# **ecowitt**<sup>®</sup>



# **Smart Ball Valve Timer**

## Model: WFC02



https://s.ecowitt.com/WMV50N

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## 1. Introduction



Figure 1: Brief concept diagram

Thank you for your purchase of the Ecowitt WFC02 Smart Ball Valve Timer.

#### The WFC02 is not a standalone product. It must be paired with at least one compatible gateway or console to enable smart irrigation functionality.

The WFC02 is a smart ball valve irrigation tool, compatible with the Ecowitt system. It allows for remote control of irrigation, enabling users to control water flow via the ball valve, set irrigation schedules, and perform precise watering (with the use of a flow meter). It also features a smart mode that allows for automatic watering based on preset conditions, such as low soil moisture. With its ability to support higher flow rates and be unaffected by water pressure, the WFC02 offers enhanced irrigation control within the Ecowitt IoT ecosystem.

We at Ecowitt 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 WFC02. 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.

Actuator: Refers to the ball valve actuator.

**RF:** Radio frequency. It refers to the ISM and SRD SubG (Industrial, Scien tific 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), 920MHz (Japan, Korea)

## 2. Getting Started Guide

## 2.1 Included Items

QTY	Item
1	Actuator
1	1"(DN25)Ball Valve (optional)
1	2"(DN50)Ball Valve (optional)
1	1"(DN25)Flow Meter(optional)
4	PWA3.0*20mm Stainless steel self-tapping screws
4	M5*8mm Screws
2	Hose Clamp (Fits pipe diameter: 21-38mm)
2	Hose Clamp Brackets
1	Teflon Sealing Tape
1	User Manual (this manual)
1	Ball Valve Handle
1	Twist Ties(used for handle)

#### **Table 1: Included Items**

 $\diamond$  The 2-inch flow meter is not available in our current product line.

## 2.2 Multiple Views and Dimensions



**Bottom View** 

**Rear View** 





Figure 3: 1"(DN25)Ball Valve



Figure 4: 2"(DN50)Ball Valve



Figure 5: Flow Meter(optional)

## 2.3 Device Layout and Component Identification

Refer to the table below to learn about the components of this device.



**Figure 6: Device Layout** 

No	Description	No	Description
1	Ball valve actuator	2	Touch buttons
3	LED indicators	4	Flow meter port
5	Ball valve port	6	Pressure valve (no operation
			required)
7	Power button	8	Ball valve driver
9	Ball valve	10	Flow meter
11	11 Water flow direction icon (The water flow direction must be		
	consistent with the direction of the arrow marked on the flow		
	meter)(This only applies for the flow meter version)		

#### **Table 2: Device Component Identification**

## 2.4 Assembling the WFC02 Components

Note: Please read this safety instruction carefully before operating device. **Safety Instructions** 

- Warning: After powering on, do not insert fingers or any foreign objects into the valve or pipes to prevent the risk of injury or entrapment.
- **Caution: Keep children away** from the device once it is powered on, as it may pose a safety risk.
- **Important**: When the device is not in use, please ensure that the **actuator is turned off** to prevent any accidental operation or damage.



## 2.4.1 Assembling the Cable of Ball Valve and Actuator

- 1 Unscrew the ball valve port cover at the bottom of actuator.
- ② Insert the ball valve cable into the Valve Port(Three-hole port), then rotate the blue ring on the wire to tighten it (each connection has a small white triangle pattern. Align the two patterns to connect them smoothly.)
- $\Rightarrow$  1"(DN25) and 2"(DN50) ball valve use the same assembly method.

## 2.4.2. Assembling the Flow Meter(optional)

- Please refer to "Section 4.1 Mounting Method 1(horizontal)" to complete the connection between the flow meter and the 1"(DN25) ball valve.
- ② Unscrew the flow meter port cover at the bottom of actuator.
- ③ Insert the flow meter cable into the Flow Meter Port( Five-hole port), then rotate the blue ring on the wire to tighten it (each connection has a small white triangle pattern. Align the two patterns to connect them smoothly.)
- ☆ If the flow meter is not installed, please close the cover on the flow meter port tightly to prevent dirt or rainwater from entering.

## 2.5 Power Up the Device

Unscrew the 6 screws on the front of the device, open the cover and place 8 x AA Alkaline batteries (not included) into the compartment. It is recommended not to cover the device now, as there's a necessary step to test whether the function of device is normal.

