

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 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 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 siren & strobe alarm 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



The Ultimate in Security & Automation

Installation & Operation Manual

ZP3501US-8
ZP3501USLR-8
ZP3501EU-8
ZP3501ANZ-8
ZP3501IN-8
ZP3501IL-8
ZP3501RU-8
ZP3501JP-8
ZP3501KR-8

Presence Sensor

ZP3501-8	V0	1141013
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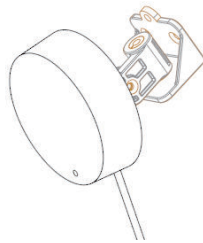
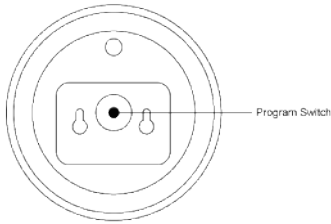
Introduction



Thank you for choosing the Vision's Presence Sensor. This sensor is a Z-Wave Plus® enabled device designed for precise presence detection using millimeter-wave radar technology. The sensor features multi configurations to suit daily applications.

It is fully interoperable with other Z-Wave® devices and supports Z-Wave S2 security protocols. All mains-powered Z-Wave® devices function as repeaters within the mesh network, enhancing transmission paths and eliminating RF dead zones. This device supports presence detection with an LED indicator and encrypted communication once securely included in a Z-Wave® network.

Product Description and Specification



Specification:	Package Content:
Protocol: Z-Wave®	1pc ZP3501 Sensor
Frequency Range:	2pcs Adhesive tape
908.42MHz (ZP3501US-8)	1pc USB cable
912.00MHz (ZP3501USLR-8)	
868.42MHz (ZP3501EU-8)	
921.42MHz (ZP3501ANZ-8)	
865.22MHz (ZP3501IN-8)	
916.00MHz (ZP3501IL-8)	
869.00MHz (ZP3501RU-8)	
922~926MHz (ZP3501JP-8)	
920~923MHz (ZP3501KR-8)	
Operating Range: > 200 feet line of sight	
Operating Temp.: -15°C~ 60°C (5°F~140°F)	

Z-Wave® Command Classes:

COMMAND CLASS NAME	VERSION	REQUIRED SECURITY CLASS
ASSOCIATION	2	S2
ASSOCIATION GROUP INFO	3	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
NOTIFICATION	8	S2
POWERLEVEL	1	S2
VERSION	3	S2
SENSOR_MULTILEVEL	11	S2
APPLICATION STATUS	1	None
SECURITY_2	1	None
SUPERVISION	1	None
TRANSPORT_SERVICE	2	None
ZWAVEPLUS_INFO	2	None

Operation

Note: Before installing this device, please refer to your Z-Wave® controller's installation guide.

- ❶ **LED Orientation:** Install the sensor with the LED facing upward.
- ❷ **Power-up State:**
 - Red LED blinking: Device is powered on but not included in a network.
 - Blue LED blinks 3 times: Successfully included.
- ❸ **Inclusion / Exclusion:**
 - Inclusion (adding to a network):
 1. Set the Z-Wave controller to inclusion mode.
 2. Press the Program Switch once.
 3. The LED will confirm network inclusion, and it also sends indicator report. Alternatively, use SmartStart by scanning the QR code on the device or DSK label.
 - Exclusion (removing from a network):
 1. Set the controller to exclusion mode.
 2. Press the Program Switch once.
 3. Red LED blinks to indicate removal.
- ❹ When ZP3501 is included successfully into Z-Wave network, it will send Indicator report and Red LED blinks 5 times.
- ❺ **Sensor Behavior:**
 - Triggered (presence detected):
 - Sends Basic Set (On) + Notification
 - Blue LED ON
 - No presence for 60s:
- ❻ **Association:** Support two groups with 5 nodes.
 - Group 1 = Lifeline (Reset Locally, Indicator, Notification)
 - Group 2 = On / Off control (Basic Set)

Triggering Response

LED	Basic Set	Notification Type	Event	Parameter
On	On	0x07 (Hone security)	0x08 (Motion)	
Off	Off	0x07	0x00	0x08

❷ Factory Default Reset:

Press and hold the program switch for 15 seconds and then release, the program switch to send the "Device Reset Locally Notification" command and reset to the factory default.

- ❸ Support OTA Firmware update from controller. Please refer to your controller manual. Once OTA function succeeded, we recommend to exclude then include the devices from system after OTA.
- ❹ The sensor is a security enabled Z-Wave Plus® product. A security enabled Z-wave controller must be used to fully utilize the product.
- ❺ Support SECURITY S2 UNAUTHENTICATED & SECURITY S2 AUTHENTICATED.
- ❻ SmartStart Setup: The DSK label is located on the back of the sensor. Scan the QR code on the DSK label during device setup. Once powered on, the device will automatically join the network.
Note: The QR code contains the DSK (Device Specific Key) and may also be referred to as the PIN, DSK code, or Device Key depending on the controller interface.
- ❼ Support Explorer Frame Function
- ❽ All the rest commands depend on Z-Wave standard.
- ❾ A Z-Wave Long Range device is able to join the Long Range network via SmartStart inclusion.

Operation

The indicator (Red color) will flashes according the indicator set command received from HUB.

Indicator ID	Property ID
0x50 (NODE IDENTIFY)	0x03(ON OFF PERIOD)
0x50 (NODE IDENTIFY)	0x04(ON OFF CYCLES)
0x50 (NODE IDENTIFY)	0x05(ONE TIME ON OFF PERIOD)

Configuration

	Size	VALUE	Default
Parameter 1 Basic set off duration time	2	5~600	60secs
Parameter 2 Radar detection	1	0x00 (Disable) 0xFF (Enable)	0xFF (Enable)
Parameter 3 Night light detection	1	0x0A (Occupied, Light on) 0x0B (Unoccupied, Light on)	0x0A (Occupied, Light on)
Parameter 4 Night light on/off	1	0x00 (Disable) 0xFF (Enable)	0x00 (Disable)
Parameter 5 Radar Delay Report Time	1	1~50(0.1sec~5sec)	3(0.3sec)
Parameter 6 Retransmission count	1	0~5	0
Parameter 7 Lux offset value report	1	100 (No offset) 0~99 (-100~-1 Lux) 101~200 (+1~+100 Lux)	100 (No offset)
Parameter 8 Lux report	1	0x00 (Disable)	0x00 (Disable)
Parameter 9 Detection range*	1	0xFF (Enable) 1~20 (50~1,000cm)	5 (250cm)
Parameter 10 Detection angle	1	1~7 (20°~140°)	1(20°)
Parameter 11 Lux report time	2	10~600 (10sec~600sec)	60sec
Parameter 12 Lux change report	1	1~5 (10%~50%)	1 (10%)
Parameter 13 Blue LED indicator	1	0x00 (Disable) 0xFF (Enable)	0xFF (Enable)

Note*: Detection range is defined as Presence sensing in 400cm and Motion sensing in 1,000cm

- ① The sensor supports change capabilities by Configuration Command Class after receiving the configuration set command.
- ② The controller has to rediscover the product's capabilities after altering capabilities.
- ③ The controller has to re-include the node in the network if the controller does not have any capability rediscovery option.