

SAS918WHB-0-RF Wireless Thermostat Manual Guide

Product introduction

SAS918WHB-0-RF is comprised of SAS2010DE and SAS918WHB-0-DF1, SAS918WHB-0-RF is mainly applied to water-heating system by wireless control or system of floor heating, achieving the comfortable environment by controlling the on-off of electric-thermal actuator and they can be used for the following system:

- Boilers
- Oil and gas warm water heating
- Actuators of floor heating systems or radiators
- Circulating pumps
- Heat pumps

Technical Specification:

Power source	SAS918WHB-0-DF	2 AA size 1.5V alkaline batteries
	SAS2010DE Receiver	100-240VAC 50/60Hz
Room temperature setting range	5°C~35°C	
Accuracy	0.1°C	
Ambient temperature-operation	0°C~+50°C	
Ambient temperature-storage	-10°C~+60°C	
Dimensions	SAS918WHB-0-DF : 85 mm×75 mm×23mm	
	SAS2010DE Receiver:113 mm×82 mm×30 mm	
Radio frequency	868MHz(FSK)	
Frequency range	100m (unobstructed environment)	
Color	White	

Main features:

- Smart shape, easily to operate
- Wireless thermostat, no program
- Built in battery, change convenient
- Anti-blocking function
- Applied by various system

Caution!

The radio receiver may be installed only by a competent electrician in compliance with the circuit diagram enclosed in the top housing cover or in compliance with these instructions. The current safety regulations must be observed. In order to achieve protection class II, adequate installation measures must be taken. This radio receiver, which can be installed separately, is designed exclusively for temperature control in dry and closed rooms and standard environments. This electronic device was created according EN60730-1, it operates according working principle 1C.

Installation

When Installing this Product...

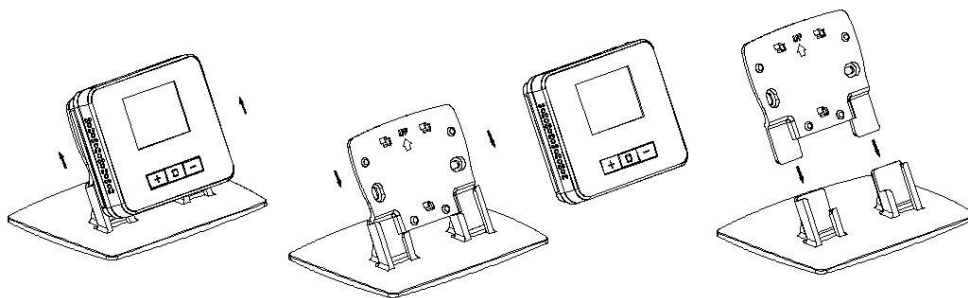
1. Read these instructions carefully. Failure to follow the instructions can damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After completing installation, use these instructions to check out the product operation.

Installing the thermostat:

This thermostat can only be installed on the baseplate;

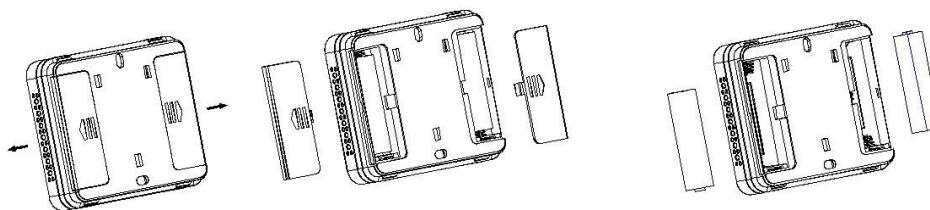
Please note that the thermostat only takes power of batteries;

Please place the thermostat in a location where it will be able to control the room temperature but away from the direct influence of radiators and sunlight or other appliances giving off heat.



