60G Fall Alarm Radar

Model：FD60A1-TUY



User Manual

I. Product introduction

The fall alarm radar is based on the millimeter wave point cloud algorithm to realize human biological presence perception and posture perception. It keeps recording human existence, residence time, and body movement amplitude; raises the alarm in real time for fall posture; and can realize scene linkage through wireless signal notification gateway. The product is installed indoors on the top and above the height of human bodies. The installation height by default is 2.4 m. You can adjust product performance through interface parameters.

II. Functions

- **Fall posture alarm**

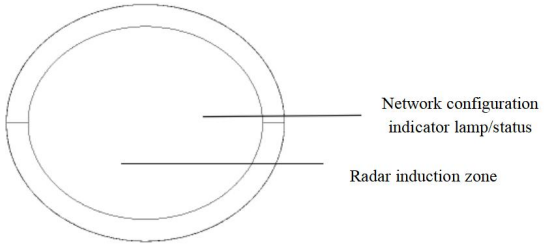
  Recognizes the posture of a person lying on the ground, and gives real-time feedback to the cellphone.
- **Dwell alarm**

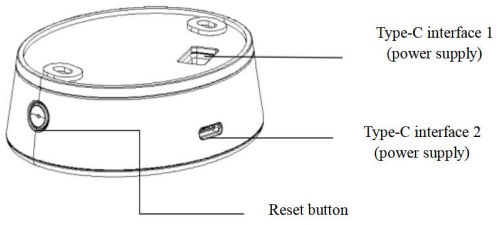
  An alarm will be raised if the body stays in any posture for an extended period of time.
- **Accurate life detection, and human existence detection**

  Continuously and accurately detects whether one is moving, staying still, or in a coma.
- **Access time records**

  Records time of entry, amplitude of movement, and time of exit.

III. Appearance





IV. Instructions and considerations on installation

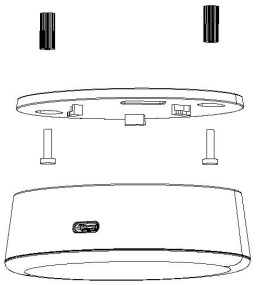
(1) Secure the product to the rooftop. Perform drilling and install expansion bolts, or stick it to the wall;

(2) Push in the expansion bolts, and fix the base plate of mounting bracket;

(3) Align the radar base with the clips of the mounting bracket, and rotate to fasten the radar;

(4) The product is designed into an ellipse. The long side is the far end to the radar, while the short side is the near end;

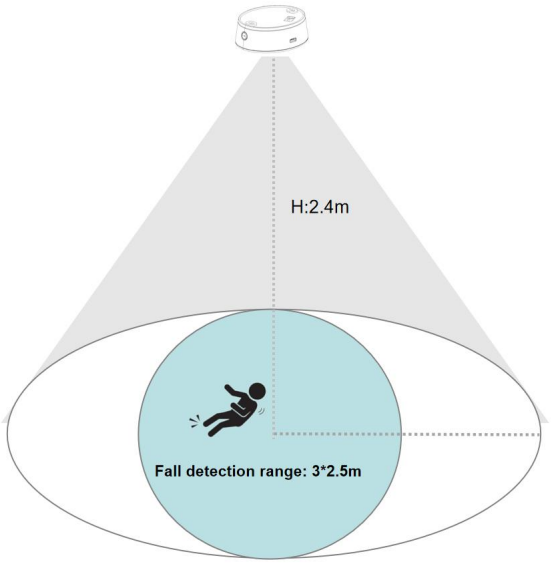
(5) Power on the device, configure the network, and connect the App.



