



**SMART
THERMOSTAT**

Installation, Setup, and User's Manual



MODEL:
CH-WTH24V

IMPORTANT NOTE:



Read this manual carefully before installing or operating your new air conditioning unit. Make sure to save this manual for future reference.

NOTE

Read this manual carefully before installing or operating your new Smart Thermostat.

Make sure to save this manual for future reference.

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Safety Precautions

To ensure your safety and avoid damage to the device please read the safety precautions.

Look out for these icons. They indicate useful tips and important reminders.



WARNING

This symbol indicates the possibility of personnel injury or loss of life.



TIPS

Are used to highlight suggestions which will result in enhanced installation, reliability, or operation.



REMINDERS

Are prompts to take certain precautions or follow specific steps during the installation process.

WARNING

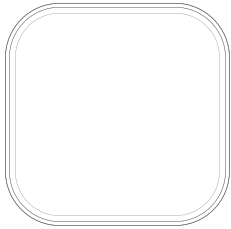
- Please trust the distributor or a professional installer to install the device.
- Installation by non-professionals may result in improper installation, electric shock, or fire.
- Adhere to this installation manual.
- Improper installation may lead to electric shock or fire.
- Reinstallation or changes must be performed by professionals.
- Do not uninstall or make changes to the device randomly. Random changes may lead to abnormal operation, heating, or fire of the HVAC system, and cause damage to the smart thermostat.

REMINDERS

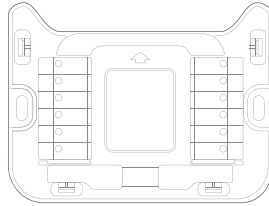
- Do not install the device in a place vulnerable to leakage of flammable gases. Once flammable gases are leaked and left around the smart thermostat, fire may occur.
- Do not operate the device with wet hands. The presence of liquids may cause electric shock or damage the device.
- Always disconnect the device from the power source before installation or maintenance to avoid equipment damage or potential electrical shock.

- The wiring should be rated for the thermostat current and ensure that the power supply for the smart thermostat is securely isolated when connected to a non-communicating HVAC system.
- Ensure the connected cables meet CL2 requirements and meet National and local electrical standards. Otherwise, electric leakage or heating may occur.
- Do not alter the terminals of this device.
- Before drilling through the wall, ensure that there are no electrical wires, water pipes, or gas pipes inside the wall.
- Please install the power supply unit according to the instructions in this manual. Do not alter the power supply unit or use non-specified power supply products.
- During installation and use of the thermostat, please prevent liquid (water, alcohol, etc.) from entering the device.

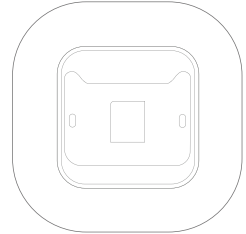
Included In The Box:



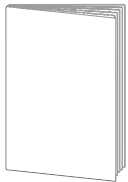
Smart Thermostat



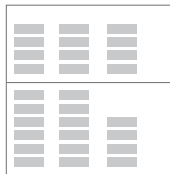
M-base



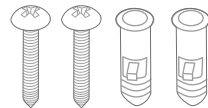
Trim Plate



Installation/User
Manual

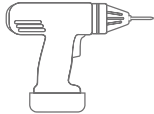


Wire Labels



2 Screws & 2 Anchors

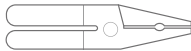
Tools You Will Need:



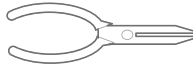
Drill and 3/16 in.
Drill Bit



Pencil



Needle-Nose
pliers



Wire Stripper



Flathead
Screwdriver



Phillips
Screwdriver



Wireless
Info



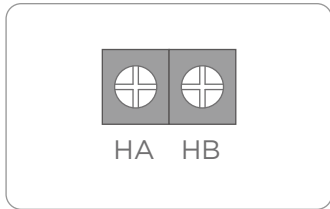
If you do not need to remove the old thermostat, you won't need a small flathead screwdriver and a phillips screwdriver.

Select the installation location

- Do not install the device in a place vulnerable to leakage of flammable gases. Fire may occur once flammable gases are leaked and left around the thermostat.
- Do not install in a place where heavy oil, vapor, corrosive or sulfureted gasses are present. The device could be damaged leading to system malfunction.
- Do not install on an exterior wall.
- Install the thermostat on a flat wall. An uneven wall may lead to an unstable installation.
- Do not install near any heat-producing equipment. This may cause inaccurate temperature control.
- Ensure the device is not exposed to direct sunlight or facing a very dark corner. This may cause the automatic screen awake feature to not work properly.
- Do not place mirrors, ceramics, or other reflective objects within 1 meter at the 12 o'clock direction in front of the touch screen. This may cause the automatic screen awake feature to not work properly.

