BAC-2000ML Series WiFi Thermostat

User Guide

For Fan Coil Unit

Welcome

Thank you for your purchase.

Please read this installation/programming manual for comprehensive instructions on installing and operating your thermostat. Please also ensure a suitably qualified person installs your thermostat and complies with all local regulations.

In the box you will find

Thermostat	1pc	Screws	2pc
User Guide	1pc	Wall plate	1pc
QC Passed	1pc		

ABOUT YOUR THERMOSTATS

BAC-2000-ML Modulating Touch Button thermostats are designed to provide Proportional-Integral (PI) modulating control in 2-pipe or 4-pipe fan coil units, zoned commercial heating, Ventilating and various heating and cooling applications.This thermostat provides modulating analog 0-10V control.

TECHNICAL DATA

Power Supply: 95 ~ 240 VAC, 50 ~ 60HZ
Fan Relay Amps Resistance: 5A; Inductive: 3A
Valve Relay Amps Resistance: 3A; Inductive: 1A
Sensor: NTC3950, 10K
Accuracy: ±0.5℃
Set Temp. Range: 5 -35℃
Dispaly Temp. Range: 5 ~ 99℃
Ambient Temp.: 0 ~ 45 ℃
Ambient Humidity: 5 ~ 95 % RH (Non Condensing)
Storage Temp.: -5 ~ 45 ℃
Power Consumption: <1.5W
Timing Error: < 1%
Shell Material: PC +ABS (Fireproof)
Installation Box: 86 * 86mm Square or European 60mm Round Box
Wire Terminals: Wire 2 x 1.5 mm2 or 1 x 2.5 mm2
Protection Class: IP20
Buttons: Capactive Touch Buttons

FEATURES

On Appearance

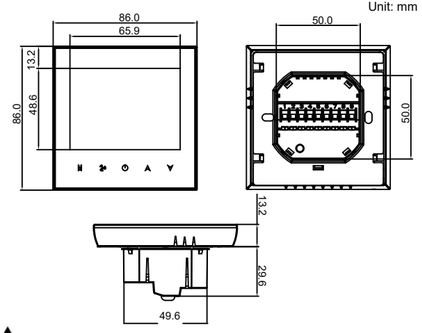
1. 86mm hidden box and european 60mm round box is suitable.
2. White, black or gold housing creates your colorful life.
3. White backlight protect your eyes
4. Touch buttons to make simple operation.
5. Amazing Silver Frame opens your modern life.

On Functionality

1. Powerful functions are available such as Modbus/WIFI etc,.
2. 0.5°C Accuracy keeps temperature within the level you set.
3. Data memory when power is off.
4. 5+2 six periods programmable maximize comfort and economy.
5. Create thermostat group to centrally control.
6. Integrated with **Amazon Echo, Google Home, Tmall Genie, IFTTT.**
7. Support Device Sharing.
8. All setting languages synchronize your time zone, address and language
9. No limit to add room.
10. Support Smart Scene.

DIMENSION

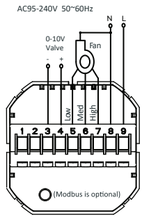
Unit: mm



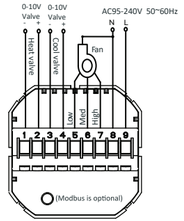
CAUTION

Electrical Shock or Equipment Damage Hazard. Can shock individuals or short equipment circuitry.
Disconnect power supply before installation.

WIRING



Two Pipe , Modulating



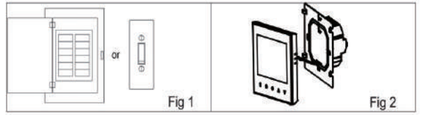
Four Pipe , Modulating

INSTALLATION

Your thermostat is suitable for installation within a standard 86mm pattress box or European 60mm pattress box.

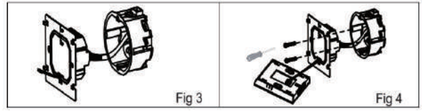
Step 1. Keep the electricity off. See Fig 1.

