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LEEDARSON
ZW0301 Long
Range Door
Window
Sensor

LEEDARSON ZW0301 Long Range Door Window Sensor User Guide

Contents

LEEDARSON ZW0301 Long Range Door Window Sensor

Specifications

- Detection Technology: Wireless
- Detection Range: Not specified
- Communication Protocol: Z-Wave Plus
- Radio Frequency: Not specified
- Wireless Range: Not specified
- Power Source: Battery
- Battery Life: 6 years
- Operating Temperature: Not specified
- Operating Humidity: Not specified
- Tamper Switch: Yes
- Certifications: FCC
- LED: 1 x RGB LED

Product Usage Instructions

Installation
Follow these steps to install the door/window sensor:

1. Remove the plastic sheet isolating the battery in the cabinet.
2. Use a pin to reset the pinhole switch for 5 seconds to reset the sensor.
3. Affix the main sensor to the frame and the magnet to the door/window. Ensure they are less than 20 mm apart.
4. Avoid mounting on a metal frame.

Safety Information
Important safety guidelines for using the product:

- Avoid exposing the sensor to rain.

- Install the product at least 3 ft. from the floor for optimal performance.
- Contains small parts not suitable for children.
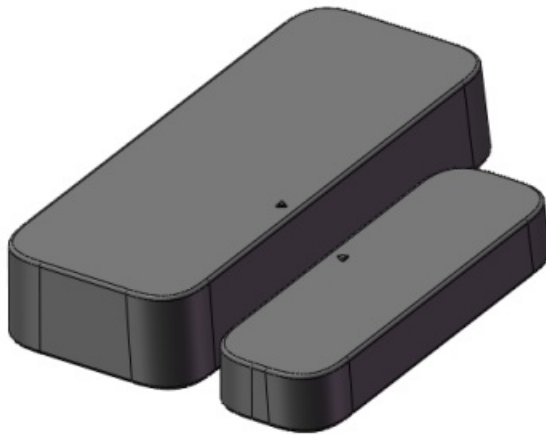- Periodically check battery condition.

Maintenance
To reset the door/window sensor:

1. Press and hold the reset key for about 5 seconds until the red LED indicator blinks quickly.
2. Release the key and wait for the green LED to light up for 3 seconds, indicating the sensor has been reset to factory settings.

In the box

Door/Window sensor

Product introduction

- The Leedarson door window sensor is designed for use with scenes in home automation and security systems, the door window sensor lets you know when a door or window is opened and can trigger different actions in response to that open action (or close action).
- This product can be operated in any Z-Wave® network with other Z-Wave Plus® certified devices from other manufacturers.
- This product is battery power, it sleeps most of the time.
- The door sensor is an asecurity-enabledd Z-Wave Plus® device. A security-enabled Z-Wave Plus® Controller must be used to fully utilize the product.

Key Features:

- Support Association Group and Report Open/Close status;
- Support firmware upgrades via Over-the-air (need Gateways support);
- Support SmartStart;
- Support Long Range.

Reset Pin Hole

Sensor Specification

- Detection Technology TMR Sensor
- Detection Range 20mm ±5mm
- Communication Protocol Z Wave mesh/ Z Wave Long Range
- Radio Frequency
    - Z Wave mesh: US/CA: 908.4, 908.42, 916 MHz
    - Z-Wave LR: US/CA: 912 and 920 MHz
- Wireless Range 1000' in an open-air, interference-free, line-of-sight environment.
- Power Source 3V, CR2 032 *2
- Battery Life 6 years
- Mounting 3M Tape
- Operating Temperature 0°C to 40°C
- Operating Humidity Up to 85% noncondensing
- Tamper switch YES
- Certifications FCC
- LED 1*RG LED

LED/Button behavior		
No.	Events	Behavior
1	power up	Exclusion status: Red LED quickly blink 3 times Inclusion status: Green LED on 1s;
2	Inclusion/Add	Inclusion: Green LED quick blink; Inclusion success: Green LED on 3s; Pairing fail: Red LED on 3s;
3	Exclusion/Remove	APP remove device: 1. Press the "Reset" button quickly twice to enter "Exclusion" mode. The green light will flash quickly; 2. Exclusion success: Red slow blink 3s. Button reset: 1. Hold 1-5 seconds: no action, LED off; 2. Hold for more than 5 seconds: press and hold the Reset button for more than 5 seconds the Red LED quickly blink; 3. And then release the button Green LED for 3 seconds;
4	Door TMR detection	Report success Green LED on 300ms;
5	Tamper	Tamper: Red quick blink 3s;
6	Battery	Low power Red slow blink 3s; Failed power: LED off, MCU shutdown;
7	OTA	LED Off

