BHT-9000 Smart Knob Thermostat

User Guide

zigbee type

For Water Heating/Boiler/Electric Heating

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

The BHT-9000 range has been developed to control electric underfloor ,water heating or water/gas boiler system. These units are designed for use in commercial, industrial, civil and domestic properties.

MODEL DEFINTION

GA: Water heating, 5A
GC: Water/Gas Boiler, 5A
P: Weekly Programmable
W: Wifi
GB: Electric floor Heating,16A
L: Backlight
N: Modbus Communication
ZB:Zigbee
S2: Both internal sensor and floor external sensor
For example: BHT-9000 GCLW

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.

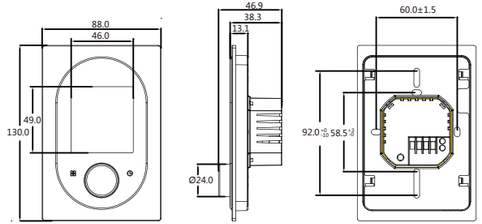
On Functionality

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;

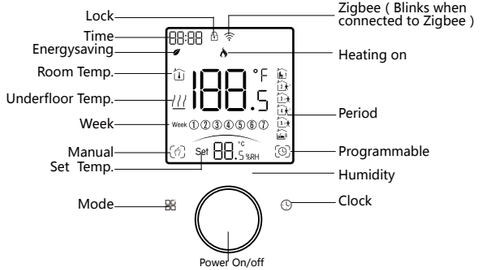
TECHNICAL DATA

Power Supply:95 ~240 VAC, 50/60Hz
Current Load: 5A (water heating, waterlgas boiler),
16A (electric heating)
Sensor: NTC3950, 10K
Accuracy: ±1°C
Set Temp. Range: 5-35°C
Room Temp. Range: 5-70°C
Display Temp. Range: 5 ~ 70°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

DIMENSION (Unit:mm)



HOME SCREEN QUICK REFERENCE



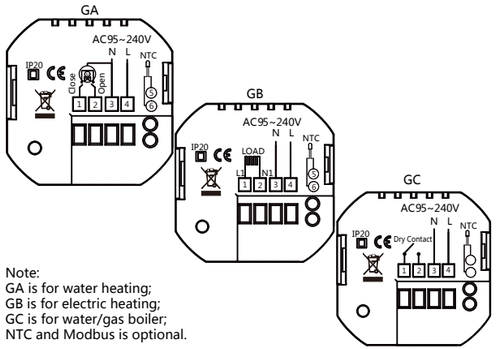
BEFORE WIRING AND INSTALL

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



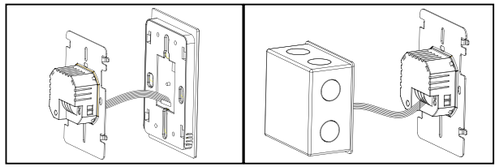
Note:
GA is for water heating;
GB is for electric heating;
GC is for water/gas boiler;
NTC and Modbus is optional.

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

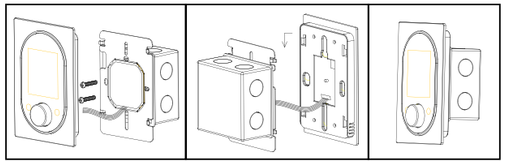
Step 2: Connect the power cord and device cord



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.Manual & Programmable
Touch ⊞ to change between manual mode ✋ and programme mode ⏲.
In manual mode, will show on the display,
In programmable mode, will show on the display.

3.Setting Temperature
In the programming mode, the temperature setting and time setting will be locked. If the user wants to adjust, he must first adjust the thermostat to manual mode by pressing the " ⊞ " key.
In the manual mode, pthe desired temperature can be set by turning the knob.

4.Adjusting/Setting the Clock
Press " ⏲ " to set minute, hour and weekday. and adjust the values by turning the knob.
Press " ⊞ " once more to confirm and exit.

⊞ ⏲

6.Adjusting/Setting the Programmable Schedules
Press icon " ⏲ " four times in a row. You can see "MON TUE WED YHU FRI" and " ⏲ " , and the minutes of time are flashing.

