

SAS920XWHL-7-S-DF

Heating programmable temperature controller instruction manual

SAS920XWHL-7-S-DF heating programmable temperature controller, Control the plumbing or floor heating system through wireless communication control box SCU209DE (central control) or receiver SCU2010DE (individual control) to achieve comfortable temperature control.

● SPECIFICATION

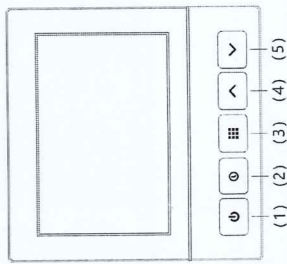
- ◆ Power source..... 2 AA alkaline batteries
- ◆ Wireless frequency band..... 868MHz (FSK)
- ◆ Wireless frequency distance..... open 100m
- ◆ Display temperature range..... 5°C~50°C
- ◆ External sensor display temperature range..... 0°C~90°C
- ◆ Setting temperature range..... 5°C~40°C
- ◆ Temperature accuracy..... 0.1°C
- ◆ Humidity range..... 90%
- ◆ Operation temperature..... 0°C ~ 50°C
- ◆ Storage temperature..... -10°C ~ 60°C
- ◆ Transport temperature..... -20°C ~ 65°C
- ◆ Dimensions..... 86mm X 86mm X 24mm
- ◆ Installation..... Can be mounted directly on the wall or mounted on an EU standard junction box

● 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
- ◆ The screen displays the set temperature, the room temperature and the current time simultaneously
- ◆ Permanent user setting and program setting retention during power loss
- ◆ °C temperature unit
- ◆ Both vacation mode and hold duration mode available for comfort and energy saving
- ◆ 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

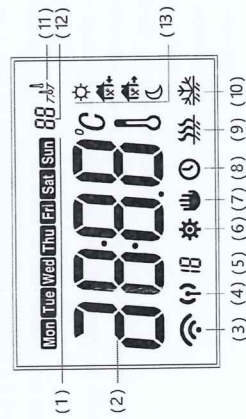
● **BUTTON AND DISPLAY INSTRUCTION**

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 : in the power on status,short press time button to enter setting temperature query-time query--day query,long press time button for 3 seconds to enter day setting;in the time setting status,short press time button to enter the setting for year,minute,hour,day and month,and press add button(∧) or shorten button(∨) to adjust.
 - (3) Menu button : in the power on and Programming mode status,short press menu button for switch programming running and permanent save running.
- In power on status;in programmable mode,long press menu button to enter programming setting;in programming setting status,short press menu button to enter the next programming setting,long press for programming parameter resetting.
- In power off status;long press menu button to enter implicit parameter setting;in implicit parameter setting status,short menu button to enter next implicit parameter setting,long press menu button for restoring the factory settings.
- (4) Add button
 - (5) Shorten button

Display:



- (1) : Week shows
- (2) : OFF/Temperature shows
- (3) : WIFI mode (gateway communication shows;The icon flashes ,it means the communication with the gateway is fails; DF does not have WIFI mode)

modification / unified modification), press **⏏** button again enter programming mode to set the first mode. press **▲** , **▼** to adjusting . press **⏏** button confirm and back to running mode. If no button is pressed within 10 seconds, the thermostat will automatically exit and back to running mode. when long press 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

1). Press **⏏** once. Mon (indicating Monday program) will appear in the display. Also be displayed are the currently programmed start times for the 1st heating period and the currently programmed temperature (flashing). icon indicates 1st program period (Set up) setting.

2). Press **▲** or **▼** to change the displayed temperature to your selected temperature for the 1st heating program period.

Repeat above operation and setting as user request.

● **OUTPUT DESCRIPTION**

◆ **Power off mode**
 when the room temperature less than 5 °C the thermostat will start Frost protection mode, when the room temperature high than 8 °C, the thermostat will stop output; Any other situation has no output except these two situation

◆ **Powered on mode(heating mode)**
 The thermostat will stop output when the room sensor broken or short cut
 When Set Temperature-Room Temperature ≥ Temperature Difference. When Room Temperature- Set Temperature ≥0.5°C . The thermostat will stop heating output

Error warning

- 1) Low battery alarm: the low battery warning sign flicker when the battery low than 2.3V
- 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

(4) : AP mode (Wireless communication alarm shows;the icon flashes,it means wireless communication(with 2099DE or 2010DE) failure and alarm)

(5) : Serial number shows

(6) : Setting shows(parameters, programming, time)

