filter of CH.
18	CH / DHW	Earth not detected	- Contact CHNZ
19	CH / DHW	High temperature of exhaust	- Contact CHNZ
20	CH / DHW	Wrong setting of the microswitches on PCB	- Contact CHNZ
23	CH / DHW	Earthquake alarm	
31	CH / DHW	CH flow temperature thermistor failure	- Press button CH (or DHW) twice to deactivate and activate the function : if the code reappears call the Rinnai technical assistance service
32	CH / DHW	External temperature thermistor failure (external sensor)	- Press the button CH (or DHW) twice to deactivate and activate the function: if the code reappears call the Rinnai technical assistance service.
34	DHW	Hot water thermistor failure	- Press the button DHW twice to deactivate and activate the function: if the code reappears call the Rinnai technical assistance service.
35	CH	Room thermostat failure (Rinnai remote control)	- Contact CHNZ
36	CH / DHW	Antifrost prevention/ thermistor failure	- Press the button DHW twice to deactivate and activate the function: if the code reappears call the Rinnai technical assistance center.

Fault	Function	Possible cause	Suggestion
37	CH & DHW	CH return temperature thermistor malfunction	- Contact CHNZ
38	CH & DHW	Exhaust temperature thermistor malfunction	- Contact CHNZ
43	CH & DHW	Low pression of the CH hydraulic circuit	- Check the pressure gauge placed on the frontal panel and follow the filling instruction.
45	CH & DHW	Drain system blocked (siphon full)	- Check if the condensation drain system is obstructed.
61	CH & DHW	Combustion fan failure	- Verify that the exhaust system is not obstructed. - Turn off/on the boiler : if the error code remains, please contact CHNZ.
64	CH & DHW	Circulation pump failure	- Contact CHNZ
70	CH & DHW	Fault of PCB	- Contact CHNZ
71	CH & DHW	Solenoid gas valve failure	- Press the button CH (or DHW) twice to turn off and on the function. - If the error code remains, please contact CHNZ
72	CH & DHW	Water's missing	- Press the button CH (or DHW) twice to turn off and on the function. - If the error code remains, please contact CHNZ
89	POWER SUPPLY	Freezing	- Contact CHNZ
90	CH & DHW	Abnormal rotation of combustion fan	- Reset by turning the boiler on and off twice.
96	FUNCTION TEST.	Problem on internal test of CH & DHW modes	- Check the DHW/CH taps below the boiler are open; - Disconnect and reconnect the power cable to repeat the test procedure.
99	CH & DHW	Obstruction of the flue system	- Check and clean the flue pipes. - Contact CHNZ.

IMPORTANT

You can see the error code blinking on the Boiler display display.

On the Rinnai WiFi thermostat you can see both the error (on the left) and the boiler model (on the right):



(Error code) (Boiler's model)

Display	Model
24	REB-KBI2424FF
35	REB-KBI3535FF

It is necessary to hold down the button ON/OFF for a few seconds to restore the boiler's normal functioning and cancel the error.

If the error code persists, please call the authorised personnel from Rinnai.

1.5 MAINTENANCE

IMPORTANT

Annual specific maintenance is required in order to preserve the boiler's entirety and to maintain safety, performance and reliability characteristics unchanged: always contact your Rinnai authorised technical assistance center.

The control panel and the appliance must be repaired and maintained only by the specialized and authorised technical personnel of Rinnai: no partial or full repair by private household that requires the opening of the device's frontal panel is allowed.

The spare parts used for the maintenance must be original Rinnai parts.

It is recommended to take note of the boiler's model and the serial number before contacting CHNZ: this information will help us to understand the matter quickly and to ensure thebest possible service.

The appliance must be clean.

The boiler must be electrically isolated and the gas valve closed before every kind of maintenance or cleaning can be performed.

Clean the outer boiler's case and the remote control with a non aggressive detergent and a soft cloth . Do not use solvents or detergents.

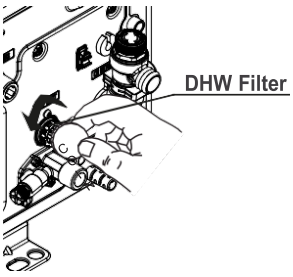
The boiler must be serviced annually by a registered gas installer. The maintenance work noted on this page is not equivalent to a service

Cleaning the domestic water filter

The boiler has a mesh filter situated on the inlet connection of the cold water. This filter requires occasional cleaning: the frequency is determined by the quantity of water used by the boiler system. The customers can clean this filter independently and regularly, to ensure the boiler runs efficiently and avoid potential blockages to the heat source.

To clean the filter:

- electrically isolate the boiler, unplugging it from the main;
- close the water valves;
- open the tap (hot water) and drain the circuit;
- unscrew the mesh filter taking care not to damage it;
- clean it by washing it with cold water;
- reassemble and follow the same procedure backwards.



When the filter is dirty or clogged by debris, the entire performance is reduced.

