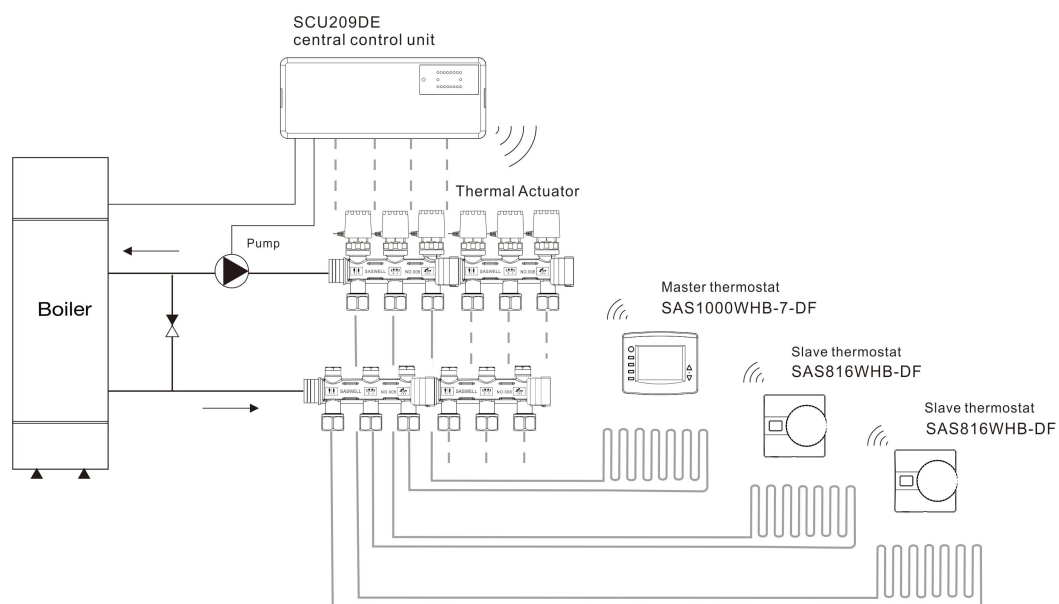


WIRELESS CENTRAL CONTROL SYSTEM

SCU209DE SERIES



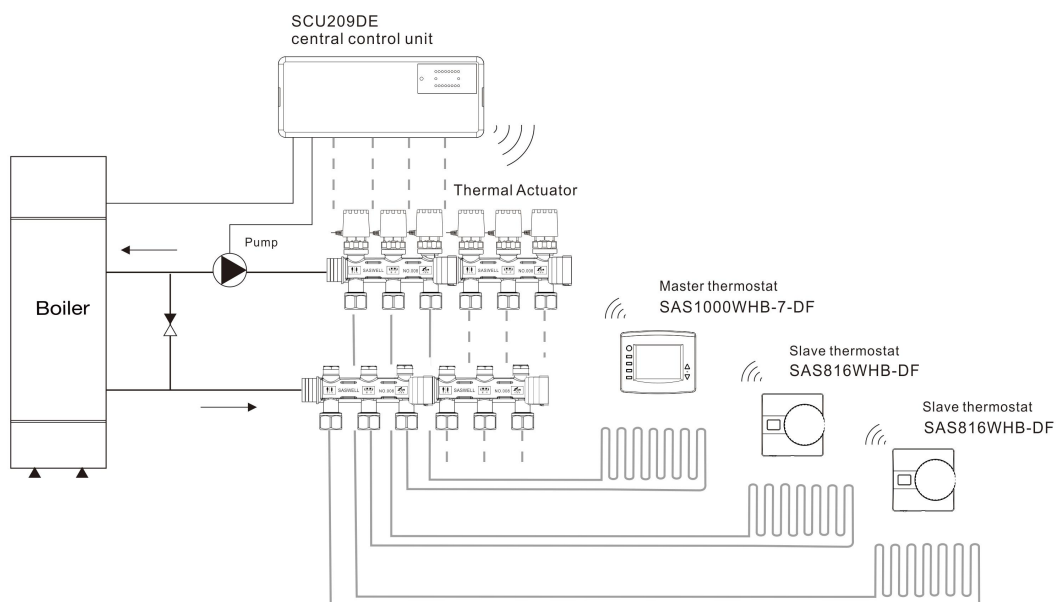
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SCU209DE WIRELESS CENTRAL CONTROL UNIT	3
COMMISSIONING OPERATION	5
CHECK SCU209DE OPERATION	6

Read and save these instructions

WIRELESS FLOOR HEATING CONTROL SYSTEM

SCU209DE works with wireless waterline floor heating control system. It can receive up to 8-loops control signal coming from 8 RF room thermostats and control 8 thermal actuator zone valves. Besides as a central control unit, it can control the boiler and the circulation pump as well.



