

Infrared Motion Sensor

PIR1301



User Manual

Table of Contents

Chapter 1. Introduction.....	2
1.1 System Requirement	2
Chapter 2. Hardware Overview.....	3
Chapter 3. Sensor Installation & Add/Remove/Rename Sensor	5
3.1 Sensor installation.....	5
3.2 Adding the Sensor to the System.....	5
3.3 Positioning & Installing Sensor.....	9
3.4 Remove Sensor from System	10
3.5 Rename Sensor from System.....	11
Chapter 4. Sensor Operation.....	14
4.1 Sensor operation modes, and way to judge valid motion trigger.....	14
4.2 When valid motion alert happens.....	15
4.3 Low battery alert	16
4.4 Device detachment detection.....	16
Appendix – Glossary of Terms.....	18

Chapter 1. Introduction

This Motion Sensor is designed to be used for indoor motion detection. When mounted properly, it can monitor large and open areas, such as main entrance, living room, and family room. When it detects motion, it will transmit a signal back to our Shuttle / cloud so that user can get real-time notification / alert about motion.

Key features and specifications:

- RF Center Frequency: 433.92MHz
- Operating Range: Up to 100 feet (line of sight)
- Operating Temperature : 5°F to 104°F (-15°C to 40°C)
- Battery: Panasonic CR123A non-rechargeable battery

1.1 System Requirement

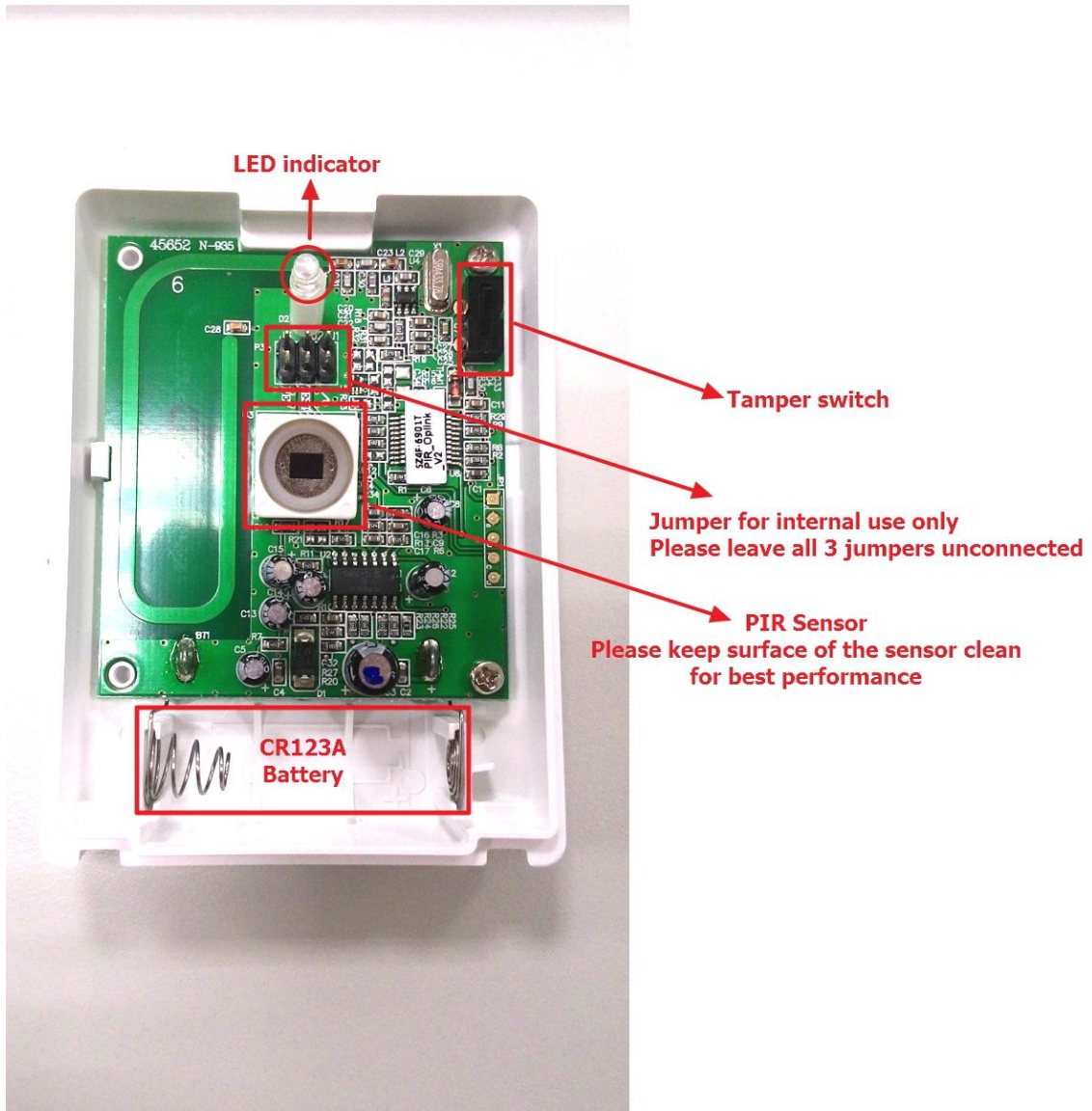
This section explains the system requirement.