Step 2. Remove the mounting Plate by rotating the LCD part. See Fig 2.



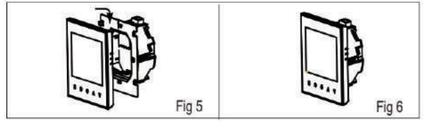
Step 3. Connect power supply, load into the appropriate terminals. (see "Wiring your thermostat" for details and Fig 3).

Step 4. Fix the mounting plate into the wall with screws in the box. See Fig 4.

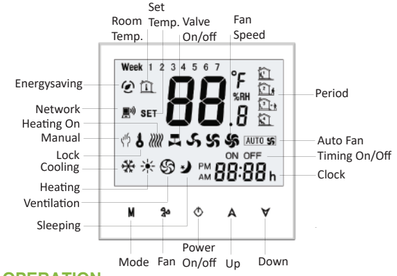


Step 5. Fasten body of thermostat and the mounting plate See Fig 5

Step 6. Installation complete. See Fig 6



HOME SCREEN QUICK REFERENCE



OPERATION

During Power On

1. Power On/off: Press ⏻ to turn the thermostat on/off.

2. Manual & Programmable

Press and hold **M,** will flash. Press ∧ to select manual and press ∨ to select weekly programmable.

3. Setting Temperature

In the mode of manual, press ∧ ∨ to set temperature. will display in the left corner of screen.

4. Locking Your Thermostat

Press and hold the ∧∨ for 5 seconds to lock/unlock your thermostat.

In item 3 of high senior options, you can select full lock or half lock.

5. Selecting System Mode

Press **M** to change the system mode HEATING, COOLING and VENTILATION. In the mode of VENTILATION, the valve is off but the fan runs.

6. Setting the Fan Speed

Press to select the fan speed AUTO, HIGH, MED, LOW.

7. Restore Manufacturer Defaults

Press the **Restore Manufacturer Defaults** ,you can reset thermostat.
Steps: Open your app - go into your room - click menu on the top right corner - move to the end - Press **Restore Manufacturer Defaults.**

8. Adjusting/Setting the Clock

Press and hold **M**, will flash.Press **M** to set minute,hour and weekday (1 = Monday, 2 = Tuesday etc.) by using the ∧ ∨ arrows,after 3 seconds the value will be confirmed automatically.

9. Adjusting the Weekly Programmable

Press **M** to do the adjustment of weekly programmable.
Then press **M** to change the different items. Press ∧ or ∨ to set the relative values.
Your thermostat provides six scheduled heating and cooling periods each day – three Comfort periods - 1, 3 & 5 (the temperature required when room is occupied) and three Economy periods – 2, 4 & 6 (the temperature required when room is unoccupied).You can set both the time and temperature for each of these six daily periods. Adjusting/setting the schedules can only be carried out when in program mode;Touch M (mode) to change between manual mode, and programme mode. In manual mode, will show in the bottom left of the screen.Touch the icon **M** for four times until the weekday schedule settings appear (1 2 3 4 5 will show along the top of the screen).
Use the ∧ and ∨ arrows to adjust the time for the 1st (Comfort) period Press the icon **M** and use the ∧ and ∨ arrows to set the temp. for the 1st period. Repeat this process for periods 2 – 6. Press the icon **M** once more to enter the weekend schedule settings (6 & 7 will show along the top of the screen). Repeat the above process to set the weekend schedule. .Press **M** once more to confirm and exit.

Default settings for program schedule

Time display	WEEKDAY (MONDAY – FRIDAY) (1 2 3 4 5 shows on screen)		WEEKEND (SATURDAY) (6 shows on screen)		WEEKEND (SUNDAY) (7 shows on screen)	
	TIME	TEMPERATURE	TIME	TEMPERATURE	TIME	TEMPERATURE
Period 1	06:00	20℃	06:00	20℃	06:00	20℃
Period 2	08:00	15℃	08:00	20℃	08:00	20℃
Period 3	11:30	15℃	11:30	20℃	11:30	20℃
Period 4	13:30	15℃	13:30	20℃	13:30	20℃
Period 5	17:00	22℃	17:00	20℃	17:00	20℃
Period 6	22:00	15℃	22:00	15℃	22:00	15℃

In the mode of programmable, set temp., time could not be adjusted.