Control Equipment

Central controller SCU209DE

- Can work with up to 8 RF thermostat
- Half-duplex communication mode at 868MHz
- Relay for both boiler control and pump control

Master controller programmable SAS1000WHB-7-DF

- Half-duplex communication mode at 868MHz
- 7 days programmable
- 2AA battery back up
- Work as master thermostat.

When setting as master control, all 8 channel output will controlled by it. When setting as separate room control, only channel 1 output is controlled by it and other 7channel output will controlled by their own thermostats.

Slave controller non-programmable SAS816WHB-0-DF

- Half-duplex communication mode at 868MHz
- Non-programmable
- 2AA battery back up

SCU209DE WIRELESS CENTRAL CONTROL UNIT

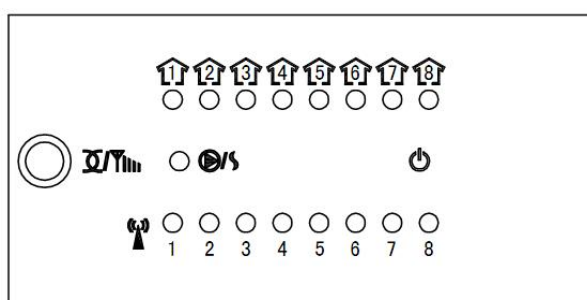
SPECIFICATION

Power source	100—240VAC 50~60Hz
Max Load pumps and Thermal actuators	250VAC 10A
Boiler relay	Volt free signal. I Max8(5)A
Main pump relay	250VAC Max.5A
Thermo actuator	8X230VAC, Max 2A per output, Max 5A in total.
Operation temperature	-20℃ ~ 60℃
Storage temperature	-20℃ ~ 70℃
Radio communication mode	Half-duplex
Frequency band	868MHz (FSK)
Valid receiving distance	100m
Dimensions	280mm X 110mm X40mm
Color	White

IMPORTANT SAFETY INFORMATION

- Always turn off power at the main power source by switching circuit breaker to the off position before installing, removing, cleaning, or servicing this thermostat
- Read all of the information in this manual before installing this unit
- Only a professional contractor should install this thermostat.
- All wiring must conform to local and national building and electrical codes and ordinances.
- If system is not operating properly, check wiring and replace fuse if necessary.

LED LIGHT DESCRIPTION



(1)  Power on LED light, .

(2)  1 2 3 4 5 6 7 8

Light blinks indicating below room Nr. is at the stage of commissioning with a RF room thermostat. Light always on indicate below room Nr. have been paired with a RF room thermostat after commissioning.

(3)  1 2 3 4 5 6 7 8

Light on indicates above room channel is calling for heat.

(4)  Boiler enable signal is on and circulation pump is on.

