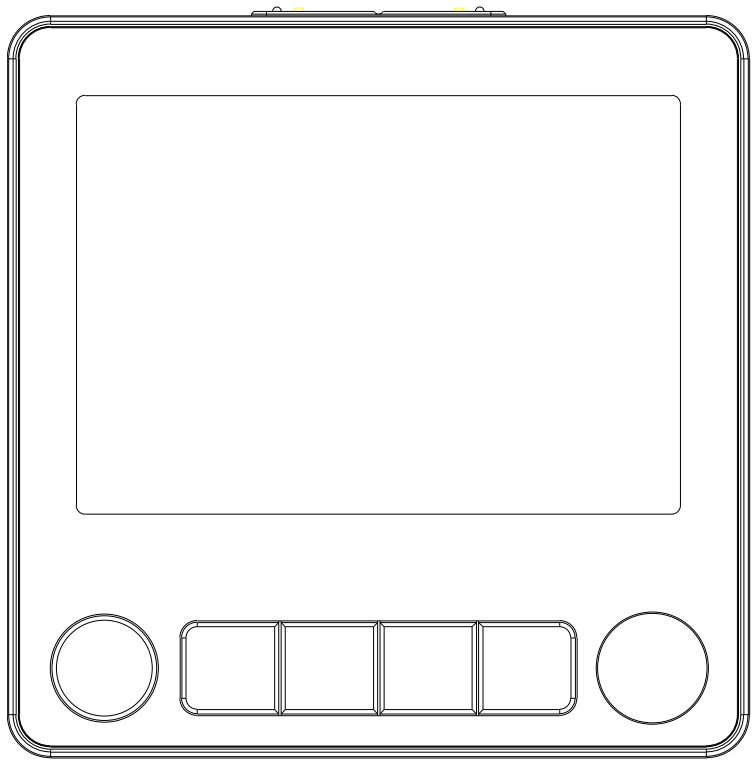


PCT504-12 ZigBee Fan-coil Thermostat

Quick Start Guide

Safety Handling

WARNING: Failure to follow these safety notices could result in fire, electric shock, other injuries, or damage to the Fan-coil Thermostat and other property. Read all the safety notices below before using the Fan-coil Thermostat.

- Avoid high humidity or extreme temperatures.
- Avoid long exposure to direct sunlight or strong ultraviolet light.
- Do not drop or expose the unit to intense vibration.
- Do not disassemble or try to repair the unit on your own.
- Do not expose the unit or its accessories to flammable liquids, gases or other explosives.

1 Welcome

The smart thermostat makes it easier to control your household temperature. You can schedule your thermostat working hours so it will work based on your plan. With a smart thermostat, you will be able to remotely control the temperature anytime through your mobile phone.

This guide will provide you with an overview of the product and will help you get through the initial setup.

2 Installation

Warning!
Risk of electrical shock.

- The thermostat must be installed and serviced only by a qualified electrical personnel.
- Read these instructions carefully.
- Do not touch the terminals of the device during testing.
- Turn off all the power supply for this equipment before installing.
- Make sure that the power supply is off before connecting or disconnecting it to an auxiliary device.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices and covers before applying power to the equipment.

Failure to follow these instructions will result in death or serious injury.

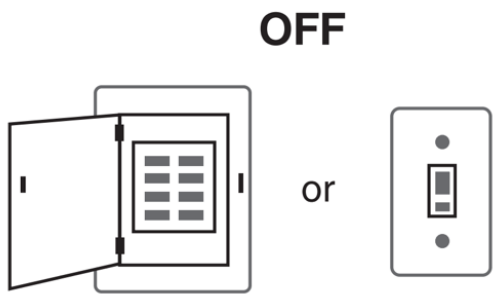
Location

The thermostat has a built-in sensor to detect room temperature and humidity, for a better sensing result, it must be located about 1.5m (5ft.) above the floor.

The ideal location is where the thermostat is accessible, have a good air circulation, reasonably lit and free from extremes of temperature and draughts. Do not mount the thermostat on an outside wall, above a radiator or in a location where it may be subjected to direct sunlight.

1. Switch off your Fan-coil system

Before you started, please switch off your Fan-coil system. Adjust the temperature in your old thermostat to double check the system is off.

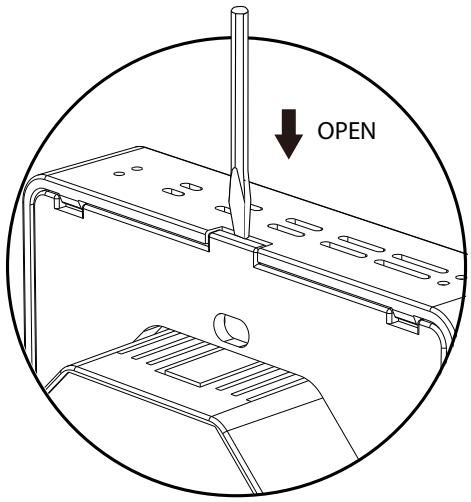


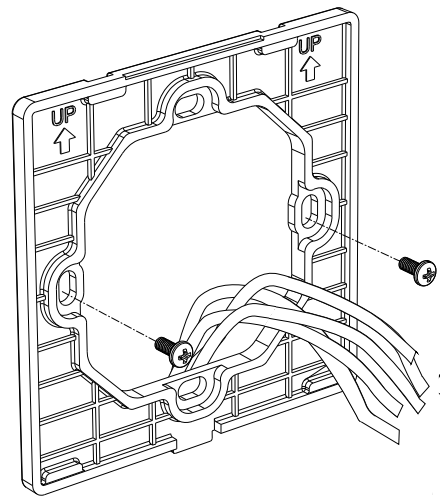
2. Prepare the wirings

Feed the supply wires through the opening of the junction box.

