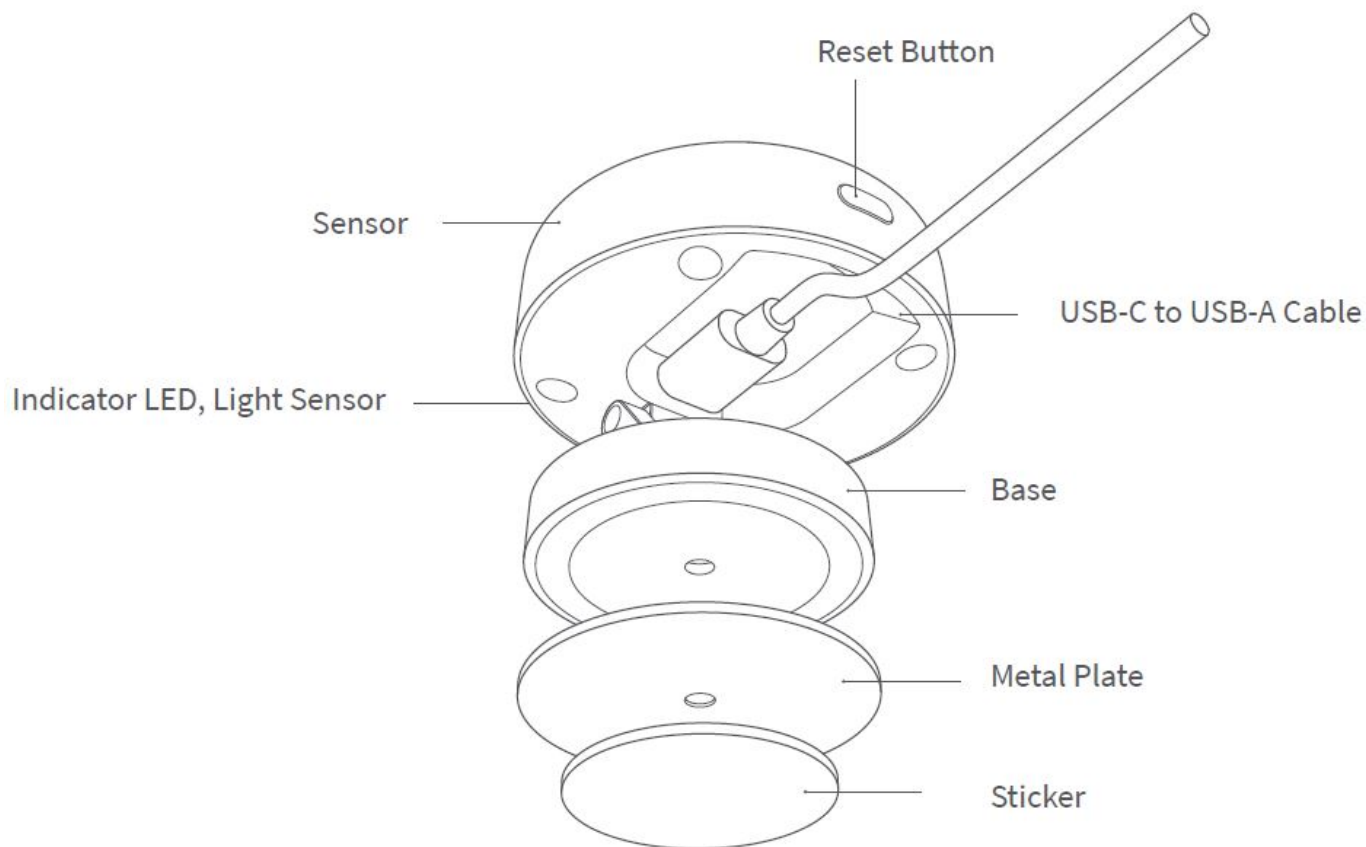# Aqara FP2 Presence Sensor User Manual

Contents

Aqara FP2 Presence Sensor

Product Introduction

The Presence Sensor FP2 features zone positioning, multi-person detection, and fall detection. Capable of detecting presence or absence, falls, entries, exits, approach, departure, and illuminance, it supports real-time tracking of multiple targets and zone settings. The FP2's powerful features can also be used within third-party automation systems: multiple sensors are exposed to HomeKit (and Home Assistant), Alexa, Google Home and more without needing a hub.

- This device requires to be used with the Aqara Home app.
- If local automation is needed, this product should be used with a Hub with Wi-Fi Local Automation features.

Reset Button

Sensor

Indicator LED, Light Sensor

USB-C to USB-A Cable

Base

Metal Plate

Sticker

Warnings

1. The fall detection results are for reference only. The product cannot fully replace medical devices and may not accurately recognize slow tumbles or gradual falls while leaning against a wall.

   Additionally, rapidly falling or shaking objects could trigger false fall detection alerts.