Note: Please do not use the rechargeable batteries, as they don not provide sufficient voltage ( usually only 1.2V per battery).

## **2.5.1 Test the function**

a) Press the power button to turn the power on (press it again to turn it off).



**Figure 7: Power Button** 

- b) The Unlock, Valve, and RF lights will all light up red for 2 seconds(refer to Section 5.1.2 for detailed information on LED indicators)
- c) The Valve light will flash quickly (the other two lights go off) and the ball valve will rotate once the left and once to the right.
- d) The Valve light goes off, the Unlock light stays on for about 1 minute.
- e) At this point, it indicates that the device has been successfully powered on and all functions are operating normally.Now please tighten the cover of the actuator with all the screws. After that, you can proceed with the WFC02 network configuration and control of the device via Ecowitt App.

## 2.6 Compatible Gateways/Consoles

Before paring the WFC02 with a gateway, we will here introduce the compatible gateways/consoles shown below.

#### Notes:

1. The WFC02 is not a standalone product. It must be paired with at least one compatible gateway or console to enable smart irrigation functionality. Each gateway can support up to 16 WFC02 devices.

2. The WFC02 and the gateway/console must operate on the same frequency to ensure proper pairing and functionality; otherwise, they won't be able to pair.

Model	Picture	Model	Picture
GW1200		GW2000	
GW3000	ecowitt :::	WS3800/WS3820	2653         400           2454         1.6         530           Ant: 13         15364         850
WS3900/3910		WN1980	
WN1920	(2000 - 5, ce (a)), (a), (b), (b), (b), (b), (c), ce (c),	WN1820	
WN1821		WS6210	

Table 3: Compatible Gateways/Consoles

## 2.7 Pair the WFC02 with the Gateway GW3000

- ♦ Both devices must use the same radio frequency(433, 868, 915, 920 MHz).
- Press and hold both OPEN and CLOSE buttons simultaneously for 5 seconds, the RF LED will flash rapidly, indicating that the device has entered the device's network pairing mode.
- ② Please log in to your Ecowitt App and navigate to the dashboard of your gateway (we will use the GW3000 as an example) to add a Sub-device.
- ③ Tap "…" on the top of right, then follow the below steps to pair the WFC02 with the GW3000. The device usually successfully pairs within 1 minute. Now, you can control the WFC02 through the app and implement different plans including smart plans.





Figure 8

#### Notes:

1. Only if your WFC02 is equipped with a flow meter, you can you use the features related to water volume, such as flow meter-related data (e.g., daily/monthly water flow, flow rate, and water volume),which will be displayed on the dashboard and the WFC02 operation interface. This includes conditions for execution such as plan/smart starting based on water volume, as shown in the image above. Without a flow meter, only time based plans can be executed and only the data shown in the images below will be displayed.



**Figure 9: Device Interface without Flow Meter** 

2. If the flow meter is removed, after having been used for a period of time and the flow meter data will remain and still be displayed as "--" on the WFC02 page. If you no longer need this data, please go to the device list

page, press and hold WFC02, then tap the icon it to clear the data.



# 3. APP Operation Introduction

The following sections will introduce the WFC02 dashboard and its operation interface.

# 3.1 Dashboard Introduction



Figure 10

## **3.2 Operation Interface**





- ① Signal strength and battery level
- ② Water volume
- ③ Running time of current task
- ④ Ball valve opening percentage
- ⑤ Task start time
- (6) Current running status

Control Mode	Complete(Blue)	Running(Green)	Stop(Yellow)
Manual Control	<u></u>		-
App Control	АРР	АРР	APP
Smart Control	<b>A</b>	a a a a a a a a a a a a a a a a a a a	(a)
Plan Control			

- $\bigcirc$  Log diary and alert notifications
- (8) Plan Mode
- (9) Smart Mode
- ① Other information



**Figure 12: Other Information** 

- (1) Flow rate
- 12 Task progress bar
- (13) Control button

Readying	Running	Opening	Closing
Readying	🕞 Running	() Opening	Closing

(14) Total Runtime of current task

# 4. Mounting Guide

## Pre-installation must-read:

- Here, two mounting methods are recommended for WFC02. You can choose the mounting method based on your actual scenario and needs.
- When connecting the water pipe to the flow meter or ball valve, a compatible adaptor (not included) is required as the water pipe is typically a straight pipe without threads and cannot be directly connected.
- The connections between the water pipe and the ball valve/flow meter, as well as between the flow meter and the ball valve, all need to be wrapped with sealing tape.

