60GMilimeterwave Bio-sensing radar

R60AFD1-Fall alarm Tuya WiFi Application manual

Please read the product instructions carefully before use and keep them properly V1.0

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1.Device distribution routine steps

1、Download through the app store: Tuya Smart APP

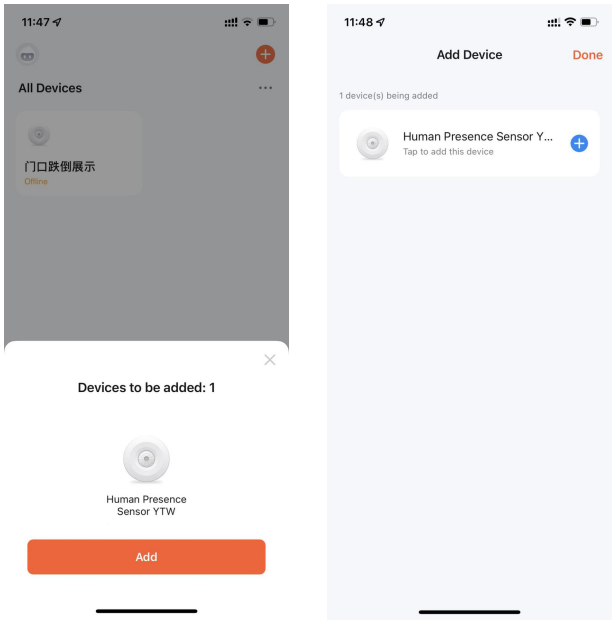
Tuya smart

2、Press and hold the button on the product until the LED light is off and then release when it flashes. At this time, the radar resets and enters the network distribution mode. There are two ways to configure the network:

(Note: The phone needs to be connected to 2.4Gwifi, not 5Gwifi)

Method 1 (Bluetooth):

The App interface will pop up "Discover the device to be added: 1". After clicking to add, the app will automatically connect the device to the network.



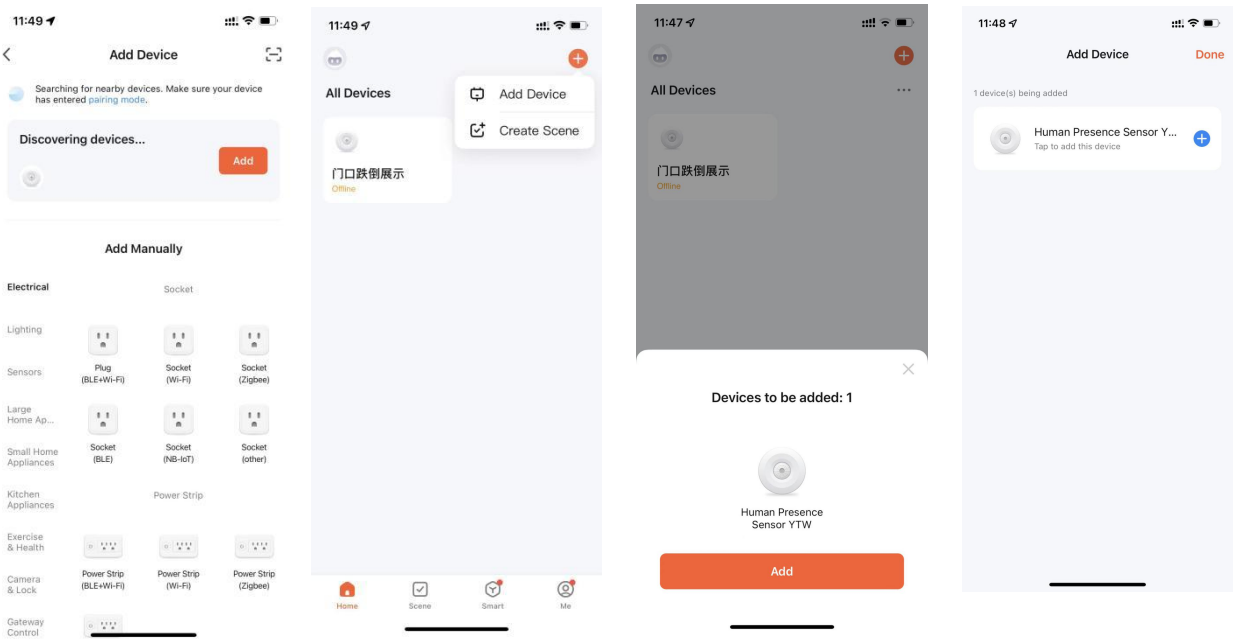
Method 2 (Wi-Fi):

Click the "red plus sign" in the upper right corner of the APP

interface to enter the product category selection page, click the upper right

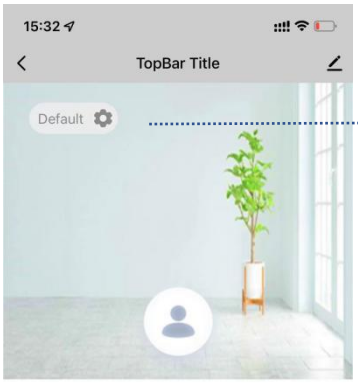
Click "Auto Discovery" in the corner to search for the device, and click "Next" after the device is found.