2. Avoid placing this product near a heat source.

3. Refrain from attempting self-repairs. All repairs should be conducted by professionals.

Notice
Use of the Works with Apple badge means that an accessory has been designed to work specifically with the technology identified in the badge and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

Device Description

Actions	Description	LED indicator

Device power-on	1. If the device had been connected to a network previously, the LED indicator is as shown on the right. 2. If the device is not connected to a network, it enters the networking mode.	The yellow indicator flickers quickly: Enter the networking mode. The white indicator is normally on Failure to connect to the router/AIOT The blue indicator flickers quickly: Connect to the router The blue indicator flickers slowly: Connect to AIOT No indicator is on: The device is connected successfully and can work normally.
Press the Reset button for more than 10s	Reset the device. After a successful reset, the device will be restarted automatically and enter the networking mode.	The yellow indicator flickers quickly
Press the Reset button 10 times successively	Restore factory settings and reset the device to enter the networking mode.	The yellow indicator flickers quickly

Device Binding & Initialization

Select an installation method

- Based on the actual application scenario, determine the appropriate installation method and required detection range for the FP2.
- For zone detection, the wall-mounted method is recommended: it offers a horizontal detection angle of 120 degrees, with blind spots appearing beyond 120 degrees; the radial detection distance is 8 meters and the detection width is 6 meters.
- For fall detection, the ceiling-mounted method is advised: at an installation height of 2.8 meters, it can cover a fall detection area with a radius of 2 meters.
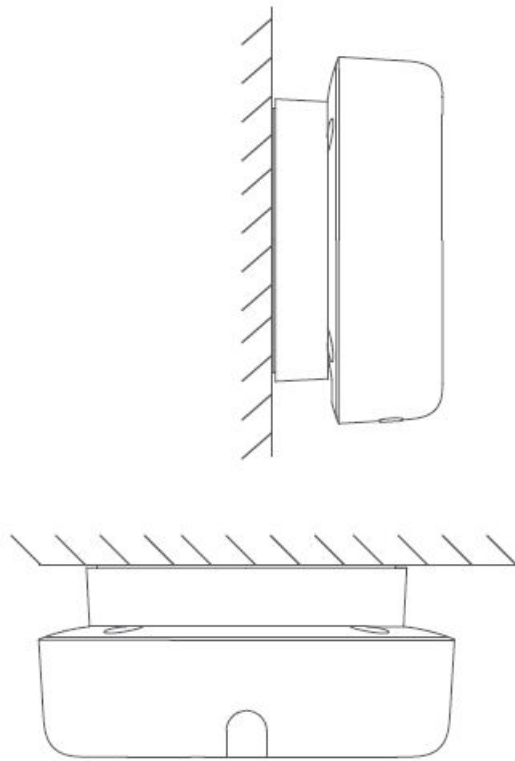
Device installation and power-on

- Choose between wall-mounted or ceiling-mounted positions for the FP2 based on the detection range. For heights under 2 meters, use metal plate and sticker; for heights over 2 meters, use screws.
- Connect the FP2 with the Type-C sensor power cord, then insert the sensor cord into the USB-A port of an adapter, outlet or other power-supplying device. Long press the reset button for 10 seconds to reset FP2. Click 10 times to restore the factory settings, which shall clear all settings and network data.

Download the app

Download the Aqara Home app: Search for "Aqara Home" in the Apple App Store, Google Play, Xiaomi GetApps, Huawei App Gallery, or scan the following QR code to download the Aqara Home app.(QR Code)Device Binding & Initialization.

- Due to upgrades and updates of the Aqara Home app, the actual operations may differ from the above description. Please operate it according to the instructions of the Aqara Home app.

Device binding
Open the app, tap "+" in the upper right corner of the homepage to enter the page of "Add the device". Choose "Presence Sensor FP2" and then install the device according to the instructions.

1. If you use HomeKit to add the device, you can either scan the Apple setup code on the device as prompted by the app or manually enter the PIN code.
2. If the binding fails, please confirm whether the following reasons exist:
   - The device only supports the Wi-Fi network of 2.4GHz band.
   - Unsupported special characters in the Wi-Fi name or password may cause connection failure.
   - Change them to commonly used characters before trying again.
   - The device does not currently support WPA/WPA2 enterprise-class Wi-Fi networks.
   - Check if the router has enabled Wi-Fi anti-squatting settings or AP isolation, as these could result in connection or device search failures within the local area network.
   - Bridge connection networks are not recommended.
3. Common HomeKit addition failures include:
   - If it prompts "No accessories can be added," restart the iOS device (iPhone or iPad) and reset the FP2 before trying again, as the error message might be cached in the iOS system due to repeated adding failures.
   - If it prompts "accessories have been added," restart the iOS device, reset the FP2, and manually enter the HomeKit setting code to add the doorbell.
   - If it prompts "no accessories are found," reset the FP2, wait for 3 minutes, and manually enter the HomeKit setting code to add it again.