- Network: Proprietary 433MHz RF protocol, must co-work with Home8 OPU2/OPU3 Shuttle

Chapter 2. Hardware Overview

This section provides an overview of the PIR sensor.

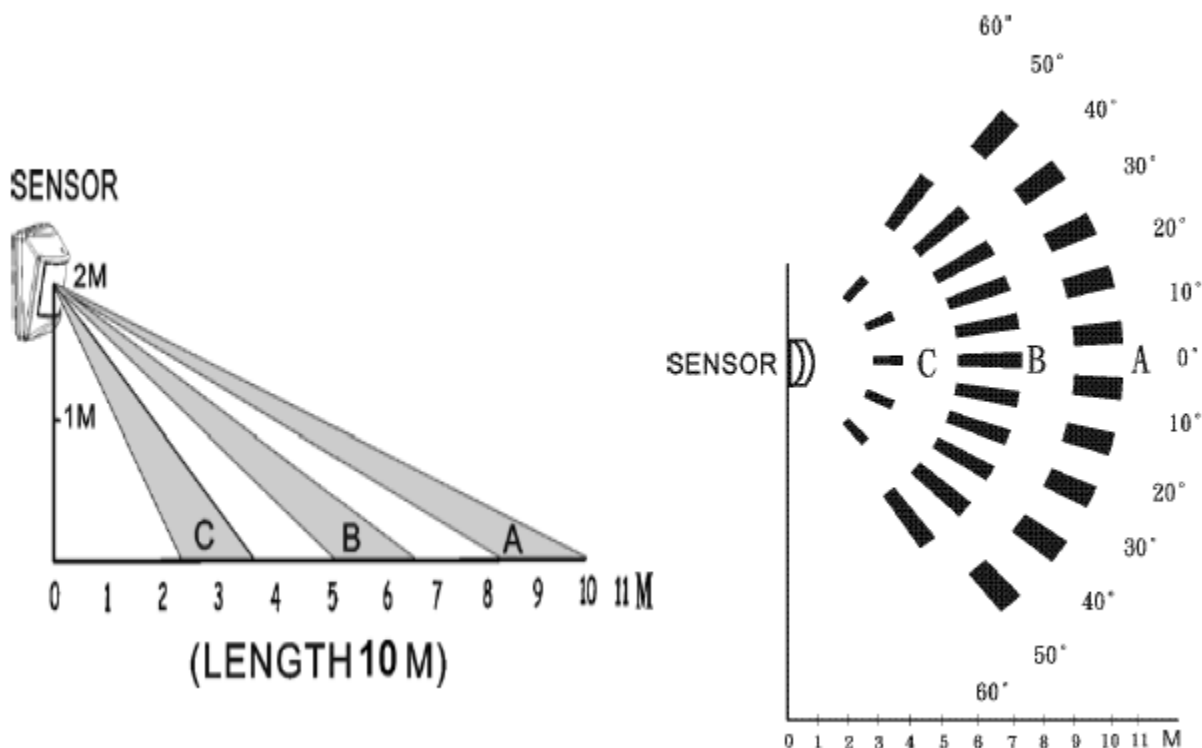




Chapter 3. Sensor Installation & Add/Remove/Rename Sensor

3.1 Sensor installation

1. Release cover tab to open the cover
2. Insert CR123A battery, and put the cover back
(Please make sure the battery polarity before inserting.)
3. Sensor takes around 10 seconds to warm up, and LED will blink 7 times during sensor warm up
4. Recommended sensor detect range, pattern, angle, and installation height:



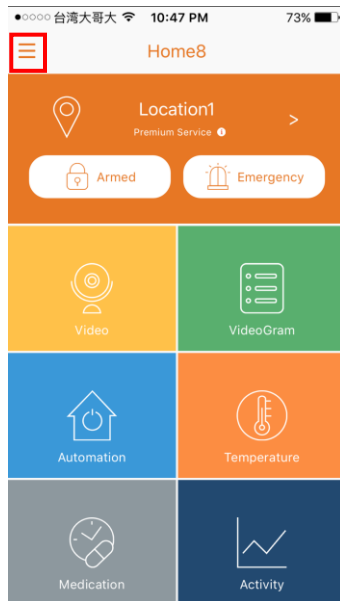
3.2 Adding the Sensor to the System

Before you begin using the sensor, it will need to be added to the system first. To activate the sensor with the Security Shuttle, complete the following steps.

