OPERATING MANUAL

DOOR/WINDOW SENSOR

HKZW-DWS01-V1.0

Door/Window Sensor is a wireless reed sensor powered by AAA battery. It is used for detecting the opening or closing of doors, windows. It can communicate with an associated Z-Wave device, such as Siren, Smart Switch, etc.

The features list:
(1) Z-Wave Plus certified for wide compatibility (500 serials product).
(2) Door/Window Sensor contains a sensor body and a magnet.
(3) Door/window opening detected through the separation of the main body and the magnet.
(4) Door/window closing detected through the combination of the main body and the magnet.
(5) The longest effective distance between the sensor body and the magnet is 10MM.
(6) The Sensor also possess the function of temper button, once the Sensor drops, it will send a report to the gateway.
(7) The battery life is up to 1 year.
(8) Support low battery alarm function.
(9) Support firmware OTA.

Ⅰ. GENERAL INFORMATION ABOUT DOOR/WINDOW SENSOR

1. Product layout

Latch button   LED   Z-button   Temper button

Sensor body   Magnet

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2. Specifications

Power supply:	Two AAA 1.5V Batteries
Storage environment:	-10°C~50°C 0%~90%
Storage environment:	0~40°C
Radio protocol:	Z-Wave
Radio frequency:	908.42MHz(US) 868.42MHz(EU) 921.42MHz(AU)
Range:	More than 100m outdoors About 30m indoors (depending on building materials)
Range:	Main body: 75*28*18mm Magnet: 75*12*18mm
Working current:	About 60mA
Standby current:	About 30uA

Ⅱ. INSTALLATION

(1) The two parts of the Door/Window Sensor should be placed in a manner such that when the door/window is closed, they are within 10MM from each other. By opening the door or window, Sensor body and magnet should separate in proximity.

Max10mm

NOTE:
1. Door/Window Sensor should not be mounted directly on or near metal framing or other large metallic objects since metal objects may weaken the radio signal strength.
2. Door/Window 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 of the magnet with a screwdriver. (presented below figure)

(3) Attach the double-sided mounting tape to the covers and to adhere to the wall, door or window frame.

NOTE:
Wipe clean the surface where the Door/Window Sensor will be mounted. Any dust and particles can reduce the adhesion of double-sided mounting tape.
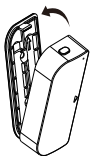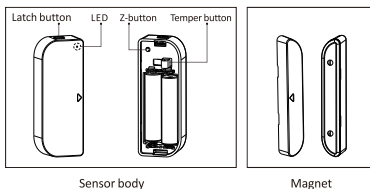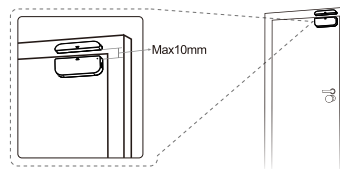
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(4)Ensure that the orientation marks of the sensor body and the magnet are oriented towards each other.
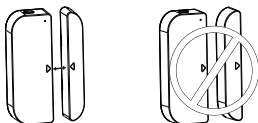
(5) Press the latch button, you can remove the cover from the sensor body. (Presented below figure)

Ⅲ. Z-WAVE NETWORK INCLUSION

Door/Window 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.

Included as a non-secure device.

(1) Insert the AAA battery.
(2) Set the Z-Wave network main controller into learning mode (see Z-Wave network controller operating manual).
(3) Triple click the Z-button.
(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 you need to repeat the process from step 2.
Included as a secure device.
(1) Insert the AAA battery.

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(2) Set the Z-Wave network main controller into learning mode (see Z-Wave network controller operating manual).
(3) Pressing and holding 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 you need to repeat the process from step 2.

TIP:
If you want your Door/Window Sensor to be a security device that use 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 the Door/Window Sensor from the Z-Wave network:
(1) Insert the AAA battery.
(2) Set the Z-Wave network main controller into learning 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, which you need to repeat the process from step 2.

Ⅴ. RESET DOOR/WINDOW SENSOR

Reset procedure clears the Door/Window Sensor's memory, including Z-Wave network controller informations.
To reset Door/Window 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 Door/Window Sensor to control another Z-Wave device such as Smart Switch, Smart Dimmer, etc.
Door/Window Sensor supports two association groupings.
Group 1 reports the conditions of the Door/Window Sensor, the battery level and the temper button status.
Group 2 is assigned to the Door/Window Sensor sends BASIC SET command.

TIP:
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. WAKE UP

Wake up interval:
Available settings: 0-2678400
Default setting: 0
Defining a time period by which the Door/Window Sensor sends a wake up notification command frame to communicate with the assigned device, update parameters, update software, detects battery level.
Wake up interval set to 0 disables the sending wake up notification command, in such configuration it is needed to manually wake the device up by press the z button, temper button, and remove the magnet.

NOTE:
1 minute is the unit of the interval time, which means Door/Window Sensor will send wake up notification command by a timeline that is multiple to 1 minute. Such as the time 60 = 1 minute, 300 = 5 minutes.

Ⅷ. LOW BATTERY ALARM FUNCTION

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

Ⅸ. ADVANCED CONFIGURATION

Door/Window Sensor offers a wide variety of advanced configuration settings. Below parameters can be accessed from main controllers configuration interface.

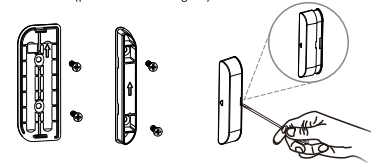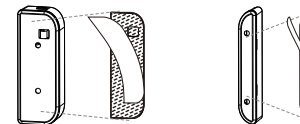**Parameter No.14 Enable/Disable BASIC SET command**
Door/Window Sensor can send BASIC SET command to nodes associated with group 2.

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

Parameter No.15 Value of the BASIC SET
Door/Window 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]**