

BAC-002 Series Z-wave Thermostat User Guide



For Fan Coil Unit

Thermostat Colors

- 002FW: full white
- 002BW: black and white
- 002WB: white and black
- 002FB: full black

Welcome

Thank you for your purchase. Your new thermostat will provide uniform and comfortable temperature control throughout every room in your property. We bring together technology, craftsmanship and the highest quality materials to provide you with a safe, reliable product combined with sleek, contemporary design. 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-002 series Modern Round Touch Screen Room Thermostats are designed to on/off control 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 DEFINITION

- 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.
 - N : Modbus RTU communication
 - W : Wifi connection
 - K : Keycard
 - W2 : Window
 - E : External Sensor
 - Z : Z-Wave
 - T : Clock
 - P : Programmable
- For example: BAC-002ALW**

FEATURES

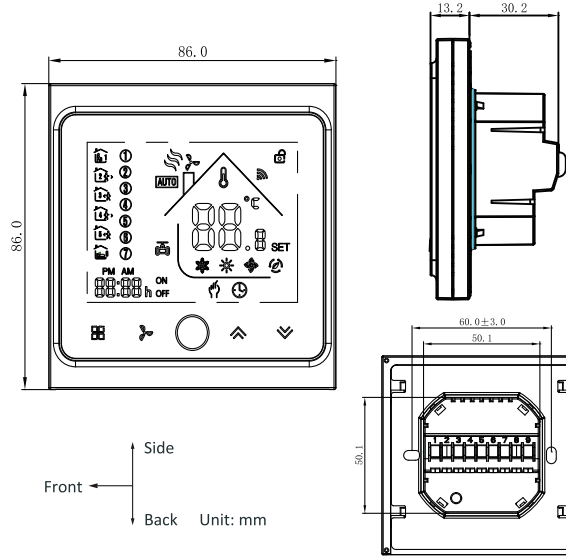
On Appearance

- 86mm hidden box and european 60mm round box is suitable.
- White, black or mix-color housing creates your colorful life.
- White backlight protect your eyes
- Touch buttons to make simple operation.

On Functionality

- Powerful functions are available such as Modbus/WiFi/Z-wave etc.
- 0.5°C Accuracy keeps temperature within the level you set.
- Clock memory when power is off.
- 5+1+1 six periods programmable maximize comfort and economy.

DIMENSION



TECHNICAL DATA

- Power Supply: 95-230VAC ,50-60Hz
- Fan Relay Amps Resistance: 5A; Inductive: 3A
- Valve Relay Amps Resistance: 3A; Inductive: 1A
- Sensor: NTC3950, 10K
- Accuracy: ±0.5 °C
- Set Temp. Range: 5 -35 °C
- Display Temp. Range: 5 ~ 99 °C
- Ambient Temp.: 0 ~ 45 °C
- Ambient Humidity: 5 ~ 95 % RH (Non Condensing)
- Storage Temp.: -5 ~ 45 °C
- 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: Capacitive Touch Buttons

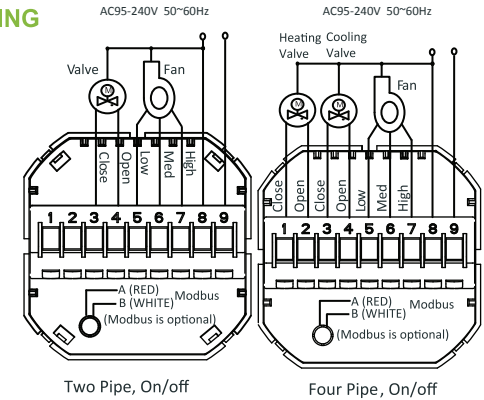
BEFORE WIRING AND INSTALLING

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



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

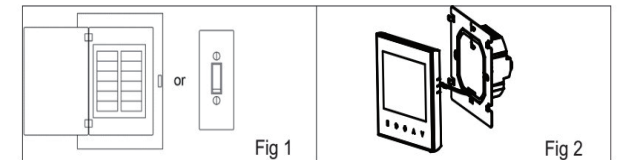
WIRING



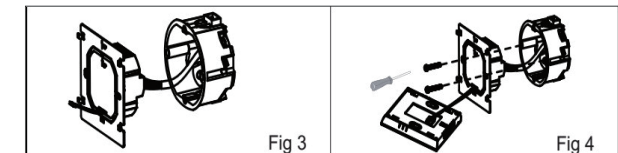
INSTALLATION

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.

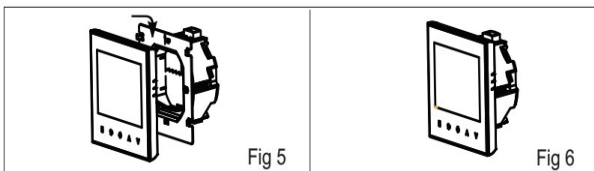


- Step 3. Connect power supply, load into the appropriate terminals. (see "Wiring your thermostat" for details and Fig 3).
- Step 4. Fix the mounting plate into the wall with screws in the box. See Fig 4.