- a. Take out the thermostat
- b. Put the thermostat into the shelf of the back plate
- c. Insert the shelf of the back plate

Change battery:

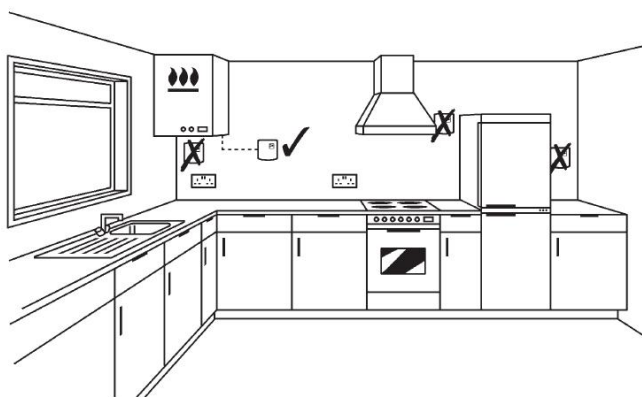


- a. Take out the cover of the battery
- b. Take out the battery

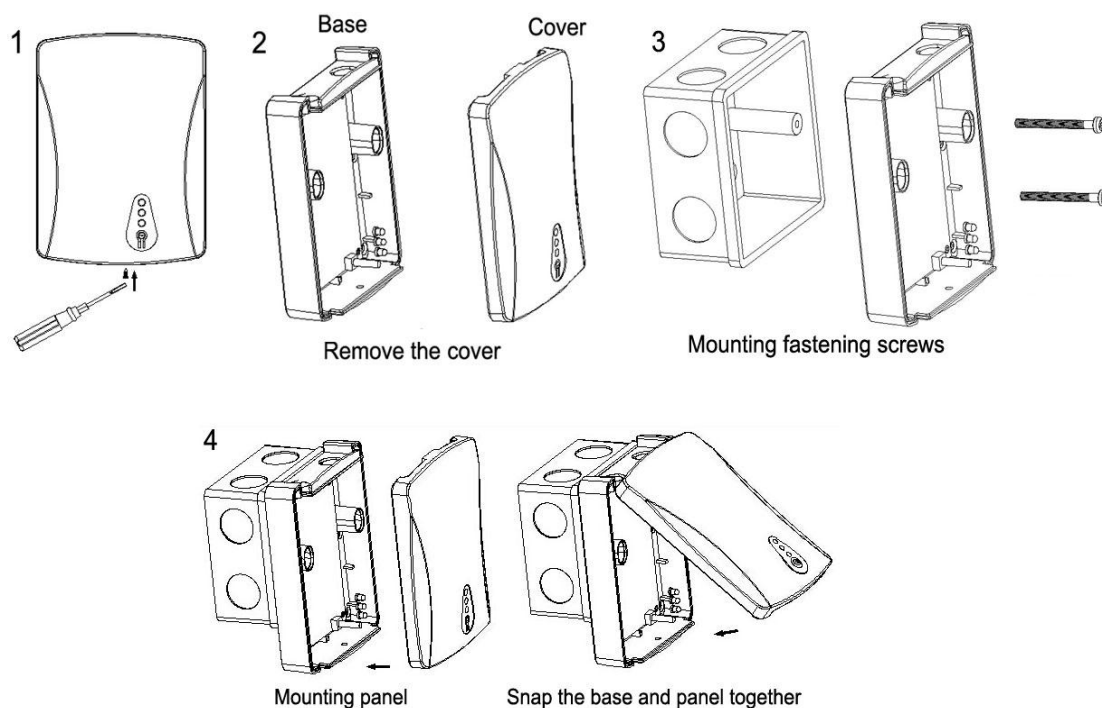
Installing receiver:

Location as the followed instance, select a position where it is away from the direct influence of fire or sunlight, other appliances giving off heat.

As we said, for best performance, the receiver should be installed in an open space, at least 30cm distance from any metal objects including wall boxes and boiler housing. It should not be mounted on a metal wall box.



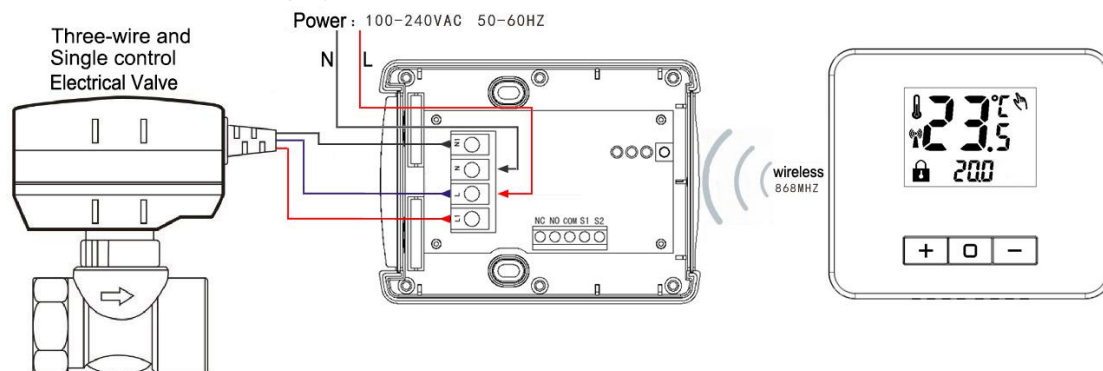
Receiver wall installation:



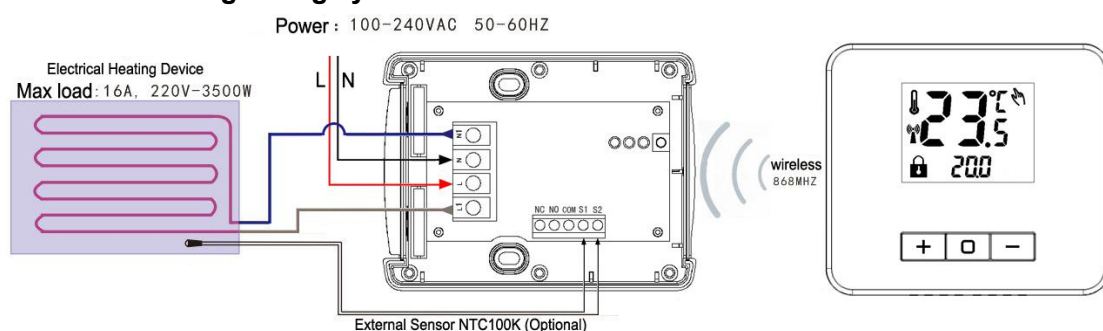
This confirms that receiver is wired correctly and that both devices are bound (linked) to each other. If this test does not work, the 2 units must be reset and bound to each other by following **Description of receiver connection** for **Binding / Re-binding**.

Wiring Diagram:

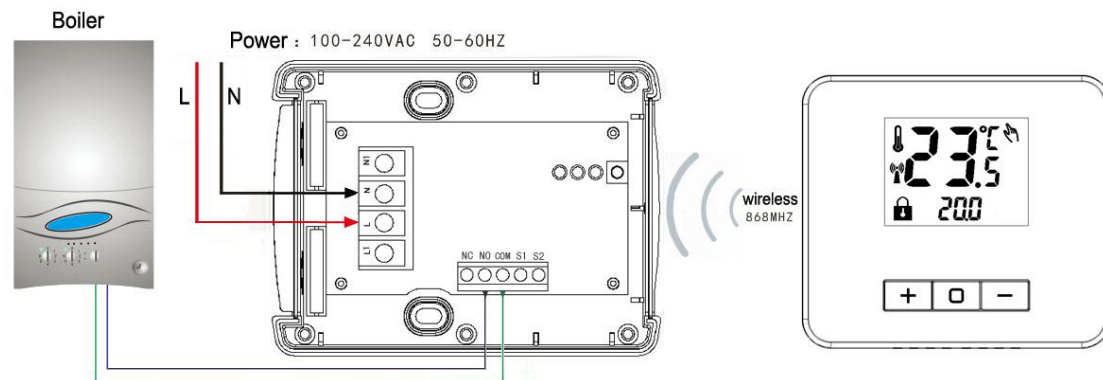
Electrical valve wiring system:



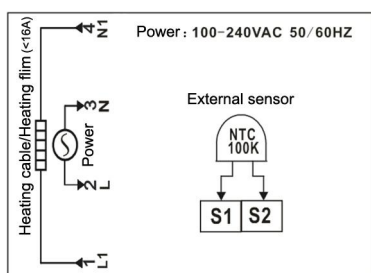
Electrical heating wiring system:



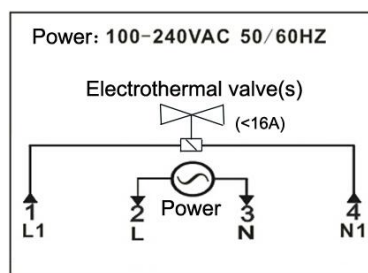
Boiler wiring system:



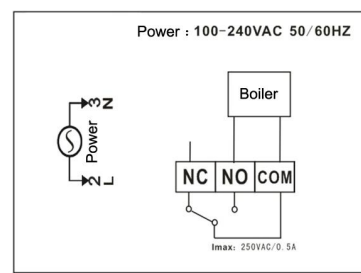
Electric heating system



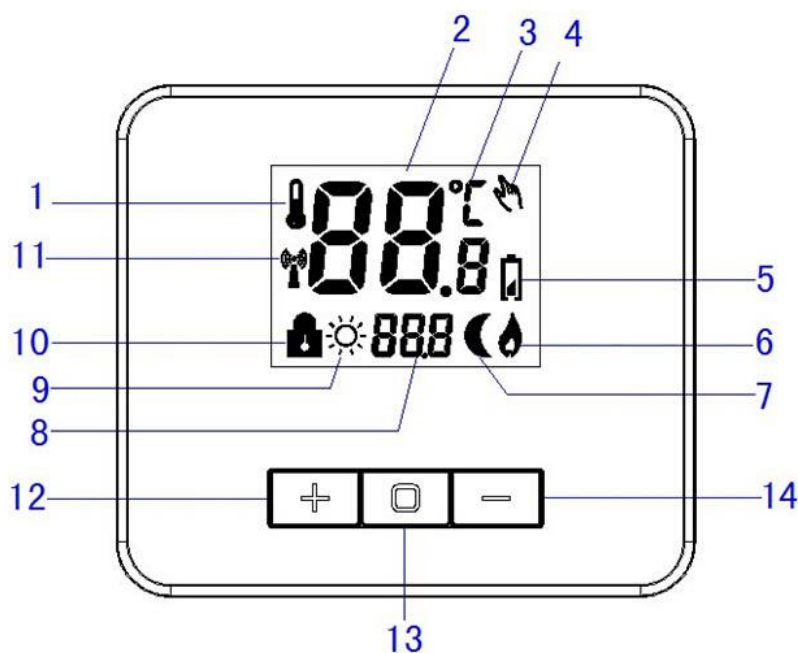
Water heating system



Boiler heating system



Keyboard and display description



- 1) Sampling temperature display mark
- 2) Sampling temperature display area
- 3) Temperature scale display area
- 4) Manual operate mode mark
- 5) Low battery remind mark
- 6) Heating mode mark
- 7) ECO mode mark
- 8) Setting temperature display area
- 9) Comfort mode mark
- 10) Child lock mark
- 11) Wireless RF operate mark
- 12) Up adjust button
- 13) Switch button/ Configuration menu setting button
- 14) Down button

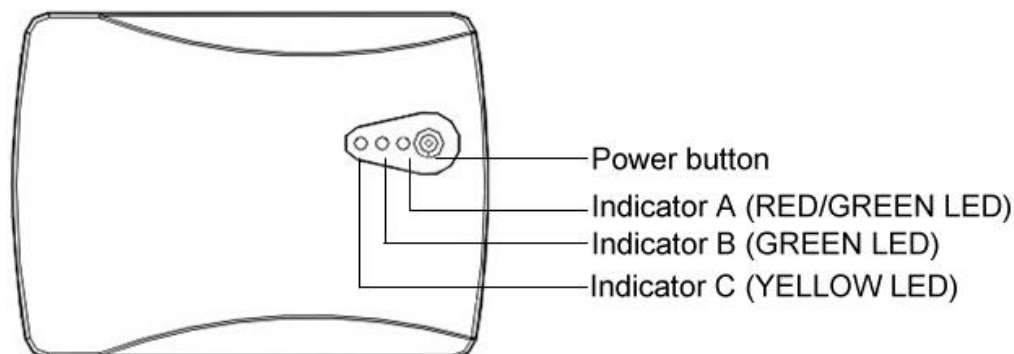
Note: 1. While the thermostat is running, if you press **—** and **+** simultaneously for a couple seconds, then **🔒** will show up, meantime keyboard will not respond for any key-press, unlock the thermostat also press **—** and **+** simultaneously for a couple seconds.

2. Wireless RF operate mark shows only when you already connected the receiver.

3. If the built-in sensor has broken the screen will show ER2 .

Description of receiver connection

Operation descriptions:



Thermostat binding:

Receiver

Off status and then press "Power button" for about 3 seconds, the indicator C will be illuminated.

Coding successfully, the indicator C will flash 6 times and then preserve code meantime quit the status.

