BHT-6000 Series Round Thermostat
User Guide

For Water Heating/Boiler/Electric Heating

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	Floor Sensor (2.5m)	1pc
QC Passed	1pc	(Floor sensor is Optional)	

ABOUT YOUR THERMOSTATS

The BHT-6000 range has been developed to control electric underfloor, water heating or water/gas boiler systems. These units are designed for use in commercial, industrial, civil and domestic properties.

MODEL DEFINITION

GA: Water heating, 3A
GB: Electric floor Heating, 16A
GC: Water/Gas Boiler, 3A
L: Backlight
P: Weekly Programmable
N: Modbus Communication
B: BACnet Communication
W: Wifi
S2: Both internal sensor and floor external sensor
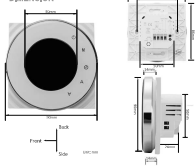**For example: BHT-6000 GCLP**

FEATURES

On Appearance

1. Negative black screen will bring you to a secret world.
2. 51mm round display area helps to protect your eyes.
3. Glass or Acrylic lens is for your selection.
4. Touch buttons to make simple operation.
5. Amazing Silver Frame opens your modern life.
6. The visible thickness above the wall is only 11mm.
7. Rotation to connect gives you easy installation.
8. 86mm hidden box and european 60mm round box is suitable.
9. White, black or gold housing creates your colorful life.

On Functionality

1. Powerful functions are available such as BACnet/Modbus/WIFI etc.
2. 0.5°C Accuracy keeps temperature within the level you set.
3. °C & °F is changeable.
4. Data memory when power is off.
5. 5+2 six periods programmable maximize comfort and economy.

DIMENSION

TECHNICAL DATA

Power Supply: 95 ~ 240 VAC, 50 ~ 60HZ
Current Load: 3A (water heating/water boiler/gas boiler)
16A (electric heating)
Sensor: NTC3950, 10K
Accuracy: ±0.5℃ or ±1℃
Set Temp. Range: 5~35C
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
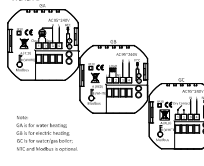Protection Class: IP30
Buttons: Capacitive Touch Buttons

BEFORE WIRING AND INSTALLING...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings 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 shock individuals 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

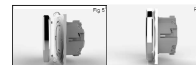Your thermostat is suitable for installation within a standard 86mm pattress box or Euroaean 60mm pattress box.

Step 1. Keep power off. See Fig 1.
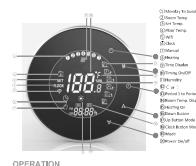Step 2. Remove the mounting Plate by rotating the LCD part. See Fig 2.

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 through rotating. 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

Touch M (mode) to change between manual mode and programme mode. In manual mode, 🖐 will show in the bottom left of the screen. In programmable mode, the period icon will show in the right side.

3. Setting Temperature

In the mode of programmable, set temperature, time and timing on/off could not be adjusted. If the user want to change, please go to manual mode or programmable mode.
In the mode of manual, press ∧ ∨ to set the desired temperature.

4. Adjusting/Setting the clock

Touch the icon 🕐 to set minute, hour and weekday (1 = Monday, 2 = Tuesday etc.) by using the ∧ ∨ arrows. Press 🕐 once more to confirm and exit.

5. Locking your thermostat

Press and hold the M (mode) for 5 seconds to lock/unlock your thermostat. In item 3 of high sensor options, you can select full lock or half loci.

6. Adjusting/setting the program schedules

When Wi-Fi connection is made, your thermostat will automatically accept the program schedule made via the APP on your device (see below for detailed instructions) To set the program schedules through your thermostat (NOT via your smartphone/tablet) simply follow the instructions on pages 13/14.

Please note: Setting the programme schedule through your thermostat can only be carried out if there is no Wi-Fi connection between your between your thermostat and smartphone/tablet.

Touch M to change between manual mode and programme mode. In manual mode, 🖐 will show in the bottom left of the screen. In programme mode, touch and hold the icon 🕐 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 on the time.
Press the icon 🕐 and use the ∧ and ∨ arrows to set the off time (2nd period).
Press the icon 🕐 and use the ∧ and ∨ arrows to set the temp.
Repeat this process for periods 3 and 4.
Press the icon 🕐 once more to enter the Saturday schedule settings (6 will show along the top of the screen).
Repeat the above process to set the period and temp. and Sunday schedule.
Press 🕐 once more to confirm and exit.

Default settings for program schedule

Time Display	WEEKDAY (MONDAY ~ FRIDAY) (12345 shown on screen)		WEEKEND (SATURDAY) (6 shown on screen)		WEEKEND (SUNDAY) (7 shown on screen)	
	TIME	TEMPERATURE	TIME	TEMPERATURE	TIME	TEMPERATURE
Period 1 (On time)	06:00		06:00		06:00	
Period 2 (Off time)	08:00		08:00		08:00	
Period 3 (On time)	11:30	20℃	11:30	20℃	11:30	20℃
Period 4 (Off time)	13:30		13:30		13:30	
Period 5 (On time)	16:30		16:30		16:30	
Period 6 (Off time)	18:00		18:00		18:00	

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

7. Checking the temperature of floor sensor

Press and hold the ∨ arrow for 5 seconds to display the temp. of floor sensor.

8. Returning to factory default setting

Press and hold the icon 🕐 and ∨ then the wifi module will be back to factory setting.

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 scroll through the available functions, and use the ▲ and ▼ arrows to change the available options. All settings are confirmed automatically.

