

Aqara

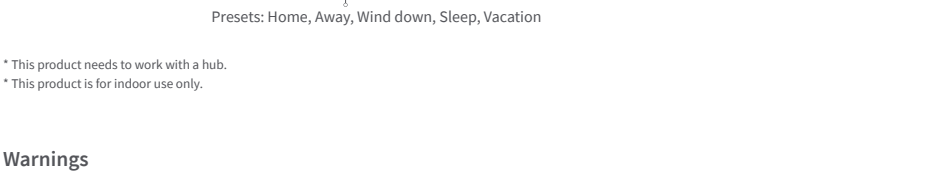


Floor Heating Thermostat W500 User Manual

Product Introduction

Floor Heating Thermostat W500 is a smart thermostat that supports Zigbee and Thread protocols and is designed for electrical/hydronic heating systems*. The thermostat has a built-in temperature and humidity sensor and a floor sensor (NTC) can be connected. It provides smart schedules, presets, remote control and power metering to improve energy efficiency and save energy expenses. It also supports access to the Matter ecosystem, or access to the Aqara Home with the Aqara hub to provide a more convenient smart home experience with other smart devices.

*Electric heating devices utilizing only Live (L) and Neutral (N) wires for operation OR hydronic systems with 2-wire normally closed (NC) actuators are compatible with this thermostat.



* This product needs to work with a hub.

* This product is for indoor use only.

Warnings

1. This product is not a toy, please keep children away from this product.
2. This product is designed for indoor use only. Do NOT use in humid environments or outdoors.
3. Beware of moisture, do NOT spill water or other liquids onto the product.
4. Do not place this product near a heat source.
5. Do not attempt to repair the product by yourself. All repairs should be performed by authorized personnel.
6. This product is designed only for improving the convenience of household life, and for status notifications. If the user violates the product instructions and this warning, the manufacturer is not responsible for any risks and property losses caused thereby.

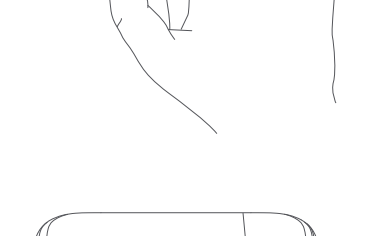
Device Installation

Installation Method

It is recommended that the device be installed by a licensed electrician in a manner that complies with local regulations and building codes.

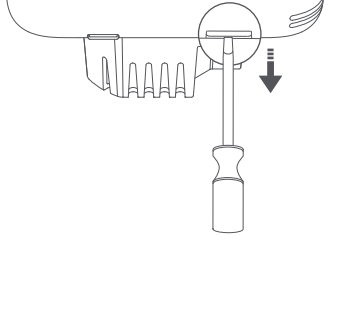
WARNING: Please make sure that the power at circuit breaker or fuse box is turned off before wiring! Then verify by testing the wires with a probe or multimeter.

NOTE: It is not recommended to install the device in rooms with high humidity such as bathrooms, saunas, etc. The placement of the device is critical for proper operation and must be away from sunlight and direct heat sources.

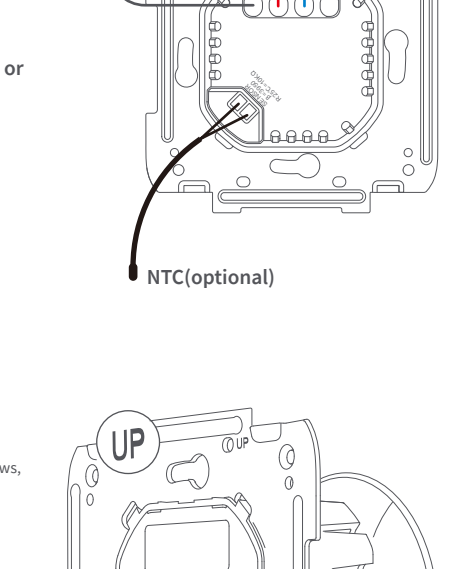
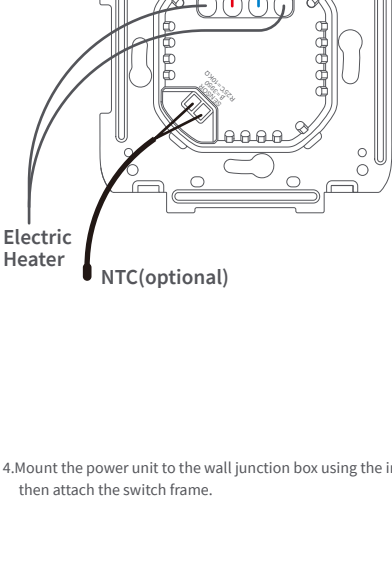


1.Remove your existing thermostat from the wall.

