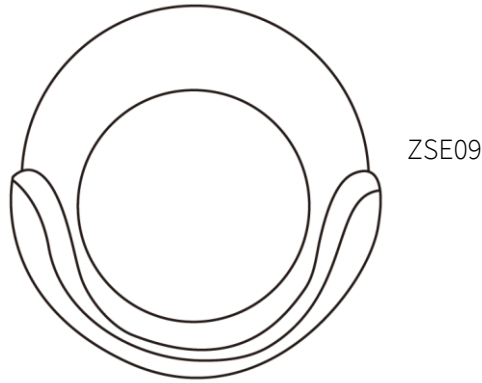


## USER MANUAL



### Z-WAVE MINI SENSOR



Z-Wave Plus Certified Device

### WELL DONE!

You have picked the finest solution for your smart home, congratulations!

Now it's time to enjoy these great features of your new Mini Sensor:

- Accurate motion and light level detection
- Wireless notifications and low battery alerts (when included to a Z-Wave gateway controller)
- Custom automation scenarios based on both light and motion triggers (advanced configuration required)
- Adjustable sensitivity levels for motion detection to fit your needs
- Ultra small and simple design
- Z-Wave Plus with improved 500 chip for faster and safer wireless communication
- Flexible and quick installation

### SPECIFICATIONS

Model Number: ZSE09

Z-Wave Signal Frequency: 908.42 MHz

Power: 1 CR123A battery (included)

Power Consumption: 0.15W

Operating Temperature: 32 – 104 F

Motion detection: Up to 20 feet

Range: Up to 100 feet line of sight

Installation and Use: Indoor only

Dimensions: 1.9" x 1.8"

Weight: ½ oz

### Z-WAVE COMMAND CLASSES

This device requires the following command classes to be supported and recognized by your Z-Wave controller:

COMMAND\_CLASS\_ZWAVEPLUS\_INFO (V2)  
COMMAND\_CLASS\_VERSION (V2)  
COMMAND\_CLASS\_MANUFACTURER\_SPECIFIC (V2)  
COMMAND\_CLASS\_DEVICE\_RESET\_LOCALLY (V1)  
COMMAND\_CLASS\_POWERLEVEL (V1)  
COMMAND\_CLASS\_BATTERY (V1)  
COMMAND\_CLASS\_ASSOCIATION (V2)  
COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO (V1)  
COMMAND\_CLASS\_WAKE\_UP (V2)  
COMMAND\_CLASS\_NOTIFICATION (V4)  
    NOTIFICATION\_REPORT  
    NOTIFICATION\_TYPE\_HOME\_SECURITY  
    NOTIFICATION\_EVENT\_HOME\_SECURITY\_MOTION\_DETECTION\_UNKNOWN\_LOCATION  
    NOTIFICATION\_EVENT\_HOME\_SECURITY\_NO\_EVENT  
COMMAND\_CLASS\_SENSOR\_BINARY (V2)  
    SENSOR\_BINARY\_REPORT  
    SENSOR\_MOTION  
COMMAND\_CLASS\_CONFIGURATION (V1)  
COMMAND\_CLASS\_SENSOR\_MULTILEVEL (V7)

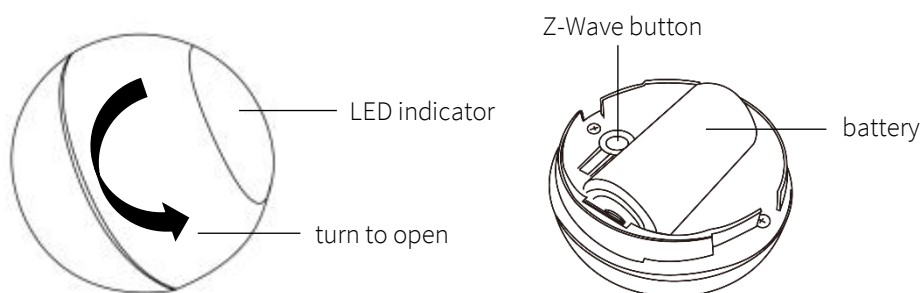
#### BEFORE YOU RETURN IT

Let us know if you are having any issues installing or operating the device.  
Our fast and friendly tech support is here to help, every day of the year: [ask@getzooz.com](mailto:ask@getzooz.com)  
Get more helpful tips at [getzooz.com](http://getzooz.com)

#### INSTALLATION

##### **WAIT!**

Include the Mini Sensor to your Z-Wave network before mounting it.