Indicator Description

LED status	Device status & operation instructions

|	
The yellow indicator is normally on	After the device is powered on, the yellow status indicator is normally on until the system start-up of the device is finished.
The yellow indicator flickers quickly	After the system start-up or reset is completed, the device enters the AP or Bluetooth network configuration mode and waits to receive the state information of WiFi. The status indicator is set to yellow indicator flickering quickly before the networking information is received;
The blue indicator flickers quickly	When the device is connected to the router, the blue indicator flickers quickly.
The blue indicator flickers slowly	After successfully connected to the router, the device is connected to the AIOT platform,

The blue indicator flickers quickly	The device is offline and is not connected to the router
The white indicator is normally on.	No password/failed to connect to the router/failed to connect to AIOT

|	
The indicator is off	After successfully connected to the AIOT, the status light of the device is off (different from that of the gateway, the device enters the working state after being connected to a network); If the device cannot be connected to the AIOT after successfully networking and can be connected to the router, the status indicator will be still off.
The red indicator is normally on	Device fault (overtemperature and excessive acceleration vibration can cause the device to enter a state where the sensor cannot work normally)
The yellow indicator flickers slowly	The user can update the firmware through APP OTA. In the process of updating, the status indicator of the device is set to yellow indicator flickering slowly
The blue indicator flickers twice quickly	Identify function. When searching for the device via the APP, the blue indicator of the device will react by flickering twice

Device Card and Homepage

- Once bound, you can view the current status of the device on the FP2 device card, including presence, absence, falling, and offline states. Illuminance is displayed through separate cards.
- On the Presence Sensor FP2 device homepage, you can access the floorplan, coordinate information, logs, zone management, and installation mode.
- The floorplan is divided into 16×20=320 cells. Each cell represents a detection space of 0.5m x 0.5m = 0.25 square meters.
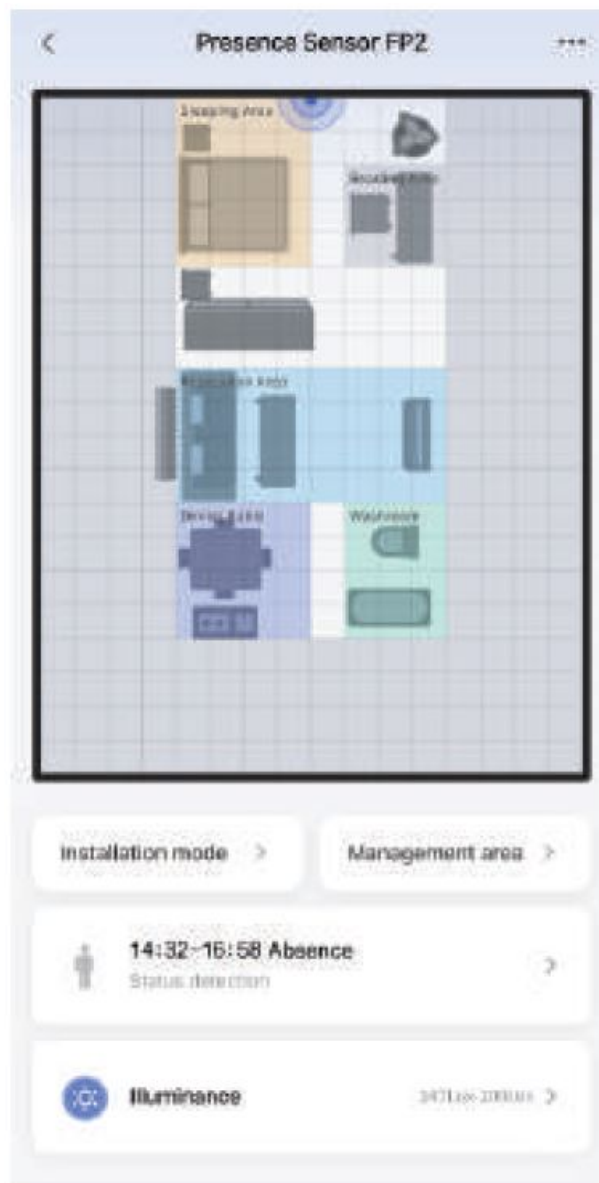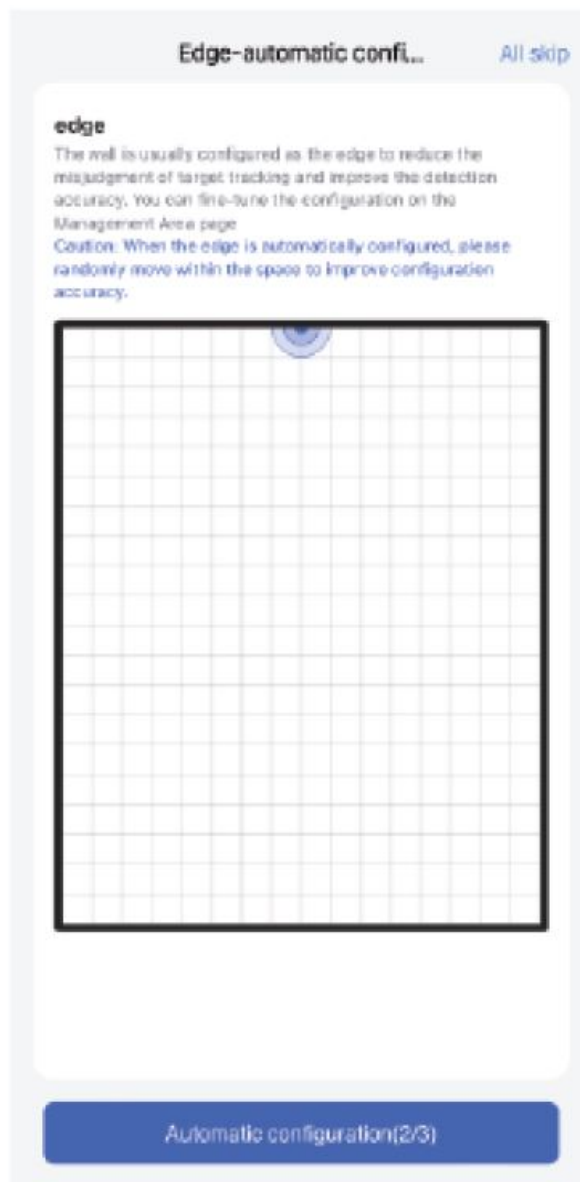
Installation Guidance

