



# BluStat

USER GUIDE



## Introduction

The BluStat Smart WiFi Thermostat allows you remotely control and schedule your home's temperature with ease. It can support most conventional heating and cooling systems with up to 3 heating and 2 cooling stages.

## Key Features

- By connecting to the app, you can control your cooling and heating systems from anywhere.
- Control your temperature.
- Set energy saving modes.
- Create timed schedules to automatically set your thermostat and home temperature.
- Manually control the thermostat straight from the device's touchscreen display.

## Main Screen



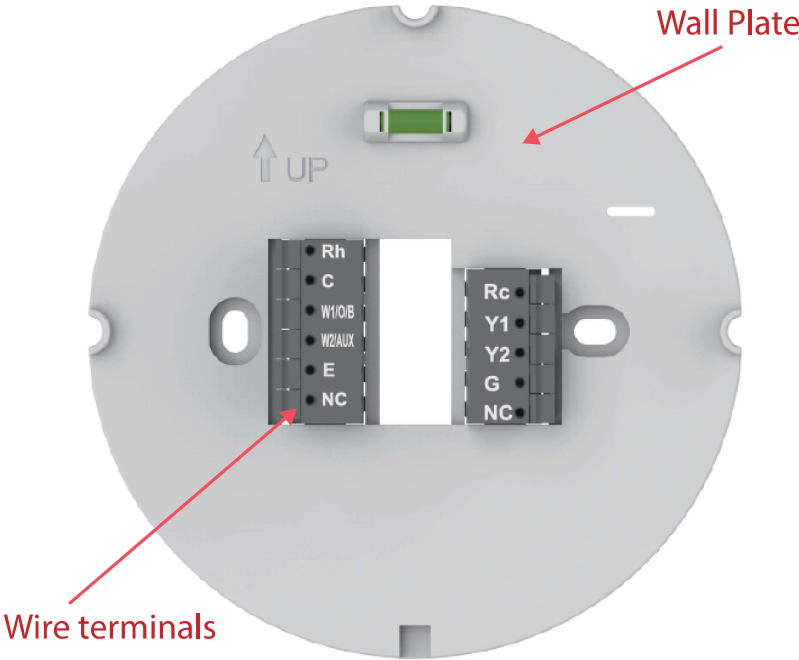
## Specifications

Temperature Sensor	SHT20
Accuracy	±1°C
Temperature Range	Heating: 40°F – 90°F (4°C – 32°C) Cooling: 50°F – 99°F (10°C – 37°C)
Operating Temp/ Humidity Range	0~45°C, 5~95% RH (non - condensing)
Screen Resolution	320x480 TFT LCD
Power Supply	AC 24V
Size	112x112x20 mm
Housing Material	PC
IP Rank	IP20
WiFi	2.4GHz only

## Thermostat Functions

<b>Functions</b>	<b>Descriptions</b>
System Modes	Off, Heat, Cool, Auto, Emergency
Fan	Auto, On
Task Modes	Timing, Eco, Hold
Room Temperature Display	Detects the current room temperature.
Humidity Display	Detects the room humidity level
Compressor Protection	Controls the start and stop time intervals of the compressor.
WiFi Connection	Direct WiFi connection for updates and app access.
Timing Programming	User can preset a temperature value or range to start at a certain time and day(s). The timing program will continue until the next schedule or when overwritten by another mode/program.
ECO Mode	Energy saving mode when you're home or away.
Filter Monitor	Reminds you when it's time to change the filter according to your preset timer.
Key Lock	Lock the controls to prevent others from operating the thermostat.
Pre - cooling/ Preheating	Calculates the best time period to execute scheduled commands.

