

eTowel®



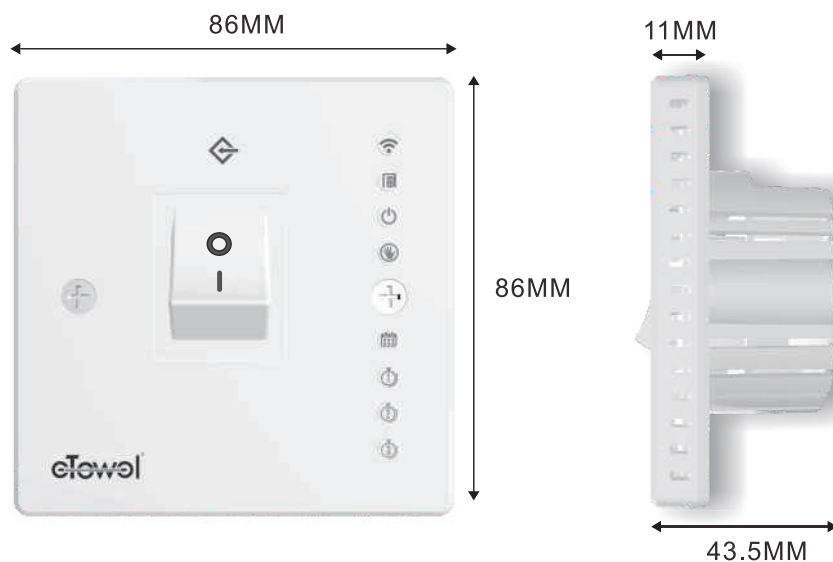
User's Manual
Smart Switch 02

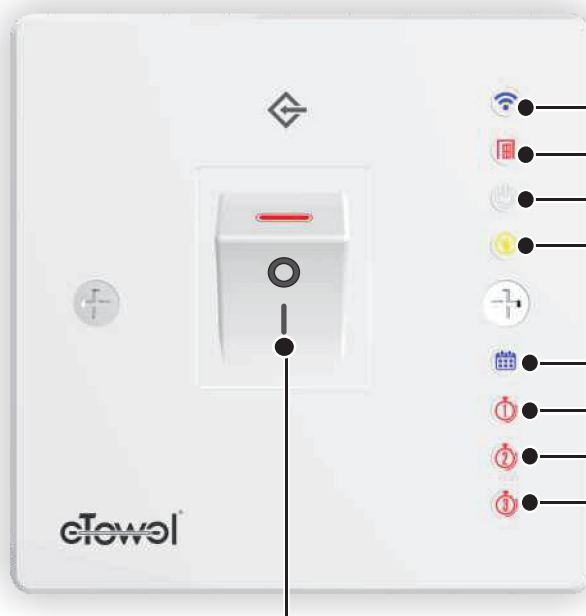


Specification

- Input 100-220VAC/50-60Hz.
- Max Output 3000W.
- Temperature Selection Range
Room Temperature 7-32°C
Temperature of Heating Device 7-70°C
- Built-in Tuya WIFI Module
- With a Mechanical Power Switch
- Built-in Buzzer.
- With the Option for Displaying
Either Room Temperature or
Set Temperature on Smart Phone.
- Built-in Dedicated Power Consumption Calculation Chip.
- Built-in Temperature and Humidity Sensor.
- Window / Door Opened Detection (3 Pieces Max.)
- Equipped with External NTC sensor.
- CE / UKCA Certified.

Product Dimensions





Mechanical Power Switch

- Wi-Fi
- Window Sensor
- Standby Mode
- Manual Mode
- Program Mode
- 1H Timer
- 2H Timer
- 3H Timer

CAUTION

ELECTRICAL SHOCK OR EQUIPMENT DAMAGE HAZARD OR EQUIPMENT SHORT CIRCUITRY DISCONNECT POWER SUPPLY BEFORE INSTALLATION

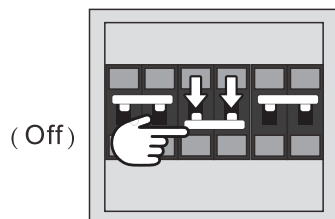


- ① Neutral Wire (in)
- ② External NTC
- ③ External NTC
- ④ Neutral Wire (out)
- ⑤ Live Wire (out)
- ⑥ Live Wire (in)

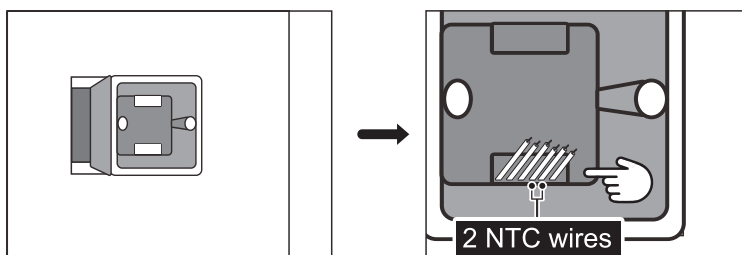
Safety Guide

1. Before the starts of any operation, read this manual carefully.
2. Do not use it in wet area, and do not splash water or any other liquid on the plastic body of device.
3. The installation and wiring jobs need to be done by professionals. Do not open the flame or use it at open-flame condition. Power cable should not be repaired once it was damaged. Asking helps from agency or specialized shop for replacement.
4. The device is not allowed to be operated by children, and person with limited mental capacity.

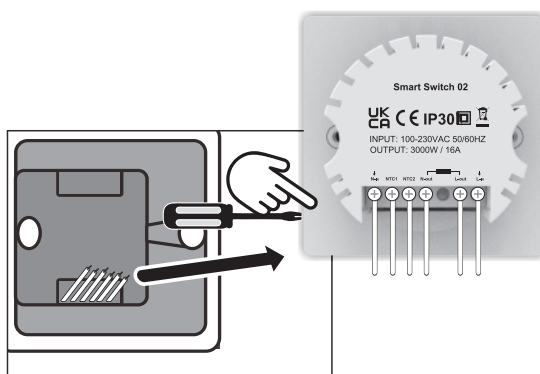
1. Ensure that the switch in the switch cabinet is turned off before starting the installation process.



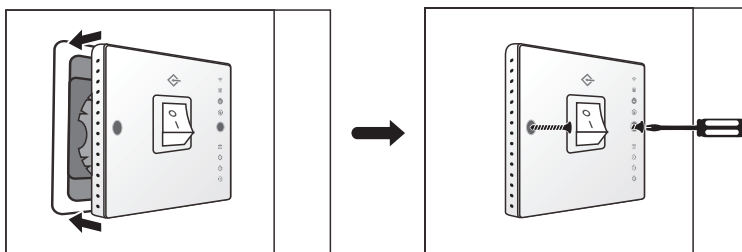
2. Secure the 86 box well to the wall. Pull out all the wires (Lin,Lout,Nin,Nout and 2 NTC wires).



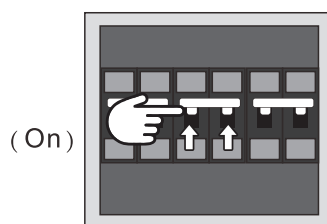
3. Connect the wires to Smart Switch with screws.



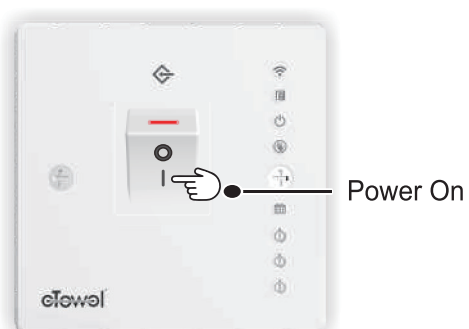
4. Insert Smart Switch into 86 box and use 2 M4*40 screws to fix it.



5. Switch on the switch box.



6. Turn on power switch.



Start to use

Smart Switch 02 is a powerful Wi-Fi switch. It can be used not only to control lights and household appliances but also to be remotely controlled through a mobile app. Set targeted temperatures allow controlling both the room temperature and the device's temperature when used to control a heating device. This switch can support a load of up to 3000W. Additionally, this switch can be used with a maximum of 3 external window sensors. It also features an internal built-in buzzer to prevent intrusion through open windows.

Power On/Off

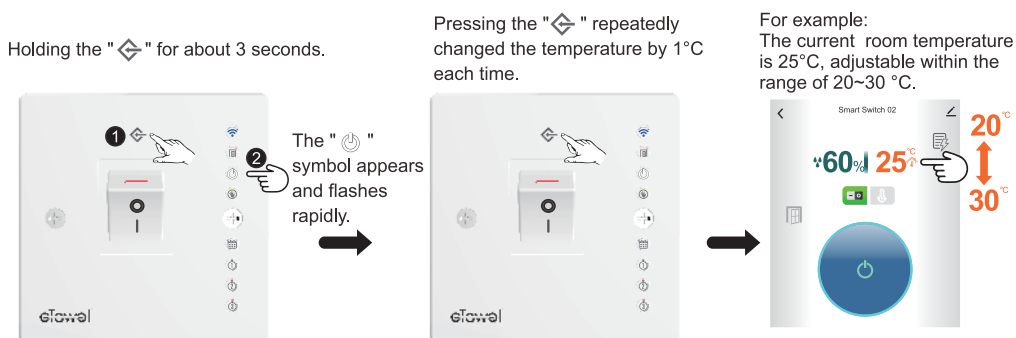
Push on the power switch to get this device starting. Push down the "●" terminal on power switch to get it off.



Room Temperature Calibration

It is possible to calibrate the Room Temperature according to the environment and conditions, but the adjustment range is just $\pm 5^{\circ}\text{C}$.

Upon pressing and holding the "◀" for about 3 seconds, the "⏻" symbol appears and flashes rapidly. Pressing the "◀" repeatedly changed the temperature by 1°C each time. The calibration will stop after 10 seconds if the device is left hanging.



External NTC Selection

In order to accurately measure the device's temperature, it is important to use the correct type of NTC.

$R(25) = 10K\ \text{ohm} \pm 1\%$ $B(25/85) = 3435K \pm 1\%$ is the default value for this device.

You can choose the right type of NTC by holding down the "⬡" for more than 5 seconds. Then mode symbol will light up with each press. Following are those you can select.