Name of the product		Rinnai WiFi thermostat
Name of the type		WF-P100W_EU
Installation		Wall clamping
Dimensions (mm)		120 (A) x 120 (L) x 16.6 (P)
Weight (gr)		237 (Remote control only)
		460 (With packaging)
Power supply		DC 12V
Temperature regulation	CH	Heating at flow temperature: 35~80 ℃/ Room temperature : 5~40 ℃
	DHW	35 ~ 47℃ adjusted from 1°C and higher than 50°C is adjusted to 50,55, 60°C
Energy consumption (W)		3.5 (Remote control only)
Energy consumption in Stand-by (W)		0.5 (Remote control only)
Frequence range		2412-2472 MHz
Max conveyed capacity		16.95 dBm
Antenna type		PCB Pattern Antenna
Modulation		DSSS. OFDM
Functioning modulation		Duplex
WiFi		IEEE 802.11b/g/n, 2.4GHz
Communication		Network WiFi 2.4GHz with safety protocol WPA, WPA2
Operating temperature		-20℃ / 70℃
Builder		**Rinnai Korea Corporation** 48, BAEKBEOM-RO 577BEON-GIL, BUPYEONG-GU, INCHEON, KOREA Tel. +82-32-570-8300 Fax. +82-32-578-7024 www.rinnai.co.kr

1.7 ‘RINNAI BOILER NZ’ APPLICATION

Installed the free application ‘Rinnai Boiler NZ’, downloadable from the main app stores, Zen is equipped with a WiFi thermostat that allows users to manage the main functions and to program the boiler directly from their smartphones. **The specific application manual can be found on the website: *www.centralheating.co.nz***

The following is the main information for a correct installation of the application.

NOTE

Installation notes

The use of the ‘Rinnai Boiler NZ’ application together with the WiFi Rinnai remote control is only possible in the
presence of a wireless router.

If the connection between the remote command and the Rinnai server is lost due to problems related to the Internet connection, the router or due to other external causes, the smartphone application may not work properly.

Router related notes

This product only supports DHCP (Dynamic Host Configuration Protocol). If you want to use an existing router, DHCP must be selected.

Channels 1 - 13 are available for connection.

The remote control supports WPA and WPA2 authentication protocols, while it does not support WEP and other non-standard authentication methods.

The quality of the connection can be influenced by the presence of electromagnetic interference.

Some router models can communicate a fictitious DNS address even if they are not connected to the Internet; as a consequence, the WiFi connectivity symbol is still displayed on the remote control display: for information contact the router manufacturer.

The router must support the 2.4Ghz frequency to be compatible with the Rinnai WiFi command.

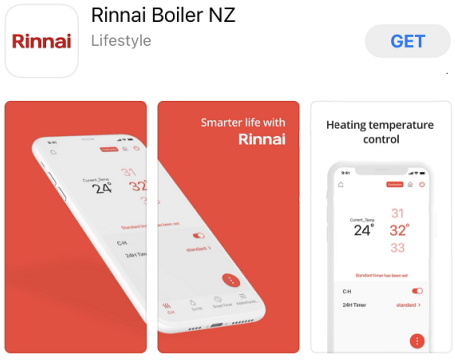
The WiFi Rinnai remote control supports the IEEE802.11.b communication protocol: check that the router supports this protocol before proceeding with the installation.

The Rinnai Wi-Fi remote control does not support network connections whose names contain special characters.

Download the application for smartphone

The application can be downloaded from ‘Play Store’ or from the ‘iPhone App Store’, by entering the keywords ‘Rinnai Boiler NZ’ in the search field: the application is optimized for iOS and Android systems.

The application is optimized for smartphones: it may not work properly if used on different devices (e.g .: tablet).



How to register (for Android users)

If the GPS function of the smart phone is switched off during the registration procedure the GPS Notifications will not be available.

Register the user of the IoT boiler.

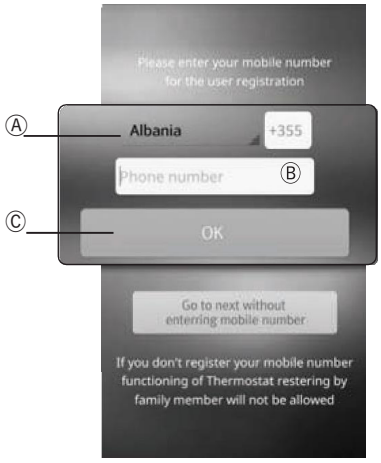
Enable Wi-Fi connection on your device.

1 - Run the application.

2 - Read the terms of agreement of Rinnai app, select Ⓐ(Agree), and press Ⓑ(OK) button.

3 - Enter Ⓐ(Country), Ⓑ(Phone number) and press Ⓒ(OK) button.

- However, when 'Proceed without entering phone number' is selected, you can enter user information on the following page without entering phone number.