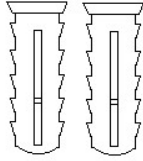
# Product Features



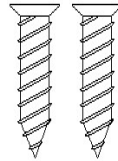
## What's Included



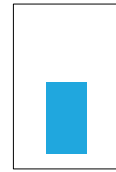
BluStat Smart  
Thermostat



Wall Anchors  
(x2)



Screws  
(x2)



Wire Label  
Stickers

### Additional tools you'll need:

- Screwdriver
- Pen or pencil (to mark drilling holes)

### Additional tools you MIGHT need:

- Needle-nose pliers
- Wire stripper
- Drill and drill bit (7/32")

## Compatibility

- Compatible with most heating, cooling and heat pump systems.
- Required: 24 VAC power ("C" wire).
- Does not work with electric baseboard heat(120- 240V).
- Does not work with millivolt systems.
- Android or iOS smart phone, table or device.
- 2.4GHz (802.11b/g/n) for WiFi connectivity

## WiFi Requirements

The BluStat requires 2.4GHz (802.11b/g/n) for WiFi connectivity. This is a standard home WiFi router. You will need your WiFi name and password when connecting your BluStat thermostat to your home WiFi network.

## Installation

The BluStat WiFi Thermostat should be mounted in a suitable location.

- It is recommended to install the thermostat about 5 ft above the floor and in an open area with good air circulation.
- Do not install in locations that may affect the temperature reading, such as:
  - Drafty areas or poorly circulated areas.
  - Near ducts or appliances that blow hot or cold air.
  - Concealed pipes and chimneys.
  - Unheated (uncooled) areas such as an outside wall behind the thermostat.



**WARNING: Failing to shut off the power could result in a serious injury, electrical shock, and/or risk of fire.**



## **1. Turn OFF power.**

**Important:** You MUST shut off the power at the breaker box that controls your heating/cooling system.

## **2. Test to make sure the power is off.**

Sometimes there's some residual power in the thermostat so it could take up to 5 minutes for your old thermostat to turn completely off.

## **3. Remove your old thermostat.**

Most thermostats allow you to just pull off the unit from its wall plate.

However please make sure you're familiar with your old thermostat and the removal process as you can potentially damage your wall if done incorrectly.

Do NOT remove any wires yet from the old thermostat's wall plate.

## **4. Make sure the wires you have are supported.**

If you have thick black wires, wire nuts connected on the wires coming from the wall, or uses 120V or higher, then your system is not compatible with the BluStat.

## **5. Take a picture of your current wiring setup.**

Use your smartphone to take a picture of the wiring and connectors with the letters. You will use this as a reference when connecting to the BluStat thermostat.

## **6. Attach the included label stickers to the wires.**

Wrap the label stickers around the appropriate wires. This will help when connecting them to the BluStat thermostat's connectors.

## **7. Disconnect the wires and remove the old wall plate.**

You may now start disconnecting the wires from the old thermostat's wall

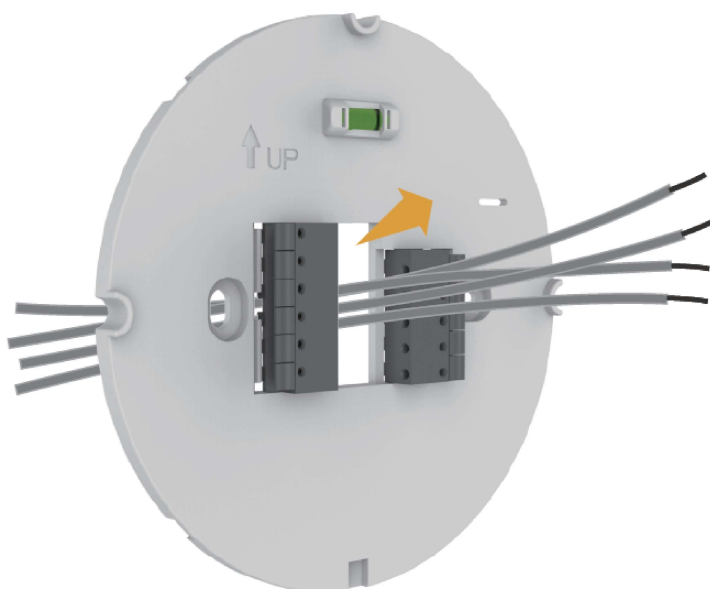
plate connectors. Make sure the wires do not fall back into the wall as they may be difficult to retrieve. Then, unscrew the wall plate from the wall to remove it.

