



Wireless Water Leak Detector with Rope Sensor

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Rope Sensor***

R718WB User Manual

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1. Introduction

R718WB is a LoRaWAN device compatible with LoRaWAN protocol (ClassA). When the R718WB sensor detects a leak, it will send an alarm message to the gateway. When the sensor detects no leaks, it will send a message that shows no leak to the gateway.

LoRa Wireless Technology:

LoRa is a wireless communication technology dedicated to long distance and low power consumption. Compared with other communication methods, LoRa spread spectrum modulation method greatly increases to expand the communication distance. Widely used in long-distance, low-data wireless communications. For example, automatic meter reading, building automation equipment, wireless security systems, industrial monitoring. Main features include small size, low power consumption, transmission distance, anti-interference ability and so on.

LoRaWAN:

LoRaWAN uses LoRa technology to define end-to-end standard specifications to ensure interoperability between devices and gateways from different manufacturers.

2. Appearance



3. Main Features

- Compatible with LoRaWAN™
- 2 section 3.6V ER14505 button battery powered
- Report voltage and water leak status
- Easy set up and installation

4. Set up Instruction

4.1 Power on and Turn on / off

- (1) Power on = Insert batteries: open the battery cover (users may need a flat blade screwdriver to open); insert two sections of 3.6V ER14505 button batteries and close the battery cover.
- (2) If the device had never joined in any network or at factory setting mode, after powering on, the device is at off mode by default setting. Press any function key and release to turn on the device. The green indicator will flash once to show that R718WB is turned on.
- (3) Press and hold both function keys for 5 seconds till the green indicator flashes quickly and release. The green indicator will flash 20 times to show that R718WB is turned off.

Note: the interval between shutting down twice or power off/on is suggested to be about 10 seconds to avoid the interference of capacitor inductance and other energy storage components.

4.2 Join Into Lora Network

To join R718WB into LoRa network to communicate with LoRa gateway.

The network operation is as following:

- (1) If R718WB had never joined any network or at factory setting mode, turn on the device; it will search an available LoRa network to join. The green indicator will stay on for 5 seconds to show it joins into the network, otherwise, the green indicator will be off.
- (2) If R718WB had been joined into a LoRa network, remove and insert the batteries; the green indicator will stay on for 5 seconds to show it joins into the network.

4.3 Function Key

- (1) Press and hold both function keys for 5 seconds to reset to factory setting. After restoring to factory setting successfully, the green indicator will flash quickly 20 times.
- (2) Press any function key to turn on the device; the green indicator flashes once and it will send a data report.

4.4 Data Report

When the device is turned on, it will immediately send a version package and a data report of water leakages/voltage.

The transmission frequency of sending version package is once every 24 hours.

Data will be reported once per hour by default setting.

Maximum time: 3600s

Minimum time: 3600s

Default reportchange:

Battery ---- 0x01 (0.1V)

R718WB sensor is triggered:

When the R718WB status changes, it will send warning report.

No water leak:0

Water leak:1

Note: MinInterval is the sampling period for the Sensor. Sampling period \geq MinInterval.

Data report configuration and sending period are as following:

Min Interval (Unit:second)	Max Interval (Unit:second)	Reportable Change	Current Change \geq Reportable Change	Current Change < Reportable Change
Any number between 1~65535	Any number between 1~65535	Can not be 0.	Report per Min Interval	Report per Max Interval

5. Restore to Factory Setting

R718WB saves data including network key information, configuration information, etc. To restore to factory setting, users need to execute below operations.

1. Press and hold both function keys for 5 seconds till the green indicator flashes and then release; LED flashes quickly 20 times.
2. R718WB is at off mode by default after restoring to factory setting.

Note: The device operation of turning off is the same as the device restore factory settings.

6. Sleeping Mode

R718WB is designed to enter sleeping mode for power-saving in some situations:

- (A) While the device is in the network → the sleeping period is one hour. (During this period, if the reportchange is larger than setting value, it will wake up and send a data report).
- (B) When it is not in the network → R718WB will enter sleeping mode and wake up every 15 seconds to search a network to join in the first two minutes. After two minutes, it will wake up every 15 minutes to request to join the network.

If it's at (B) status, to prevent this unwanted power consumption, we recommend that users remove the batteries to power off the device.

7. Low Voltage Alarming

The operating voltage threshold is 3.2V. If the voltage is lower than 3.2V, R718WB will send a low-power report to the Lora network.

8. Installation method

This product comes with waterproof function. When using it, the back of it can be adsorbed on the iron surface, or the two ends can be fixed to the wall with screws.

Note: When installing the battery, use a screwdriver or similar tool to assist in opening the battery cover.

9. Important Maintenance Instruction

Your device is a product of superior design and craftsmanship and should be used with care. The following suggestions will help you use the warranty service effectively.

- Keep the equipment dry. Rain, moisture, and various liquids or moisture may contain minerals that can corrode electronic circuits. In case the device is wet, please dry it completely.
- Do not use or store in dusty or dirty areas. This can damage its detachable parts and electronic components.
- Do not store in excessive heat. High temperatures can shorten the life of electronic devices, destroy batteries, and deform or melt some plastic parts.
- Do not store in a cold place. Otherwise, when the temperature rises to normal temperature, moisture will form inside, which will destroy the board.
- Do not throw, knock or shake the device. Rough handling of equipment can destroy internal circuit boards and delicate structures.
- Do not wash with strong chemicals, detergents or strong detergents.
- Do not apply with paint. Smudges can block debris in detachable parts and affect normal operation.
- Do not throw the battery into a fire to prevent the battery from exploding. Damaged batteries may also explode.

All of the above suggestions apply equally to your device, battery and accessories. If any device is not working properly.

Please take it to the nearest authorized service facility for repair.