Limited Warranty

Vision Guarantees that every wireless ZS 6411 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 addtional devices, please visit us at www.visionsecurity.com.tw

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.

ZS6411-8	V0	1140321

VISION

The Ultimate in Security & Automation

Installation & Operation Manual

ZS 6411 US-8
ZS 6411 USLR-8
ZS 6411 EU-8
ZS 6411 ANZ-8
ZS 6411 IN-8
ZS 6411 IL-8
ZS 6411 RU-8
ZS 6411 JP-8
ZS 6411 KR-8

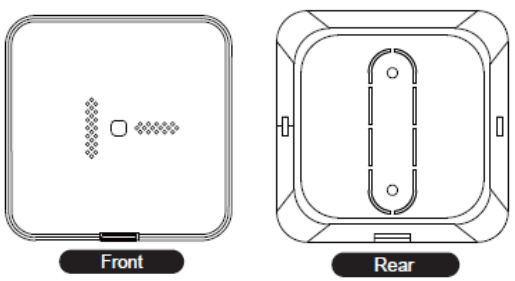
Fire Alarm Responder

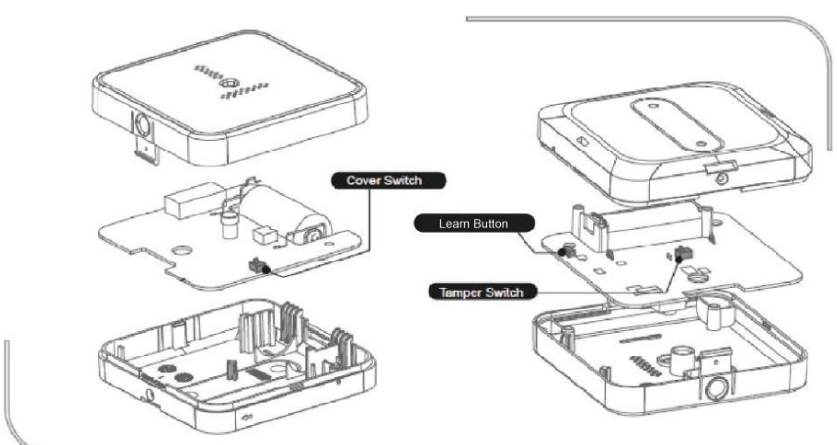
Introduction

Thanks for choosing the Vision's wireless Fire Alarm Responder (ZS 6411) of the home automation device. This sensor is a Z-Wave Plus® V2 enabled device (interoperable, two –way RF mesh networking technology). It 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 / standalone smoke, carbon or combo detector to be a wireless Z-Wave® version. It listens to smoke, carbon or combo detector alarms and transmits a signal to the alarm system. When the device is secure included into Z-Wave® network, above communication will be encrypted.

Product Description and Specification





Specification:	**Package Content:**
Protocol: Z-Wave Plus® Frequency Range: 908.42MHz (ZS 6411US-8) 912.00MHz (ZS 6411USLR-8) 868.42MHz (ZS 6411EU-8) 921.42MHz (ZS 6411ANZ-8) 865.22MHz (ZS 6411IN-8) 916.00MHz (ZS 6411IL-8) 869.00MHz (ZS 6411RU-8) 922~926MHz (ZS 6411JP-8) 919~923MHz (ZS 6411KR-8) Operating Range: > 100 feet line of sight Operating Temp.: -15°C~ 60°C (-5°F ~140°F)	1pc ZS 6411 Sensor 1pc 3Vdc lithium Battery CR123A 1pc Accessory Pack 1pc DSK card

Command Class

COMMAND CLASS NAME	VERSION	REQUIRED SECURITY CLASS
ASSOCIATION	2	S2
ASSOCIATION GROUP INFO	3	S2
BATTERY	1	S2
CONFIGURATION	4	S2
DEVICE RESET LOCALLY	1	S2
FIRMWARE UPDATE MD	5	S2
INDICATOR	3	S2
MANUFACTURER SPECIFIC	2	S2
MULTI_CHANNEL_ASSOCIATION	3	S2
POWERLEVEL	1	S2
SECURITY_2	1	None
SUPERVISION	1	None
TRANSPORT_SERVICE	2	None
VERSION	3	S2
ZWAVEPLUS_INFO	2	None
NOTIFICATION	8	S2
WAKE UP	2	S2

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 using the sensor.