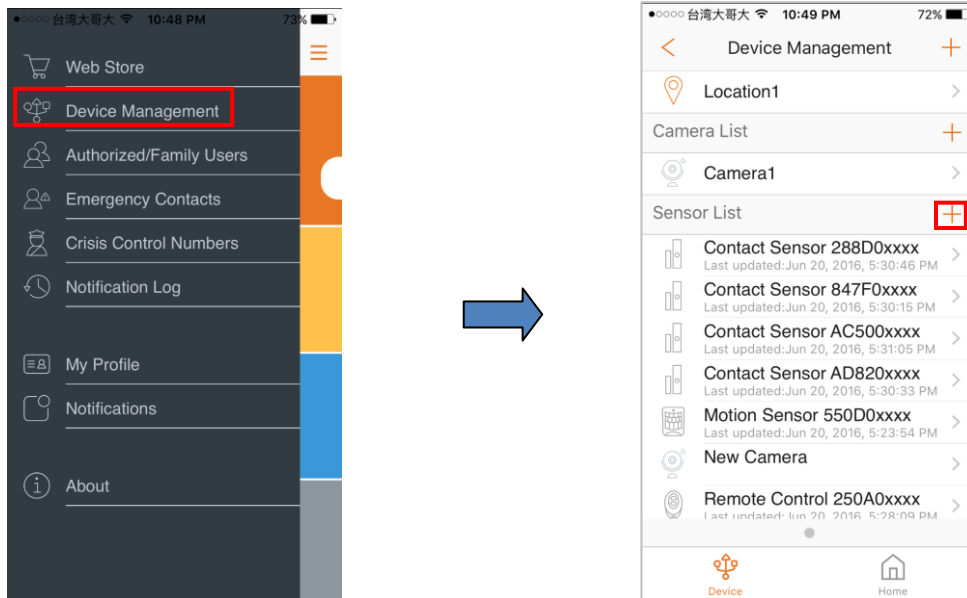
Note:

1. Make sure the Security Shuttle is powered on and connected to your router.
2. We recommend NOT to install the battery before the sensor is successfully activated to avoid false alarm during pairing.

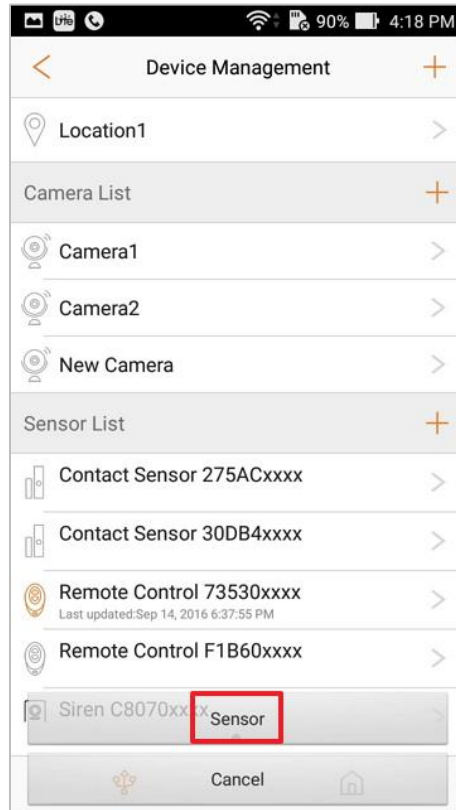
1. Tap the menu icon  to show the sidebar menu.



2. Tap “Device Management”. If you have more than one Security Shuttle, you may need to swipe left more than once to find the one you wish the sensor to connect to. After selecting the Security Shuttle, tap the plus icon “+” located to the right of “Sensor List”.



3. Select "Sensor".



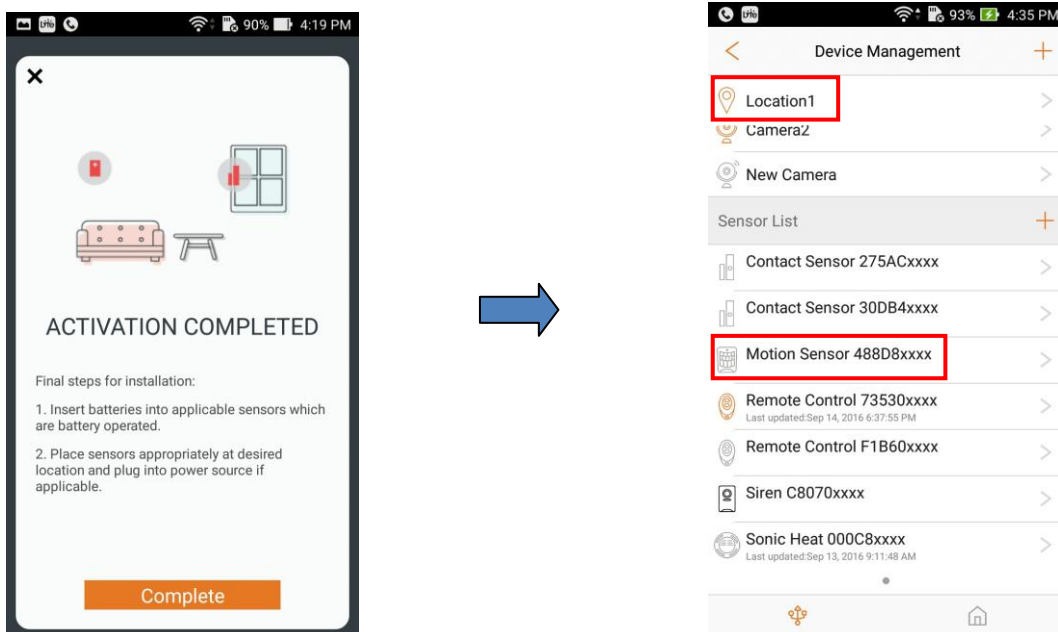
4. Follow the on-screen instructions. When finished, press "Next".



