

Product Description and Specification:

Specification:	Package Content
Protocol: Z-Wave™ (ZM5101) Frequency Range: 865.22MHz (ZA1501IN-5) 868.42MHz (ZA1501EU-5) 869.00MHz (ZA1501RU-5) 908.42MHz (ZA1501US-5) 916.00MHz (ZA1501IL-5) 919-923MHz (ZA1501KR-5) 919.80MHz (ZA1501HK-5) 922-926MHz (ZA1501JP-5) 921.42MHz (ZA1501BR-5) Operating Range: Up to 100 feet line of sight Operating Temp.: -10°C~ 60°C (14°F ~140°F)	1pc ZB5311-5 1pc CR123A x 1 1pc Installation & Operation Manual



Installation & Operation Manual

Glass Break Detector

- ZB5311IN-5
- ZB5311EU-5
- ZB5311RU-5
- ZB5311US-5
- ZB5311IL-5
- ZB5311KR-5
- ZB5311HK-5
- ZB5311JP-5
- ZB5311BR-5

Z-Wave Command Classes:

- COMMAND_CLASS_ASSOCIATION_GRP_INFO
- COMMAND_CLASS_ASSOCIATION_V2
- COMMAND_CLASS_BATTERY
- COMMAND_CLASS_DEVICE_RESET_LOCALLY
- COMMAND_CLASS_FIRMWARE_UPDATE_MD_V4
- COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2
- COMMAND_CLASS_NOTIFICATION_V8
- COMMAND_CLASS_POWERLEVEL
- COMMAND_CLASS_SECURITY
- COMMAND_CLASS_SECURITY_2
- COMMAND_CLASS_SUPERVISION
- COMMAND_CLASS_TRANSPORT_SERVICE_V2
- COMMAND_CLASS_VERSION_V3
- COMMAND_CLASS_WAKE_UP_V2
- COMMAND_CLASS_ZWAVEPLUS_INFO_V2

Z-Wave S2 Support Command Classes :

- COMMAND_CLASS_ASSOCIATION_V2
- COMMAND_CLASS_ASSOCIATION_GRP_INFO
- COMMAND_CLASS_BATTERY
- COMMAND_CLASS_DEVICE_RESET_LOCALLY
- COMMAND_CLASS_FIRMWARE_UPDATE_MD_V4
- COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2
- COMMAND_CLASS_NOTIFICATION_V8
- COMMAND_CLASS_POWERLEVEL
- COMMAND_CLASS_VERSION_V3
- COMMAND_CLASS_WAKE_UP_V2

Alarm V1	Type	Value
Glass Breaking Sound Detected	0x06	0xFF
10 Seconds after Glass Breaking Sound Detected	0x06	0X00
Cover or Tamper Removed	0x03	0xFF
Cover or Tamper Not Removed	0x03	0X00

Notification V8 Type	Type	Event	Event Parameter	Notification V8 Type	Value
Glass Breaking Sound Detected	0x07	Glass Break (0x06)	0X00	Glass Breaking Sound Detected	0xFF
10 Seconds after Glass Breaking Sound Detected	0x07	Idle (0x00)	0x06	10 Seconds after Glass Breaking Sound Detected	0X00
Cover or Tamper Removed	0x07	0x03	0x00		
Cover or Tamper Not Removed	0x07	0x00	0x03		

ZB5311-5 | V0 | 1090326

www.visionsecurity.com.tw



Introduction



Thanks for choosing the Vision's wireless Glass Break Detector (ZB5311-5) of the home security device. This sensor is a Z-Wave™ Plus 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. ZB5311-5 monitors various glass breaking sound with dual stages detection for home security protection. Also, adjustable sensitivity could meet different environment's requirement. When the device is secure included into Z-Wave network, above communication will be encrypted. ZB5311-5 supports SECURITY S0 / SECURITY S2 UNAUTHENTICATED / SECURITY S2 AUTHENTICATED.

Limited Warranty

Vision Guarantees that every wireless ZB5311-5 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

Federal Communications Commission Statement

FCC 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, and (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Caution

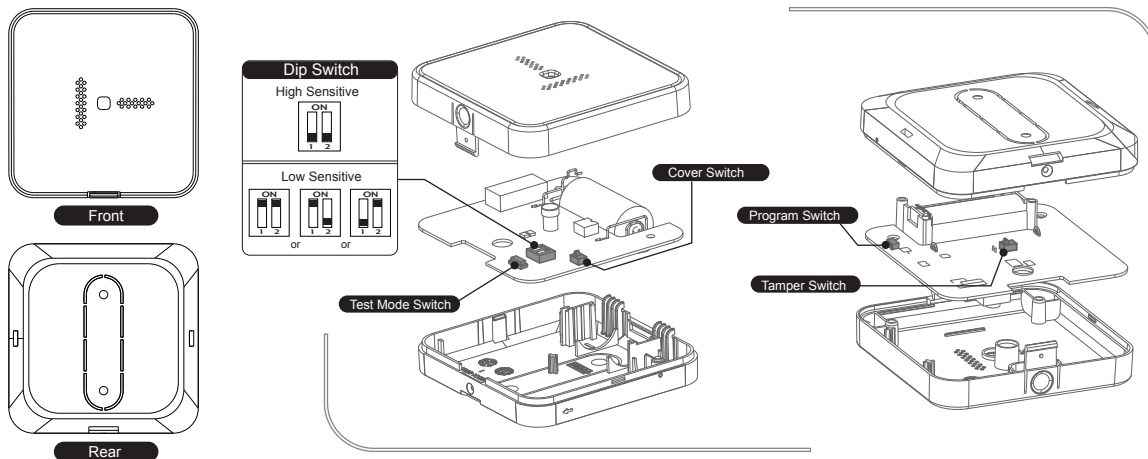
To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance may void the user's authority to operate his equipment. (Example – use only shielded interface cables when connecting to computer or peripheral devices)

FCC Statement in User's Manual (for class B) FCC Section 15.105 "Federal Communications Commission (FCC) Statement"

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 in accordance with the instructions, 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 to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Glass Break Detector



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.

