Water Sensor

❶ Oomi by Fantem Water Sensor.

Oomi by Fantem Water Sensor brings intelligence to a new level, one that is suited to both safety and convenience. It contains 4 sensing points, which would be more accurately to detect the presence and absence of water or detect whether there is water leak in some places of your home. The Water Sensor has an inbuilt buzzer that can play alarm sounds to let you know when the water is detected.

The Water Sensor is also a security Z-Wave device that supports Over The Air (OTA) for firmware updates.

❷ Familiarize yourself with your Water Sensor.

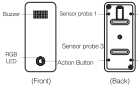
Package contents:

1. Main sensor unit (×1).
2. CR123A battery (×1).
3. S crew (×2).

Main sensor unit

CR123A battery

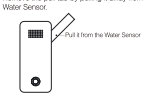
Screw



❸ Quick start.

Power on your Sensor.

1. Remove the pull tab by pulling it away from the Water Sensor.



Now, you can try pressing the Sensor's Action Button, if you can see the RGB LED blinks, which indicates that the Sensor is powered on.

2. Secure the Sensor plate using the screw provided.

After complete the securing of the Sensor plate, your Water Sensor unit will possess the high waterproof level of IP65.

Your Water Sensor 6 also can be powered by the Water Sensor 6 Dock and connect to external sensor probes or ropes, if you want to know more about it, please refer to the Water Sensor 6 Dock manual.

Adding your Sensor to your Z-Wave network.

With your sensor is powered on, it's time to add it to your Z-Wave network.

1. Let your Z-Wave primary controller/gateway enter into adding/inclusion mode.
2. Take your Sensor near to your primary controller.
3. Press the Action Button once on your Sensor, the green LED will blink.
4. If your Water Sensor has been successfully added to your Z-Wave network, its green LED will be solid for 2 seconds and then the orange LED will fast blink for 10 minutes if the Sensor does not receive the Wake Up No More info Command from Controller. If the adding was unsuccessful and the red LED will be solid for 2 seconds and then become colourful gradient for a few seconds before it turns off, repeat the above steps.

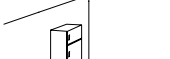
With your Sensor now working as a part of your smart home, you'll be able to configure it from your home control software or phone application. Please refer to your software's user guide for precise instructions on configuring the Water Sensor to your needs.

Installing your Water Sensor.

The installation of your Water Sensor is very simple, since you just need to select where you'll place your Water Sensor in your home to detect whether there is water leakage.

For example, you can put it on the floor or somewhere of your washroom or kitchen and so on. In case, your washroom's water pipe is ruptured or the water leakage happens without knowing it. However, the Water Sensor detected this water leakage event, it sends out the notification message immediately to tell your home gateway to shut off the main water gate of your home for avoiding water leakage accident. At the same time, the buzzer keeps playing alarm sounds to tell the people at home that the water leak is detected.

If you want to detect whether or not there would be water leakage from the fridge, you can put the Water Sensor near to the fridge. Just note that the Water Sensor cannot be put inside the fridge or other metal container, since the metal container will affect the signal strength of the Sensor unit and your main controller.

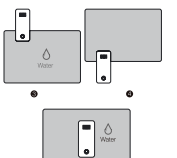


Water Sensor triggering.

The Water Sensor will be triggered when the water leak or presence happens in below situations:

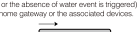
1. Water is detected by the Sensing point 2 and 4.
2. Water is detected by the Sensing point 1 and 3.

3. Water is detected by the Sensing point 1 and 2
4. Water is detected by the Sensing point 3 and 4.
5. Water is detected by the Sensing point 1,2,3 and 4



The above situations are the water leak or water presence event is triggered by the Sensor, when the water recedes from the Sensor, the water leak event will be cleared and then the Sensor will

send out a notification report (the previous event cleared or the absence of water event is triggered) to your home gateway or the associated devices.



(Water recedes from Sensor)

④ Advanced.

Send a wake up notification.

In order to send your Sensor new configuration commands from your Z-Wave controller or gateway, it will need to be woken up.