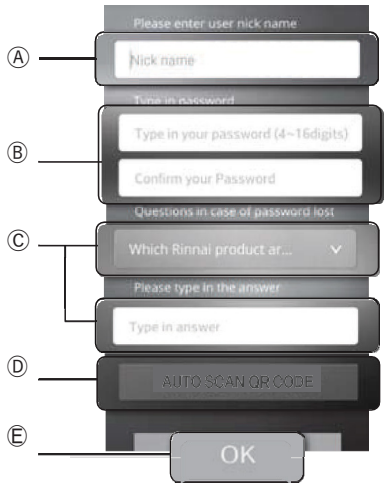


How to register(for Android users)

4 - Enter Ⓐ(User nickname), Ⓑ(Password), Ⓒ (Question and answer to find lost password), and press Ⓓ to scan the boiler QR code, then press Ⓔ(OK).

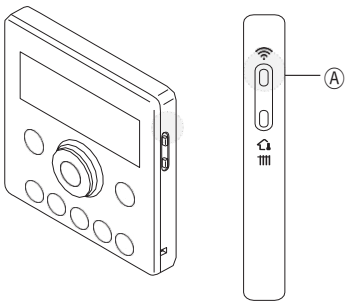
- After pressing the button Ⓓ check the informations collected through QR code: in particular verify the type of gas used. In case it is required, proceed with a manual introduction of data.

※Password must be at least 4 characters long.



5 - Press Ⓐ(Wi-Fi) button of temperature controller for 3 seconds to enter registration mode.

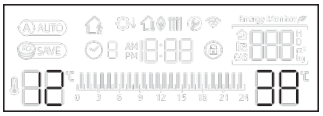
※Registration can only be done when heating and hot water are turned OFF on temperature controller.



6 - Check the 4-digit unique ID displayed on the display window of temperature controller.

- Registration mode is turned OFF after 10 minutes.
- The following letters and numbers can appear on temperature controller.
  Letters: AbrdFF
  Numbers: 1234567890

Please run the rinnai boiler application and choose thermostat ID.



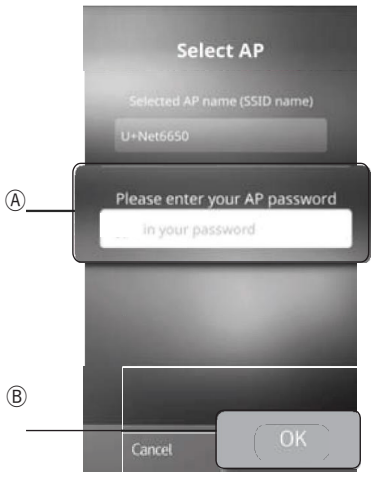
(4-digit unique ID)

CORRECT METHOD OF USE (APPLICATION)

How to register(for Android users)

7 - Select the wireless router to be used at home.

8 - Enter Ⓐ(Password) of the wireless router set by the user and press Ⓑ(OK) button.



How to register(for Android users)

9 - Select the item with 4-digit unique ID displayed on temperature controller.

- Remote controller item type.
  Rinnai - ####(4-digit unique ID)

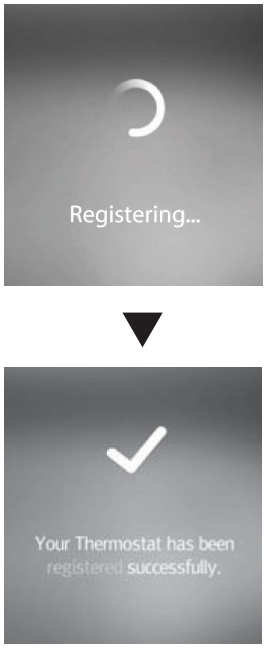
※123A is changed according to each device.

(4-digit unique ID)

10 - Registration of remote controller has been successfully completed.

Wi-Fi registration is complete.

※Start over from step1 if registration fails.



How to register(for iOS users)

The app requires 2.4GHz frequency to enable connection to the router

If the GPS function of the smart phone is switched off during the registration procedure the GPS Notifications will not be available.

Register the user of the Iot boiler.

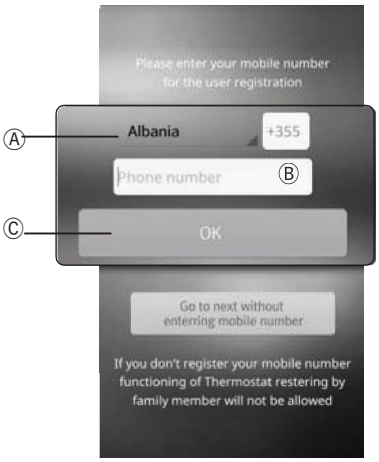
1 - Run the application.

2 - Read the terms of agreement of Rinnai app, select Ⓐ(Agree), and press Ⓑ(OK) button.

How to register(for iOS users)

3 - Enter Ⓐ(Country), Ⓑ(Phone number) and press Ⓒ(OK) button.