During Power Off

Setting the Functions and Options

When power is off, press and hold **M** and at the same time for 5 sec. in order to reach system function.
Then press **M** to change the different items.
All the settings will confirm automatically when power is on.

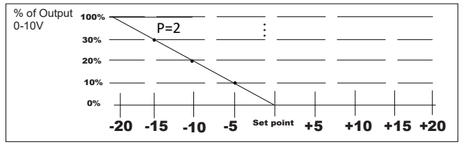
Code	Function	Setting and options	Default
1	Temperature compensation	-7 to 7℃	-1
2	Fan control	00:When room temp. reaches the set point,the fan will turn off 01:When room temp. reaches the set point,the fan will turn to low speed	0
3	Button Locking	00:All buttons are locked except power button 01:All buttons are locked.	01
4	Heat/cool	00:Cool only 01:Heat/Cool	01
5	Min. Set Temp.	5 to 15℃	05
6	Max. Set Temp.	15 to 35℃	35
7	12/24 hours	00:12h 01:24h	01
8	Display Mode	00: Display both set temp. and room temp. 01: Display set temp. only	00
9		**invalid**	
A	P value	1 -10	02
B	I value	1S-60S	40
C	Deadband Temp.	1 to 5℃	1
D	Standby Bightness of backlight	3-99 bigger value,more brightness	4

Definition of P Value

The proportional band is the amount of change required by the ambient temperature for the output to go from 0 to 100%. It can be adjust from 1~10. Factory default is 2.
The P value is bigger, the change of valve output will be bigger;
The P value is smaller, the change of valve output will be smaller.
For example, when P=2, the temperature difference between ambient temperature and setpoint is 5 ℃, the valve will open about 10%; when P=4, the temperature difference between ambient temperature and setpoint is 5 ℃, the valve will open 20%.

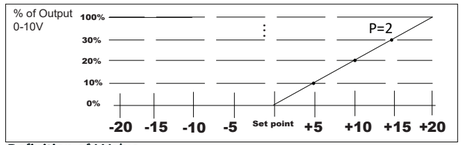
Heat mode (P-band: 2)

When the ambient temperature is below the set point the output is somewhere between 0~100%.



Cool mode(P-band: 2)

When the ambient temperature is above the set point the output is somewhere between 0~100%.



Definition of I Value

This feature allows you to set the integral action time for the integral to run from 0 to 100%. The value required depends on the reaction time of the control loop. If the time is chosen too short, the control loop will become instable and oscillate. If the time is chosen too long, the control loop will become sluggish. It can be adjust from 1S-60S. Factory Default is 40S.

ABOUT WIFI

WI-FI CONNECTION

Before using your Wi-Fi thermostat for the first time,you must configure the Wi-Fi signal and settings through your smartphone or tablet ,This will allow communication between your connecteddevices

Step 1 Download your APP (Fig1-1)

Fig 1-1 Fig 1-2 IOS Fig 1-3 Android

Search for "Smartlife" in Apple Store or Google Play or use a browser to scan the QR code above (Figure 1-2), and complete account registration and installation according to the guidance of the APP.

Step 2. Connect the thermostat

Check the tutorial below to complete the connection and setup.

Method 1: Scan the QR code to configure the network guide (Fig 2.1-Fig 2.3)

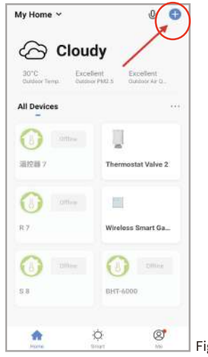


Fig2.1

Fig2.2

Scan this QR code

Fig2.3

Method 2: Ordinary distribution network guidance (Fig. 2. 1&Fig. 2.3.1)

Fig2.3.1

Network distribution mode:

1、 EZ Mode

When the thermostat is off, press and hold the " ∨ "until the thermostat screen flashes quickly and displays the " ᯤ " icon, and then operate according to the following figure (Fig 2.4-Fig 2.7).