Fill in the relevant wifi information and click "Next" to configure the device.

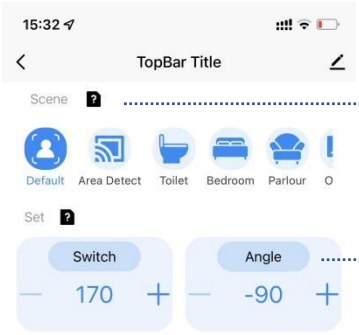


3、Wait for the APP to configure the wifi network until the network configuration is successful, then the Tuya wifi radar device can be successfully connected.

2. APP panel interface introduction



Detection range



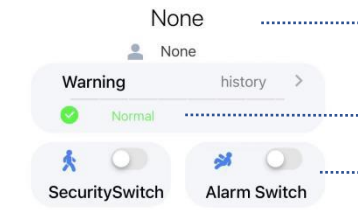
Scene mode switch

Installation Angle adjustment button

(Set according to the actual installation Angle)

Install height adaptation keys

(Set according to the actual installation height)



State view

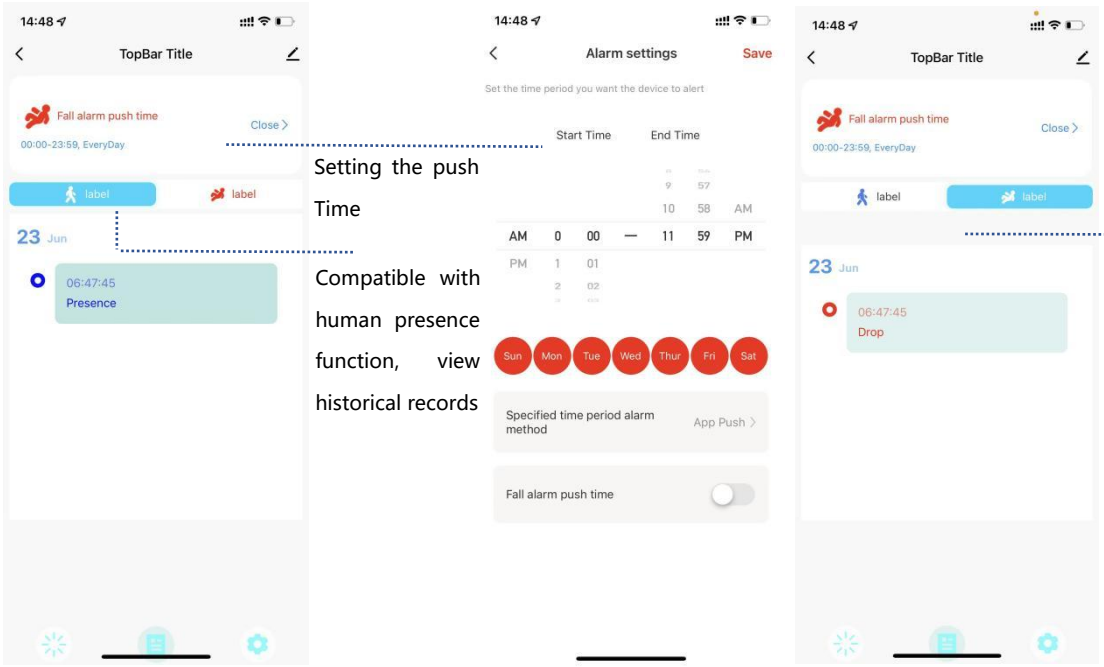
Viewing Historical

Park, fall switch

View motion values and historical records

Setting interface:

Scene setting, sensitivity setting, unmanned time setting, matters needing attention



3.60G fall radar application scenarios and function introduction

1.60G fall radar installation scenario restrictions:

The fall radar is suitable for indoor bathrooms, kitchens, bedrooms and other scenarios

- It is necessary to avoid fans, etc., which will vibrate and rotate metals within the radar detection range

The installation method of the fall radar is top-mounted installation

2. The main function points of 60G fall radar:

- Manned/unmanned state judgment

- Active/static/stateless judgment
- Judging the state of fall alarm
- Static resident alarm state judgment

4.60G fall radar main function detailed description

1. Judgment of fall alarm status:

- **Fall alarm test:**
- When a person falls and lies on the ground within the radar fall detection range, a fall judgment is made, and a fall alarm status is reported when a more detailed judgment is made within 5s and the conditions are confirmed.

