

## 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

“the user that changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.”

FCC Statement in User’s Manual (for calss 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.

## Limited Warranty

Vision Guarantees that every wireless ZS6411-7 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)



## Installation & Operation Manual

ZS6411BR-7

**Fire Alarm Responder**  
Z-Wave Smoke Sensor Adapter

## Introduction

Thanks for choosing the Vision's wireless Smoke Sensor Adapter (ZS6411-7) of the home security 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. Z-Wave Plus™ V2 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.

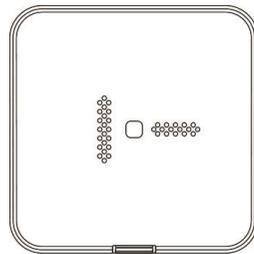
This device upgrades your wired smoke or CO detector to be a wireless Z-Wave version detector to get notifications when you are away if your smoke or CO alarm sounds. Put the Smoke Sensor Adapter near the Smoke or CO detector, the notification could reach you immediately whenever they sound their sirens. When the device is secure included into Z-Wave network, above communication will be encrypted. ZS6411-7 supports SECURITY S0 / SECURITY S2 UNAUTHENTICATED / SECURITY S2 AUTHENTICATED.

## Product Description and Specification

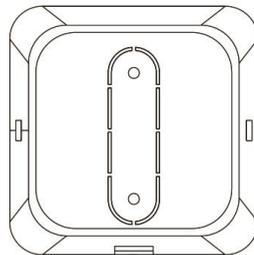
Specification:	Package Content:
Protocol: Z-Wave™ (ZGM130S)	1pc ZS6411-7
Frequency Range: 921.42MHz (ZS6411BR-7)	1pc Battery (CR123A)
Operating Range: Up to 100 feet line of sight	1pc Operation manual
Operating Temp.: -10°C~ 60°C (14°F ~140°F)	

### Z-Wave S2 Support Command Class:

COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO\_V3  
 COMMAND\_CLASS\_ASSOCIATION\_V2  
 COMMAND\_CLASS\_BATTERY  
 COMMAND\_CLASS\_DEVICE\_RESET\_LOCALLY  
 COMMAND\_CLASS\_FIRMWARE\_UPDATE\_MD\_V5  
 COMMAND\_CLASS\_INDICATOR\_V3  
 COMMAND\_CLASS\_MANUFACTURER\_SPECIFIC\_V2  
 COMMAND\_CLASS\_MULTI\_CHANNEL\_ASSOCIATION\_V3  
 COMMAND\_CLASS\_NOTIFICATION\_V8  
 COMMAND\_CLASS\_POWERLEVEL  
 COMMAND\_CLASS\_VERSION\_V3  
 COMMAND\_CLASS\_WAKE\_UP\_V2



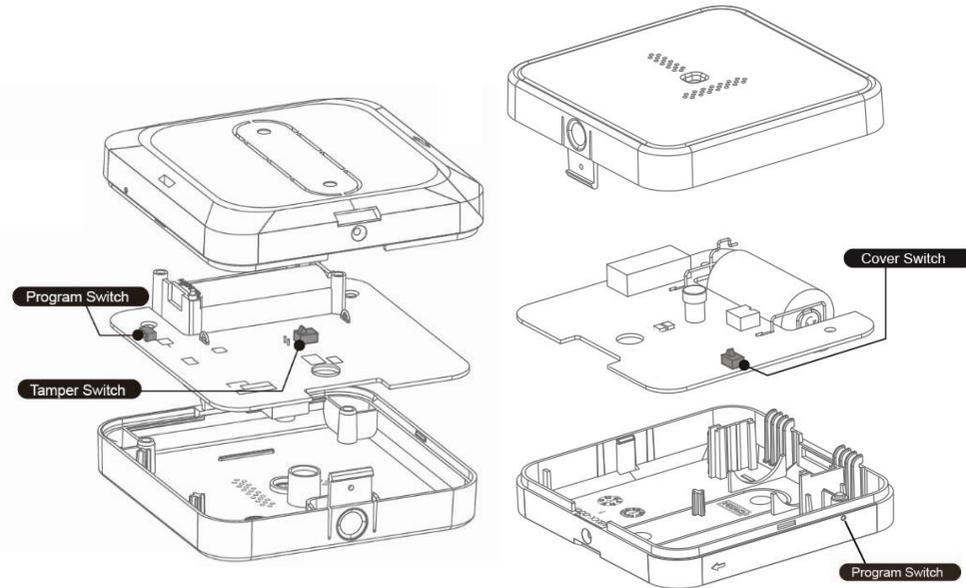
Front



Rear

### Z-Wave Command Classes:

COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO\_V3  
 COMMAND\_CLASS\_ASSOCIATION\_V2  
 COMMAND\_CLASS\_BATTERY  
 COMMAND\_CLASS\_DEVICE\_RESET\_LOCALLY  
 COMMAND\_CLASS\_FIRMWARE\_UPDATE\_MD\_V5  
 COMMAND\_CLASS\_INDICATOR\_V3  
 COMMAND\_CLASS\_MANUFACTURER\_SPECIFIC\_V2  
 COMMAND\_CLASS\_MULTI\_CHANNEL\_ASSOCIATION\_V3  
 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



