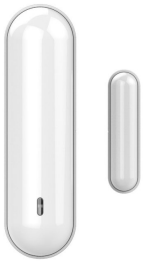

Z-Wave Door/Window Sensor PSM08 User Manual

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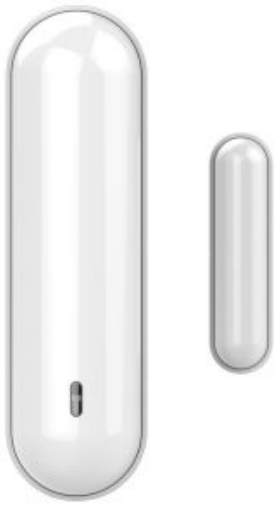


Contents

Door/Window Sensor PSM08

The door/window sensor PSM08 has door/window sensor function,
based on Z-WaveTM technology.
This device is a Security Enabled Z-Wave Plus Product. Z-WaveTM is a wireless communication protocol designed for home automation, specifically to remotely control applications in residential and light commercial environments. The technology uses a low-power RF radio embedded or retrofitted into home electronics devices and systems, such as lighting, home access control, entertainment systems and household appliances.

This product can be included and operated in any Z-WaveTM network with other Z-WaveTM certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

The device adopt the Z-WaveTM 500 series chip, when your Z-WaveTM network system is all made by Z-WaveTM 500 series devices. The network system will have the advantages as below.

- Concurrent multi-channel support reduces external interference.
- Better RF range, improve about 10 meters in indoor.
- Support 100 Kbps transmit speed, speed up communication.

Specification

Power	3VDC (CR123A lithium battery)
RF distance	Min. 40M indoor, 100M outdoor line of sight,
RF Frequency	868.40 MHz, 869.85 MHz(EU) 908.40 MHz, 916.00 MHz(US) 920.9 MHz, 921.7MHz, 923.1MHz (TW/KR/Thai/SG)
RF Maximum Power	+5dBm
Location	indoor use only
Operation temperature	-10ºC to 40ºC
Humidity	85%RH max
FCC ID	RHHPSM08

Specifications are subject to change and improvement without notice.

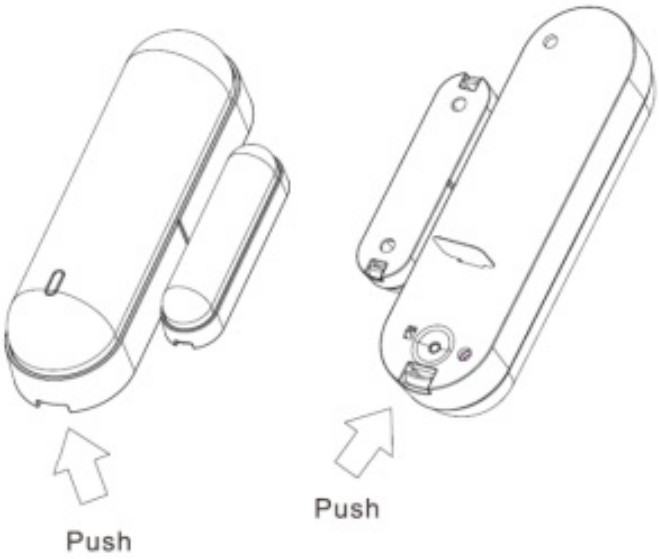
Troubleshooting

Symptom	Cause of Failure	Recommendation
The device can not join to Z Wave™ network	The device may in a Z-Wave™ network.	Exclude the device then include again.

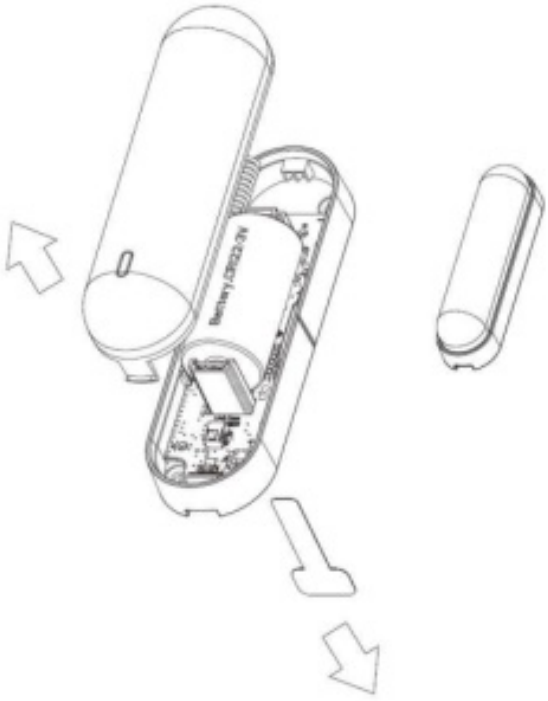
For Instruction to http:// www.philio-tech.com

Battery Installation
When the device reports the low battery message, users should replace the battery. The battery type is CR123A, 3.0V.

Step 1



Step 2



CAUTION

- replacement of a battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types); –
- disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion; –
- leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas;
- a battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas The marking information is located at the bottom of the apparatus.

Add to/Remove from Z-WaveTM Network

There are three keys in the device, one is a button, the others are tamper keys. Button can add, remove, reset or association from ZWaveTM network.

