

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 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.

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: 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 keyfob 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

ZT1101IN-5

ZT1101MY-5

ZT1101EU-5

ZT1101RU-5

ZT1101US-5

ZT1101IL-5

ZT1101HK-5

ZT1101KR-5

ZT1101BR-5

ZT1101JP-5

**Z-Wave Keyfob
(w/o AES version)**

ZT1101-5 | V1 | 1040703 | 6B1Z-11001



Introduction

Thanks for choosing the Keyfob of the home security device. This keyfob is a Z-Wave™ enabled device (interoperable, two-way RF mesh networking technology) and is fully compatible with any Z-Wave™ enabled network. Every main 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”

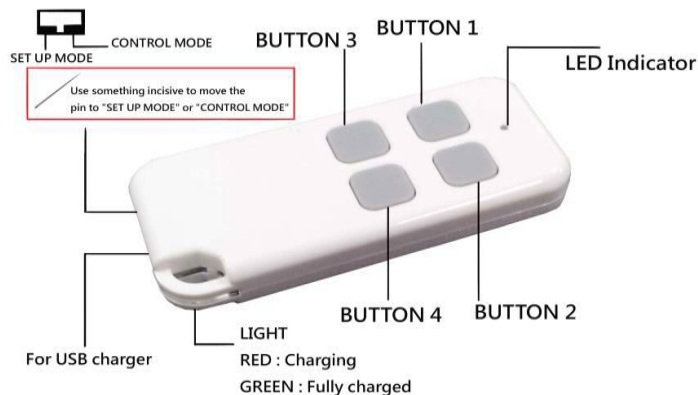
Z-Wave™ enabled devices displaying the Z-Wave™ logo can also be used with it regardless of the manufacturer, and ours can also be used in other manufacturer’s Z-Wave™ enabled networks. This device could help you control the Z-WAVE devices you learned in the gateway or directly in this keyfob (need association). It is rechargeable portable controller.

Product Description and Specification

Specification:	Package Content:
Protocol: Z-Wave™ (ZM5101N)	1pc Keyfob
Frequency Range:	1pc Installation & Operation manual
865.22MHz (ZT1101IN-5)	1pc Micro USB/USB cable
868.10MHz (ZT1101MY-5)	
868.42MHz (ZT1101EU-5)	
869.00MHz (ZT1101RU-5)	
908.42MHz (ZT1101US-5)	
916.00MHz (ZT1101IL-5)	
919.80MHz (ZT1101HK-5)	
920~923MHz (ZT1101KR-5)	
921.42MHz (ZT1101BR-5)	
922~926MHz (ZT1101JP-5)	
Operating Range: Up to 100 feet line of sight	
Operating Temp.: -15°C~ 60°C (5°F ~140°F)	
Battery: Lithium-Ion Rechargeable Battery (240mAh)	

Z-Wave Supported Command Classes:

COMMAND_CLASS_ASSOCIATION_GRP_INFO
COMMAND_CLASS_ASSOCIATION_V2
COMMAND_CLASS_BATTERY
COMMAND_CLASS_CENTRAL_SCENE
COMMAND_CLASS_DEVICE_RESET_LOCALLY
COMMAND_CLASS_FIRMWARE_UPDATE_MD_V2
COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2
COMMAND_CLASS_POWER_LEVEL
COMMAND_CLASS_VERSION_V2
COMMAND_CLASS_WAKE_UP_V2
COMMAND_CLASS_ZWAVEPLUS_INFO_V2



Installation/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 keyfob.

1. **There's a DIP switch at the bottom of keyfob. Different positions corresponds to different functionalities that described in the following sections**

2. **Setup Z-Wave Network:**

A) To “**Include**” into (adding into) or “**Exclude**” from (removing from) an existing network: Put the Z-Wave™ Gateway or Controller into learn mode to add or remove the keyfob into/from your controller. To get in to “inclusion” or “exclusion” mode, the distance between sensor and controller is suggested to be within one meter. (See **3.Control Mode: 1)Learn Mode & 4.Setup Mode: 5)Learn Mode via NWI**)

B) **Association Set From Gateway/Primary Controller:**

* Keyfob supports 5 groups; group 1 (Lifeline) – “Central Scene”, group 2~5 (Scene Activation).

* Primary Controller or Gateway could association nodes to all its groups 1~5.

C) Keyfob can form its own network. In this case it's role is primary controller and capable of include/exclude other devices or controllers into its own network. It can also organize its Scene Activation Groups 2~5.(See **4.Setup Mode**). It can also hand over its primary role to other controllers in network by Controller Shift (See **4.Setup Mode**).

D) When Keyfob's role is secondary controller, it can become primary controller by entering learn mode while Primary Controller uses its controller shift function.(please refer to its manual for detail).

3. **Control Mode (DIP SWITCH TO RIGHT):**

1) **Learn Mode:**

* Keyfob should not include any node

* Press button 1 and 4 together till the red LED flashes to

* Keyfob will return to sleep after 5 seconds if no inclusion nor exclusion.

