
SAS920XWHB-7-S-RF

Heating programmable temperature controller instruction manual

● SPECIFICATION

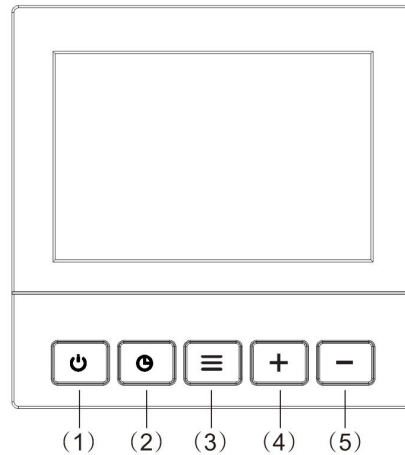
- ◆ Power source.....2 AA batteries (LR6)
 - ◆ Wireless frequency band.....868MHz (FSK)
 - ◆ Wireless frequency distance.....open 100m
 - ◆ Display temperature range.....5℃~50℃
 - ◆ Setting temperature range.....5℃~40℃
 - ◆ Temperature accuracy.....0.1℃
 - ◆ Humidity range.....90%
 - ◆ Operation temperature.....0℃ ~ 50℃
 - ◆ Storage temperature.....-10℃ ~ 60℃
 - ◆ Transport temperature.....-20℃ ~ 65℃
 - ◆ Dimensions.....86mm X 86mm X24mm
 - ◆ Installation..... Can be mounted directly on the wall or mounted on an EU standard junction box
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● FEATURE

- ◆ Ability to measure and control the temperature of any location anywhere in the room, as required by the user, independent of the power cord
- ◆ The transmitter can control the receiver within 100 meters of the open range
- ◆ Large LCD display
- ◆ Permanent user setting and program setting retention during power loss
- ◆ ℃ temperature unit
- ◆ Optional programming Period:7 days independent programming ,7 days unified programming,5+1+1 days programming and 5+2 days programming
- ◆ Temperature correction function
- ◆ Low battery indication function
- ◆ Anti-freezing protection
- ◆ Open window function

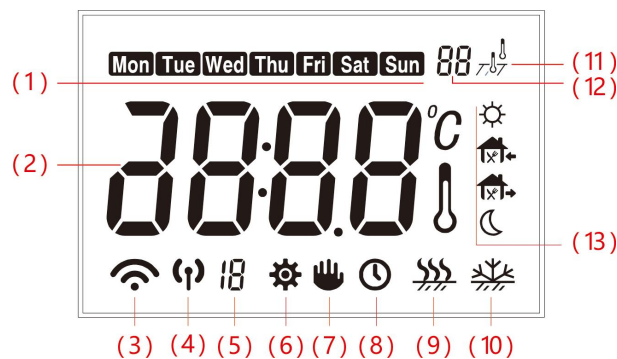
● BUTTON AND DISPLAY INSTRUCTION

Button:



- (1) Power/Save button: thermostat Power on/power off; Press this button to save and exit when changing the thermostat settings.
- (2) Time button: Short press time button to enter into setting where you can change the year, month, day and time. Press menu to move from year to month to day and time and also plus and minus symbols to change the settings.
- (3) Menu button: Hold down the menu button to be able to get into programming mode where you can add a program setting. Various settings are available such as 5+2 day program, 7 day program and 24 hours program. After holding down the menu button use plus and minus symbol to change program settings from 7 day to 5+2 day and 24 hours and press menu button to confirm. Then change your on and off settings with your chosen temperatures at your command
- (4) Add button
- (5) Shorten button

Display:



- (1) Week shows
- (2) OFF/Temperature shows
- (3) NA
- (4) Connection symbol (flashing connection symbol shows loss of connection between thermostat and receiver)
- (5) Serial number shows
- (6) Setting shows (Parameters, programming, time)
- (7) Forever keeping mode shows (press menu button on home screen until the hand symbol shows for manual overrides)
- (8) Parameters, programming, time
- (9) Manual overrides
- (10) Manual overrides
- (11) 88°F
- (12) 28.8°C
- (13) Sun, moon, and house icons

(8)Time shows,Programming mode shows(to allow programmed time and temperature settings to activate,press menu button until you see a clock symbol showing programmed settings activated)

(7)and (8) when they both show this means that the thermostat is in temporary mode (when in programmed setting mode the user manually overrides resulting in 7 and 8 both showing)