Holding down the "⬡" for more than 5 seconds.

Touching "⬡" again the "☼" symbol appears and flashes then switch to $R(25^\circ\text{C})=12K\text{ohm} \pm 1\%$ $B(25/85)=3435K \pm 1\%$ type of NTC.



$R(25^\circ\text{C})=6.8K\text{ohm} \pm 1\%$ $B(25/85)=3435K \pm 1\%$ ➡ The "🏠" symbol appears and flashes.

$R(25^\circ\text{C})=10K\text{ohm} \pm 1\%$ $B(25/85)=3435K \pm 1\%$ ➡ The "🔌" symbol appears and flashes.

$R(25^\circ\text{C})=12K\text{ohm} \pm 1\%$ $B(25/85)=3435K \pm 1\%$ ➡ The "☼" symbol appears and flashes.

$R(25^\circ\text{C})=15K\text{ohm} \pm 1\%$ $B(25/85)=3435K \pm 1\%$ ➡ The "📅" symbol appears and flashes.

$R(25^\circ\text{C})=33K\text{ohm} \pm 1\%$ $B(25/85)=3992K \pm 1\%$ ➡ The "🕒" symbol appears and flashes.

$R(25^\circ\text{C})=47K\text{ohm} \pm 1\%$ $B(25/85)=3992K \pm 1\%$ ➡ The "🕒" symbol appears and flashes.

$R(25^\circ\text{C})=100K\text{ohm} \pm 1\%$ $B(25/85)=3950K \pm 1\%$ ➡ The "🕒" symbol appears and flashes.

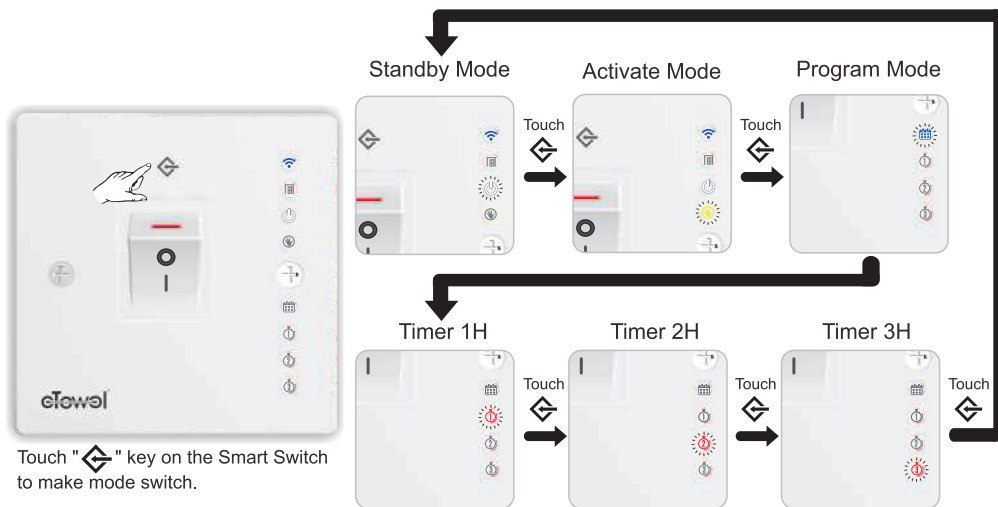
- The selection will stop after 10 seconds if the device is left hanging .



How to Use Smart Switch 02

Mode Selection

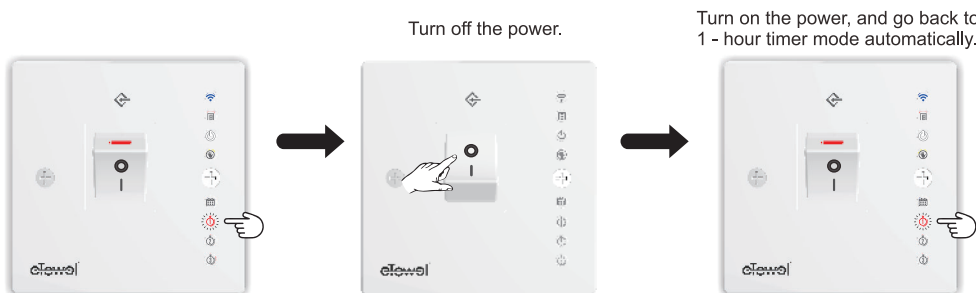
You could select one work mode from Standby, Activate, Program, and Timer 1H - 3H by pressing the "◀▶" key. The other modes are just able to be chosen via App on the phone.



Black out Memory

Smart Switch would go back to the original work mode when electricity supply recovered from a black out situation.

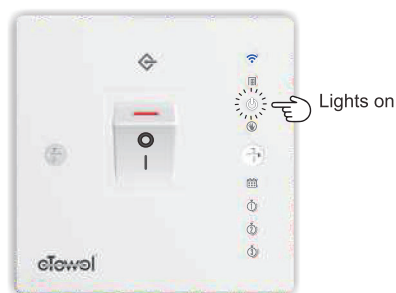
For example, if the Smart Switch was originally operating in a 1-hour timer mode, turning the switch to the "Off" position will cut off the power of Smart Switch. Push on the power, it will go back to the 1 - hour timer mode immediately.



Standby Mode

Touch the Mode symbol to enter into Standby mode. Then the power supply would be off, and the "⏻" indicator lights on.

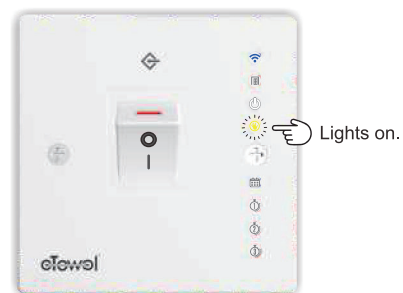
Standby Mode



Activate Mode

Touch the Mode symbol to enter into Activate mode. The power supply starts, and the "☀" indicator lights on.

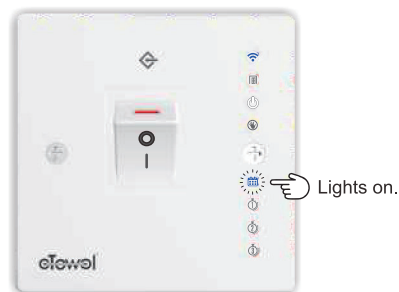
Activate Mode



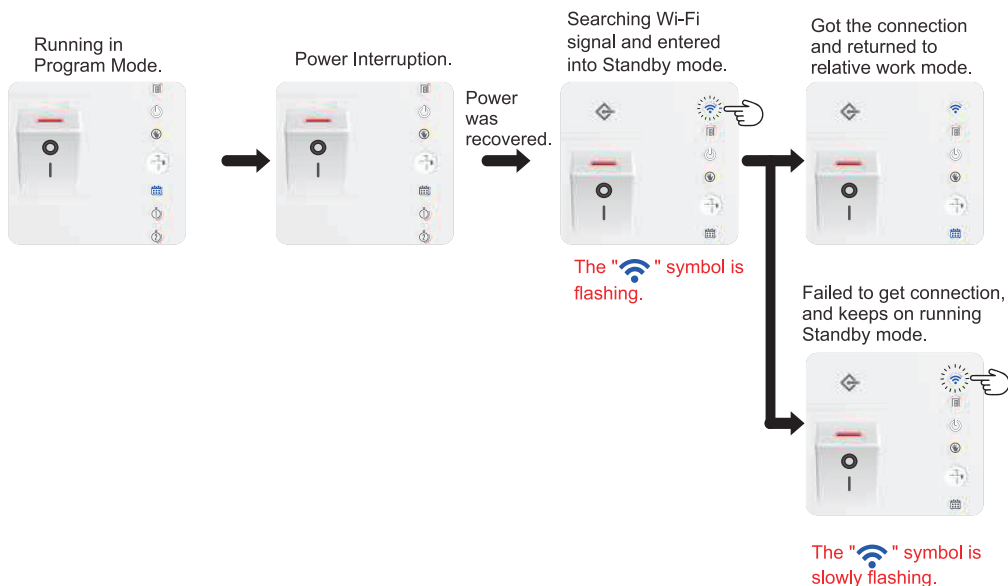
Program Mode

Turn on the Program mode by touching the Mode symbol. The device will supply power to appliance connected with by the time table set on App. And the "📅" indicator lights on.

Program Mode

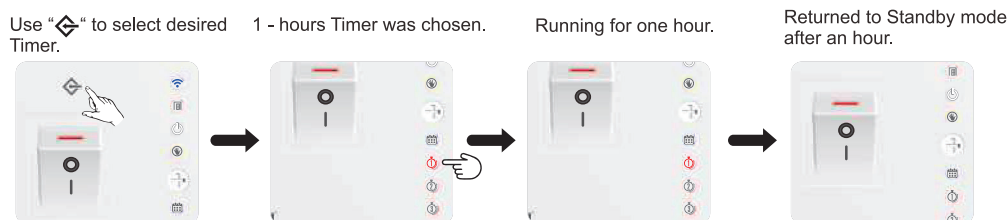


- During Program mode, if Smart Switch is turned off, it will go back to run the mode again after rebooting. It would go back to run Program mode after reboot. But before it starts, the device needs about 25 seconds to finish the connection with router.



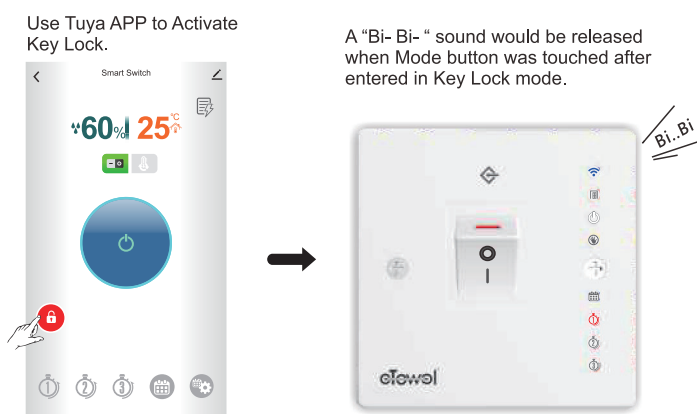
Timer Mode

There are 3 Timers in Smart Switch. Use "⏏" key to select a suitable one. Timer 1H will keep the device running for a hour. And 2H for 2 hours, 3H is the maximum. Standby mode is resumed once the timer has expired.



