



Z-Wave[®] 700 Series Door/Window Sensor



P/N 43303

User's Manual

SAFETY WARNINGS AND GUIDELINES

Please read this entire manual before using this device, paying extra attention to these safety warnings and guidelines. Please keep this manual in a safe place for future reference.

- This device is intended for indoor use only.
- Do not expose this device to water or moisture of any kind.
- Do not expose this device to excessive vibration, extreme force, shock, or fluctuations in temperature or humidity.
- Do not place or install this device in an area where it can be exposed to excessive amounts of dust, humidity, oil, smoke, or combustible vapors.
- Do not expose this device to excessively high temperatures. Do not place it in, on, or near heat sources, such as a fireplace, stove, radiator, etc. Do not leave it in direct sunlight.
- Remove the battery from the device if it will go unused for a lengthy period of time.
- Clean using a soft, dry cloth only. Do not use chemical cleaners, solvents, or detergents. For stubborn deposits, moisten the cloth with warm water.
- This device has no user serviceable parts. Do not attempt to service or modify this device.

INTRODUCTION

Thank you for purchasing this Z-Wave Plus® 700 Series Door/Window Sensor from Monoprice™! This sensor is a wireless Z-Wave® enabled device and is fully compatible with any Z-Wave enabled network. Z-Wave is an interoperable, two-way RF mesh networking technology used for home automation and security. Every AC powered Z-Wave device acts as a signal repeater, so multiple devices result in more possible transmission routes, which helps eliminate RF "dead spots" in the network. Any Z-Wave enabled device displaying the Z-Wave logo can be used with Z-Wave devices from other manufacturers.

This sensor mounts to a door or window, detects when it is opened or closed, and sends a Z-Wave trigger signal to the network. These trigger signals can be used to activate various other devices and perform preprogrammed tasks. When the sensor is included into a secured Z-Wave network, all communications will be encrypted. This device supports the Security S0, Security S2 Unauthenticated, and Security S2 Authenticated protocols.

CUSTOMER SERVICE

The Monoprice Customer Service department is dedicated to ensuring that your ordering, purchasing, and delivery experience is second to none. If you have any problem with your order, please give us an opportunity to make it right. You can contact a Monoprice Customer Service representative through the Live Chat link on our website www.monoprice.com or via email at support@monoprice.com. Check the website for support times and links.

PACKAGE CONTENTS

Please take an inventory of the package contents to ensure you have all the items listed below. If anything is missing or damaged, please contact Monoprice Customer Service for a replacement.

1x Door/Window Sensor

1x Magnet

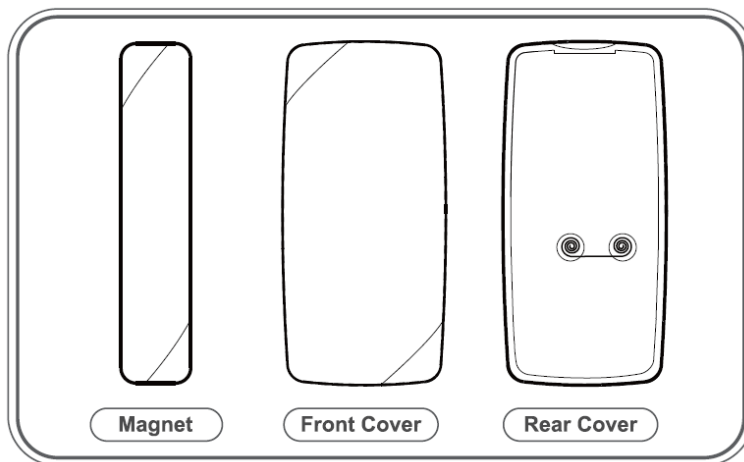
1x CR2032 Battery

1x Strip 3M® Tape

1x DSK Card

1x User's Manual

PRODUCT OVERVIEW



OPERATION

- Either opening the door/window to separate the magnet from the sensor or removing the rear cover from the sensor will send a signal to any association nodes according to the Status/Signal Table (Notification V8 Type) and the LED will blink once.
- Either closing the door/window to mate the sensor with the magnet or closing the front and rear covers will send a signal according to the Status/Signal Table (Notification V8 Type).
- Under normal operation, the LED remains off.
- If the cover of the sensor is removed, the LED will blink once and a "Wake Up Notification" is sent after 10 seconds.

INCLUSION AND EXCLUSION

Note: If you are installing a complete Z-Wave® system for the first time, refer to the installation guide of your Z-Wave Controller before installing this sensor.

Inclusion

Put your controller into Inclusion Mode and follow its instructions for adding the sensor. To put the sensor in Inclusion Mode, ensure that the rear cover has been completely closed, then trigger the reed switch 3 times within 5 seconds to send the Node Information Frame (NIF). After it sends the NIF, Z-Wave sends the auto inclusion message, otherwise the sensor will go to sleep after 30 seconds.

