

inovelli®



Bypass Door Window Sensor Z-Wave™ 700
7AA-SS-VE-C0

Bypass Door Window Sensor Quick Start Guide

1. In The Box



Door/Window sensor

2. APP Set Up

- Remove the plastic sheet from battery cabinet. It's power on now.
- Add sensor
- Sensor in pairing mode
- Sensor is connected to gateway

3. Product Introduction

The Inovelli door window sensor is designed for use with scenes in home automation and security systems, the door window sensor lets you know when door or windows is opened and can trigger different actions in response to that open action (or close action).

Detection Technology	Hall
Detective Range	20mm
Communication Protocol	Z-Wave
Radio Frequency	908.42MHz (US) 868.42MHz (EU)
Wireless Range	More than 200m outdoors Approximately 30m indoors (depending on building materials)
Power Source	3V, CR2 *1
Battery Life	3 years
Mounting	Screws or 3M Tape
Operating Temperature	0°C to 40°C
Operating Humidity	Up to 85% non-condensing
Certifications	CE/FCC, Z-Wave
OTA	Yes

Dimensions (mm):	68.4(L)*24.4(W)*21.5(H) for Main Body 44.4(L)*15(W)*13(H) for Magnetic Part
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4. Product Installation

This product can be mounted by screws or 3M adhesive tape, install it according to the following step:

- ① Remove the plastic sheet for isolating battery from battery cabinet.
- ② Use a pin to reset the pinhole switch for 5 seconds to reset the sensor. The sensor will be in pairing status.
- ③ Stick the slim magnet and device onto the door/window, no further than 20 mm from the sensor, fix the device on the door/window by screw or 3M tape.
- ④ The magnet and the main sensor must be less than 20 mm apart. Main sensor must be affixed to the frame and the magnet must be affixed to the door window.
- ⑤ Should not be mounted on a metal frame.





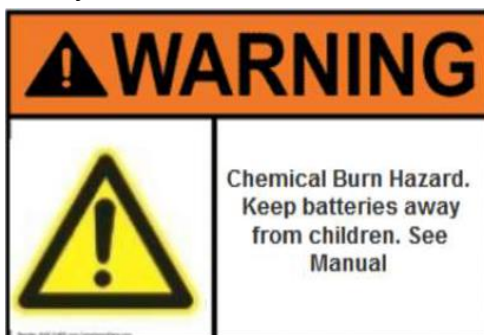
5. Function of action

Trigger	Description
Power on	1. On the network: Send Battery Report , Sensor Multilevel Report. and Wake Up Notification, LED keeps on 1 second.
	Not On the network: LED slow blinks red 3 times and start SmartStart.
SmartStart Inclusion	<p>Add the Door Sensor into the Z-Wave network via SmartStart:</p> <ol style="list-style-type: none"> 1. Add Door Sensor DSK into the primary controller SmartStart Provisioning List (If you don't know how to do this, refer to its manual, DSK usually print on the main body). 2. Remove the battery from the Door Sensor. A few seconds later, reinsert battery in the DUT. 3. The Door Sensor will send "Z-Wave protocol Command Class" frame to start SmartStart Inclusion. 4. LED will flash green during the inclusion, and then solid green for 2 seconds to indicate that the inclusion is successful, otherwise the LED will solid red for 2 seconds in which you need to repeat the process from step 2 <p>Note: User should follow the procedure in the section below if the controller does not support SmartStart inclusion.</p>

<p>Short press Z-Button one time</p>	<p>Add the Door Sensor into the Z-Wave network:</p> <ol style="list-style-type: none"> 1. Power on your Door Sensor, set your Z-Wave controller into add/inclusion mode. 2. Trigger this action 3. LED will flash green during the inclusion, and then solid green for 2 seconds to indicate the inclusion is successful, otherwise the LED will solid red for 2 seconds in which you need to repeat the process from step 2 <p>Remove Door Sensor from a Z-Wave network:</p> <ol style="list-style-type: none"> 1. Power on your Door Sensor, and let the Z-Wave primary controller into remove/exclusion mode. 2. Trigger this action. 3. LED will flash red during the exclusion, and then solid red for 2 seconds to indicate that the exclusion is successful, otherwise the LED will solid green for 2 seconds in which you need to repeat the process from step 2.
<p>Short press Z-Button three times</p>	<p>On the network: Send Wake up notification, and LED will fast blink green during sending data.</p> <hr/> <p>Not on the network: NOP.</p>
<p>Press and hold Z-Button more than 5 seconds</p>	<p>Reset Door Sensor to factory default.</p> <p>LED will blink red faster and faster within 5 seconds and then keep solid red until the button is released. Device will reset itself to factory default by sending a "Device Reset Locally Notification" to gateway when the button is released.</p>
<p>Short press the Bypass-Button</p>	<p>Only on the network:</p> <p>Door Sensor will enter Bypass mode for 5 minutes.</p> <p>Bypass mode:</p> <p>When the bypass button is pressed, the first "open door event" will not be triggered and the first "close door event" will clear the bypass mode.</p>

This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All mains operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

6. 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 battery is swallowed or placed inside any part of the body, immediately seek medical help.
- Risk of explosion if battery is replaced by an incorrect type.
- Dispose of used battery promptly.