#### Z-WAVE INCLUSION

1. Bring the Mini Sensor within direct range of your controller
2. Carefully turn and lift the cover of your Mini Sensor to access the battery
3. Remove the plastic pull-tab from the battery slot. The LED indicator will blink slowly
4. Put your Z-Wave controller into inclusion mode
5. Press and release the Z-Wave button on the Mini Sensor 3 TIMES quickly. The LED indicator will flash quickly

6. A new motion and light sensor will appear on your controller's device list

### **Troubleshooting Tips**

If you are unable to include the Z-Wave Mini Sensor to your controller, please try one of the following:

- Bring the Mini Sensor closer to your Z-Wave controller
- Once in inclusion mode, press and release the Z-Wave button quickly 6-7 TIMES to ensure the command has gone through
- Put your controller into EXCLUSION mode. Press and release the Z-Wave button quickly 3 TIMES, and then try adding it to your network again

### Z-WAVE EXCLUSION

1. Make sure the Mini Sensor is powered on and located within direct range of your Z-Wave gateway controller
2. Put your Z-Wave controller into exclusion mode
3. Press and release the Z-Wave button 3 TIMES quickly. The LED indicator will flash quickly
4. The Mini Sensor should disappear from your controller's device list

If the first attempt is unsuccessful, please repeat the process following all steps carefully.

### FACTORY RESET

When your network's primary controller is missing or otherwise inoperable, you may need to reset the device to factory settings manually. To complete the process, make sure the Mini Sensor is powered on, then open the cover and PRESS AND HOLD the Z-Wave button for AT LEAST 10 SECONDS until the **LED indicator flashes ONCE** (it may then flash 5 times to indicate the device is no longer part of Z-Wave network). Release the button. NOTE: All previously recorded activity and custom settings will be erased from the device's memory.

### WAKE-UP MODE

If you change settings and parameters for the sensor, you may need to wake it up manually for the changes to be recorded. Press and release the Z-Wave button ONCE to wake the device up. The LED indicator will flash ONCE.

The sensor's wake-up interval is set to 12 hours by default to save battery life. Though not recommended, you can change the wake-up interval using your controller's advanced settings if available. Minimum value: 300s (5 minutes), maximum value: 16,777,200s (around 194 days). Accepted values need to match minute intervals, so 300, 360, 420, etc.

### ASSOCIATION

Depending on your Z-Wave gateway's home automation software capabilities, you may be able to associate your Mini Sensor in groups with other Z-Wave devices to schedule scenes and create events.

This Mini Sensor supports the following association groups with up to five devices per group: **Group 1** for lifeline communication of motion / no motion and light level status to Z-Wave controller. Supported command classes:

NOTIFICATION\_REPORT\_V4  
SENSOR\_BINARY\_REPORT\_V2  
SENSOR\_MULTILEVEL\_REPORT\_V7  
BATTERY\_REPORT  
DEVICE\_RESET\_LOCALLY\_NOTIFICATION

**Group 2** for control command communication to associated Z-Wave devices in the network. Use parameters 2, 3, 5, and 8 to configure this group's settings. Supported command classes: BASIC\_SET

**Group 3** for notifications to Z-Wave devices associated in this group. Supported command classes: NOTIFICATION\_REPORT\_V4

**Group 4** for notifications to Z-Wave devices associated in this group. Supported command classes: SENSOR\_BINARY\_REPORT\_V2

Please refer to your controller's user guide for advanced programming instructions as they are a little different for every software.

#### ADVANCED SETTINGS

If your controller's software allows for advanced configuration and parameter adjustment, you will be able to change and save the settings below and customize the Mini Sensor's performance to serve your needs.

#### **Motion Detection**

Parameter 4: Use this parameter to enable and disable motion detection on your Mini Sensor. Values: 0 – Motion detection disabled. 255 – Motion detection enabled (default). Size: 1 byte dec.

#### **Motion Sensitivity**

Parameter 1: Choose the right motion sensitivity for your environment and lifestyle. Adjust detection just right by choosing a value from 8 to 255, where 8 stands for high sensitivity level (detection of the smallest movement) and 255 stands for very low sensitivity level. Values: 8 – 255. 12 – default setting. Size: 1 byte dec.

#### **Motion Trigger Interval**

Parameter 6: Adjust the time when motion is reported again after initial trigger. The number entered as the value corresponds to the number of seconds. So if 8 is entered by default, the Mini Sensor will report motion for 8 seconds after it first detects movement. The value set for this parameter can NOT be greater than value set in parameter 2. Values: 1 – 8 (seconds). 8 (seconds) – default setting. Size: 1 byte dec.

