

ecowitt®



Wireless Multi-channel Water Leak Detection Sensor

Model: WH55



<https://s.ecowitt.com/MF9U0U>

Table of Contents

1. Introduction	1
2. Getting Started Guide	2
2.1 Included Items	2
2.2 Multiple Views and Dimensions	3
2.3 Device Layout and Component Identification	3
3. Installation & Setup	4
3.1 Powering On the Device	4
3.2 Sensor Placement	5
3.3 Detecting Water Leaks	6
3.4 Wi-Fi Configuration with gateway	6
3.5 Compatible Consoles and Gateways	6
4.View online data	8
5.Set Email Alerts	10
6. Features	10
7. Specification	11
8. Troubleshooting Guide	11
9. Warranty Information	12
10. FCC	12
11. Contact Us	14
11.1 After-sales Service	14
11.2 Stay in Touch	14

1. Introduction

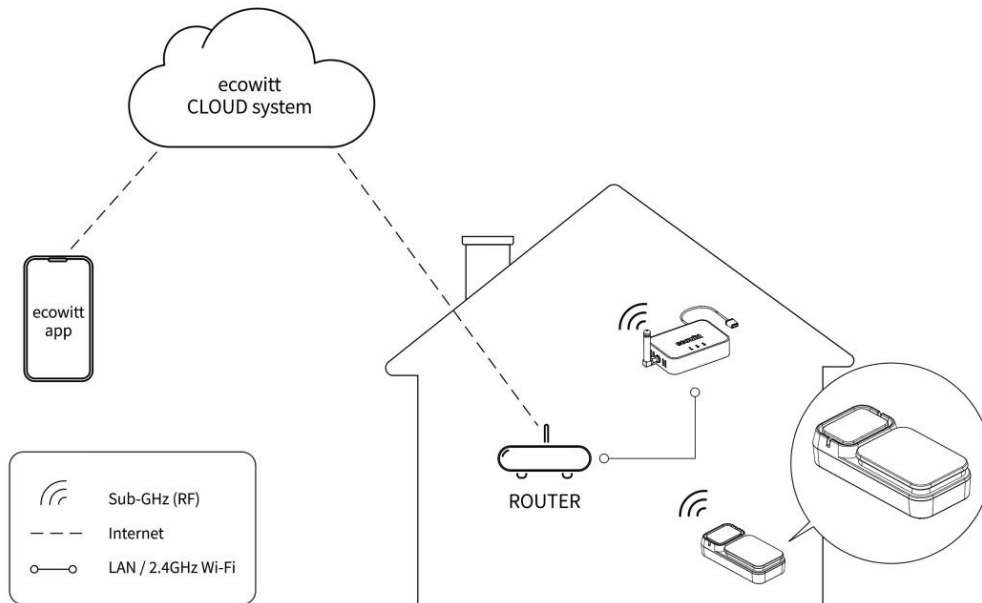


Figure 1:How Ecowitt System Works

Thank you for your purchase of the Ecovitt WH55 Wireless Multi-channel Water Leak Detection Sensor.

The WH55 Leak Detector is a wireless sensor designed to detect water leaks or seepage in the surrounding environment. The device continuously monitors for the presence of water and triggers a local audible alarm when a leak is detected, alerting users promptly.

When used with an Ecovitt Wi-Fi gateway, the WH55 can upload leak status data to the Ecovitt Weather Server. Users can monitor real-time status and access remote monitoring via the WS View App or web interface. Email alert notifications are also supported for off-site awareness.

The device provides battery status indication and battery alert functions, and offers selectable sensor sensitivity levels to accommodate different application needs. The WH55 is compatible with multiple Ecovitt gateways and is suitable for various residential and commercial applications.

We at Ecovitt are very conscientious about your possible concerns regarding sending your data into a cloud. Not only do we not share your data with any third party, we also offer you a possibility to manage your data locally by the help of a special tool-the WS View Plus app. You may refer to the WSView Plus APP instruction for more details.

The following user guide provides step by step instructions for installation and operation, including advanced functions of the WH55. Please use this manual to become familiar with your professionally designed device and save it for future reference.

❖ **General Terms Used in the Manual:**

Gateway: Also known as a hub, it is a display-less console

Console: Refers to the Gateway/Hub/Console.

RF: Radio frequency. It refers to the ISM and SRD SubG (Industrial, Scientific and Medical and Short-Range Devices frequency bands below

1 GHz) for communicating between the console and its sensors. This frequency is not the same as the 4G modem (LTE) or Wi-Fi working frequencies (2.4 GHz, 5 GHz.) ISM/SRD bands are kept separate from 4G frequencies by national regulations to avoid interference. Typical ISM/SRD frequencies are 915MHz(Americas), 868MHz(Europe), 433MHz(worldwide), 920 MHz (Japan, Korea).