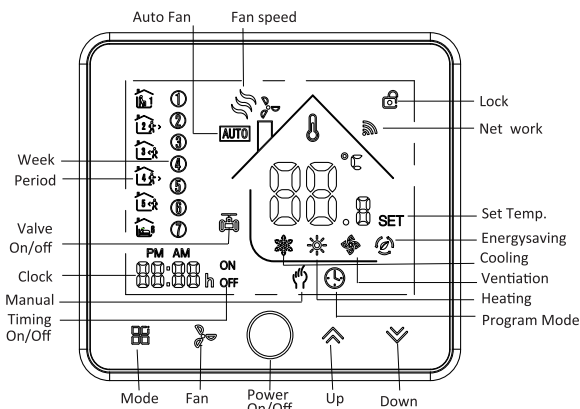


Step 5. Fasten body of thermostat and the mounting plate See Fig 5

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 , 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 on the bottom of the 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 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. Adjusting/Setting the clock

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

8. Adjusting the Weekly Programmable

Press to do the adjustment of weekly programmable.

Then press 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 (mode) to change between manual mode and programme mode. In manual mode, will show in the bottom left of the screen. Touch the icon for four times until the weekday schedule settings appear (1 2 3 4 5 will show along the left of the screen).

Use the and arrows to adjust the time for the 1st (Comfort) period Press the icon and use the and arrows to set the temp. for the 1st period. Repeat this process for periods 2 – 6. Press the icon once more to enter the weekend schedule settings (6 & 7 will show along the left of the screen). Repeat the above process to set the weekend schedule. Press 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 °C	06:00	20 °C	06:00	20 °C
Period 2	08:00	15 °C	08:00	20 °C	08:00	20 °C
Period 3	11:30	15 °C	11:30	20 °C	11:30	20 °C
Period 4	13:30	15 °C	13:30	20 °C	13:30	20 °C
Period 5	17:00	22 °C	17:00	20 °C	17:00	20 °C
Period 6	22:00	15 °C	22:00	20 °C	22:00	15 °C

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 and at the same time for 5 sec. in order to reach system function.

Then press to change the different items.

Press and arrows to adjust the relative valve.

All settings will be confirmed automatically when power is on.

Code	Function	Setting and options	Default
1	Temperature compensation	-7 to 7 °C	-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 °C	05
6	Max. Set Temp.	5 to 35 °C	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	Energy saving Mode	00: Non-energy saving Mode 01: Energy saving Mode, set Temp. keep economy Temp.	00
A	Heating Economy Temp.	10 to 30 °C	20
B	Cooling Economy Temp.	10 to 30 °C	26
C	Deadband Temp.	1 to 5 °C	1

Z-Wave Operation

Exclude Device

Take the "X-Home" gateway as an example:

In the Z-wave APP, find the sign of adding a device, which is usually a "+". Then you will see "Exclude Device" or "Excluding Device" Touch it, and then Touch "Z-Wave Device".

When the thermostat is off, press and hold 8 seconds. The thermostat screen will flash and you can see the icon or the icon. Touch "Exclude" in the APP, the APP will display "Excluding device...". After waiting for about 45 seconds, the APP will display "Device successful excluded", indicating that the device has been withdrawn from the network.

Include Device

Take the "X-Home" gateway as an example:

In the Z-wave APP, find the sign of adding a device, which is usually a "+". Then you will see "Include Device" or "Including Device", Touch it, and then Touch "Z-Wave Device".

When the thermostat is off, press and hold for 8 seconds. The thermostat screen will flash and you can see the icon or the icon. Touch "Search" in the APP, the APP will display "Searching for device to include...". Wait for about 45 seconds, the APP will display "Include Xunison Z-wave Found devices:", indicating that the device is successfully connected to the network. You can name and assign rooms to the thermostat. If the network access is unsuccessful, please repeat "Exclude Device" and "Include Device".

Command Class supported by the device:

COMMAND_CL ASS_ZWAVEPLUS_INFO
 COMMAND_CL ASS_VERSION
 COMMAND_CL ASS_MANUFACTURER_SPECIFIC
 COMMAND_CL ASS_DEVICE_RESET_LOCALLY
 COMMAND_CL ASS_ASSOCIATION
 COMMAND_CL ASS_ASSOCIATION_GRP_INFO
 COMMAND_CL ASS_POWERLEVEL
 COMMAND_CL ASS_BASIC
 COMMAND_CL ASS_THERMOSTAT_MODE
 COMMAND_CL ASS_THERMOSTAT_SETPOINT
 COMMAND_CL ASS_THERMOSTAT_OPERATING_STATE
 COMMAND_CL ASS_SENSOR_MULTILEVEL
 COMMAND_CL ASS_SWITCH_ALL
 COMMAND_CL ASS_CI_OCK

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.