Key Lock

Use Tuya APP to activate Key Lock. This is for preventing misoperation by kids or someone who may not be familiar with related operation. When the Keylock is enabled, if anyone touched Mode button, the Smart Switch will emit two Bi..Bi beeps to indicate that the buttons are locked. To lift the restriction just by touching "🔒" again. There is an exception about the lock condition. The locked condition may be lifted automatically when Smart Switch enters into Standby mode because of sudden temperature drop. In this condition, the operation on App is forbidden. You could just use "⏏" key on Smart Switch to change its work mode. Then the App operation goes back to normal.



Window / Door Opened Detection

Window / Door sensor need to be installed well, otherwise this function would not work. When sensor got the signal of opening, The “” symbol lighted on. And the Smart Switch emits a beep “sound” every 2 seconds. If the opening status lasting for more than a minute, this Smart Switch would jumps into Standby mode and Mode key would be locked. Unless the window / door was closed, it would not go back to normal.

Window / Door has just been opened.



A minute passed.



Window/Door has been closed.



Sudden Temperature Drop Reaction

This is an energy saving measurement. If you don't have a window sensor cooperate with your Smart Switch. You would not be able to turn off the power of Smart Switch whiling door or window is opening for a long period of time. This Smart Switch provide a solution by detecting huge temperature drop in short time. It allows to change work mode automatically to Standby to save energy. To avoid confliction with the function of Window Sensor, this function would be disable whiling the device detected the join of Window Sensor.

When room temperature drops more than 3℃ in 20 minutes, the Smart Switch enters into Standby automatically. You could see the “” symbol is lighten on from your phone whiling this situation happened. And you are not allowed to operate the App anymore unless you change its work mode by touching the “” key on Smart Switch. After the Smart Switch returns to normal work mode, make sure to maintain suitable environment to let the room temperature rise up 2℃ in 30 minutes. Otherwise it will goes back to Standby again.

This function could be removed by pressing and holding the window symbol whiling it appears on the screen. Then the device go to Activate mode immediately. To recover this function, just turn the device off and run it again.

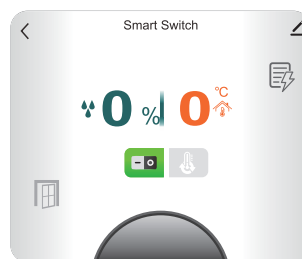
Room temperature and Humidity Sensor Broken

After approximately 5 seconds of powering on, if a temperature and humidity sensor broken is detected, all indicator lights of the Smart Switch will blink simultaneously, and button operations will be ineffective, and Tuya App displays a temperature and humidity reading of 0.

All indicator lights of the Smart Switch will blink simultaneously.



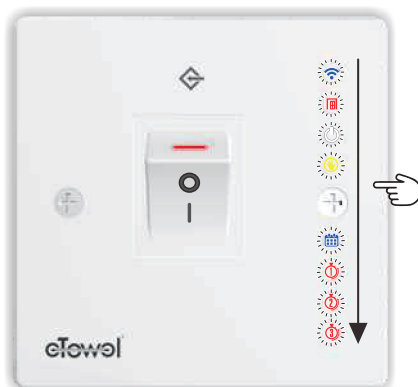
Tuya App displays a temperature and humidity reading of 0.



External NTC Sensor Broken

After powering on, if the external NTC Sensor is not connected or there is a circuit broken such as a short circuit, all indicator lights will illuminate twice in rotation as a warning, and then enter the before power off operation mode.

All indicator lights will illuminate twice in rotation as a warning.



Then enter the before power off operation mode.



Overload Protection

When the power consumption of the connected device is detected to exceed the maximum output power of 3000W, the Smart Switch will activate overload protection, immediately cutting off the power to the device and returning to standby mode.

When the power consumption of the connected device is detected to exceed the maximum output power of 3000W.

Immediately cutting off the power to the device and returning to standby mode.



Disposal

This product should not be disposed as general waste but should be brought to appropriate collection point for recycling.



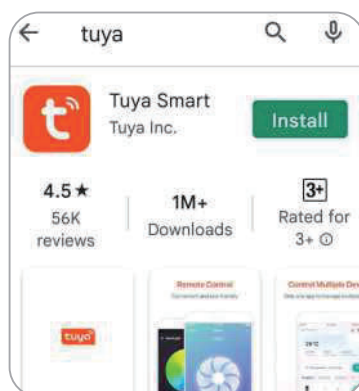
Wi-Fi Connection

This device could be controlled by your phone via Tuya Smart App. You need to download the App before you start to use this function.

Tuya Smart App download

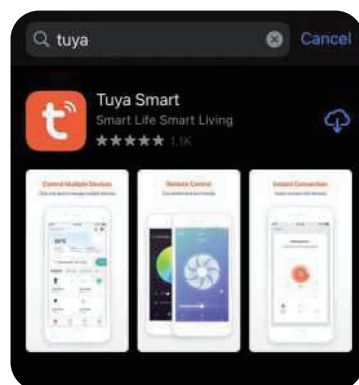
- **Android system**

Go to Play Store to search "Tuya Smart" , then download it.



- **IOS**

Find out "Tuya Smart" App in App Store, and download it.



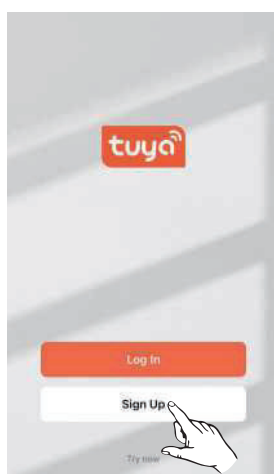


Wi-Fi Connection

After the App was downloaded to your phone, please enter into it. Then start to build the connection between thermostat and your phone by doing the steps as follows.

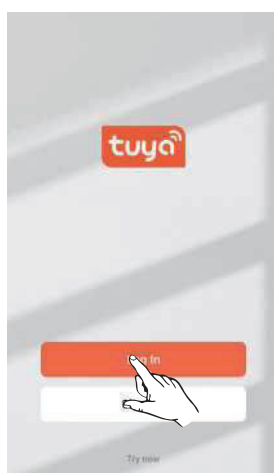
Registration

Enter into Tuya Smart, then select "Sign Up" starting the work of registration.



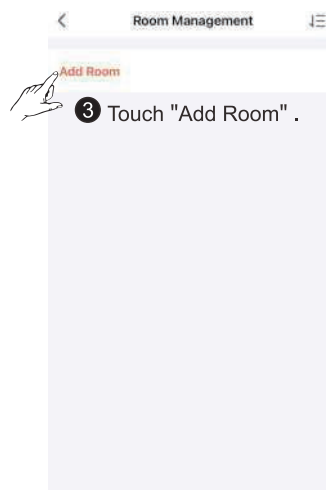
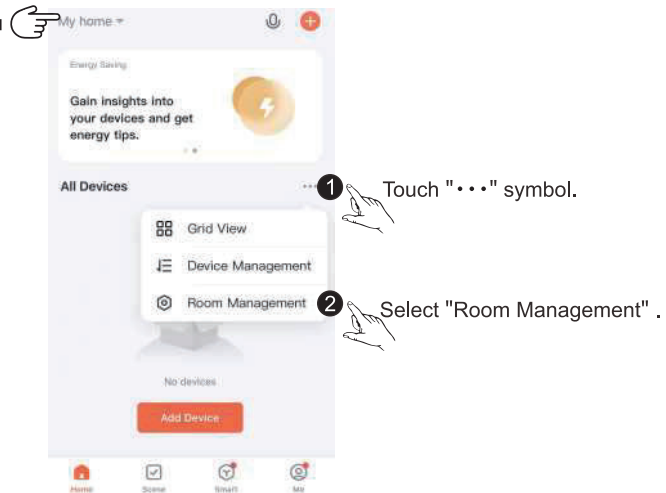
Log in

Select "Log In" to start the job of Add Device after registration.



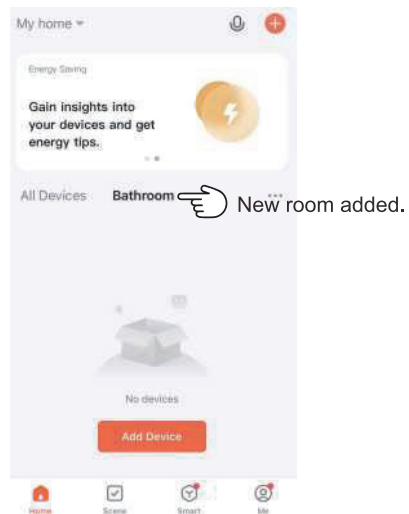
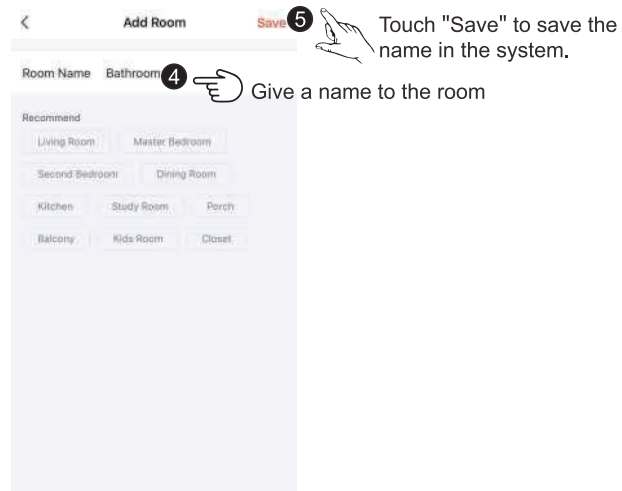
Add room

The name you registered.



