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ecowitt WH57 Wireless Lightning Detector Sensor User Manual

Lightning Detector Sensor
Model: WH57

Contents

WH57 Wireless Lightning Detector Sensor

Please scan the QR code to read English manual and keep it for future reference

Instruction manuals
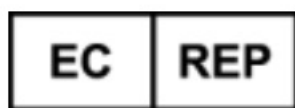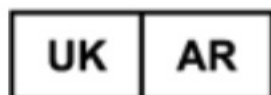
https://www.ecowitt.com/support/download/64

Help

Our product is continuously changing and improving, particularly online services and associated applications. To download the latest manual and additional help, please contact our technical support team: **support@ecowitt.com** **support.eu@ecowitt.net** (EU/UK)

Getting Started

1.1 Parts List
One Lightning Detection Sensor
One Solar Radiation Shield
One Mounting Arm
One User Manual
Only install the sensor on a clear day when no rain or lightning will likely to happen. Fatal injury can be caused if avoid following this requirement.
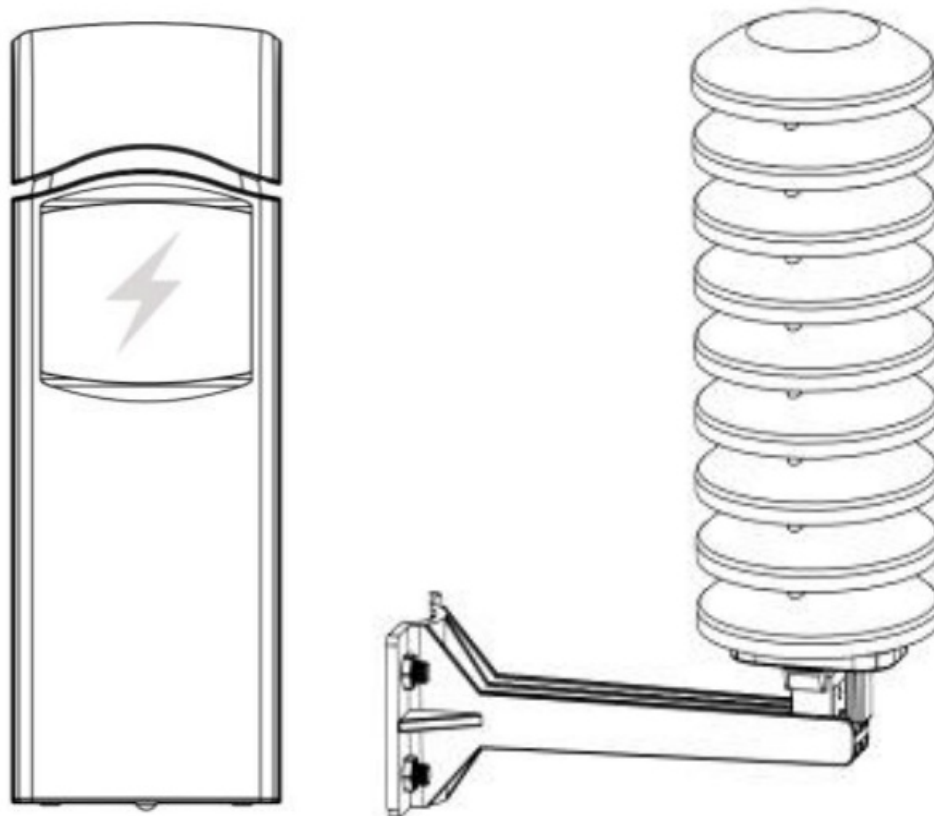
Overview

Figure 1:

Lightning Sensor with Solar Radiation shield
2.1 Features
Lightning Detector

- Detects lightning bolts and storms within 25 miles (40 kilometers)
- High or low sensor sensitivity selectable to meet different requirements.
- Long wireless range up to 300 feet (100 meters) in open areas
- Transmits readings every 79 seconds
- Easy installation includes hanging hole
  When paired with a GW1000/1100/2000 Wi-Fi Gateway:
- Monitor number of strikes daily, and the time & distance of the last strike detected within a 25-mile radius of your location on the Live Data page of the WS View Plus app (requires the gateway and your phone is using the same Wi-Fi network)
- Battery power level display on the WS View Plus App