IMPORTANT: Do not expose 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 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.

7. Maintenance

- ① If need to clean the sensor, please use a soft cloth with a little alcohol to wipe it after you cut off the power.
- ② This product is just for indoor use only.
- ③ Should be affixed indoors and away from sources of moisture.
- ④ This product has low voltage detection reminder. When the battery voltage is in low status, the sensor will give out low battery signal to gateway.
- ⑤ Replace the battery timely on low battery warning to ensure the sensor works properly. Please use battery model CR2 only.

Caution:

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.

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

Hereby, Corporation declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU

Special Rule Of Each Command Class

Z-Wave Plus Info Report Command Class

Parameter	Value
Z-Wave Plus Version	0x02
Role Type	0x06 (ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_SLAVE_SLEEPING_REPORTING)
Node Type	0x00 (ZWAVEPLUS_INFO_REPORT_NODE_TYPE_ZWAVEPLUS_NODE)
Installer Icon Type	0x0C06 (ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_ACCESS_CONTROL)
User Icon Type	0x0C06 (ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_ACCESS_CONTROL)

Association Command Class

Door Sensor supports 2 association groups and max 5 nodes for each group.

Grouping Identifier	Max Node	Send Commands
Group 1	0x05	<ol style="list-style-type: none"> 2. Notification Report. Sensor will send Notification Report when the supported event is triggered. 3. Sensor Multilevel Report. 4. Sensor will send Sensor Multilevel Report in the time set by configuration parameter 0x21/Power on will trigger Sensor Multilevel Report. 5. Battery Report. Power on or the battery level is low 6. Central Scene Notification. Bypass Button is pressed 7. Device Reset Locally. Z-Button is press and hold for more than 5 seconds
Group 2	0x05	<ol style="list-style-type: none"> 1. Basic Set Sensor will send Basic Set when the sensor body and magnet removed or combined.

Association Group Info Command Class

Association Group Info

Grouping identifier	Group Name	Profile MS	Profile LS
01	Lifeline	0x00	0x01
02	On/Off control	0x71	0x06

Association Group Command List

Group 1	Command List Support
Command Class	COMMAND_CLASS_NOTIFICATION_V8(0x71)
Command	NOTIFICATION_REPORT_V8(0x05)
Command Class	COMMAND_CLASS_BATTERY(0x80)
Command	BATTERY_REPORT(0x03)
Command Class	COMMAND_CLASS_DEVICE_RESET_LOCALLY(0x5A)
Command	DEVICE_RESET_LOCALLY_NOTIFICATION(0x01)
Command Class	COMMAND_CLASS_SENSOR_MULTILEVEL_V5(0x31)

Command	SENSOR_MULTILEVEL_REPORT(0X05)
Command Class	COMMAND_CLASS_CENTRAL_SCENE_V3(0x5B)
Command	CENTRAL_SCENE_SUPPORTED_NOTIFICATION_V3(0x03)
Group 2	Command List Support
Command Class	COMMAND_CLASS_BASIC(0x20)
Command	BASIC_SET(0x01)

Notification Commands

Notification Type	Notification Event
HOME_SECURITY (0x07)	(0x00) Previous Events cleared (0X03) TAMPERING_COVERING_REMOVED
ACCESS_CONTROL (0x06)	(0x16) WINDOW_DOOR_IS_OPEN (0x17) WINDOW_DOOR_IS_CLOSE
POWER_MANAGEMENT (0x08)	(0x0A) REPLACE_BATTERY_SOON 10 (0x0B) REPLACE_BATTERY_NOW 11 (0x00) Previous Events cleared
SYSTEM (0x09)	(0x09) Digital input high state

How to trigger these different notifications;

Home Security:

Tampering_Covering_Removed (0x03): the tamper button back the main body is released.

Previous Events cleared (0x00): the tamper button back the main body is pressed.

Access Control:

Door is open (0x16): the separation of the main body and the magnet.

Door is closed (0x17): the combination of the main body and the magnet.

Power Management:

REPLACE_BATTERY_SOON (0x0A): When the Door Sensor first time detects the battery level is less than/equal the value set by configuration parameter 0x0A.

