

Fan Coil Thermostat (2-pipe)

GM8-FC

Introduction

GM8-FC Fan Coil Thermostat is mainly applied to a 2-pipe Fan coil system. It can read room temperature and local time, and automatically control fan speed based on the temperature difference. The device is of high reliability and practicability.

Features:

- Capacitive touch buttons
- Tempered glass panel, PC alloy enclosure
- Precise temperature calibration function
- Non-volatile Memory, working state saved even power failure
- Intelligent on/off control of 3-speed fan, electric (ball) valve or air-valve
- Easily steel frame back plate installation



Specification

- Power Supply: AC85V~260V, 50/60HZ
- Resistive Load: $\leq 3A$
- Self Consumption: $< 1W$
- Temperature Sensor: NTC 15K
- Display Accuracy: 0.1 °C
- Working Environment: 0~55°C; $< 95\%$ RH (Non-condensation)
- Temperature Setting: 5~35 °C (Adjustable)
- Dimension: 86* 86*42mm
- Hole Pitch: 60-65mm (86 Standard junction box)

Safety Information

To protect yourself and others from danger and to protect the device from damage, please read the safety information before using it.

Important!

- A qualified electrician with the understanding of wiring diagrams and knowledge of electrical safety should complete installation following the instructions.
- Before installation, please confirm the real voltage complying with the device's specification.

Cut off any power supply to secure the safety of people and device.

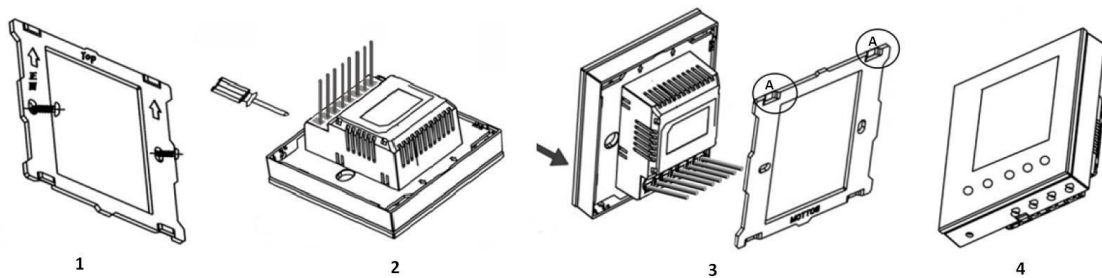
- During installation, protect the device from any physical damage by dropping or bumping. If happens, please contact the supplier for maintenance.
- Keep the device away from acid-base and other corrosive solids, liquids, gases, to avoid damage.
- Avoid overexertion during operation, to protect device from mechanical damage.
- Read all instructions and documentation and save for future reference.

Installation & Wiring

Location:

Thermostat is suggested to be installed indoor, a place with around 1.5m height above the floor where represents the average room temperature. It should be away from direct sunlight, any cover, or any heat source, to avoid false signal for temperature control.

CAUTION: Cut off power supply at circuit breaker or fuse before installation to avoid fire, shock or death!

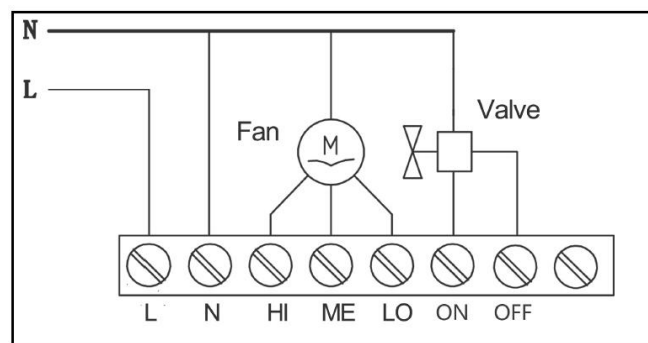


Step 1: Remove the steel frame from the device, and secure it onto the junction box with two screws.

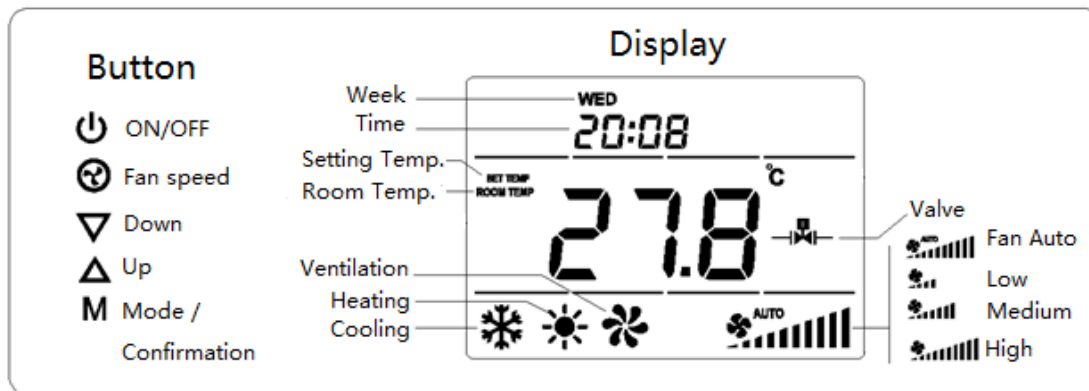
Step 2: Insert all wires into the right terminals and tighten screws. The wiring diagram is shown below.

