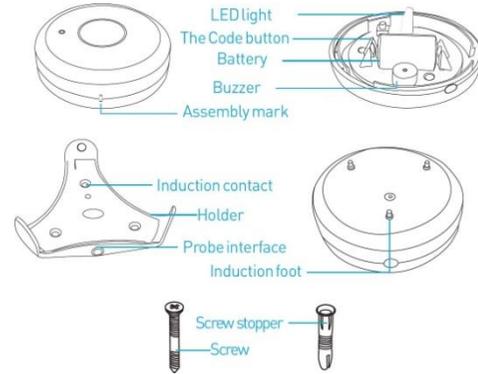


**Thank you for your support!**

Please read the user manual carefully before operating the device. Please keep the user manual for future reference.



**Product Configuration**



**Battery Usage**

The battery life of the water sensor is approximately 2 years. The current battery level can be displayed in the Z-Wave controller.

**NOTE:** The water sensor is battery powered. Please use batteries in a correct way to avoid explosion. Dispose of batteries properly. For handling batteries please refer to environmental laws.

**Tips**

1. Make sure the water sensor is in the Z-Wave controller network.
2. Do not install in a place near water vapor or smoke.
3. Do not install the water sensor main body and the probe in a place where water is soaked.
4. The sensor probe should be placed on a surface where water leakage is most likely.
5. Direct association is possible between the water sensor and other Z-Wave network devices if they have association functionality. The Z-Wave controller does not take part in such communication. Using this mechanism, the water sensor can communicate with other devices even when the controller is damaged.

**Product Introduction**

The water sensor is an intelligent security equipment that can transmit the Z-Wave network and radio waves. In the Z-Wave network communication, the water sensor can be connected to any Z-Wave controller. The water sensor can send messages to the Z-Wave controller and realize association with other devices.

In different countries or areas, the radio frequency may be different.

In the Z-Wave network communication the water sensor can send messages to the Z-Wave controller and realize association with other devices through the Z-Wave network. In the communication with the Z-Wave controller, the water sensor can only send messages to the Z-Wave controller, but cannot receive any messages. When the water sensor is triggered, the LED light switches on and the buzzer will make a sound. At the same time, the water sensor will send messages to the Z-Wave controller and the Z-Wave controller can display the current status of water sensor. The water sensor is battery powered, small and easy to install.

**Technical Parameters**

- Power supply: 1x CR2 (3V)
- Battery life: ~ 2 years
- Radio Protocol: Z-Wave
- Compatible with: Z-Wave 300 series and 500 series

- Radio Frequency: 868.4 MHz EU; 908.4 MHz US
- Wireless range: up to 50 m outdoor, up to 30 m indoor
- Standby / max. current: 2 µA / 35 mA (in radio transmitter mode)
- Operating temperature: 0 - 40 °C
- Storage temperature: 0 - 60 °C
- Size (D x W x H): 68 x 68 x 34 mm

**Technical Information**

- Flood detection
- Triggering an alarm, the LED light flashes in the detection area
- Easy installation with screw
- Detecting the location of an overflow of water timely and accurately can reduce the economic losses caused by the overflow
- Compatible with any Z-Wave network
- High sensitivity and good stability

**Items List**

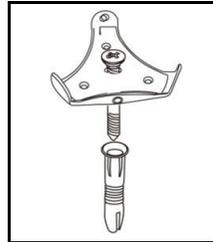
- Water sensor 1 piece
- Holder / probe 1 piece each
- Battery CR2 1 pieces
- Screw / Screw stopper 2 pieces each
- User manual 1 piece

**Installation Steps**

- Holder Installation
- Battery Installation / Fixing water sensor on holder

**Holder Installation**

Fix the holder with screws and screw stopper.