### **8. Insert the wall anchors (optional).**

You may choose to use the wall anchors to insert into the wall first before applying the new wall plate. First, hold the BluStat wall plate onto the wall where you'll be installing it and use a pen or pencil to mark the screw holes on the wall. Take off the wall plate and use a 7/32" drill bit to create the hole for the wall anchor, then insert the wall anchors.

### **9. Bring the wires through the BluStat wall plate.**

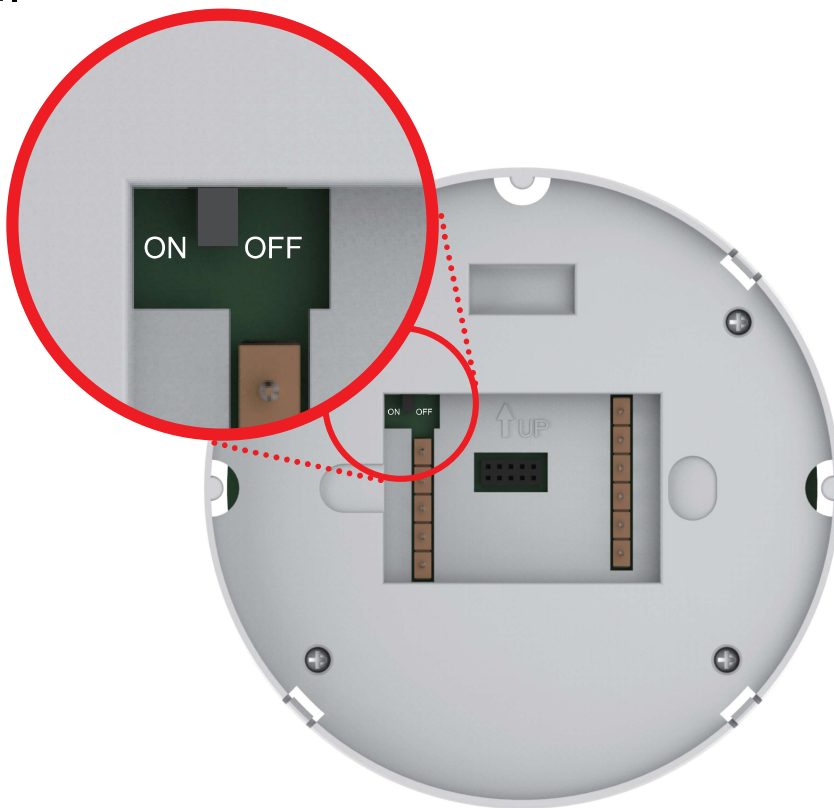
Bundle the wires together and through the middle hole of the BluStat wall plate. Also check to make sure there is enough exposed wiring (at least 1/4 inch) for each wire so they can insert into the wall plate connectors easily.



## 10. Connect your R wire(s).

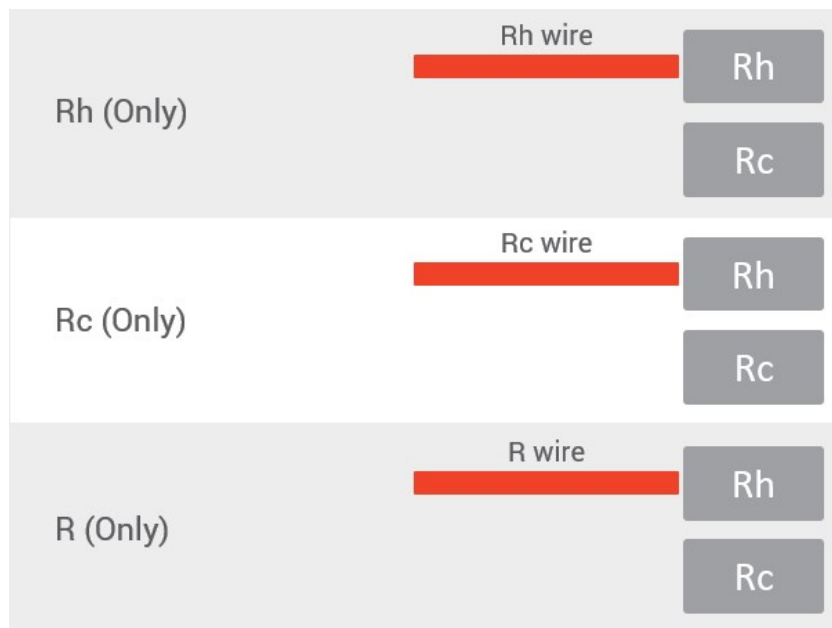
Depending on your heating/cooling system you may have an R, Rh, and/or Rc wire(s). The BluStat thermostat can accommodate for these three wires but some configurations require a “jumper” to connect the power.

