

## Limited Warranty

Vision Guarantees that every wireless ZB5311 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](http://www.visionsecurity.com.tw)

# VISION®

## Installation & Operation Manual

### Federal Communications Commission Statement

This equipment has been followed to comply with Part 15 of the FCC Rules. 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 undesirable 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.**

ZB 5311US-8  
 ZB 5311USLR-8  
 ZB 5311EU-8  
 ZB 5311EULR-8  
 ZB 5311ANZ-8  
 ZB 5311IN-8  
 ZB 5311IL-8  
 ZB 5311RU-8  
 ZB 5311JP-8  
 ZB 5311KR-8

Glass Break Detector

ZB5311-8 | V0 | 1130815

[www.visionsecurity.com.tw](http://www.visionsecurity.com.tw)



### Introduction

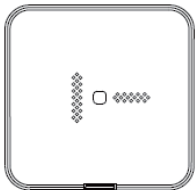


Thanks for choosing the Vision's wireless Glass Break Detector (ZB 5311) of the home automation device. This sensor is a Z-Wave Plus® V2 enabled device (interoperable, two-way RF mesh networking technology) and is fully compatible with any Z-Wave® enabled network and its security framework. Every mains powered Z-Wave Plus enabled device acts as a signal repeater and multiple devices result in more possible transmission routes which helps eliminate RF dead-spots.

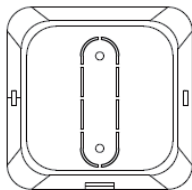
Z-Wave Plus enabled devices displaying the Z-Wave Plus® logo can also be used with it regardless of the manufacturer, and ours can also be used in other manufacturer's Z-Wave Plus enabled networks. This sensor monitors various glass breaking sound with dual stage detection for home security protection. Its adjustable sensitivity can meet specific environment's requirement. When the device is secure included into Z-Wave network, above communication will be encrypted.

Z-Wave Long Range Distance: 2,600 ft.

### Product Description and Specification



Front



Rear

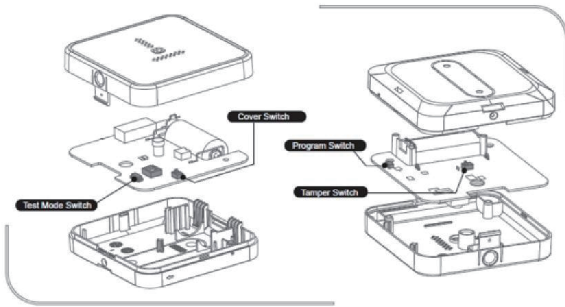
### Command Class

COMMAND CLASS NAME	VERSION	REQUIRED SECURITY CLASS
ASSOCIATION	2	S0' or S2
ASSOCIATION GROUP INFO	3	S0' or S2
BATTERY	1	S0' or S2
CONFIGURATION	4	S0' or S2
DEVICE RESET LOCALLY	1	S0' or S2
FIRMWARE UPDATE MD	5	S0' or S2
INDICATOR	3	S0' or S2
MANUFACTURER SPECIFIC	2	S0' or S2
MULTI CHANNEL ASSOCIATION	3	S0' or S2
POWERLEVEL	1	S0' or S2
SECURITY	2	None
SUPERVISION	1	None
TRANSPORT_SERVICE	2	None
VERSION	3	S0' or S2
ZWAVEPLUS_INFO	2	None
NOTIFICATION	8	
WAKE UP	2	

Specification:	Package Content:	
Protocol: Z-Wave™	1pc	ZB 5311 Detector
Frequency Range:	1pc	CR123A Battery
908.42MHz (ZB5311US-8)	1pc	Accessory Pack
912.00MHz (ZB5311USLR-8)		
868.42MHz (ZB5311EU-8)		
864.00MHz (ZB5311EULR-8)		
921.42MHz (ZB5311ANZ-8)		
865.22MHz (ZB5311IN-8)		
916.00MHz (ZB5311IL-8)		
869.00MHz (ZB5311RU-8)		
922-926MHz (ZB5311JP-8)		
920-923MHz (ZB5311KR-8)		
Operating Range: > 100 feet line of sight		
Operating Temp.: -15°C~ 60°C (-5°F ~140°F)		

## Operation

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 ZB5311.