Carry out fall action tests such as "inside fall" and "side fall" within the fall detection range, and do not get up for a certain period of time after falling on the ground	When the radar status is from none - "fall down alarm Record Radar Fall Alarm Triggered Successfully If it can be triggered normally, it means **"pass"**

Example test table format:

Testing frequency	Whether to trigger a fall alarm	pass
the first time	Yes	pass

- **To deactivate the fall alarm test:**

When the fall detection range of the radar has triggered the fall alarm, and the person gets up and leaves, the radar will immediately release the fall alarm state and display no fall state.

On the premise that the fall alarm state has been triggered within the	When the radar status changes from fall alarm -> none

range, get up and leave to release the fall alarm test	Recorded radar fall alarm successfully removed If it can be removed normally, it means "pass"

Example test table format:

Testing frequency	Whether to cancel the fall alarm	pass
the first time	Yes	pass

2. Judgment of static parking alarm status:

- **Stationary parking alarm test:**

- When a person is stationary for 5 minutes within the detection range of the radar stationary parking alarm, the stationary parking alarm state is reported.

Simulate a person to stand still for 5 minutes within the range to perform a static resident alarm test	When the radar state is never - "Stationary Parking Alarm" Record radar stationary parking alarm successfully triggered If it can be triggered normally, it means "pass"

Example test table format:

Testing frequency	Whether the static parking alarm is normally triggered	pass
the first time	Yes	pass

- **Releasing the stationary parking alarm test:**

- When the stationary parking alarm has been triggered within the radar stationary parking detection range, and the person gets up and leaves, the radar will immediately release the stationary parking alarm state and display the stationary parking state status No.

On the premise that the static parking alarm state has been triggered within the range, get up and leave to release the static parking alarm test	When the radar state is parked from stationary to alarm -> none Recorded radar stationary parking alarm successfully released If it can be removed normally, it means "pass"

Example test table format:

Testing frequency	Is it normal to cancel the stationary parking alarm?	pass
the first time	Yes	pass

3. Judgment of someone/nobody status:

- No Time Test:

When there is no one in the radar detection range, the radar will detect whether there is no human movement, breathing and other actions within the range for a period of time, and output the unmanned state when it is confirmed that there is no one. (It is normal to enter the unmanned state within 1 minute of normal environment)

Test with default sensitivity leave the radar detection area There are no people moving around in the environment and no interference from sources of interference start the timer	When the radar status changes from someone to still - "no one stops for a moment Recording radar into dead time Less than or equal to provide data means "pass"

Example test table format:

Testing frequency	scene mode	into no man's time	pass
the first time	toilet scene	40s	pass

- Trigger distance test:

- When a person within the radar detection range enters the trigger, the radar will instantly display the presence status.

Switch between different scene modes for testing Trigger range according to different scene modes Keep approaching the radar at a speed of at least 0.7m/s	When the radar state changes from no one - "someone stops for a moment Record the distance to the radar Compare and verify with the corresponding data provided Greater than or equal to provide data means "pass"

Example test table format:

Testing frequency	scene mode	Test direction	document data (radius)	real data (radius)	pass
the first time	default scene	The long side	3 m	2.9 m	pass

- Sitting distance test:

When the person within the radar detection range remains stationary, the radar will continue to display the stationary state of the person.

Test based on sensitivity "7" Facing the Radar Sit Test within the Radar Sit Detection Range 5min per test	sit still at the corresponding distance Record whether the radar can keep the occupant state after sitting for 5 minutes If it can keep the state of people for 5 minutes, it means "pass"

Example test table format:

Testing frequency	scene mode	Test direction	document data (radius)	real data (radius)	pass
the first time	toilet scene	The long side	2.25 m	2.15 m	pass

4. Active/static/stateless judgment:

- **Active state test:**

When the tester continuously walks or continues to make large movements in the detection area of the fall radar, the active state will be output (“static state” triggers “active state” response time ⩽ 1s)

Within the detection range of the selected scene mode Keep walking or keep making big moves Judging radar status	Radar status when in motion Can output "active" status means **"passed"**

Example test table format:

Testing frequency	Whether the status is responsive	Status response time	pass
the first time	Yes	⩽1s	pass

- **Static state test:**

When the tester is still in the detection area of the fall radar, or when the person just leaves the unmanned environment without entering the unmanned state, the static state will be output (the "active state" triggers the "static state" response time of 3s)

Within the detection range of the selected scene mode keep still Judging radar status	Radar status when in motion Can output "calm" state means **"pass"**

Example test table format:

Testing frequency	Whether the status is responsive	Status response time	pass
the first time	Yes	3s	pass

- **Stateless testing:**

When the detection area is unmanned, the radar will output the unmanned state after a certain period of time judgment.

Leaving the detection range of the selected scene mode No trigger, no interference, keep for a certain period of time after entering the unmanned state Judging radar status	When the radar state Can hold "None" status means "Pass"

Example test table format:

Testing frequency	Whether the status is responsive	pass
the first time	Yes	pass

5.Historical version update instructions

Revision	Release Data	Summary	Author
V1.0_0606	2022/6/6	first draft	OF_Frank