5. After scanning the QR code located on the bottom of the sensor, the “sensor adding” process will begin. The process will take approximately 1 to 2 minutes.

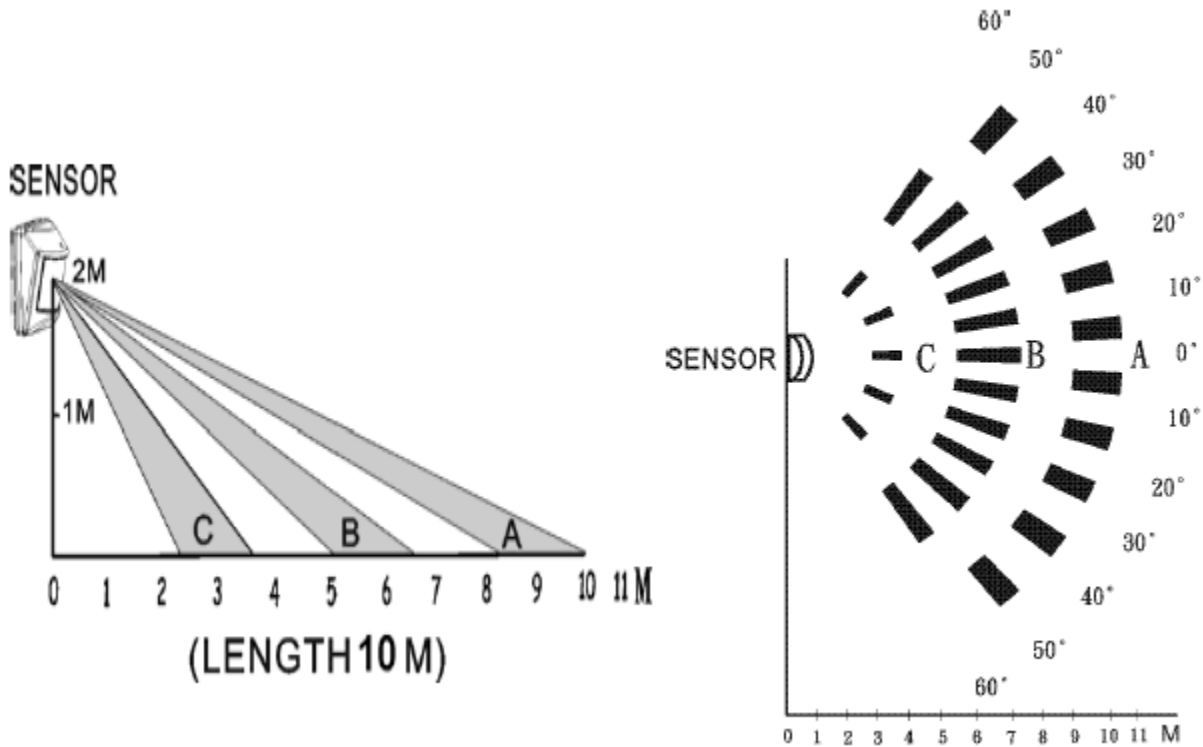


6. When the activation is completed, the sensor will be added to the device management page. In the illustration shown below, the name of the Security Shuttle is “Location1” and the name of the sensor is “Motion Sensor 488D8xxxx”.



3.3 Positioning & Installing Sensor

After the “sensor adding” process has been completed, you can place the device at the desired location. For the best performance we recommend to face the sensor towards an open area, and place the sensor at least 2 meters above the ground. For a detailed installing guide, please refer to the picture below:



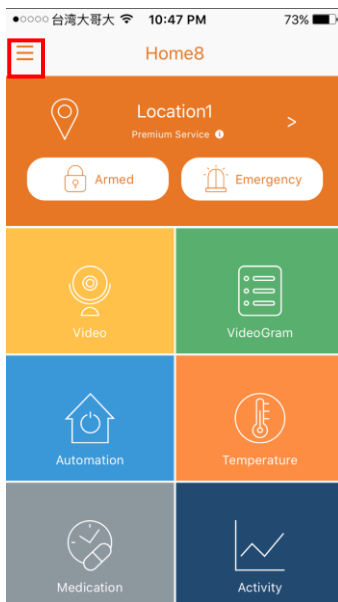
Note:

- Keep lens and sensor as clean as possible for best sensor performance.