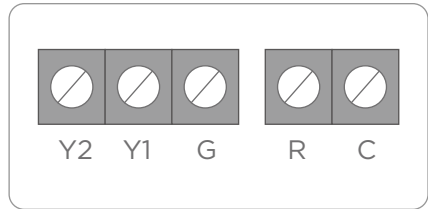
Compatibility

Please consult with your HVAC system dealer or manufacturer to learn about your system's compatibility.



HA&HB
(Communication)

Or



24V



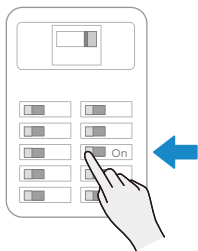
24V can work with most heating, cooling, and heat pump systems. If you don't have a C wire, please consult with the sales agency for details.

Product Installation

Step 1. Power off your system

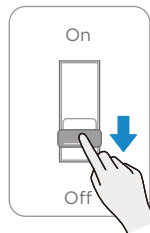
Power off your Air-Handler Unit (AHU), Ventilation, and Air Conditioning by using the breaker box or master switch.

Check that your system is off by turning on the heat during winter or the AC during summer. Wait a few minutes; you should not feel any air coming from your vents.



Breaker box

Or



Switch



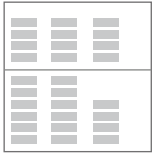
The thermostat off switch will not turn off the power to the equipment.



Your breaker box or master switch is usually located in the basement, attic, or closet.

Step 2. Label Wires

Take the labels, tools, AHU Manual, and smart phone to the AHU System.



Wire labels



AHU System's manual

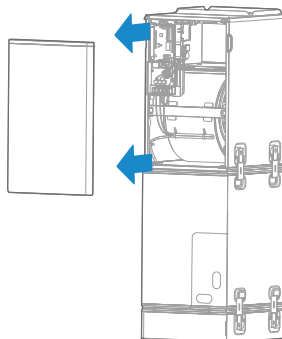


Smart phone

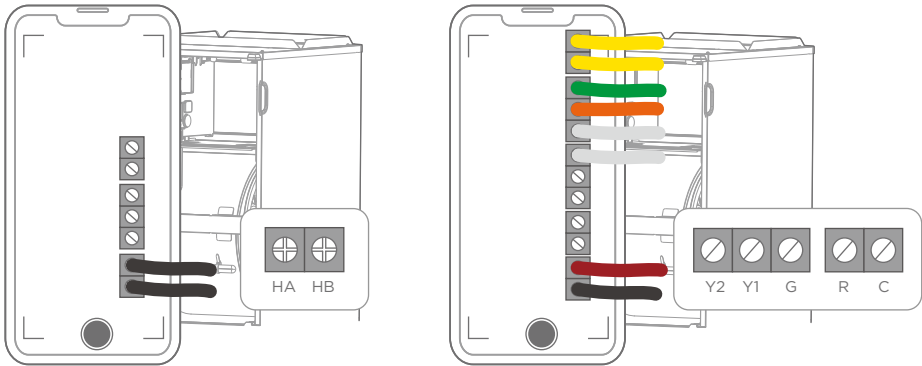


Drill and 3/16 in.
Drill Bit

Open the AHU system's cover and locate the display board.



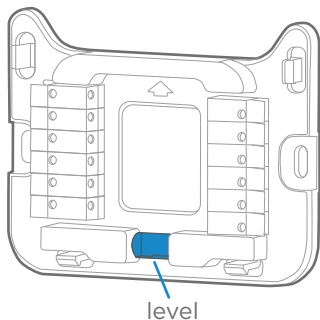
Determine which type of system you have by checking the terminals on the board (HA & HB or 24 V). Label the wires if they are not already labeled. Take a picture of the labeled wires connected to the control board. You may refer to this picture during the installation.