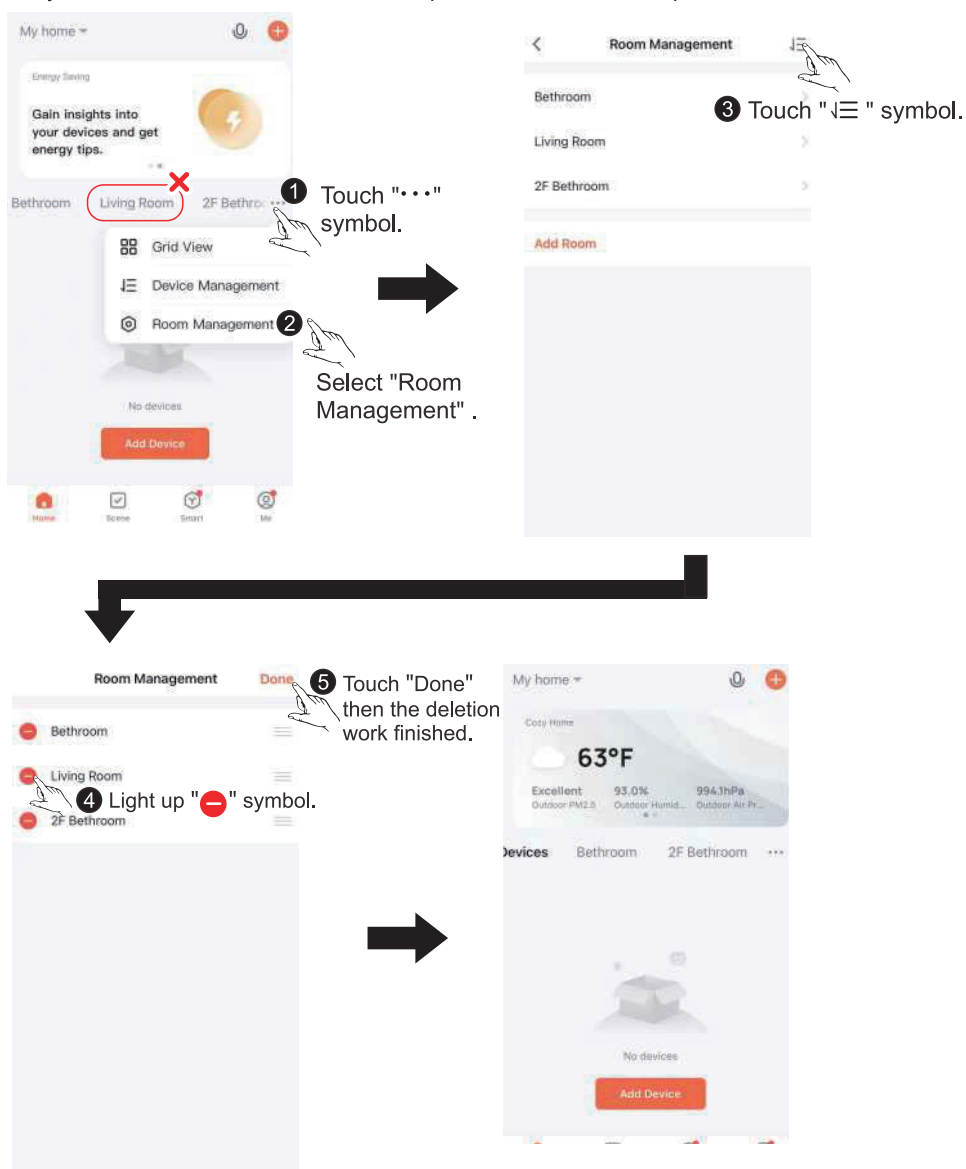


Wi-Fi Connection



How to delete added room.

In case you want to delete the added room, please follow these steps to do it.

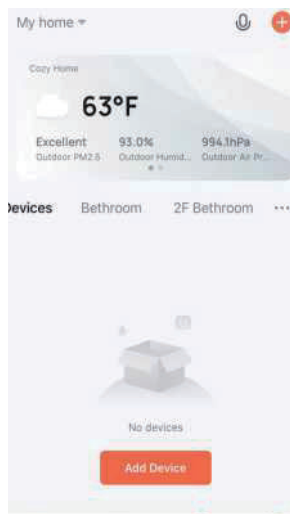




Wi-Fi Connection

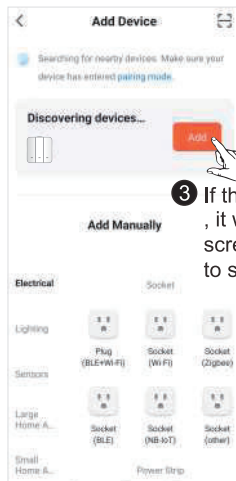
Add devices (Auto Scan)

Before the pairing starts, please activate Bluetooth on your phone.

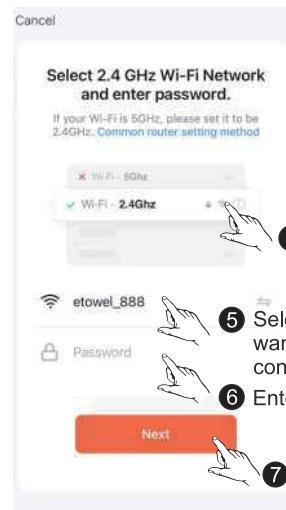


1 Touch "Wi-Fi" symbol of Smart Switch for 5 seconds.

2 Check if "Wi-Fi" symbol on the screen of Smart Switch is blinking quickly.



3 If there is any device existed, it would appear on the screen. Just touch "Add" to select it.

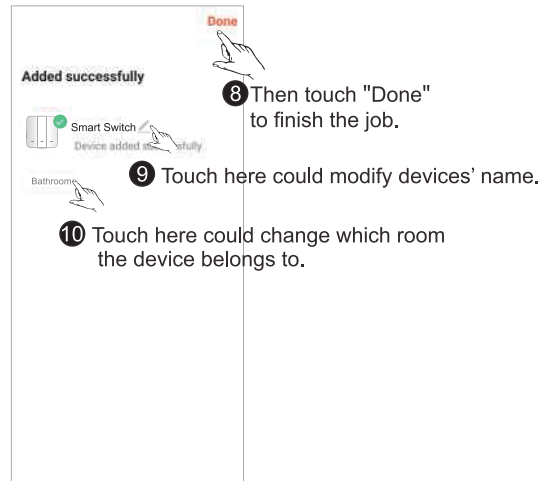


4 Select "2.4 GHz" Wi-Fi.

5 Select the router you want to use for the connection.

6 Enter its password.

7 Touch "Next".





Wi-Fi Connection

In case you could not find any device showing on screen which you want to add, please do it manually by following steps.

Add devices (Add Manually)

Before the pairing starts, please activate Bluetooth on your phone.

1 Select the room that you want to add device.

2 Touch "Add Device".

3 Select "Electrical" Appliances.

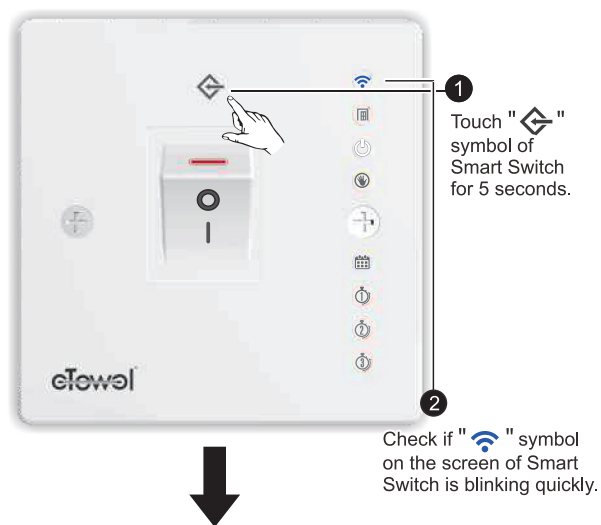
4 Then select "Switch(BLE+Wi-Fi)".

5 Select "2.4 GHz" Wi-Fi.

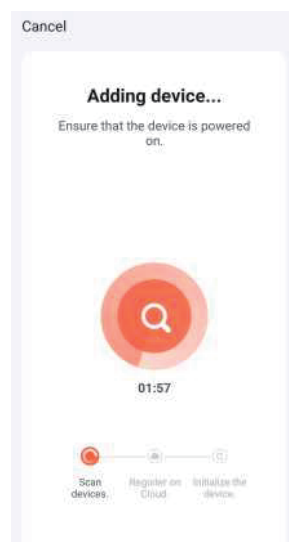
6 Select the router you want to use for the connection.

7 Enter its password.

8 Touch "Next".

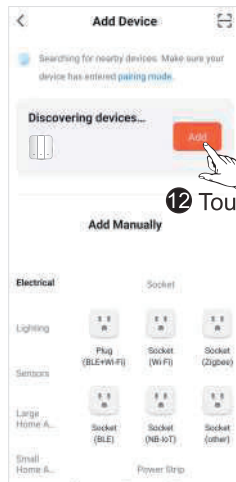


11 Paring is undertaking.

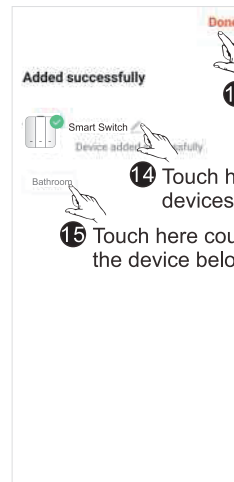




Wi-Fi Connection



12 Touch "Add".



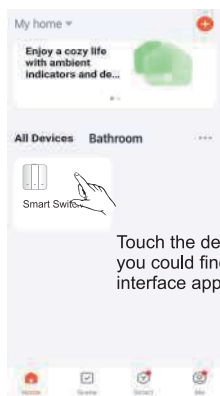
13 Then touch "Done" to finish the job.

14 Touch here could modify devices' name.

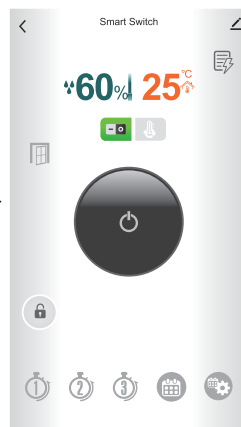
15 Touch here could change which room the device belongs to.

Go to control interface

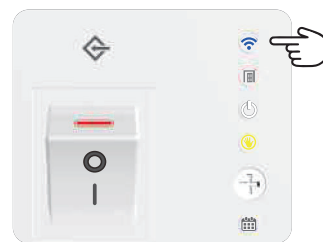
After all above steps have been finished, you could find the added device appears on the devices list.



Touch the device, then you could find a control interface appears.



At this time, if you checked the thermostat, you would see the symbol of "Wi-Fi" on its screen.