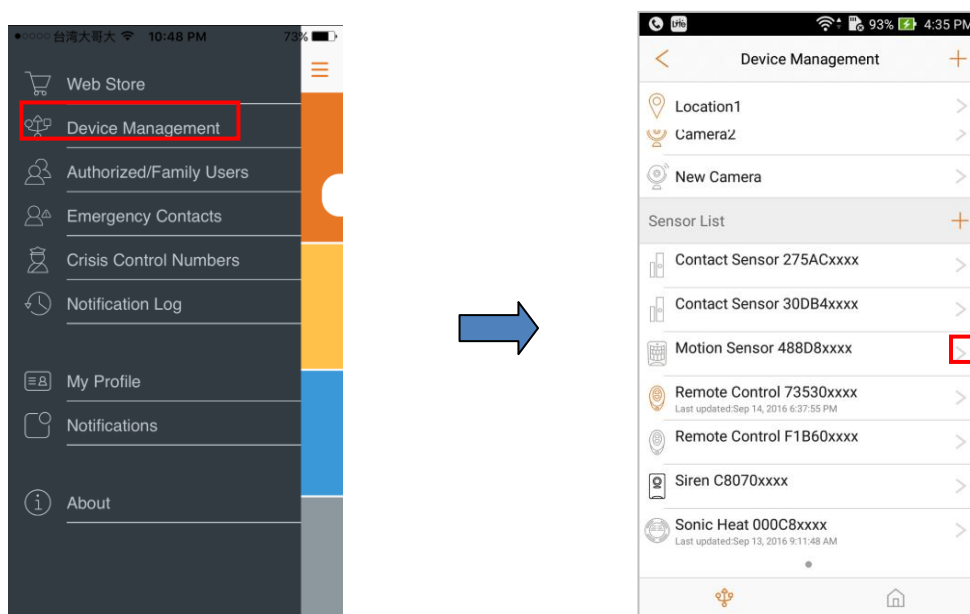
3.4 Remove Sensor from System

If you want to remove the sensor from the system, complete the following steps.

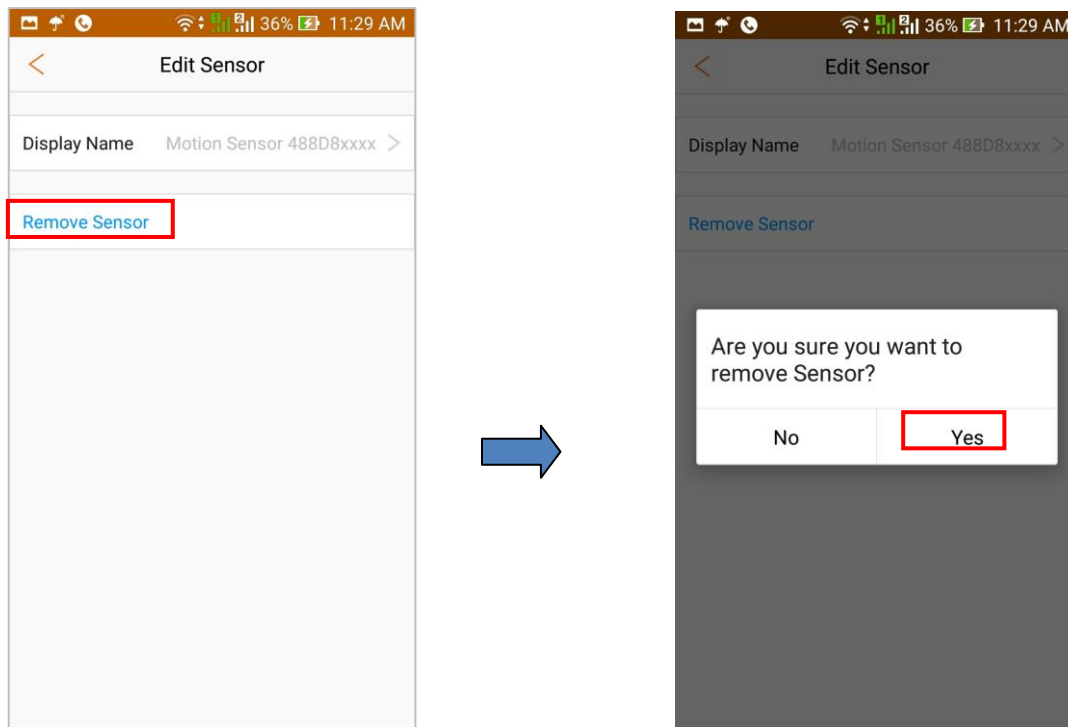
1. Tap the menu icon  to show the sidebar menu.



2. Tap “Device Management”. If you have more than one Security Shuttle, you may need to swipe left more than once to find the one you wish the sensor to connect to. After selecting the Security Shuttle, select the desired sensor you want to remove by tapping “>”.



