



# FULL CONTROL

Anywhere at anytime

Comfort at your Fingertips



GREENBREEZE®

EUROPE



Google Assistant



Amazon Alexa



[www.green-breeze.eu](http://www.green-breeze.eu)

# Introducing the GreenBreeze GB6500E Smart Thermostat

## Instructions T1 FCU

Take control of your home's climate with the GreenBreeze GB6500E, an advanced smart thermostat designed for effortless comfort, smart connectivity, and energy efficiency. Built for the modern home, the GB6500E offers full control—anywhere, anytime, putting comfort right at your fingertips.

Equipped with support for Google Assistant and Amazon Alexa, this thermostat seamlessly integrates with your voice-controlled ecosystem, allowing for hands-free adjustments. The GB6500E also works with smart room sensors to detect temperature variations and balance hot and cold spots, ensuring consistent comfort in every room.

With real-time alerts, intelligent scheduling, and intuitive touch controls, the GB6500E simplifies how you manage your home environment. Whether you choose the elegant white or sleek black finish, this thermostat enhances both performance and aesthetics.



## Highlighted Features:

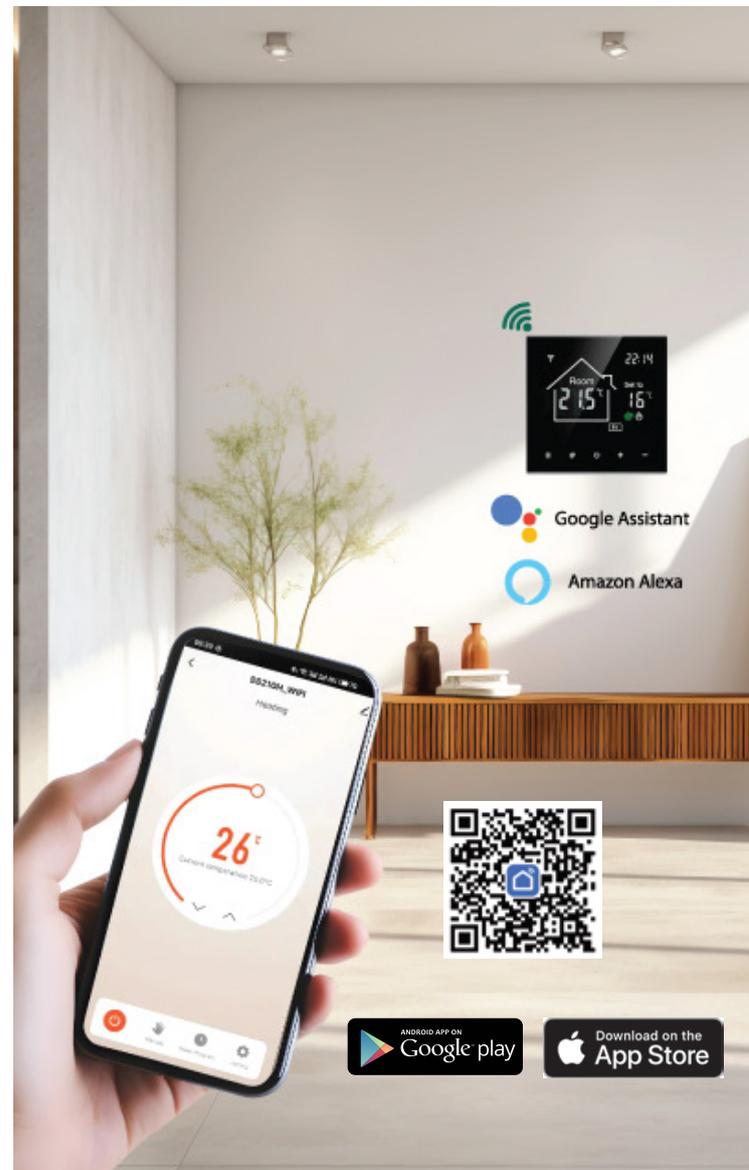
- Works with Smart Room Sensors
- Smart Controls and Alerts
- Balances Hot & Cold Spots
- Energy Saving Technology
- Remote Access via Wi-Fi
- Compatible with Google Assistant & Amazon Alexa