**The status of the LED**

Color	LED Display Status	Description
Red	Blink 5 times (1s Interval)	Power on but not added in a Z-Wave network
	Blink 5 times (0.5s Interval)	After pressing the code button 3 times to add/remove the water sensor to/from a Z-Wave network or to send node info
	Blink 5 times (0.3s Interval)	Power on and already added in a Z-Wave network
	Blink 1 time	After pressing the code button for a long time, when resetting to default settings
	Blink with beep On/Off	Water leakage detected

**Add the water sensor to a Z-Wave network**

The water sensor can be included to a Z-Wave network by using the code button.

1. Open the water sensor and insert the battery. Please do not operate the code button within the first 20 s after inserting the battery. Make sure the device is located within the direct range of the Z-Wave controller.
2. Set the controller into the Add (inclusion) mode (refer to the controller user manual).
3. Press the code button of the water sensor quickly 3 times and it will enter the Add (inclusion) mode. The LED flashes red 5 times on and off alternately.
4. The water sensor will be detected and included into the Z-Wave network.
5. Wait for the controller to configure the water sensor.

**Remove the water sensor from the Z-Wave Network**

The water sensor can be removed from the Z-Wave network by using the code button.

1. Open the water sensor and make sure it is powered on. Make sure the device is located within the direct range of the Z-Wave controller.
2. Set the controller into the Remove (exclusion) mode (refer to the controller user manual).
3. Press the code button of the water sensor quickly 3 times and it will enter the Remove (exclusion) mode. The LED flashes red 5 times on and off alternately.
4. Wait for controller to remove (delete) the water sensor.

**Restore the water sensor to factory default settings**

The reset procedure will delete all information of the Z-Wave network and on the Z-Wave controller and restore the water sensor to factory default settings.

1. Open the water sensor and make sure it is powered on.
2. Make sure the device is located within the direct range of the controller.
3. Press and hold the code button for 10-15 s. The LED flashes red 5 times on and off alternately.
4. Release the button.

**NOTE:** During the process of resetting please make sure the water sensor is powered all the time.

**Wake up the water sensor manually**

The user can shortly press the code button once to wake up the sensor and to send a wakeup notification to the controller. The LED will be flash one time.

**Associations**

(Association Command Class Version 2)

This sensor supports 4 association groups. Each group supports max 5 associated nodes. This has the effect that when the sensor is triggered, all devices associated with it will receive the relevant reports. Through association, the water sensor can control other Z-Wave devices, e.g. a siren alarm, a wall plug, a lamp, etc.

**GROUP 1** is a lifeline service assigned to sensor status (water leakage detection). It enables the sensor to send reports and readings to Z-Wave controller whenever the sensor is triggered. This group supports:

- NOTIFICATION\_REPORT\_V4
- BATTERY\_REPORT
- SENSOR\_BINARY\_REPORT\_V2
- DEVICE\_RESET\_LOCALLY\_NOTIFICATION

**GROUP 2** allows for sending control commands to associated devices such as relay module, lighting, etc. This association group is configured through the advanced parameter no. 7. If the sensor clears the notification event then a Basic Set with 0x00 is sent to the nodes associated in Group 2 in order to inform these devices. This group supports:

- BASIC\_SET

**GROUP 3** allows for sending a notification to associated devices in this group. This group supports:

- NOTIFICATION\_REPORT\_V4

**GROUP 4** allows for sending a notification to associated devices in this group. This group supports:

- SENSOR\_BINARY\_REPORT\_V2

**Advanced Configuration**

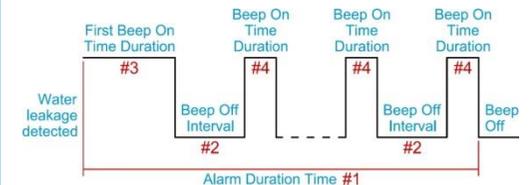
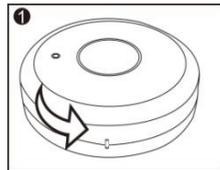
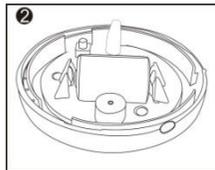


Figure 1

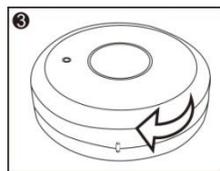
**Battery Installation / Fixing water sensor on holder**



Open the water sensor

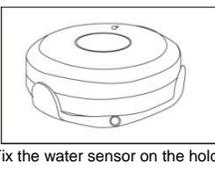


Install the battery



Close the water sensor

When assembling the water sensor, please align the assembly mark.



