BAC-9000 Smart Knob Thermostat

User Guide

WiFi type

Welcome

Please confirm that this product is suitable for your heating equipment before installation;
*Before installation or maintenance, please make sure to keep the power off;
*Please strictly follow the wiring diagram for wiring installation;
*Installation to the wall, please confirm that the fasteners are suitable for this product;
*Do not pull the cable too hard, otherwise the product will be damaged;
*If a hard plastic wire is used in the installation process, it must be bent to an appropriate angle in advance;
*Please arrange for professionals to install;
*Please contact the after-sales service for equipment failure, please do not try to repair it yourself;
* After installation, please refer to this manual to check again to ensure normal and safe use, and keep this manual properly.

In the box you will find

Thermostat 1pc Screws 2pc User Guide 1pc
QC Passed 1pc Floor Sensor 1pc (Floor Sensor is Optional)

ABOUT YOUR THERMOSTATS

BAC-9000 Smart Knob Thermostat are designed to on / off control FCU the fans and valves in air conditioner applications via comparison of the room temperature and setting temp. As reaching the aim of comfort and saving energy.

MODEL DEFINTION

A: Two pipe; Control Fan Coil Unit and Two Wired Motorized Valve
M: Two pipe; Control Fan Coil Unit and 0-10V Motorized Valve
E: Four pipe; Control Fan Coil Unit and Two Wired Heat Valve and Two Wired Cool Valve.
L: Backlight
N: Modbus RTU communication
W : Wifi connection
Example: BAC-9000 ALW

FEATURES

On Appearance

1. LED display, more friendly interface;. LED matrix light, simple display, energy saving, protect your eyes.
2. Touch buttons to make simple operation.
3. The ultra-thin embedded panel perfectly fits all kinds of walls; The visiable thickenss above the wall is only 12.4mm.
4. Frameless acrylic panel design, simple and elegant;
5. Classic black/white color scheme, seamlessly integrated.
6. Compatible with standard 86mm square cassettes and 60mm European cassettes to meet all installation environments;
7. Interlock to connect gives you easy installation.

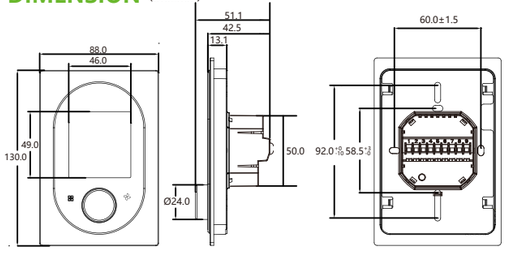
On Functionality

1. Rich function options, Modbus, WIFI, keycard, etc, to meet all your needs;
2. Strict temperature control accuracy (± 1°C) to provide the warmth you want;
3. Power off protection, save all your settings safely;
4. Preset adjustment of 5+1+1 mode in a week, programmable setting of 6 time periods a day, green energy saving, Less cost, more intelligent and environmental protection;
5. Support the creation of product local groups/shares to achieve unlimited centralized control of the number of products/ multi-terminal control;
6. Perfect access: Tmall Genie, Amazon echo, Google Home, full experience new voice control method;

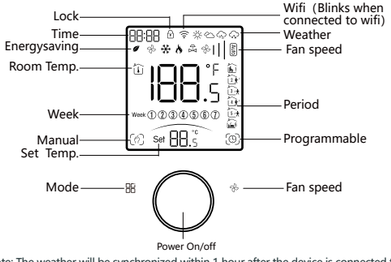
TECHNICAL DATA

Power Supply: 95 ~240 VAC, 50~60Hz or 24V DC/AC,50~60Hz
Please check the information laser printed on the back of the thermostat for the actual voltage.
Fan Relay Amps Resistance: 5A; Inductive: 3A
Valve Relay Amps Resistance: 3A; Inductive: 1A
Sensor: NTC3950, 10K
Set Temp. Range: 5 -45 ℃
Accuracy: ±1 ℃
Dispaly Temp. Range: 5 ~ 99℃
Ambient Temp.:0~45 ℃
Ambient Humidity: 5 ~ 95 % RH (Non Condensing)
Storage Temp.:-5~ 45 CTiming Error: < 1%
Power Consumption: <1.5W
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 x2.5 mm²
Protection Class: IP20
Buttons: Capactive Touch Buttons

DIMENSION (Unit:mm)



HOME SCREEN QUICK REFERENCE



Note: The weather will be synchronized within 1 hour after the device is connected to the Internet for the first time, and the weather will be synchronized every hour thereafter.