3. Mount the backplate

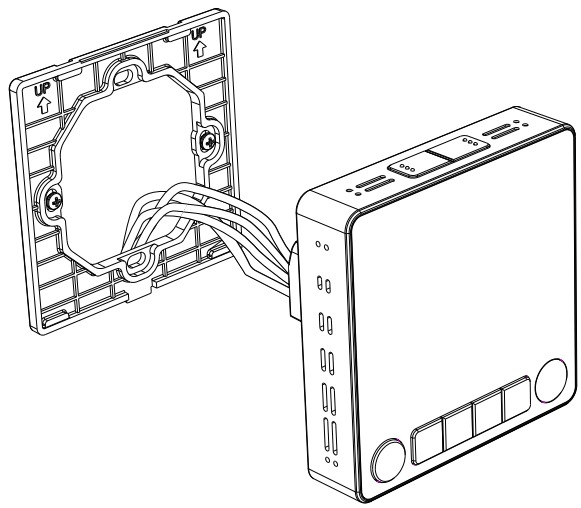
Remove the backplate using the screwdriver. Feed the supply wires through the backplate. Then attach the backplate to the junction box using the screws.





4. Attach the supply wires

Attach the supply wires directly to the terminals on the rear of the thermostat.



Terminal designation:

Terminals	What it means
L	Line voltage power
N	Line voltage ground
G-h	High speed fan relay
G-m	Medium speed fan relay
G-l	Low speed fan relay
Y-on	Cooling valve on
Y-off	Cooling valve off
W-on	Heating valve on
W-off	Heating valve off

5. Attach the thermostat to the backplate

Gently push the thermostat to the backplate until it locks.

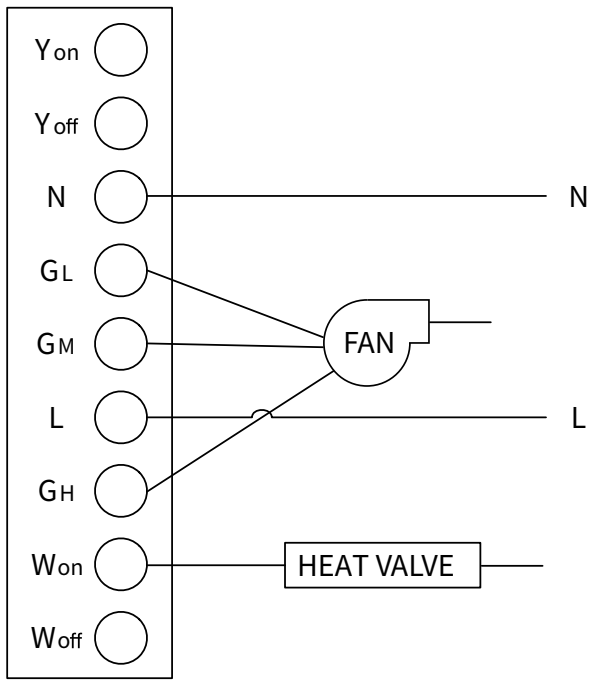
6. Power on your system

Congratulation, you are now finished with the installation. Please power on your HVAC system.

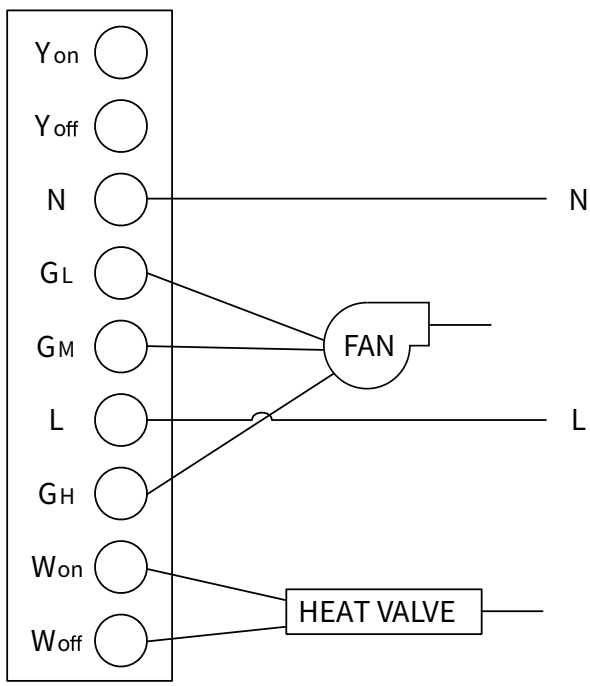
7. Setup the thermostat

Power on your thermostat. Set your gateway to permit joining and the thermostat will join into the gateway automatically (the "X" sign of the network indicator on the upper right side of main interface will disappear).