- After bounded, you can follow the installation guide to configure important settings, including modes, edges, and interference sources.
- FP2 supports presence detection, zone dectection (Personnel positioning), falling detection.
- Default mode is always on by default, regardless of selecting any two other modes.
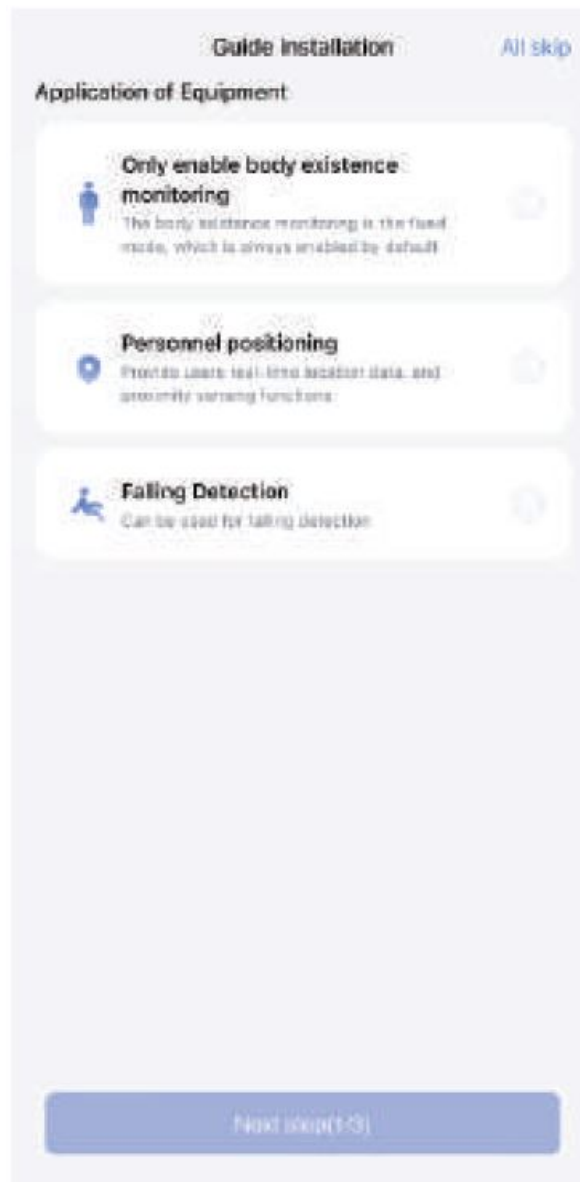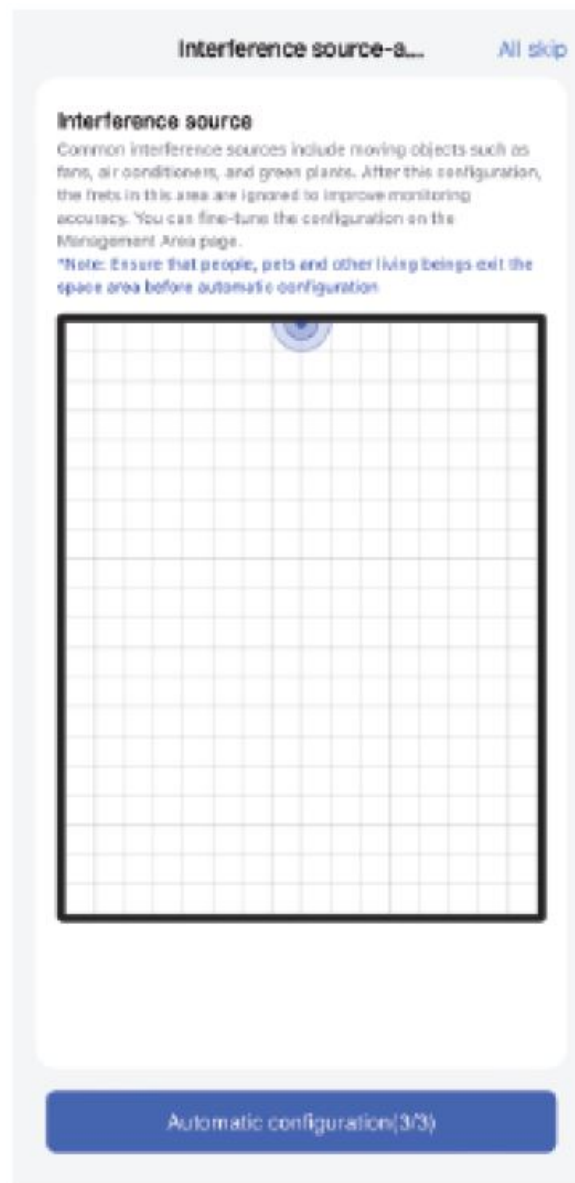
Step 2: Edge Setting