Installation considerations: Top mounting

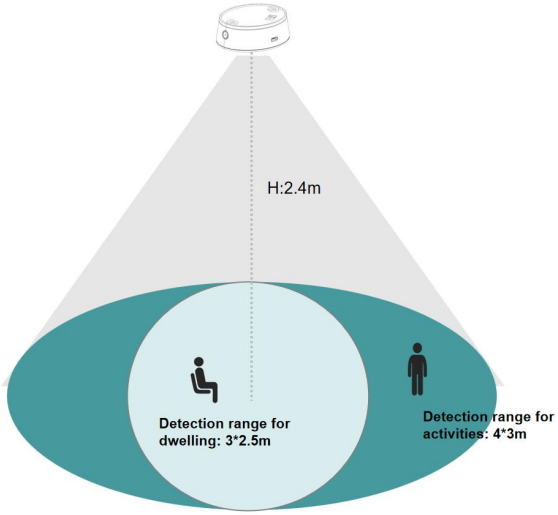
- **Fall detection**

For a top-mounted radar, its detection range for dwelling and falls is 3 m × 2.5 m and 3 m × 2.5 m respectively. Its mounting position should be designed based on the room structure.

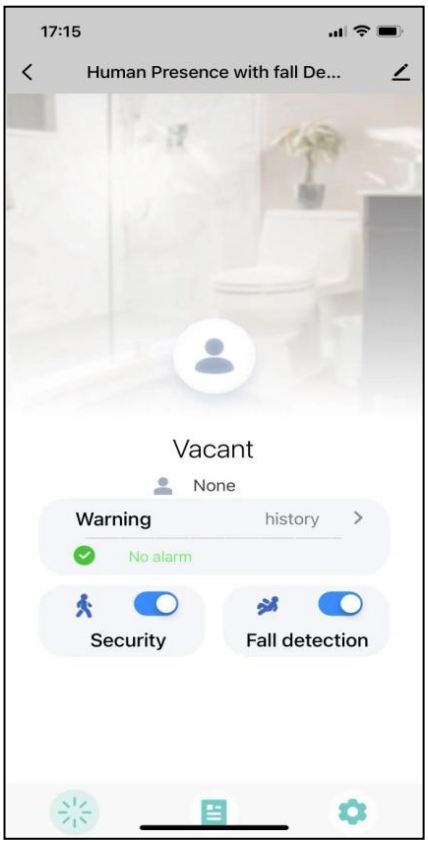


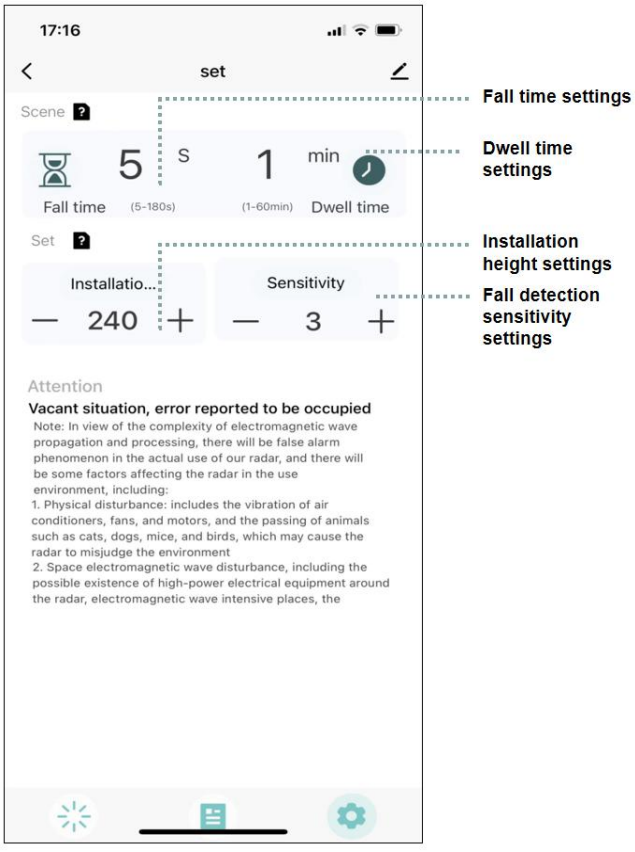
- **Human existence**

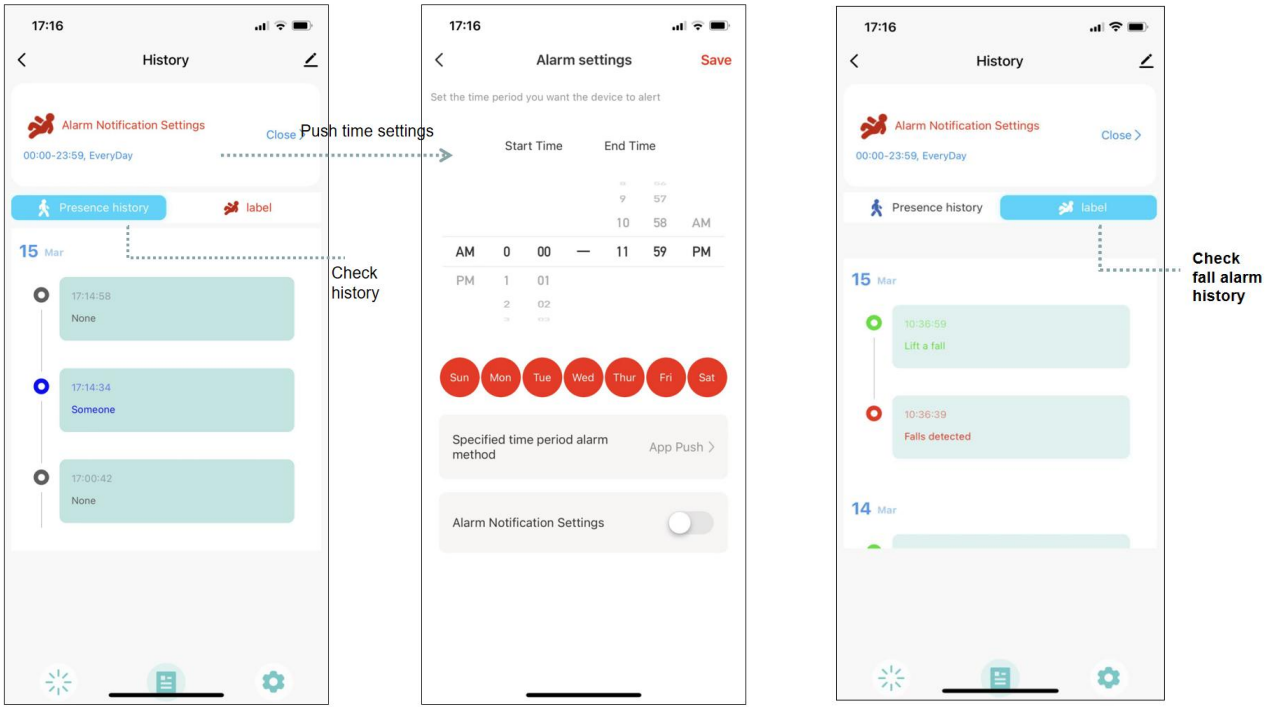
The approximate detection range of the top-mounted radar for body activities and staying still is 4 m × 3 m and 3 m × 2.5 m respectively. The mounting position of the radar should be designed based on the room structure.



IV. APP interface







V. Parameter output

- **Output time of fall alarm**

The reporting time for falls is 30 s by default, which is adjustable in the range of 5 - 180 s.

- **Fall detection switch**

When switched off, data will not be reported for fall alarms.

- **Dwell switch**

When switched off, data will not be reported for dwell alarms.

- **Installation height settings**

Do the setting based on the various installation height to ensure proper working of the radar. Adjustable in the range of 2.2 - 2.8 m.

- **Fall alarm output state**

Fall alarm: When a sudden fall is detected in the detection zone, the radar will raise a fall alarm.

- **Fall alarm clearing**

Clear a fall alarm: When someone falls and then gets up and leaves in the detection zone, the radar will cancel the fall alarm.