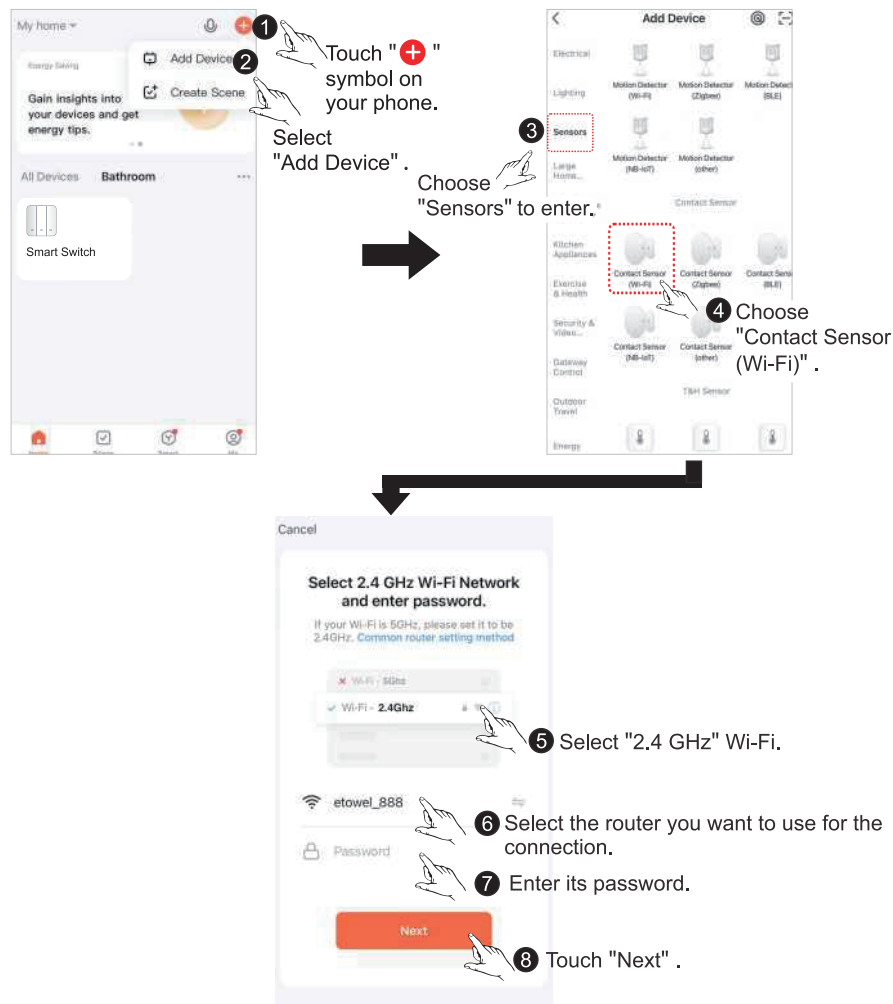


Window/Door Sensor Connection

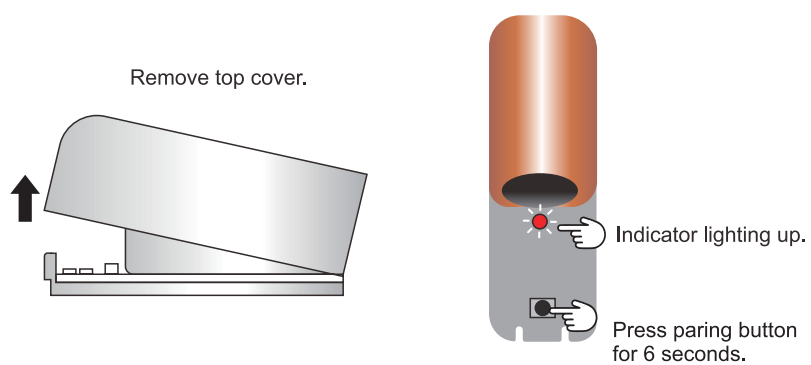
Smart Switch is designed to work with a window/door sensor to prevent wasting energy indeliberately (can support three simultaneously window/door sensor). Before starting the connection job, please put batteries into your sensor.

Add Window Sensor to your control list

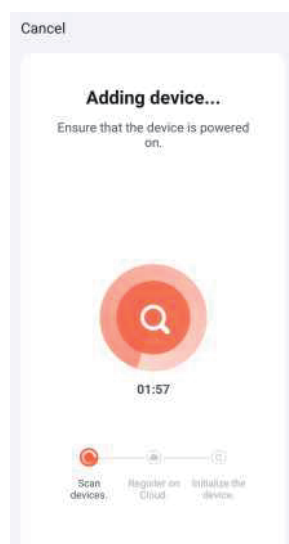
Before you start to use the sensor for detecting window or door opened, please pair the sensor with Tuya App. After pairing finished, you could get warning sign whiling window/door was opened for more than a minute. Smart Switch can get the information of sensor's activities as well. Following are steps for pairing the sensor. Most of operations should be done on Tuya Smart App.



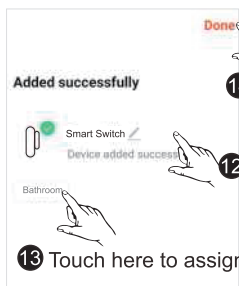
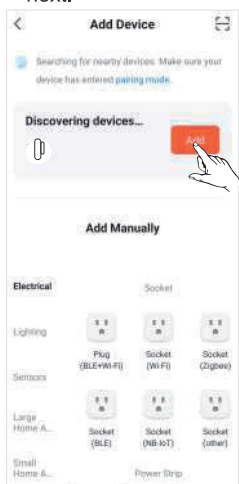
- 9 Open the cover of sensor and press paring button for 6 seconds.



- 10 Paring is undertaking.



- 11 When pairing is ready, your phone would have following page appears on screen. Press "Add" to go next.

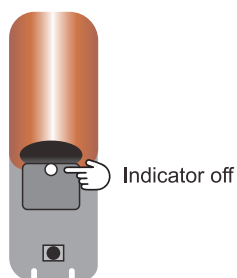


- 14 Press "Done" button to confirm and leave the page after all above steps be completed.

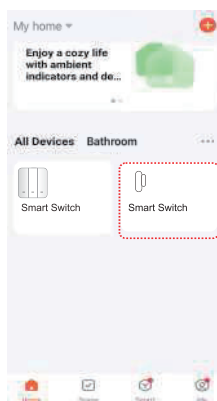
- 12 Touch here to name the sensor. It's name should be exactly same as the one you gave to Thermostat. Otherwise Smart Switch thermostat could not link with it. Here is also the place you could rename the sensor.

- 13 Touch here to assign where the sensor is. It should be at the same room as Smart Switch.

Then you would find LED indicator went off and sensor appears on phone screen.



Last but not least, you need to enter into the control interface of Smart Switch to activate the link of sensor. No need to do anything else, just enter the interface. Then everything is done now.



Notice

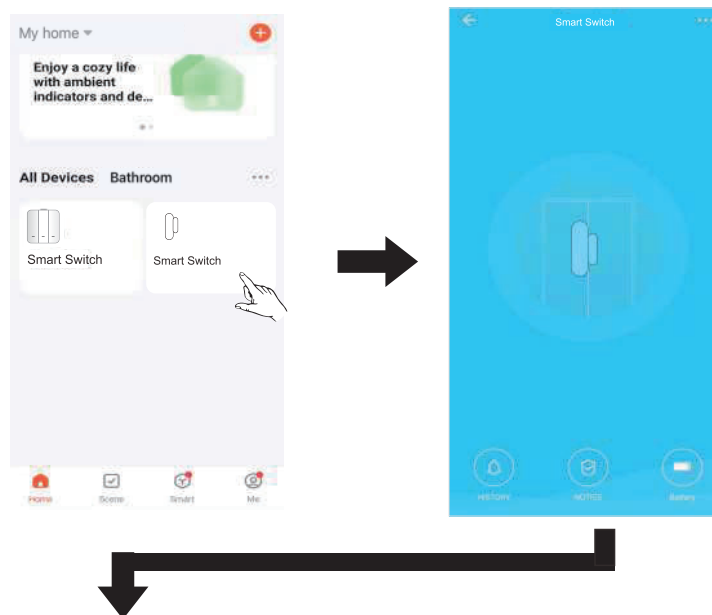
After the sensor linked with a Smart Switch, they paired together. Once the sensor was renamed to match with other Smart Switch, you need to enter the control interface of original thermostat to confirm the change. Just enter to its control interface, then the confirmation would be done automatically. If you don't do it, these two Smart Switch will have same reaction while sensor sending out any signal.



Window/Door Sensor Connection

Window Sensor Test

You could check if the pairing job was done correctly by following steps. 1st make sure the sensor is on closed position. then touching the sensor symbol on phone screen. You would find an enlarged picture displaying on screen with sensor on close position.



2nd step to move the two parts of sensor apart. And check if the sensor symbol on phone screen was opened as well.

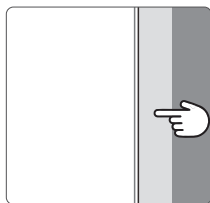




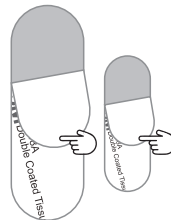
Window/Door Sensor Installation

- Take out the sensor and make its surface is clean. Then put the double sided tapes on the bottoms of sensor. Sticking the sensor on a clean surfaces of the window or the door you want to check for. Make sure the center of the two sides of sensor would be aligned with each other.

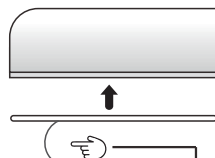
1. Cleaning the location
you want to put the sensor on.



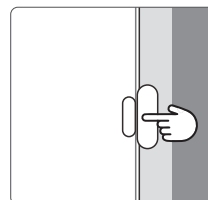
2. Take out double sided tapes
and remove its protection sheet.



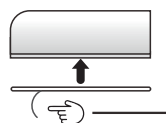
3. Stick the tape to the
bottoms of sensor.



