

SAS810FCT-2-S (MK) FAN COIL THERMOSTAT

Application: Heat/cool, 3speed fan, 2 pipe fan coil unit

Installation and operation instructions

SPECIFICATION:

Electrical Rating.....100-240VAC 50/60Hz
Fan Relay Amps inductive.....3(2)A
Heat/Cool Relay Amps inductive.....1(0.5)A
Room Temperature Setting Range.....5°C to 35°C
Dimensions.....86mm×86mm×15mm (or 3.38"×3.38"×0.6")

FEATURES:

- Large LCD display with backlight
- Temperature adjustments are simple with the large up-down arrows
- Display shows both set points and room temperature simultaneously
- Maintains the temperature to within 0.5degree set point
- Auto fan with adjustable 3-fan speed
- Permanent user setting retention during power loss, no batteries are required

OPERATION

The Thermostat Buttons and Switches

- ① System button (COOL, HEAT)
- ② Fan speed option button (HI MED LOW AUTO)
- ③ Configuration menu option button (In switch on state, long press the menu button more than 4 seconds can view the external sensor temperature. Short circuit show E3, Open circuit show E4)
- ④ Raises temperature setting
- ⑤ Power button
- ⑥ Lowers temperature setting.

The Display

- ⑦ Shows thermostat is in heating mode
- ⑧ Shows thermostat is measuring room temperature
- ⑨ Shows room temperature
- ⑩ Shows fan rotate in Auto speed
- ⑪ Shows fan speed option (HI、MED、LOW)
- ⑫ Shows thermostat is in cooling mode
- ⑬ Indicate the output to motorized valve is ON or OFF
- ⑭ Shows setting temperature

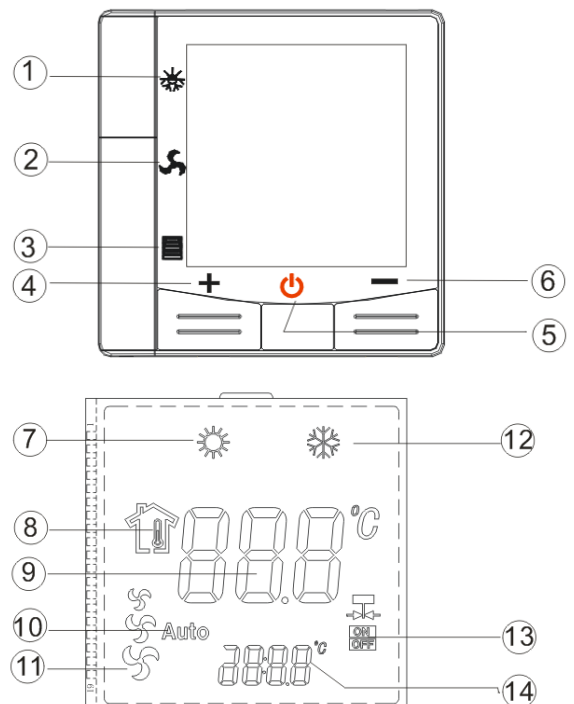


Figure 2

INSTALL THE THERMOSTAT

ATTACH THERMOSTAT BASE TO WALL

WARNING: ELECTRICAL SHOCK HAZARD

- Turn off power at the main service panel by removing the fuse or switching the appropriate circuit breaker to the OFF position before removing the existing thermostat.

IMPORTANT:

- Thermostat installation must conform to local and national building electrical codes and ordinances.

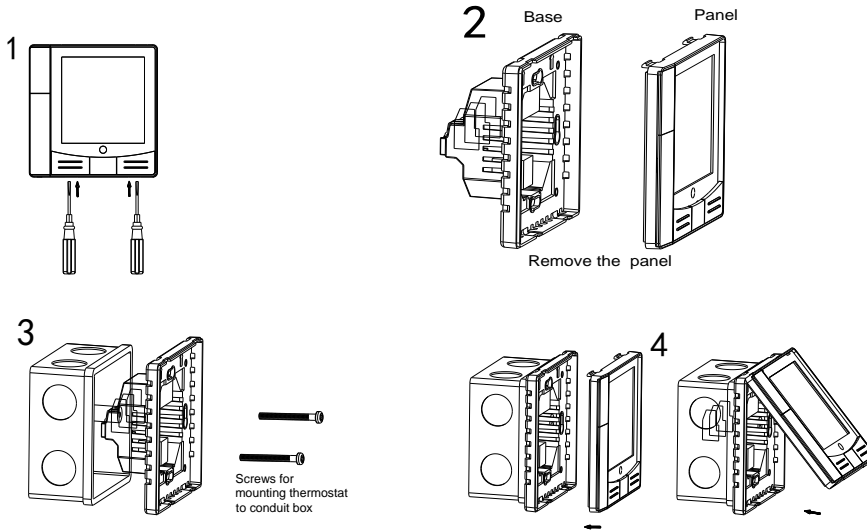
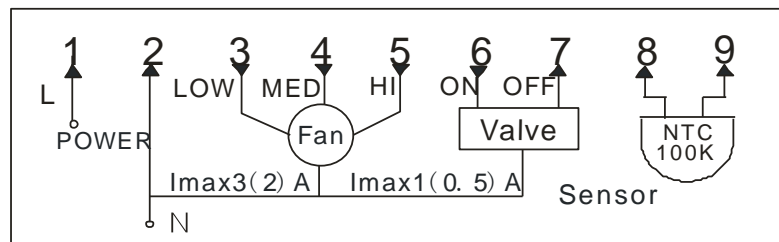