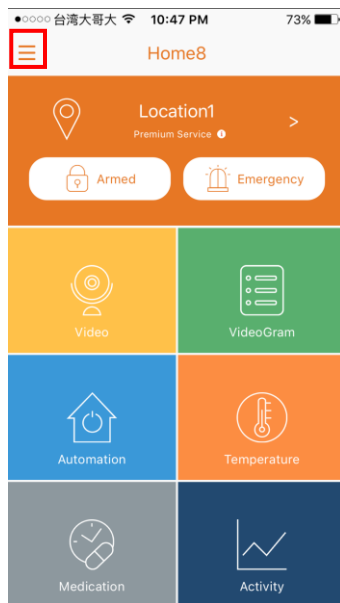
3. Tap "Remove Sensor", the app will ask for confirmation if you really want to remove the sensor. Simply tap "Yes" to confirm & remove.



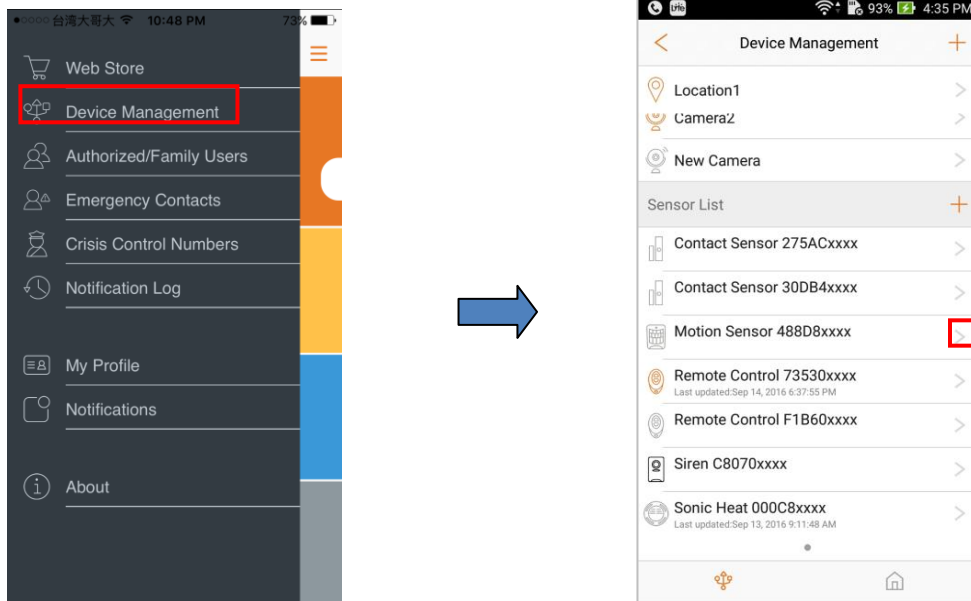
3.5 Rename Sensor from System

If you want to the rename sensor from the system, complete the following steps.

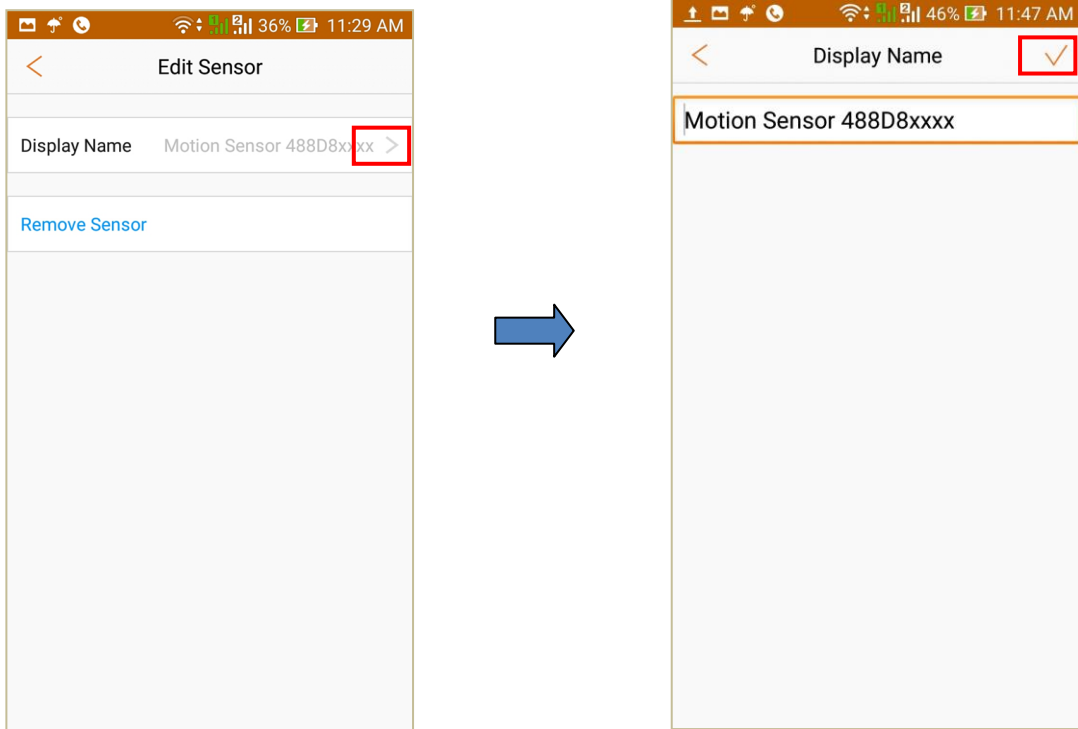
1. Tap the menu icon  to show the sidebar menu.