Wiring Diagrams

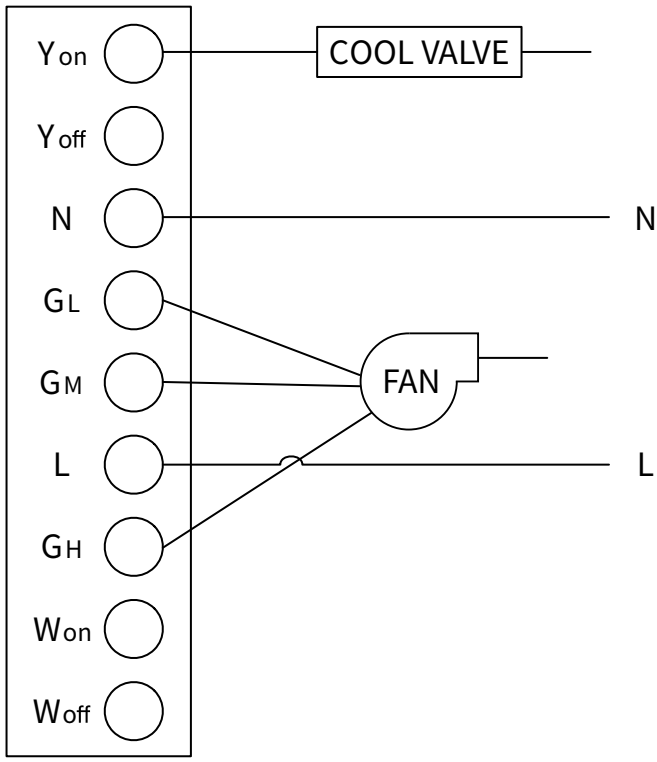


One way valve

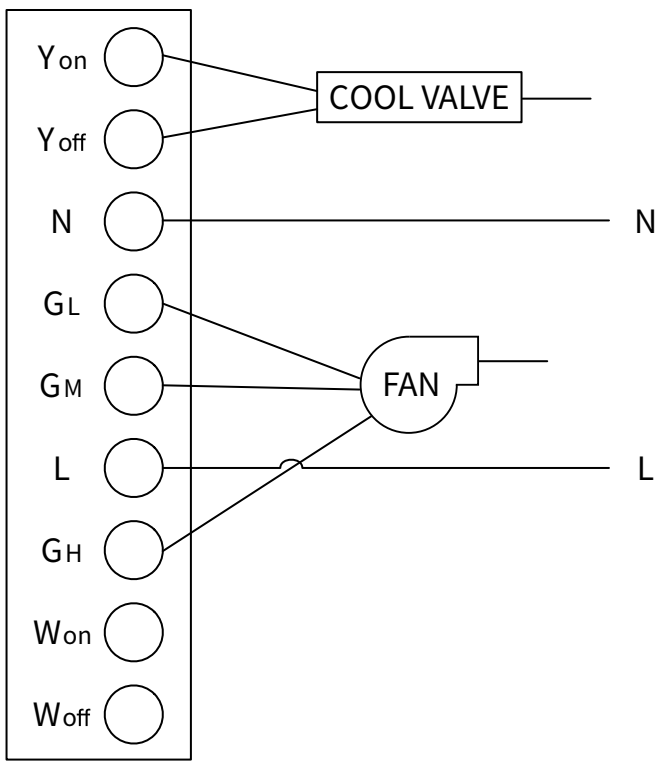


Two way valve

Two pipes Heat-only

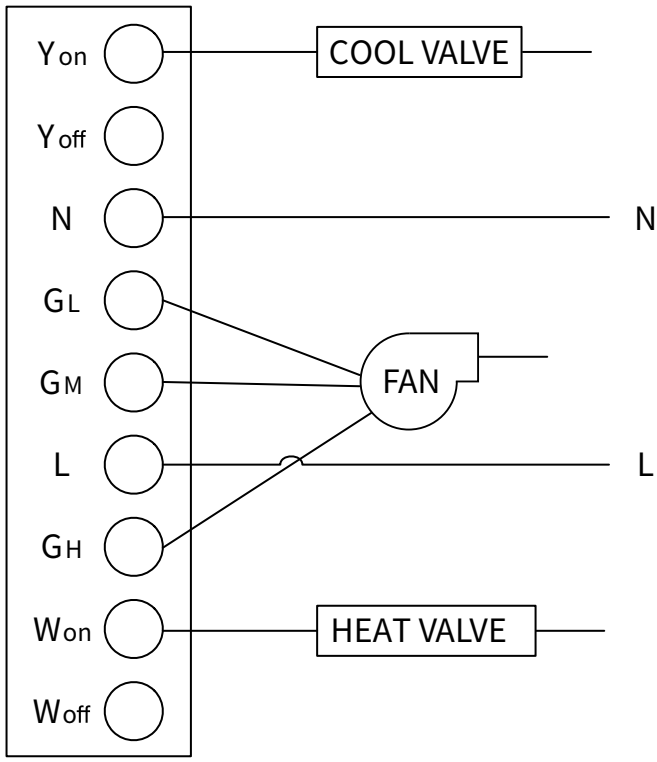


One way valve

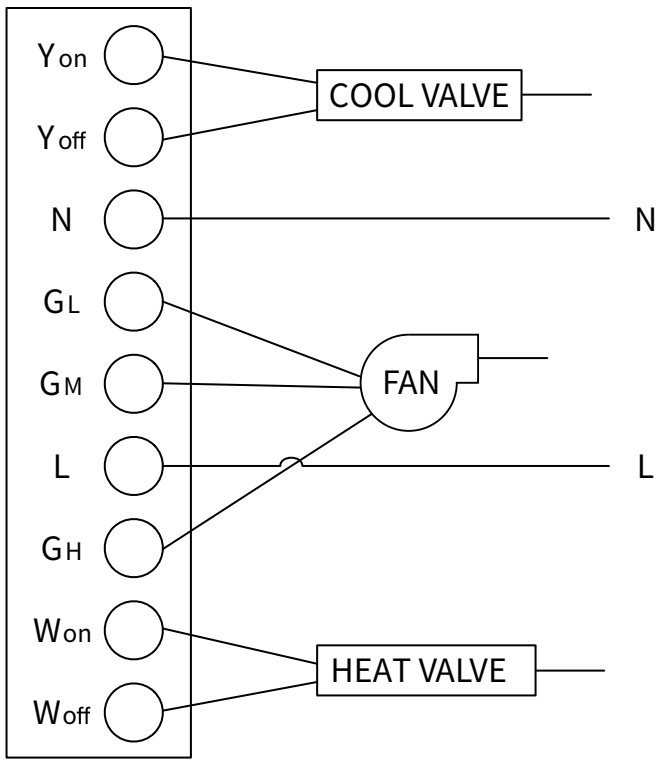


Two way valve

Two pipes Cool-only



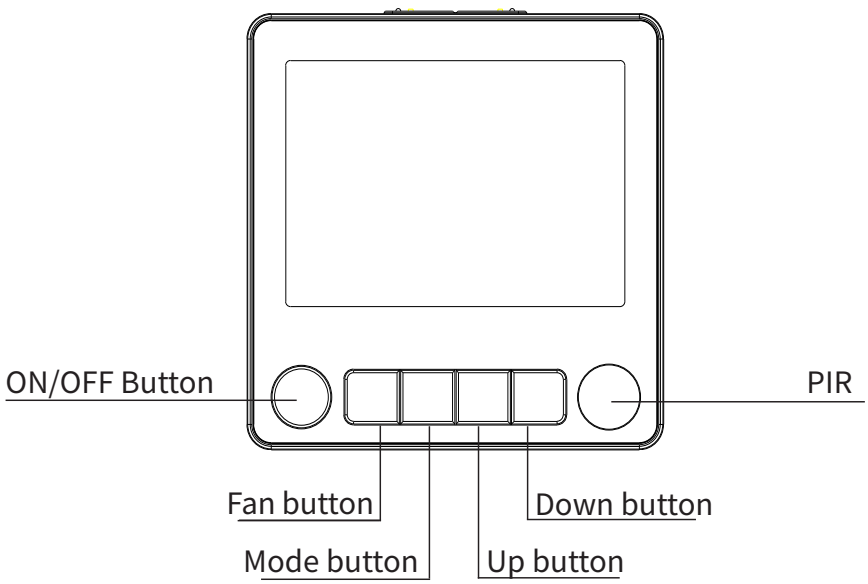
One way valve



Two way valve

Four pipes Heat and Cool

3 Get to know your device

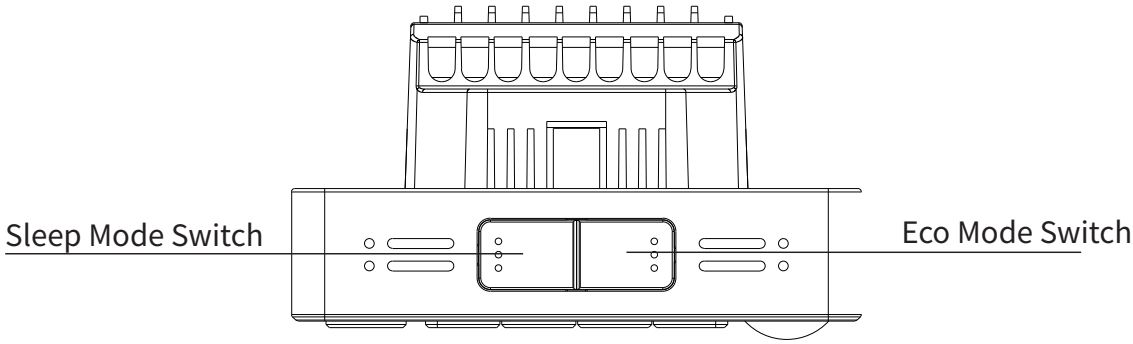


ON/OFF Button
Turn On/Off the thermostat.

Fan button
Press to switch between Fan modes (High, Medium, Low, Auto).

Up/Down button
- **Adjust temperature.** Press to increase/Decrease the setpoint temperature.
- **Lock/Unlock:** Press an hold the up button and down button together for 3s until a lock icon appears/disappears on the screen to lock/unlock the device.

PIR
Screen will automatically light up when someone is approaching.



Sleep Mode Button

- **Sleep mode:** Press to enter sleep mode.
- **Schedule:** Press and hold the sleep mode button for 3s until a schedule icon appears/disappears on the screen to enable/disable the schedule.