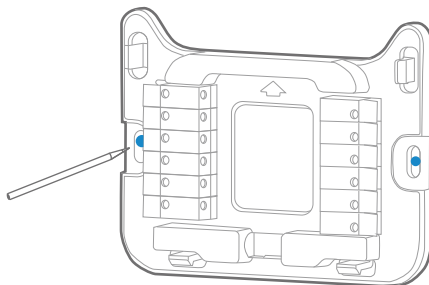
Close the cover to the AHU system and return to your thermostat. If a thermostat is already installed, remove the cover, take a picture of the wiring, and label the wires based on their location on the thermostat. Remove the wires from the terminals and remove the old thermostat.

Step 3. Installation location

Use the M-base to locate the position where you want to place the thermostat.



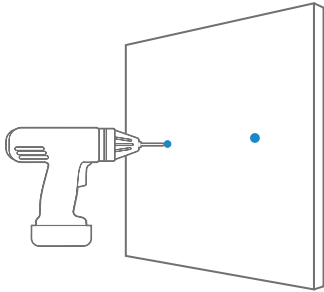
Place the M-base on the wall and use the included level to correctly position the thermostat.



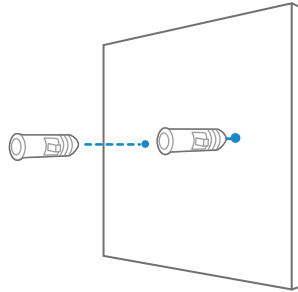
Mark the screw hole position with a pencil, then remove the M-base.



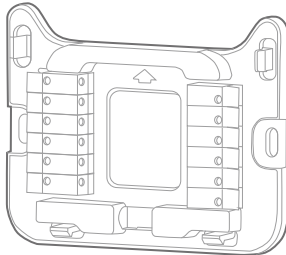
Refer to the “Select the installation location” section for the best location.



It is recommended to use a 3/16 in. drill bit to drill the holes.



Insert anchors.

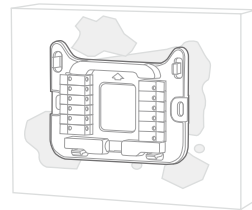
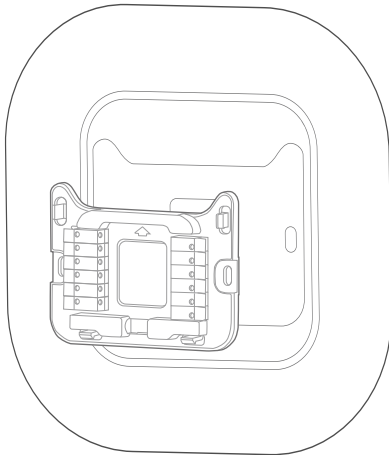


Re-position the M-base.

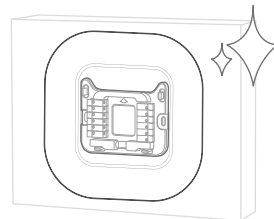
Decide if you will need to use the trim plate to cover marks or holes left by other systems.

Step 4. Trim plate

- You can choose to use the trim plate with your thermostat.
- If you use the trim plate, please align the mounting holes on the trim plate with the M-base.
- The trim plate is at the bottom of the box.



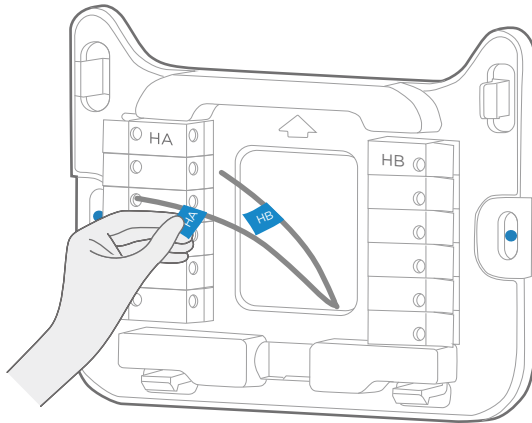
Before



After

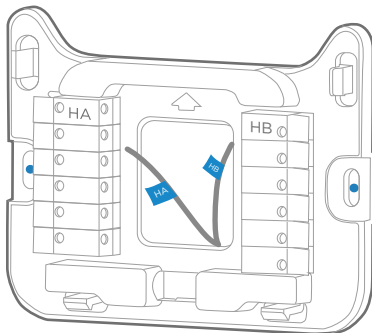
Step 5A. Connect wires HA & HB

Label the HA and HB wires. You can refer to the picture taken perviously in the system.