(5)  Code Learning button

INSTALLATION

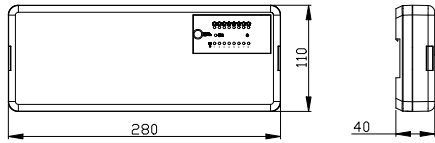


Fig.1 . Size

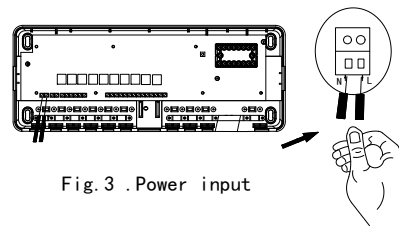


Fig.3 . Power input

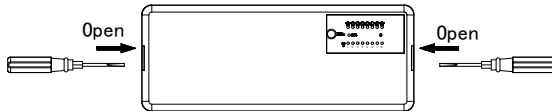


Fig.2 . Open

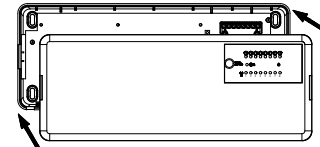
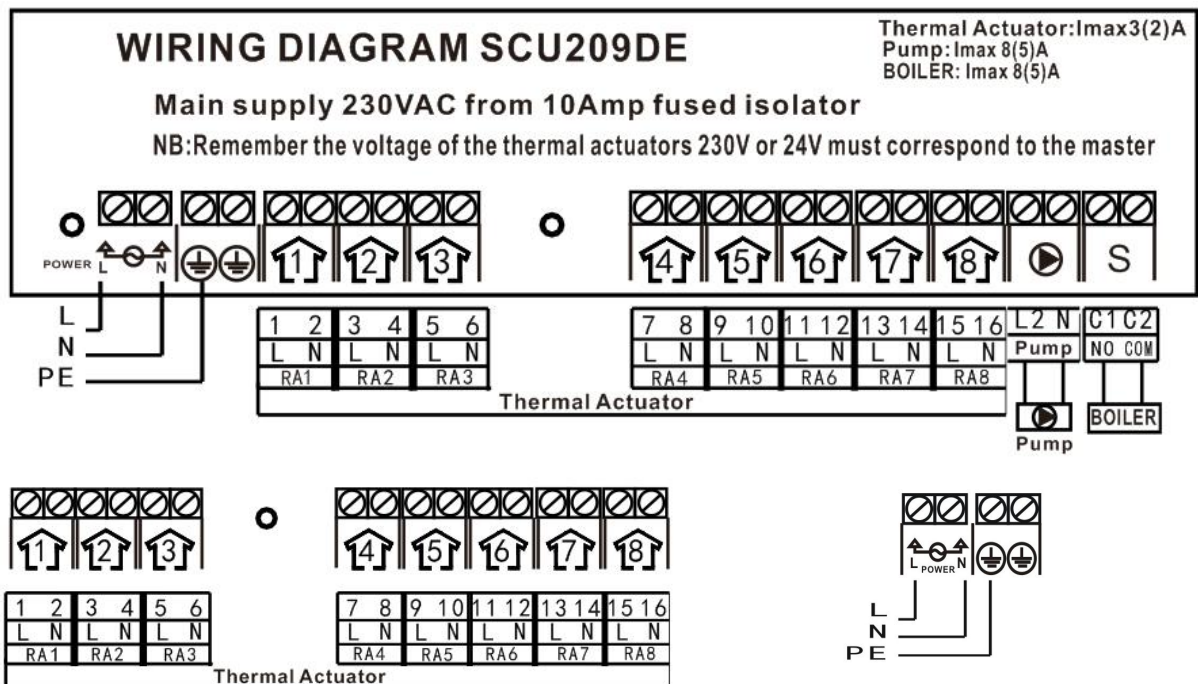


Fig.4 . Return back

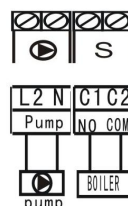
WIRING DIAGRAM



Up to 8 different thermal actuator of different rooms can be controlled by the SCU209DE.

Connect the thermal actuators on the loop(s) for each room to the corresponding terminals on the SCU209DE. RA1 is controlled by room channel 1 thermostat. RA2 is controlled by room channel 2 thermostat. RA8 is controlled by room channel 8 thermostat.

SCU209DE requires a 230V AC mains supply connected to the terminals marked L.N.& E.



The SCU209DE has a volt-free relay output that can be used to control a boiler and a direct output to control the pump

COMMISSIONING

No commissioning is required when the thermostat and the receiver have been supplied in the combined pack because they have been paired in the factory. User can make commissioning again by following steps for any possible reason.

1. Master thermostat. SAS1000WHB-7-DF

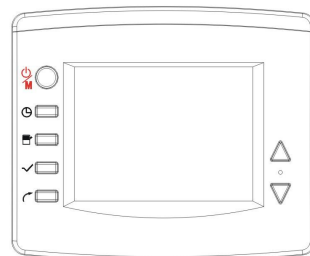
Only Room channel 1 of SCU209DE is used to work with master thermostat.

Master-control mode

A master thermostat can set the SCU209DE to be master control or separate slave control. When user set the master thermostat to work on master-control mode, all actuator output of 8 rooms will open or close simultaneously according to the requirement of the master thermostat.