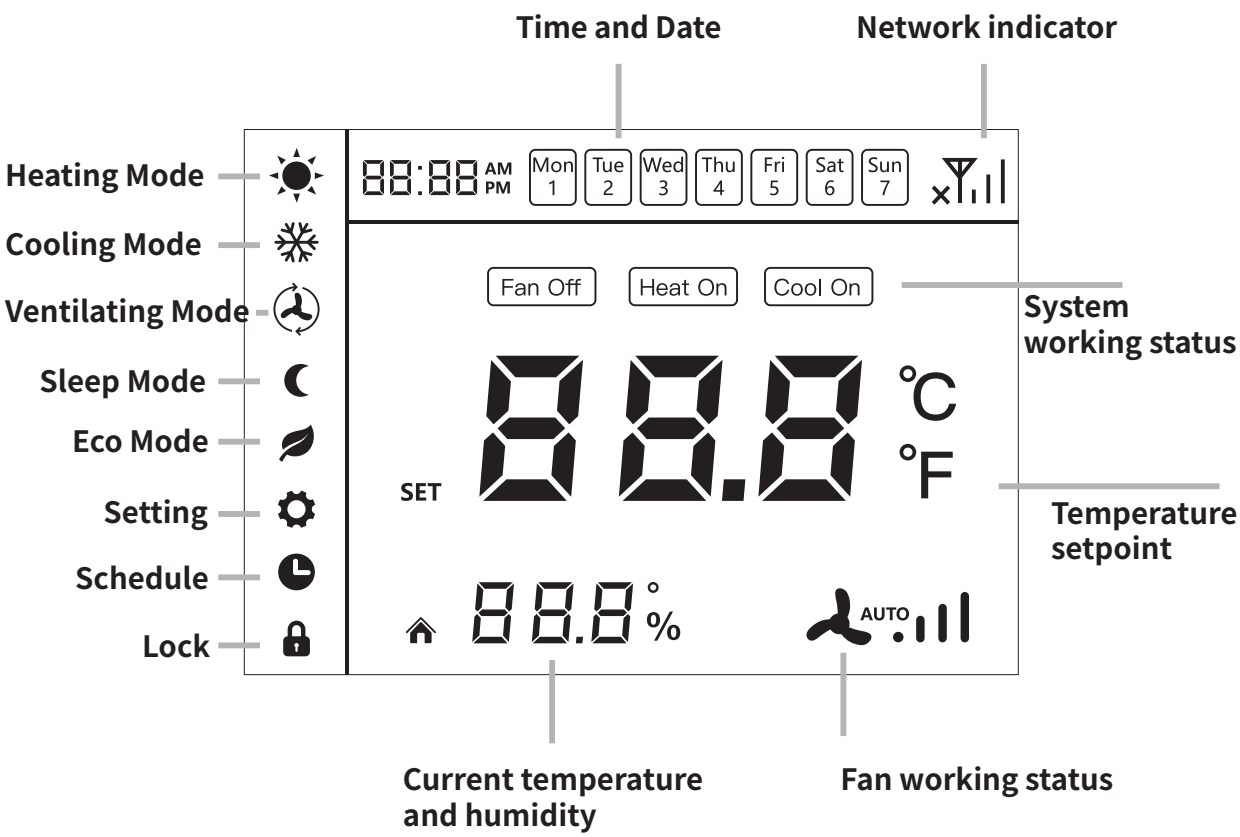
Eco Mode Switch

Press to enter eco mode.

4 Get started

Note: Follow the Installation Guide to install the thermostat first.

Overview

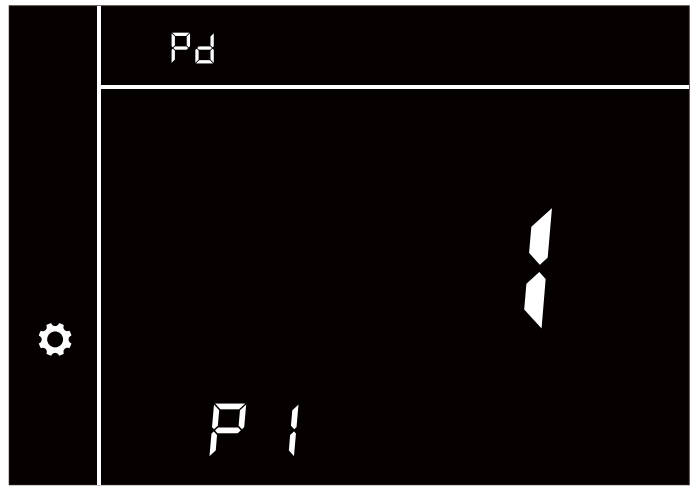


Setting

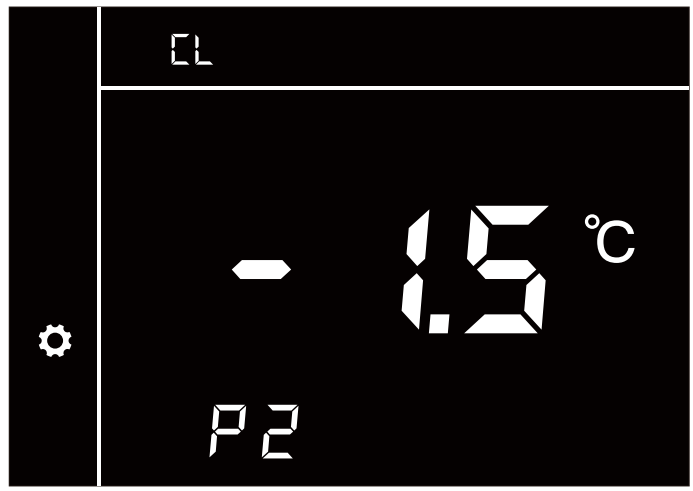
To enter the setting menu, please press the on/off button to turn off the thermostat, then press and hold the Mode button for three seconds until the screen lights up.