The edge setting is primarily used to reduce false targets caused by signal reflections from walls or other objects. It is recommended to set the area beyond the wall as the edge.

edge

The wall is usually configured as the edge to reduce the misjudgment of target tracking and improve the detection accuracy. You can fine-tune the configuration on the Management Area page

Caution: When the edge is automatically configured, please randomly move within the space to improve configuration accuracy.

Automatic configuration(2/3)

Step 3: Interference Source Configuring

Living and office spaces often have moving targets such as curtains, fans, green plants moved by wind, and clothes hanging. If the sensor faces these objects, a false alarm may easily occur, so it needs to be marked as an interference source.

Note: Make sure to configure the interference source only after ensuring that humans and pets have left the area.

Interference source

Common interference sources include moving objects such as
fans, air conditioners, and green plants. After this configuration,
the frets in this area are ignored to improve monitoring
accuracy. You can fine-tune the configuration on the
Management Area page.
*Note: Ensure that people, pets and other living beings exit the
space area before automatic configuration

Automatic configuration(3/3)

Zone Management
Click the FP2 device homepage edit area to access settings for templates, stickers, monitoring and other areas.
Long press a set area to edit it directly. Click Sticker to edit them, and click Template to access the template page.

Zone Detection

- FP2 supports up to 30 detection zones. FP2 allows up to 30 detection zones. Select cells with one finger slide. Use two fingers to zoom and drag during editing.
- For each zone, you can edit the name, choose colors, and select the type.
- Type selection allows FP2 to optimize monitoring parameters for better recognition.
- Once the monitoring zone is set, zone automation options are generated. If FP2 is added to Apple
- Home, the area syncs automatically, creating occupancy sensors. By enabling zone name sync in the app settings, the name also syncs to Apple Home.

Color   Type: Corridor

Sticker

We offer 16 sticker types, with a limit of 20 per user. Stickers can be selected, enlarged, shrunk or deleted. To rotate a sticker, drag or click the rotate button in its lower-left corner.
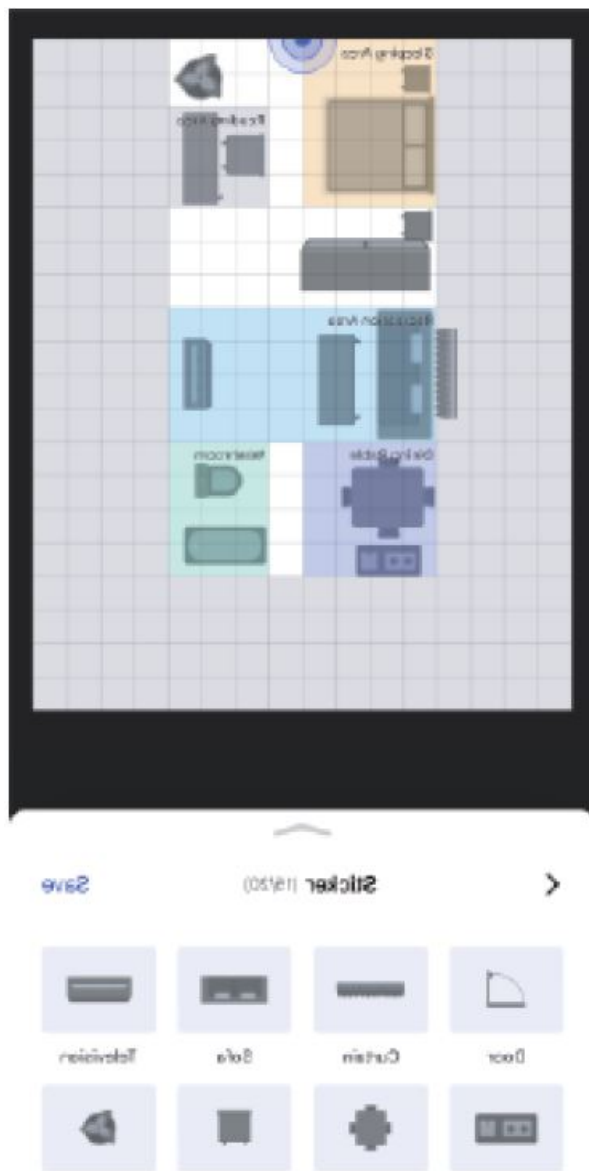
Edges, Interference Sources, and Entrances/Exits