- **Definitions of dwell functions**

Dwell alarm: When someone stays still for an extended period of time in the detection zone, the radar will raise an alarm based on the duration of stay, which is 5 min. by default and adjustable in the range of 1 - 60 min.

For example: a dwell alarm will be raised when someone falls and remains unconscious for 5 min (adjustable subsequently).

- **Trip time records**

Recording entry time and duration of stay.

VI. Instructions on network configuration

* Download from app shops: TUYA app

- **Wi-Fi device - Model FD60A1-TUY**

Press and hold the button on the product until the LED lamp is out and starts to flash, and the radar will be reset to network configuration mode. Network can be configured in two methods: (Note: The device needs to be connected to a 2.4G WiFi service instead of a 5.8G one)

Method 1 (Auto discovery by Bluetooth):

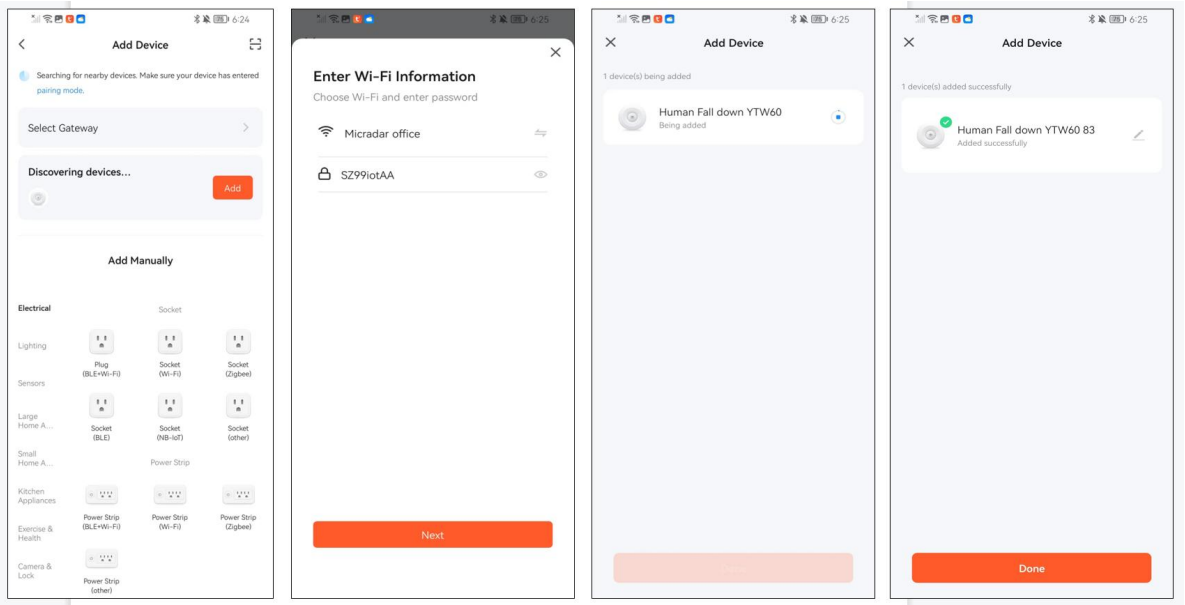
A dialogue will pop up on the app interface: “Found devices to be added: 1”. Tap Add, and the app will automatically add the device for network configuration.

Method 2 (Wi-Fi quick connection):

(1) Tap the “Red Plus” in the upper right of the app interface to access the screen of product category selection. Tap the “Auto discovery” in the upper right to search for devices. Once done, tap “Next”.

(2) Fill out the required fields and enter WiFi info, and tap “Next” to access network configuration.