## Appearance Features

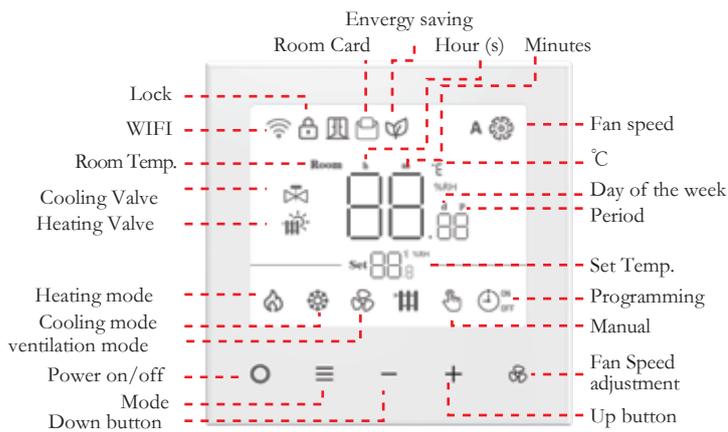
1. LCD Display: High-end VA display with a wide viewing angle
2. Capacitive Touch Button
3. Ultra-thin 13mm
4. Side holes for heat ventilation and accurate room temp.

## Functional

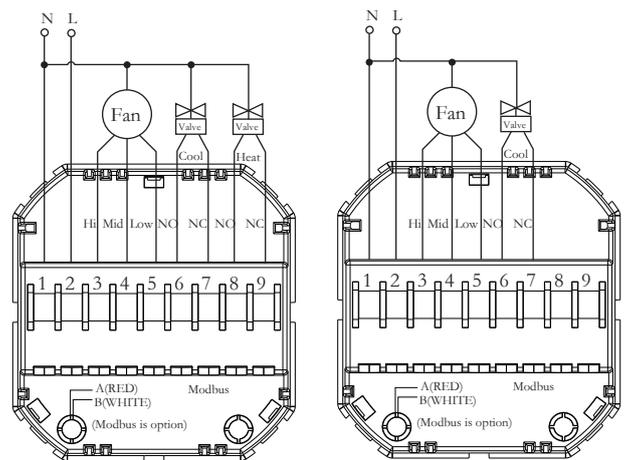
1. High-Precision Temperature Display: Display accuracy of  $\pm 0.1^{\circ}\text{C}$ , with a temperature adjustment  $\pm 0.5^{\circ}\text{C}$ .
2. Power Failure Memory Function: Safely saves all settings; no need to re-adjust after a power outage.
3. 7-Day, 4-Time Period Programming: Flexible control to reduce energy consumption.
4. Child Lock Function: Prevents accidental operation by children, ensuring safety
5. Anti-Freezing Function: Protects home equipment from freezing under low temperatures
6. Building Control Communication: Employs an RS485 hardware interface executing the standard Modbus protocol, enabling a building control network with up to 32 thermostats connected in series.



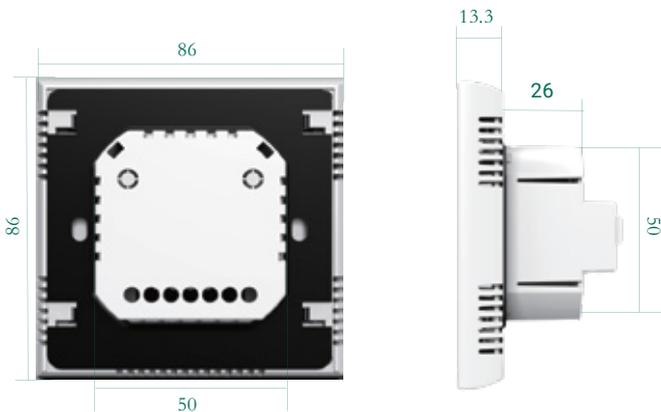
# Product description



# Wiring diagram



# Dimension



# Note

1. Professional wiring is required, following the wiring diagram and electrical specs.
2. Water, mud or any impurities should be kept out of the thermostat, or electric element will be damaged!
3. Not suitable for high-humidity environments.
4. Avoid direct sunlight.
5. External sensor cannot be more than 10 meters