The jumper switch is located on the back of the thermostat as shown in the image below.

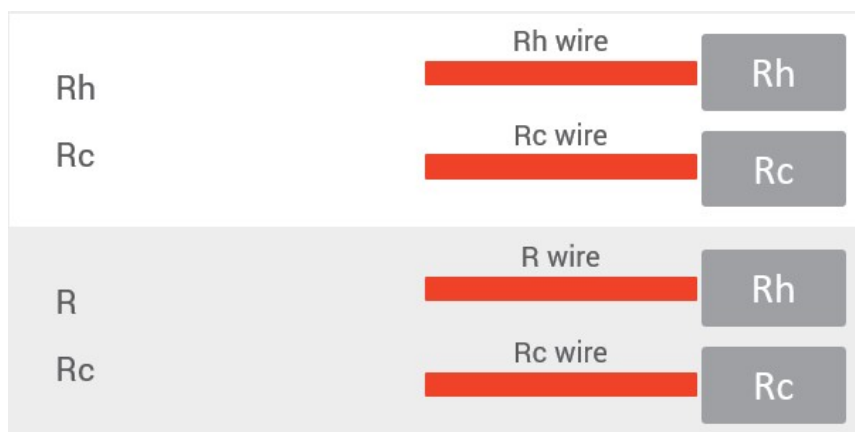


To determine the switch position, use the follow chart as a guide.

Turn the **switch ON** if:



Turn the **switch OFF** if:

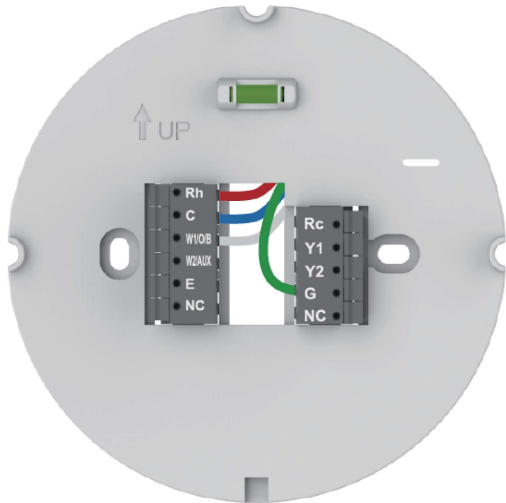


## 11. Connect the remaining wires.

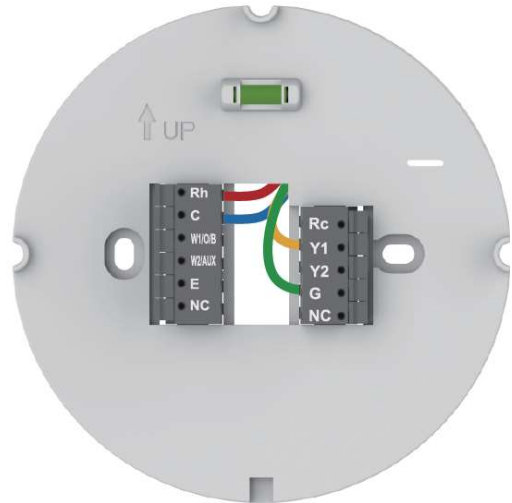
Match your wires to the appropriate connectors on the wall plate. You will be connecting to the same labeled terminals as your old thermostat connections.