2. Getting Started Guide

2.1 Included Items

QTY	Item
1	Multi-channel Water Leak Sensor
1	User Manual

Table 1: Included Items

2.2 Multiple Views and Dimensions

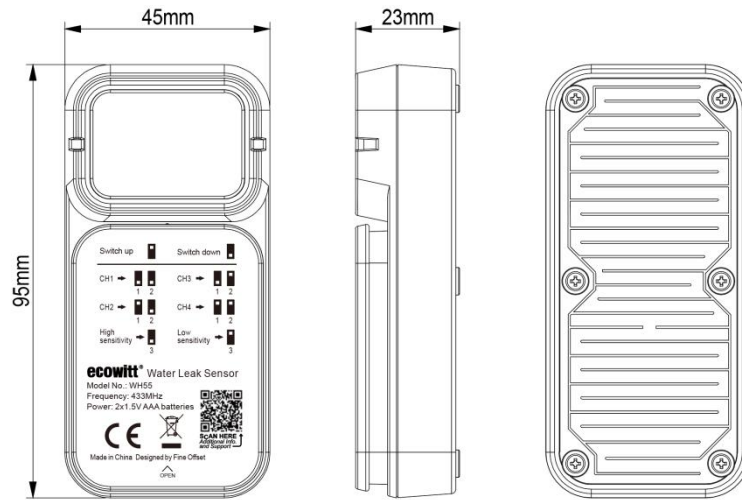


Figure 2

2.3 Device Layout and Component Identification

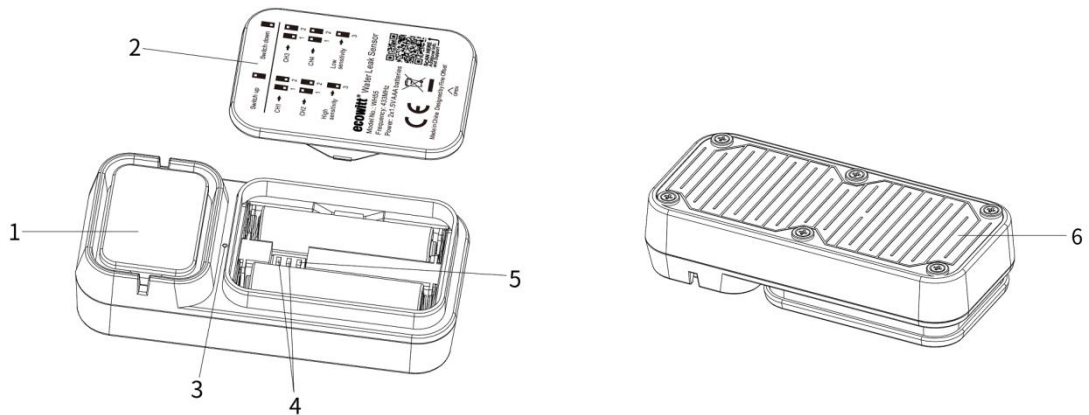


Figure 3

1. Buzzer (inside the device)
2. Battery cover
3. LED indicator
4. DIP switches for multi-channel
5. Sensitivity DIP Switch
6. Sensor contact

Table 2: Sensor parts identification

3. Installation & Setup

3.1 Powering On the Device

① Remove the battery door on the back of the sensor by taking off the cover, as shown in [错误! 未定义书签。](#) 4.



Figure 4

② Before inserting the batteries, find the dip switches instruction above the battery compartment to set the sensor **sensitivity level** and **channel number**:

Sensitivity Level: To change the sensor sensitivity of detection (High or Low), change Dip Switch 3, as referenced in [错误! 未定义书签。](#) 5.

Sensitivity Mode	Alarm Trigger Threshold	Alarm Reset Threshold
High Sensitivity	≥ 60 pF	≤ 50 pF
Low Sensitivity	≥ 90 pF	≤ 80 pF

Table 3: Sensitivity Settings

Notes:

- The alarm is triggered when the detected capacitance reaches or exceeds the trigger threshold.
- The alarm is cleared when the capacitance falls to or below the reset threshold.

Channel Number: This device supports up to four sensors. To set each channel number, change Dip Switches 1 and 2 , as referenced in [Figure 5](#).

3.3 Detecting Water Leaks

The device checks for water leakage every 3 seconds. When a leak is detected, the buzzer will sound according to the sensitivity level you set. After the alarm, you also can wipe the water off the detection surface on the back of the device to reset it.

Please refer to the Table 2 to set the sensitivity levels.



3.4 Wi-Fi Configuration with gateway

If you want to view the water leak sensor data on Ecowitt App or website and receive email alerts on our weather server, you need to pair this device with our Wi-Fi Gateway (sold separately).