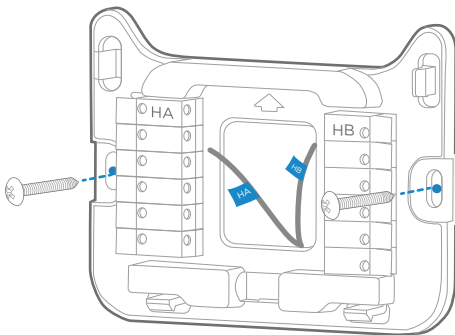


To easily insert wires into the terminals, please ensure each wire is stripped to a length of 0.3-0.4 inches. The terminals are for a wider range of conductor sizes: AWG 18-24.

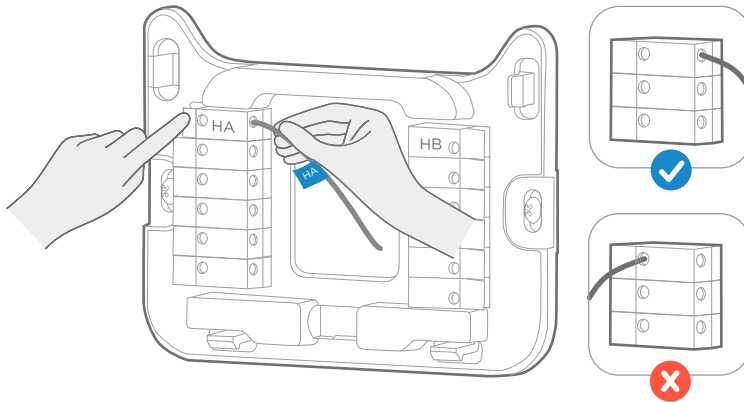
Pull the HA and HB wires through the center hole of the M-base.



Level the M-base and then attach it to the wall using the drywall anchors and screws provided.



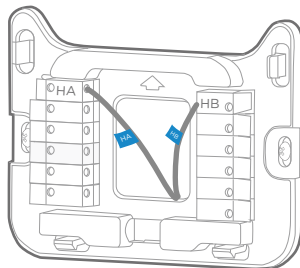
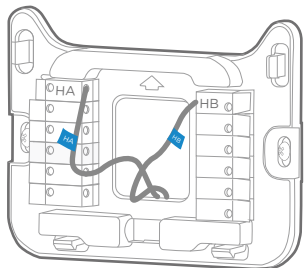
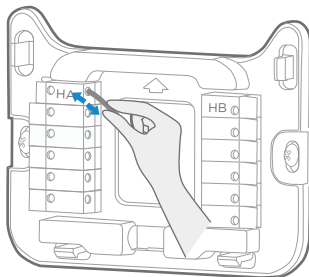
Try pushing the terminal block levers with pencil or use needle nose pliers to insert the wires.



The terminal block levers will be pushed downwards when the wire is connected.

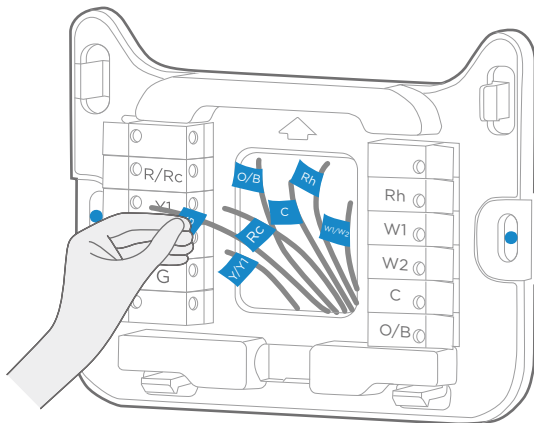
Step 6A. Check wires

Gently tug on the wires to ensure they are securely connected.



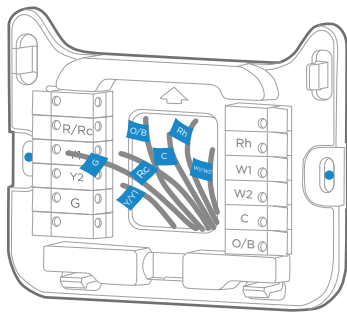
Step 5B. Connect wires 24 Volt

Label the 24V wires according to their color. You can refer to the picture taken perviously in the system.