REPLACE_BATTERY_NOW (0x0B): When the Door Sensor first time detects battery level is less than/equal 5%.

Previous Events cleared (0x00): When the battery is replaced by a new one.

SYSTEM:

Digital input high state: When a powerful magnet puts on the Door Sensor.

PS: This is used for notify the user that maybe a thief intends to destory the Intruder alarm system.

5.4 Wake Up Interval Capabilities Report CC

Parameter	Value
WAKEUP_PAR_DEFAULT_SLEEP_TIME	0x5460
WAKEUP_PAR_MAX_SLEEP_TIME	0x015180
WAKEUP_PAR_MIN_SLEEP_TIME	0x14
WAKEUP_PAR_SLEEP_STEP	0x14

5.5 Manufacturer Specific Report

Parameter	Value
Manufacturer ID 1	0x03
Manufacturer ID 2	0x00
Product Type ID 1	0x03
Product Type ID 2	0x00
Product ID 1	0x00
Product ID 2	0x41

5.6 Configuration Set Command Class

5.6.1 Command Format

7	6	5	4	3	2	1	0
Command Class = COMMAND_CLASS_CONFIGURATION							
Command = CONFIGURATION_SET							
Parameter Number							
Default	Reserved					Size	
Configuration Value 1(MSB)							
Configuration Value 2							

.....
Configuration Value n(LSB)

5.7 Central Scene (8 bit)

Command	Key Attribute	number
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Central Scene(press central button)	0x00(press 1 time)	0x01
	0x01(release)	0x01
	0x02(held)	0x01
	0x03(press 2 times)	0x01

5.9 Parameter Number Definitions (8 bit)

Parameter Number	Description	Default Value(dec)	Size
0x01	<p>7210Range</p> <p>Set the range about magnetic field</p> <p>Range:</p> <p>0-the range of parameter 0x02 is 0x00000001-0x00004B00, the range of parameter 0x03 is 0x00000001-0x00002300.</p> <p>1- the range of parameter 0x02 is 0x00000001-0x0002EE00, the range of parameter 0x03 is 0x00000001-0x00015E00.</p>	0	1
0x02	<p>7210OP</p> <p>Set the average magnetic field in ut</p> <p>Range:</p> <p>0x00000001-0x00004B00 or 0x00000001-0x0002EE00</p>	640	4
0x03	<p>7210PolHyst</p> <p>Set the offset about magnetic field</p> <p>Range:</p> <p>0x00000001-0x00002300 or 0x00000001-0x00015E00</p>	200	4
0x0A	<p>LowBatPrecent</p> <p>This parameter defines a battery level as the "low battery".</p> <p>Range:</p> <p>0x05-0x32</p>	10	1
0x0E	<p>BasicEnable</p> <p>Enable/Disable BASIC SET command</p> <p>0 – Disable.</p> <p>1 – Enable.</p>	0	1
0x0F	<p>BasicReverse</p> <p>Door Sensor reverse its value of BASIC SET when the magnet is triggered.</p> <p>0 -Send BASIC SET VALUE = 0xFF/0x00 to nodes associated with group 2 when door is opened/closed.</p> <p>1 –Send BASIC SET VALUE = 0/255 to nodes associated with group 2 when door is opened/closed.</p>		1
0x20	<p>Bypass</p> <p>Enable/Disable Bypass mode</p> <p>0 – Enable.</p> <p>1 – Disable.</p>	0	1

0x21	temp The interval time the Door Sensor reports the Multilevel Sensor Report to association group1 in minutes. 0x0F-0xFF	15	1
0xFE	LockConfig Enable/Disable configuration set 0 – Enable. 1 – Disable.	0	1

Name	Info	Parameter Number	Default Value(dec)	Max Value(dec)	Min Value(dec)	Size	Read Only	Format	Altering capability
7210Range	7210RangeSet	0x01	0	1	0	1	No read-only	Unsigned integer	true
7210OP	7210OPSet	0x02	640	19200 Or 192000	1	4	No read-only	Unsigned integer	true
7210PolHyst	7210PolHystSet	0x03	200	8960 Or 89600	1	4	No read-only	Unsigned integer	true
LowBatPrecent	LowBatAlarm	0x0A	10	50	5	1	No read-only	Unsigned integer	true
BasicEnable	SendBasic	0x0E	0	1	0	1	No read-only	Unsigned integer	true
BasicReverse	BasicValue	0x0F	0	1	0	1	No read-only	Unsigned integer	true
Bypass	BypassSet	0x20	0	1	0	1	No read-only	Unsigned integer	true
temp	TemperatureInfo	0x21	15	255	15	1	No read-only	Unsigned integer	true
LockConfig	LockConfigSet	0xFE	0	1	0	1	No read-only	Unsigned integer	true