Sensor Pairing

- If the Wi-Fi Gateway is already running, just power on the WH55 sensor. The gateway will automatically detect it.
- To replace an existing WH55 sensor, power off the old sensor and power on the new one. The gateway will automatically detect the new sensor.
- If needed, go to Ecowitt App → Sensor ID to re-register or disable sensors (Wi-Fi setup required).

3.5 Compatible Consoles and Gateways

Compatible Consoles				
Console Model	Picture	Upload Data	Display Data	Maximum number per console
HP2550		✓	✓	4
HP2560		✓	✓	4

HP3500		✓	✓	4
WN38X0		✓	✗	4
WN39X0		✓	✗	4
WN19X0		✓	✗	4
WN182X		✓	✗	4
WN1700		✓	✗	4

Compatible Gateways			
Gateway Model	Picture	Upload Data	Maximum number per console
GW1100		✓	4
GW1200		✓	4
GW2000		✓	4



GW3000		✓	4
WS6210		✓	4

Table 4

4.View online data

When the Wi-Fi configuration is done, you are able to view leakage detection condition as well as the sensor battery level on Ecowitt APP,Ecowitt Weather Server(www.ecowitt.net) and display console at the live data page.

It requires your phone and the gateway using the same network to view your sensor data on the WS View Plus/ Ecowitt APP.



Figure 6: Ecowitt App

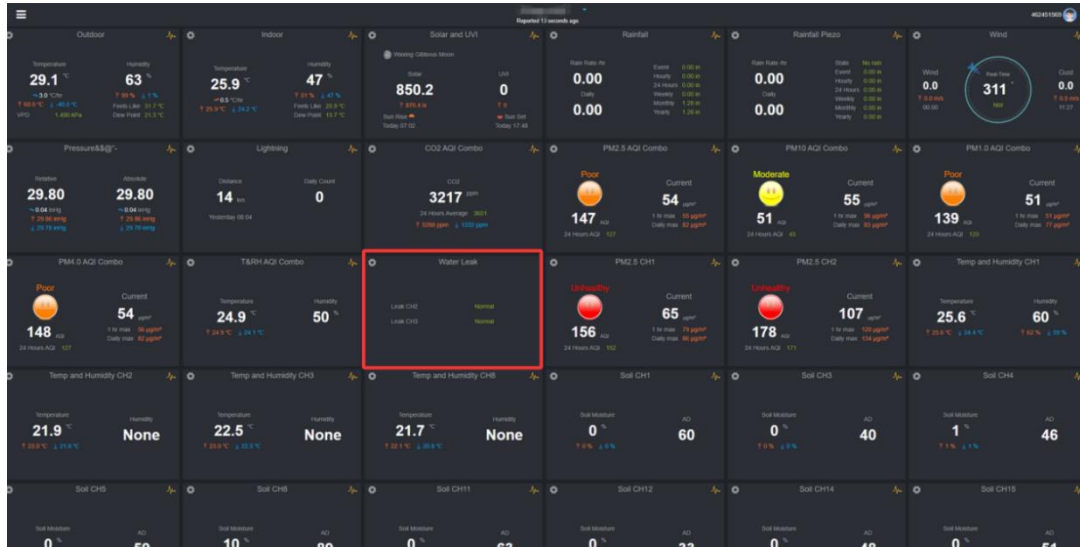







Figure 7: Ecowitt Weather Server



Figure 8: Display console

The status of WH55 will display here 

If you have purchased the optional WH55 water leak sensor, please check the following instructions for the display color:

- Green  - normal
- Red & Flash  - leaking
- Yellow  - low battery alert
- Orange  - offline over 10 mins

5. Set Email Alerts

Once your device added successfully on the Ecowitt Weather server, you may set alerts for the water leak sensor(s) on the website to get email notifications.

Note: Once water seepage is detected, the device will emit 90dB alarm, and the ecowitt.net will push email alerts at the same time.