Use the Mode button to switch from different setting options, and Up/Down button to change settings.

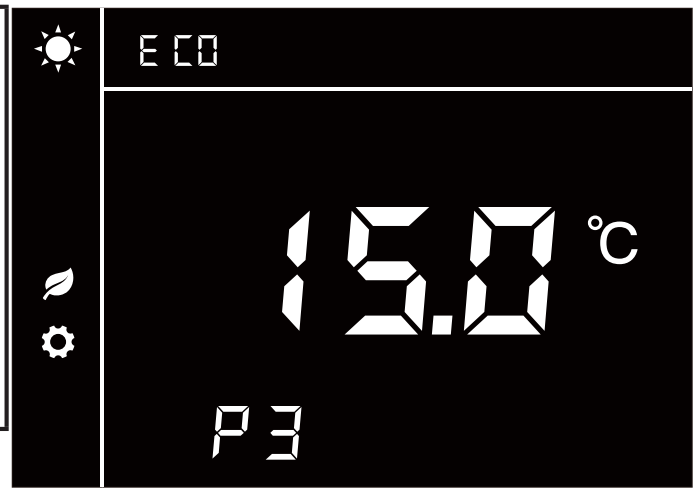
P1	**Recover function** 1: Recover to previous status after a power cycle. 2: Remain off status unless turned on. Default setting: 1



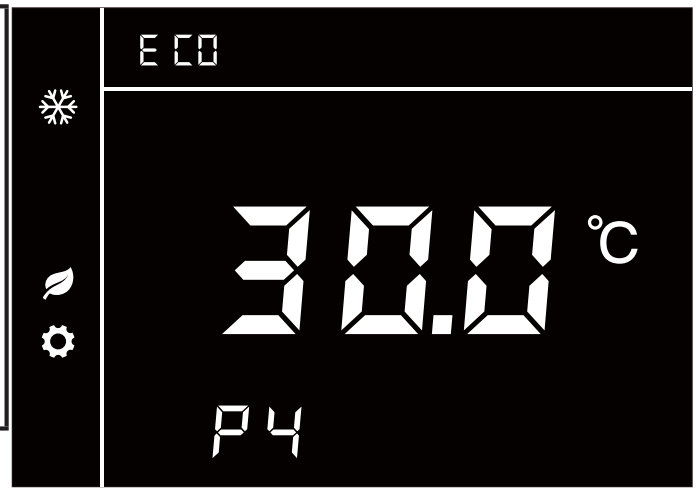
P2	**Temperature calibartion** Range: -4° C ~ 4° C - 39° F ~ 39° F Default setting: 0



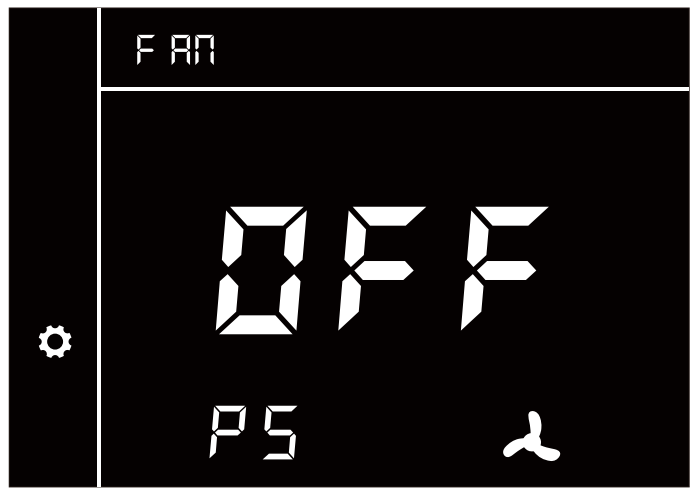
P3	**Heating setpoint** temperature for Eco mode Range: 5° C ~ 18° C 41° F ~ 64° F Default setting: 15° C (59° F)



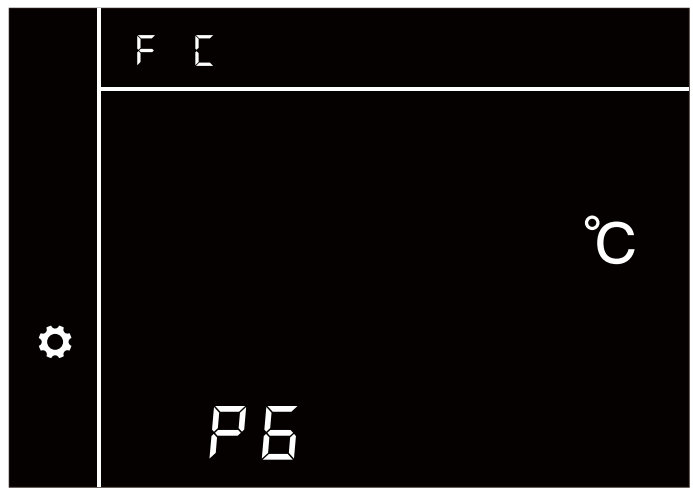
P4	**Cooling setpoint** temperature for Eco mode Range: 25° C ~ 35° C 77° F ~ 95° F Default setting: 30° C (86° F)



