

Federal Communications Commission Statement

This equipment has been followed 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 in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one of the following measures:

Reorient or relocate the receiving antenna,

Increase the separation between the equipment and receiver,

Connect the equipment into and outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

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, and (2) this device must accept any interference received, including interference that may cause undersired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Limited Warranty

Vision Guarantees that every wireless shock sensor is free from physical defects in material and workmanship under normal use for one year from the date of purchase. If the product proves defective during this one-year warranty period, Vision will replace it free of charge. Vision does not issue any refunds. This warranty is extended to the original end user purchase only and is not transferable. This warranty does not apply to : (1) damage to units caused by accident, dropping or abuse in handling, or any negligent use; (2) units which have been subject to unauthorized repair, taken apart, or otherwise modified; (3) units not used in accordance with instruction; (4) damages exceeding the cost of the product; (5) transit damage, initial installation costs, removal cost, or reinstallation cost.

For information on additional devices, please visit us at www.visionsecurity.com.tw



Installation & Operation Manual

ZS5101IN-5
ZS5101MY-5
ZS5101EU-5
ZS5101RU-5
ZS5101US-5
ZS5101IL-5
ZS5101KR-5
ZS5101HK-5
ZS5101JP-5
ZS5101BR-5

Wireless Shock Sensor

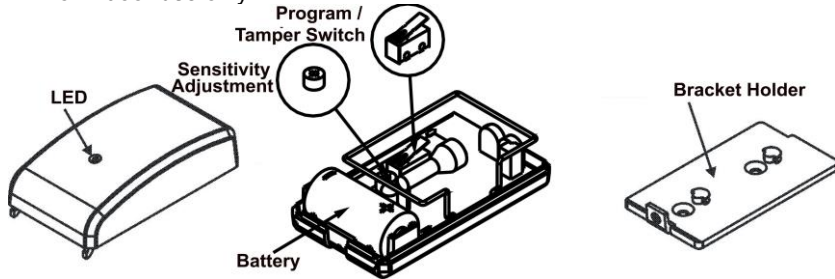
Introduction

Thanks for choosing the Vision's wireless shock sensor of the home security device. This sensor is a Z-Wave™ enabled device (interoperable, two-way RF mesh networking technology) and is fully compatible with any Z-Wave™ enabled network and its' security framework. Every mains powered Z-Wave enabled device acts as a signal repeater and multiple devices result in more possible transmission routes which helps eliminate "RF dead-spots"

Z-Wave™ enabled devices displaying the Z-Wave™ logo can also be used with it regardless of the manufacturer, and ours can also be used in other manufacturer's Z-Wave™ enabled networks. This sensor detects the vibrations made by an intruder trying to break a window or door, and also detect tamper situations, it will send Z-Wave™ signal when vibrations or tamper situations are detected. When the device is secure included into Z-Wave network, above the communication will be encrypted.

Product Description and Specification

*** For indoor use only ***



| Specification: | Package Content |
|---|-------------------------------------|
| Protocol: Z-Wave™ (ZM5202) | 1pc ZS 5101-5 Shock sensor |
| Frequency Range: | 1pc Bracket Holder |
| 865.22MHz (ZS5101N-5) | 1pc Adhesive tape for sensor |
| 868.10MHz (ZS5101MY-5) | 3pc Screw |
| 868.42MHz (ZS5101EU-5) | 1pc CR123A Lithium Battery |
| 869.00MHz (ZS5101RU-5) | 1pc Installation & Operation Manual |
| 908.42MHz (ZS5101US-5) | |
| 916.00MHz (ZS5101IL-5) | |
| 919~923MHz (ZS5101KR-5) | |
| 919.80MHz (ZS5101HK-5) | |
| 922~926MHz (ZS5101JP-5) | |
| 921.42MHz (ZS5101BR-5) | |
| Operating Range: Up to 100 feet line of sight | |
| Operating Temp.: -15°C~ 60°C (5°F~140°F) | |
| Battery: Panasonic CR123A * 1PC | |

Z-Wave Command Classes:

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COMMAND_CLASS_ASSOCIATION_GRP_INFO
COMMAND_CLASS_ASSOCIATION_V2
COMMAND_CLASS_BATTERY
COMMAND_CLASS_DEVICE_RESET_LOCALLY
COMMAND_CLASS_FIRMWARE_UPDATE_MD_V2
COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2
COMMAND_CLASS_NOTIFICATION_V4
COMMAND_CLASS_POWERLEVEL
COMMAND_CLASS_SECURITY
COMMAND_CLASS_VERSION_V2
COMMAND_CLASS_WAKE_UP_V2
COMMAND_CLASS_ZWAVEPLUS_INFO_V2
    
