

SAS908STW-0-F1 (H/C) DIGITAL THERMOSTAT

Application: 24VAC, Cooling and heating

Installation and operation instructions

SPECIFICATION

Input Voltage.....24VAC (18~30VAC 50/60HZ)
Fan Relay Amps.....8 (5) A
Cool and heat Relay Amps inductive..... 8 (5) A
Set point Temperature Range.....5°C to 38°C
Temperature Correction Factor-3°C~~3°C
Accuracy±0.5°C
Dimensions.....115mm×90mm ×28mm

FEATURE

- Large LCD display with backlight
- Set points and room temperature display simultaneously
- Maintains the temperature within the range of 0.5°C to the set point
- Fans switch with on and auto
- Manual change over
- Never lost user setting in the event of power-off, no battery is required
- Display temperature recalibrate
- Sleep mode option
- Compressor short cycling protection available

OPERATION

The Thermostat Buttons and Switches

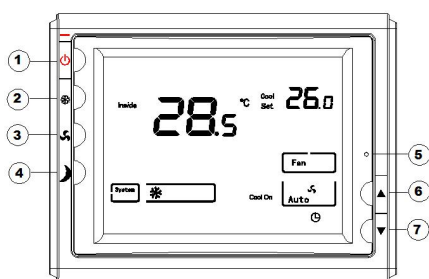


Figure 1

- (1)Power button
- (2) System switch (Cool,heat,ventilation)
- (3) Fan switch (AUTO ON)
- (4) Sleep operation button
- (5)Reset switch
- (6)Raises Temperature setting
- (7) Lower Temperature setting

The Display

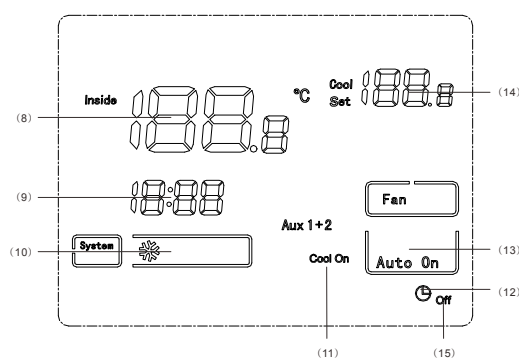
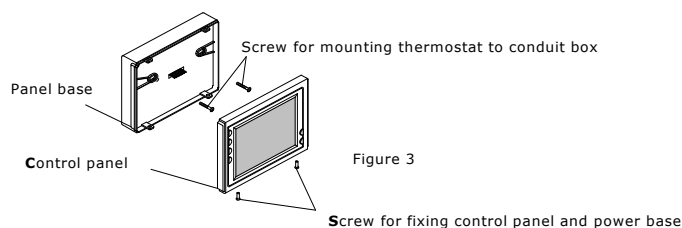


Figure 2

- (8)Room temperature
- (9)Hidden parameter display
- (10)Shows system mode
- (11)Cool on shows when the thermostat is calling for cool
Heat on shows when the thermostat is calling for heat
- (12)Sleep mode
- (13) Indicate fan switch position
- (14)Setting temperature

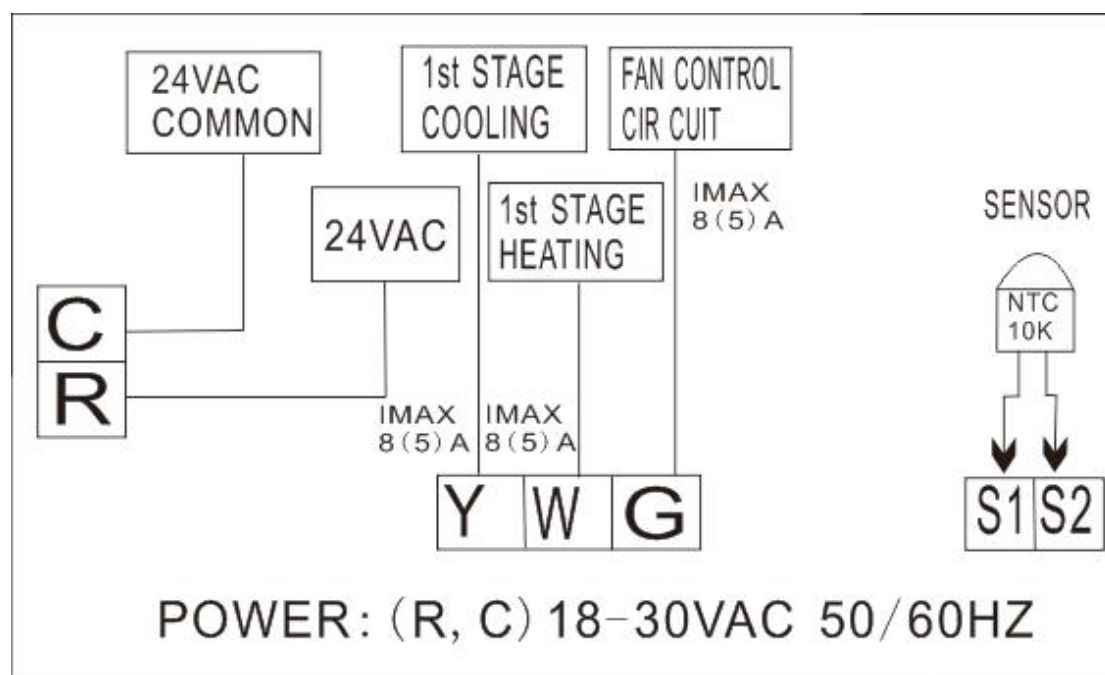
INSTALL THE THERMOSTAT

ATTACH THERMOSTAT BASE TO WALL



1. Remove 2 screws 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 4 .
3. Push power base into wall or 86 mm X 86 mm 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 and fix power base and control panel by removed two screws in item 1.