**MAKE SURE POWER IS OFF BEFORE ELECTRIC CONNECTING WITH PROFESSIONAL!**

# Technical Specifications

- Power Supply Voltage: AC 85~250V, 50/60Hz
- Operating Environment: 0°C to 50°C,
- Relative Humidity  $\leq$ 90%, non-condensing
- Storage Temperature: -10°C to 60°C
- Product Power Consumption: <1.5W
- Temperature Sensor: NTC thermistor
- Temperature Setting Range: 10°C to 32°C
- Temperature Display Accuracy:  $\pm$ 0.1°C
- Temperature Measurement Accuracy:  $\pm$ 0.5°C
- Display Screen: LCD
- Buttons: Capacitive Touch Button
- Load Current: Resistive load 2A, Inductive load 1A
- Casing Material: ABS+PC, flame retardant rating UL94 V-0
- Dimensions: 86 x 86 x 13.3 mm (Width x Height x Depth)
- Mounting Hole Distance: EU or Standard Electric Box
- Wires on Terminals Wire 2\*1.5 mm<sup>2</sup> or 1x2.5 mm<sup>2</sup>

# Installation Instructions

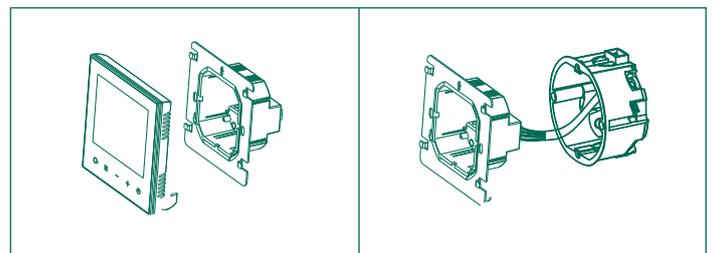
This thermostat is designed for flush-mounted installation , requiring a 35mm (minimum depth)

Correct :

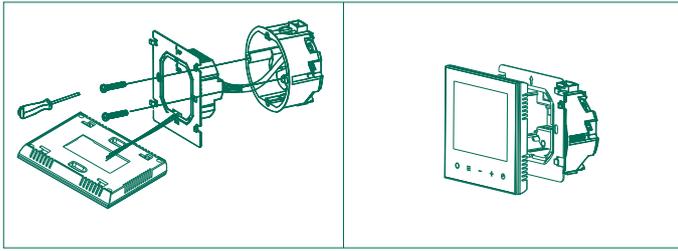
1. Install the thermostat at eye level for optimal visibility.
2. Please read the manual to fully understand the product.

Wrong :

1. Do not install the thermostat near heat sources, as this can affect the right temperature detecting
2. Avoid pressing hard on the LCD screen, as this may cause irreparable damage.



- Attach the base with screws, then connect the wires to the terminals as shown in the wiring diagram.
- Firmly press down to lock it in place, completing the installation.



## Problems

NO.	Problem	Solutions
1	Power is on but display off	Check if the terminals between LCD and Power Unit Box is loose.
2	Without output but display on.	Use a new LCD panel or new Power Unit Box to replace the old one
3	Room Temp is not accurate	Temperature calibration in No.3 of advanced settings

- Power On/Off: Press the power button "⊙".
- Set Temperature: Press the "—" or "+" button.
- Mode Selection: Press the "≡" button to choose from the following 3 modes: Cooling, Heating, Ventilation.
- Fan Speed switch: tap "⊗" to switch over Low, Med, High or Auto.
- Button Lock/Unlock: Press and hold two buttons "—" "+" simultaneously for 3 seconds to lock or unlock the buttons.
- Resetting to Factory Settings (Caution!) Turn off the thermostat, disconnect the power, then reconnect the power and press and hold two buttons "—" and "≡" for 5 seconds until FSET shows. The device will restore to factory settings.
- Time Calibration Turn off the thermostat, press and hold the "⊗" button for 3 seconds.
  - Set Hour: The screen will display "00" and the hour will flash. Press the "+" or "—" button to set the hour.
  - Set Minute: Press the "⊗" button again, the minute "00" will flash. Press the "+" or "—" button to set the minute.
  - Set Day of the Week: Press the "⊗" button again, the day of the week "0" will flash. Press the "+" or "—" button to select the day of the week.
- Programming mode setting:
  - Day, 4-Time Period Programming:
    - power on. press and hold "⊗" for 3 seconds. The day of the week flashes, press "+" or "—" button to select the day of the week.
    - Press the button "⊗" again, the hour "00" flashes, press the "+" or "—" button to set the hour.
    - Press the button "⊗" again, the minute "00" flashes, press the "+" or "—" button to set the minute.
    - Press the button "⊗" again, the temperature "00.0" flashes, press the "+" or "—" button to set the temperature. After setting the first time period, press the button "⊗" to move on to the second time period.
    - Press the button "⊗" again, the temperature "00.0" flashes, press