- These areas don't generate automation but impact device accuracy. Entrances/exits are where people appear or disappear, like hallways or doors.
- Set more cells than actual doors to ensure accurate entry and exit. Target creation and deletion will be faster in these areas, with stricter conditions.
- Configuring edges and interference sources is crucial. No targets are created in edge areas, and valid targets won't enter.
- Targets aren't created in interference sources, but valid targets can move into them.
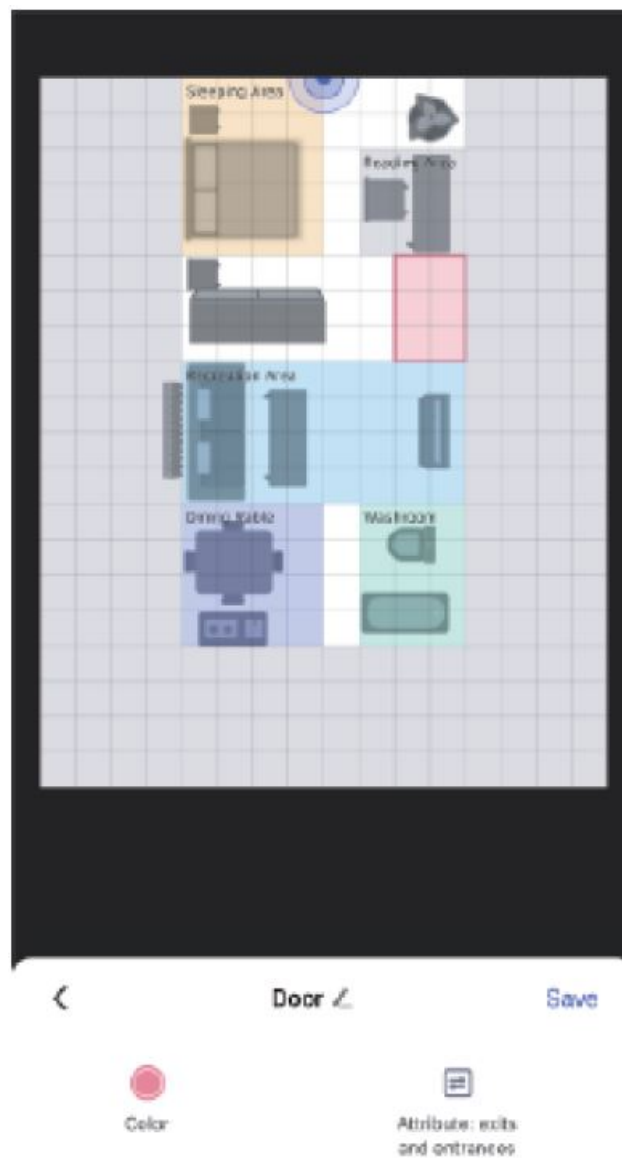
Template

- Templates save layout configurations, allowing users to experiment in different home spaces without repetitive setups.
- Save the current area configuration by clicking the button in the top right corner as a personal template, including monitoring areas, other areas, and stickers.

- Click to enter the template page, where you can import recommended and personal templates.

- Templates support previewing and importing. Personal templates can be managed, renamed, and deleted.

- There are currently 11 recommended templates to choose from, which users can edit based on their actual layout, including a blank template that clears all area content.