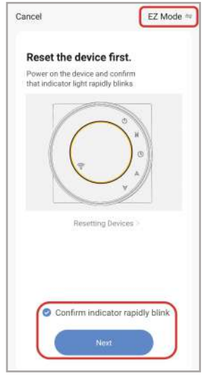


Fig2.4

Fig2.5

Fig2.6

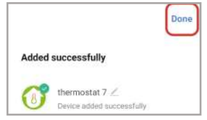


Fig2.7

2、 AP Mode

When the thermostat is off, press and hold the " ∨ " until the thermostat screen flashes slowly and the " ◐ " icon is displayed (if the " ᯤ " icon appears, continue to press the " ∨ " until the thermostat screen Flashes slowly and displays the " ◐ " icon), and then operate according to the following figure (Fig 2.8-Fig 2.14).

Fig2.8

Fig2.9

Fig2.10

Fig2.11

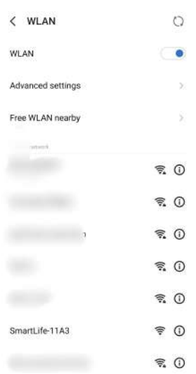


Fig2.12

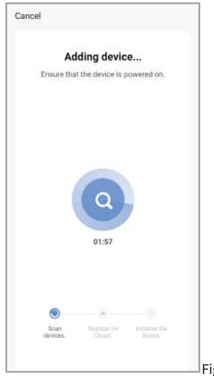


Fig2.13

After connecting to this hotspot, return to the "smartlife" APP

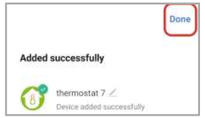
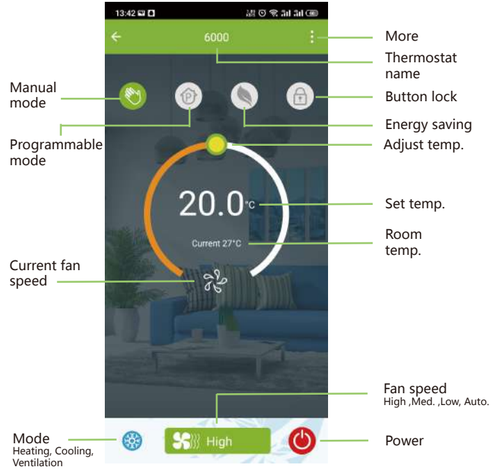
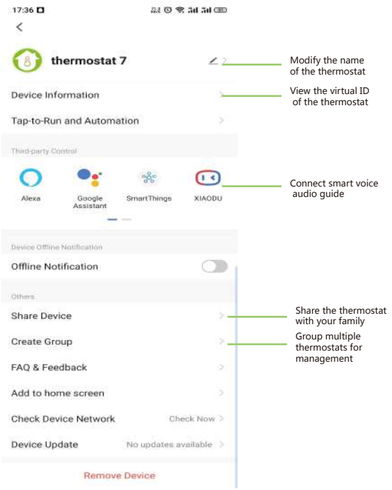


Fig2.14

APP operation interface description (FCU thermostat))



More settings



SIMPLE EXCEPTION HANDLING

No.	Phenomenons	Handling
1	Power is on but without display.	* Check if the terminals between LCD panel and Power Unit Box is loosen.
2	Without output but display works.	* Use a new LCD panel or new Power Unit Box to replace the old one.
3	Room Temp. Is a little different from the actual.	* Do temperature calibration in item 1 of high senior options

SERVICE

Your thermostat carries an 24 months warranty from date of purchase. Service outwith the warranty period may incur a charge. More detail please contact with us directly.