When paired with a Weather Station Console (HP2551/HP3500/HP3501/WN1900):

- View lightning data in real-time on the Display
- Get alerted to lightning strikes with the flashing lightning icon

When uploaded to Ecowitt Weather Server:

- View lightning data & history records & graph on the website
- Receive email alerts from the server
- Remote monitoring with smart phone, laptop, or computer by visiting the website

Setup Guide

3.1 Installing batteries

1. Remove the battery door on the back of the transmitter by taking off the cover, as shown in Figure 2
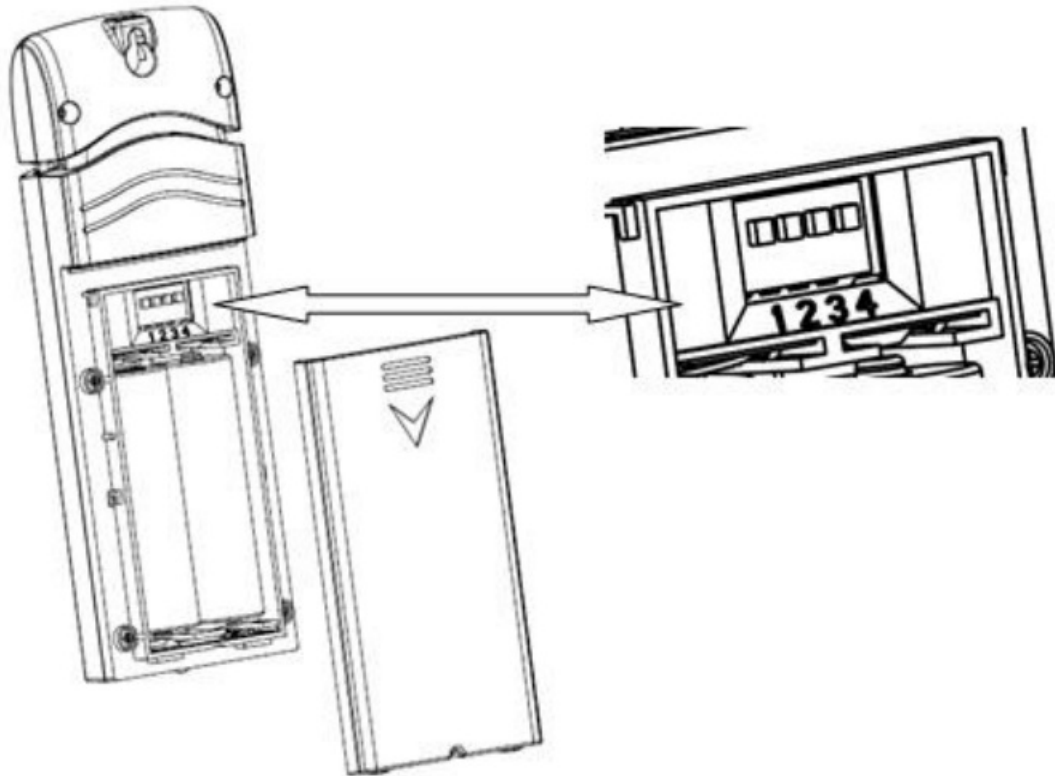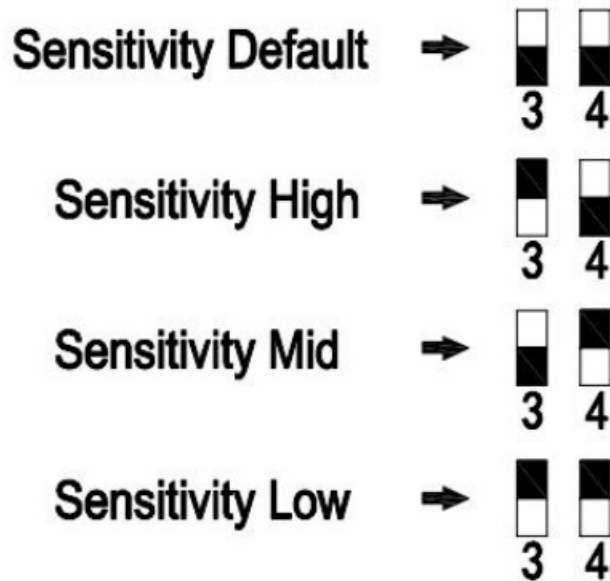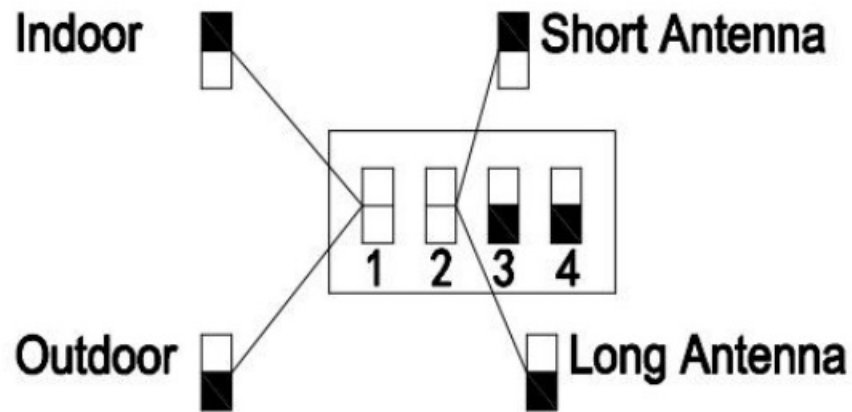

