SAS816WHL-0 Thermostat for radiant heating

SAS816WHL-0 is a non-programmable thermostat designed for water floor heating systems. The thermostat can be controlled by build-in sensor or remote sensor.It is linked control, passive output to control boiler heating and valve actuator.

SPECIFICATION

Power source ……	100~240VAC 50/60Hz
Resistant Load current:……	250VAC 5A
Inductive Load current…….	250VAC 3A
Room temperature setting range…..	5℃~30℃ (41℉~86℉)
Floor temperature setting range……	5℃~40℃ (41℉~104℉)
Accuracy……...	±1℃ or ±1℉
Dimensions……	86mm×86mm×32mm
Color……..	White

FEATURE

- LCD display shows room temperature
- Optional economic operation or comfort operation
- Optional temperature display of Celsius or Fahrenheit scale
- Optional detective sensor: Build in sensor or external floor sensor.
- Passive output to control boiler heating and valve actuator.

DISPLAY DECRIPTION AND MOUNTING

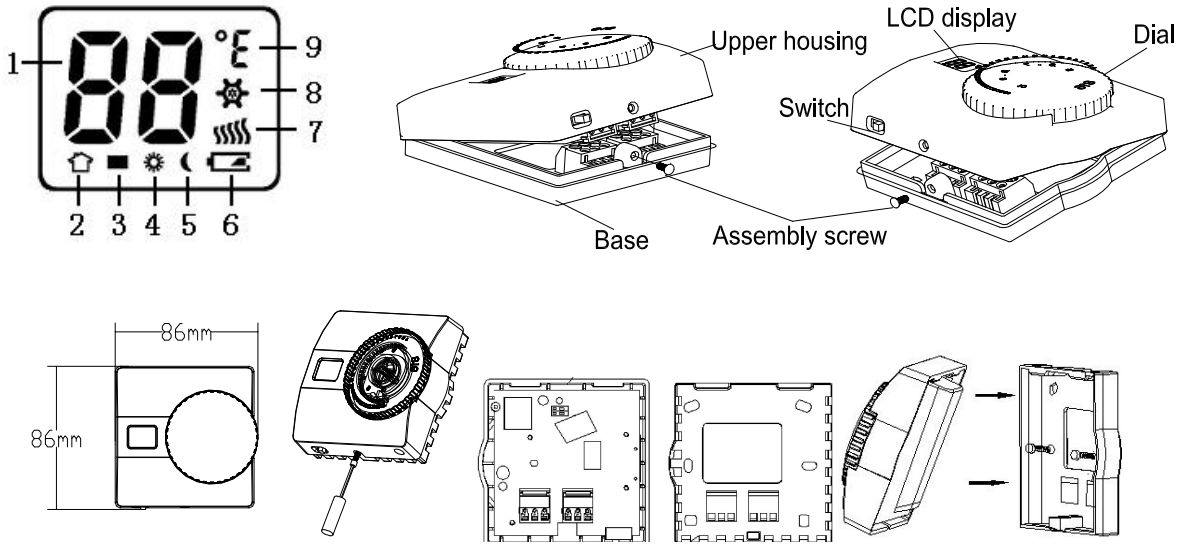

Figure 1

DISPLAY ICON INSTRUCTION

1) Shows current temperature, when it is flashing, it shows set temperature.
2) Shows room temperature mode
3) Shows floor temperature mode
4) Shows comfort mode, it indicate saving energy.
5) Shows saving energy mode(sleep mode).
6) Low battery indication.
7) Heating output indication
8) Cooling output indication
9) ℃ and ℉ readout

MOUNTING INSTRUCTION

1. Remove assembly screws from the base of thermostat. Gently pull the upper housing straight off the base. Forcing or prying on the thermostat will cause damage to the unit. See figure 1.
2. Connect wires beneath terminal screws on the base using appropriate wiring schematic. See figure 2
3. Push power base into wall.
4. Using 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 the upper housing on the base and fix the upper housing by removed assembly screw

WIRING DIAGRAM

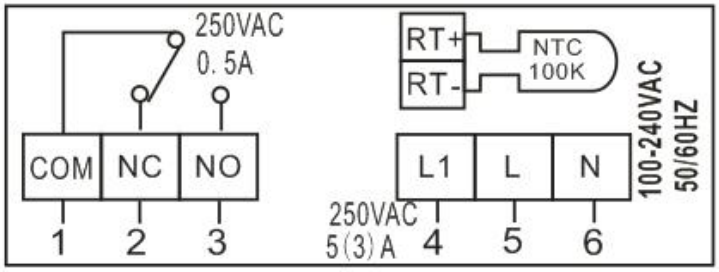

Figure2

NOTE: Please don't connect terminal 3 & 4 . It will cause short circuit.
No.4 : L 1 ,Active Output;
No.1-3 Linked Control.