(7) : Forever keeping mode shows

(8) : Time shows. Running mode shows

(9) : Heating mode shows

(10) : Anti-freezing mode shows

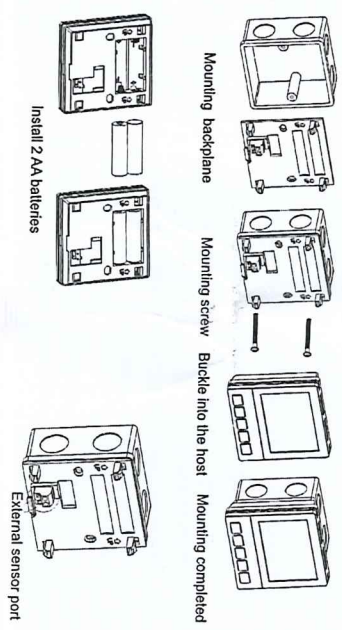
(11) : Sensor control method. Room temperature control **⏏** :

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**



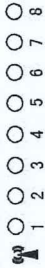
● **CODE MATCH**

Code match(SCU209DE with SAS920XWHL-7-S-DF) :Long press receiver(SCU209DE) **⏏** button and thermostat (SAS920XWHL-7-S-DF) power button **⏏** for 3s and show "RF1". Then short press **⏏** to enter code match status and it will show "-". It means sending the code command then long press receiver(SCU209DE) power button . The code match successfully displays the code number, and it will exit the code display if the code match unsuccessfully for 10s (In awakened state)

The SAS209DE wireless receiver is one-to-many control. It is suitable for the control of electric heating equipment for electric heating and electric drive valves and wall-hung boilers for heating of water systems.

● **COMMISSIONING**

1. Commissioning SCU209DE Room channel 1 with thermostat.



To pair the SAS920XWHL-7-S-DF with SCU209DE

- 1) Power on the wiring centre
 - 2) Press & hold the click button for 3 seconds
 - 3) Select the relevant zone you want to pair via the click button
 - 4) Push and hold the power button on the SAS920XWHL-7-S-DF for 3 seconds
 - 5) Press the 'UP' arrow so the main display is 'RF1'
- The small digits in the top right will display --, these will then change to the zone number you have selected to pair with.
- 6) The process can now be repeated to pair additional thermostats

2. Commissioning specific room channel of SCU209DE with a RF room thermostat

Step 1: Hold the button of the SCU209DE over 3 sec., LED 1 of room channel 1 indicator lit up means room channel 1 is ready for commissioning. Press again, LED 2 of room channel 2 will be on means room channel 2 is ready for commissioning. Continually press button until the light of the commissioning room channel is on. Repeat step 2 or 3 to finish commissioning.

3. Reset commissioning

If you are confused with the room channel against the room thermostat, you can cancel the memory of the previous commissioning by following step.

- Step 1: Power off SCU209DE
- Step 2: Hold over 3 seconds, then re-power on, All light of room channel will blink means you have remove all the previous commissioning.

● **CONFIGURATION MENU SETTING**

In power off status, hold button more than 3 seconds enter the first of configuration menu setting. Press & to adjust parameters. Press or button to switch next item, press button confirm and return to standby mode. If no button is pressed within 10 seconds, the thermostat will automatically exit configuration setting and back to standby mode.

Step	Press buttons	Displayed (factory default)	Press ▲, ▼ to select	Descriptions
1	⋮	CL(0°C)	-4°C — +4°C	Select temperature display adjustment higher or lower

2	⋮	☀️ _{AH} (35°C)	20°C—50°C	Select maximum room temperature limitation
3	⋮	☀️ _{AL} (5°C)	5°C—20°C	Select minimum room temperature limitation
4	⋮	☀️ _{BL} (20)	005-100	The lower the value, the darker the backlight, the higher the value, the backlight is brighter
5	⋮	☀️ _{db} (0.5°C)	0.5°C--5°C	Start heating conditions: when setting temperature ≤ room temperature-0.5°C, stop heating, when setting temperature ≥room temperature reduction db parameters start heating
6	⋮	☀️ _{Pr} (0N)	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} (OFF)	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/S-f/-f	NTC function selection S-r: Room temperature control S-f: Both room and floor temperature control -f: Floor temperature control
10	⋮	☀️ _{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	Out door	Sleep
6:00	8:00	11:00	14:00	18:00	22:00	16°C
20°C	16°C	20°C	16°C	20°C	16°C	16°C

Enter Heating Program

In programming running mode, hold button more than 3 seconds enter modify the time, choose the time which you want to set (press ▲, ▼ to select the time to be modified). 7 days of unified modification, 7 days of independent modification, MON-FRI unified modification / independent modification, SAT ~ SUN independent