2. Tap “Device Management”. If you have more than one Security Shuttle, you may need to swipe left more than once to find the one you wish the sensor to connect to. After selecting the Security Shuttle, select the desired sensor you want to rename by tapping “>”.



3. Tap “>” to rename the sensor that will be shown on the app, and tap “V” to complete.



Chapter 4. Sensor Operation

4.1 Sensor operation modes, and way to judge valid motion trigger

The sensor has 2 different modes, which are “Test Mode” and “Normal Mode”.

For a detailed description behavior about these 2 modes, please refer to the following table.

Mode	How to enter?	Condition of valid motion alert	LED behavior
Test Mode	First hour after battery is installed properly	Please refer to fig. 1	Blinks when motion alert is valid
Normal Mode	After Test mode is finished	Please refer to fig. 2 & fig. 3	Blinks when motion alert is valid

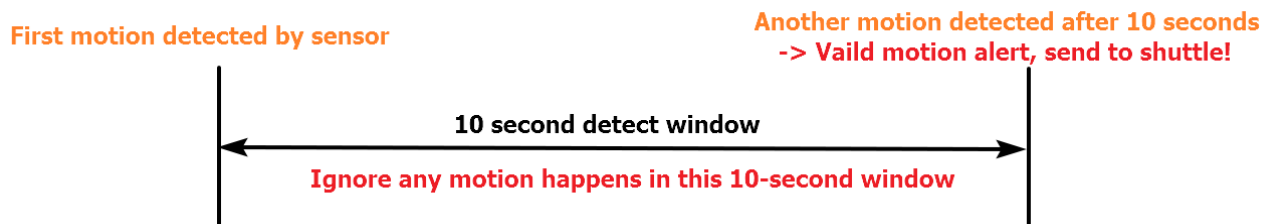


Fig.1

Condition of valid motion alert under “Test Mode”

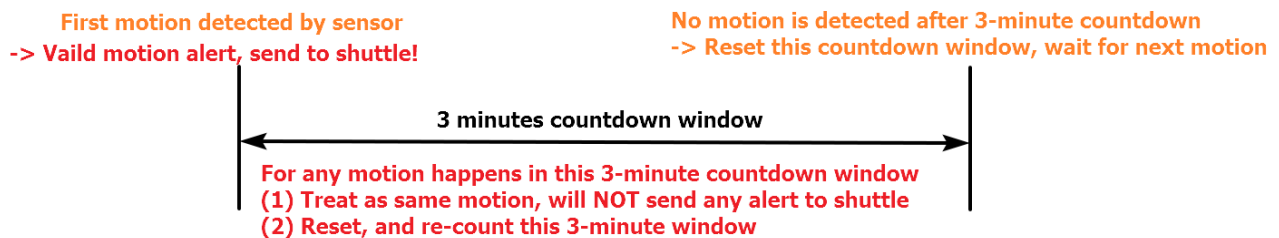


Fig.2

Condition of valid motion alert under “Normal Mode”

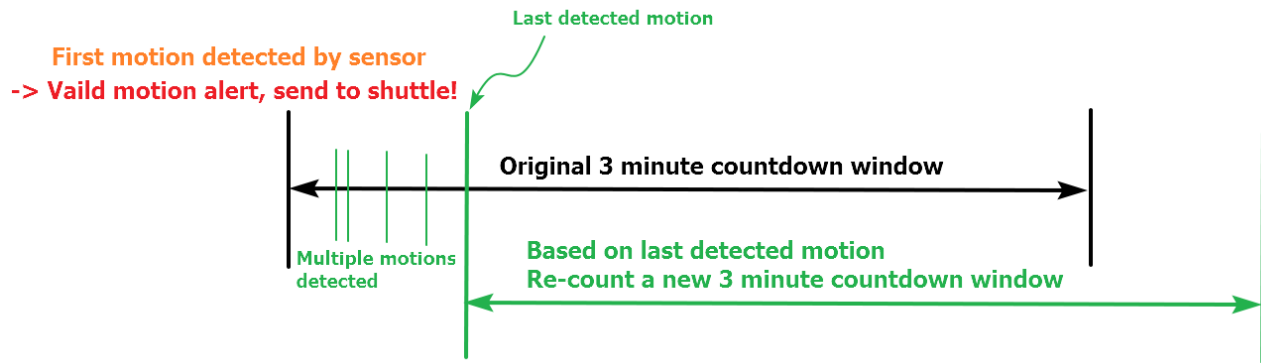
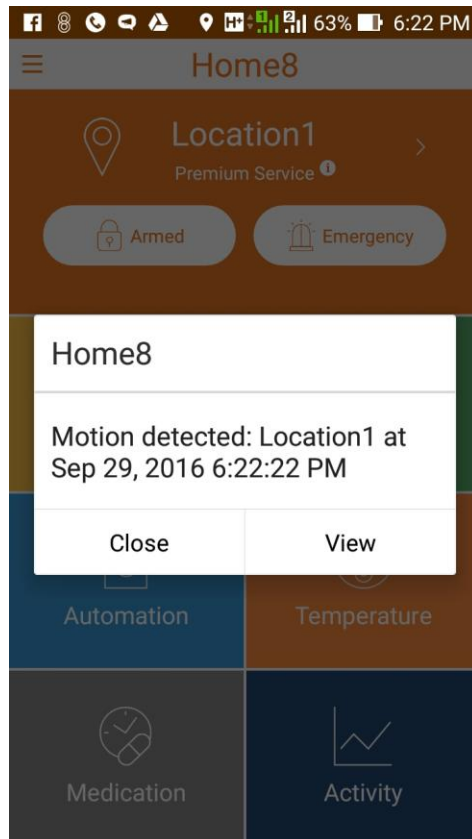