Figure 2: Battery installation

2. Before inserting the batteries, find the dip switches instruction above the battery compartment and set the following configuration:

   Indoor/outdoor: Dip switch 1, default setting is for "outdoor", no matter the sensor is placed indoor or outdoor, set this dip switch to outdoor to avoid system picks up noise and triggering false lightning.

   Antenna: Dip switch 2, default setting is for long antenna, as this is the antenna used inside. Please do not make any change with this dip switch setting.

   Sensitivity: Dip switch 3,4. Default setting is for sensitivity between high and mid. If you think the sensor picked up a lot false lightning strikes, then please try with sensitivity Mid or Low. If sensor missed lightning detection, you may try with high sensitivity setting. If set to high sensitivity and still has missed lightning detection, then you may try with Dip switch 1 for "Indoor" setting to make the system even with higher gain and make the system most sensitive. Default for all the 4 switches are in Down Position.

Indoor

Short Antenna

Outdoor

Long Antenna

1 2 3 4

Sensitivity Default ➡ 3 4

Sensitivity High ➡ 3 4

Sensitivity Mid ➡ 3 4

Sensitivity Low ➡ 3 4

Switch in down position.   Switch in up position.

Figure 3: Dip Switch diagram

3. Insert two 1.5V AA batteries.

   The LED indicator will turn on for four seconds and normally flash once every 79 seconds (the sensor transmission update period).

   Note: If no LED lights up or stays lit permanently, make sure the batteries are inserted the correct way or a proper reset happens. Do not install the batteries backwards.

   You can permanently damage the sensor.

   Note: NiMh rechargeable batteries are prohibited using on this device. Li-ion none rechargeable is recommended.

4. Close the battery door.

3.2 LED Indicator
Flash (each): Indicates one packet of RF data from a sensor was received or one lightning strike was detected.
Flash (for 2S): Indicates detection of noise signals, prompting the user that current location has high level noise. You can either set dip switch 3, 4 to mid or low sensitivity level which raised to a higher threshold level for noise filtering, or you can find another location for lower noise level.

Steady on (for 2S): Indicates detection of interference signals. It means there is lightning like signals around. You should try to find interference sources like motor, switches for all kinds electrical appliances, and place the sensor far away from these interference sources.
Steady Off : Indicates no triggering of lighting signal neither noise, nor interference.