Code	Function	Setting and options	Default
1	Temperature compensation	-9 to +9℉ (for internal sensor)	-2
2			
4	Button locking	00: All buttons are locked except power button. 01: All buttons are locked.	01
5	Min. Set Temp.	5-15℃	10
6	Max. Set Temp.	5-95℃	35
7	12/24 hours	00:12 hours 01:24 hours	01
8	Display Mode	00: Display both set temp. and room temp. 01: Display set temp. only	00
9	Sensor types	IN: Internal Sensor (to control or limit the temp.) EX: External Sensor (to control or limit the temp.) AL: Internal/External Sensor. Internal sensor to control the temp., external sensor to limit the temp.	AL
10	Standby brightness	1-255	10
11	High temperature protection setting	25-70℃	45
12	Deadzone Temperature	1 ~ 5℃	1
13	Low temperature protection setting	0-15℃ (just for water heating and boiler heating)	0

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 connected devices.

Step 1 Download your APP (Fig 1-1)

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

For ANDROID devices, search for BECA ENERGY in Google Play and download. Alternatively, scan the relevant QR code here (Fig 1-2) or in the back of manual.

For IOS devices, search for BECA ENERGY in Apple Store and download. Alternatively, scan the relevant QR code here (Fig 1-3)or in the back of manual.

Step 2 Connect your Wi-Fi signal

On your thermostat

With power on, press and hold the ▲ and ▼ arrows simultaneously for eight (8) seconds. The icon 📶 will flash.

Then, on your smartphone/tablet

Open the Wi-Fi networks (usually found in "Settings") and connect to SSID USR-WIFI232-S signal being broadcast by your thermostat (see Fig 2)
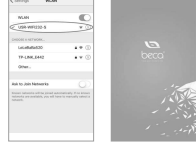
(Fig 2)   (Fig 3)

Open the App (Fig 3) and you will be taken to the first settings page (see Fig 4-1 & 4-2)

(Fig 4-1)   (Fig 4-2)

Click Language Choice and select the one you need. Then press Then press DONE. You will then be taken to the home page. (Fig 5) Press the " + " icon to add your room. You will be taken to the second settings page.

Note 1:
The room details will show: set temp., room temp., room name, Wi-Fi signal indicator and power (slide) button.

Note 2:
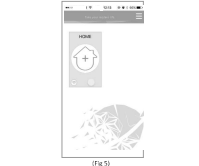You may add up to 12 rooms in total. More quantity, please contact with us.

(Fig 5)

Click in the first window to name your room (Emma's bedroom, Lounge, Kitchen etc.)
In the "Choose your equipment" window please select "For Heating" in the drop-down list.
Connect the wireless signal by touching the 🔍 image to the right of the "Search your network" window. The App will automatically search for and list any available wireless routers. Select your router, enter the password for your router in the window below and click "Done". This may typically take up to 5~90 seconds to complete.
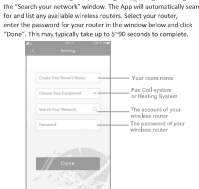
Your room name
Fan Coil system or Heating System
The amount of your wireless router
The password of your wireless router

(Fig 6)

Note 1:
Click on your room from the home screen and begin programming your thermostat (Fig 7)

Power On/Off button. If button is red, the power is "On". If button is grey, the power is "Off".
Lock/Unlock button. If button is green, the screen is "locked". If button is grey, the screen is "Unlocked"

External Sensor button. Click this button to show the floor temp.

Photo button. Press this button to take a photo of your room or choose an image from your photo library as a background image for your room.

Economy button. In this mode, the temperature will be set to 26 degrees C. This temperature cannot be changed or adjusted.

Manual button. In this mode your heating can be set manually (i.e. (i.e. NOT using the pre-programmed settings)

(Fig 7)

Program button. When this button shows, your thermostat is in program mode and will follow any pre-set heating schedule. When in Manual mode, press the button to select mode and vice-versa.

* Slide the yellow button backwards or forwards to manually adjust the temperature, the temperature will show in the centre of the page. After a few seconds the current room temperature will show. If this button is grey, there is no Wi-Fi connection.

* When in Program mode, click on the schedule logo (next to the Program button) to be taken to the schedule page (see Fig 8) where you can simply click on the working days (Mon-Fri) and then the time/temperature to adjust to your preferred schedule.

* Your thermostat provides two programmed heating periods each day — You can set the "On" time, "Off" time and the temperature for each of these daily heating periods.

* Repeat the above after clicking on the Weekend (Sat –Sun) settings at the top of the page

* Once your schedule has been set, click on SAVE and the App will send your schedule to your thermostat and confirm the schedule has been saved.

* Your thermostat can be controlled by multiple devices. Simply download the BECA ENERGY App and go through the initial set-up/connection process.
Multiple devices cannot control one thermostat simultaneously.

* The unique ID number of your thermostat is displayed on a sticker on the rear of your thermostat.

(Fig 8)

7. If you wish to change/adjust your server settings. or language, press on the menu logo in the top right of the home page (see Figs 9 & 10 & 4-2).

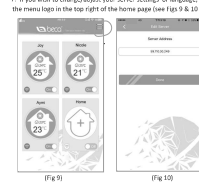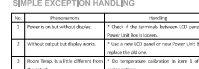(Fig 9)   (Fig 10)

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 looseness.
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 series options.

SERVICE

Your thermostat carries an 18 month warranty from date of purchase. Service outwith the warranty period may incur a charge. More detail please contact with us directly.