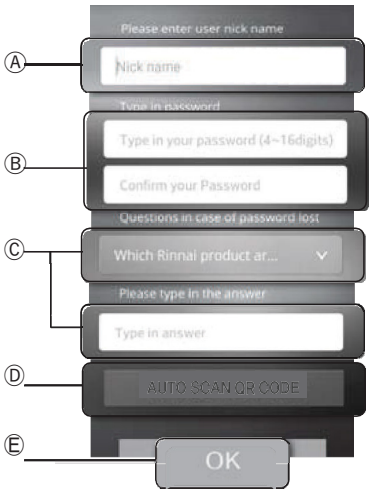
- However, when 'Proceed without entering phone number' is selected, you can enter user information on the following page without entering phone number.



4 -Enter Ⓐ(User nickname), Ⓑ(Password), Ⓒ (Question and answer to find lost password), and press Ⓓ to scan the boiler QR code, then press Ⓔ(OK).

- After pressing the button Ⓓ check the informations collected through QR code: in case it is required, proceed with a manual introduction of data.

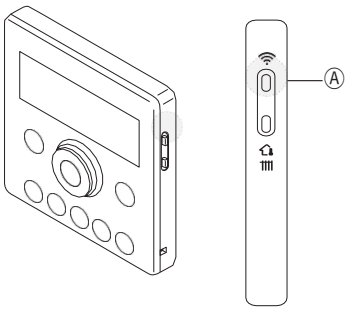
※Password must be at least 4 characters long.



How to register(for iOS users)

5 - Press Ⓐ(Wi-Fi) button of temperature controller for 3 seconds to enter registration mode.

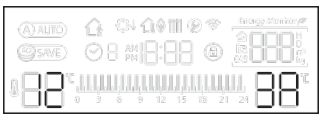
- Registration can only be done when heating and hot water are turned OFF on temperature controller.



6 - Check the 4-digit unique ID displayed on the display window of temperature controller.

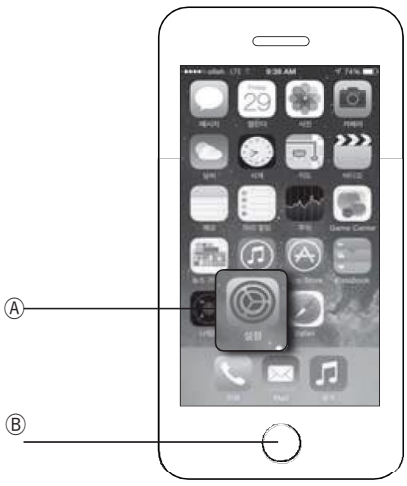
- Registration mode is turned OFF after 10 minutes.
- The following letters and numbers can appear on temperature controller.
  Letters : AbcdEF
  Numbers : 1234567890

Run the Rinnai boiler application and select ID of temperature controller.



(4-digit unique ID)

7 - Press Ⓐ(Home) button on your device and then press Ⓑ(Setting) button.



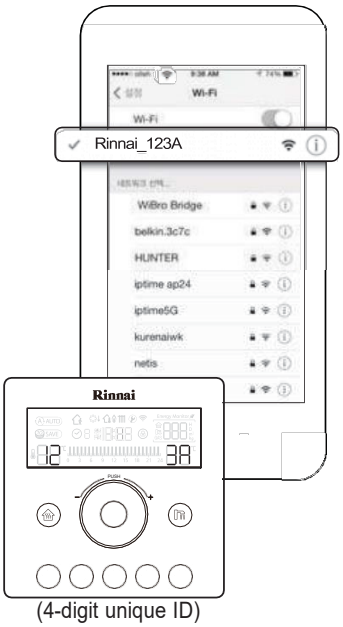
How to register(for iOS users)

8 - Select Ⓐ Wi-Fi setting menu on the setting screen.

9 - Select the item with 4-digit unique ID displayed on temperature controller.

- Type of temperature controller display.
  Rinnai - ####(4-digit unique ID)

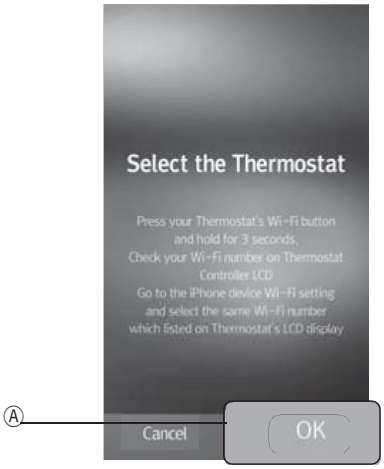
※123A is changed according to each device.



(4-digit unique ID)

How to register(for iOS users)

10 - Return to the application and press Ⓐ(OK) button.