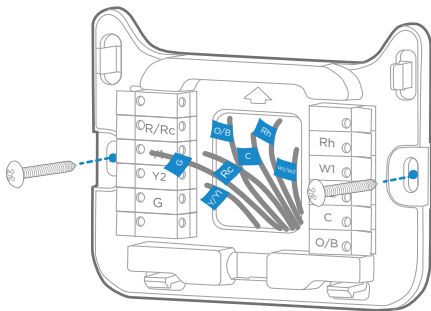


To easily insert wires into the terminals, please ensure each wire is stripped to a length of 0.3-0.4 inches. The terminals are for a wider range of conductor sizes: AWG 18-24.

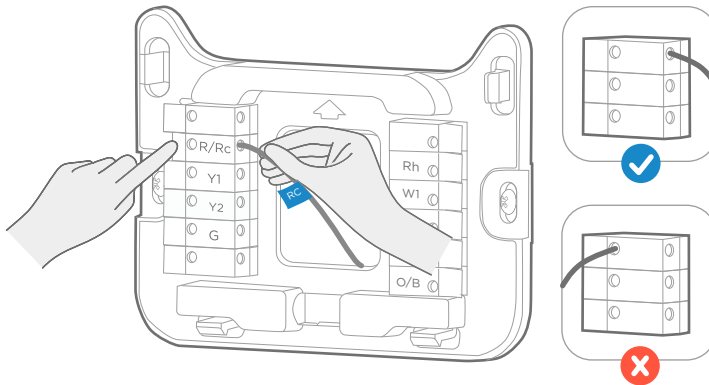
Pull the wires through the center hole of the M-base.



Level the M-base and then attach it to the wall using the drywall anchors and screws provided.



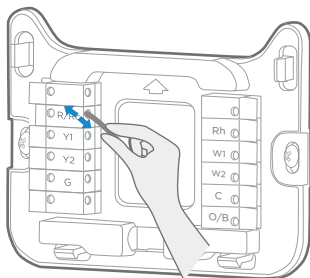
Try pushing the terminal block levers with a pencil or use needle nose pliers to insert the wires.



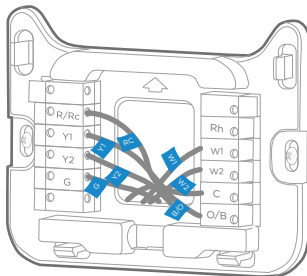
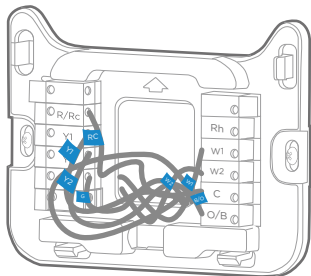
The terminal block levers will be pushed downwards when the wire is connected.

Step 6B. Check wires

Gently tug on the wires to ensure they are securely connected.

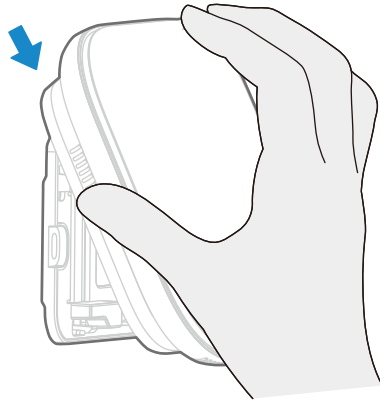


After all wires are securely connected, push any excess wires back into the hole and ensure there are no wires left outside.



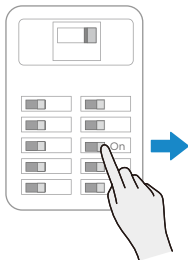
Step 7. Finish The Installation

Gently press the thermostat onto the M-base by using the “ears” of the M-base to align.



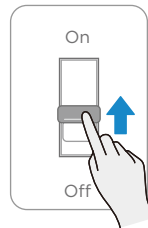
If the thermostat doesn't automatically turn on or suddenly shuts down after turning on the power, it may be due to insufficient power supply from the indoor unit. It is recommended that you connect the R and C terminals of the thermostat with the R and C terminals of the indoor unit to obtain additional power. You can also contact professional installers for assistance. For more information, please contact your sales representative.

Turn on the power to your system by using the master switch or breaker box.