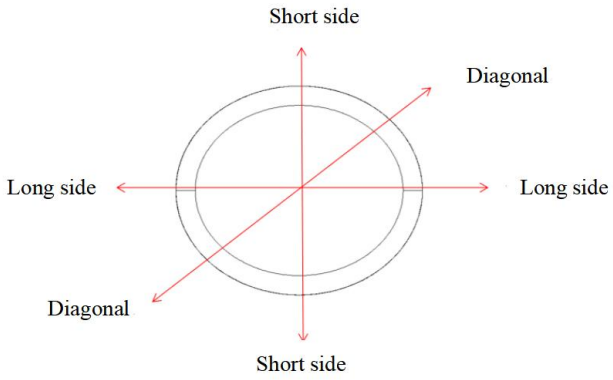
(3) Wait for the app to configure WiFi network, after which you can pair to Tuya WiFi radars.



VII. Detection range of radars

The millimeter-wave radar can detect human presence via major movements or subtle motions when someone sits still. When human presence is detected, the presence report command will be triggered; when no human presence is detected, the non-presence command will be triggered; when a sudden fall is detected in the detection zone, the radar will output a fall alarm; and when someone stays still in the detection zone for an extended period of time, the radar will raise the alarm of corresponding level based on the duration of stay.

Detection range diagram



VIII. Indicator lamp states & performance breakdowns

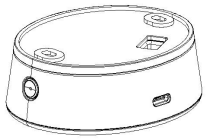
Indicator lamp states

Red lamp flashes	Matching network for the device
Red lamp off	Normal state/No-button state
Red lamp on	Button triggering

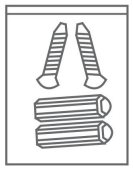
Performance breakdowns

Name	Performance breakdowns
60G Fall alarm radar	1. Surface damage due to structure or material factors 2. Indicator lamp is not working 3. Reset button is not working 4.Tuya connection failed 5. Human presence detection failed

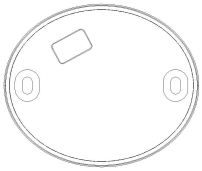
IX. Packing list



Radar × 1



Screw fixings package × 1



Mounting base × 1



User Manual × 1



Power cord × 1

* The appearances and lists in this manual are for reference only.
* In case of any changes in the app functions, the latest version should prevail.

X. Product parameters

Functions	**Specification**
Product name	60G Fall alarm radar
Model	FD60A1-TUY
Product measurements	29.5×73×86mm
Working Frequency of radar	61GHz~61.5GHz
Installation method	Top mounting
Distance of detection	6-8m^2
Angle of detection	100° horizontally & 100° vertically
USB power supply	5V/1A
Wi-Fi protocol	Tuya / Wi-Fi
Working temperature	-10℃~+60℃
Working humidity	20%~85% (Non-condensing)

XII. Miscellaneous

Requirements on label use for limitation of hazardous substances in electrical and electronic products

Names and content of hazardous substances in product

	Hazardous substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
PCB components	○	○	○	○	○	○
Plastic parts	○	○	○	○	○	○
Metal parts	○	○	○	○	○	○
Loudspeaker	○	○	○	○	○	○
AC adapter	○	○	○	○	○	○

This sheet is prepared pursuant to SJ/T 11364.

○ indicates that the content of the hazardous substance in all homogeneous materials of the component complies with the limits set forth in GB/T26572.

× indicates that the content of the hazardous substance in at least one of the homogeneous materials of the component is beyond the limit set forth in GB/T26572.

Note: The Product is designed with the philosophy of environmental protection, for which effective measures have been taken to control the hazardous substances. As for hazardous substances indicated with “x”, they can’t be substituted for due to the limits of technology development.

EFUP:

The label indicates that within the period (10 years), no hazardous substances contained in the electric and electronic products will leak or mutate under normal conditions of use, and no severe pollution to the environment and no major damage to health and property will occur during use.

Recycling hints:

In an effort to take better care of earth, when the product is no longer needed or has reached the end of its service life, please deliver it to an organization accredited in the field of recycling for disposal as per the applicable laws and regulations of the country in respect of recycling and disposal of waste electrical and electronic products. Improper use or disposal might have a bad influence on the environment and people’s health.