CONFIGURATION DIL SWITCH SETTINGS

Slide the DIL switches to the settings required (see Figure 3)

Heating selection **Cooling selection**

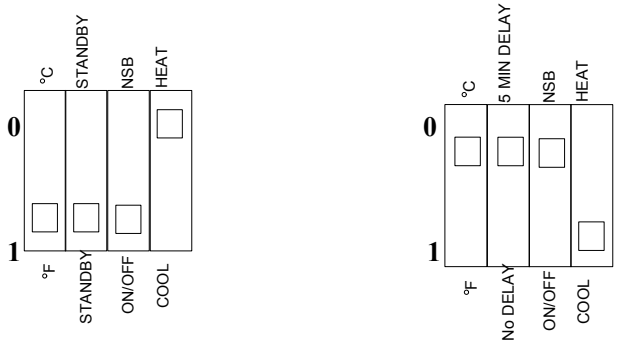

Figure3

Both heating and Cooling selection

Select ℃ and ℉ readout

Set the switch to ℃, temperature in the display will be shown in ℃ readout.
Set the switch to ℉, temperature in the display will be shown in ℉ readout.

Switch function option

ON/OFF – Switch at the lower side of the thermostat used as ON/OFF switch

Setting the switch at , ON thermostat is switched on.

Setting the switch at, OFF thermostat is switched off.

NSB – Switch at the lower side of the thermostat used as NSB switch

Setting the switch at, ON thermostat is on comfort mode.

Setting the switch at, OFF thermostat is on Night set back mode.

Compressor delay option for cooling selection

Setting the DIL switch at NO DELAY, compressor delay function is canceled.

Setting the DIL switch at 5 MIN DELAY, compressor will have 5 minutes off-time protection.

USERS INSTRUCTIONS

Display

The LCD displays actual room temperature until the setting dial is moved.

Control sensor option

The thermostat has build in sensor and terminal RT+, RT- for remote sensor. (See Figure 2) If remote sensor is connected to RT+, RT-, the detective temperature is used to control output. If there is no remote sensor , the thermostat will use temperature detected by build-in sensor to control output.

Setting the temperature

Turn setting dial to required temperature. The selected temperature will **flash** in the LCD to signify it is showing the **set temperature**

After a short period the display stops flashing and shows **actual room temperature.**

Thermostat status (heat mode only)

A flame symbol will be lit whenever the thermostat is calling for heat

Thermostat status (cool mode only)

A snowflake symbol will be lit whenever the thermostat is calling for cooling. If this is seen to flash, the thermostat output is delayed for a short period to prevent compressor damage.

Low battery indication

A battery symbol will flash in the display when batteries require replacement. Batteries should be replaced within 15 days, after which the thermostat will turn off the load it is controlling. When this happens “OF” will be displayed.

Switch function

The function of the switch at the lower side of the thermostat has 2 options. You can select the option by

setting the second dip in the dip group. See DIL switch setting.

NSB setting

This switch is used as Day/Night switch.

When the switch is set to the “Sun Symbol”, the thermostat controls at the temperature set by the setting dial.

When set to the “Moon symbol”, the thermostat controls at 4℃ below the temperature set by the setting dial.

Note: if used to control cooling, thermostat controls 4℃ higher, with switch in Moon position

ON/OFF setting

The switch is used as ON/OFF control

When the switch is set to the “Sun Symbol”, the thermostat controls at the temperature set by the setting dial.

When set to the “Moon symbol”, the thermostat output is turned off and “OF” is display.

Error Code

E1 flashing in the display: Room sensor short circuit. Thermostat shut down all output

E2 flashing in the display: Room sensor broken. Thermostat shut down all output.

E3 flashing in the display: Floor sensor short circuit. Thermostat shut down all output

Temperature Alarm

If the room temperature is higher than 30℃. **HI** will be displayed. In cooling mode, the heating should start working; In heating mode, the heating should stop working.

If the room temperature is lower than 5℃. **LO** will be displayed. In cooling mode, the heating should stop working; In heating mode, the heating should start working.