Sensor Placement

The sensor should be placed outdoor only as the device will easily pick up electrical sparkling interference and will cause no triggering or false trigging. It is recommended to install it high above your roof, or at least 5 m away from your home. .c
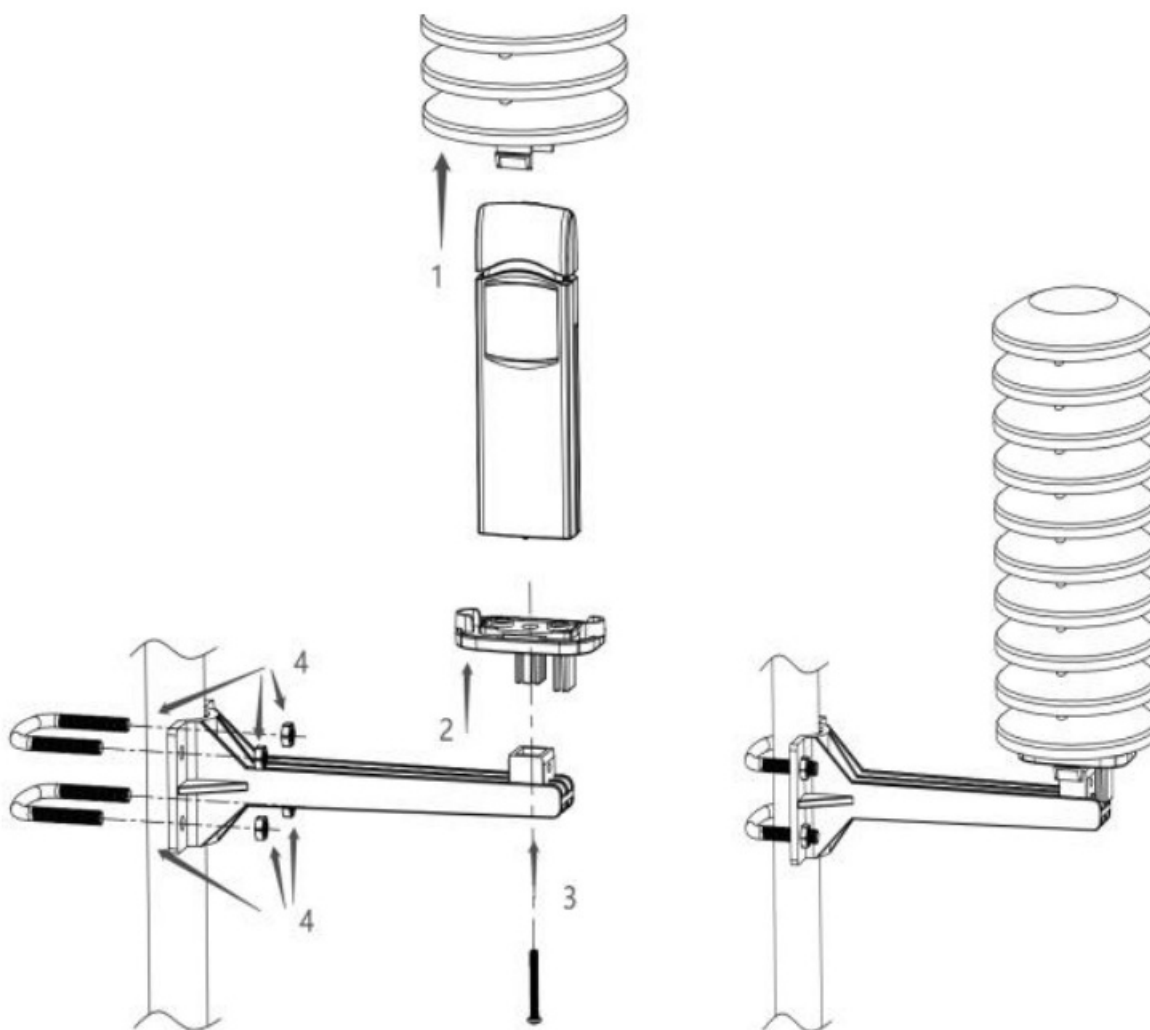

Figure 4: Indoor sensor mounting

Note: Make sure the sensor is mounted vertically and not lying down on a flat surface.
This will insure optimum reception and rain water protection.

