

User Manual TP-WGZBA (EN)

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Zigbee Smart Thermostat

User Manual V1.0

Introduction

Thermostat Core is a smart thermostat designed for hydronic underfloor heating and boiler heating systems. It can control the operation of water underfloor heating systems and boilers based on the current room temperature and target temperature, helping users achieve comfortable and precise indoor temperature management.

The product provides a maximum 3A active output, which can be used to control heating devices such as hydronic heating actuators within the specified load requirements. It also provides an independent dry contact output for controlling compatible boilers, enabling coordinated control between the water underfloor heating system and the boiler.

Key Features



Remote Control



Energy Saving



Hydronic Underfloor
Heating & Boiler
Control



Smart Schedule



Remote
Temperature Source



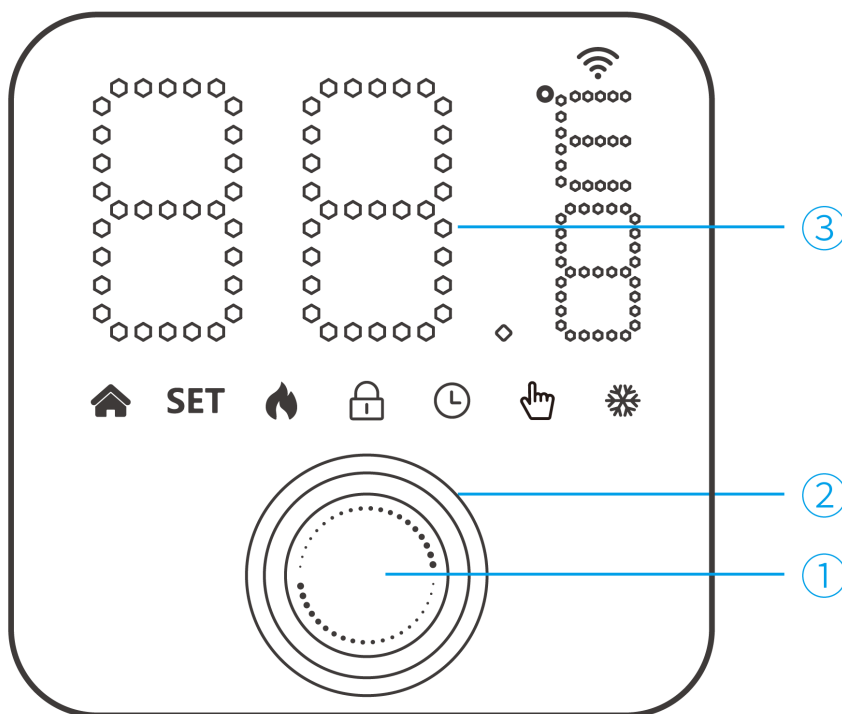
Window Open
Detection



NTC Overheat
Protection



Radar-Activated
Display



① Center Button

② Rotary Button

③ Display Screen

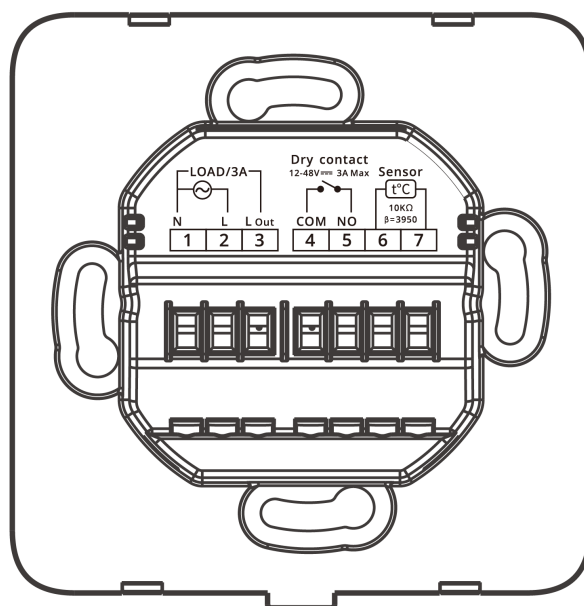
Indicator Status Description

Screen Display and Description

Screen Display	Description
Set	Indicates that no target temperature has been set. Rotate the knob on the device to display the set temperature. The display will return to the ambient temperature after 3 seconds.
	Indicates the current ambient temperature.
	Indicates that heating is active.
	Auto Mode In Auto Mode, manually adjusting the temperature will temporarily override the schedule. The device will follow the preset schedule again when the next scheduled event starts. During this period, both the manual "  " and auto "  " mode icons will be displayed.
	Manual Mode Short press the center button to switch between Auto Mode and Manual Mode.
	Off Mode (Anti-Freeze Mode) (Default: 5°C) In Manual Mode, rotate the knob counterclockwise to lower the set temperature until the screen displays "OF". The device will stop heating and enter Anti-Freeze Mode. The App also displays "OF" when Frost Protection Mode is enabled.
	Pairing Indicator When the device is in OFF mode, press and hold the center button for 2 seconds to enter pairing mode. The pairing indicator will start flashing.