8	Short press Reset Button	1) Factory status: short press the Reset Button to wake up sensor to enter the pairing mode; 2) Installed status: short press the Reset Button 3 times to wake up the sensor to running active mode to communicate with the control panel;
9	Press and hold the Reset Button	Hold 1-5 seconds: no action, LED off; Hold for more than 5 seconds: press and hold the Reset button for more than 5 seconds the Red LED quickly blink,a nd then the release button Green LED for 3 seconds, the sensorrunsg to factory reset mode to delete user data and restart to factory reset status;

Z-Wave specification

Feature	Specification
Z-Wave standard	Z-Wave plus 2
Z-Wave SDK	v7.22.2
Z-Wave security	S2
Z-Wave library type	0x03
Z-Wave protocol version	0x07
Z-Wave protocol sub-version	0x16
Generic device type	0x07 (Notification sensor)
Specific device type	0x01 (Specific type notification sensor)
Role type	0x06 (reporting sleeping end device)
Installer Icon Type	0x0C06 (Door/Window Alarm)
Icon Type	0x0C06 (Door/Window Alarm)
Product Type ID	0x0301
Product ID	0x0001
Manufacture ID	0x0300 (Leedarson MFID)

Z-Wave command classes	0x5E – COMMAND_CLASS_ZWAVEPLUS_INFO, version 2
	0x59 – COMMAND_CLASS_ASSOCIATION_GRP_INFO, version 3
	0x85 – COMMAND_CLASS_ASSOCIATION, version 2
	0x80 – COMMAND_CLASS_BATTERY, version 3
	0x70 – COMMAND_CLASS_CONFIGURATION, version 4
	0x5A – COMMAND_CLASS_DEVICE_RESET_LOCALLY, version 1
	0x7A – COMMAND_CLASS_FIRMWARE_UPDATE_MD, version 5
	0x87 – COMMAND_CLASS_INDICATOR, version 3
	0x72 – COMMAND_CLASS_MANUFACTURER_SPECIFIC, version 2
	0x8E – COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION, version 3
	0x71 – COMMAND_CLASS_NOTIFICATION, version 8
	0x73 – COMMAND_CLASS_POWERLEVEL, version 1
	0x9F – COMMAND_CLASS_SECURITY_2, version 1
	0x6C – COMMAND_CLASS_SUPERVISION, version 2
	0x55 – COMMAND_CLASS_TRANSPORT_SERVICE, version 2
	0x86 – COMMAND_CLASS_VERSION, version 3
	0x84 – COMMAND_CLASS_WAKE_UP, version 2
Required Security class	0x59 – COMMAND_CLASS_ASSOCIATION_GRP_INFO, version 3
	0x85 – COMMAND_CLASS_ASSOCIATION, version 2
	0x80 – COMMAND_CLASS_BATTERY, version 3
	0x70 – COMMAND_CLASS_CONFIGURATION, version 4
	0x5A – COMMAND_CLASS_DEVICE_RESET_LOCALLY, version 1
	0x7A – COMMAND_CLASS_FIRMWARE_UPDATE_MD, version 5
	0x87 – COMMAND_CLASS_INDICATOR, version 3
	0x72 – COMMAND_CLASS_MANUFACTURER_SPECIFIC, version 2
	0x8E – COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION, version 3
	0x71 – COMMAND_CLASS_NOTIFICATION, version 8
	0x73 – COMMAND_CLASS_POWERLEVEL, version 1
	0x86 – COMMAND_CLASS_VERSION, version 3
	0x84 – COMMAND_CLASS_WAKE_UP, version 2

Indicator Command Class

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

Association Group

ID	Name	Notes
1	Lifeline	1) Supported Nodes: 5; 2) Profile: 0x0001; 3)Command Class:0x80035A0187037105;
2	Basic Set	1) Supported Nodes: 5; 2) Profile: 0x7107; 3)Command Class:0x2001;

Configuration Parameters

ID	Name	Notes
1	Sensor Status	1) Format: Unsigned Integer; 2)Size: 1 Byte, Max 0xFF, Min 0x00, Default 0x00; 3)Read-only: Yes; 4) Altering: NA; 5) Advanced: NA;

Notification

Type	Events	Notes
Accsess control(0x06)	1) Window/door is open: 0x16; 2)Window/door is closed: 0x17;	
Home security(0x07)	1) State idle: 0x00; 2) Tampering, product cover removed: 0x03;	

Wakeup		
ID	Events	Notes
1	Wake up event	1) Minimum Wake Up Interval Seconds is 20 seconds; 2) Maximum Wake Up Interval Seconds is 86400 seconds; 3) Default Wake Up Interval Seconds is 300 seconds; 4) Wake Up Interval Step Seconds is 20;

Product Installation

QR code and DSK

- The QR code is stocked to the side of the case, and DSK is included in the QR code.
- The DSK code can be found on the DSK label which is attached to the packaging box.