In the first time, add the device into the Z-WaveTM network. First, make sure the primary controller is in the add mode. And then power on the device, just take out the insulation Mylar in the back side of the device. The device will auto start the NWI (Network Wide Inclusion) mode. And it should be included in 5 seconds.

Notice: Including a node ID allocated by Z-WaveTM Controller means **"Add"** or **"Inclusion".** Excluding a node ID allocated by Z-WaveTM Controller means **"Remove"** or **"Exclusion".**

Function	**Description**
Add	1. Have Z-Wave^{TM} Controller entered inclusion mode. 2. Pressing button once to enter the inclusion mode. 3. After add successful, the device will wake to receive the setting command from Z-Wave ^{TM} Controller about 20 seconds.
Remove	1. Have Z-Wave^{TM} Controller entered exclusion mode. 2. Pressing button once to enter the exclusion mode. Node ID has been excluded.
Reset	***Notice: Use this procedure only in the event that the primary controller is lost or ot herwise inoperable.*** 1. Pressing button for about 5 seconds. 2. IDs are excluded and all settings will reset to factory default.

Association	1. Have Z-Wave™ Controller entered association mode. 2. Pressing button once to enter the association mode. **Note:** The device support 1 groups. The group 1 is life line for receiving the report mes sage, like triggered. This group support 1 node maximum.
• Failed or success in add/remove the node ID can be viewed from Z-Wave ™ Controller.	

Notice 1: Always RESET a Z-WaveTM device before trying to add it to a Z-WaveTM network.

Notice 2: When the device into NWI mode, the sensor functionality will useless. The NWI mode will timeout after 120 seconds. You can press the button once to abort the NWI mode.

Z-WaveTM Notification

After the device adding to the network, it will wake-up once per day in
default. When it wake-up it will broadcast the “Wake Up Notification” message to the network, and wake-up 10 seconds for receive the
setting commands.
The wake-up interval minimum setting is 30 minutes, and maximum setting is 12 hours. And the interval step is 30 minutes.

If the user want to wake-up the device immediately, please remove the
front cover, and press the button once. The device will wake-up 10 seconds.

Z-WaveTM Message Report

When the door/windows triggered, the device will report the trigger event and also report the battery status.

Door/Window Report:
When the door/window state changed, the device will automatically
send a report to the nodes in the group 1.

Notification Report (V4)

Notification Type: Access Control (0x06)
Event: Door/Window is open (0x16) Door/Window is closed (0x17)

Tamper Report:
Both the 2 tamper keys are pressed over 2 seconds. The device will into the alarm state. In that state, if any one of the tamper keys be released, the device will automatically send a report to the nodes in the group 1.

Notification Report (V4)

Notification Type: Home Security (0x07)
Event: Tampering. Product covering removed (0x03)

Power Up Procedure

Battery Power Check
When the device power up, the device will detect the power level of the
battery immediately. If the power level is too low, the LED will continue flash about 5 seconds. Please change another new battery.

NWI
When the device power on, the device will check is it already adding to
the network? If doesn't, it will auto start the NWI mode. The LED will
flash in every second and continue 120 seconds. Until timeout or the device successful to inclusion by controller.
The use can presses the button once to abort the NWI mode.

Wake
When the device power on, the device will wake about 20 seconds. In this duration, the controller can communicate with the device. Normally the device is always sleeping to save the battery energy.

Security Network

The device support the security function. When the device included with a security controller, the device will auto switch to the security mode. In the security mode, the follow commands need using Security
CC wrapped to communicate, otherwise it will not response.
Note: A "Security Enabled Z-Wave Controller" must be used in order to fully utilize this function.

COMMAND_CLASS_BATTERY
COMMAND_CLASS_NOTIFICATION_V4
COMMAND_CLASS_ASSOCIATION_V2
COMMAND_CLASS_WAKE_UP_V2

Operation Mode

There are two modes "Test" and "Normal". "Test Mode" is for the user
test the sensor function when installation. "Normal Mode" is for the normal operation.
Operation Mode can be switched by pressing tamper key three times. LED can indicate which mode it is. Lighting on one second means entering test mode, flashing once means entering normal mode.

When the event triggered, normally the LED won't indicated, unless the
battery is in the low level, the LED will flash once. But in the "Test
Mode" the LED also will light ON one second.
When the event triggered, the device will report the messages to the nodes in the group 1.

Choosing a Suitable Location

1. The recommended mounting height is 160cm
2. Don't let the device facing the window or the sunlight.
3. Don't let the device facing the source of heat. For instance the heater or the air-condition.

Z-Wave Supported Command Class

COMMAND_CLASS_ZWAVEPLUS_INFO_V2
COMMAND_CLASS_BATTERY
COMMAND_CLASS_NOTIFICATION_V4

COMMAND_CLASS_ASSOCIATION_V2
COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2
COMMAND_CLASS_VERSION_V2
COMMAND_CLASS_WAKE_UP_V2
COMMAND_CLASS_ASSOCIATION_GRP_INFO
COMMAND_CLASS_POWERLEVEL
COMMAND_CLASS_DEVICE_RESET_LOCALLY
COMMAND_CLASS_SECURITY

Disposal

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 environmental safe recycling.

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24257, Taiwan(R.O.C)
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FCC Interference 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 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 undesired 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.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Warning

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.

Documents / Resources

	Z-Wave Door/Window Sensor PSM08 [pdf] User Manual Z-Wave, Door, Window, Sensor, PSM08