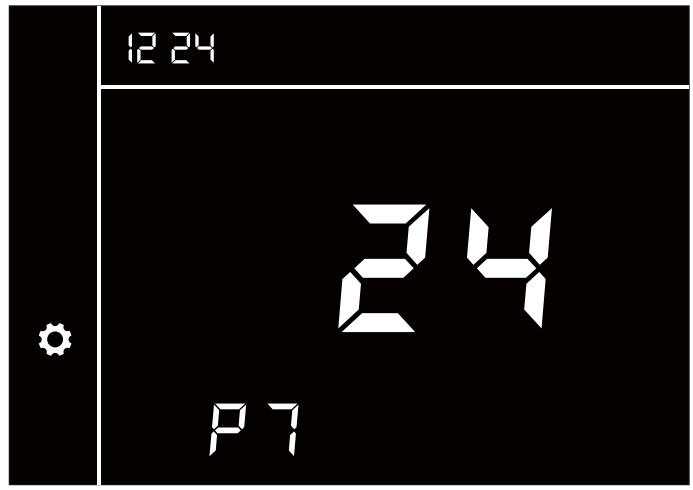
P5	**Fan setting** ON: Associate the fan with the output of the water valve, the fan stops when the valve stop. OFF: Fan works independently. Default setting: OFF



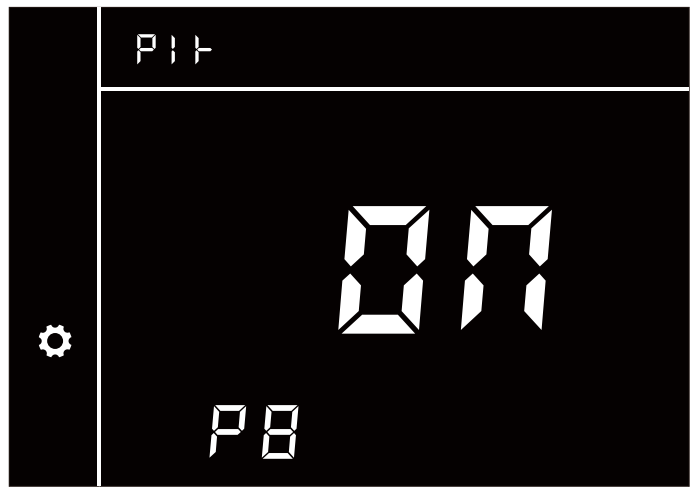
P6	**Temperature unit setting** Switch between Fahrenheit and Celsius Default setting: Celsius



P7	**Time format setting** Switch between 12-hour and 24-hour time Default setting: 24-hour time



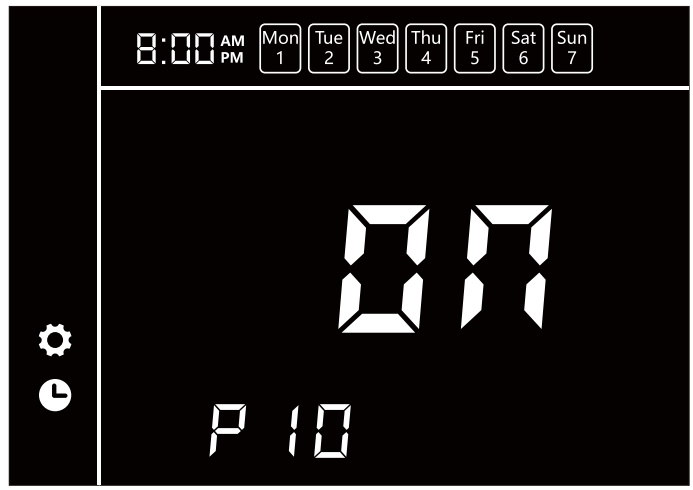
P8	**PIR setting** ON: Screen will automatically light up when someone is approaching. OFF: Disable PIR sensor. Default setting: ON



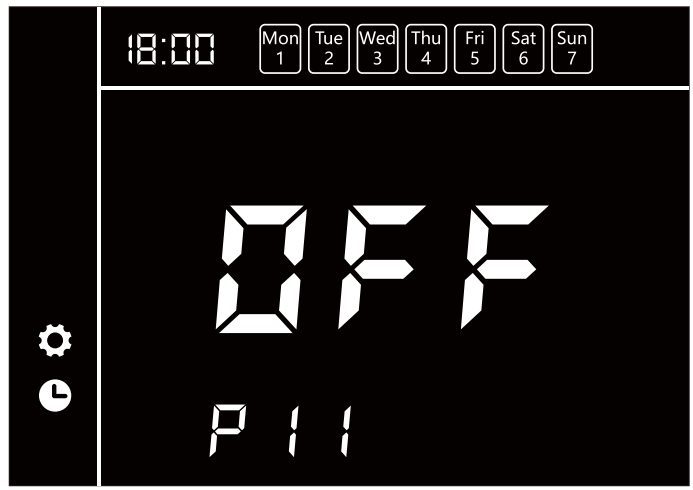
P9	**Sound setting** ON: Enbale sound feedback when a button is pressed. OFF: Disable soundfeedback when a button is pressed. Default setting: ON.