Slave-control mode

If user set the master thermostat to work on slave-control mode, each actuator output of 8 rooms will work according to the requirement of each room thermostat. Any thermostat model commissioned with the Room channel Nr 1 will be regard as master thermostat. But only model SAS1000WHB-7-DF has a special button for user to select master control or slave control.



2. Commissioning SCU209DE Room channel 1 with master thermostat.



Step 1: Hold the  switch of the SCU209DE over 3 sec, LED 1 of room channel 1 indicator lit up means room channel 1 is ready for commissioning.

Step 2: Hold button  of SAS1000WHB-7-DF over 3sec to start commissioning. If display of SAS1000WHB-7 shows 01 and room channel 1 light in SCU209DE blink simultaneously, which means commissioning SCU209DE Room channel 1 with master thermostat has been done. Room channel 2 light will be on after room channel 1 finish commissioning. If no other room thermostat need commissioning with room channel 2 in 20 seconds, SCU209DE will exit commissioning operation.

Commissioning SCU209DE room channel 2~8 with room thermostat in order.

Step 3: Thermostat model SAS1000WHB-7-DF and model SAS816WHB-0-DF both can be set as slave room thermostat to control room channel 2~8.

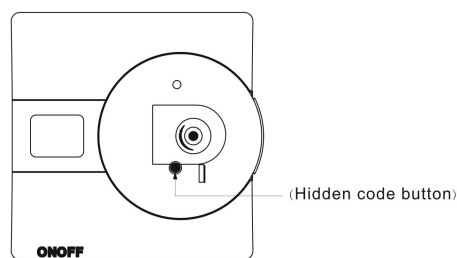
a) SAS1000WHB-7-DF is used as channel 2~8 room thermostat:

Any room channel light is on means such room channel of SCU209DE is ready for commissioning.
Repeat step 2 to commission room thermostat with room channel 2~8 of SCU209DE

b) SAS816WHB-0-DF is used as channel 2~8 room thermostat,

Any room channel light is on means such room channel of SCU209DE is ready for commissioning.

Press code learn button of SAS816WHB-DF to start commissioning. If display of SAS816WHB-0-DF shows 02 and



light of room channel 2 in SCU209DE blink simultaneously, which means commissioning SCU209DE Room channel 2 with room thermostat has been done. Room channel 3 light will be on after room channel 2 finish commissioning.

Repeat step 3 for commissioning another room thermostat with room channel 2~8 of SCU209DE.

Any room channel light is on means such room channel of SCU209DE is ready for commissioning. Room channel light will be on one by one after last room channel has finished commissioning.

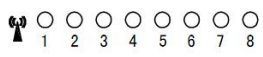
3. Commissioning specific room channel of SCU209DE with a RF room thermostat

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.

4. 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: Turn off SCU209DE

Step 2: Hold  over 3 seconds,  All light of room channel will blink means you have move away the previous commissioning.

CHECK SCU209DE OPERATION

If at any time during testing your system does not operate properly, contact a qualified service person.

Turn on power to the system.

Master room control or Separate room control

1. Turn all temperature setting of the thermostat to minimum. Pump and boiler should be off.
2. Turn temperature setting on the thermostat in room channel 1 to maximum
3. Set SAS1000WHB-7-DF to separate room control by pressing  button. Icon "Room CON" shows in the display
4. Only  light on means channel room 1 is calling for heat.
5.  light on means main pump and boiler is on
6. Set SAS1000WHB-7-DF to master room control by pressing  button. Icon "MASTER CON" shows in the display
7. All room channel lights are on,  all meaning rooms will be heated up because master room is calling for heat.
8. Turn temperature setting on SAS1000WHB-7-DF to minimum, All room channel lights are off ,  rooms means all will stop heating because master room is not calling for heat.

Heating of Room Channel 2~8

1. Turn all temperature setting of the thermostat to minimum. Pump and boiler should be off.
2. Set SAS1000WHB-7-DF to separate room control by pressing  button. Icon "Room CON" shows in the display

3. Turn temperature setting on the thermostat in room channel 2 to maximum
 4.  light on means channel room 1 is calling for heat.
 5.  light on means main pump and boiler is on.
 6. Repeat 3~4 to check the heating requirement of other room thermostats.
-

CUSTOMER ASSISTANCE

After reading this guide, if you have any question about the operation of your thermostat, please contact your installer or service provider.