(9)Heating mode shows

(10)Anti-freezing mode shows

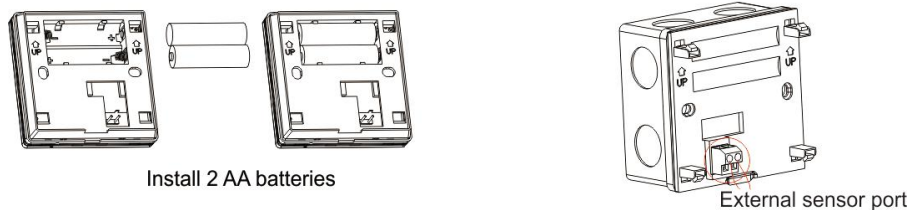
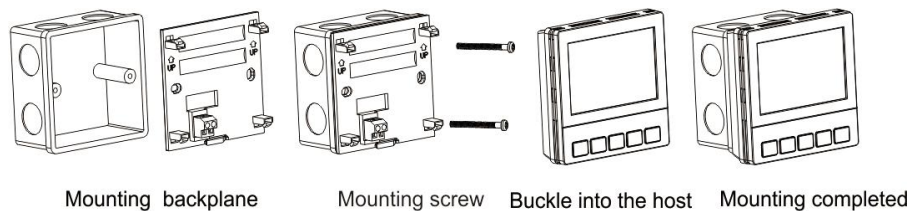
(11)Sensor control method:Room temperature control  ;

Floor temperature control  ;Both room and floor temperature control 

(12)Implicit parameter shows

(13)Time period show:Wake up / Back home / Out home / Sleep

● INSTALLATION



● Code Match

No commissioning is required when the thermostat and receiver are installed because they are pre paired from factory.User can allow pairing the thermostat and receiver for any possible reason by:

1. Wire receiver and then long press on/off button on receiver for 3 seconds until a yellow light lit up on the receiver
- 2.make sure thermostat is off and then press the on/off button on thermostat for 3 seconds until you find 'RF1' then short press on/off to enter code match status and then - - will show. The code match shows the code number. It will exit the code display if the code match is unsuccessful for 10 seconds

● CONFIGURATION MENU SETTING

During power off, hold the menu button for 3 seconds to enter the first configuration menu setting. Press + and - to adjust parameters. Press menu button to enter the next item, press on/off button to confirm and return to standby mode. If no button is pressed within 10 seconds will make thermostat enter standby mode. Long press menu for 3 seconds and display will show 'dEF' blinking 3 times and return off mode indicates all the configuration setting has been reverted to factory default setting.

The configuration menu chart below shows that the configuration options and an explanation of each option is given.

Step	Press buttons	Displayed (factory default)	Press ▲、▼ to select	Descriptions
1	≡	⚙️ _{CL} (0℃)	-4℃ — +4℃	Select temperature display adjustment higher or lower
2	≡	⚙️ _{AH} (35℃)	20℃—50℃	Select maximum room temperature limitation
3	≡	⚙️ _{AL} (5℃)	5℃—20℃	Select minimum room temperature limitation
4	≡	⚙️ _{bL} (020)	005-100	The lower the value, the darker the backlight, the higher the value, the backlight is brighter
5	≡	⚙️ _{db} (0.5℃)	0.5℃~5℃	Start heating conditions: when setting temperature <room temperature-0.5℃, stop heating, when setting temperature >room temperature reduction db parameters start heating
6	≡	⚙️ _{Pr} (ON)	ON/OFF	Programme option ON :Turn on programming function OFF:Turn off programming function
7	≡	⚙️ _{SE} (6)	4/6	Programming period in one day option 6-6 time zones; 4-4 time zones;
8	≡	⚙️ _{ES} (ON)	On/ OFF	Intelligent function option ON: Turn on intelligent function OFF: Turn off intelligent function
9	≡	⚙️ _{PP} (OFF)	ON/OFF	Antifreeze function option ON:Turn on the antifreeze function OFF:Turn off the antifreeze function
10	≡	⚙️ _{Sn} (100)	100/10	NTC selection 100: NTC100K 10: NTC10K
11	≡	⚙️ _{Ct} (S-r)	S-r/r-F/s-F	NTC function selection S-r: Room temperature control r-F: Both room and floor temperature control S-F: Floor temperature control
12	≡	⚙️ _{Pt} (40)	5~70	Floor maximum protection temperature
13	Short press  button confirm and back to programming running mode			

PROGRAMMING SETTING

Heating Schedule Plan (Factory default program setting)

											
Wake up		Out door		Back home		Out door		Back home		Sleep	
6:00	20°C	8:00	16°C	11:00	20°C	14:00	16°C	18:00	20°C	22:00	16°C

Enter Prgramming mode

Hold down menu button for 3 seconds to enter programming mode. You can now choose which your programming schedule, you have 7 days program, 5+2 day or individual days. After choosing program schedule press menu to confirm this will then allow you to choose what time you would like to have the heating to come on and off also what temperatures for it to come on and go off by press **+** and **-** button to select . After completing your program press the power symbol to return back to main screen.