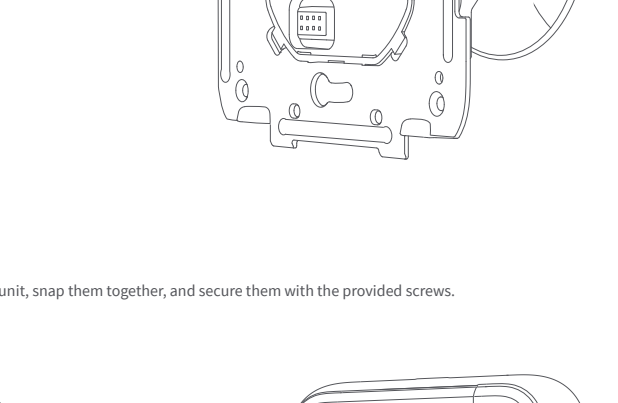
2.Disassemble the thermostat using a screwdriver to separate it into the screen unit and power unit. Note: The network setup QR codes are located on the paper manual inside the product packaging.



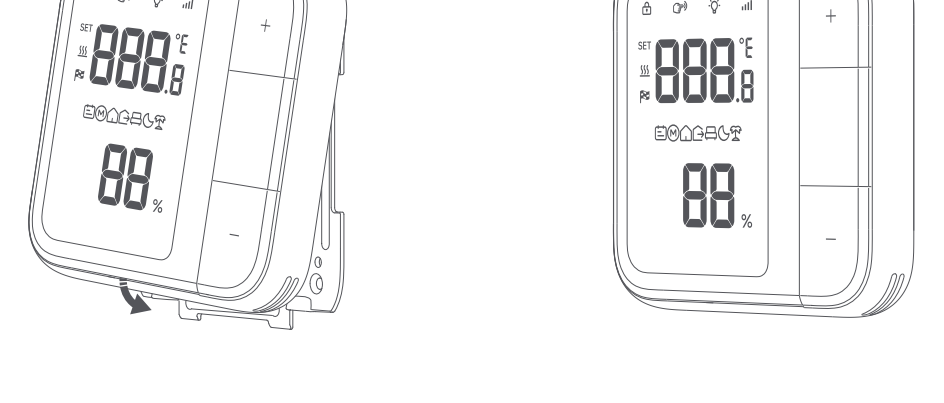
3.Connect the power unit wiring according to your heating system type.



4.Mount the power unit to the wall junction box using the included screws, then attach the power frame.



5.Align the pins of the panel unit with the power unit, snap them together, and secure them with the provided screws.

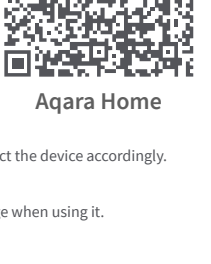


Quick Setup

Access to Aqara Home

Download Aqara Home app

Search for "Aqara Home" in the app store or scan the QR code below to download the "Aqara Home" app.



Aqara Home

Add device

Power on the device. Open the Aqara Home app, click "+" in the upper right corner of the home page, and select the device accordingly.

* If the addition fails, make sure that the hub is close enough to the device and try again.

* Make sure that there is a compatible Aqara hub under the Aqara account, and it is within the connection range when using it.

Access to the 3rd-Party Matter ecosystem

Method 1: Please make sure you have installed the Matter-compatible app and have a Matter-compatible Thread border router. Power on the device. Open the Matter-enabled app, scan the Matter QR code on the instruction manual or product, or enter the setup code to add the device to the app.

Method 2: After adding the device to Aqara Home app, click "Matter Ecosystem" on the settings page, and follow the prompts to join, synchronize device-specific actions to the Matter platform (such as Apple Home, Home Assistant), and trigger automation and scenes.

* For help, please visit: www.aqara.com/support.

How to Use

1. Temperature Swing Range

This feature allows the user to set a temperature swing range($\pm 0.5\sim 3^{\circ}\text{C}$), which defines a buffer zone around the target temperature. Within this range, the heating system remains active, preventing the thermostat from frequently turning on and off as the room temperature fluctuates near the set point.

2. Window Open Detection

Enable open window detection function, without binding the door and window sensors, the temperature drops by 2°C within 3 minutes, and the heating mode will automatically pause for 30 minutes. After binding an door and window sensor, when the sensor are detected to be open for more than 3 minutes, the heating mode will automatically pause for 30 minutes.

3. Smart Schedule

The device will automatically control the heating system according to the preset time period and temperature, allowing different temperatures to be set for different time periods 7 days a weeks. A single schedule supports up to 7 time periods, each of which is at least 15 minutes.

4.Manual

Turn the heating on or off by manually adjusting the target temperature, or select a comfortable heating temperature by manually switching presets. When a Smart Schedule is active, manual adjustments will temporarily override it for 2 hours (default). This duration can be modified in the Aqara Home app (Zigbee mode) before the thermostat automatically resumes its scheduled program.