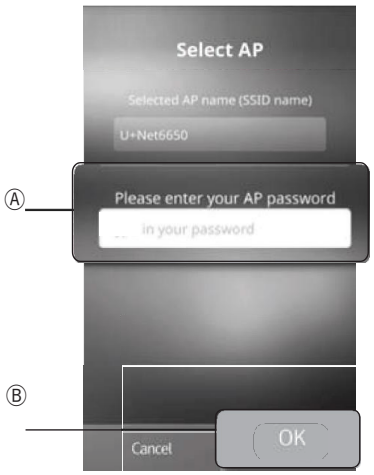


11 - Select the wireless router to be used at home.

How to register(for iOS users)

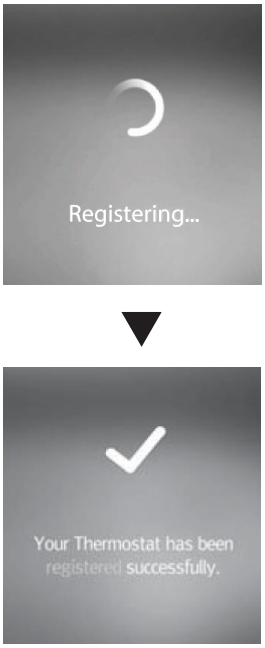
12 - Enter Ⓐ(Password) of the wireless router set by the user and press Ⓑ(OK) button.

Wi-Fi registration is complete.



13 - Temperature controller has been successfully registered.

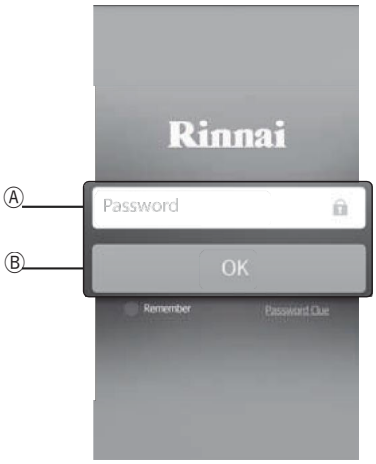
※Start over from step1 if registration fails.



Login

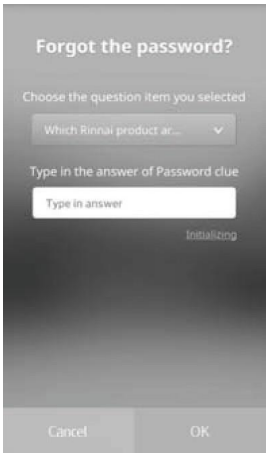
You can use the IoT boiler after logging in.

1 - Enter the password selected during registration and press Ⓑ(OK) button.



If password is lost.

2 - You can find your password using the question selected during registration.

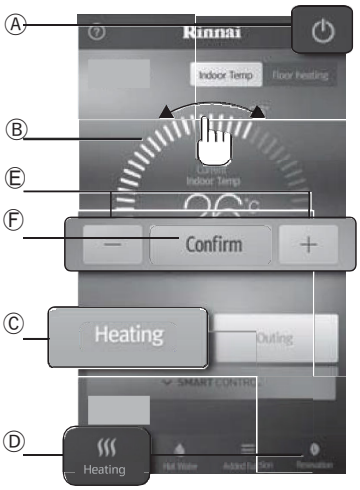


Login

3 - Enter new Ⓐ(Password) and press Ⓑ(OK) button. You may now log in with the new password on the login screen.

How to use heating

Heating can be controlled on the user's device.



1 - Press Ⓐ(Power) button to turn the power of temperature controller ON.

2 - Press Ⓑ to enter heating control screen.

3 - Press Ⓒ(Heating) button to start heating.

4 - Adjust Ⓓ to left and right or press Ⓔ button to select the wanted setting temperature, and press Ⓕ(Confirm) button.

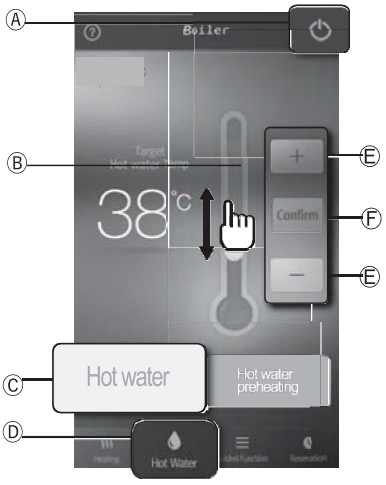
- Ⓖ button can be pressed to set 4-hour outing. (It can only available to REB-KA series model)
- Ⓗ(Indoor Temp/Floor heating) button can be used to switch between indoor temperature heating and floor heating.

SMART CONTROL function to easily and simply create a pleasant environment.

- Auto : Indoor temperature is automatically adjusted on a real-time basis.
- Sleep : Temperature is automatically heated to allow for deep sleep. (It can only available to REB-KA series model)
- Save : Energy and gas rates can be saved.
- Reservation timer : heating is operated according to timer setting.

How to use hot water

Hot water can be controlled on the user's device.