PACKAGE	DEVICE

Installation steps:
This product can be mounted with 3M adhesive tape, install it according to the following steps:

- Remove the plastic sheet for isolating the attery from the battery cabinet.
  Use a pin to reset the pinhole switch for 5 seconds to reset the sensor. The sensor will be in pairing
    - status. This will cause a red LED will quick blink quickly, Release the button, if the Green LED is solid for 3s, the reset is successful, and the device will return to the factory setting.
- Short press the Reset button, sensor starts pairing, Green LED quickly blinks until the pairing begins.
    - Add/inclusion: Green quick blink until time out.
    - Add/inclusion success: Green LED on 3s
    - Add/inclusion fail: Red LED on 3s and then turn off. Users can short-press the button again to start pairing again.
- Stick the slim magnet and device onto the door/window, no further than 20 mm from the sensor, and fix the device on the door/window with 3M tape.

The magnet and the main sensor must be less than 20 mm apart. The main sensor must be affixed to the frame and the magnet must be affixed to the door window.
Should not be mounted on a metal frame.

Safety Information

Battery Safety Information:

- This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. Keep away from babies and small children at all times.
- If the battery is swallowed or placed inside any part of the body, immediately seek medical help.
- Risk of explosion if the battery is replaced by an incorrect type.
- Dispose of the used battery promptly.

IMPORTANT: Do not be exposed to rain. Install the product at least 3 ft. from the door for optimum performance. This alarm contains small parts and is not suitable for children. Periodically check the condition of the batteries.

 Disposal and Recycling Information:
Correct Disposal of this product. This marking indicates that this product should not be disposed ofd with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environment-safe recycling.

Maintenance

How to reset a door/window sensor?
Keep pressing the reset key for about 5 seconds, then the red LED indicator will start blinking quickly. Once the key, and thenthe button Green LED is on for 3 seconds, the sensor runs to factory reset mode to delete user data and restart to factory reset status.

How to join a door/window sensor?
After the sensor is reset to the factory setting, the device runs to SmartStart mode to scan the Z-Wave network, The user can scan the device QR code to add it to the Z-Wave hub via the APP.
This product is just for indoor use only. Should be affixed indoors and away from sources of moisture. This product has a low voltage detection reminder. When the battery voltage is in low status, the sensor will give out a low battery signal to the Z-Wave hub. Replace the battery timely on low battery warning to ensure the sensor works properly. Please use battery model CR2032 only.

1. Remove the sensor from bracket(Fix bracket and move the sensor up)
2. Replace battery if the battery is low power.

FCC compliance notice

FCC ID: (to be filled)
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- this device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution:
Changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

FCC Statement:
This equipment has been tested and found to comply with the limits for a Class B digital device, under 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 usedbyh 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 the receiver.
- Connect the equipment to 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.

Wireless protocol: Z-Wave mesh/Z-Wave long-range
This device is fully Z-Wave certified and will work with other open Z-Wave certified systems.

FAQs

Q: How do I reset the door/window sensor?
A: To reset the sensor, press and hold the reset key for about 5 seconds until the red LED blinks quickly. Release the key and wait for the green LED to light up for 3 seconds, indicating a successful reset to factory settings.
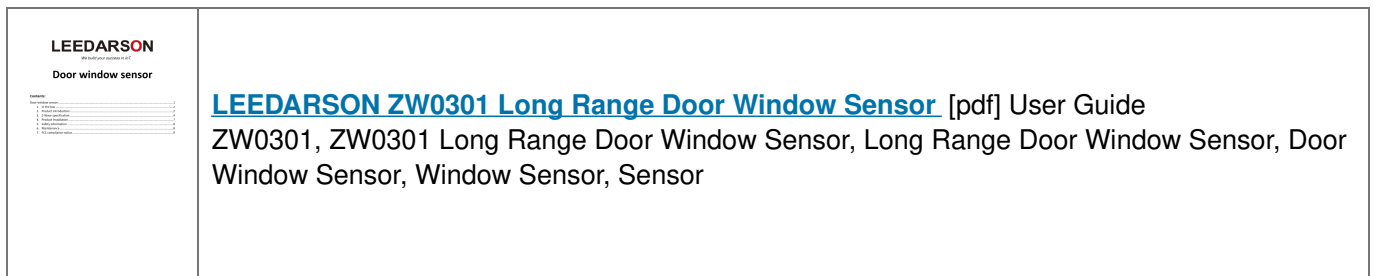
Q: What is the battery life of the sensor?
A: The battery life of the sensor is approximately 6 years.

Q: What should I do if the sensor is not detecting properly?
A: Check the installation position of both the main sensor and magnet. Ensure they are within 20 mm of each other and not mounted on a metal frame.

Documents / Resources

LEEDARSON ZW0301 Long Range Door Window Sensor [pdf] User Guide
ZW0301, ZW0301 Long Range Door Window Sensor, Long Range Door Window Sensor, Door Window Sensor, Window Sensor, Sensor

References

- **User Manual**