Turning the knob to set the minutes;
Press the icon " ⏲ " again, the hour of the time will flash, set the hour by turning the knob ;
Press the icon " ⏲ " again, the temperature setting will flash, set the temperature turning the knob ;
This completes the setting of periods1.

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).

7.Checking the Temperature of Floor Sensor
Press and hold the " ⏲ " arrow for 5 seconds to display the temp. of floor sensor. If no external sensor is connected, the thermostat will display "Er".Note: Do not use third-party external sensors, the temperature will be incorrect.

8.Setting the Functions and Options
During power off, Press and hold " ⊞ " and " ⏲ " for 8 sec. in the order to reach system function. Then press " ⊞ " to scroll through the available functions , and use turning the knob to change the available options. All settings are confirmed automatically.

Code	Function	Setting and options	Default
1	Temperature compensation	-9 to 9 ℃	-3
2	Deadzone Temp.	1-5℃	1
3	Button Locking	01:All buttons are locked except power button. 01:All buttons are locked.	1
4	Sensor typer	In: Internal Sensor(to control the temp.) Ou: External Sensor (to control the temp.) AL: Internal&External Sensor (Internal sensor to control the temp., external sensor to limit the temp.)	AL
5	Min.Set Temp.	5-15℃	5
6	Max.Set Temp.	15-45℃	35
7	Low temp. protection setting.	0-10℃	0
8	High temp. protection setting.	25-70℃	50
9	Energy saving Mode	00:OFF 01:ON	0
10	Heat Energy saving Temp.	1-30℃	20
11	Window opening detection	00 : off 01 : on	0
12	Window opening detection temperature	2-4℃	2
13	Window opening detection time	2-30mins	0
14	Window opening detection cycle time	10-60mins	20
15	/	/	/
16	Reset	00: No factory reset; 01: Factory reset	0
17	Standby brightness	4-99	20
18	Backlight standby	00 : off 01 : on	0
19	Version number		U2

About Zigbee

ZigBee CONNECTION

Step 1 Downlosd your APP (Fig 1-1)

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.

Fig1 Fig2 IOS/Android

Step 2. The second step is to confirm that you have connected to the Tuya zigbee wired or wireless gateway.

For the gateway connection process, please refer to the manual of the gateway you purchased; the following process is based on the "wireless smart zigbee gateway".

Step 3. 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 3.1-Fig 3.4)

Fig3.1

Fig3.2

Scan this QR code

Fig3.3

Fig3.4

Method 2: Ordinary distribution network guidance (Fig. 3. 5 & Fig. 3.6)

Fig3.5

Fig3.6

Network distribution mode:

1. Zigbee quick connect

When the thermostat is off, press and hold the " ⏲ " until the thermostat screen flashes quickly and displays the "zigbee ᯤ " icon, and then operate according to the following figure (Fig3.7-Fig3.8).

Fig3.7

Fig3.8

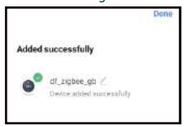


Fig3.9

2. Zigbee gateway connection

With the thermostat turned off, press and hold the " ⏲ " until the thermostat screen flashes quickly and displays the "zigbee ᯤ " icon, and then operate according to the following figure (Fig3.10-Fig3.13).

Fig3.10

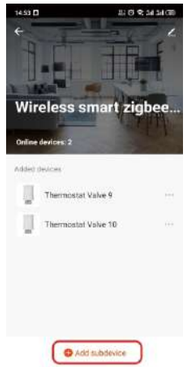


Fig3.11

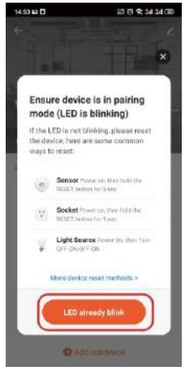


Fig3.12

Fig3.13

Fig3.14

APP operation interface description (heating thermostat)

Simplement 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

24-months warranty since date of purchase
Service beyond the warranty period may need charge.
More details, please contact us.