	Child Lock The device operation can be locked to prevent accidental changes to settings. Press and hold the center button for 3 seconds to enable or disable the child lock. The screen will display the child lock status (“Child Lock Enabled” / “Child Lock Disabled”). When the child lock is enabled, operating the local buttons will display “LC” on the screen.
	Boost Mode When Boost Mode is enabled, attempting to adjust the temperature locally will cause “HI” to flash twice, indicating that the temperature cannot be adjusted directly. Press the rotary button to exit Boost Mode before adjusting the temperature.
	Open Window Detection If the room temperature drops by more than 1.5°C within 5 minutes during heating, or if a paired door/window sensor detects that a door/window is opened, the device will activate window open detection and stop heating. The screen will display “Hi”. Note: Detection can be cancelled in the following ways: 1. Set the temperature or change the mode on the device. 2. The detected temperature rises by more than 1.5°C within 5 minutes. 3. The door/window sensor detects that the door or window is closed.
	Factory Reset Press and hold the center button while powering on the device, or perform a factory reset in the App. “FA” will flash for 3 seconds, and the device will restart with factory settings restored.

Terminal Description



Terminal No.	Label	Type	Description
1	N	Power Input	Neutral Wire Input
2	L	Power Input	Live Wire Input
3	L Out	Load Output	Load Live Wire Output, Max. 3A
4	COM	Dry Contact	Common Terminal
5	NO	Dry Contact	Normally Open Terminal
6	Sensor	Sensor	External NTC Temperature Sensor Terminal
7	Sensor	Sensor	External Temperature Sensor Terminal

External temperature sensor specification: NTC 10K Ω , $\beta=3950$.

Specifications

Item	Specification
Product Series	Thermo Series
Product Type	Zigbee Smart Thermostat
Model	TP-WGZBA
Wireless Connection	Zigbee 3.0
Zigbee Standard	IEEE 802.15.4
Applicable System	Water Heating System
Installation Method	Flush Wall Mount
Rated Parameters	Max. 3A 100–240V~ 50/60Hz
Water Heating Actuator Output	Active Relay Output
Maximum Output Load	3A
Load Type	Resistive Load
Boiler Control Output	Passive Dry Contact Output
Boiler Control Terminals	COM, NO
Temperature Setting Range	5~30℃
Radar Detection Distance	Low: approx. 0.3 m; Medium: approx. 0.6 m; High: approx. 1 m
External NTC Floor Temperature Sensor	10KΩ NTC, B Value 3950K
Product Dimensions	86×86×55.7mm
Mounting Screw Hole Distance	60 mm
Product Color	SONOFF White
Housing Material	PC
Rated impulse voltage	4KV
Operating temperature	T50
Diameter of wiring (recommend)	24AWG–12AWG (0.2mm ² –3.5mm ²)
Pollution Degree	II

Automatic Operation Cycles	10,000 cycles
Controller Action Type	1.B
Operating Altitude	2000 m
Certifications	CE, RoHS

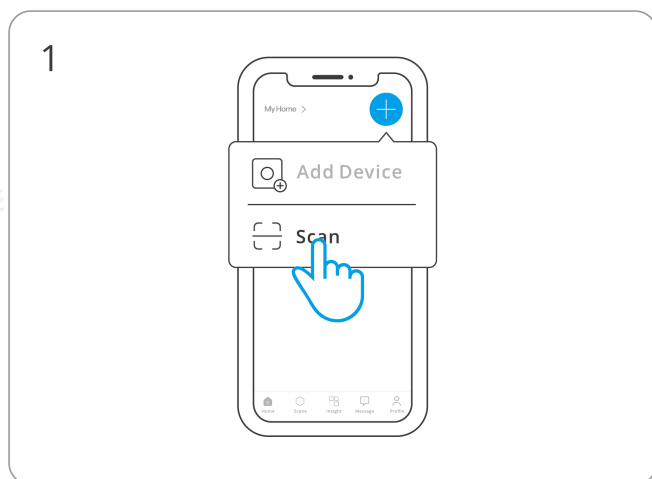
Device Installation and Pairing

Download the eWeLink App

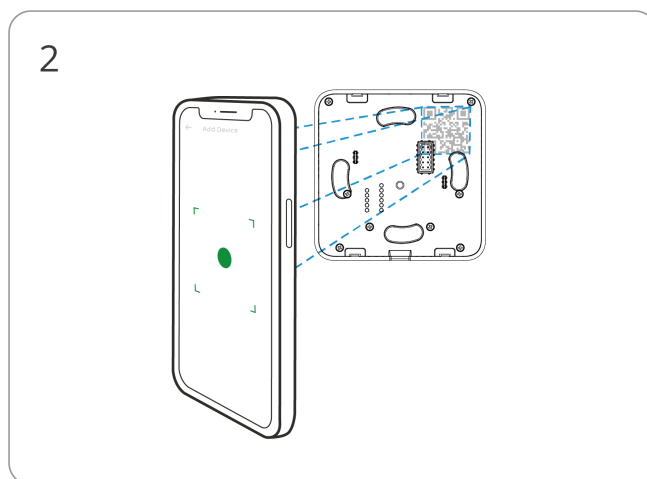
Please download the "eWeLink" App from **Google Play Store** or **Apple App Store**.