P10 **P12**	**Schedule setting (on)** You can set schedules for a whole week to turn on the device at a desired time on these two pages. Default setting: N/A



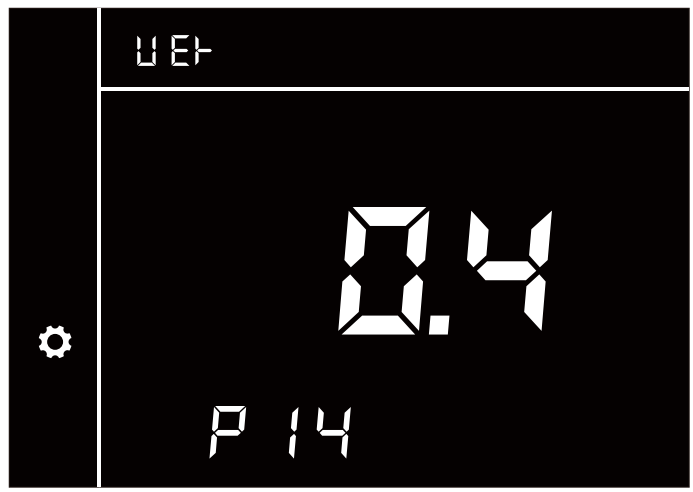
P11 **P13**	**Schedule setting (off)** You can set schedules for a whole week to turn off the device at a desired time on these two pages. Default setting: N/A



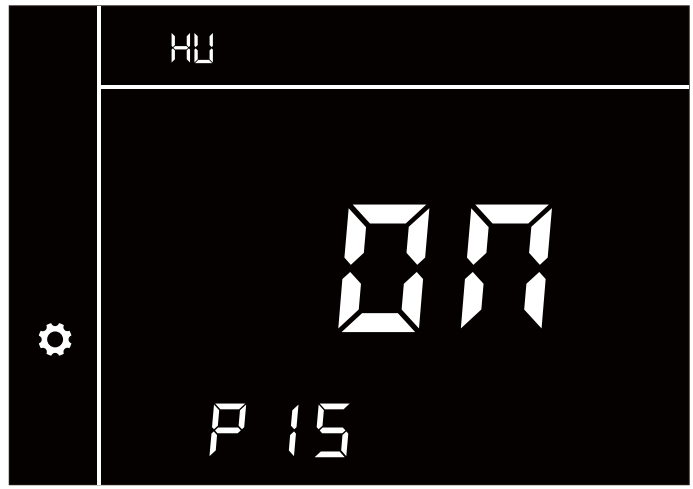
Note:

To enable/disable schedules, press and hold "Sleep" button on the main interface for three seconds until the schedule icon appears/disappears.

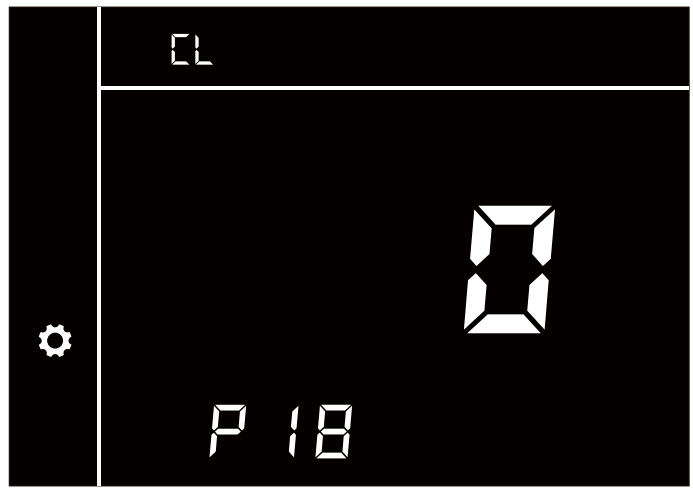
P14	Firmware version Check the firmware version.



P15	**Humidity display** ON: Enbale OFF: Disable Default setting: ON



P18	**Humidity calibartion** Range: -15 ~ 15% Default setting: 0



5 FAQ

1. How to reset the thermostat ?

Please follow below steps to reset the thermostat to factory setting:

1. Turn off the thermostat.

2. Press and hold the Sleep button and the Eco button simultantnously for five seconds until the screen lights up.

3. The thermostat will go back to main interface once the reset is completed.

2. How can I tell if the thermostat successfully joins a ZigBee network ?

You can refer to the "Network indicator" on the upper right of the screen. If the thermostat has not joined a network, there will be a "X" icon on the network indicator. Once the thermostat joined a network, the "X" icon will disappear.

Technical specifications

SOC Embedded Platform	• CPU: 32-bit ARM Cortex-M4
Wireless Connectivity	• ZigBee 2.4GHz IEEE 802.15.4
RF Characteristics	• Operating frequency: 2.4GHz • Internal PCB Antenna • Range outdoor:100m (Open area)
ZigBee Profile	• Home Automation Profile
Power Supply	• DC12V
LCD Screen	• 2.4" LCD • 128 x 64 pixels
Operating temperature	• 0° C to 40° C
Dimensions	• 86(L) x 86(W) x 48(H) mm
Weight	• 198 g
Thermostat	• 4 pipes Heat & Cool Fan coil system • System mode: Heat-Off-Cool-Ventilation • Fan mode: AUTO-Low-Medium-High • Power method: Hardwired • Sensor element: Humidity, Temperature Sensor and Motion sensor
Mounting Type	• Wall Mounting