Step 3: Attach the wired device on “A” points of the steel frame as shown first, and then push the whole device into junction box.

Step 4: Confirm the device is well mounted, power on and it is ready to operate.



Button & Display



Operation

On/Off Setting

When power on, thermostat will display “OFF”, press to enter working interface.
When normal working, press turn off the device, “OFF” displays and all outputs are off.

Local Time Setting

Press & hold “M” to enter local time setting. Touch “M” to switch among Week, Hour & Minute, and then press or to set the parameters of flashing item. Press “M”, or wait for 15s to save the value and return to display.

Working Mode Setting

Touch “M” to enter working mode setting, the current mode flashing. Press or to switch among Cooling , Heating & Ventilation mode, then press “M”, or wait for 15s to confirm the choice.

Temperature setting

Touch or to set local temperature value. Hold the buttons can set continuously. Press “M”, or wait for 15s to save and return to room temperature display.

Fan Speed setting

In normal display, press to switch among the fan speed :“ Low, Medium, High, Auto” ; Then press “M”, or wait for 15s to confirm the choice.

Note: In Ventilation mode, no Auto speed choice.

● Fan Manually control

If fan speed is manually set , the device still auto control the fan in such situation:

Cooling Mode:

Room temperature \leq setting temperature, valve closes and fan stops;

Room temperature \geq setting temperature +1 °C, valve and fan opens.

Heating Mode:

Room temperature \geq setting temperature, valve closes and fan stops;

Room temperature \leq setting temperature -1 °C, valve and fan opens.




● Fan Automation

Cooling Mode	<p>a. Room temperature \leq setting temperature, valve closes automatically, fan stops;</p> <p>b. Room temperature \geq setting temperature +1 °C, fan turned on in low speed;</p> <p>c. Room temperature \geq setting temperature +2 °C, fan turned on in medium speed;</p> <p>d. Room temperature \geq setting temperature +3 °C, fan turned on in high speed;</p>
Heating Mode	<p>a. Room temperature \geq setting temperature, valve closes automatically, fan stops;</p> <p>b. Room temperature \leq setting temperature -1 °C, fan turned on in low speed;</p> <p>c. Room temperature \leq setting temperature -2 °C, fan turned on in medium speed;</p> <p>d. Room temperature \leq setting temperature -3 °C, fan turned on in high speed;</p>

Note: Fan will operate only if the valve opens.

Parameter Setting

● Power Failure Memory

Under the shutdown state, press & hold  will enter interface for power failure memory selection, "PAGE" displays. Press  or  to change setting value, then press "M" to confirm and return.


After power failure:



000 (default) indicates device will be in shutdown state ("OFF") when power on again;





001 indicates device will be in working interface when power on again;

002 indicates device will stay the status before power failure when power on again.



● Temp. Calibration/ Temp. Setting Range

Under the shutdown state, press & hold  will enter interface for temperature calibration, "-ERR" displays. The calibration range is among -5.0 ~ +5.0 °C.

Press  or  to change setting value, then press "M" save and enter interface for temp. Range setting (0~99°C):

1. "-HI-" displays, the default value is 35°C. Press  or  can set the value;
2. Press "M" again, "-LO-" displays, the default value is 5°C. Press  or  can set the value;
3. Then press "M" to confirm and return to "OFF".

● Screen Brightness/ Fan continuously work/ Key-touch volume

Under the shutdown state, press & hold "M" will enter interface for screen brightness selection (LED), Press  or  can choose: (press "M" to confirm the choice and enter into next setting)

111 indicates the screen will always be full bright when power on;

000 (default) indicates without button operation for a long time (15 seconds), the screen will be half bright automatically.

Press “M” again will enter interface for Fan continuously work choice:

000 (default) indicates device will shutdown fan and valve if room temp. Reaches setting temp.;

001 indicates device will shutdown valve only if room temp. Reaches setting temp. The fan will continuously work in low speed.

Press “M” again will enter interface for Key-touch volume (BEEP) setting:

0 : Off 1: Low(default) 2: High

- **Temp. Sensor Error**

If temperature sensor does not work, “E1” displays , fan stops and valve closes automatically.