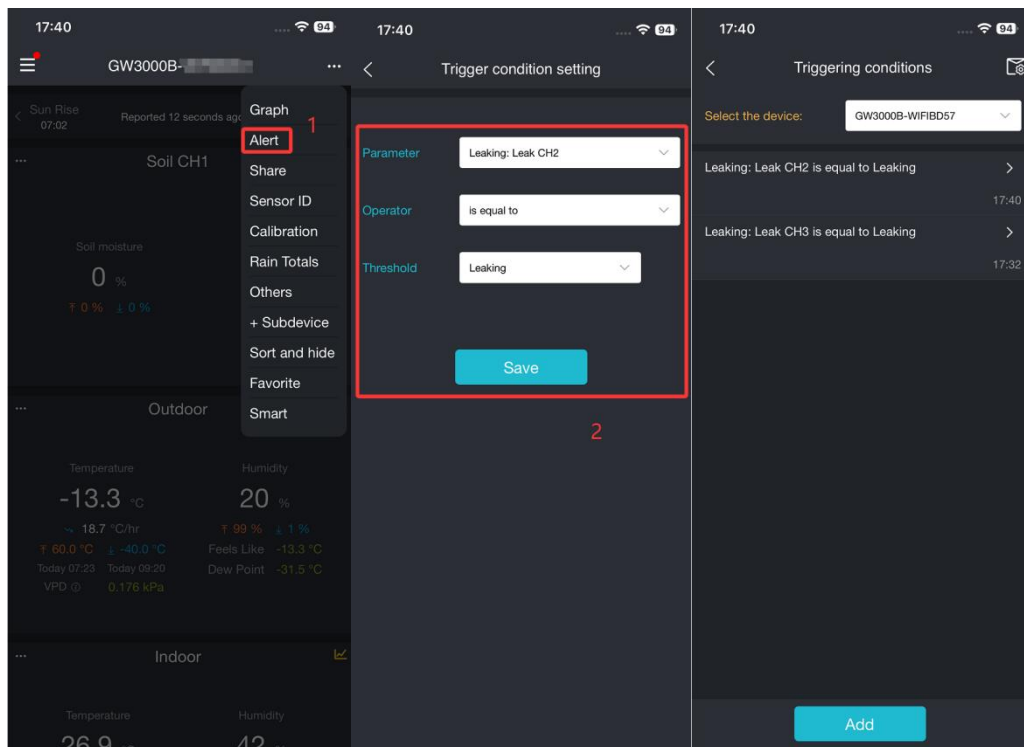


Figure 9: Set Email Alerts

6. Features

- Detects water seepage every 3 seconds.
- Emits loud alarm with 90dB once triggered.
- High and low sensor sensitivity selectable to meet different requirements.
- Works with Wi-Fi gateway (sold separately) to complete the Wi-Fi configuration on Ecowitt APP.
- View live sensor data on the app once Wi-Fi configuration done.
- Email alerts available once the gateway device added successfully on our free Ecowitt Weather Server: <https://www.ecowitt.net>.
- Each Wi-Fi gateway supports to add up to 4 channels water leak sensors. Channel names can be edited both on the app and Ecowitt Weather Server.
- Battery power level display on the Ecowitt APP.

7. Specification

The following table lists the specifications of WH55.

Name	Water Leak Detection Sensor
Model	WH55
Size	95x45x22.8mm
Weight	63.9g
Power	2X 1.5V AAA batteries(not included)
Frequency	915/868/433Mhz(optional)
Transmitting Range	100M(300feet)
Alarm Decibel	90dB
Sensor Detecting Interval	3 Seconds
Sensor Reporting Interval	60 Seconds
Waterproof Level	IP44
Working Temperature	0~50°C(32~122°F)

Table 5: Specification

8. Troubleshooting Guide

Problem	Solution
Indicator light does not turn on	Check whether 1.5V AAA batteries are used and properly installed.
Receiver does not receive data	Ensure the channel setting on the device matches the channel on the receiver.
No water leak alarm is triggered	Set the sensitivity to High. Pour a small amount of water onto the sensing surface and check whether the alarm is triggered.
Frequent false alarms	Set the sensitivity to Low to reduce sensitivity.

Table 6

9. Warranty Information

We disclaim responsibility for any technical error or printing error or the consequences thereof.

All trademarks and patents are recognized.

We provide a 2-year limited warranty on this product against manufacturing defects or defects in materials and workmanship.

This limited warranty begins on the original date of purchase, is valid only on products purchased, and only to the original purchaser of this product. To receive warranty service, the purchaser must contact us for problem determination and service procedures.

This limited warranty covers only actual defects within the product itself and does not cover the cost of installation or removal from a fixed installation, normal set-up or adjustments, or claims based on misrepresentation by the seller, or performance variations resulting from installation-related circumstances.

Manufacture: Shenzhen Fine Offset Electronics Co., Ltd. Address: 4/F, Block C, JiuJiu Industrial City, Shajing Town, Baoan District, Shenzhen City, China

10. FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

IC Caution:

English:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

French:

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

11. Contact Us

11.1 After-sales Service

Order Issues:

If you encounter any missing or incorrect shipments of Ecowitt products purchased, please reach out to the respective platform's customer service from the store where you bought the product for assistance.

Usage Inquiries:

Our product is continuously changing and improving, particularly online services and associated applications. To download the latest manual, and additional help, and for any issues related to product usage feel free to contact our customer support team at support@ecowitt.com. We are committed to providing assistance and resolving any concerns you may have.

11.2 Stay in Touch

Ask questions, watch setup videos, and provide feedback on our social media outlets. Follow Ecowitt on Discord, Facebook, YouTube and Twitter.