5. Presets

Preset	Description
Home	The default temperature is 26°C , support customization
Away	The default temperature is 18°C , support customization
Wind down	The default temperature is 24°C , support customization
Sleep	The default temperature is 20°C , support customization
Vacation	The default temperature is 10°C , support customization

6.Calibration

Supports calibration of the device built-in temperature and humidity sensor or the floor sensor (NTC), with an adjustment range of $-5\sim +5^{\circ}\text{C}$ and an adjusting increment of 0.5°C .

7.Floor Overheat Protection

When the wired NTC temperature sensor is connected, the system supports floor overheat protection by default. When the temperature value detected is greater than 40°C , the device will trigger the "floor overheat protection", the electric heating will be forced to shut down, and enter the safety protection state. When the user presses the button on the device to cancel the alarm or the sensor detects that the temperature value drops to 5°C , the device will return to normal.

8.Screen Brightness

Supports backlight adjustment. When the user presses any button, the backlight will light up. When there is no operation for one minute, it will enter standby mode and the backlight will go out.

Button Operations/ Description of Indicator Lights

Button Operations

Please click any button on the screen to activate the device, then follow the instructions below to proceed.

Setting Item Switch	
You can adjust the setting items by pressing the "o" button. After selecting a setting item, use the "+" or "-" button to adjust the corresponding parameters.	
Button Operations	Description
Press and hold "o" for 2 seconds	Holding "o" for 2 seconds turns on the thermostat. Pressing and holding "o" for 2 seconds again will turn off the thermostat.
Press "o"	Enter the settings menu, where you can switch between temperature adjustment, preset adjustment, and screen brightness adjustment.*
Press "+" / "-"	In temperature adjustment, "+" increases and "-" decreases the target temperature.
	In preset adjustment, it cycles between Home, Away, Wind down, Sleep and Vacation. "+" for forward, "-" for reverse.
	In brightness adjustment, "+" increases and "-" decreases the brightness.

Child Lock	
After activation, the device's button operations will be disabled, effectively preventing accidental operation by children.	
Button Operations	Description
Press and hold "+" and "-" for 2 seconds at the same time	Press and hold "+" and "-" simultaneously for 2 seconds. The child lock icon will light up on the screen, indicating the child lock is activated. Press and hold "+" and "-" again for 2 seconds to deactivate the child lock.

Switch Temperature Unit	
Button Operations	Description
Press "+" and "-" simultaneously	Press "+" and "-" simultaneously to toggle the temperature unit displayed on the screen between $^{\circ}\text{F}$ and $^{\circ}\text{C}$.

Reset and Factory Reset	
Button Operations	Description
Press "Reset" 2 times quickly and hold it for more than 5 seconds	Resets the device, clearing network information while retaining other configuration settings. When the signal strength icon flashes slowly, the reset is successful.
Quickly click the "Reset" button for 10 times	Restores factory settings, clearing all network and configuration information. When the signal strength icon flashes slowly, the factory reset is successful.

Description of Indicator Lights	
State	Description
Signal strength icon lights up in a step-by-step cycle	Device pairing
Signal strength icon flashes slowly	Bluetooth network distribution mode/Added failed
The signal strength icon flashes quickly	Added successfully
The lit icon flashes slowly for 2 seconds	Device search / identify Device
SET icon flashes slowly	Setting target temperature
Preset icon flashes slowly	Setting preset
Back light icon flashes slowly	Setting Screen Brightness
E01	Floor overheat protection
E02	Device overheat protection
E03	Device overload protection
E04	Temperature/humidity sensor abnormal

*Zigbee protocol: 2-bar signal strength; Thread protocol: 4-bar signal strength

Product Specifications

Floor Heating Thermostat W500
Model: UT-A01E/UT-A01D
Wireless Protocols: Thread/Zigbee, Bluetooth
Electrical Rating: 220-240VAC, 50/60Hz
Maximum Resistive Load: 16A, 3600W @230VAC
What is in the Box: Floor Heating Thermostat W500 \times 1, User Manual \times 1, Compliance Statement \times 1, Screw Kit \times 1, NTC \times 1

Dimensions: $86 \times 86 \times 46.8$ mm ($3.39 \times 3.39 \times 1.8$ in.)
Compatible NTC: 10, 50 or $100\text{k}\Omega$ @ 25°C
Operating Temperature: $0^{\circ}\text{C} \sim 40^{\circ}\text{C}$ ($32^{\circ}\text{F} \sim 140^{\circ}\text{F}$)
Operating Humidity: $0 \sim 90\%$ RH, no condensation
Made in China

Notice

Use of the Works with Apple badge means that an accessory has been designed to work specifically with the technology identified in the badge and has been certified by the developer to meet Apple's performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

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