Note that applying a template will delete existing area configurations, so save accordingly. Zone automations needs to be adjusted after applying a template. Personal templates are shared within an account, not only for this device but for all FP2s within the user's account.
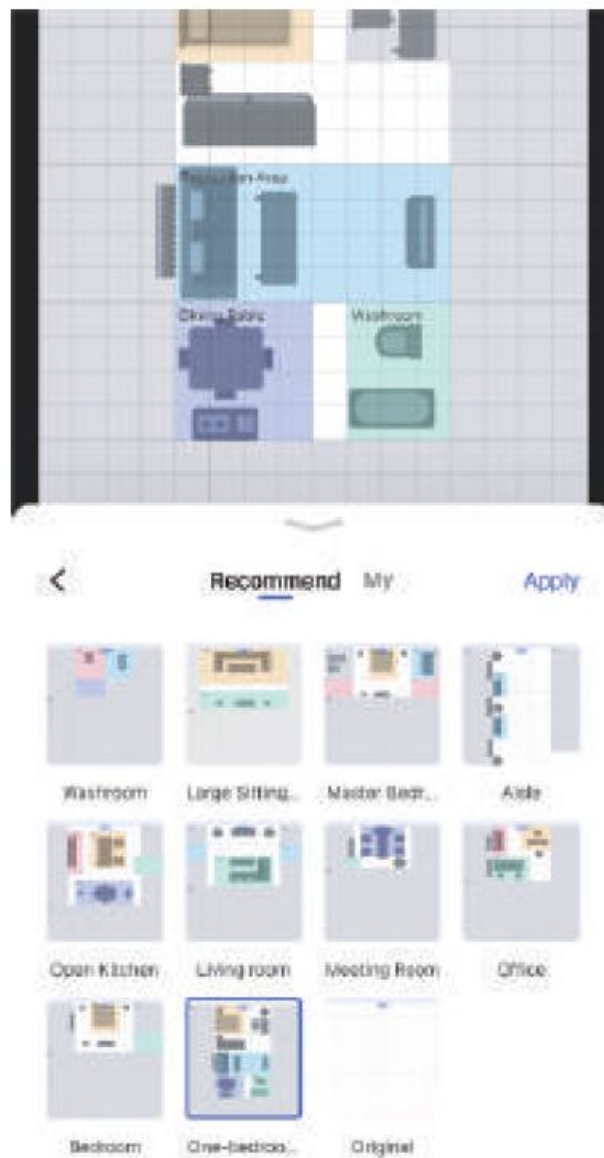
More Settings

FP2 supports the following More Settings:

Anti-light pollution mode

When activated, all indicator lights, including protection and offline reminders, are turned off during specified periods.
Note: Reset and network access indicators still function normally during network access.

Detection modes

FP2 supports presence detection, zone dectection (Personnel positioning), falling detection. Default mode is always on by default, regardless of selecting any two other modes.
Note: Future FP2 OTA will support more modes.
Zone detection includes detection direction and coordinate direction reversal configuration options. Coordinate direction reversal supports enabling, disabling, and auto modes. In auto mode, FP2 system automatically recognizes the installation method of the device and decides whether to enable coordinate direction reversal. When the detection direction function is set to left-right monitoring, 12 the entry and exit directions will have distinct attributes, and will be divided into left-entry, right-entry, left-exit, and right-exit.

Presence Detection Sensitivity

- Sensitivity levels impact FP2's response speed and accuracy. Higher sensitivity offers quicker responses but may cause false alarms. Use high sensitivity in static areas like bedrooms, and low sensitivity in dynamic areas like hallways.

Proximity Sensing Distance

- This setting influences proximity sensing for both radar and surrounding area.
- With low, medium, and high settings, the distance thresholds are 1m, 2m, and 3m. For example, at medium, events are reported when a person is within 2m (approaching) or more than 2m (departing) from the radar or area.

Fall Detection Sensitivity

- Different fall detection sensitivities affect the recognition range and false alarm rate. Higher sensitivity detects more fall types but may cause some false alarms, such as a slow sitting action being misinterpreted as a fall.

Reset to Absence Status
If the device has false alarms, you can click "Reset to Absence Status" to clear all targets in the entire space.

Name Synchronization
With this feature, you can synchronize the set zone names with Apple Home.

Configure Automation

Automatic name	Definition	Description
Presence	Someone is detected	Status
Absence	Noone detected	Status, it usually takes 6-30s of continuous detection from presence to absence.
presence for some time	Scope of duration: 1s~23h59min59s Default: 10min	Status
Absence for some time	Scope of duration: 1s~23h59min59s Default: 10min	Status
Enter	It is detected that someone entered the space	Transient, only valid for the first person. Left-in and right-in will be distinguished under the left-right monitoring mode. Global effective only, left-in and right-in events of the zone won't be reported.

Leave	It is detected that someone is leaving.	Transient, only effective for the last person. Left-out and right-out will be distinguished under the left-right monitoring mode. Global effective only, left-out and right-out events of the zone won't be reported.
Enter from the left	It is detected that someone enters from the left side.	Transient
Leave on the left	It is detected that someone leaves from the left side.	Transient
Enter from the right	It is detected that someone enters from the right side.	Transient
Leave on the right	It is detected that someone leaves from the right side.	Transient

Approaching	There are 3 levels of sensing distance for approaching: Far, Medium, Near Default: Medium	Transient, both the global and the zone can have approaching events; If the threshold is approached by any one of the targets, an approaching event will be reported.
going away	There are 3 levels of sensing distance for approaching: Far, Medium, and Near Default: Medium	Transient, both the global and the zone can have departure events; If anyone is away from the threshold, a departure event will be reported.