2) **Wake Up Notification**

Press button 2 and 3 together until green LED flashes. Keyfob will first send NIF (without entering learn mode) and then send Wakeup Notification 5 seconds later.

3) **Wake Up Interval**

Use Wakeup Interval Set command to set wakeup time to send “Wake Up Notification” to assigned node. User could change the auto wake up from 4 minutes to 1 week. The minimal increment interval is 4 minutes.

* Default Value: 6 hours

4) **Battery Capacity Detection:**

* Send “Battery Get” command, and then wake up device as described in 2) above, to have the battery capacity back in %.

* It will detect the battery capacity automatically every 2 hours.

* Low Battery Auto Report to Group 1 (Lifeline) Nodes.

* Full Capacity: 0x64 / Low Battery Warning: 0xFF



5) **Switch All ON/OFF:**

- * Open All: Press button 1 and 2 together until the green LED flash once and the keyfob will send "SWITCH_ALL_ON" command
- * Close All: Press button 3 and 4 together until the red LED flash once and the keyfob will send "SWITCH_ALL_OFF" command

6) **Mode Switch:**

- * Press button 2 and 4 together until green LED flashes to switch to "Central Scene Mode".
- * Press button 1 and 3 together until red LED flashes to switch to "Scene Activation Mode".

7) **Central Scene Mode(Group 1):**

- * Short press (each button, press time <1 second):
 - The green LED will flash once and send "Central Scene Notification" command (Key Attribute 0x00) to all Group 1 (Lifeline) Nodes.
- * Long press (each button, press time >2 seconds):
 - The red LED will keep flashing while long pressing the button and send "Central Scene Notification" command (Key Attribute 0x02) every 150ms to Group 1 Nodes.
- * Release the button (After long press):
 - The orange LED will flash while release the button and send "Central Scene Notification" command (Key Attribute 0x01) to the pairing group.
- * Corresponding Scene Number and Group:

Button 1	Button 2	Button 3	Button 4
Scene number 1	Scene number 2	Scene number 3	Scene number 4

8) **Scene Activation Mode:**

- * Short press (each button, <1 second):
 - The green LED will flash once and send "Scene Activation" command to the nodes of corresponding group.
 - Corresponding Scene ID and Group:

	Button 1	Button 2	Button 3	Button 4
Group	2	3	4	5
Scene ID	1	3	5	7

- * Long press (each button):
 - The red LED will flash once and send "Scene Activation" command to the nodes of corresponding group.
 - Corresponding Scene ID and Group:

	Button 1	Button 2	Button 3	Button 4
Group	2	3	4	5
Scene ID	2	4	6	8

4. **Setup Mode (DIP SWITCH TO LEFT):**

- 1) **Include other devices into Keyfob's network:**
 - * Keyfob must be primary controller

- * Press button 1 and 4 together until green LED flashes
- * Keyfob will go back to sleep if no node info received within 10 seconds.

2) **Exclude other devices from Keyfob's network:**

- * Keyfob must be the primary controller
- * Press button 2 and 3 together until red LED flashes.
- * Keyfob will go back to sleep if no node info received within 10 seconds.

3) **Controller Shift:**

- * Keyfob must be the primary controller.
- * Press button 1 and 3 together until green LED flash, then red LED flash.
- * Put another controller which you want it to become primary into learning mode.

4) **Disassociation/Association for Scene Activation Groups (2~5):**

- * Press button 2 and 4 together until green LED flashes
- * Release both button and the red LED will flashes twice; choose which button group to associate and **held** corresponding button.
- * Let the device which going to be associated sending NIF.
- * Green LED will start flashes if association is successful. Now you can release the button.
- * If the device has already been associated to that button already, this operation will disassociate it from that button and instead Red LED flashes.
- * Keyfob will be back to sleep if no any button is held within 4 seconds.

5) **Learn Mode via NWI:**

- * Keyfob should not include any node
- * Press button 3 and 4 together till the red LED flashes to enter learn mode, and it will broadcast **NWI NIF**.
- * Keyfob will return to sleep after 5 seconds if no inclusion nor exclusion.

5. **Factory Default Reset:**

Press 4 buttons together for 10 seconds. The LED colors will turn red after 2 seconds for 2 seconds and turn green for another 2 seconds. Keyfob will send "Device Reset Locally Notification" command and reset to the factory default. (Red LED flashes fast means reset completely).

Remark: This is to be used only in the case of primary controller being inoperable or otherwise unavailable.

6. **Copy Network Data to another Controller**

This functionality cannot be triggered by user, but is automatic issued under two circumstances when DUT acts as a primary controller:

- A) Include another controller into network.
- B) Controller Shift, hand over primary role to another controller.

7. **Support OTA Firmware Update.**

8. **All the rest unaddressed commands followed Z-WAVE standard.**