**NOTE:** Small interval will increase activity and affect battery life.

#### **Trigger ON Duration**

Parameter 2: Set the duration you want the associated device to stay ON for after being triggered by the sensor before it automatically turns OFF. The number entered as the value corresponds to the number of seconds. So if 30 is entered by default, the associated device will stay ON for 30 seconds after the Mini Sensor reports status change (BASIC\_SET command) and triggers the device, it will then turn off automatically. It's an easy and quick way to set up a motion-based lighting event. If you change this setting to 300, the associated Z-Wave light fixture will stay ON for 5 minutes after motion has been detected by the Mini Sensor. The value set for this parameter needs to be greater than value set in parameter 6.

Values: 5 – 600 (seconds). 30 (seconds) – default setting.

Size: 2 byte dec.

### **Trigger Action**

Parameter 3: You can choose if your Mini Sensor turns an associated device on or off when sending the BASIC SET command. Use value 0 to turn the associated device OFF and value 255 to turn it ON. Adjust brightness level for a Z-Wave dimmer (Multilevel switch) by putting in any value between 1 and 99.

Values: 0 – OFF; 1 – 99 (% of light); 255 – ON (default).

Size: 1 byte dec.

### **Light Trigger**

Parameter 8: Use this parameter to enable and disable the light sensor as secondary trigger. If this feature is enabled, the Mini Sensor will activate associated devices based on motion AND light level set in parameter 5.

Values: 0 – Light trigger disabled (default). 255 – Light trigger enabled.

Size: 1 byte dec.

### **Light Trigger Level**

Parameter 5: Set your light sensor as a secondary trigger for associated devices. If light level in a room falls beyond the set point and motion is detected, the Mini Sensor will send BASIC\_SET command to associated devices to turn ON. The number entered as the value corresponds to the number of LUX. So if 100 is entered by default, the associated device will turn ON if light level last reported by the sensor is under 100 LUX and if motion has been detected by your Mini Sensor.

Values: 0 – 1000 (LUX). 100 (LUX) – default setting.

Size: 2 byte dec.

### **Light Polling Interval**

Parameter 7: Decide how often you want the Mini Sensor to report light level to the controller and associated devices. The number entered as the value corresponds to the number of seconds. So if 180 is entered by default, the Mini Sensor will report light level values every 3 minutes. The value set for this parameter can NOT be greater than the wake-up interval.

Values: 60 – 360000 (seconds). 180 (seconds) – default setting.

Size: 2 byte dec.

**NOTE:** Small interval will increase activity and decrease battery life.

### **Light Report**

Parameter 9: Choose light level change to be reported by the Mini Sensor to the controller. The number entered as the value corresponds to the number of LUX. So if 100 is entered by default, the sensor will report any change of 100 LUX or more.

Values: 0 – 255 (LUX). 100 (LUX) – default setting.

Size: 2 byte dec.

### **LED Notifications**

Parameter 10: Use this parameter to turn LED notifications on or off for motion detection.

Values: 0 – LED disabled; 1 – LED enabled (default).

Size: 1 byte dec.

### How to read the LED indicator?

Slow blink = Mini Sensor is powered on and NOT included to Z-Wave network

Fast blink = Mini Sensor is in inclusion mode

Fast flash = Mini Sensor is powered on and included to Z-Wave network

Single flash = Mini Sensor indicates motion detection; sensor indicates successful factory reset

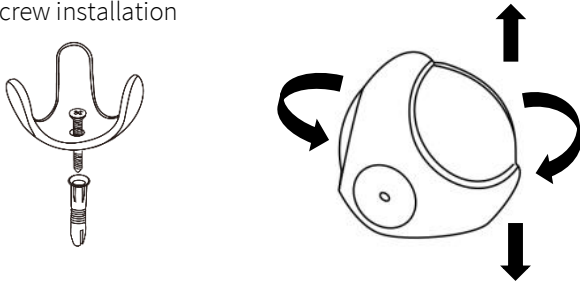
### MOUNTING

For best results, mount the sensor within 15 feet from the door and around 7 feet from the ground. The Mini Sensor will detect motion up to 20 feet depending on mounting location and sensitivity settings.

There are 2 ways to mount the Mini Sensor on the wall, ceiling, or in the corner of a room:

1. Use the supplied screws to fix the mounting bracket to flat surface of your choice. Carefully insert the sensor to the mounting bracket. Position the sensor by directing it to the part of the room you wish to monitor.