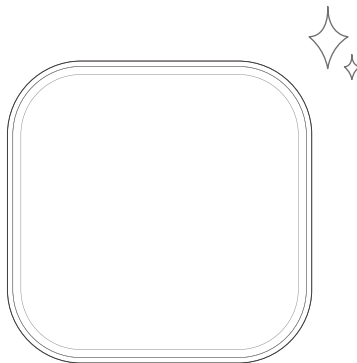
Breaker box

Or



Switch

Say Hi to your Smart Thermostat! Enjoy!



Smart Thermostat

Model: CH-WTH24V

FCC ID: 2ADQOMDNA26

IC: 12575A-MDNA26

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.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment 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 equipment 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 equipment 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 complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

IC Warning

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Product Information

Construction of Control: Independently Mounted Control

Operation Method: Type 1 Action

Pollution Degree: 2

Purpose of Control: Operation Control

Protection Class: IP00

Ambient operating Temperature: 32-95°F (0-35°C)

Storage Temperature: -40-140°F (-40-60°C)

Compatibility

This unit works with specific communication systems by HA & HB and most 24V systems.

For communication, HA & HB are communication non-polarity.

For 24V, it can control: Heating 1,2 stages(W1, W2); Cooling 1,2 stages(Y1,Y2); Heat Pump with auxiliary and emergency heat(O/B, W1, W2); Fan(G); Power(R/Rc, Rh, C).

Terminal descriptions

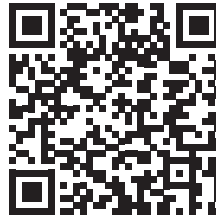
HA, HB	Communication non-polarity
R/Rc	Cooling Power
Rh	Heating Power
Y1, Y2	1-2 stages of AC or 1-2 stages of heat pump compressor
W1,W2	1-2 stages of heat or 1-2 stages of auxiliary heat with heat pump
C	24VAC common
G	Fan
O/B	Heat pump reversing valve
PEK+	Extender of a C wire

Download and Install App

On an app market (Google Play Store, Apple App Store), search for "Cooper&Hunter Remote" and find the Cooper&Hunter Remote app. Download and install it on your phone. You can also download the app by scanning the QR code below.



Android



iOS



- Please ensure your mobile device is connected to Wireless Network router and the Wireless Network router has already connected to Internet before beginning user registration and network configuration.
- Make sure your mobile device has already been connected to the Wireless Network which you want to use. Also, you need to forget other irrelative Wireless Network in case it influences your configuration process.

Network Configuration



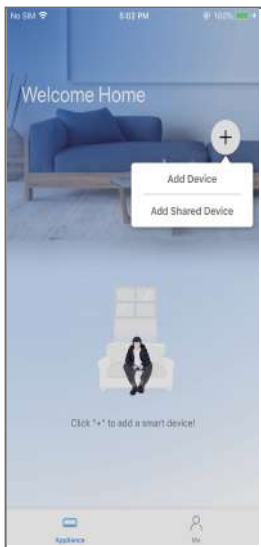
- It is necessary to forget any other around network and make sure the Android or IOS device just connect to the Wireless Network you want to configure.
- Make sure the Android or IOS device Wireless Network function works well and can be connected back to your original Wireless Network network automatically.

How to Enter AP Distribution Network

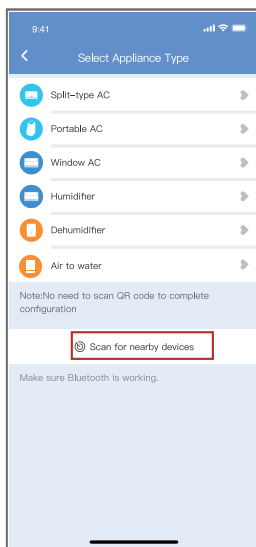
Press the FUNCTION button until the  icon is selected and then press the CONFIRM button. AP mode is activated if the icon  is blinking.

Network Configuration by Bluetooth Scan

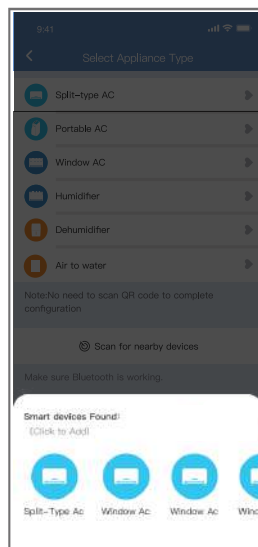
Note: Make sure the bluetooth of your mobile device is working.



