

Operation

1. Opening/Closing the door/window to separate the magnet from the sensor will send signal to any association nodes according to the Status/Signal table on page 2 and the LED will flash once.
2. Normal operation, the LED will not light.
3. If the cover of sensor is removed, the tamper switch will send signal according the Status/Signal table, and the LED will go solid and ZD2105 will send "Wake Up Notification". ZD2105 will go to sleep mode and the red LED will go off after 10 seconds.
4. ZD2105 will send signal according the status / signal table after closing the cover back 2 seconds.

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.

Limited Warranty

Vision Guarantees that every wireless door/window 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

ZD2105IN-5

ZD2105MY-5

ZD2105EU-5

ZD2105RU-5

ZD2105US-5

ZD2105IL-5

ZD2105KR-5

ZD2105HK-5

ZD2105JP-5

ZD2105BR-5

Recessed Door/ Window Sensor

Introduction

Thanks for choosing the Vision's wireless door/window sensor 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 it's 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 door/window and send Z-Wave™ signal when door or window is opened and closed. Recessed Door Sensors are easily installed inside the door or window frame to keep the sensor hidden from view. When the device is secure included into Z-Wave network, above communication will be encrypted. ZD2105 supports SECURITY S0 / SECURITY S2 UNAUTHENTICATED / SECURITY S2 AUTHENTICATED.

Product Description and Specification

Specification:	Package Content:
Protocol: Z-Wave™ (ZM5202)	1pc ZD 2105-5 sensor
Frequency Range:	1pc Magnet
865.22MHz (ZD2105IN-5)	1pc CR2 Lithium Battery
868.10MHz (ZD2105MY-5)	1pc Accessory pack
868.42MHz (ZD2105EU-5)	2pcs Screws for bracket/ sensor
869.00MHz (ZD2105RU-5)	1pc Installation & Operation manual
908.42MHz (ZD2105US-5)	
916.00MHz (ZD2105IL-5)	
919~923MHz (ZD2105KR-5)	
919.80MHz (ZD2105HK-5)	
922~926MHz (ZD2105JP-5)	
921.42MHz (ZD2105BR-5)	
Operating Range: Up to 100 feet line of sight	
Operating Temp.: -15°C~ 60°C (5°F ~140°F)	
Battery: CR2 * 1PC	

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_SUPERVISION
 COMMAND_CLASS_VERSION_V3
 COMMAND_CLASS_WAKE_UP_V2

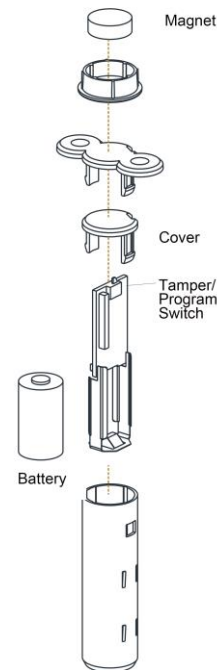
Notification V8 Type

	SWITCH TYPE	STATUS
Notification Type	Reed Switch	0x06
	Tamper Switch	0x07
Event	Reed Switch	Close: 0x17, Open: 0x16
	Tamper Switch	Close:0x00; Open:0x03

V1 Alarm:

	Switch Type	Status
Alarm Type	Reed Switch	0x06
	Tamper Switch	0x07
Alarm Level	Close: 0x00; Open 0xFF	

Basic Report:		
	Open	Close
Reed Switch	0xFF	0x00



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 ZD2105.

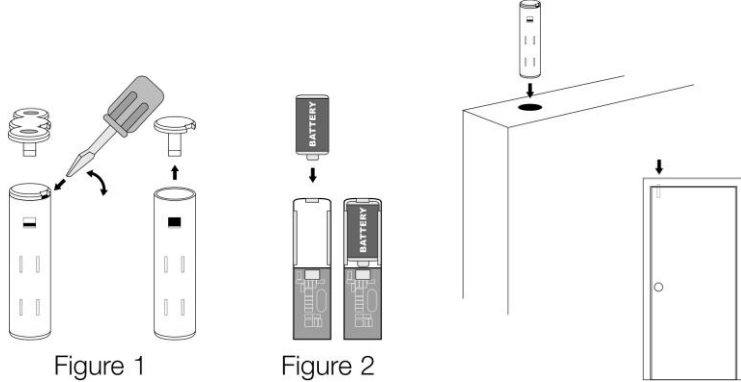
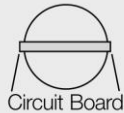


Figure 1

Figure 2

1. Use a flat head screw driver to access the ZD2105 to change tops or access the battery. (See figure 1).

NOTICE: Before removing the circuit board, notice that it fits inside a channel on the inside of the case. When replacing the board, ensure you fit it back into the same channel for proper fit.