Wi-Fi Configuration with gateway

To view the lightning data on your mobile application and receive email alerts on our weather server, you need to pair this device with our GW1000/1100/2000 Wi-Fi Gateway or HP2551/HP3500/HP3501/WN1900 Weather Station (sold separately).
Note: Configuration method refers to GW1000/GW1100/GW2000/HP2551/HP3500 /HP3501/WN1900 manual
5.1 Pair with Gateway
If the GW1000/1100/2000 has been in operation, and you have never had any WH57 lightning detection sensor setup before, just power up the sensor and GW1000/1100/2000 will pick the sensor data automatically.

If one WH57 sensor has been hooked on GW1000/1100/2000 before, and you have a new WH57 sensor to replace the old one, just power off the old sensor and power on the new sensor, the gateway will pick up the new sensor data automatically.

You may also go to the Sensor ID page of the app (requires the Wi-Fi configuration done first) to Re-register the sensor if not picked up automatically.
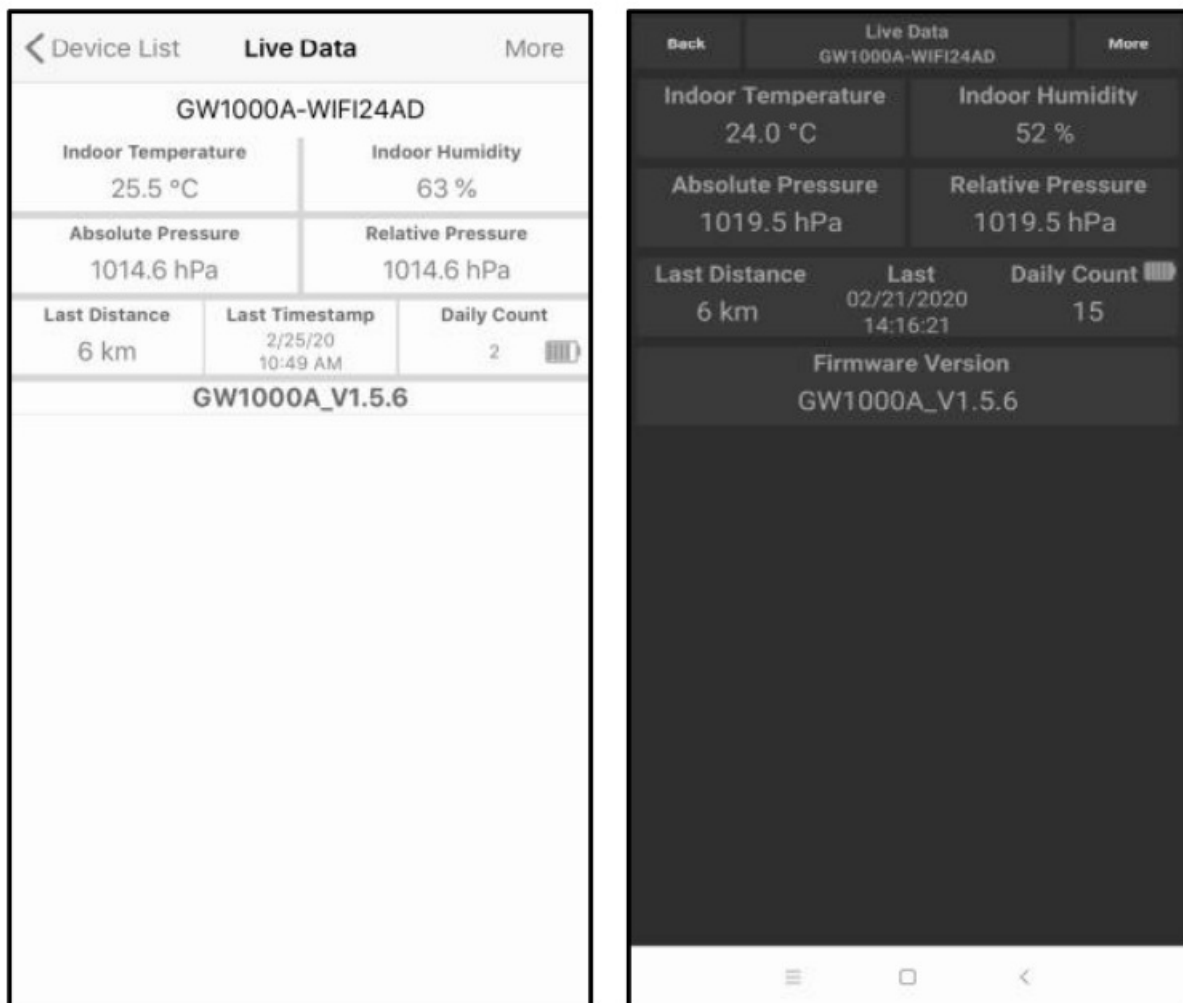
5.2 Wi-Fi Connection for the Gateway

For this part, please refer to the manual of the Wi-Fi gateway.