Scan the QR Code On the Device



Open the eWeLink app and enter "Scan"



Scan the QR code on the device

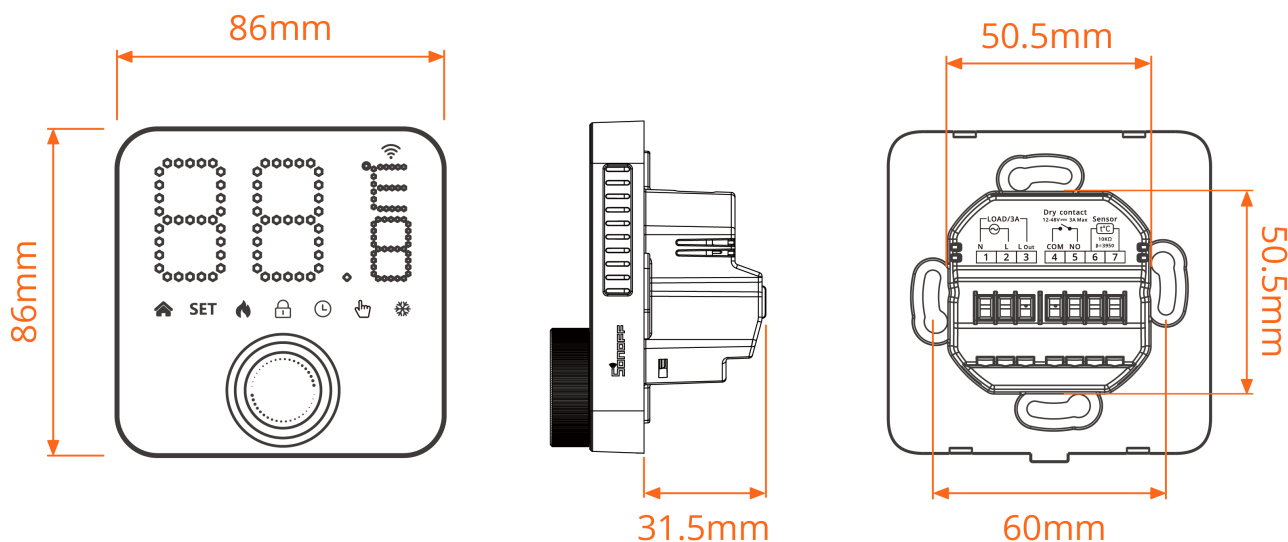
Device Installation

⚠ Safety Instructions

- Always turn off the main power supply before installation, removal, maintenance, or wiring.

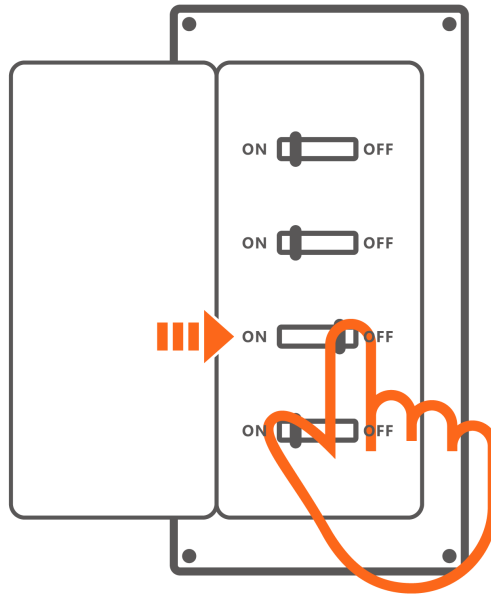
- This product involves mains voltage wiring. Installation must be performed by a qualified electrician in accordance with local laws, regulations, and electrical standards.
- Do not touch terminals, exposed wires, or remove the device while power is connected.
- Ensure all wires are correctly connected and terminals are securely tightened before powering on.
- Do not exceed the rated current or voltage of the terminals.
- COM/NO are dry contact outputs. Do not connect mains voltage directly to the dry contact terminals.
- Do not disassemble, modify, or repair the device by yourself. Contact after-sales service or qualified professionals for device failures.
- To ensure electrical safety, install a miniature circuit breaker (MCB) or residual current operated circuit breaker with integral overcurrent protection (RCBO) rated at 3A and compliant with local safety standards before installing TP-WGZBA.

Installation Dimensions



Before installation, confirm that the internal dimensions of the wall box, mounting hole spacing, and wiring space are sufficient to accommodate the embedded part of the product. After confirming installation requirements are met, disconnect the power supply and proceed with wiring.