Fix the water sensor on the holder

When fixing the water sensor on the holder, please align the induction feet and the induction contacts.

### 1. Configure Alarm Duration Time

This parameter can be used to adjust the time for how long the beep and LED are turned on, when a water leakage is detected. If this parameter is set to '0', the beep and LED will be turned on until the water leakage is not detected anymore. Refer to figure 1.

Parameter Number	Size	Available settings	Default
1	1	0 ~ 255min	120min

### 2. Configure Alarm Interval (Beep Off Interval)

This parameter defines the beep off interval time when water leakage is detected. Refer to figure 1.

Parameter Number	Size	Available settings	Default
2	1	1 ~ 255min	1min

### 3. Configure First Alarm On Time Duration (First Beep On)

This parameter defines the beep on duration the first time when a water leakage is detected. Refer to figure 1.

Parameter Number	Size	Available settings	Default
3	1	10 ~ 255s	60s

### 4. Configure Alarm on Time Duration (Beep On Time)

This parameter defines the beep on duration after the first beep on when a water leakage is detected. Refer to figure 1.

Parameter Number	Size	Available settings	Default
4	1	5 ~ 255s	5s

### 5. Configure Alarm Enable/Disable

This parameter defines that beep on is enabled or disabled. '0' indicates beep on is disabled, but the LED will be turned on when a water leakage is detected. '1' indicates the beep on is enabled, the beep and the LED will be turned on when a water leakage is detected.

Parameter Number	Size	Available settings	Default
5	1	0, 1	1

### 6. Configure Water Leakage Detection Enable/Disable

This parameter defines the function if water leakage detection is enabled or disabled. '0' indicates that water leakage detection is disabled, '1' indicates that water leakage detection is enabled.

Parameter Number	Size	Available settings	Default
6	1	0, 1	1

### 7. Basic Set Level

The Basic Set Command will be sent when the water sensor detects a leakage. The receiver will take into consideration; for instance, if a lamp module receives the Basic Set Command if it shall be turned on or off.

Parameter Number	Size	Available settings	Default
7	1	0 ~ 99, 255	255

#### Notification Command Class

Once the sensor detects a water leakage, it will send a NOTIFICATION\_REPORT and a SENSOR\_BINARY\_REPORT to the nodes of the lifeline to inform there is a water leakage event.

When the water leakage is not detected anymore, the NOTIFICATION\_REPORT and the SENSOR\_BINARY\_REPORT will be sent again to the nodes in the lifeline.

For compatibility with the Z-Wave Series 300 the Binary Sensor Command Class is also realized.

#### Notification Report Command:

##### Event Present:

Command Class: COMMAND\_CLASS\_NOTIFICATION  
Command: NOTIFICATION\_REPORT  
Notification Type: NOTIFICATION\_TYPE\_WATER\_ALARM  
Event: NOTIFICATION\_EVENT\_WATER\_ALARM\_WATER\_LEAK\_DETECTED\_UNKNOWN\_LOCATION

##### Event Clear:

Command Class: COMMAND\_CLASS\_NOTIFICATION  
Command: NOTIFICATION\_REPORT  
Notification Type: NOTIFICATION\_TYPE\_WATER\_ALARM  
Event: NOTIFICATION\_EVENT\_WATER\_ALARM\_NO\_EVENT

#### Binary Sensor Report Command:

##### Event Present:

Command Class: COMMAND\_CLASS\_SENSOR\_BINARY  
Command: SENSOR\_BINARY\_REPORT  
Sensor Type: SENSOR\_WATER  
Value: 0xFF

##### Event Clear:

Command Class: COMMAND\_CLASS\_SENSOR\_BINARY  
Command: SENSOR\_BINARY\_REPORT  
Sensor Type: SENSOR\_WATER  
Value: 0x00

#### WakeUp Command Class

The water sensor stays in sleep state for the majority of time in order to conserve the battery.