```

| | | Alarm Version 1 | Notification Version 4 |
|--------------------|--------------------|------------------------|-------------------------|
| Alarm Type | Vibration detected | 0x02 | |
| | Tamper Switch | 0x03 | |
| Alarm Level | | ON : 0xFF OFF: 0x00 | |
| Notification Type | Vibration detected | | 0x07 |
| | Tamper Switch | | 0x07 |
| Notification Event | Vibration detected | | ON : 0x02 OFF: 0x00 |
| | Tamper Switch | | Open:0x03 Close:0x00 |
| Event Parameter | Vibration detected | | 0x02 |
| | Tamper Switch | | 0x03 |

Installation

Notice: If you are installing the entire Z-Wave™ system for the first time, please refer to the installation guide of Z-Wave™ Interface Controller before installing ZS 5101-5 Shock Sensor.

1. **Install Battery:** Use care when installing the battery. Press the locking tab on the top sensor cover, and then gently pull up the cover. Observe the correct polarity before insert the battery.
2. After insert the battery, the LED will start to flash slowly, which means the sensor has not yet been "inclusion".
3. For "**Inclusion**" in (adding to) a network: Put the Z-Wave™ Interface Controller into "inclusion" mode, and following its instruction to add the ZS 5101-5 to your controller. To get in the "inclusion" mode, the distance between sensor and controller is suggested to be in one meter. Press the program switch of ZS 5101-5 for 1 second at least to be included. The LED on the ZS 5101-5 should go off, if not, please try again.

For **“Exclusion”** from (removing from) a network: Put the Z-Wave™ Interface Controller into “exclusion” mode, and following its instruction to delete the ZS 5101-5 from your controller. Press the program switch of ZS 5101-5 for 1 second at least to be excluded.

For **“Association”** :removing the cover of the ZS 5101-5 to get into the “Awake” mode, then put the Z-Wave™ Interface Controller into “Association”, and following its instruction to associate the ZS 5101 with other device. Close the cover back after “association” done, afterward the ZS 5101-5 will get into “Sleep” mode for power saving. Support one association group (5 nodes). All triggering reports & low voltage report will be sent to the associated nodes.

“Awake” mode: it is to leave the “Sleep” mode by removing the cover of ZD5101-5, to allow the Z-Wave™ Interface Controller to do “Inclusion”, “Exclusion”, “Association” and to reply and receive the commands from controller.

4. **Auto Wake Up:**

Use “Wake Up” command to set up the awaking time and send the wake up notification to controller. User can use command to change the auto wake up from 500 seconds to 1 week, Interval increment is 250 seconds. (Default: 6 hours)

* Use “Battery Get” command to have the battery capacity back in %

5. **Battery Capacity Detection:**

* It will detect the battery capacity automatically

* Low Battery Auto Report (low battery is set as 2.6+/-0.1 Voltage, detects every 2 hours)

6. **Power Level Control:**

* Use “Power Level Set” to set up the RF strength

* Use “Power Level Test Node Set” to test specific node’s RF sensitivity

7. Support AES Function

8. Support OTA Firmware update from controller. Please refer to your controller manual. Once OTA function success, please make sure to exclusive the device & inclusive again before use the device.

9. **Factory Default Reset:** Push the Tamper switch then power on (put in the battery) & hold the Tamper switch for 5 seconds, ZD5101-5 will send the “Device Reset Locally Notification” command and reset to the factory default, LED will solid on, need to take off the battery and re-put in the battery to complete the function.

10. All the rest commands depend on Z-Wave standard

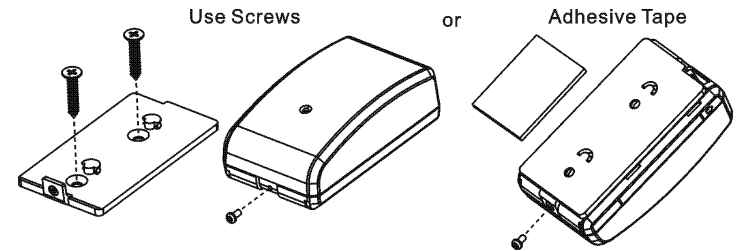
11. Slide back the rear cover and screw fastening with the front cover, the LED should go off.

12. Using the adhesive tape or fixing screws to fix the bracket holder with shock sensor.

13. Sensitivity Adjustment:

To increase sensitivity, turn the adjustment clockwise.

To decrease sensitivity, turn the adjustment counter-clockwise.



Operation

1. Vibrate the ZS 5101, the sensor will send status of “ON” (Basic Set,Value:0xFF) & notification report to any association nodes ; With no triggered in 10 seconds, the sensor will send status of “OFF”(Basic Set,Value:0x00) & notification report to any association nodes.Normal operation, the LED will not light.

2. The ZS 5101 sensor equipped with tamper switch. If the cover of sensor is removed, the ZS 5101 will send an notification report to the Z-Wave™ Interface Controller.