Inactivity Alert Sensor

IAP1301

User Manual
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Chapter 1. Introduction

This Motion Sensor is designed to be used for indoor inactivity detection. When mounted properly, it can monitor large and open areas of your home like the main entrance, living room, and family room. When the system does not detect motion for a time period that surpasses the preset inactivity threshold time that you designate in the Home8 app, the app will automatically send out inactivity alerts.

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
- Inactivate period: 1~24hrs, 1 hour per step
- “Away” mode available to disable sensor

1.1 System Requirement

This section explains the system requirement.
- Network: Proprietary 433MHz RF protocol, must co-work with Mivatek’s OPU2/OPU3 shuttle
Chapter 2. Hardware Overview

This section provides an overview of the inactivity sensor.
LED indicator

Tamper switch

Jumper for internal use only
Please leave all 3 jumpers unconnected

PIR Sensor
Please keep surface of the sensor clean
for best performance

CR123A Battery
Chapter 3. Sensor Installation & Add/Remove Sensor into System

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 itself takes around 10 seconds to warm up, and LED will blink 7 times during sensor warm up.
4. Sensor detects range, pattern, angle, and recommends installation height:

3.2 Adding the Sensor to the System

Before you begin using the sensor, it needs to be added to the Home8 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 installing the battery before 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”.

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3. Select “Sensor”.

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

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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 “Location 1” and the name of the sensor is “Inactivity Sensor 35360xxxx”.
3.3 Positioning & Installing Sensor

After the “sensor adding” process has been completed, you can place the device at the desired location. For best performance, we recommend to face the sensor to open area, and place the sensor at least 2 meters above the ground. For details on installing, 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 wish to remove sensor from current 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 that you want to remove by tapping “>”.

3. Tap “Remove Sensor”, app will ask for confirmation if you really want to remove. Simply tap “Yes” to confirm & remove.
3.5 Rename Sensor from System

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

1. Tap the menu icon \(\equiv\) 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

Sensor has 2 different modes, “Test Mode” and “Normal Mode”.

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

<table>
<thead>
<tr>
<th>Mode</th>
<th>How to enter?</th>
<th>Condition of valid motion alert</th>
<th>LED behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Mode</td>
<td>First hour after battery is installed properly</td>
<td>Please refer to fig.1</td>
<td>Blinks when valid motion is detected</td>
</tr>
<tr>
<td>Normal Mode</td>
<td>After Test mode is finished</td>
<td>Please refer to fig.2 &amp; fig.3</td>
<td>Blinks when valid motion is detected</td>
</tr>
</tbody>
</table>

First motion detected by sensor

10 second detect window

Ignore any motion that occurs in this 10-second window

Fig. 1

Condition of valid motion alert under “Test Mode”

Another motion detected after 10 seconds

Valid motion, send to shuttle

No motion is detected after 3-minute countdown

Reset this countdown window, wait for next motion

For any motion that occurs in this 3-minute countdown window
(1) Treat as same motion, will NOT send any alert to Shuttle
(2) Reset and re-count the 3-minute window

Fig. 2

Condition of valid motion alert under “Normal Mode”
4.2 Inactive Period, and no activity alert

Inside Home8 app, user can set “Inactive Period” from 1 hour to 24 hours, one hour per step. In the meantime, sensor will continuously monitor & send motion status to Security Shuttle, and it will use this data to determine the activity status. If the duration of 2 consecutive motions are longer than the preset time threshold that can be set by using Home8 app, Shuttle will send out “inactivity” alert, and app will pop out a notification 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, LED indicator on the sensor will blink constantly, and app will also show “low battery alert from sensor” notification as below:

![Notification Example]

4.4 **Device detachment detection**

This sensor has a built-in tamper switch to detect the status of the front cover. When the front cover is opened, LED indicator will blink 1 time, and app will also show “Device detachment detected” notification as below.
Device detachment detected: Location1 at Sep 20, 2016 2:41:37 PM
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**.