1. Press the Action Button on the Sensor unit and then release the Action Button. This will trigger and send a wake up notification command to your controller/gateway.
2. If you want your Sensor to keep awake for a longer time, press and hold the Action Button on the back of the Sensor unit for 3 seconds, then your Sensor will wake up for 10 minutes and the orange LED will fast blink while it is awake.

Removing your Sensor from your Z-Wave network.

Your sensor can be removed from your Z-Wave network at any time. You'll need to use your Z-Wave network's main controller/gateway. To do this, please refer to the part of their respective manuals that tell you how to remove devices from your network.

1. Turn your primary controller into device removal mode.
2. Take the Sensor unit near to your primary controller.
3. Press the Action Button on your Sensor.
4. If your Water Sensor is successfully removed from the Z-Wave network, the RGB LED will become a colourful gradient for a few seconds and then turn off. If the removing was unsuccessful, the blue LED will be solid for 2 seconds and then turn off, repeat the above steps.

Security or Non-security feature of your Sensor in Z-Wave network.

Including Water Sensor as a non-secure device:
If you want your Sensor as a non-security device in your Z-Wave network, you just need to press this Action Button once on Water Sensor when you use a controller/gateway to add/include your Sensor.

The green LED will be on for 2 seconds and then the orange LED will fast blink for 10 minutes (if the Sensor does not receive the Wake Up No More Info command from primary Controller) to indicate the inclusion is successful.

Including Water Sensor as a secure device:
In order to take full advantage of all functionality the Water Sensor, you may want your Sensor is a security device that uses secure/encrypted message to communicate in Z-wave network, so a security enabled controller/gateway is needed for the Water Sensor to be used as a security device. You need to press the Sensor's Action Button 2 times within 1 second when your security controller/gateway starts the network inclusion. The blue LED will be on for 2 seconds and then the orange LED will fast blink for 10 minutes (if the Sensor does not receive the Wake Up No More Info command from primary Controller) to indicate the inclusion is successful.

Factory reset your Sensor.

If your primary controller is missing or inoperable, you may wish to reset all of your Water Sensor's settings to their factory defaults. To do this, press and hold the Action Button for 20 seconds and the green LED will be solid for 2 seconds and then be colourful gradient to confirm a success.

Your Sensor's battery.

Your Water Sensor has a internal lithium battery that will last about 2 years when it is in normal use condition. If you find the Water Sensor's battery is drained, you will need to replace it with a new CR123A battery, refer to the below steps to replace the battery:

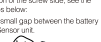
1. Unscrew the 2 screws from the Sensor.

2. Separate the battery cover from the Sensor unit.
   If you have a hard plastic board(about 0.8 to 1.0mm thickness) on hand, you can use it to separate the battery cover directly:

Push or move the plastic board along the gap between battery cover and Sensor unit, refer to the direction of arrows, see the figure below:

You can also open the battery cover through your fingers if you are confident about this way. Find the position of the screw side, see the operating steps below:

a. Pull open a small gap between the battery cover and Sensor unit.



b. Push or move your fingernail along the gap between battery cover and Sensor unit, as below:

3. Battery cover is separated from the Sensor unit.

Sensor unit Battery cover

⑤ Technical specifications.

Model number: FT122
Power supply: CR123A lithium battery, 3V, 1500mAh.
Operating temperature: 0°C to 40°C.
Storage temperature: -30°C to 60°C.
Water proofing: IP65.
Max volume of buzzer: 60dB at 2 meters away.
Operating distance: Up to 100 feet(30 metres indoors or 492 feet/150 metres outdoors.

⑥ 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.

⑦ Certifications (regional):

Z-Wave and Z-Wave Plus are registered trademarks of Sigma Designs and its subsidiaries in the United States and other countries

FCC ID: XBAFT122

Version: 5010122000001-AA

Association information

5.4 Association Command Class

Water Sensor 6 supports 4 association groups and can add max 5 nodes for every group.