## 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. Put the Fire Alarm Responder near the Smoke or CO detector, the notification could reach you immediately whenever they sound their sirens.**

- For “**Inclusion**” in (adding to) a network: Put the Z-Wave Interface Controller into “inclusion” mode, and following its instruction to add the ZS6411-7 to your controller. To get in the “inclusion” mode, press the program switch of ZS6411-7 once for sending the NIF, the Green LED will flash 5 times quickly before the learning process for showing the sensor has not been included. After sending NIF, Z-Wave will send the auto inclusion, the Green LED will flash 1 second after successful inclusion; otherwise, ZS6411-7 will go to sleep after 30 seconds. The Green LED will be flashing while the inclusion is proceeding.

### **[Adding Sensor via SmartStart]**

SmartStart simplifies the installation and setup process by having a user scan the sensor’s SmartStart QR code via smartphone. Please refer to the inclusion controller’s manual for activating SmartStart. When a sensor is powered on while not included, it will go into SmartStart inclusion mode. While in this mode, the sensor can be added to a Z-Wave controller that supports SmartStart.

- For “**Exclusion**” from (removing from) a network: Put the Z-Wave Interface Controller into “exclusion” mode, and following its instruction to delete the ZS6411-7 from your controller. Press the program switch of ZS6411-7 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. Wake Up Notification:**

Press the program switch of ZS6411-7 once, it will send “Wake Up Notification” after 6 seconds and active the “Wake Up Mode” for receiving all the command class from controller. The ZS6411-7 will go to sleep mode without receiving any Z-Wave command till 10 seconds. It will proceed all the commands after sending the “Wake Up Notification”

### **4. Auto Wake Up:**

Use “Wake Up” command to set up the awaking interval and send the wake up notification to controller. User can use “Wake\_Up” command to change the auto wake up interval from 10 minutes to 1 week, Interval increment is 200 seconds.

**(Default Value: 24 hours.)**

### **5. Trigger or Restore Response:**

- **Smoke or CO Detected:** After receiving the alarm or pattern sound of Smoke or CO Detector from the microphone of Fire Alarm Responder, it will send the Notification Report. (Please refer to Table 1.) and the Red LED will flash 0.5 seconds.

: Red/Green LED flashing 5 times

### **Notification V8 (Triggering Response)**

	Smoke	CO
Alarm Type	0x01	0x02
Alarm Value	0xFF	0xFF
Notification Type	0x01 (Smoke)	0x02 (CO)
Notification Event	0x02 (Smoke Detected)	0x02 (Carbon monoxide detected)

(Table 1)

- **Restore:** The sensor has triggered and no receiving any alarm or pattern sound till 6 seconds, it will send the Notification Restore Report. (Please refer to Table 2)

### **Notification V8 (Restore after Triggering)**

	Smoke	CO
Alarm Type	0x01	0x02
Alarm Value	0x00	0x00
Notification Type	0x01 (Smoke)	0x02 (CO)
Notification Event	0x00 (Idle)	0x00 (Idle)
Event Parameters Length	0x01	0x01
Event Parameter	0x02 (Smoke Detected)	0x02 (Carbon monoxide detected)

(Table 2)

- **Tamper/Cover Alarm:** The tamper or cover has been removed or closed till 500ms, ZS6411-7 will send the Notification Report. (Please refer to Table 3) The Red LED will flash 0.1 seconds if the tamper or cover has been removed.

**Notification V8 (Tamper / Cover Alarm)**

	Open the front or rear cover till 500ms	Close the front or rear cover till 500ms
Alarm Type	0x07	0x07
Alarm Value	0xFF	0x00
Notification Type	0x07 (Home Security)	0x07 (Home Security)
Notification Event	0x03 (Tamper or Cover Removed)	0x00 (Idle)
Event Parameters Length		0x01
Event Parameter		0x03 (Tamper or Cover Removed)

(Table 3)

**6. Battery Capacity Detection:**

Use “Battery Get” command to get the battery capacity back in %. It will detect the battery capacity automatically but the Low Battery Auto Report will be sent after triggering or wake up. (Remark: low battery is 2.5+/-0.1V)

**7. Association:**

- \* Support one group with 5 nodes.
- \* Group 1 = Lifeline (Battery, Notification, Reset Locally)

8. Support Explorer Frame Function

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

10. **Factory Default Reset:**

Press and hold the program switch for 5 seconds until the Green LED is on, and then release the program switch to send the “Device Reset Locally Notification” command and reset to the factory default. The Green LED will go off after the reset procedure has completed.

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

11. 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.
12. Support SECURITY S0, SECURITY S2 UNAUTHENTICATED & SECURITY S2 AUTHENTICATED.
13. Support SmartStart, please scan the QR Code from ZS6411-7 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. (P.S.: 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.)
16. The DSK label will be on the backside of ZS6411-7, 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.)
17. A Security Enabled Z-Wave Controller must be used to fully utilize the products.