5. Put the two parts of sensor
on window or door.



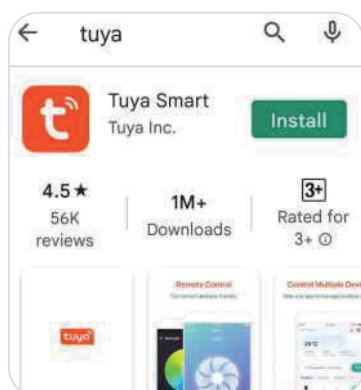
4. Remove another
side of protection
sheet from tapes.



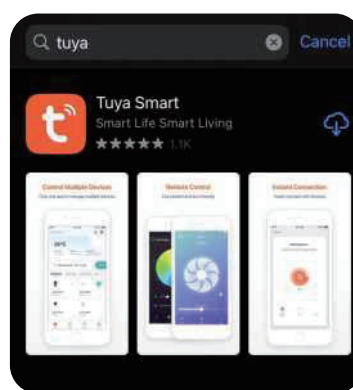
Add Family Members

- Your family members are allowed to use Tuya Smart to control the devices as well. To do so, the App need to be installed on your member's phone and a registration is necessary.

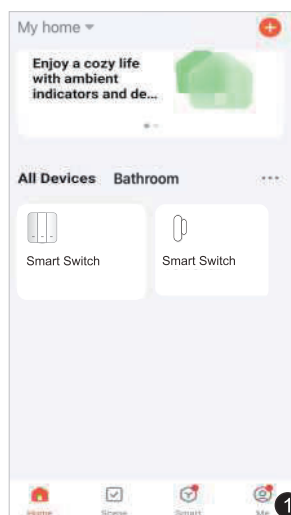
Android



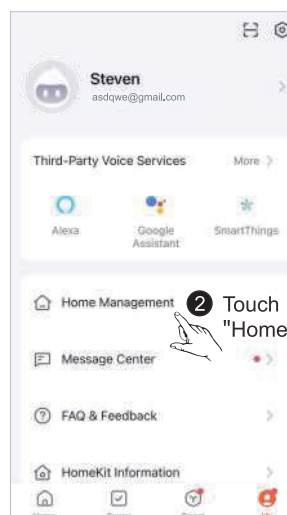
ios



- After registration, go back to main controller's phone and do following operations.



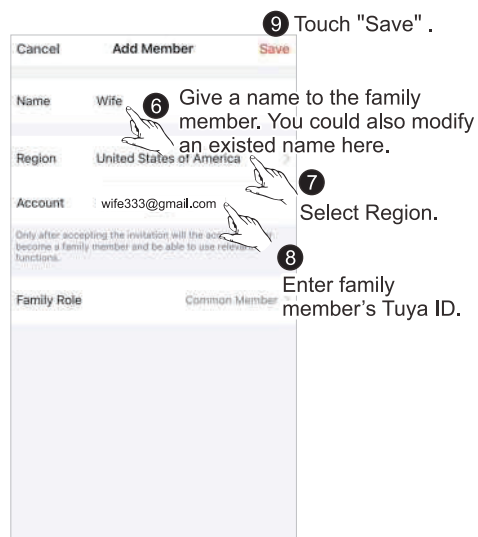
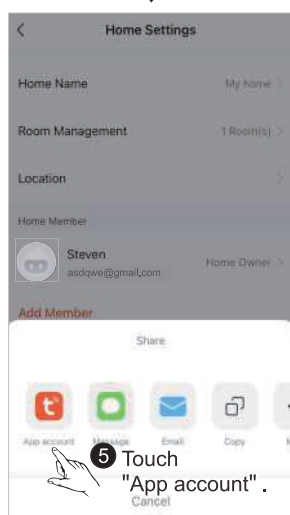
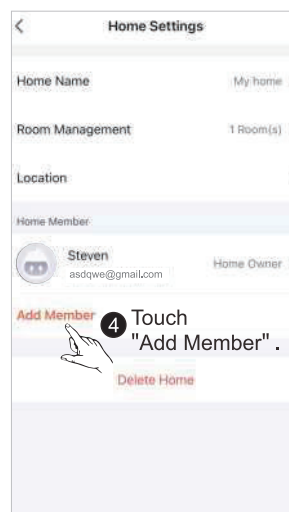
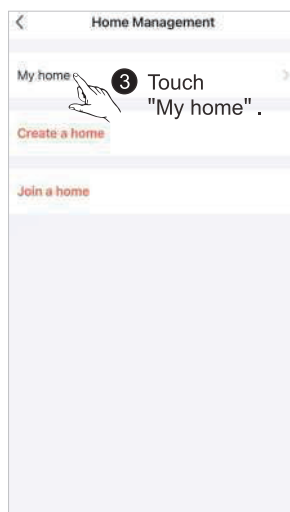
1 Touch "Me".



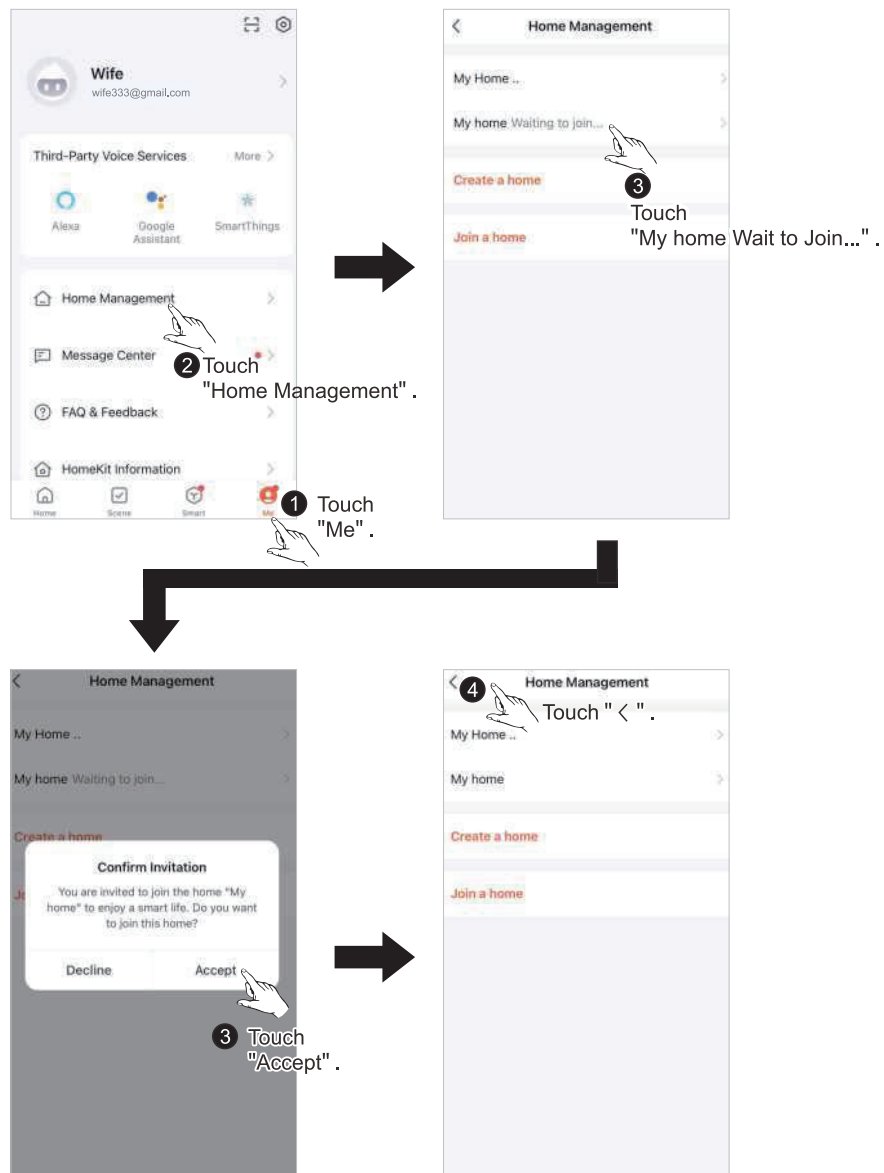
2 Touch "Home Management".



How to Add Family Members

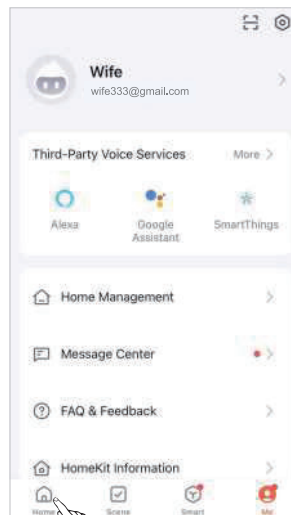


- Then back to family member's phone. Login and follow the steps as below to complete all setting.



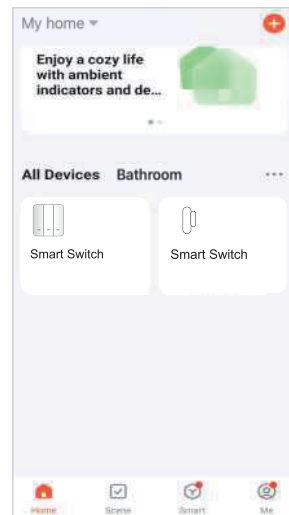


How to Add Family Members



5 Touch "Home".

The added devices appear on control list.





Notice on Wi-Fi Connection

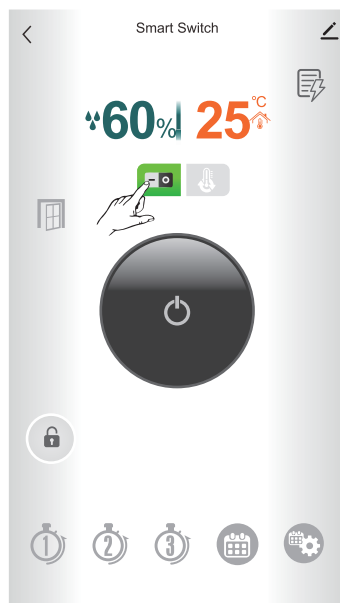
- The "  " symbol on Smart Switch is always lighting up after you started doing the pairing work. If you found it disappeared, it means the pairing was failed. You need to check your setting and connection for doing the pairing again.
- In any case of disconnection between router and this device, the "  " symbol would flick slowly. You need to reboot your router to solve the problem. When the router go back to normal condition, Smart Switch would connect to it automatically. Usually the connection would succeed in 10 seconds.
- If the Smart Switch was deleted from Tuya Smart App, you don't need to touch any key on Smart Switch for doing the pairing work again. The pairing would be started automatically in 3 minutes. When the pairing is doing, you would find the "  " symbol flicking quickly. In case the pairing was failed, "  " symbol would disappear.