LED Status:

- Not Included: LED blinks 5 times
- Inclusion Complete: LED blinks 1 time

SmartStart

SmartStart simplifies the installation and setup process by having you scan the QR code with your smartphone. Refer to your controller's manual for instructions on activating SmartStart. When the 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.

Exclusion

To remove the sensor from your network, put your Z-Wave controller into Exclusion Mode and follow its instructions to delete the sensor from the controller. Ensure the rear cover is closed firmly, then trigger the reed switch 3 times in 5 seconds to send the NIF for exclusion. Note that when it is excluded, all user and network settings will be cleared and the sensor will be set to its factory default settings.

ASSOCIATION

- The sensor supports two groups with 5 nodes/group.
- Group 1 = Lifeline
- Group 2 = On/Off Control
- All triggering reports and low voltage reports will be sent to the associated nodes.
- Association is used for other grouping devices chain reaction.

WAKE UP NOTIFICATION

Remove the rear cover to put the sensor in "Wake Up Mode" for receiving all command classes from the controller and sending a "Wake Up Notification" message after 10 seconds. If the sensor receives a "Wake Up No More Information" command, it will go into sleep mode after 10 seconds. It will process all the commands after sending the "Wake Up Notification".

AUTO WAKE UP

Use the "Wake Up" command to setup the waking time and send the "Wake Up Notification" to the controller. You can then use commands to change the Auto Wake Up interval from 10 minutes to 194 days, in 200 second increments. The default Auto Wake Up interval is 24 hours.

BATTERY CAPACITY DETECTION

Use the "Battery Get" command to report the percentage of battery capacity remaining. It will detect the battery capacity automatically. The Low Battery Auto Report level is set to 2.4 ±0.1 volts.

RESET TO FACTORY DEFAULT

Open the rear cover to trigger the rear cover switch to send the Alarm Report. Trigger the reed switch 10 times in 10 seconds. The sensor will send the "Device Reset Locally Notification" command and will reset to its factory default settings. Note that this should only be done if the controller is inoperable or otherwise unavailable.

OVER THE AIR FIRMWARE UPDATES

This sensor supports Over the Air (OTA) Firmware Updates. Refer to your controller's manual for OTA update instructions. Once the OTA update is complete, you should reset the sensor to its factory default settings and perform the inclusion process again.

Note that the OTA update process consumes considerable battery power. We recommend replacing the sensor's battery with a new battery prior to performing the OTA update.

ADDITIONAL NOTES

- The sensor supports the Explorer Frame Function.
- Additional commands depend on the Z-Wave® standard.
- The sensor supports SmartStart. Scan the QR code on the sensor for SmartStart. The QR code and PIN are located on the rear cover of the sensor.
- The full Device Specific Key (DSK) string is located on a DSK card included in the packaging. Keep this card safe for future use.
- There is a DSK label on the rear cover. Scan the DSK label to access SmartStart if the gateway's UI supports SmartStart.
- A Security Enabled Z-Wave Controller must be used to get the most out of this sensor.
- This device supports the Security S0, Security S2 Unauthenticated, and Security S2 Authenticated protocols.

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_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
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION_V3

Z-WAVE® S2 SUPPORT 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_VERSION_V3
COMMAND_CLASS_WAKE_UP_V2

STATUS/SIGNAL TABLES

Notification V8 Type	Switch Type	Status
Notification Type	Reed Switch	0x06
	Tamper Switch	0x07
Event	Reed Switch	Close: 0x07 Open: 0x16
	Tamper Switch	Close: 0x00 Open: 0x03

Basic Set		
	Open	Close
Reed Switch	0xFF	0x00

TECHNICAL SUPPORT

Monoprice™ is pleased to provide free, live, online technical support to assist you with any questions you may have about installation, setup, troubleshooting, or product recommendations. If you ever need assistance with your new product, please come online to talk to one of our friendly and knowledgeable Tech Support Associates. Technical support is available through the online chat button on our website www.monoprice.com or through email by sending a message to tech@monoprice.com. Check the website for support times and links.

To download the latest drivers, firmware, manuals, etc., go to www.monoprice.com and type the **P/N** into the search bar. If available, support files are linked at the bottom of the product page.

SPECIFICATIONS

P/N	43303
Protocol	Z-Wave Plus® V2 Series 700
Frequency	908.42 MHz
Battery Type	1x CR2032
Wireless Speeds	9.6/40/100 kbps
Outdoor Wireless Range (Direct)	Up to 200 meters
Outdoor Wireless Range (Max. Hop/Repeat)	Up to 800 meters
Indoor Wireless Range (Direct)	Up to 100 meters
Indoor Wireless Range (Max. Hop/Repeat)	More than 300 meters
Operating Temperature	+5 ~ +140°F (-15 ~ +60°C)
Dimensions	2.2" x 1.0" x 0.2" (56 x 26 x 6 mm)

REGULATORY COMPLIANCE

Notice for FCC



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.

Modifying the equipment without Monoprice's authorization may result in the equipment no longer complying with FCC requirements for Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

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.

Notice for Industry Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.



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