

### Introduction

This sensor is a Z-Wave enabled device (interoperable, two-way RF mesh networking technology) and is fully compatible with any existing Z-Wave enabled network. The Z-Wave wireless communication protocol allows for Z-Wave devices from different manufacturers to operate in the same Z-Wave network. The sensor sends a Z-Wave message when motion is detected within its field of view.

### Product Specification

For indoor use only

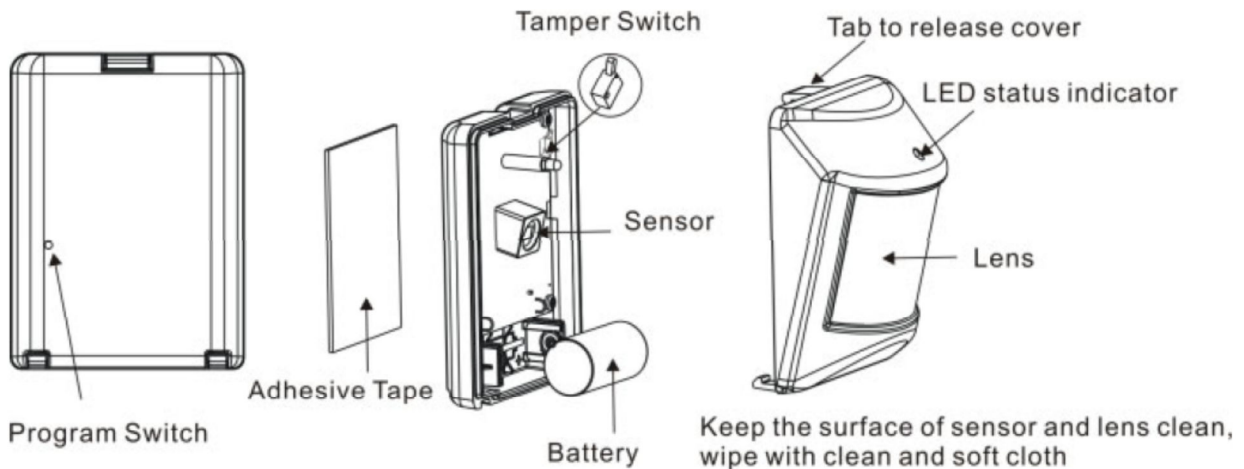
Operating Frequency: 908.42 MHz

Operating Range: Up to 100 feet line-of-sight

Operating Temperature: 0°C to 49°C

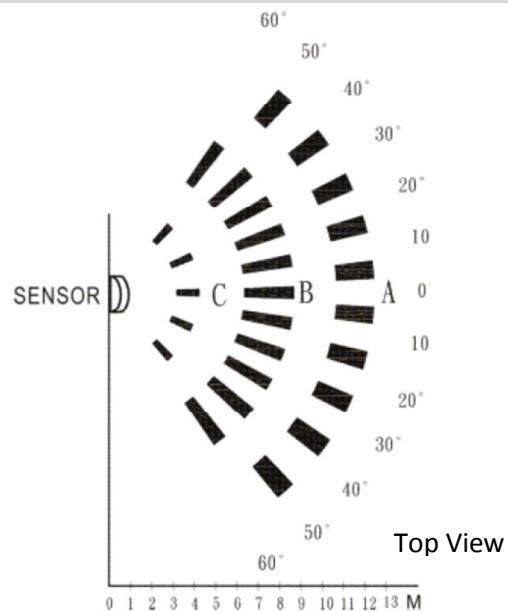
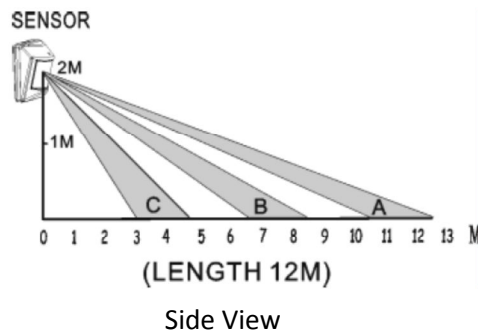
Battery: CR123A

Operating Principle: Passive infrared (PIR) technology



### Motion Sensor Coverage Pattern

Solid regions in the pattern drawing represent positive detection capability of the sensor.



## Installation

Notice: If you are installing an entire Z-Wave network for the first time, please refer to the installation guide provided by the manufacturer of your Z-Wave controller before installing the motion sensor.

1. Release cover tab to open the cover.
2. Insert a 3 Volt CR123A Lithium Ion battery into the battery compartment. The LED will start to flash slowly, indicating that the sensor has not yet been included in a Z-Wave network.
3. Include the sensor device into your Z-Wave network (see the section titled Inclusion).
4. Using the provided adhesive tape, mount the sensor two meters (6.5 feet) above the floor. Angle the device to ensure widest angle of coverage (see the sensor coverage illustration).

### Inclusion:

Inclusion is the process of adding a device to your Z-Wave network. To include the motion sensor in your Z-Wave network, put the controller unit into “inclusion mode” as described in the instruction manual for the controller. Then insert a paper clip or pin to press the program button (pictured above) on the back of the sensor case. The LED should now be off. If not, try again and make sure the button is pressed for at least one second.

*If the inclusion process continues to fail, it is possible that the sensor has already been included in a different Z-Wave network. In this case, follow the procedure in the section titled “Exclusion” to exclude the sensor. The inclusion process should work after the exclusion process has been completed.*

### Exclusion:

Exclusion is the process of removing a device from your Z-Wave network. To exclude the sensor from a Z-Wave network, follow the instructions for the controller and place it into “exclusion mode”. Now press the program button on the back of the sensor for at least one second. The LED will now begin to flash indicating that the device is not included in a network.

## Operation

1. To trigger the motion sensor, walk in front of the lens. When motion is detected, a Z-Wave message (basic set 0xFF) is sent to the Z-Wave controller and the LED will flash once. Then, if no motion is detected for approximately 210 seconds, the unit will send a message (basic set 0x00) which means the device is returning to normal operation and is ready to detect motion again.
2. During normal operation (i.e. if no motion is detected) the LED will not flash.
3. The device is equipped with a tamper switch. If the sensor cover is removed, the sensor will send a tamper message (alarm report) to the Z-Wave controller and the LED may stay lit for up to ten seconds.
4. The sensor unit is programmed with two association groups. Group 1 can store the node ID of up to five controllers. Controllers will all receive a “basic set 0xFF” when motion is detected and “basic set 0x00” once the sensor starts monitoring for motion again. Group two stores the node IDs for up to 5 devices that respond when the motion sensor detects motion. Such devices include chimes, sirens, or light switches. Each device in group two listens for Z-Wave messages of type “basic set 0xFF”.
5. Z-Wave devices (especially those with a hardwired source of power) are often designed to rebroadcast any received Z-Wave messages. In this way, messages from a Z-Wave device can travel greater distances than what is possible through its own transmit capabilities. Being a battery powered device, this Z-Wave motion sensor does not listen for and rebroadcast messages from other Z-Wave devices. This significantly extends the sensor’s battery life.

6. The sensor enters sleep mode when not in use. However, the sensor must be “awake” to receive messages from the controller. To activate “stay-awake mode”, remove the front cover. This will wake up the sensor. Leave the cover off to enable the controller to query the sensor for device specific information and capabilities.

## Federal Communications Commission Statement

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Ecolink Intelligent Technology, Inc. can void the users' authority to operate the equipment.