Power Off

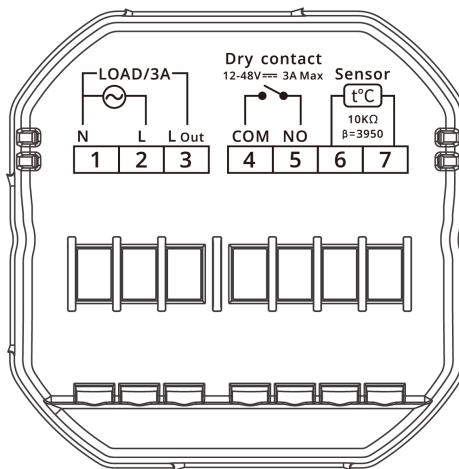


⚠ Preparation Before Installation

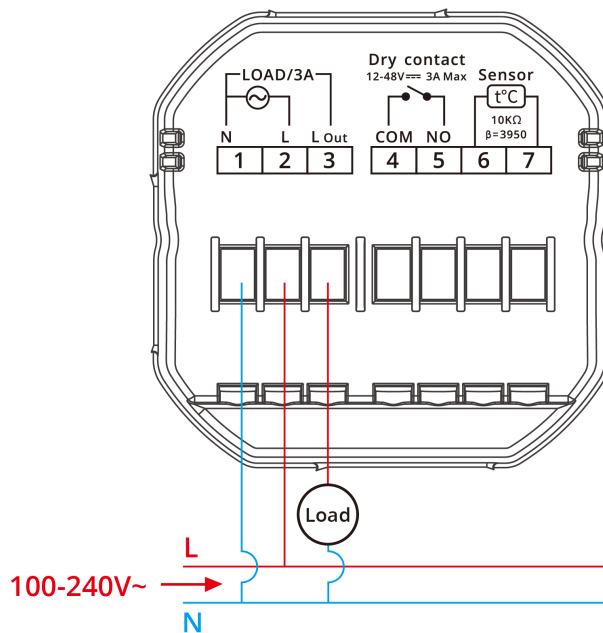
- Confirm that the flush box size and wall space meet installation requirements.
- Ensure that the power supply wires, load wires, or boiler control wires are prepared in advance.
- If an external temperature sensor is required, route the sensor cable in advance and avoid running it parallel to strong current cables for a long distance.
- Prepare tools such as a screwdriver, voltage tester, and insulation tape.

Wiring

* Ensure all wiring connections are correct.



3A Relay Load Wiring



Applicable for heating devices such as water underfloor heating actuators.

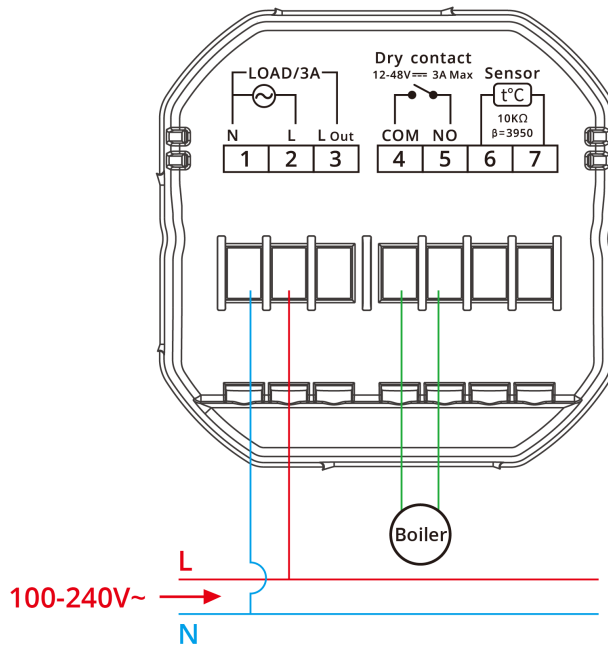
Connect the thermostat **N** and **L** terminals to the power supply neutral wire and live wire respectively. Connect the actuator neutral wire to the same power supply neutral line (if already

connected, the existing wiring can remain). Connect the controlled live wire to the thermostat **L Out** terminal.

⚠ Note:

The maximum load current is **3A**. If additional neutral wire connections are required, use external terminal blocks that comply with local electrical regulations. Do not force multiple wires into terminals beyond their rated capacity.

Boiler Dry Contact Wiring



Applicable for boilers equipped with passive dry contact thermostat inputs.

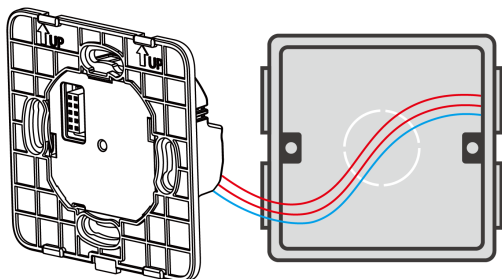
Connect the two boiler thermostat control wires to the **COM** and **NO** terminals.