Association Group	Nodes	Send Mode	Send commands
Group 1 (Lifeline)	[1,5]	Single Cast	1. Send Battery Report or Multilevel Sensor Report (configured by parameter 0x65 and 0x6F). 2. Send Notification Report when water leak is detected. *Note: When having a classic Node ID association on this group, the Water Sensor will send the "Water leak detected" notification if any of the probes detect water and "event cleared" notification if none of the probe longer detects a water leak.* 3. Send Device Reset Locally when it is reset.
Group 2	[1,5]	Single Cast	Send configuration 0x88 report:
Group 3	[1,5]	Single Cast	Send Basic Set (configured by parameter 0x58) to the associated nodes in Group 3 when the Sensor probe 1 is triggered.
Group 4	[1,5]	Single Cast	Send Basic Set (configured by parameter 0x59) to the associated nodes in Group 4 when the Sensor probe 2 is triggered.

Configuration parameters information

Parameter Number Hex/ Decimal	Description	Default Value	Size
0x02 (2)	Enable/disable wake up for 10 minutes state when re-power on the Sensor 0 = Disable, 1 = Enable.	0	1
0x08 (8)	Set the timeout to go into the sleep state after the Wake Up Notification was sent out. [15, 255]	30	1
0x09 (9)	Get the current power mode Value 1: 0 = USB power, 1 = Battery power. Value 2: 0 = Sleeping mode after re-power on, 1 = keep awake for 10 minutes after re-power on, 2 = always awake state. Note: This parameter is a Get-only parameter.	-	2
0x0A (10)	Set the alarm time for the Buzzer when the sensor is triggered. Value 1: the time of Buzzer keeping OFF state (MSB) Value 2: the time of Buzzer keeping OFF state (LSB) Value 3: the time of Buzzer keeping ON state (MSB) Value 4: repeated cycle of Buzzer alarm. Note: one cycle is equal to the Buzzer from ON state to OFF state.	0x001E0A0A	4
0x27 (39)	Set the low battery value. Range: 10% to 50%.	20	1
0x31 (49)	Set the upper limit value (overheat). Value 1: temperature value (MSB) Value 2: temperature value (LSB) Value 2: 0 = Celsius unit, 1 = Fahrenheit unit. Value 4: reserved.	US version: 0x04100100 (104℉). Other versions: 0x01900000 (40℃).	4
0x32 (50)	Set the lower limit value (under heat). Value 1: temperature value (MSB) Value 2: temperature value (LSB) Value 2: 0 = Celsius unit, 1 = Fahrenheit unit. Value 4: reserved.	US version: 0x01400100 (32℉). Other versions: 0x00000000 (0℃).	4
0x39 (57)	Set the recover limit value of temperature sensor. *Note:* 1. When the current measurement <= (Upper limit – Recover limit), the upper limit report is enabled and then it would send out a sensor report when the next measurement is more than the upper limit. After that the upper limit report would be disabled again until the measurement <= (Upper limit – Recover limit). 2. When the current measurement >= (Lower limit + Recover limit), the lower limit report is enabled and then it would send out a sensor report when the next measurement is less than the lower limit. After that the lower limit report would be disabled again until the measurement >= (Lower limit + Recover limit). 3. High byte is the recover limit value. Low byte is the unit (0x00=Celsius, 0x01=Fahrenheit). 4. Recover limit range: 1.0 to 25.5 ℃/ ℉ (0x0100 to 0xFF00 or 0x0101 to 0xFF01). E.g. The default recover limit value is 2.0 ℃/℉ (0x1400/0x1401), when the measurement is less than (Upper limit – 2), the upper limit report would be enabled one time or when the measurement is more than (Lower limit + 2), the lower limit report would be enabled one time.	US version: 0x1401(2.0℉) Other version: 0x1400 (2.0℃)	2
0x40 (64)	Set the default temperature unit. 0 = Celsius unit. 1 = Fahrenheit unit.	US version: 0x01 Other versions: 0x00	1
0x54 (84)	The state of tilt sensor 0 = the Water Sensor main unit is in horizontal direction. 1 = the Water Sensor main unit is in vertical direction. Note: this parameter is a Get-only parameter.	-	1