Screw installation



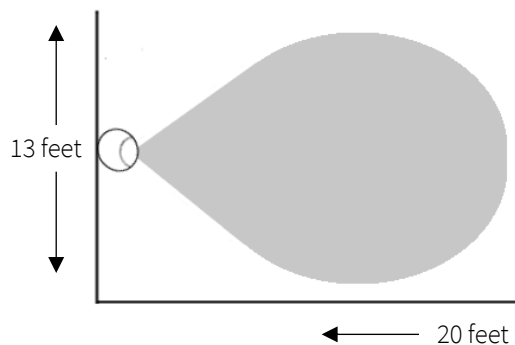
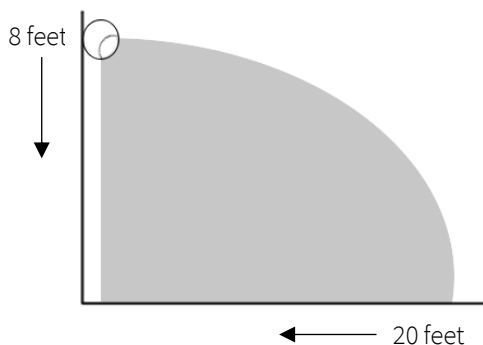
OR

2. Use supplied adhesive tape to fix the mounting bracket to a CLEAN flat surface of your choice. Carefully insert the sensor to the mounting bracket. Position the sensor by directing it to the part of the room you wish to monitor.



Adhesive tape installation

### Motion Detection



## **WARNING**

- This product should be installed indoors upon completion of any building renovations
- Prior to installation, the device should be stored in a dry, dust-and-mold-proof place
- Do not install the Mini Sensor in a place with direct sun exposure, high temperature or humidity
- Keep away from chemicals, water, and dust
- Ensure the device is never close to any heat source or open flame to prevent fire
- No part of the device may be replaced or repaired by the user, except for battery change

## **Z-WAVE PLUS CERTIFIED**

This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

## **WARRANTY**

This Limited Warranty applies to physical goods, and only for physical goods, purchased from Zooz (the "Physical Goods").

### **What does this limited warranty cover?**

This Limited Warranty covers any defects in material or workmanship under normal use according to instructions from the User Manual during the Warranty Period. Warranty coverage applies to purchases made from authorized dealers only. See full list of Zooz distributors here: [getzooz.com/buy](http://getzooz.com/buy)

During the Warranty Period, Zooz will repair or replace, at no charge, products or parts of a product that prove defective because of improper material or workmanship, under normal use and recommended maintenance. Zooz does not assume the cost of return shipping for warranty service.

### **How long does the coverage last?**

The Warranty Period for Physical Goods purchased from Zooz is 12 months from the date you purchased this product.

### **What does this limited warranty not cover?**

This Limited Warranty does not cover any problem that is caused by:

- conditions, malfunctions or damage not resulting from defects in material or workmanship
- improper handling or installation of the product

The warranty does not cover purchases from unauthorized dealers or second-hand sources.

The warranty does not cover return shipping cost for warranty service.

### **What do you have to do?**

To obtain warranty service, please contact us to determine the problem and offer a quick solution for you: [warranty@getzooz.com](mailto:warranty@getzooz.com)

You may also get in touch with the reseller of the product directly to return or replace the product within 30 days of purchase or within applicable reseller's returns period.

IN NO EVENT SHALL ZOOZ OR ITS SUBSIDIARIES AND AFFILIATES BE LIABLE FOR ANY INDIRECT, INCIDENTAL, PUNITIVE, SPECIAL, OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, OR USE INCURRED BY CUSTOMER OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT, OR OTHERWISE EVEN IF ADVISED OF THE

POSSIBILITY OF SUCH DAMAGES. ZOOZ'S LIABILITY AND CUSTOMER'S EXCLUSIVE REMEDY FOR ANY CAUSE OF ACTION ARISING IN CONNECTION WITH THIS AGREEMENT OR THE SALE OR USE OF THE PRODUCTS, WHETHER BASED ON NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTY, BREACH OF AGREEMENT, OR EQUITABLE PRINCIPLES, IS EXPRESSLY LIMITED TO, AT ZOOZ'S OPTION, REPLACEMENT OF, OR REPAYMENT OF THE PURCHASE PRICE FOR THAT PORTION OF PRODUCTS WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. ALL CLAIMS OF ANY KIND ARISING IN CONNECTION WITH THIS AGREEMENT OR THE SALE OR USE OF PRODUCTS SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING WITHIN THIRTY (30) DAYS FROM ZOOZ'S DELIVERY, OR THE DATE FIXED FOR DELIVERY IN THE EVENT OF NONDELIVERY.

#### FCC NOTE

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT. STORE INDOORS WHEN NOT IN USE. SUITABLE FOR DRY LOCATIONS ONLY. DO NOT IMMERSE IN WATER. NOT FOR USE WHERE DIRECTLY EXPOSED TO WATER.

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following conditions:

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used according to instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in any given installation.

If this equipment causes harmful interference to radio or television reception, the user may try to correct the interference by taking one or more of the following measures:

- Reorient or relocate receiving antenna
- Increase the separation between equipment and receiver
- Connect equipment into a separate outlet or circuit from receiver
- Consult the dealer or an experienced radio/TV technician for additional assistance

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