⚠ Note:

COM/NO are dry contact outputs used only for boiler switch control. Do not connect them directly to mains power.

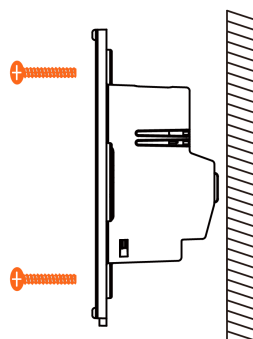
Installation

1



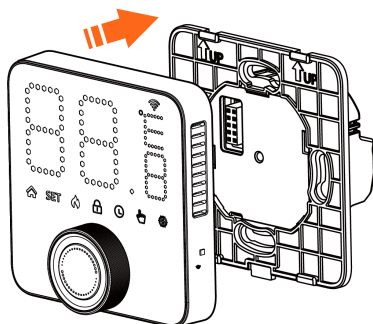
Arrange the connected wires and place them inside the flush box.

2



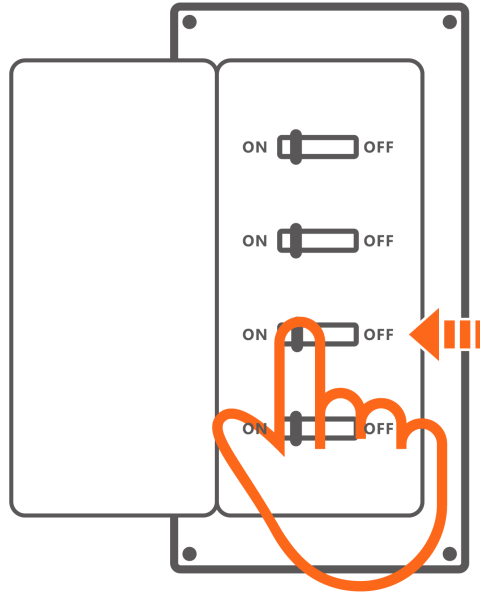
Ensure the "UP" mark on the base is facing upward, then fix the base to the wall box with screws.

3



Align the panel with the base and snap it into place.

Power On



ⓘ After confirming that wiring and installation are correct, restore the power supply.

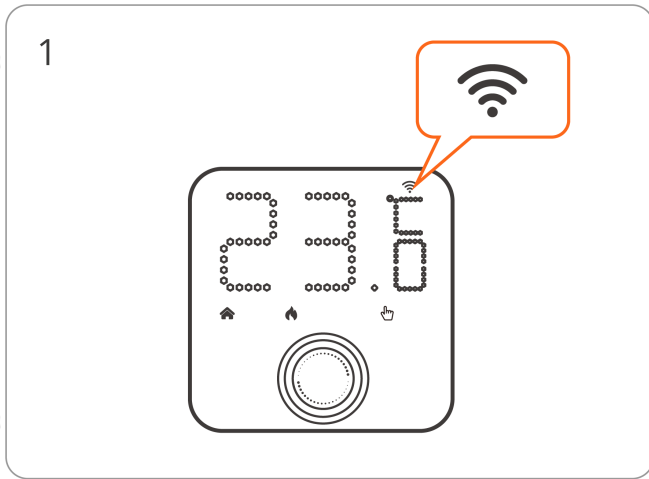
Add Device to eWeLink App

Add SONOFF Zigbee gateway

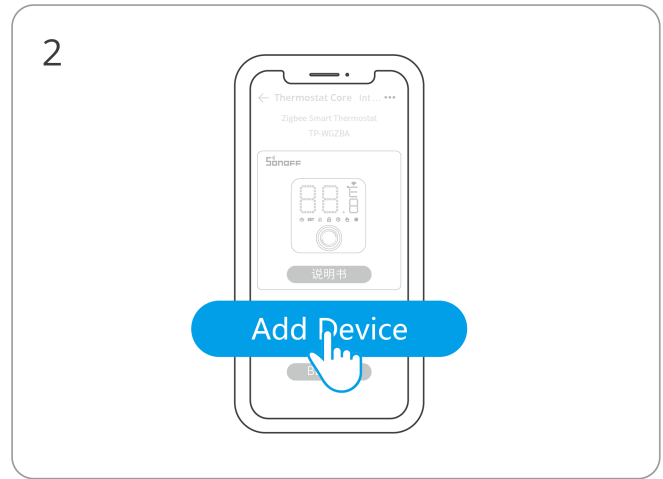
Compatible Gateways	
Recommended SONOFF gateway models	ZBBridge-P, ZBBridge-U, NSPanel Pro, iHost
Other compatible SONOFF gateway models	ZBDongle-P, ZBDongle-E, Dongle-M, Dongle-PMG24, Dongle-LMG21

ⓘ Ensure the Zigbee gateway is updated to the latest version.

