

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

GCS Guarantees that every wireless Arrival 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. GCS 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.gcs-st.com



Installation & Operation Manual

Arrival Sensor

ZA1501IN-5
ZA1501EU-5
ZA1501RU-5
ZA1501US-5
ZA1501IL-5
ZA1501KR-5
ZA1501HK-5
ZA1501JP-5
ZA1501BR-5

Introduction

Thanks for choosing the Vision's wireless Arrival 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 assigns everyone an unique ID then you could take care of your family to send you any instant notification when they are coming home or leaving home, also you could interact some specific scenarios with specific persons When the device is secure included into Z-Wave network, above communication will be encrypted. ARRIVAL SENSOR supports SECURITY S0 / SECURITY S2 UNAUTHENTICATED / SECURITY S2 AUTHENTICATED.

Product Description and Specification

Specification:	Package Content:
Protocol: Z-Wave™ (ZM5101) Frequency Range: 865.22MHz (ZA1501IN-5) 868.42MHz (ZA1501EU-5) 869.00MHz (ZA1501RU-5) 908.42MHz (ZA1501US-5) 916.00MHz (ZA1501IL-5) 919~923MHz (ZA1501KR-5) 919.80MHz (ZA1501HK-5) 922~926MHz (ZA1501JP-5) 921.42MHz (ZA1501BR-5) Operating Range: Up to 100 feet line of sight Operating Temp.: -10°C~ 60°C (14°F ~140°F)	1pc Arrival sensor 1pc Micro USB Cable 1pc Operation manual

Z-Wave Command Classes:

COMMAND_CLASS_ASSOCIATION_GRP_INFO
COMMAND_CLASS_ASSOCIATION_V2
COMMAND_CLASS_BATTERY
COMMAND_CLASS_CONFIGURATION
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 Class:

COMMAND_CLASS_ASSOCIATION_V2
COMMAND_CLASS_ASSOCIATION_GRP_INFO
COMMAND_CLASS_BATTERY
COMMAND_CLASS_CONFIGURATION
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_VERSION_V3
COMMAND_CLASS_WAKE_UP_V2

Notification V8 Type

	TYPE	EVENT
Notification Type	System (0x09)	Heartbeat (0x05)
	Clock (0x0B)	Timer Ended (0x02)

(Table 1)

V1 Alarm:

	TYPE	VALUE
V1 Alarm Type	0x09	0xFF
	0x0B	0x00

(Table 2)

Configuration Command Class:

	Byte	Value
Parameter 1	1	1 ~ 127 (unsigned decimal) Seconds (default: 2 (=16seconds x 2))

(Table 3)

(P.S.: This is the definition how long ZA1501-5 will contact Gateway for having a synchronic information. The basic interval time is 16 seconds, the synchronic time will be the basic interval time by Parameter 1's value.)

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 and full charging the arrival sensor before using..

LED Status:

- Charging: Red LED on.
- Charge Completely: Green LED on.
- Not Included: Red LED flashing.

1. For **"Inclusion"** in (adding to) a network: Put the Z-Wave™ Interface Controller into "inclusion" mode, and following its instruction to add the arrival sensor to your controller. To get in the "inclusion" mode, press the Program Switch of arrival sensor then the device will send a signal to be included (or excluded) to/from the network; otherwise, arrival sensor 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 arrival sensor from your controller. Press the Program Switch of arrival sensor to be excluded.

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

2. **Trigger Response:**

- The sensor will send Notification Report (refer to Table 1 & 2) if it has been moved.
- The sensor will send Notification Report (refer to Table 1 & 2) and exceed the preset detecting time (refer to Table 3).

3. **Wake Up Notification:**

Press the program switch, arrival sensor will be "Wake Up Mode" for receiving all the command class from controller. The arrival sensor 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"

4. **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. **(Default Value: 30 minutes.)**

5. **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 3.2+/-0.1 Voltage).

6. **Association:**

- * Support one group with 1 node.
- * Group 1 = Lifeline

7. Support Explorer Frame Function

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

9. **Factory Default Reset:** Long press the program switch up to 10 seconds to 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.)

10. 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.

11. Support SECURITY S0, SECURITY S2 UNAUTHENTICATED & SECURITY S2 AUTHENTICATED.

12. Support SmartStart, please scan the QR Code from ARRIVAL SENSOR 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.)

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