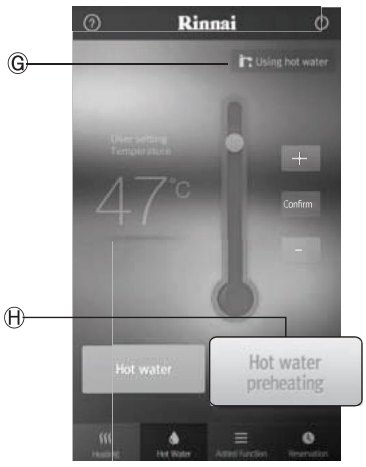
1 - Press Ⓐ(Power) button to turn the power of temperature controller ON.

2 - Press Ⓑ to enter hot water control screen.

3 - Press Ⓒ(Hot water) button to start hot water function.

4 - Adjust Ⓓ to left and right or press Ⓔ button to select the wanted setting temperature, and press Ⓕ(Confirm) button.

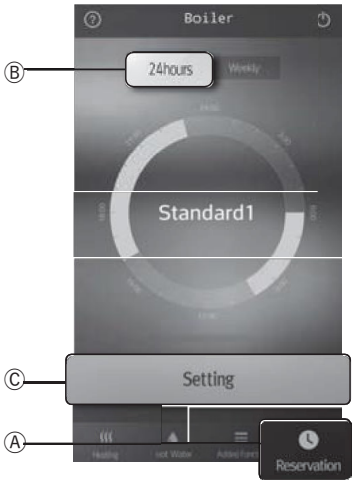
- Ⓖ is enabled when hot water is in use and disabled when hot water is not in use.
- Ⓗ(Hot water preheating) button can be used to start/stop preheating function.



Reservation timer setting

24-hour timer setting

Heating timer can be set for different hours.

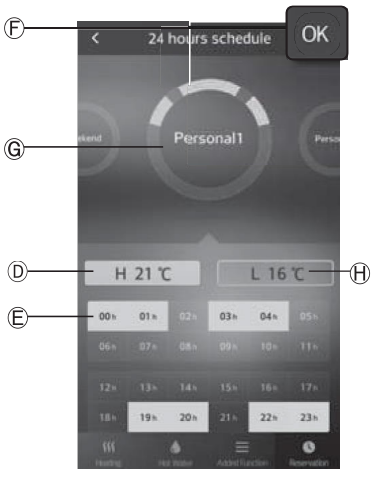


1 - Press Ⓐ(Reservation) button to change timer setting.

2 - Press Ⓑ(24-hour timer) button to select 24-hour timer.

3 - Press Ⓒ(Setting) button to change timer.

- Types of 24-hour timer include Standard 1, Standard 2, Weekend, Personal 1 and Personal 2.
- Standard 1, Standard 2 and Weekend are basic modes. New lifestyle patterns can be set using Personal 1 and Personal .(Standard 1, Standard 2 and Weekend cannot be changed)
- To set Personal 1 and Personal 2 select Ⓓ as Personal 1 or Personal 2 and choose the time wanted for heating in Ⓔ.



4 - Press Ⓕ(OK) button.

5 - After setting the timer, press timer button on SMART CONTROL to operate the timer. (Refer to page for heating screen)

The APP will display the 5 types of 24 hours reservation programs.

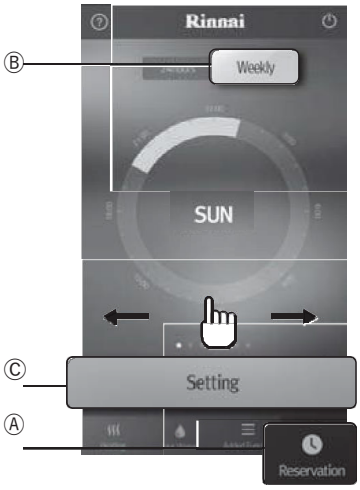
The selected reservation program will operate with daytime preset temperature Ⓖ(H21℃) and preset night temperature Ⓗ(L16℃).

Temperatures H and L can be changed by the user for all the 5 program types.

Reservation timer setting

Weekly timer setting

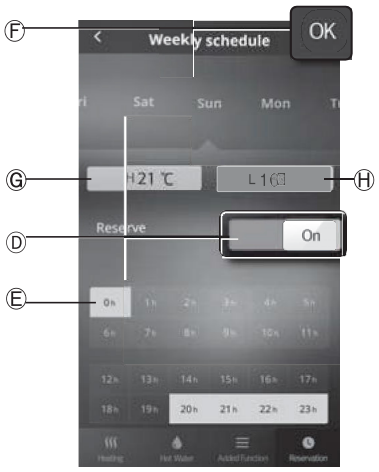
Heating timer can be set for different days of the week.



1 - Press Ⓐ(Reservation) button to change timer setting.

2 - Press Ⓑ(Weekly timer) button to select weekly timer.