You may use the images below as a reference according to your heating/cooling system.

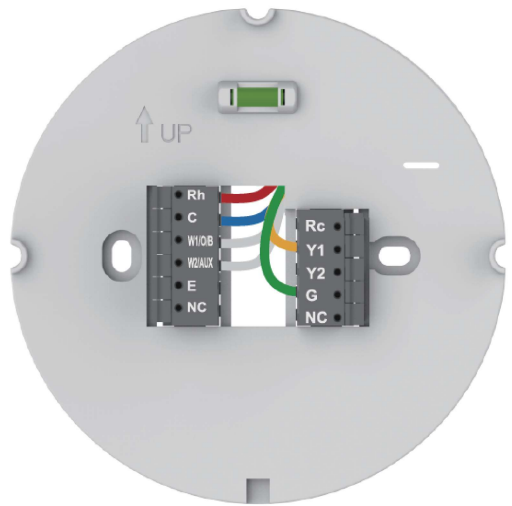
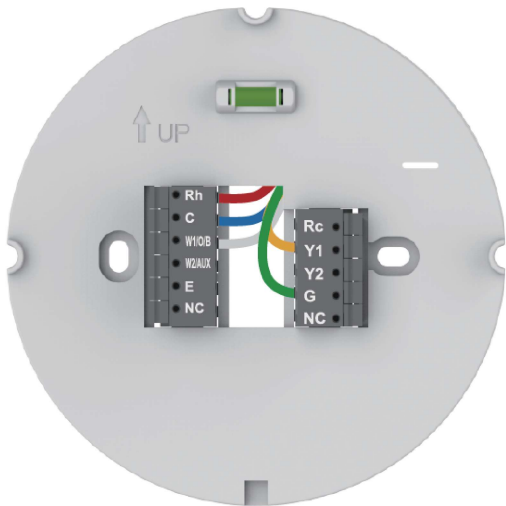
**Note:** Your wire colors may differ from the images shown below.

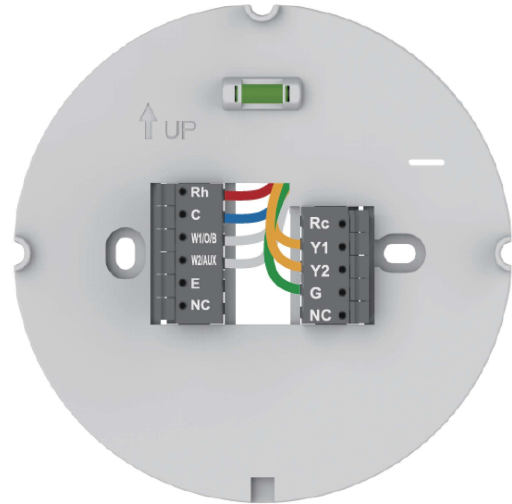
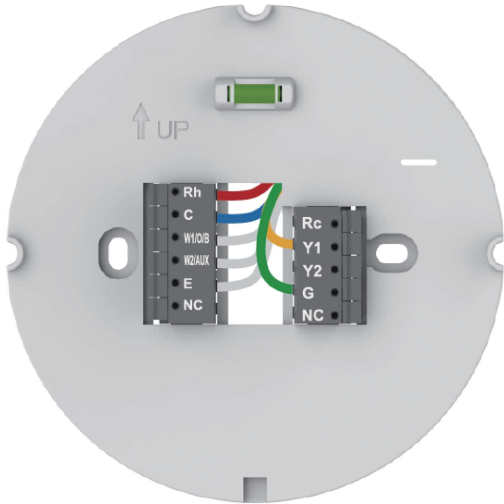


