24GMilimeter wave Bio-sensing radar

R24AFD1-Stationary Resident Tuya WiFi Application Manual

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

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Contents

1.Device distribution routine steps

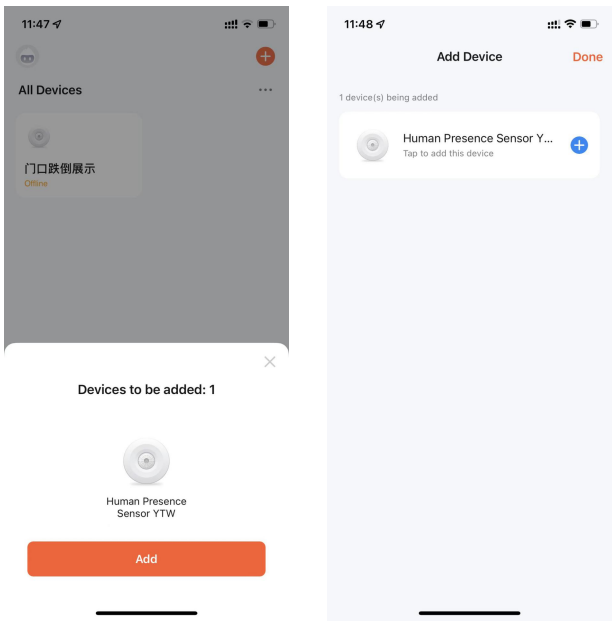
1、Download through the app store: Tuya Smart APP

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):

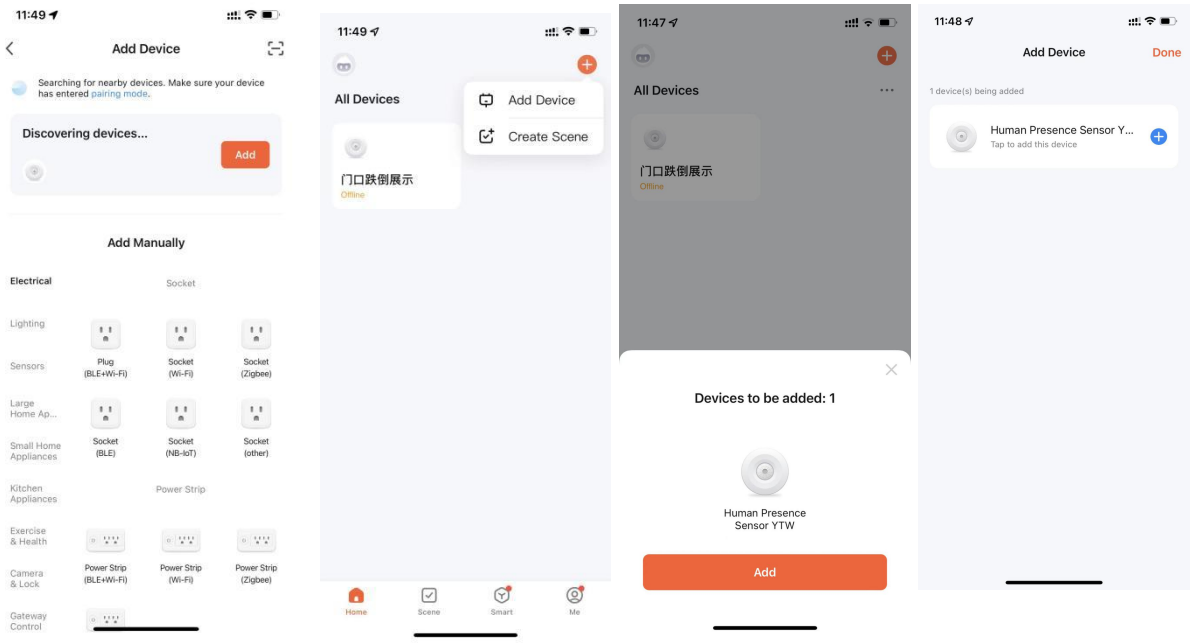
The App interface will pop up "Discover the device to be added: 1". After clicking to add, the app will automatically connect the device to the network.



Method 2 (Wi-Fi):