Someone falls down	When it is detected that there's a user falling down	Transient
Fall down and exceed a certain time	The status of falling has been a certain period of time.	Status
Illuminance reached up to	When the Illuminance rises from a low value to a specified value	Transient
Illuminance drops to	When the Illuminance is reduced from a low value to a specified value	Transient

Above assigned illuminance	When the Illuminance is larger than a specified value	Status
Below assigned illuminance	When the Illuminance is smaller than a specified value	Status
Presence for some time (Zone)	Scope of duration: 1s~23h59min59s Default: 10min	Status
Absence for some time(Zone)	Scope of the duration: 1s~23h59min59s Default: 10min	Status
Presence(Zone)	Someone detected in the zone	Status
Absence(Zone)	No one was detected in the zone	Status
Enter the zone	It is detected that someone entered the designated zone.	Transient, effective for the first person in the zone
Leave the zone	It is detected that someone left the designated zone.	Transient, effective for the last person in the zone
Approaching the zone	It is detected that someone approached the designated zone.	Transient

Going away from the zone	It is detected that someone was away from the designated zone.	Transient

Automatic motion

| Name	Definition	Description
Reset absence	Clear all targets in the space	

Apple Home

- Presence Sensor FP2 supports HomeKit. When no zone is set, FP2 appears as a presence sensor and an illuminance sensor in Apple Home.

- If the zones are set through Aqara Home, the zones will be synchronized to Apple Home automatically. An Aqara Presence Sensor will be generated correspondingly in each zone among the types of occupancy sensor.
- To sync area names, use the name synchronization in more settings. Each presence sensor in
- Apple Home can have separate automation events.
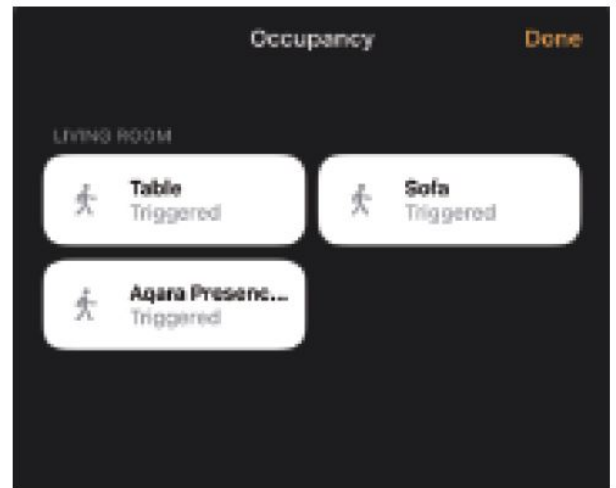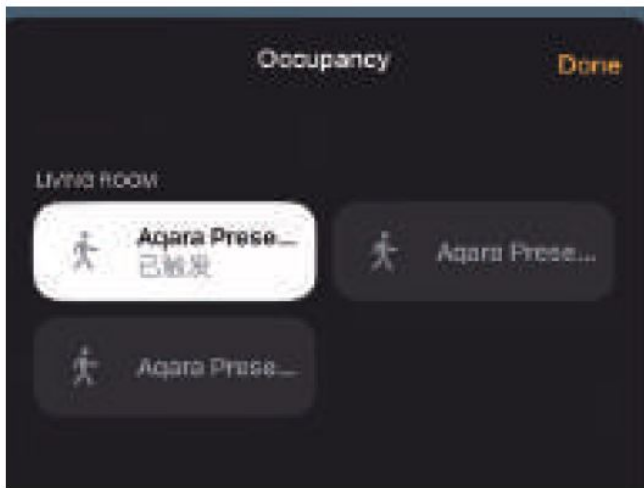
- Each presence sensor of Apple Home can be set into an automatic event independently.

For more details, please visit: **https://www.aqara.com**.

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- Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China.
- Email: **support@aqara.com**
- Online Customer Service: **www.aqara.com/support**

Documents / Resources

	Aqara FP2 Presence Sensor [pdf] User Manual PS-S02D, FP2, Presence Sensor, FP2 Presence Sensor, Sensor
	Aqara FP2 Presence Sensor [pdf] User Manual FP2, FP2 Presence Sensor, Presence Sensor, Sensor
	Aqara FP2 Presence Sensor [pdf] User Manual FP2 Presence Sensor, FP2, Presence Sensor, Sensor

References

- **Aqara Smart Device Product Support**
- **Aqara - Smart Home Automation Devices for Better Living**