Fig.3

Illustration when multiple motions are detected during 3-minute countdown window under "Normal Mode"

4.2 When valid motion alert happens

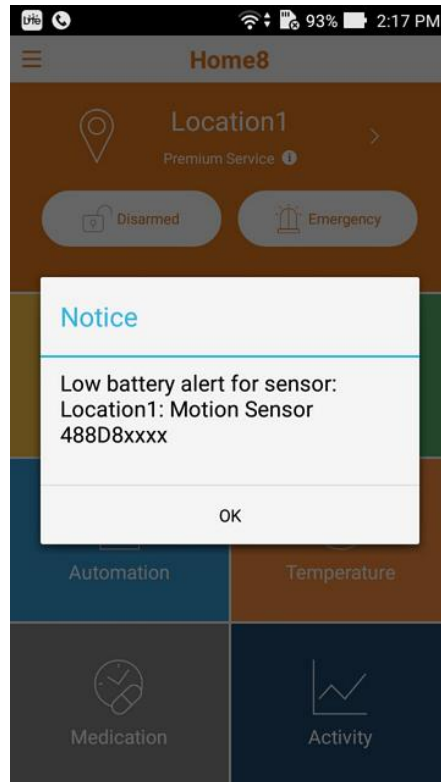
When valid motion alert happens, the LED indicator on the sensor will blink one time, and your app will also pop out a notification to indicate there's a motion alert as below.



4.3 Low battery alert

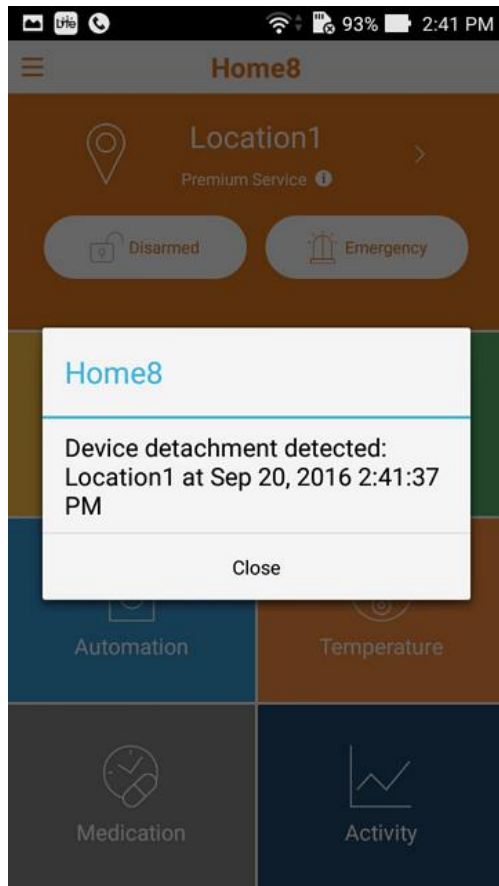
This sensor can automatically detect current battery status, and report “low battery” when battery level is too low.

When “low battery” happens, the LED indicator on the sensor will blink constantly, and the app will also show “low battery alert from sensor” notification as below:



4.4 Device detachment detection

This sensor has a built-in tamper switch to detect front cover status. When the front cover is open, LED indicator will blink 1 time, and app will also show a “Device detachment detected” notification as below.



Appendix – Glossary of Terms

- **Arm:** The cameras and other security related sensors in the system are actively monitoring the surroundings. Any suspicious activity that has been detected by the camera or sensor will prompt the app to immediately send a notification. A recording will also be performed by the camera(s) that witnessed the event.
- **Disarm:** The cameras and other security related sensors in the system are no longer actively monitoring the surroundings. The system will not react to any suspicious activity detected by these devices. No notification will be sent.

Note: If the continuous recording function is turned on, video recording will always work regardless if the system is armed or disarmed. For more details regarding the continuous recording function, see *Section 6.8 Turn On/Off Continuous Recording*.

- **Event:** An event is created when any camera or sensor detects an activity, or is manually triggered by the user.
- **Security Shuttle:** Functions as a secure and intelligent hub to manage the devices and communicate with the cloud server. Currently, there are three types – **OPU1120**, **OPU2120**, and **OPU3120**.