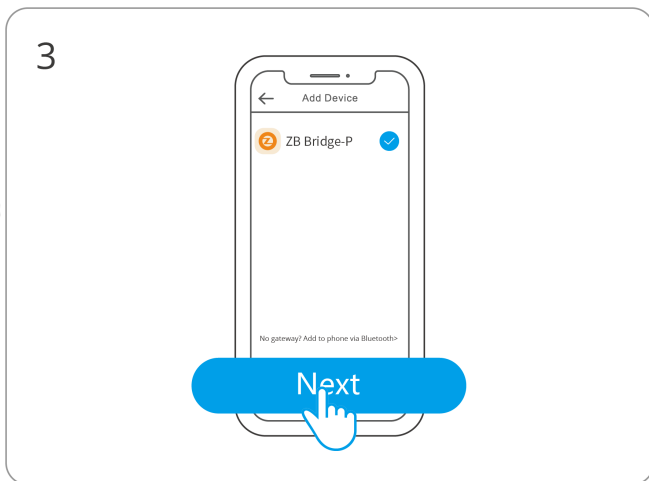
Add Device



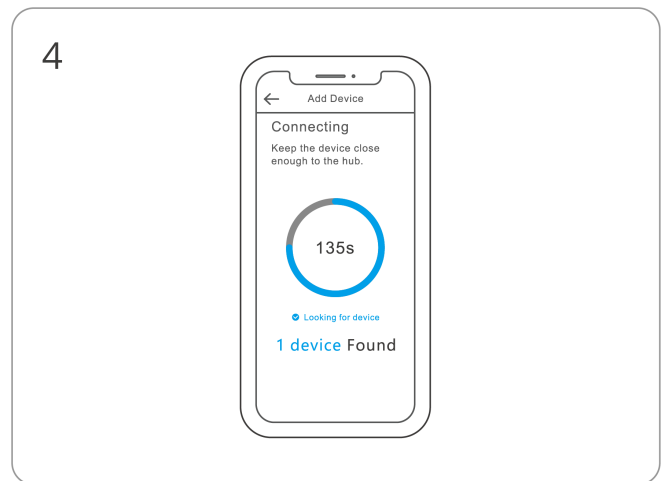
Check that the pairing icon "📶" is flashing



Select "Add Device"



Select the Zigbee gateway.

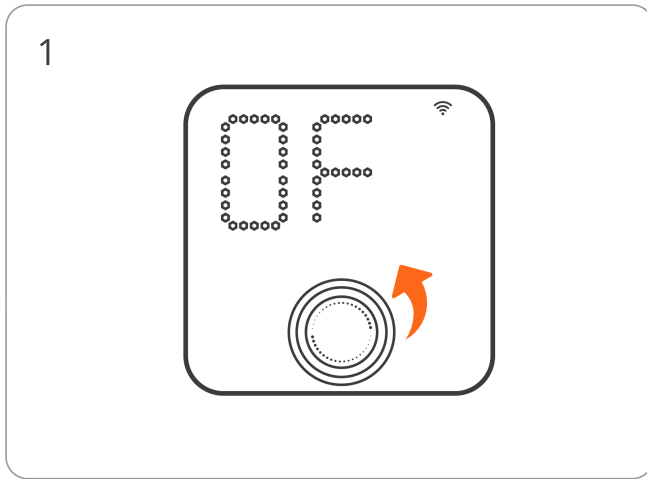


Wait until the addition is done

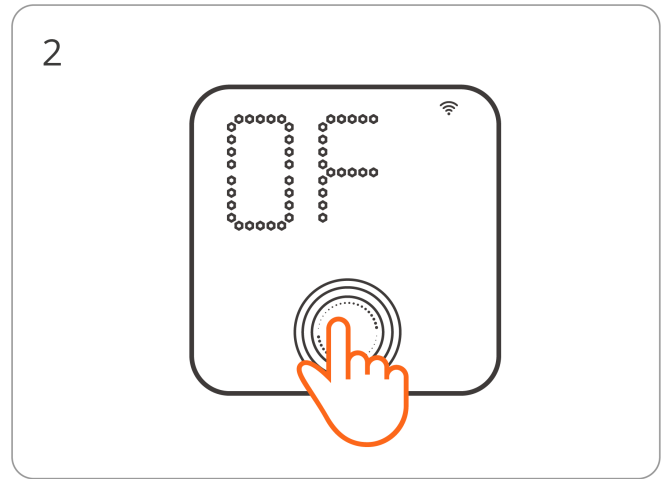
When powered on for the first time, the device automatically enters pairing mode. The pairing indicator "📶" flashes. Follow the App instructions to add the device.



- ① If the device remains unpaired for 3 minutes after entering pairing mode, it will exit pairing mode automatically. To enter pairing mode again, switch the device to Manual Mode, rotate the knob counterclockwise until the screen displays "OF", then press and hold the center button for 2 seconds. The pairing icon "📶" will start flashing.
- ② If the page cannot be displayed after scanning the device QR code, tap "+" in the upper-right corner of the eWeLink App homepage, select "Add Device", and follow the instructions to complete pairing.