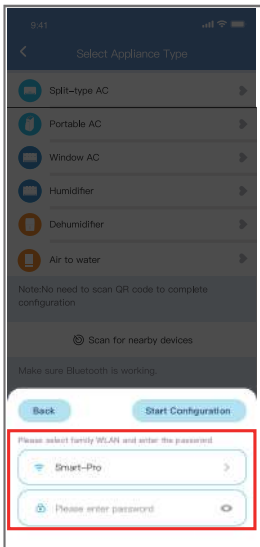
① Press “ + Add Device ”



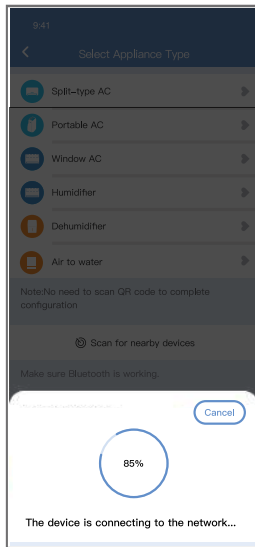
② Press “Scan for nearby devices”



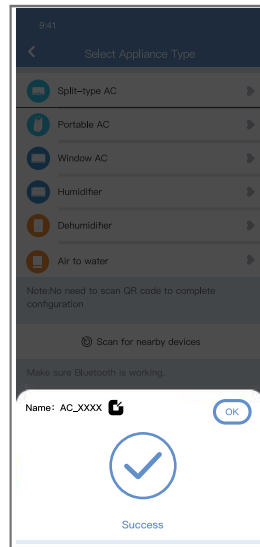
③ Find smart device, then click to add it



④ Select home Wireless, enter the password



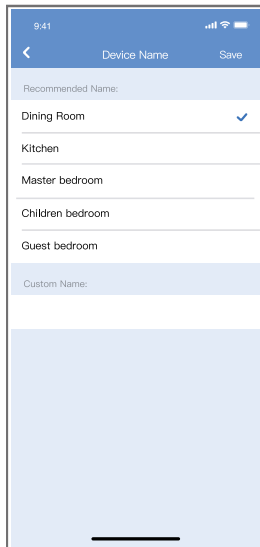
⑤ Connecting to the network



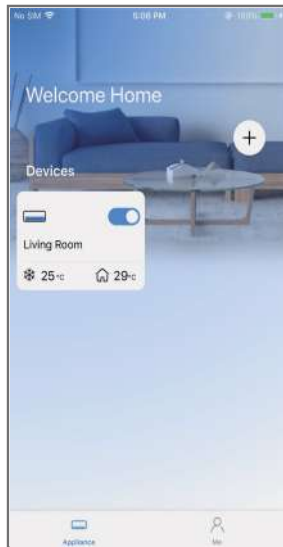
⑥ When configuration is successful, you can modify the default name.

NOTE

- Make sure your devices are powered on.
- Keep your mobile phone close enough to your device when you are connecting network to your device.
- Connect your mobile phone to the wireless network at home, and make sure you know the password of the Wireless Network.
- Check if your router supports 2.4 GHz Wireless Network band and turn it on. If you are not sure whether the router supports 2.4 GHz band, please contact the router manufacturer.
- The device cannot connect to the Wireless Network that requires authentication, and it usually appears in public area such as hotels, restaurants, etc. Please connect to a Wireless that does not require authentication.
- It is recommended to use a Wireless Network name that only contains letters and numbers. If your Wireless Network name contains special characters, please modify it in the router.
- Turn off the WLAN+ (Android) or WLAN Assistant (iOS) function of your mobile phone when connecting network to your devices.
- If your device connected to another Wireless Network and needs to reconnect, please click "+" on app Home page, and add your device again following the instructions on app.



- ⑦ You can choose an existing name or customize a new name.



- ⑧ Bluetooth network configuration is successful, now you can see the device in the list.

App Declaration

We hereby declare that this Smart Kit is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. A copy of the full DoC is attached. (European Union products only)

CAUTIONS: WirelessNetwork ModuleModels: Smart Kit

FCC ID: 2ADQOMDNA21

IC: 12575A-MDNA21

This device complies with Part 15 of the FCC Rules and it contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

Operation is subject to the following two conditions:

(1) This device may not cause interference;and

(2) This device must acceptany interference,including interference that may cause undesired operation of the device.

Only operate the device in accordance with the instructions supplied. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

NOTE:

This equipment 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 equipment 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 equipment 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.



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