The minimum wakeup interval is 300 s (5 minutes)  
The maximum wakeup interval is 16'777'200 s (about 194 days)

Allowed min. step among each wakeup interval is 60 seconds, such as 360 s, 420 s, 480 s ...

**NOTE:** The default value is 12 hours. The larger the value is, the greater the battery life is.

#### Battery Check Command

Users can enquire the battery status of the water sensor by sending the BATTERY\_GET command. Once the water sensor receives the command, it will return the BATTERY\_REPORT command.

The water sensor will send BATTERY\_LEVEL = 0xFF command to the

Z-Wave controller to inform that it needs a new battery; otherwise the BATTERY\_LEVEL value range is 0% to 100%.

#### Command Classes

The water sensor supports the Command Classes as below:

- COMMAND\_CLASS\_ZWAVEPLUS\_INFO (V2)
- COMMAND\_CLASS\_VERSION (V2)
- COMMAND\_CLASS\_MANUFACTURER\_SPECIFIC (V2)
- COMMAND\_CLASS\_DEVICE\_RESET\_LOCALLY (V1)
- COMMAND\_CLASS\_POWERLEVEL (V1)
- COMMAND\_CLASS\_BATTERY (V1)
- COMMAND\_CLASS\_ASSOCIATION (V2)
- COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO (V1)
- COMMAND\_CLASS\_WAKE\_UP (V2)
- COMMAND\_CLASS\_NOTIFICATION (V4)
- COMMAND\_CLASS\_SENSOR\_BINARY (V2)
- COMMAND\_CLASS\_CONFIGURATION (V1)

#### Guarantee

- The Guarantee is provided by our company (hereinafter "Manufacturer")
- The Manufacturer is responsible for equipment malfunction resulting from physical defects (manufacturing or material) for 12 months from the date of its purchasing.
- During the Guarantee period, the Manufacturer shall repair or replace any defects, free of charge.
- In special cases, when the device cannot be replaced with the device of the same type (e.g. the device is no longer available in the commercial offer), the Manufacturer may replace it with a different device which has similar technical parameters as the faulty one. Such activity shall be considered as fulfilling the obligations of the Manufacturer. The Manufacturer shall not refund money paid for the device.
- The guarantee shall not cover:
  - mechanical damages (cracks, fractures, cuts, abrasions, physical deformations caused by impact, falling or dropping the device or other objects, improper use or not observing the operating manual)
  - damages resulting from external causes as e.g. flood, storm, fire, lightning, natural disasters, earthquakes, war, civil disturbance, force majeure, unforeseen accidents, theft, water damage, liquid leakage, battery spill, weather conditions, sunlight, sand, moisture, high or low temperature, air pollution

- damages caused by malfunctioning software, attack of a computer virus or by failure to update the software as recommended by the Manufacturer.

#### Disposing and recycling your product

When the device reaches its end of life, dispose it according to your local environmental laws, guidelines and regulations. The WEEE symbol on the product or the packaging means that according to local laws and regulations it needs to be disposed of separately from household waste.



Once this product has reached the end of its life, please take it to a collection point (recycle facility) designated by your local authorities. By recycling the product and its packaging you help to conserve the environment and protect human health.

#### Manufacturer



#### Shenzhen Neo Electronics Co., LTD

Address: 6<sup>th</sup> Floor, Building No.2, Laobing Industrial Park, Tiezhai Road Xixiang, BaoAn District, Shenzhen, China  
Web: <https://www.szneo.com>  
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All above is for references only, please see the subject on products.