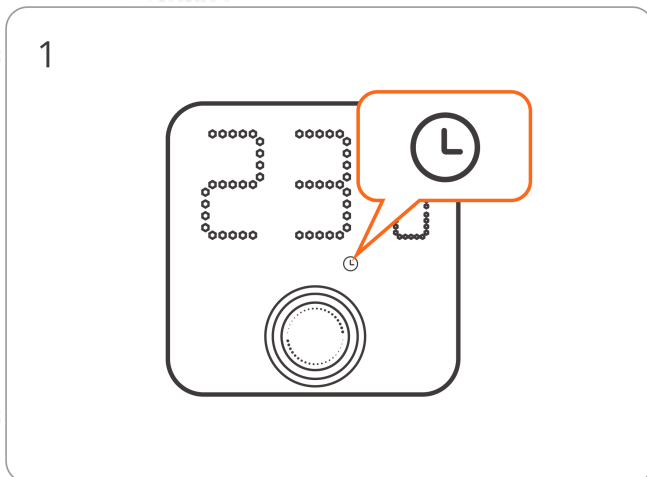
Rotate the knob counterclockwise in Manual Mode to lower the set temperature until the screen displays “OF”.



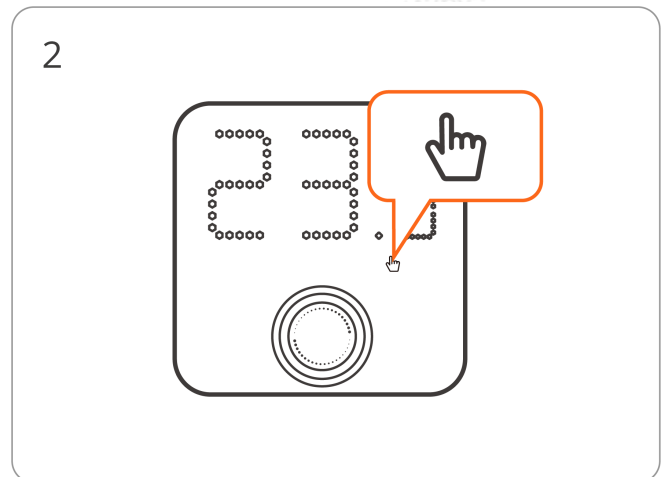
When the device is in **OFF** status, press and hold the center button for 2 seconds.

Working Mode

The device supports Auto Mode and Manual Mode. Short press the device center button to switch between the two modes.



The screen icon “⌚” indicates **Auto Mode**.



The screen icon “👉” indicates **Manual Mode**.

Factory Reset

Press and hold the device center button while powering on the device, or restore factory settings through the App. “FA” will flash for 3 seconds, and the device will restart with factory settings restored.

BLE OTA

If the device is connected to **Home Assistant**, **Samsung SmartThings**, or other third-party platforms, firmware updates can be performed through the eWeLink App via Bluetooth OTA.

Compared with Zigbee OTA, Bluetooth OTA updates are usually faster.

Step 1: Enable BLE Pairing Mode

BLE pairing mode can be enabled in either of the following ways:

- Enable BLE pairing mode from the device page in **Home Assistant** or **Samsung SmartThings**.
- Wake up the device, press the device button once, and then press and hold the button for approximately 5 seconds within 3 seconds.

Enabling BLE pairing mode will not clear the existing pairing information or device settings.

Step 2: Update the Firmware in the eWeLink App

Open the eWeLink App and go to:

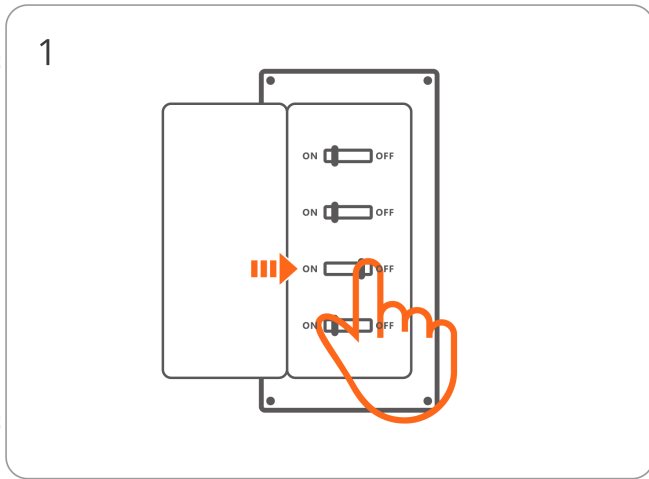
Profile > Pilot Features > Bluetooth OTA Update

Search for and select the corresponding device, then follow the instructions on the page to complete the firmware upgrade.