BEFORE WIRING AND INSTALL

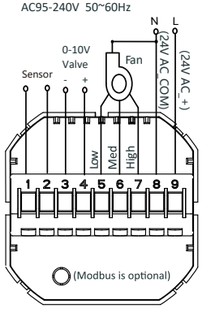
1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the rathings given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.

CAUTION

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

WIRING

Please check the information laser printed on the back of the thermostat for the actual voltage.



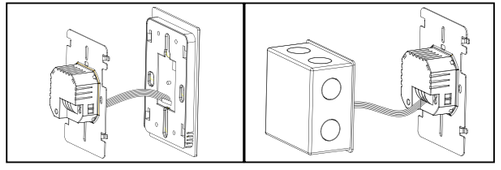
Two Pipe , Modulating

INSTALLATION

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

Step 1: Separate the upper and lower boards

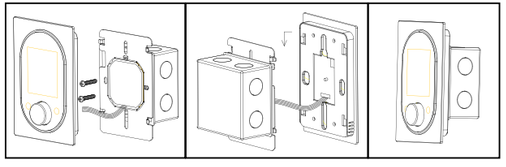
Step 2: Connect the power cord and device cord



Step 3: Fix the screws on t he cassette

Step 4: Fasten the panel to the mounting plate

Step 5: Fix the screws on the cassette



OPERATION

During Power On

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

2.Selecting System Mode
Press " " to change the system mode HEATING, COOLING and VENTILATION. In the mode of VENTILATION, the valve is off but the fan runs.

3.Manual & Programmable
Touch and hold " " 3 sec., " " icon will flash on the display, rotate the power knob to the left to switch to programming mode " " and to the right to switch to manual mode " ".

4.Setting Temperature
In the manual mode, set temperature can be set by rotate the power knob.

5.Setting The Fan Speed
Press " " go to select the fan speed AUTO, HIGH, MED, LOW

6. Adjusting/Setting the Clock
Note: The wifi version will automatically synchronize the local time after connecting to the Internet.

Touch and hold " " 3 sec., " " icon will flash on the display, Press " ", the hour of the clock will flash, rotate the power to set the value, press the " " button again, and rotate the power button to complete the setting of minutes and week.

7.Adjusting/Setting the Programmable Schedules
WiFi version can be set in APP.
Non-wifi version, Touch and hold " " , " " icon will flash on the display, Touch " " 4 times to enter the the programming mode setting. At this time, the screen displays (①②③④⑤), the "minute" of the time flashes, and the period 1 " ". Press " " again to select and set the hour, temperature, and period. Rotate the power knob to adjust the corresponding value.
In the same way, complete the settings of periods2, 3, 4,5and 6.
Press the icon " " once more to enter the Saturday schedule settings (you will see the SAT of the screen).Repeat the above process to set the period and temp. and Sunday schedule.
Press the icon " " once more to confirm and exit.

Default settings for program schedule

Time display	MON.-FRI. (①②③④⑤ shows on scteen)		SAT. (⑥shows on scteen)		SUN. (⑦shows on scteen)	
	TIME	TEMP.	ON TIME	TEMP.	ON TIME	TEMP.
Period 1	6:00~8:00	20	6:00~8:00	20	6:00~8:00	20
Period 2	8:00~11:30	15	8:00~11:30	20	8:00~11:30	20
Period 3	11:30~13:00	15	11:30~13:00	20	11:30~13:00	20
Period 4	13:30~17:00	15	13:30~17:00	20	13:30~17:00	20
Period 5	17:00~22:00	22	17:00~22:00	20	17:00~22:00	20
Period 6	22:00~6:00	15	22:00~6:00	15	22:00~6:00	15

A separate schedule may be set for weekdays (Mon – Fri) and for weekends (Sat or Sun).

8. Locking your Thermostat
Press and hold the " " and " " for 5 seconds to lock/unlock your thermostat.
In tem 3 of high senior options, you can select full lock or half lock.

Setting the Functions and Options

When the power is off, press " " and " " at the same time for 5 seconds to enter the advanced selection setting. Press " " to select the function, Rotate the power knob to adjust the corresponding value. All advanced option settings will take effect automatically after restarting the thermostat.