If no button is pressed within **10** seconds, the thermostat will automatically exit and back to running mode. when long press menu button more than 4 seconds, show that DEF flash 3 times, all parameters setting return to factory default setting and return to implied parameters setting the first item

OUTPUT DESCRIPTION

When the room temperature is less then 5 degrees frost protection mode will start and at 8 degrees will go off. Also when temperature is more than 0.5 degrees above the temperature required the heating will switch off

Window-open function

When the room temperature drops by 4.5 degrees in less then 4 minutes the window-open function is turned on resulting in the heating going off. When the room temperature rises above 1.5 degrees the window-open function is automatically turned off. You can manually store by clicking any button on the thermostat. In this function when the temperature starts to rise or if the window-open function is turned on for 48 minutes the previous operation mode is automatically restored.



Boiler plus

Our thermostat features optimisation and automation to allow our thermostats to comply with boiler plus.

User can decide when the heating will come on and off depending on the user requirements but Keep heating event 1 the same on temperature constant through out the week, also the same with heating event two and three to allow for the best possible energy saving.

Error warning

- 1)The low battery sign will flicker when the battery is lower than 2.3 v
- 2) “ER1” alarm:Internal sensor short circuit
- 3) “ER2” alarm:Internal sensor open circuit
- 4) “ER3” alarm:External sensor short circuit
- 5) “ER4” alarm:External sensor open circuit

SAS920XWHB-7-S-RF Wireless Receiver

Ccsr20rf receiver is a wireless non-programmable thermostat designed for hot water radiant heating systems and electric heating cable system. It is a one to one receiver, independent circuit with adjustable temperature limiter function .

SPECIFICATION:

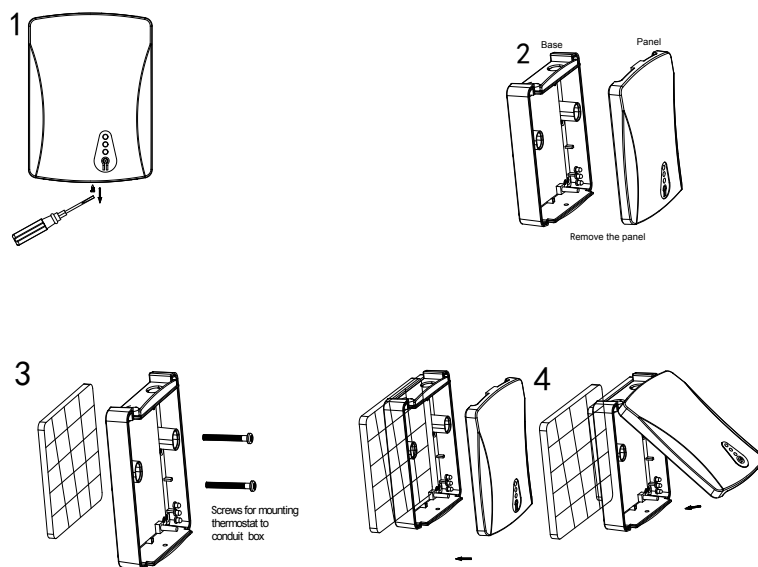
Power source	100-240VAC 50/60Hz
Wireless signal frequency.....	868MHz (FSK)
Wireless signal effective range	100m
Accuracy.....	±1°C
Ambient temperature -Operation	0°C~+50°C
Ambient temperature –transport	-10°C~60°C
The limit temperature value	30°C, 40°C, 55°C, Factory default: 40°C
Dimension	113×83×30mm

IMPORTANT SAFETY INFORMATION:

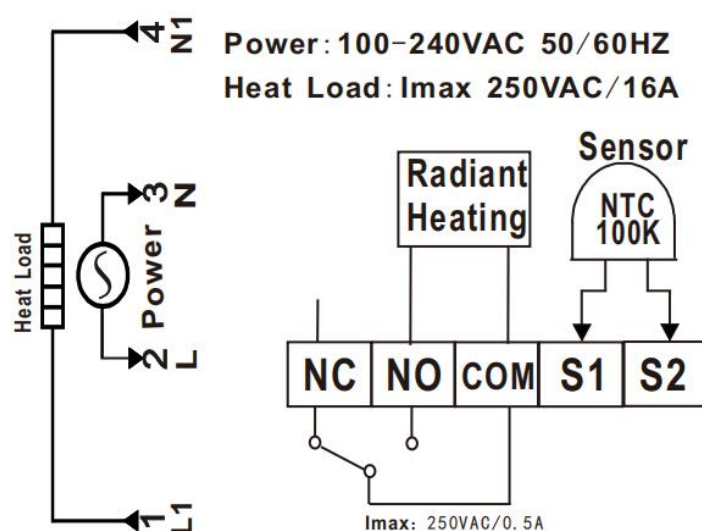
- Always turn off power from the main source by unscrewing fuse or switching the circuit breaker to the off position before installing, removing, cleaning or servicing the thermostat.
 - Read all of the information in the manual before installing the thermostat.
 - Only a professional contractor should install this thermostat
 - All wiring must comply with local and national building regulations
 - This thermostat has a removal fuse to protect the system from damage. If the system is not operating properly please check wiring and replace fuse if necessary.
 - Use the thermostat as described in the manual
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MOUNTING THE RECEIVER

- 1.Remove the screw from the bottom of thermostat. Gently pull the control panel straight off the base. Forcing or prying on the thermostat will cause damage to the unit.
- 2.Connect wires beneath terminal screws on power supply module using appropriate wiring schematic. See figure 5
- 3.Push power base into 86mmX86mm conduit box.
- 4.Using two mounting screws mount the power base to the wall. Place a level against bottom of base, adjust until level, and then tighten screws. (Leveling is for appearance only and will not affect thermostat operation.)
- 5.Replace control panel on the power base by snapping it in place

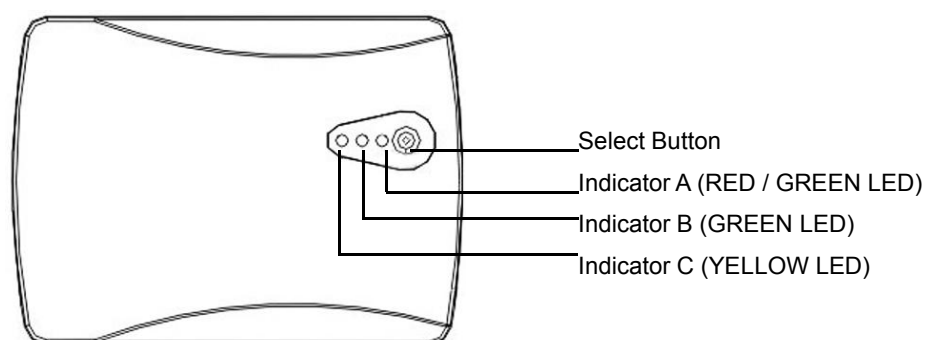


WIRING DIAGRAM



Figure

SWITCH AND LED DESCRIPTION OF RECEIVER



Description of thermostat working condition:

Power ON:press power button on receiver and the indicator A will light up

Power OFF:Shortly press the button, indicator A(red)turn off and receiver turn off all output.

Working state: when thermostat sends a signal for heating to be on receiver indicator B(green) light will appear.

When heating goes off the green light will also go off.

Memory function: If receiver is on and a power failure occurs then after the power failure receiver will come back on.

Forced output function:In a emergency when the battery has run out in the thermostat and user doesn't have replacement.Then turn off receiver and hold power button for 8 seconds indicator A green light will appear making the boiler fire up.

Communication signal check:when indicator C(yellow) is flashing means that the receiver received a signal from the thermostat.

Check thermostat operation

The unit is controlled by thermostat sending signal to receiver, when the user wants to increase room temperature heat symbol will appear on thermostat meaning boiler has fired up when user wants to switch heating off heat symbol will disappear. Indicator c(yellow) blinking twice and indicator b(green) constant means match is successful between thermostat and receiver usually pre paired from factory.

ERR:

1. LED B(green) flashing quickly that indicate sensor broken.
- 2.LED B(green) flashing slowly that indicate receiver is in the temperature limit value selection mode.

Warranty

The Ccsr20rf comes with a three years warranty starting 14 days after purchase.To gain full warranty please keep proof of purchase as this will be asked for when making a warranty claim.

Warranty will be avoided if there is any damage to the thermostat or receiver by the user. Also if there has been any modifications to the software or hardware by the user. Also incorrect installation and wiring will avoid warranty