WIRING DIAGRAM



CHECK THERMOSTAT OPERATION

Switch on the thermostat

Fan operation (Ventilation only has ON mode)

Set fan button to **On** or **Auto** .

Cooling system operation

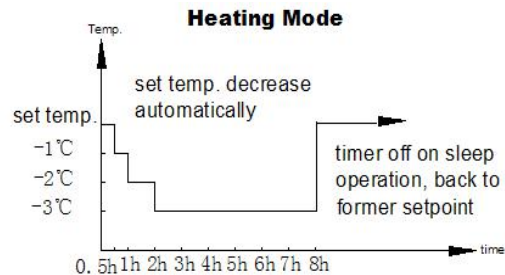
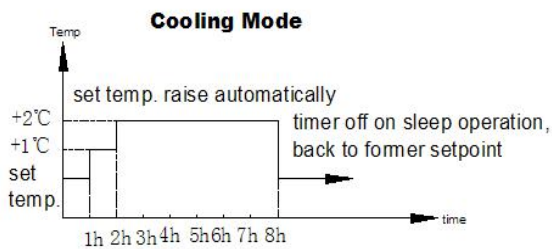
1. Press system switch to cool mode ().
2. Press “▲” to adjust thermostat setting below room temperature. The cooling system should start to operate. If the **Cool On** display is flashing, the compressor lockout feature is operating. (Note: See Configuration menu item 6).
3. Press “▼” to adjust temperature setting above room temperature. The cooling system should stop operating.

Heat system operation

1. Press system switch to heat mode ().
2. Press “▲” to adjust the thermostat setting above the room temperature. The heating system should start to operate.
3. Press “▼” to adjust the thermostat setting below the room temperature. The heating system should stop operating

Sleep operation

Push sleep operation button ,  appears indicate during the following 8 hours, the thermostat will control cooling according to following curve. Push sleep operation button again,  disappears indicate the sleep operation feature is canceled.



Applications

System switch on cool mode: To achieve better sleep, 1 hour after sleeping mode setting, set point temperature will raise 1°C automatically, and 2 hours later, setting point temperature will raise 2°C and keep on with this temperature until timer off, which is 8 hours. After timer off, set point will be restored to formal setting automatically.

System switch on heat mode: To achieve better sleep, 1 hour after sleeping mode setting, set point temperature will decrease 1°C automatically, and 1 hour later, setting point temperature will decrease 2°C , 2 hours later, setting will decrease 3°C and keep on with this temperature until timer off, which is 8 hours. After timer off, set point will be restored to formal setting automatically.

CONFIGURATION

The configuration menu allows you to set certain thermostat operating characteristics to your system or personal requirements. Switch off the thermostat and hold the sleep operation Button ④ for over 4 seconds till power on again means you have entered the first configuration menu item. There are 7 menu items. Press button ④ to change to the next item. To exit the menu and return to the normal operation, switch off the thermostat and switch it on again. If no keys are pressed within 20 seconds the thermostat will be switched off.

Return to factory default : Switch off the thermostat, Press button ④ over 4 seconds till power on again means you have entered the menu, long press button ④ over 4 seconds after "dEF" blinking readout three times, it means return to factory default. **(Caution: Please don't operate before malfunction happened.)**

Step	Press buttons	Displayed (factory default)	Press Δ^+ 、 ∇^- to select	Descriptions
1	④ 3 seconds	1 (0)	-3--- +3	Adjust temperature coefficient
2	④	2 (28℃)	20℃—38℃	Select maximum setting temperature limitation
3	④	3 (14℃)	5℃—14℃	Select minimum setting temperature limitation
4	④	4 (rE)	rd, rE	Memorize option before power loss
5	④	5 (1)	1~5℃	start running options
6	④	6 (1)	1~3℃	stop running options
7	④	7 (3)	0~3 minutes	Minimum compressor 1 off-time setting

1) Select temperature recalibrates Adjustment 3 LO to 3 HI

You can adjust the room temperature display up to 3 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.

2) Select maximum setting temperature limitation

This feature provides a maximum setpoint temperature for heat. The default setting is 28℃, It can be changed between 20℃ to 38℃.

3) Select minimum setting temperature limitation

This feature provides a minimum setpoint temperature for cooling. The default setting is 14℃, It can be changed between 5℃ to 14℃.

4) Memorize option before power loss

Using Δ^+ & ∇^- button to select between "rE" and "rd". "rE" means the thermostat will Memorize its ON or OFF status before power loss. After power supply comes to normal again, the thermostat will remain ON or OFF according to what it is before power loss. "rd" means no matter the thermostat is switched ON or OFF before power loss, after the power supply comes to normal again the thermostat will keep power off.

5) start running options

Setting temperature $\leq$ Room temperature - start running options ,it will start cooling .

Setting temperature $\geq$ Room temperature + start running options ,it will start heating .

6) stop running

Room temperature $\leq$ Setting temperature -stop running ,it will stop cooling

Room temperature $\geq$ Setting temperature +stop running ,it will stop heating

7) Minimum compressor off-time cycle setting

To protect compressor from short cycling, you can select compressor off-time cycle, 1 means off-time cycle is 1 minutes, 3 means off-time cycle is 3 minutes. When the thermostat compressor time delay occurs it will flash Cool on display for the time you have selected. Select 0 means you have canceled the function.