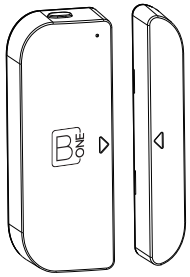


USER MANUAL

B.One Smart Sensor

B1SS02-ZW-XX

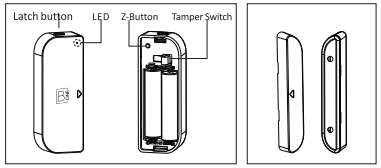
XX = ☐ US ☐ AU ☐ EU

The B.One Smart Sensor senses the Open and Close of any Door / Window to which it is fixed. It is powered by 2xAAA batteries. It can communicate with an associated Z-Wave controller/gateway or a Z-Wave device such as Siren, Smart Switch etc.

Features of B.One Smart Sensor:
(1) Z-Wave Plus certified for wide compatibility (500 series product).
(2) Smart Sensor consists of a sensor body and a magnet.
(3) Maximum distance between the sensor body and magnet is 10 mm.
(4) Smart Sensor has a built-in tamper switch. Upon tampering, the sensor reports to the connected Controller / Gateway automatically.
(5) Battery lasts for upto 1 year when operated for 10 times per day.
(6) Smart Sensor can even alert Controller / Gateway of low battery status.
(7) Supports OTA firmware updation.

I. GENERAL INFORMATION

1. Product layout



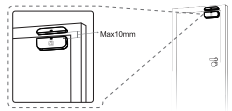
Sensor body Magnet

2. Specifications:

Power supply:	Two AAA 1.5V Batteries
Storage environment:	-10~50 °C, 0%~90% RH
Operating Temperature:	0~40 °C
Radio protocol:	Z-Wave Plus
Radio frequency:	908.42MHz(US) 868.42MHz(EU) 921.42MHz(AU)
Range:	More than 100m outdoors about 30m indoors
Dimensions:	Sensor body: 75*28*18mm magnet: 75*12*18mm
Working current:	About 60mA
Standby current:	About 30uA

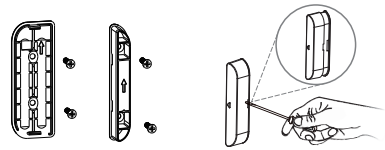
II. INSTALLATION

(1) After installing the Smart Sensor, the distance between the two components of the sensor should be less than 10 mm when the door / window is in closed position. For the Sensor to trigger an alert, the separation distance between the two components should be over 20 mm (for Open Status) and less than 10 mm (for Close Status).



NOTE:
1. Smart Sensor should not be mounted directly on or near metal frame or other large metallic objects since metal objects may weaken the radio signal strength.
2. Smart Sensor should only be placed indoors and away from water and other extreme weather conditions.

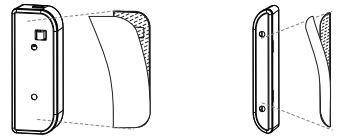
(2) Screw the bidirectional mounting plate and magnet into the wall, door or window frame. Open the cover of the unit and the magnet with a screwdriver as per below figure.



(or)

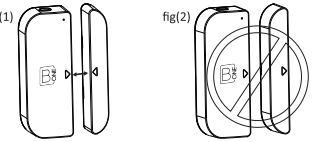
(3) Attach the double sided mounting tapes provided with the product and fix the two components to the door / window frame.

NOTE:
Wipe clean the surface where the Smart Sensor will be mounted. Any dust particles can reduce the adhesion of double-sided mounting tape.

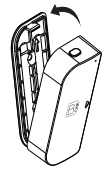


(4) Ensure that the orientation marks of the sensor body and the magnet are aligned as per fig(1) below.

fig(1) fig(2)



(5) Press the Latch button and remove the cover from the Sensor body as per the figure below.



III. Z-WAVE NETWORK INCLUSION

Smart Sensor can be included and operated in any Z-Wave network with other Z-Wave 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.

Include as a non-secure device.

(1) Insert the 2xAAA batteries.
(2) Set the Z-Wave network main controller into inclusion mode (see Z-Wave network controller operating manual).
(3) Click the Z-Button once or triple.
(4) If the inclusion is successful, the LED will blink less than 5 seconds and then keep on for 3 seconds. Otherwise, the LED will blink 5 seconds and then turn off, in which case you need to repeat the process from step 2.