3 - Press Ⓒ(Setting) button to change timer.



4 - Press Ⓓ button to set/cancel timer for the corresponding day.

5 - Chose the time wanted for heating in Ⓔ.

- Press Ⓕ(OK) button once setting is done.
- Weekly timer can only be set and changed on smart phone.

The selected reservation program will operate with daytime preset temperature Ⓖ(H21℃) and preset night temperature Ⓗ(L16℃).
Temperatures H and L can be changed by the user.

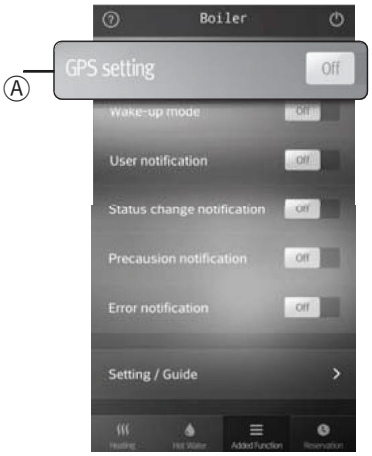
Additional functions

Outing / Returning notification

Unnecessary boiler operation is reduced during outing and pleasant heating environment is provided by heating the house before returning.

1 - Alarm can be turned ON and OFF by pressing button Ⓐ.

- Outing/return alarm notification requires GPS function on your smart phone.
- Since outing/return alarm is run based on location information of GPS, it can differ from actual conditions depending on the situation and result in large battery consumption of the device.



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2 - Ⓑ can change distance between the house and user.(2,4,6,8 and 10km)

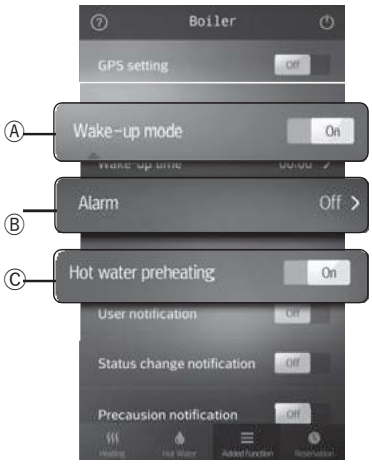
3 - Ⓒ can enable outing/return notifications.

Additional functions

Wake-up mode

Pleasant and quick hot water is provided in the tiresome and busy morning.

※ When wake-up mode is set, hot water is automatically preheated 10 minutes before waking up.

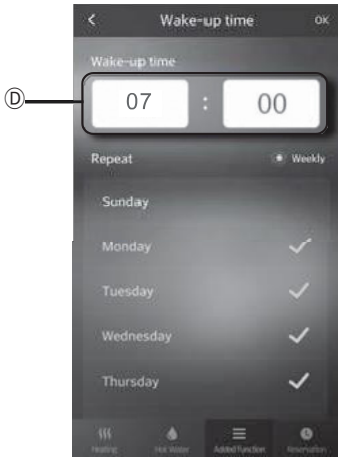


1 - Press button Ⓐ to set wake-up time and day.

2 - Press button Ⓑ to set volume of alarm and alarm sound.

3 - Ⓒ can configure heating and hot water preheat functions for wake-up mode.

- Ⓓ can change wake-up time and day.
  - Setting can be repeated.



- Ⓔ can turn alarm function ON/OFF.
- Ⓕ can set volume of alarm sound.
- Ⓖ can set alarm sound.

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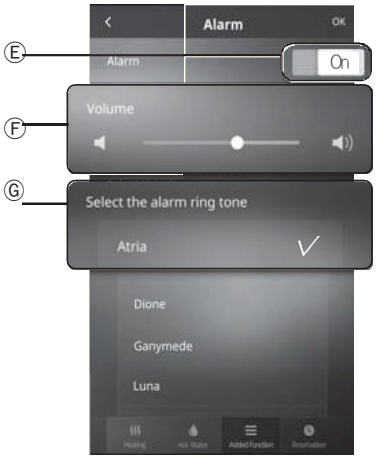
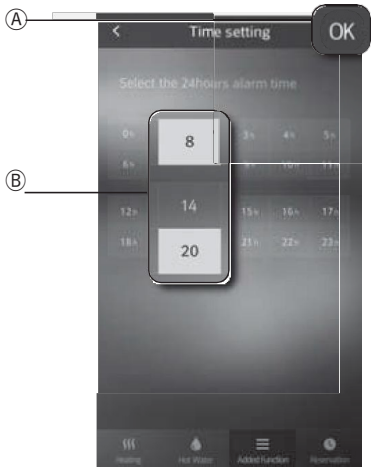


User notification

Current boiler status is displayed at the wanted time.

1 - Select the time you want to be notified Ⓑ and press Ⓐ (OK) button.