Any question, please contact the customer service.

View Live Data with WS View Plus

When the Wi-Fi configuration is done, you may view lightning data as well as the sensor battery level on WS View Plus App at the live data page.

Note: It requires your phone and the gateway using the same network to view your sensor data on the WS View Plus app.

To remote monitor the sensor data, please upload the data to our free Ecowitt Weather Server: **https://www.ecowitt.net**.

Detailed operation instructions can be found on the manual of gateway..

Any question, please feel free to contact our customer service at **support@ecowitt.com**, **support.eu@ecowitt.net** (EU/UK)

Set Email Alerts

Once your device is added successfully on the Ecowitt Weather server, you may set alerts for the lightning distance and daily count on the website to get email notifications.
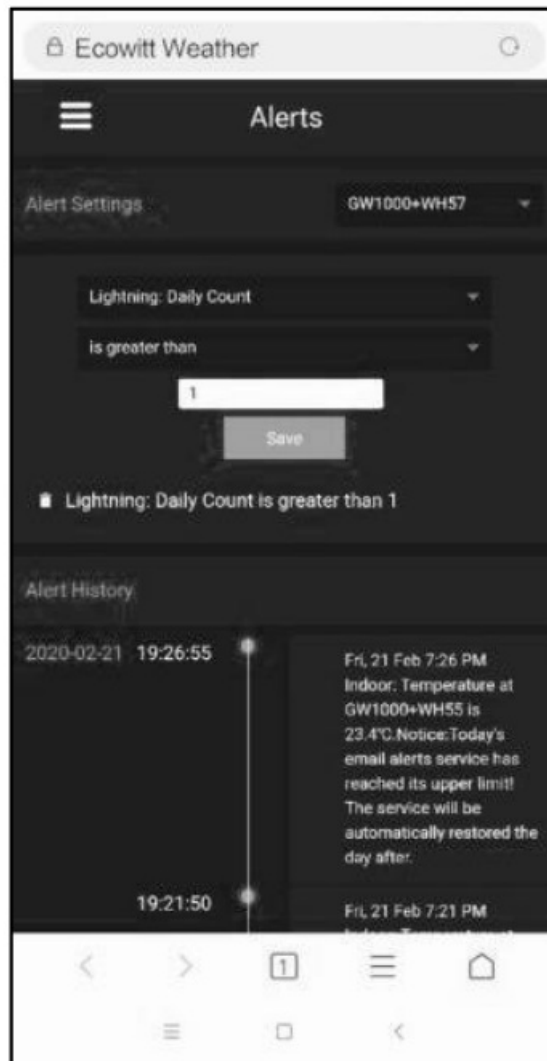
Specification

Power: 2×1.5V AA batteries(not included)
Sensor Size: 123x42x14mm
Frequency: 915/868/433MHz (optional)
Wireless transmitting range: 100M (300feet)
Lightning detection range: 0-25 miles/0-40km
Sensor reporting interval: 79 seconds
Working temperature: -40~50C(-40~122F)
Note: Once lightning strikes detected, the led light will flash once, and the ecowitt.net will push email alerts at the same time. 2 batteries could last for about one year.

Warranty Information

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

All trademarks and patents are recognized.

We provide a 1-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.

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Documents / Resources

ecowitt WH57 Wireless Lightning Detector Sensor [pdf] User Manual
WH57 Wireless Lightning Detector Sensor, WH57, Wireless Lightning Detector Sensor, Lightning Detector Sensor, Detector Sensor, Sensor

References

- **Ecowitt Weather**
- **Professional Weather Products | Smart Home Product – Ecowitt**
- **Ecowitt Weather**
- **User Manual**