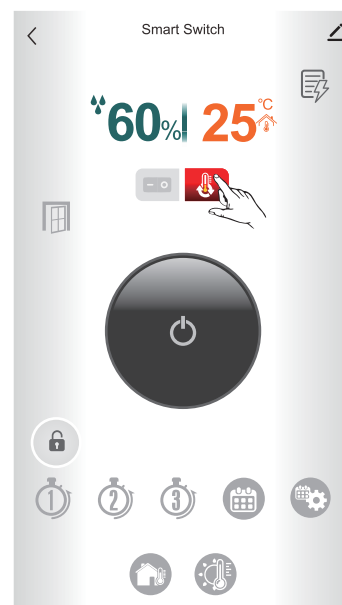
User's Interface & Two Work Modes

Depending on what kind of appliance you wish to control, you can choose between two operation modes. For heaters, use Thermo Mode. Switch Mode is recommended for other appliances.

Switch Mode



Thermo Mode

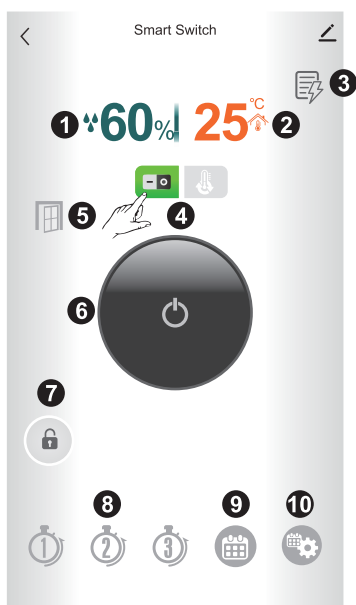




Smart Switch 02 Control Under Switch Mode

Switch Mode lets you control lights, curtains, fans, and other devices by turning them on and off.

Switch Mode

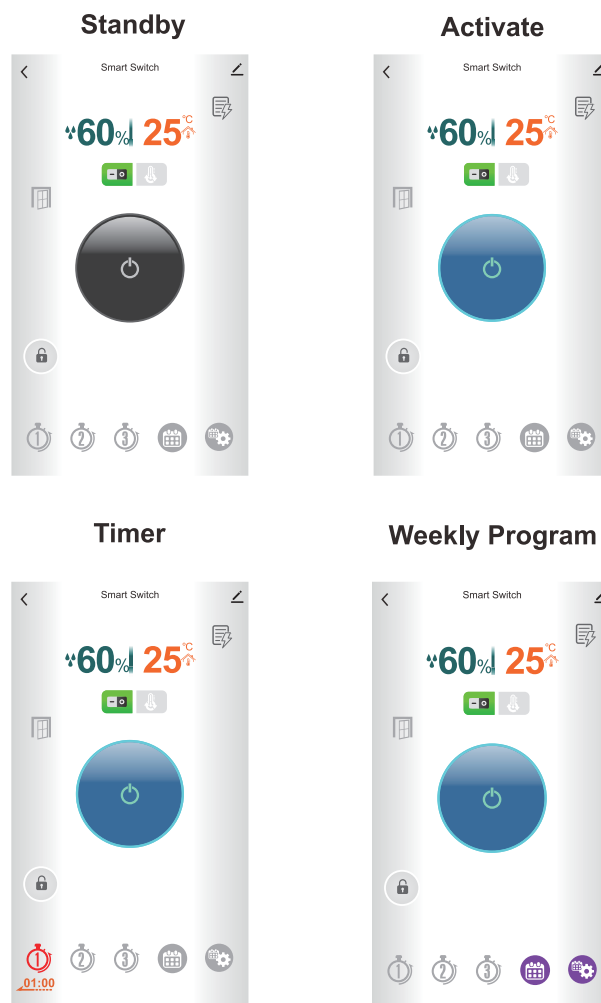


- 1 Humidity
- 2 Room Temperature
- 3 Electricity Consumption
- 4 Switch Mode & Thermo Mode
- 5 Window / Door Status
- 6 Standby / Activate
- 7 Key Lock
- 8 Timer(1H/2H/3H)
- 9 Program Mode
- 10 Program Setting



Smart Switch 02 Control Under Switch Mode

There are 4 different work modes can be selected to control your device. They are Standby, Activate, Timer and Weekly Program.

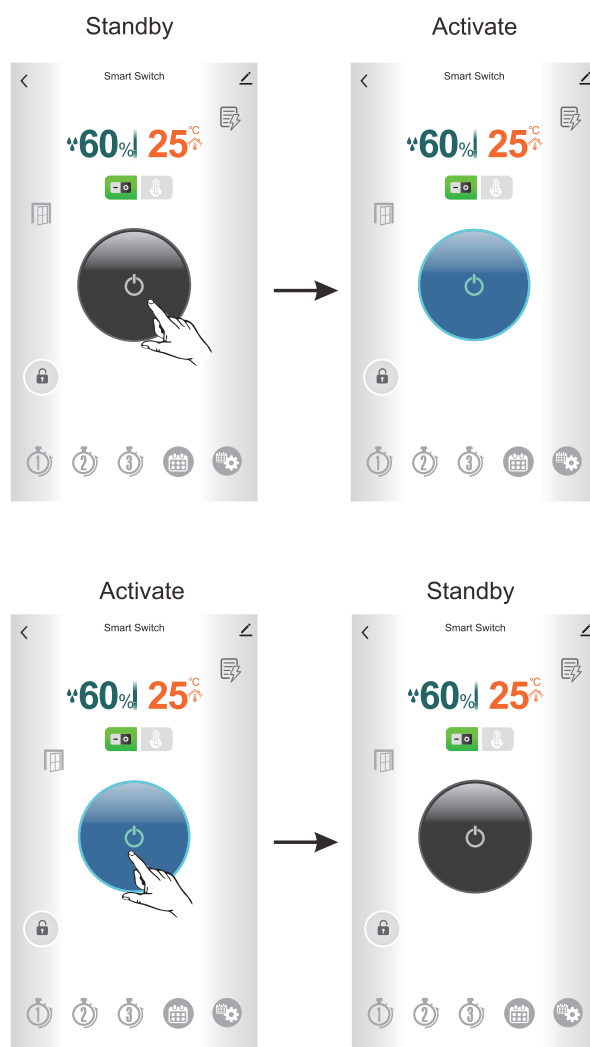




Smart Switch 02 Control Under Switch Mode

Standby / Activate

Activate mode makes Smart Switch starting to work. In addition, if there is a temperature setting, it will run accordingly. In the meantime, Standby mode allows the device to shut down.



Timer Mode

Timer Mode allows users to set a timer for 1-3 hours long. After the countdown is completed, it will enter standby mode.



When Timer starts to work, the remaining work time appears under its symbol.





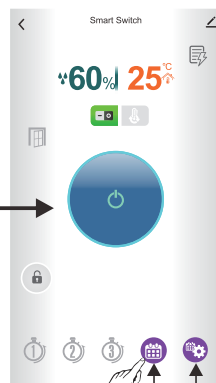
Smart Switch 02 Control Under Switch Mode

Program Mode

Touching the key of Program Mode, you'll find the device is working at Activate mode. That is a default.

Running in Program Mode.

The status of this button is changing depending on the work mode set on program.



Touch this button to run the program mode. When the device is running at program mode, these two keys are lighting up at same time.

Program Setting

Touch "⚙️" to start the weekly setting, it allows you to schedule how the device works for every single hour in a week.





Smart Switch 02 Control Under Switch Mode

• Introduction of the Weekly Time Table

Program Setting Interface. Defaults are all set to “On” for every hour.

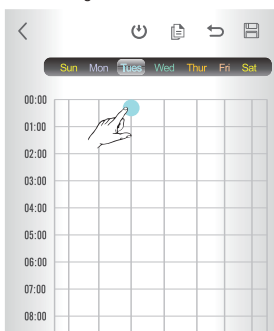


- 1 Return Key
- 2 Device Copy (for copying the setting of this device to another one).
- 3 Copy the setting of a specific weekday to other weekdays.
- 4 Back to Default
- 5 Saved & Leave
- 6 Weekday
- 8 Hour

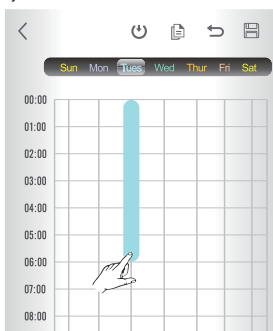
Users can use their fingers to swipe up and down different time periods.

• Set the activating time on table.

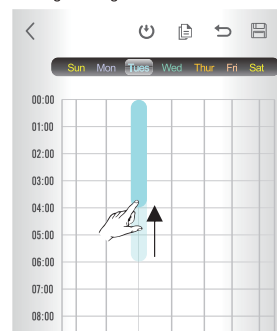
Touch the cross point of expecting date and starting time.



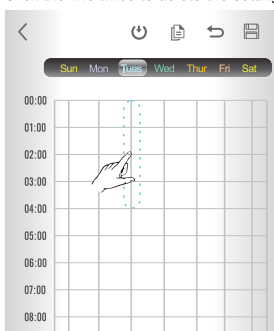
And drag the line of time to where you want to end.



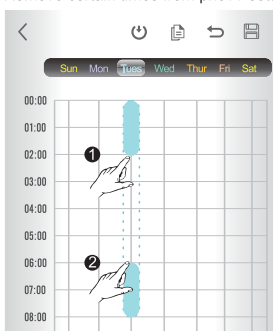
The time span could be shortened by moving the finger backward.



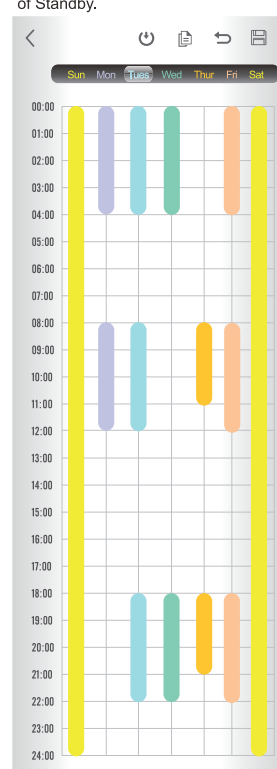
Click the line twice to delete the setting.