- 1 For **"Inclusion"** in (adding to) a network:
 - **SmartStart:** Please scan the QR Code from glass break detector for SmartStart. QR code and PIN is located on the device, also there is a Full DSK string on the enclosed DSK card. Please keep DSK card carefully for future inclusion needed.
 - Remark:
 - a. Z-Wave SmartStart aims to shift the tasks related to inclusion of an end device into a Z-Wave network away from the end device itself, and towards the more user-friendly interface of the gateway.)
 - b. The DSK label will on the backside of ZB5311-5, 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.)

Manual: If your controller does not support SmartStart, you may use classic inclusion by performing the following steps Put the Z-Wave™ Interface Controller into "inclusion" mode, and following its instruction to add the ZB5311-5 to your controller. To get in the "inclusion" mode, press the Program Switch of ZB5311-5 once for sending the NIF. After sending NIF, Z-Wave will send the auto inclusion; otherwise, ZB5311-5 will go to sleep after 30 seconds. After inclusion successfully, the Green LED will be solid on for 0.5 second.
- 2 For **"Exclusion"** from (removing from) a network: Put the Z-Wave™ Interface Controller into "exclusion" mode, and following its instruction to delete the ZB5311-5 from your controller. Press the Program Switch of ZB5311-5 once to be excluded, the Green LED will flash 5 times quickly after successful exclusion.

Note: All user and network settings will be cleared and the device reset to factory defaults when the device is excluded.
- 3 **Trigger Response:**

When Glass Breaking Sound Detected: The sensor will send Notification Report (refer to Table 1 & 2 & 3).
 10 Seconds after Glass Breaking Sound Detected: The sensor will send Notification Report (refer to Table 1 & 2 & 3).
 When the cover or tamper has been opened or closed: The sensor will send Notification Report (refer to Table 1 & 2).
- 4 **Wake Up Notification:**

Press the program switch once to send NIF, it takes around 5 seconds to send "Wake Up Notification" for receiving all the command class from controller. The ZB5311-5 will go to sleep mode without receiving any Z-Wave command till 10 seconds.
- 5 **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 10 minutes to 1 week, Interval increment is 200 seconds. (Default Value: 1 hour.)
- 6 **Battery Capacity Detection:**

Use "Battery Get" command to have the battery capacity back in %. It will detect the battery capacity automatically. Low Battery Auto Report (low battery is set as 2.6+/-0.1 Voltage).

- 7 **Association:**
 - * Support two groups with 5 nodes.
 - * Group 1 = Lifeline (Battery, Notification, Reset Locally)
 - * Group 2 = Basic Set (Basic Set)
- 8 **To Enter / Exit Glass Break Detection Testing Mode:**
 - Enter Test Mode: Press Test Mode Switch once and the Red/ Green LED lights up for 1 second to indicate that it has entered the Test Mode.
 - Exit Test Mode (Automatically): The ZB5311-5 will exit the Test Mode without listening the low frequency sound till 10 minutes.
 - Exit Test Mode (Manually): Press Test Mode Switch once during the Test Mode, Red/Green LED flashes 3 times to indicate that the Test Mode has been exited.
- 9 **Glass Break Detection Testing Mode Behavior:**
 - Low frequency sound detected: Green LED flashes once.
 - Glass breaking sound detected: Red LED is solid on for 0.5 second and the sensor will send Notification Report (refer to Table 1 & 2 & 3).
 - 1 second after glass breaking sound detected: The sensor will send Notification Report (refer to Table 1 & 2 & 3).
- 10 **Sensitivity Adjustment:**

There is a Dip Switch inside of the ZB5311-5 for sensitivity selection. User could adjust the sensitivity for meeting the environment's situation.
 ※The Red LED will flash once when adjusting the Dip Switch.

Dip Switch vs. Sensitivity		Switch 1	
		On	Off
Switch 2	On	Low	Low
	Off	Low	High
- 11 Support Explorer Frame Function
- 12 All the rest commands depend on Z-Wave standard
- 13 **Factory Default Reset:** Long press the program switch up to 10 seconds to send the "Device Reset Locally Notification" command and reset to the factory default. The Green LED will flash 5 times quickly after finishing the Factory Default Reset.
 (Remark: This is to be used only in the case of primary controller being inoperable or otherwise unavailable.)
- 14 Support OTA Firmware update from controller. Please refer to your controller manual. Once OTA function success, we recommend you exclusive the device & inclusive again before use the device.
- 15 Support SECURITY S0, SECURITY S2 UNAUTHENTICATED & SECURITY S2 AUTHENTICATED.
- 16 A Security Enabled Z-Wave Controller must be used to fully utilize the products.

P.S.: Default – High Sensitivity