Thermostat

OFF mode, and then press button  and  about 3 seconds, admitting into coding status.

Coding unsuccessfully, thermostat will keep the original coding value and need try it again.

Functional status:

Heating mode: the indicator B will be lit up which means heating mode has ongoing.

Memory function: when power has been snap cut during system running, Memory function will maintain the pre-off status after power on.

Forced output: Off status and then press "Power button" for about 8 seconds, the indicator A will be lit up, and if you want to exit just simply light press "power button".

Transmitting signal: when Receiver has been running, the indicator C flash 2 times that means the transmitting signal is accepting.

※**Temperature limitation selection:** (Only for needed situation of electric heating) ※
 External sensor is for the protection of limiting temperature, when the temperature is below at 5°C, the forced output will be started up, while the temperature is up to 8°C, the

forced output will be stopped. While the indicator B rapidly flashing which means external sensor has been broken.

Setting temperature: when receiver has been running, press “Power button” for about 3 seconds, and then the indicator A will turning the red LED to the green LED with flashing, which means the limiting value of temperature is preparing to select, and the indicator A will flash all the time during the selection.

Limit 30°C: The green LED (indicator B) is flashing.

Limit 40°C: The yellow LED (indicator C) is flashing.

Limit 55°C: The green LED (indicator B) and the yellow LED (indicator C) both are flashing.

Selecting: press “Power button” to select the option which is one of the three modes.

Save and exit: 1. Press the “Power button” for about 3 seconds, and then Receiver will save the settings and exit automatically.

2. If there is no button-press in 8 seconds, Receiver also will save the settings and exit automatically

Configuration menu

When turned off the thermostat, hold “**O**” for 5 seconds to enter the configuration menu. Press “**O**” to toggle the menu items.

Selecting by using “**+**” or “**—**”. To exit the menu by pressing “**O**” for several seconds. If no buttons are pressed in 20 seconds the thermostat will exit the menu automatically.

Push “**+**” and “**—**” simultaneously for about 3 seconds, the screen will shows “**dEF**”, and then return to Menu item 1, indicates all the configuration settings have reverted to the factory default settings. Explanation of each option is as followed chart:

Item	Press button	Displayed (factory default)	Press + , — to select	Description
1	O	30.0 ^{°C}	20.0 ^{°C} —35.0 ^{°C}	Select maximum set point
2	O	05.0 ^{°C}	05.0 ^{°C} —20.0 ^{°C}	Select minimum set point
3	O	16.0 ^{°C}	10.0 ^{°C} —20.0 ^{°C}	Select ECO setting temperature
4	O	21.0 ^{°C}	20.0 ^{°C} —25.0 ^{°C}	Select comfort setting temperature

5	☐	On	On/Off	Backlight display
6	☐	00.0	-5.0 — 05.0	Adjust displayed temperature to suit personal needs
7	☐	HP	P/HP	Proportion output and constant temperature output
8	☐	0.5	0.1 — 05.0	Select the control accuracy (it is only valid with the HP control mode)
9	☐	Off	On/Off	Valve-protect function

1) Select maximum temperature set point

This feature provides a maximum set point temperature. The default setting is 35°C, It can be changed between 20°C to 35°C.

2) Select minimum temperature set point.

This feature provides a minimum set point temperature. The default setting is 5°C, It can be changed between 5°C to 20°C.

3) Select ECO setting temperature

Economy Temperature used for energy saving periods e.g. during the night (☾)

4) Select comfort setting temperature

Comfort Temperature used for comfort periods e.g. during the day (☀)

5) Backlight display

Up to your requirement to choose the switch of backlight

6) Adjust displayed temperature to suit personal needs

You can adjust the room temperature display up to 5 higher or lower. Your thermostat was accurately calibrated at the factory but you have the option to change the display temperature to match your previous thermostat. The current or adjusted room temperature will be displayed on the right side of the display.

7) Select control mode for system

P Proportion output is more humanized interface, the room temperature will be increased or decreased small, user will feel comfortable, not too cool or too hot.

HP Constant temperature on/off output between -0.5°C to 0.5°C.

On/off heat output frequently.

8) Select the control accuracy

It is for screen display of the temperature accuracy (it is only valid on the HP control mode). The factory default setting is 0.5°C.

9) Valve-protect function

Function about valve Anti-blocking, It is used for protecting valve, if no output more than 24 hours, it will be forced to open 30s.