- the "+" or "—" button to set the temperature. After setting the first
- time period, press the button "⊗" to move on to the second time period.

9. Network Query: Hold "⊗" and "+" button for 3 seconds to check status. "0000" shows the IP, and the last "0" indicates "L" for connected or "n" for not connected (Modbus version).

Building Management System (BMS) Control: Thermostat terminals A and B serve as communication ports for the building's BMS.

### Protocol parameter

Communication protocol	MODBUS
Data transmission mode	RTU
Error detection	CRC-16/MODBUS
Communication bus	RS-485, half-duplex
Baud rate	9600bps
Word width	8bit
Parity check	No
Stop bit	1bit

### 9. Advanced Settings:

Turn off the thermostat, press and hold two buttons "⊗ ≡" for 3 seconds to enter the advanced settings. Press the "≡" button to select options, press the "+" or "—" button to adjust the settings. The option adjustment interval is 60 seconds.

No.	Function	Operated by + / - button	Default
1	2/4 Pipe	02: Two Pipe 04: Four pipe	04
2	Working Mode	01. cooling 02. heating 03. cooling/Ventilation 04. heating /Ventilation 05. cooling/heating /Ventilation	05
3	Temp Calibration	-5°C ~ 5°C	0
4	On Diff. Temp	0.5 ~ 5 °C	1
5	Max. setpoint	21°C ~ 32°C	32
6	Min. setpoint	10°C ~ 20°C	10
7	Fan Status (When room temp has reached setpoint)	OFF: the fan will turn off. AU: The fan will keep running. In auto fan, the fan goes to low speed. In manual fan, keep the same speed H,M,L	OFF
8	Lock buttons	01. Mode; 02 Mode, Fan; 03. Mode, Fan, +, -; 04. all buttons	04
9	Anti-freezing	ON/OFF	ON
10	Anti-freezing temp	1-15°C, when thermostat is off, if we set the Anti-freezing temp to 5°C. when room temp is less than 5°C, the heating would be on and heat until 7°C	5
11	EEPROM: The status and settings are maintained in case of electric power cut off	OFF :off ;AU: on status like before power shut down	AU

12	Modbus IP	001-247	001
13	Control Permissions	1: Local Control Only; 2: Remote Control Only; 3: Both Local and Remote Control	03
14	Parity Settings	01.No Parity; 02.Odd Parity; 03.Even Parity	01
15	Baud Rate	01: 9600 bps; 02: 19200 bps; 03: 38400 bps; 04: 56000 bps; 05: 115200 bps	02
16	keycard or external sensor	1.keycard ( pull out keycard ,goes to energy saving mode) 02.external sensor (if no connect exeternal sensor,the LCD would show ERR) if connect to external sensor,the internal sensor is invalid )	01
17	ECO	1.keycard normally open (take out keycard) , goes to ECO . 2.keycard normally close (take out keycard) , goes to ECO. 3 Button:long press Power button ,goes to ECO,press any button to get out of ECO.	3
18	Heating temp of ECO	10-21°C	18°C
19	Cooling temp of ECO	22-32°C	26°C
20	Fan speed of ECO	01.Low 02.Auto	02
21	Standby brightness	0-10 don't sent more than 2 , to protect the lifetime of the LCD	02
22	In the 4-pipe system, fan operates in heating mode	ON/OFF	ON
23	Version#		001



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