Additional functions

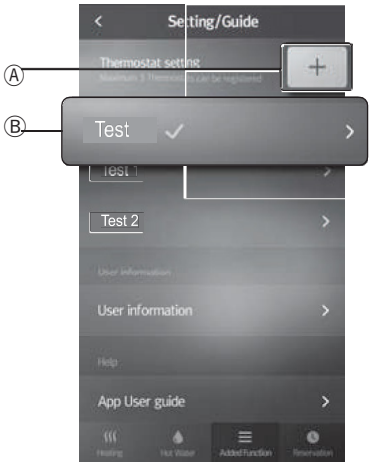
Status change alarm, Precaution alarm, Error alarm

- Ⓐ Status change alarm is a function that notifies changes in the setting of the boiler made by other users.
- Ⓑ Precaution alarm is a function that notifies precautions about times for inspection.
- Ⓒ Error alarm is a function that notifies occurrence of error in the boiler, type of error and troubleshooting method.

Setting / Guide

1 - Press Ⓐ button on the APP screen to add a new remote controller.

2 - Press Ⓑ button to change name of temperature controller or add/delete users.



- This function can additionally register boilers at your parents' house or vacation house on your smart phone. (You can add up to 3 Rinnai IoT boilers)
- New remote controller can be registered by entering the name of new device.

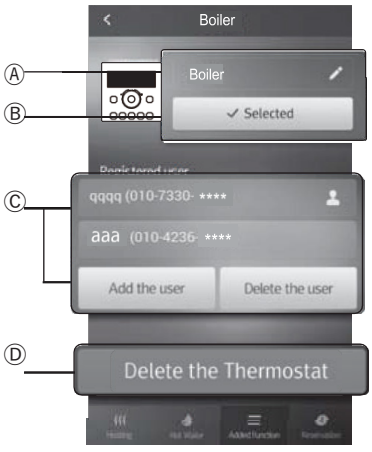
Log out

1 - Press Ⓐ button to change name of temperature controller.

2 - Ⓑ When several Rinnai IoT boilers are used, select the boiler to change the setting. Once selected, 'Select' is switched to 'Selected'.

3 - The list an buttons Ⓒ allow to check the registered users and add/delete users.(Up to 10 users can be added for each temperature controller) User can be added without going through a separate registration process.

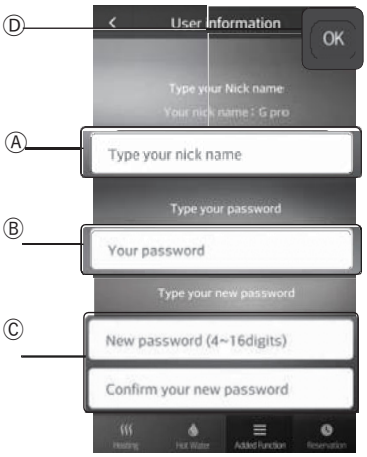
4 - Press Ⓓ button to delete corresponding temperature controller



Additional functions

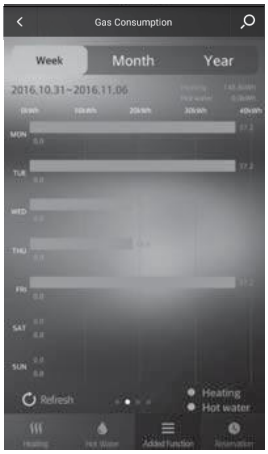
Change user information

- Change Ⓐ(User nickname).
- Change Ⓑ(Password).
- Enter Ⓒ(Current password) and then enter new password.
- Once input is done, press Ⓓ(Current password) and then enter new password.



App user guide

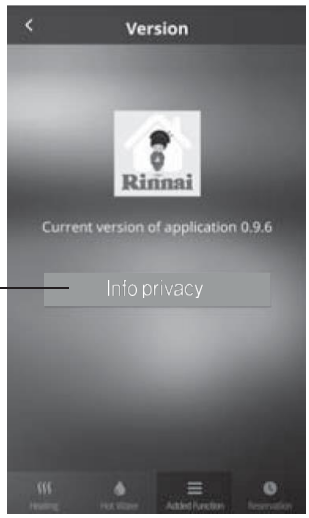
Gas consumption



Additional functions

Version

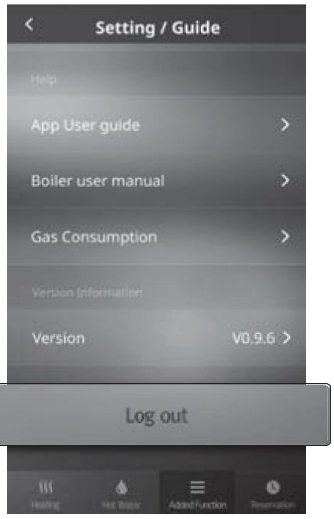
- You can check the version of the application.
- You can check the privacy of the application.Press Ⓐ(Info privacy) button.



Ⓐ

Log out

- Press Ⓐ(Log out) button to go back to the Log in page.



Ⓐ

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Rinnai

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