Circuit Board

2. Use care when installing the battery and observe the correct polarity, when the battery is inserted (see Figure 2).
3. It is important to select the proper placement of the recessed transmitter and magnet. The transmitter has two separate tops that allow a flush mount or screw mount in case you accidentally over drill the hole or require extra support to ensure the transmitter does not move. The magnet does not have a second top with a flange to screw it into place so you must be extra careful to ensure that the magnet is tightly in place once installed.

Step 1) Select a location on the door or window frame for the ZD2105 and magnet to be installed. Use a marker or piece of clay to mark and ensure that the two holes you intend to drill are lined up directly across from each other.

Step 2) Using an 11/16" (or 17.46mm) drill bit, slowly drill the first hole for the magnet. The ZD2105 was specifically designed to be slightly larger than an 11/16" (or 17.46mm) hole so you will need to carefully drill to fit by slowly routing the hole little by little to ensure a snug fit.

Step 3) Drill the mating hole for the transmitter and use either the standard flush mount cap and insert the transmitter for a snug fit or use the flanged cap and use the included screws for mounting the transmitter to the door or window frame.

If you accidentally drill the magnet side too big and it is loose, you can place the transmitter in that position and use the flanged cap to screw it into position.

4. Remove the rear cover and Insert CR2 battery into the battery compartment. If user press the program switch, LED will start to flash slowly and start to send NIF. ZD2105 will go to sleep if user didn't press the program switch within 10 seconds.

LED Status for Z-Wave Network:

* After power on and then user press the program switch, the red LED will flash slowly if the ZD2105 has not been included yet.

* After power on, the red LED will go on if the ZD2105 has been included. (The LED will turn on till the rear cover has been closed with the front cover firmly, the LED should go off.)

5. For "Inclusion" in (adding to) a network: Put the Z-Wave™ Interface Controller into "inclusion" mode, and following its instruction to add the ZD2105 to your controller. To get in the "inclusion" mode, press the Program Switch of ZD2105 for sending the NIF. After sending NIF, Z-Wave will send the auto inclusion; otherwise, ZD2105 will go to sleep after 30 seconds.

For "Exclusion" from (removing from) a network: Put the Z-Wave™ Interface Controller into "exclusion" mode, and following its instruction to delete the ZD2105 from your controller. Press the Program Switch of ZD2105 to be excluded.

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

6. Put back the cover, the LED should go off.
7. Locate the Magnet close to the ZD2105 sensor, the distance between these two devices should be in 1.9cm.
8. **Wake Up Notification:**
Remove the rear cover, ZD2105 will be "Wake Up Mode" for receiving all the command class from controller. Close the rear cover back and wait for 3 seconds to send Wake Up Notification. If ZD2105 received "Wake Up No More Information" command then the ZD2105 will go to sleep mode or it will wait 10 seconds then go sleep mode. It will proceed all the commands after sending the "Wake Up Notification"
9. **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 3 minutes.
10. **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).
11. **Association:**
 - * Support two groups with 5 nodes / each group
 - * Group 1 = Lifeline
 - * Group 2 = On/Off Control
 - * All triggering reports & low voltage report will be sent to the associated nodes
 - * "Association" is used for other grouping devices chain reaction.
12. Support Explorer Frame Function
13. All the rest commands depend on Z-Wave standard

14. **Factory Default Reset:** Trigger the rear cover switch to send the Alarm Report and trigger the reed switch (close & open) 5 times in 10 seconds, ZD2105 will send the "Device Reset Locally Notification" command and reset to the factory default.
(Remark: This is to be used only in the case of primary controller being inoperable or otherwise unavailable.)
15. 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.
16. Support SECURITY S0, SECURITY S2 UNAUTHENTICATED & SECURITY S2 AUTHENTICATED.
17. Support SmartStart, please scan the QR Code from ZD2105 for SmartStart. QR code and PIN is located on the device, also there is a Full DSK string on the enclosed DSK card as below image:



18. A Security Enabled Z-Wave Controller must be used to fully utilize the products.