- 1 LED Status for Z-Wave Network:  
 \* Not included: The LED will flash 5 times  
 \* Included: The LED is solid on for 1 second.
- 2 For "Inclusion" in (adding to) a network: Put the Z-Wave™ Interface Controller into "inclusion" mode, and follow its instruction to add the sensor 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 the sensor once, red LED is solid on for 1 second. (After sending Z-Wave NIF once and not be included, it will send NWI for 30 seconds for auto inclusion. The sensor goes into Sleep Mode and LED lights on to indicate its status.)
- 3 [Adding device via SmartStart]  
 SmartStart simplifies the installation and setup process by scanning the sensor's SmartStart QR code via smartphone. Please refer to the inclusion controller's manual for activating SmartStart. After a sensor is powered on, it will go into SmartStart inclusion mode.
- 4 The DSK label will be on the backside of the sensor. Scan the DSK label to access the SmartStart if gateway's UI supports SmartStart. (Remark: The QR code is for use with Z-Wave SmartStart by using "DSK," "Device Specific Key," "PIN," or "PIN code," etc.)
- 5 For "Exclusion" from (removing from) a network: Set up the Z-Wave™ Interface Controller into "exclusion" mode, and follow its instruction to delete the sensor from your controller. Press the Program Switch of the sensor once for being excluded, red LED will flash 5 times quickly after successful exclusion.
- 6 **Wake Up Notification:** after cover switch or tamper switch is on for 1 second, it sends "Notification" and "Wake Up Notification" for receiving all command class from controller. The sensor will go to sleep mode without receiving any Z-Wave command till 10 seconds.
- 7 **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 auto wake up from 10 minutes to 1 week. Interval increment is 200 seconds. Default value is set at 24 hours.
- 8 **Trigger Response:** When glass break sound is detected / after glass break sound is detected for 10 seconds / cover switch or tamper switch is on for 1 second / cover switch or tamper switch is off for 1 second, the sensor will send Notification Report as Table 1
- 9 **Glass Break Detection Test Mode:**  
 When low frequency sound is detected, Green LED flashes once.  
 When glass break sound is detected, Red LED is solid on for 0.5 second and the sensor will send Notification Report as Table 1.  
 After glass break sound is detected for 1 second, the sensor will send Notification Report as Table 1.
- 10 **Battery Capacity Detection:**  
 \* Use "Battery Get" command to have the battery capacity in % (hexadecimal)  
 \* Auto Battery Capacity Detection is made every Auto Wake Up.  
 \* Low Battery Report is set at 2.6V (+/- 0.1V). Battery needs to be changed to ensure detecting functionality.
- 11 **Association:** Support two groups with 5 nodes.  
 Group 1 = Lifeline  
 Group 2 = Basic Set

- 12 **To Enter / Exit Glass Break Detection Testing Mode**  
 Enter Test Mode: Press Test Mode Switch once, Red & Green LED lights up for 1 second to indicate that the sensor enters Test Mode.  
 Exit Test Mode (automatically): The sensor exit test mode without listening low frequency sound till 10 minutes.  
 Exit Test Mode (manually): Press Test Mode Switch once during test mode, Red & Green LED flash 3 times to indicate that the sensor exits test mode.
- 13 **Factory Default Reset:**  
 Press and hold the Program Switch for 5 seconds, red LED lights up. It sends "Device Reset Locally Notification" command and reset to the factory Default.
- 14 Support OTA Firmware update from controller. Please refer to your controller manual. Once OTA function succeeded, we recommend to exclude then include the devices from system after OTA.
- 15 Support SECURITY S0 & SECURITY S2 UNAUTHENTICATED & SECURITY S2 AUTHENTICATED.
- 16 Support Explorer Frame Function
- 17 All the rest commands depend on Z-Wave Plus V2 standard
- 18 A Security Enabled Z-Wave Controller must be used to fully utilize the products.

## Command Class

	Byte	Value
Parameter 1 (Sensitivity of glass break detection)	1	0 (Low Sensitivity) - Default 1 (High Sensitivity)
Parameter 2 (Application level retry times)	1	0 - Default ~ 5
Parameter 3 (Supervision report timeout)	2	500ms - Default ~ 10,000ms
Parameter 224 (Wake Up Test Mode)	1	0 (Disable) - Default 255 (Enable)

(Parameter 1) Sensitivity of glass break detection: User can change value from 0 to 1 to set sensitivity.

(Parameter 2) Application level retry times: User can set from 0 to 5 times for notification failed transmission to retry. When it is set 0, the sensor stops to retry.

(Parameter 3) Supervision report timeout: User can set value from 500 to 10,000ms for supervision report timeout.

(Parameter 224) Wake Up Test Mode: User can set value at 0 as Stay awake or 255 as Stay normal.

## Trigger Response

Notification	Type	Event	Value
Glass Break Sound Detected	0x07	0x06 (Glass Break)	0xFF
After detecting glass break sound 10 seconds	0x07	0x00 (Idle)	0x00
Cover or Tamper Switch On	0x07	0x03	
Cover & Tamper Switch Off	0x07	0x00	

Table 1