**Conventional  
1 Stage heat and cool**



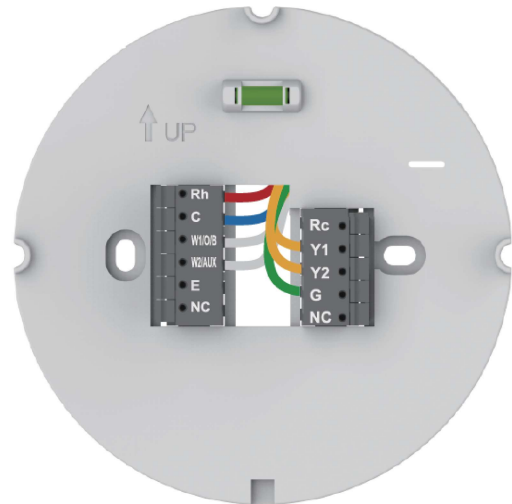
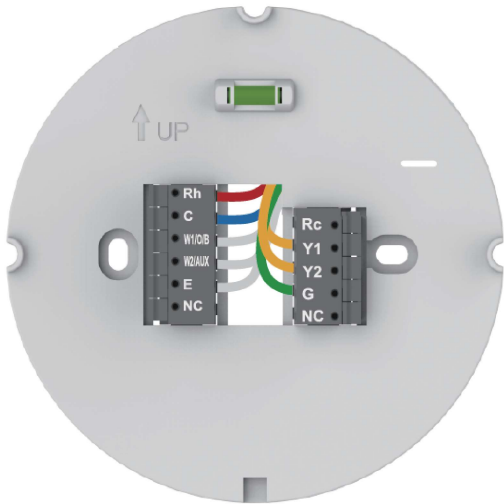
**1 Stage Heat Pump  
With Aux**





**2Stage Heat Pump  
with Aux and Emer**

**2 Stage Heat Pump  
with Aux**



**12. Attach your BluStat WiFi Thermostat.**

Firmly attach the BluStat thermostat to the wall plate.

**13. Turn the power back ON.**

Turn ON the power at the breaker box.

**14. Follow on-screen instructions.**

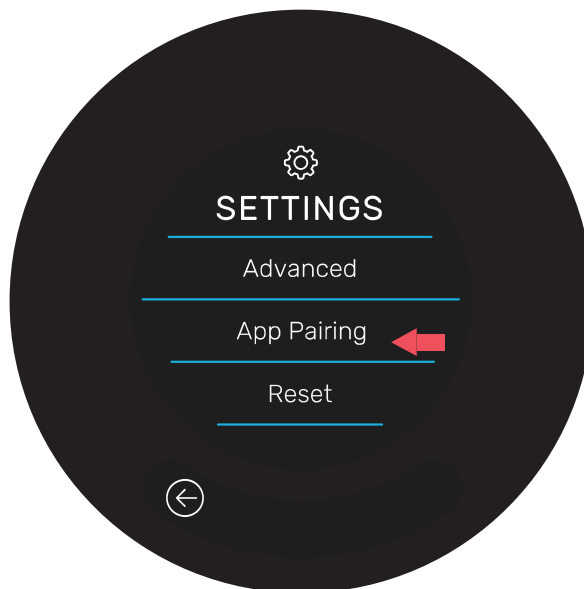
Once the power is back on, there will be a sequence of instructions to connect the WiFi, enter zip code, and app pairing.

## App Pairing

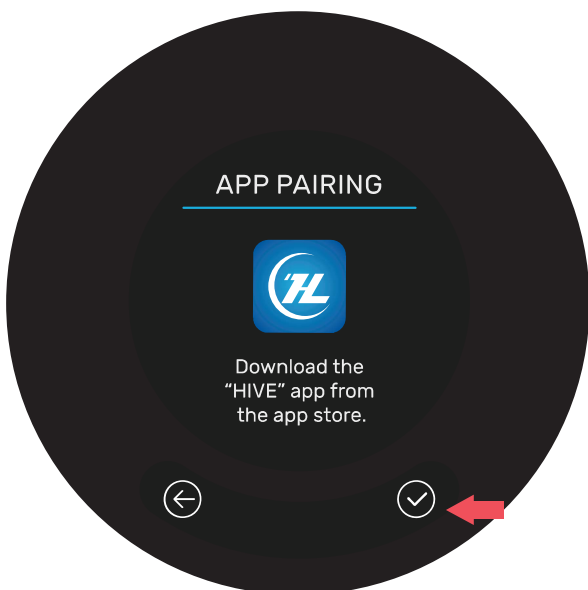
**1** From the main screen, tap on the settings icon.