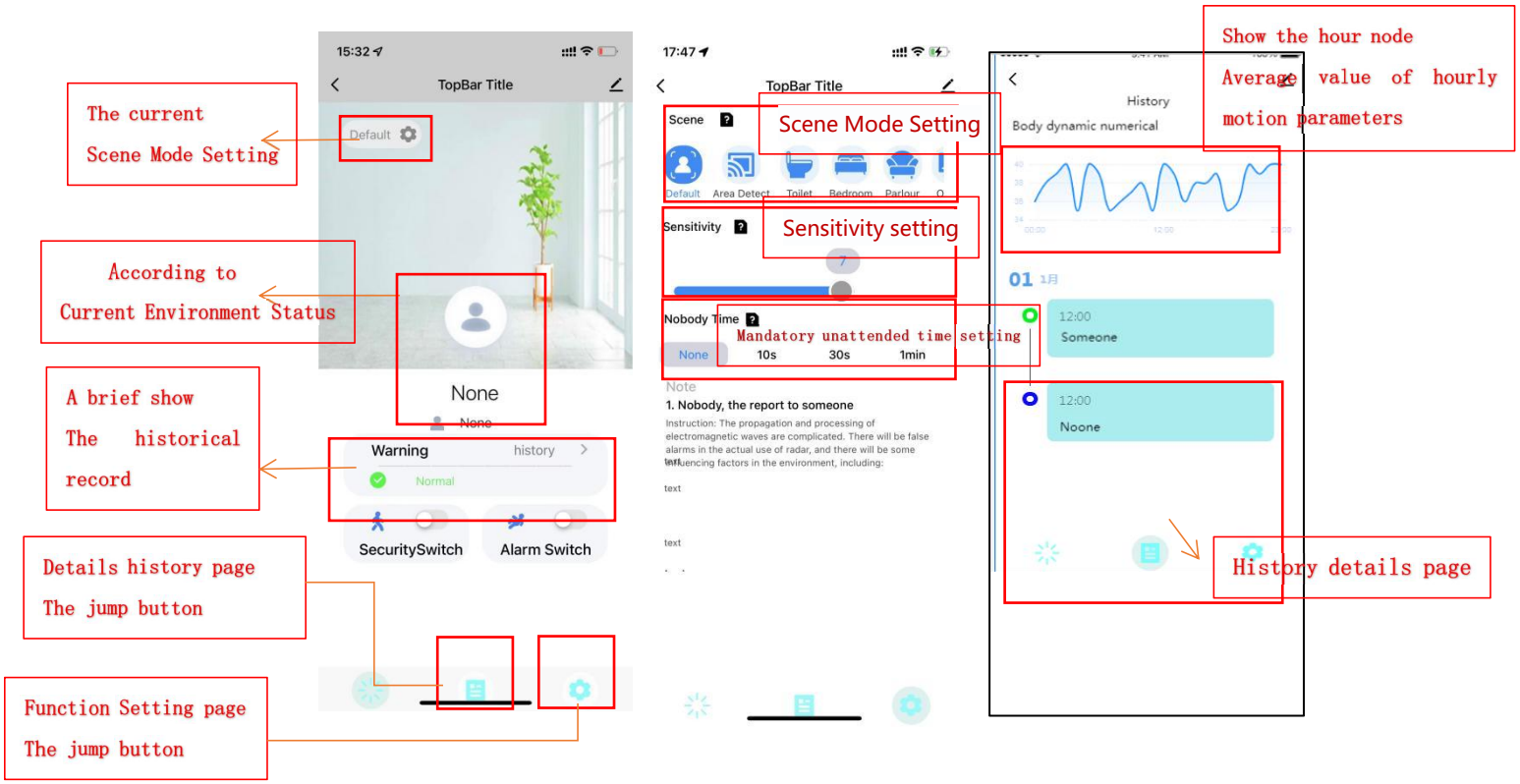
Click the "red plus sign" in the upper right corner of the APP interface to enter the product category selection page, click "Auto Discovery" in the upper right corner to search for the device, and click "Next" after discovering the device.

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 you can successfully match the Tuya wifi radar device.

2. APP panel interface introduction



Panel main interface function setting interface log interface

3. Introduction to the application scenarios and functions of human presence radar:

1. Restrictions on human radar installation scenarios:

Human presence radar is only suitable for indoor scenes

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

2. Main function points of human presence radar:

Someone/Nobody Status Judgment
Active/Still/Stateless Judgment
Judgment of body movement range

4. Detailed description of main functions of human presence radar

1. 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 5 minutes in a 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 data provided by the comparison is ±20s , it means **"pass"**

Example test table format:

Testing frequency	scene mode	Sensitivity	into no man's time	pass
the first time	default scene	7	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 comparison data is ±0.5m, it 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	6m	6.2m	pass

- **Sitting distance test:**

When the person within the radar detection range remains stationary, the radar will continuously 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 maintain the state of being occupied for 5 minutes, it means **"passed"**

Example test table format:

Testing frequency	scene mode	Sensitivity	Test direction	document data (radius)	real data (radius)	pass
the first time	default scene	7	The long side	3m	3m	pass

2. Active/static/stateless judgment:

- **Active state test:**

When the tester continuously walks or continues to make large movements in the detection area of the human presence radar, the active state will be output (the "static state" triggers the "active state" response time of about 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 human presence 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 is about 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

Judgment of body movement range :

- Body Motion Amplitude Change Test:

remains still or has a large movement in the detection area of the human body , different body movement amplitude values will be output in real time.

Within the detection range of the selected scene mode Stay still or keep making big moves Judging radar status	When stationary, the radar body motion amplitude can be displayed as "1" When moving, the radar body motion amplitude can be displayed as "2-100" means **"pass"**

Example test table format:

Testing frequency	the status response correct?	pass
the first time	Yes	pass

5.Historical version update instructions

Revision	Release Data	Summary
V1.0_0 606	2022/6/6	first draft