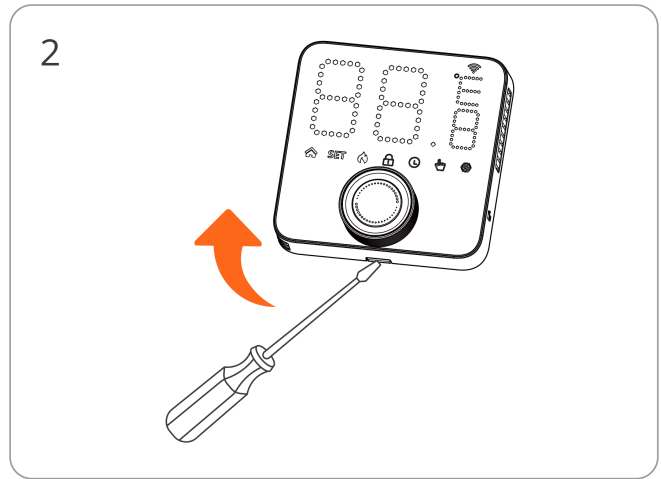
Device Abnormal Status and Solutions

Error Code	Problem	Solution
F0	Built-in temperature sensor abnormality	Please contact customer service

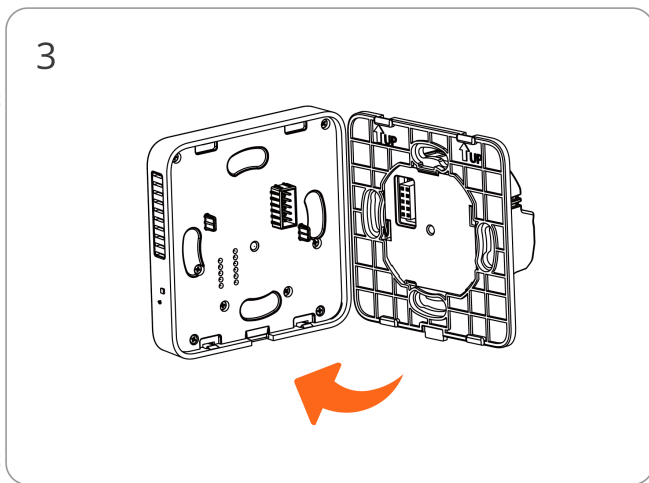
Removing the Panel



Disconnect the power supply.



Insert a flat-head screwdriver into the removal slot at the bottom of the device and gently pry outward to release the clips.



Remove the panel.

⚠ Do not use excessive force to avoid damaging the panel or clips.



WARNING

- Do not use metal short-circuited batteries, Otherwise, the batteries may leak, catch fire, or explode.
- Do not replace a battery with an incorrect type.
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.

- This appliance contains non-rechargeable batteries, these batteries are not to be recharged.
- For safety purposes, please reinstall the battery cover back onto the device after replacing the battery.
- This product is not a toy and not intended for use by children. For adult use only.
- The appliance is suitable for moderate climates only.
- The ventilation must not be impaired by covering the appliance with items such as newspapers, table cloths, curtains, etc.
- Naked flame sources, such as candles, must not be placed on the appliance.

EU Declaration of Conformity

Hereby, Shenzhen Sonoff Technologies Co., Ltd declares that the radio equipment type TP-WGZBA is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

<https://sonoff.tech/compliance/>

For CE frequency

EU Operating Frequency Range

Zigbee: 2405—2480 MHz

BLE: 2402—2480 MHz

FMCW: 5725—5875MHz

EU Output Power

Zigbee≤10dBm

BLE≤10dBm

FMCW: ≤14dBm

Under normal use of condition, this equipment should be kept a separation distance of at least 20 cm between the antenna and the body of the user.

WEEE Disposal and Recycling Information



WEEE Disposal and Recycling Information All products bearing this symbol are waste electrical and electronic equipment (WEEE as in directive 2012/19/EU) which should not be mixed with unsorted household waste. Instead, you should protect human health and the environment by handing over your waste equipment to a designated collection point for the recycling of waste electrical and electronic equipment, appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. Please contact the installer or local authorities for more information about the location as well as terms and conditions of such collection points.

Scatola	Manuale	Pellicola	Borsa
PAP 20	PAP 22	PET 1	CPE 7
Carta	Carta	Plastica	Plastica
RACCOLTA DIFFERENZIATA			
Verifica le disposizioni del tuo Comune.			
Separa le componenti e conferiscile in modo corretto.			

SONOFF

Manufacturer: Shenzhen Sonoff Technologies Co., Ltd.

Address: 3F & 6F, Bldg A, No. 663, Bulong Rd, Shenzhen, Guangdong, 518000, China

Service email: support@itead.cc Website: sonoff.tech

Made in China



FR

Cet appareil,
ses accessoires
et piles se
recyclent

À DÉPOSER
EN MAGASIN



OU

À DÉPOSER
EN DÉCHÈTERIE



Points de collecte sur www.quefairedemesdechets.fr
Privilégiez la réparation ou le don de votre appareil !