Remove certain times from pho AI setting.



An example of a whole week running program.
The blank area represents the times of Standby.



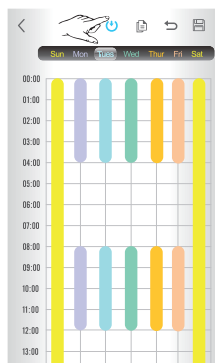


Smart Switch 02 Control Under Switch Mode

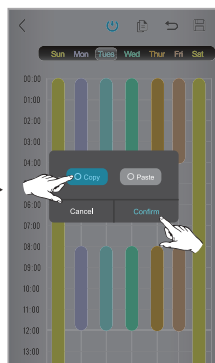
• Device Copy

This function allows user to copy the whole setting from one device to another, Following are the steps.

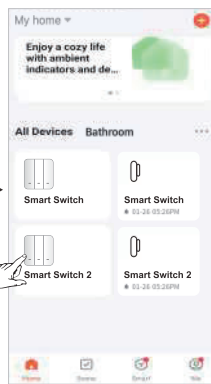
Use this "🔄" icon to make or paste a Program copy.



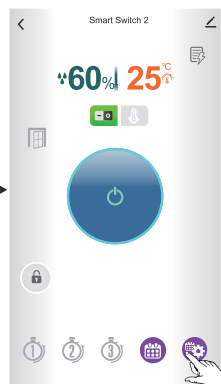
Select "Copy" to make a program copy on your phone. Or select "Paste" to give the copy to this device.



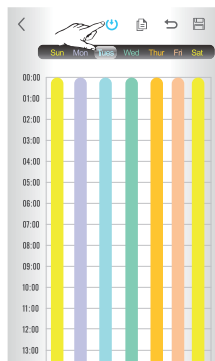
Go back to Tuya's console to choose a device for pasting the copied program onto it.



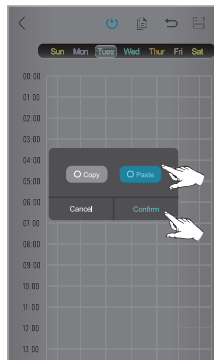
Touch "🔄" to go into weekly program setting page.



Touch the "🔄" icon of "Program Copy".



Selected "Paste" and touched "Confirm" to complete the process.



When the program was copied to this device, new setting came out on screen. The program copy could be pasted into multiple devices, but you have to repeat the paste job one by one.



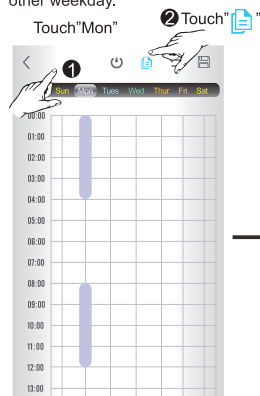


Smart Switch 02 Control Under Switch Mode

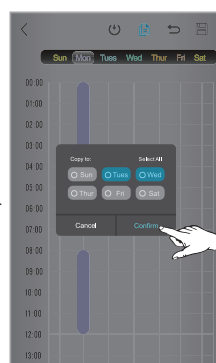
- **Copy the setting of a specific weekday to other weekdays.**

This function allows user to copy the setting of a weekday to another. Following is an example of how the setting of Monday be copied to both Tuesday and Wednesday.

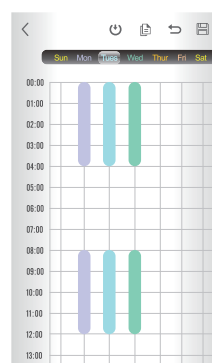
Copy the setting of Monday to other weekday.



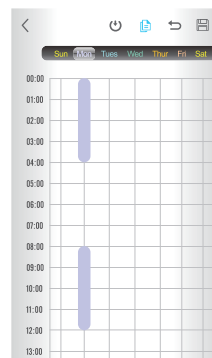
Select "Tues" and "Wed" from the list, then "confirm" it.



Tuesday and Wednesday have already replicated Monday settings.

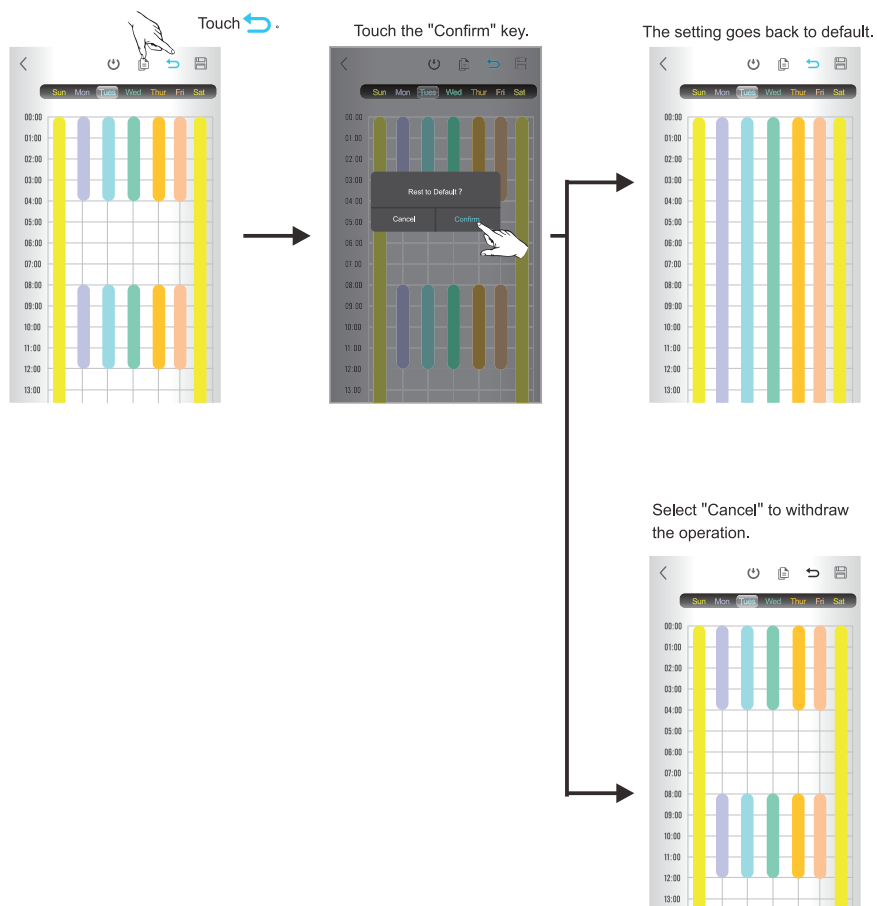


After cancelled the copy selection, the screen goes back to previous setting page.



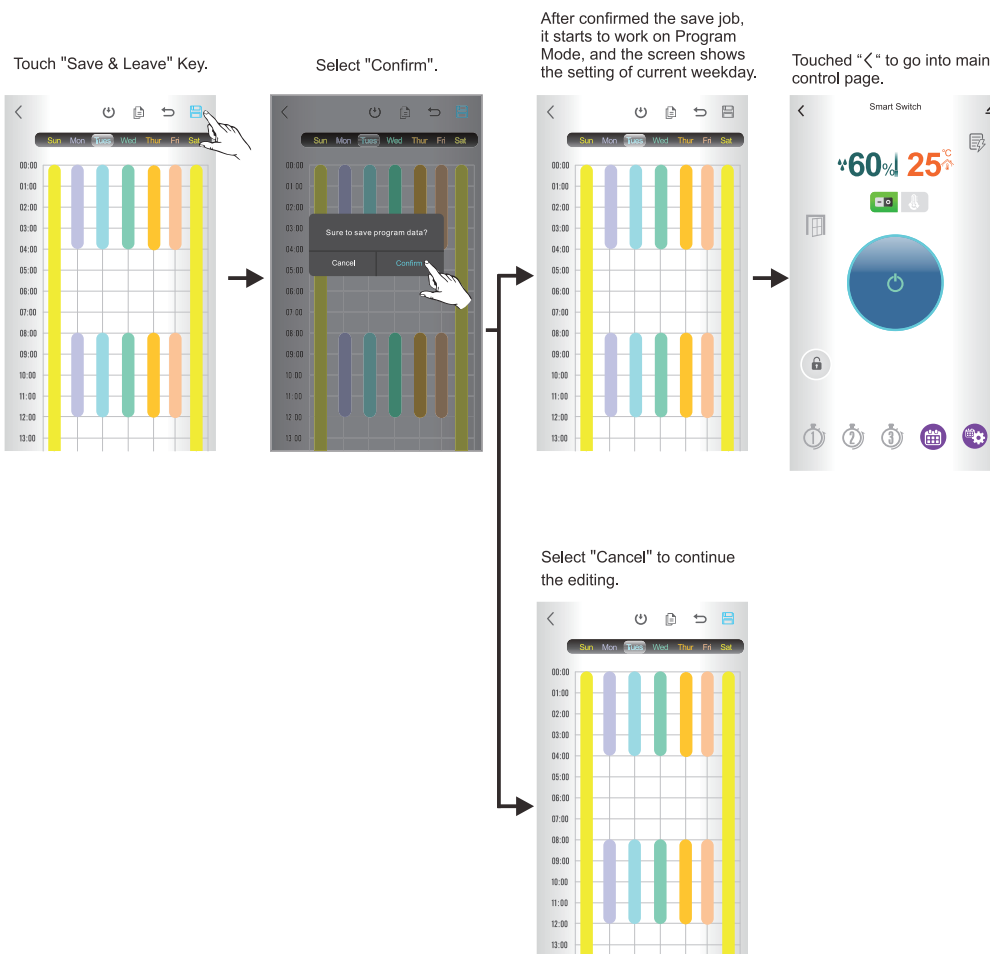
• Back to Default

Use this functional key to retrieve the default setting of a weekday. Following is an example of how to retrieve the default setting.



• To End the Program Setting & Starting the Program Mode

After you completed the setting, follow these steps to make the Program Mode running.





Smart Switch 02 Control Under Switch Mode

If the Return key was touched, you are able to leave the editing in the condition of scrapping the new setting.