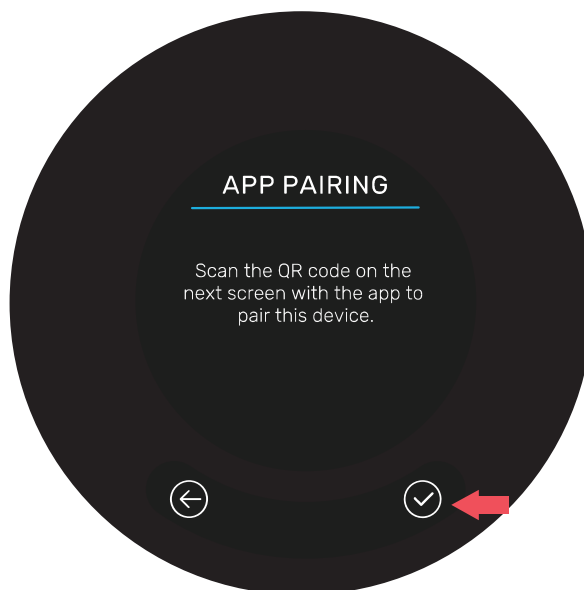
**2** Wipe UP to get to the App Pairing.



**3** Follow the app download instructions on this screen.










**4** Create your account and pair the thermostat device.






## Symbol Guide

Symbol	Name	Description
	System Mode	Selection of heat/ cool/ auto/ emer/ off options
	Main	Go to Main Screen
	Settings	Enter settings screen
	ECO	ECO mode activation
	Timing	Timed schedules for preset temp
	Fan Auto	Fan runs automatically
	Fan On	Fan turns on

## Operations

### 1) System mode selection

In the main interface press  to switch the system mode in order of OFF, COOL, HEAT, EMER (heat pump only) and AUTO. When OFF is selected, the thermostat turns off all relay outputs.

Note that not all homes will have every mode option available and depends on your HVAC system. The thermostat determines which modes are active according to the HVAC system type.

### 2) View or modify the set temperature

In the main interface, when a system mode is selected the currently set temperature is displayed directly above the screen. Press - or + touch pads to adjust the set temperature value. When the task mode is in Timing mode, the set temperature value will be automatically changed to a hold. In ECO mode, the set temperature value cannot be adjusted under the main interface. The temperature settings of ECO are set in the system parameter settings.

### 3) Run mode selection

From the main interface, the Run Mode can be switched by selecting the

TIMING , ECO  icons. Grayed out means they are off.

#### **TIMING mode**

TIMING is in the system parameter settings. If no timing schedule is turned on, the default run mode is hold.

#### **ECO mode**



This is an energy saving mode to use when you're home or away. This

mode will maintain the room temperature to stay within the preset cooling or heating temperature range. The range can be adjusted within the Parameters settings.


### **Hold mode**

This mode will maintain the current set temperature. In the hold mode, no icon is displayed in the main interface. Hold mode automatically activates When TIMGING and ECO are off.