0x56 (86)	Enable/ disable the buzzer. 0 = disable. 1 = enable.	1	1
0x57 (87)	To set which sensor is triggered the buzzer will alarm. 1 = If the Water leak is triggered, the buzzer will alarm. 2 = If the vibration is triggered, the buzzer will alarm. 16 = If the under heat is triggered, the buzzer will alarm. 32 = If the overheat is triggered, the buzzer will alarm. Note: if the value = 1+2+16+32=51, which means if any sensor is triggered, the buzzer will alarm.	3	1
0x58 (88)	To set which value of the Basic Set will be sent to the associated nodes in association Group 3 when the Sensor probe 1 is triggered. 0 = Send nothing. 1 = Presence of water, send Basic Set 0xFF, absence of water, send Basic Set 0x00. 2 = Presence of water, send Basic Set 0x00, absence of water, send Basic Set 0xFF.	0	1
0x59 (89)	To set which value of the Basic Set will be sent to the associated nodes in association Group 4 when the Sensor probe 2 is triggered. 0 = Send nothing. 1 = Presence of water, send Basic Set 0xFF, absence of water, send Basic Set = 0x00. 2 = Presence of water, send Basic Set 0x00, absence of water, send Basic Set 0xFF.	0	1
0x5E (94)	To set which power source level is reported via the Battery CC. 0 = report the USB power level. 1 = report the CR123A battery level.	0	1
0x65 (101)	To set what unsolicited report would be sent to the Lifeline group. 0 = Send Nothing. 1 = Battery Report. 2 = Multilevel sensor report for temperature. 3 = Battery Report and Multilevel sensor report for temperature.	3	1
0x6F (111)	Set the interval time for sending the unsolicited report that configured by parameter 0x65. (Valid values 0x05-0x28DE80) Note: 1. The unit of interval time is second if USB power. 2. If battery power, the minimum interval time is equal to Wake Up interval set by the Wake Up CC.	3600	4
0x87 (135)	To set which sensor report can be sent when the water leak event is triggered and if the receiving device is a non-multichannel device. 0 = Send nothing. 1 = Send notification report to association group 1. 2 = Send configuration 0x88 report to association group 2. 3 = Send notification report to association group 1 and Send configuration 0x88 report to association group 2.	1	1
0x88 (136)	When the parameter 0x87 is set to 2 or 3, it can get the sensor probes' status through this configuration value. If Bit 0 = 0, which means absence of water is triggered by probe 1. If Bit 0 = 1, which means presence of water is triggered by probe 1. If Bit 1 = 0, which means absence of water is triggered by probe 2. If Bit 1 = 1, which means presence of water is triggered by probe 2. Bit 2-7 = reserved. *Note:* This parameter is a Get- only parameter.	–	1
0xC9 (201)	Temperature calibration (the available value range is [-128,127] or [-12.8℃, 12.7℃]). *Note:* 1. High byte is the calibration value. Low byte is the unit (0x00=Celsius, 0x01=Fahrenheit) 2. The calibration value (high byte) contains one decimal point. E.g. if the value is set to 20 (0x1400), the calibration value is 2.0 ℃ (EU/AU version) or if the value is set to 20 (0x1401), the calibration value is 2.0 ℉(US version) 3. The calibration value (high byte) = standard value - measure value. E.g. If measure value =25.3℃ and the standard value = 23.2℃, so the calibration value= 23.2℃ - 25.3℃= -2.1℃ (0xEB). If the measure value =30.1℃ and the standard value = 33.2℃, so the calibration value= 33.2℃ - 30.1℃=3.1℃ (0x1F).	US version: 0x0001. Other versions: 0x0000.	2
0xFC (252)	Enable/disable Configuration Locked. 0 = Disable. 1 = Enable.	0	1
0xFF (255)	Value=0x55555555、Default=1、Size=4 Reset to factory default setting and removed from the z-wave network	N/A	4
	Reset to factory default setting	N/A	1