Include as a secure device.

(1) Insert the 2xAAA batteries.
(2) Set the Z-Wave network main controller into inclusion mode (see Z-Wave network controller operating manual).
(3) Press and hold the Z-Button for 3 seconds.
(4) If the inclusion is successful, the LED will blink less than 5 seconds and then keep on for 3 seconds. Otherwise, the LED will blink 5 seconds and then turn off, in which case you need to repeat the process from step 2.

TIP: If you want your Smart Sensor to be a security device that uses secure/encrypted message to communicate in a Z-Wave network, then a security enabled Z-Wave controller is needed.

IV. REMOVING FROM Z-WAVE NETWORK

To remove a Smart Sensor from the Z-Wave network:
(1) Insert the 2xAAA batteries.
(2) Set the Z-Wave network main controller into exclusion mode (see Z-Wave controller operating manual).
(3) Triple click the Z-Button, if the exclusion is successful, LED will turn off within 1 second. Otherwise, LED will blink for 5 seconds, in which case you need to repeat the process from step 2.

V. RESET SMART SENSOR

Reset procedure clears the Smart Sensor's memory, including Z-Wave network controller information. To reset Smart Sensor, Press and hold the Z-Button for more than 20 seconds, LED will be changed from solid to blink and then solid again, which means the resetting is successful.

NOTE:
Use this procedure only in the event that the network primary controller is missing or otherwise inoperable.

VI. ASSOCIATION

Association allows Smart Sensor to control another Z-Wave device such as Smart Switch, Smart Dimmer, etc. Smart Sensor supports two association groups. Group 1 reports the conditions of the Smart Sensor, the battery level and the tamper button status. Group 2 is assigned to the Smart Sensor to send BASIC SET command.

NOTE: 1. The max number of associated nodes of all these 2 groups is 5. 2. Association allows for direct transmission of control command between devices and takes place without the participation of the main controller.

VII. WAKEUP

Wakeup interval

Available settings: 0-2678400
Default setting: 0
Defining a time period by which the Smart Sensor sends a wakeup notification command frame to communicate with the assigned device, update parameters, update software, detect battery level. Wakeup interval set to '0' disables sending wakeup notification. In such configuration, it is needed to manually wakeup the device by pressing Z-Button, tamper button or by removing the magnet.

NOTE:
60 seconds is the step of wakeup interval time. Which means, Smart Sensor will send wakeup notification command by a timeline that is multiples of 60 seconds.
Setting examples:
0~59=0 second, the device will not wakeup by itself.
60~119=60 seconds, the device will wakeup every 60 seconds

VIII. LOW BATTERY ALARM FUNCTION

Smart Sensor will send battery report to the lifeline group when Z-Button is triggered during the sleep mode. If the battery level of the Smart Sensor is less than setting value of configuration, the Smart Sensor will notify the lifeline nodes.

IX. ADVANCED CONFIGURATION

Smart Sensor offers few advanced configuration settings. Below parameters can be accessed from main controllers configuration interface.

Parameter No.14 Enable/Disable BASIC SET command
Smart Sensor can send BASIC SET command to nodes associated with group 2.

0 – Disable.
1 – Enable.
Default setting: 0
Parameter size: 1 [byte]

Parameter No.15 Value of the BASIC SET
Smart Sensor can reverse its value of BASIC SET when the magnet is triggered.

0 –Send BASIC SET VALUE = 255 to nodes associated with group 2 when door/window is opened. Send BASIC SET VALUE = 0 to nodes associated with group 2 when door/window is closed. 1 –Send BASIC SET VALUE = 0 to nodes associated with group 2 when door/window is opened. Send BASIC SET VALUE = 255 to nodes associated with group 2 when door/window is closed.

Default setting: 0
Parameter size: 1[byte]

Parameter No.32 Level of low battery
This parameter defines a battery level as the "low battery"

Available settings: 10-50 (10% - 50%)
Default setting: 20 (20%)
Parameter size: 1[byte]

Package contents:

1. Sensor Body (x1)
2. Magnet (x1)
3. Double-Sided Tape (×2)
4. Mounting Screws (×4)
5. AAA Battery (x2)
6. User manual (x1)

Designed in USA and Assembled in China

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