## **4) Fan mode selection**

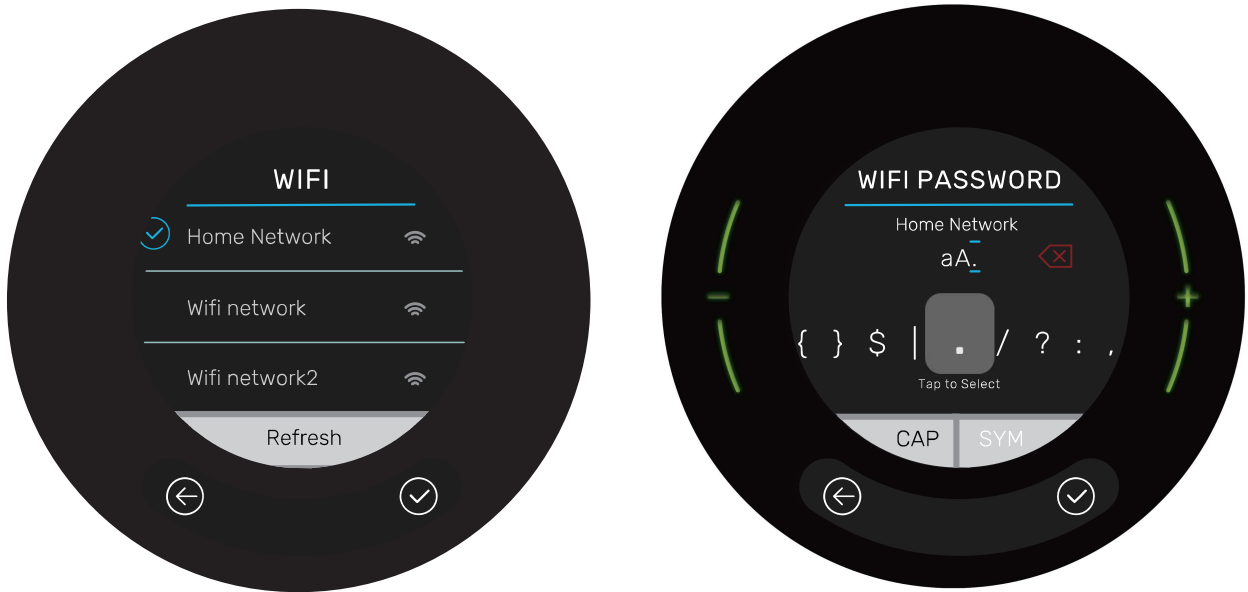
In the main interface press  or  to switch the fan mode in order of AUTO and ON. Note that some homes have no fans, so this option will not be available depending on your HVAC system.


## **5) Settings**

Press the settings icon  in the main interface to enter the Setting selection interface.

### **WiFi – Setting WiFi**

WiFi setting interface as shown:



Select your WiFi network name, enter your password, and connect to the WiFi network. Also note that the WiFi icon  in the main interface screen will appear when WiFi is connected.



### **Parameters Setting**

The Parameter setting interface allows you to adjust your thermostat with numerous different features and settings.

### **TIMING Setting**

A TIMING schedule will activate the thermostat at the preset time and will keep the room temperature within your preset range.



Tap  to add a new timer; tap  to delete a timer, Tap the schedule to edit it. You may modify the time, days of the week, and adjust the heat and cool temperature ranges. Note that up to 12 timers can be set.

## **Key Lock**

Each time you enable the key lock you will need to enter a new password. This password will save until Key Lock is disabled.

When the Standby parameter is set to “Never” and the Key Lock is enabled, the Key Lock will activate once the thermostat has been idle for 30 seconds.


When the Standby time is set to any other time value and the Key Lock is enabled, the main interface will lock immediately.

When the system is locked, changing the main interface state, System Mode or Setting will require you to input the Key Lock password.

Also when the system is locked, the ECO and TIMIN modes will be not be able to be toggled from the standby screen.

## **Filter Monitoring**

To enable this function, you must first modify the number of filter months in the parameter settings. The thermostat will keep track of the number of months the filter is used. When the recorded number of months reaches the preset value, the main display will flash with the

filter icon  to prompt you to replace or clean the filter.

## **Pre-cooling/preheating**

This function works with your TIMING schedules. When the pre-cooling/preheating function is enabled, the thermostat will calculate how far in advance it should start so that once the scheduled time arrives, the desired room temperature range has already been achieved.

## **FCC Compliance**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

This equipment should be installed and operated with a minimum distance 20cm between the radiator and your body.

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