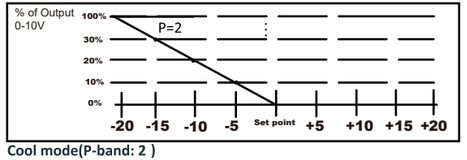
Code	Funcion	Setting and options	Default
1	Temperature compensation	-9 to 9℃	-3
2	Fan control	00: When room temp.reaches the set point,the fan will turn off 01:When room temp.reaches the set point, the fan will keep low speed running(Only in auto fan mode)	00
3	Button Locking	00: All buttons are locked except power button 01: All buttons are locked.	1
4	Mode Select Custom	00: Cooling/Ventilation. 01: Cooling/Heating/Ventilation.	01
5	Min.Set Temp.	5-15℃	5
6	Max.Set Temp.	15-45℃	35
7	Energy-saving Mode	00: Energy saving Mode 01: Non-energy saving Mode	00
8	Cooling Energy-saving temperature	10-30℃	26
9	Heating Energy-saving temperature	10-30℃	30
10	Deadzone Temp.	1-5℃	1
11	C/F	0:℃ 1:℉	0
12	Reset	00: No factory reset 01: Factory reset	0
13	Standby screen brightness	4-99	20
14	Backlight standby	00: on 01: off	0
15	P Value	1-10	2
16	I Value	1-60S	40
17	Version number		U1

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%.

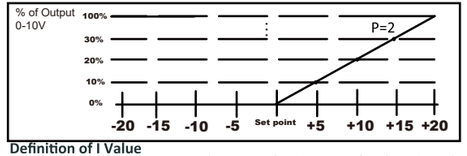
Heat mode (P-band: 2)

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 using your smartphone or tablet. This enables communication between your devices.

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

Method 1: Bluetooth network distribution (Fig 2.1-Fig 2.6)

Turn on the Bluetooth switch of the mobile phone and set the thermostat to the WiFi enabled state (Press and hold the key for 8s when the thermostat is off), see the following tutorial to complete the connection and settings.

Fig2.1

Fig2.2

Fig2.3

Fig2.4

Fig2.5

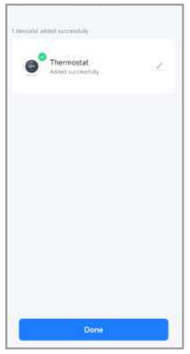


Fig2.6

Method 2: Scan the QR code to configure the network guide (Fig 2.2 & Fig 2.7-Fig 2.8) complete the connection and setup

Fig2.7

Fig2.8

Scan this QR code

Fig2.7.1

Method 3: Ordinary distribution network guidance (Fig. 2. 2 & Fig. 2.7.1)

Network distribution mode:

1. EZ Mode

Press and hold the " " until the thermostat screen flashes quickly and displays the " " icon, and then operate according to the following figure (Fig 2.9-Fig 2.13).

Fig2.9

Fig2.10

Fig2.11

Fig2.12

Fig2.13

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 " " 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 2.14-Fig 2.19).

Fig2.14

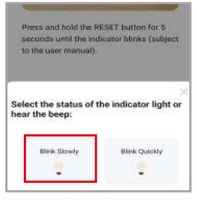


Fig2.15

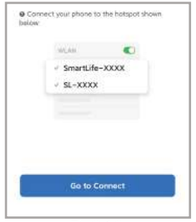


Fig2.16

Fig2.17

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

Fig2.18

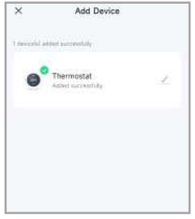
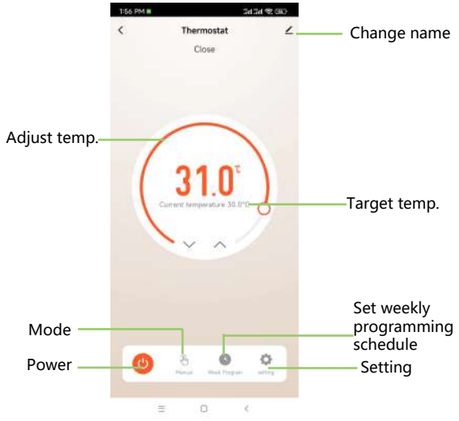
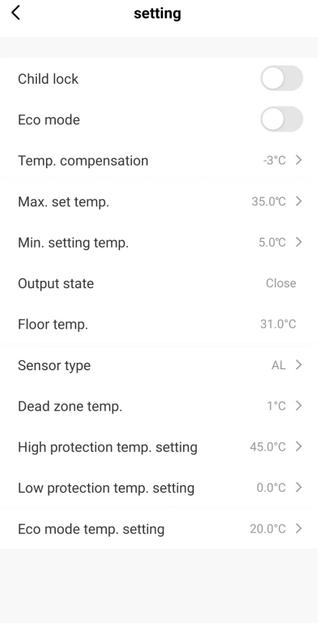


Fig2.19

APP operation interface description (heating 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.	* Usea new LC panel or new Power Unit Box toreplace the old one.
3	Room Temp. Is a lttle 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 out with the warranty period may incur a charge. More detail please contact with us directly.