1. LED Status for Z-Wave® Network:
   * Not included: Red LED flashes 5 times
   * Included: Solid red LED for 1 second
   * Learn button pressed: Red LED blinks once per second
   * Alarm detected: Solid red LED for 0.5 seconds
   * Cover / Tamper switched on: Solid red LED for 0.1 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 Learn button of the sensor once will enter the inclusion mode which implements inclusion with a NIF and NWI. During the inclusion mode, the red LED will blink once every second. The red LED will be solid on for 1 second after successful inclusion, and it also send the indicator report.

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.
   The DSK card is placed inside the box. Scan the DSK label to access the SmartStart if gateway 's UI supports SmartStart.

4. 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 Learn button of the sensor once for being excluded, the red LED will flash 5 times after successful exclusion.

5. **Wake Up Notification**:
   Either Cover / Tamper is switched on for 1 second, it will send "Wake-Up Notification for receiving all command classes or go to sleep mode after 10 seconds without receiving any command.

6. **Auto Wake Up**:
   Use "Wake Up" command to set up the awaking time and send the wake up notification to controller. User can enter command to change auto wake up from 10 minutes to 1 week with interval steps of 200 seconds.

7. **Tamper/Cover Switch Alarm/Restore:**
   Either Cover / Tamper switch is switched on for 1 second, it will send the Alarm Notification Report. (Please refer to Table 2) The red LED will flash 0.1 seconds.
   Both Cover and Tamper switch are switched off for 1 second, it will send the Restore Notification Report. (Please refer to Table 2).

8. **Alarm Detection**:
   After the sensor confirms detecting the alarm of smoke, carbon or combo detector, it will send the Notification Report (Please refer to Table 3) and the red LED is solid for 0.5 seconds.

9. **Restore after Alarm Detected Notification:**
   After the sensor detects alarm and does not receive any alarm for 6 seconds, it will send the Notification Restore Report. (Please refer to Table 4)

10. **Battery Capacity Detection:**
    * Enter "Battery Get" command to have the battery capacity in % (hexadecimal)
    * It will detect the battery capacity automatically.
    * Low Battery Auto Report when the battery capacity≦10% (2.56V +/- 0.1V).

11. **Association**:
    *Support one group with 5 nodes.
    *Group 1 = Lifeline (Battery, Reset Locally, Indicator, Notification)

12. **Factory Default Reset:**
    The sensor can be restored back to the factory default settings. Hold the Learn button for 5 seconds until the red LED is solid, and then release the Learn button to send the "Device Reset Locally Notification" command. The red LED will go off after the reset procedure is completed.
    Please use this procedure only when the network's primary controller is missing or otherwise inoperable.

13. Support OTA Firmware update from controller. Please refer to your controller manual. Once OTA function succeeded, we recommend to exclude and include the sensor from system again.

14. Support SECURITY S2 UNAUTHENTICATED & SECURITY S2 AUTHENTICATED.

15. Support Explorer Frame Function

16. The DSK label is on the backside of ZS6411. Scan the DSK label to access the SmartStart if gateway 's UI supports SmartStart

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. The controller has to rediscover the product's capabilities after altering capabilities. The controllers has to re-include the node in the network if the controller does not have any capability rediscovery option.

Configuration & Notification

Configuration

Parameter	Byte	Value
Parameter 1 (Installation display mode)	1	0 (Disable) - Default 1 (Enable)
Parameter 2 (Retry count)	1	0 - Default ~ 5
Parameter 3 (Supervision timeout)	2	500ms - Default ~ 10,000ms
Parameter 224 (Wake Up Test Mode)	1	0 (Disable) - Default 255 (Enable)

Table 1

Notification V8

Cover / Tamper Supervision	Cover or Tamper is switched on for 1 second	Cover & Tamper is switched off for 1 second
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 2

Notification V8

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

Table 3

Notification V8

Restore after Alarm Detected Notification	Smoke	CO
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 4

Testing & Installation

Testing

1. Enable installation display mode by configuring Configuration parameter 1 to a value of 1.
2. Press and hold the test button on the smoke (carbon, or combo) detector, and the sensor's green LED will turn on along with the alarm sound.
3. After testing, please set the value of Configuration parameter 1 to 0 to disable the installation display mode.

Installation

Determine the location of the Smoke or Co detector to be detected by the Fire Alarm Responder. Make sure the sensor is included correctly before mounting it. Open the case and mount the sensor to a clean dry surface with screws provided. The sensor shall be mounted within 15cm of the detector.