Figure 3

1. Remove the packing material from the 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 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






Power:100-240VAC 50/60HZ

Figure 4


CHECK THERMOSTAT OPERATION

Switch on the thermostat


Fan operation

1. Push fan button, display will show    and Auto, separately means fan rotate in HIGH, MED, LOW, or AUTO speed.
2. If you select AUTO speed, fan operation will change speed according to the difference between the room temperature and setting temperature. If room temperature is 3°C higher than setting temperature in cooling or 3°C lower than setting temperature in Heating. Fan will run in High speed. If room temperature is 2°C- 3°C higher than setting temperature in cooling or 2°C-3°C lower than setting temperature in Heating. Fan will run in Medium speed. If room temperature is 0°C-2°C higher than setting temperature in cooling or 0°C-2°C lower than setting temperature in Heating. Fan will run in Low speed.

Heat system operation

1. Press system switch to into 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.

Cooling system operation

1. Press system switch to into Cool mode ()
2. Press “-” to adjust thermostat setting below the room temperature. The cooling system should start to operate.
3. Press “+” to adjust temperature setting above the room temperature. The cooling system should stop operating

Internal sensor & external sensor control mode

Internal sensor is room's temperature sensor; external sensor is fan coil unit's temperature sensor.

Terminals 8 & 9 connected with external sensor for measuring room temperature. Internal sensor & external sensor can automatic exchange. When you connected with external sensor, the internal sensor will lose function, the measuring room temperature is external sensor's surface temperature. When you didn't connect with external sensor, the measuring room temperature is internal sensor's surface temperature. It means you can only select one sensor for measuring room temperature.

CONFIGURATION

The configuration menu allows you to set certain thermostat's operating characteristics to your system or personal requirements.

Switch off the thermostat and hold the sleep operation Button ③ for over 4 seconds till power on again means you have entered the first configuration menu item. There are 8 menu items. press button ③ 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. To revert to factory default setting, press button ③ for over 3 seconds in configuration menu item, all the configuration setting has reverted to factory default setting.

Step	Press buttons	Displayed (factory default)	Press + , - to select	Descriptions
1	③ 4 seconds	CL (0)	-4 --- +4	Adjust temperature coefficient
2	③	AH (31)	18℃—35℃	Select maximum setting temperature
3	③	AL (16)	5℃—20℃	Select minimum setting temperature
4	③	bL (2)	1、2、3	Select display backlight mode
5	③	LA (on)	On/off	Select Fan stop option
6	③	FL (C)	℃/°F	Select °F or °C readout.
7	③	rE (rE)	rd/rE	Memorize power on/off option before power loss
8	③	PP (00)	PP/00	Select pump protection
9	③	Fd (35.0℃)	20℃—45℃	Cold Air Prevention for setting low temperature
10	③	FE (40.0℃)	25℃—50℃	Cold Air Prevention for setting high temperature

1) Select to adjust the temperature coefficient

The display will show “Temp adjust” and its default setting value 0 flashing in the configuration menu. Selecting between “-4” to “+4”. You can adjust the room temperature display up to 4 lower or higher.

2) Select maximum temperature

The display will show 35.0℃ which is the default factory maximum temperature limitation. Using “+” & “-” button to set the maximum limitation. It can be change between 18℃ to 35℃

3) Select minimum temperature

The display will show 05.0℃, which is the default factory minimum temperature limitation, Using “+” & “-” button to set the minimum temperature limitation. It can be change between 5℃ to 20℃

4) Select display backlight mode

The display will show 2 which is the factory default setting for display backlight mode, Using “+” & “-” button to select 1、2、3. Select 1 the light will keep the light off continuously. Select 2 the display will be on when any button of the thermostat is touched. Select 3 the display will keep the light on.

5) Select Fan stop option

The display will show “on” which is the factory default setting for fan option. Using “+” & “-”

button to select between “ON” and “OFF”. If you select “ON”, the thermostat will turn on the fan at a speed provided by the Fan Switch and will not stop the fan when there is no call for heat or cool. If you select “OFF”, the thermostat will stop the fan when there is no call for heat or cool

6) Select °F or °C readout.

Using “+” & “-” button to changes the display readout to Centigrade or Fahrenheit as required

7) Memorize power on/off option before power loss

The display will show “rE”, which is the default factory setting for Memorize option before power loss . Using “+” & “-” button to select “rE” or “r d”. “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. “r d” 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.

8) Select pump protection mode

The display will show “00” which is the factory default setting for pump protection mode. Using “+” & “-” button to select between “PP” and “00”. Select PP will activate pump protection mode.

Select 00 will cancel the function. It is recommended to activate the pump at least 30 second every 24 hours in order to avoid any seizing.

9) Cold Air Prevention for setting low temperature

By setting parameter Fd, choosing a value as protective value of low temperature (Setting range: 20°C—45°C, the factory default is 35°C) , to exit by pressing Power button.

10) Cold Air Prevention for setting high temperature

By setting parameter FE, choosing a value as protective value of high temperature (Setting range: 25°C—50°C, the factory default is 40°C) , to exit by pressing Power button.