For details, please refer to the following installation guide.

## 4.1 Mounting Method 1(horizontal)

If you mount the device as shown in the picture below, please use the included accessories(PWA3.0\*20mm stainless steel self-tapping screws) to secure the actuator.



**Figure 13: Horizontal Mounting** 

## 4.2 Mounting Method 2(vertical)

If you mount the device as shown in the picture below, please use the included accessories(hose clamp brackets/hose clamp brackets/ M5 screws)to secure the actuator to the pipe.



**Figure 14: Vertical Mounting** 

**Important Note:** Whether you follow the mounting methods mentioned above or a customized method to mount the flow meter, please be sure to ensure that the water flow direction is consistent with the direction of the

arrow  $\longleftarrow$  marked on the flow meter.

## 4.3 Mounting Method(customized)

The actuator doesn't need to be fixed at the pipe as proposed in method 2. Any place the connecting cable length allows is fine. A vertical position is recommended especially when used outdoors.

## 5. Device Operation and Settings

The following device operation and settings will help you to better understand the device and ensure smoother operation in the future. It's recommended to read and operate simultaneously.

## **5.1 Touch Buttons and LED Indicators Function**

There are 5 symbols on the actuator, and the following description will briefly explain the function of the related buttons and LEDs.

Two touch buttons: **OPEN**, **CLOSE** Three LED indicators: **Unlock**, **Valve and RF** 



Figure 15

## 5.1.1 Touch Buttons

- Press and hold the **OPEN** for more than 1 second to trigger the ball valve to rotate and open, taking approximately 7 seconds from fully closed to fully open. The Valve LED will remain on while rotating, and turn off when released.
- Press and hold the CLOSE for more than 1 second to trigger the ball valve to rotate and close, taking approximately 7 seconds from fully open to fully closed. The Valve LED will remain on while rotating, and turn off when released.
- Two modes: Unlock mode, Child Lock mode

In Unlock mode, if there's no button operation for 30 seconds, the device will automatically enter Child Lock mode.

In Child Lock mode, the **OPEN** and **CLOSE** buttons are disabled for operating the ball valve. Each time a button is pressed, the **Unlock LED** flashes once as a reminder. In addition, if the **CLOSE** and **OPEN** buttons are alternately pressed four times within 2 seconds, the

device will exit Child Lock mode and unlock the device, then allow manual ball valve operation.

- Press and hold both **OPEN** and **CLOSE** for 5 seconds to trigger the device's network configuration mode, the **RF LED** will flash. Once the configuration is successful, the **RF LED** will turn off.
- Press and hold both **OPEN** and **CLOSE** for 10 seconds to reset the device, clearing all saved data and restoring factory settings.

## 5.1.2 LED Indicators

LED Indicators Flashing Modes Description



Figure 16: LED Indicators

#### • Unlock LED

Flashing Mode	Description
Remain On	In Unlock mode, the LED stays on for 30
	seconds and then turns off.
Flash Once	In Child Lock mode, pressing one of the
	buttons once will cause the LED to flash once.
Quick Flash	In Child Lock mode, holding one of the
	buttons will cause the LED to flash quickly.

#### • Valve LED

Flashing Mode	Description
Remain On	In Unlock mode, while holding down one of
	the buttons, the LED stays on; it turns off
	immediately when the button is released.
Quick Flash	In Unlock mode, when the valve is in an
	abnormal state, such as blockage or missing
	water, the LED will flash quickly, indicating
	an invalid operation.
Slow Flash	In Unlock mode, when the valve is fully closed
	or fully open, pressing the same button again
	will cause the LED to flash slowly, indicating
	an invalid operation.

#### • RF LED

Flashing	Description
Mode	
Remain On	After successful network configuration, the LED
	stays on for 3 seconds.
Flash Once	The LED flashes once periodically to indicate
	network status.
Quick Flash	During the network configuration process, the
	LED flashes quickly.

- ♦ Remain On: The LED stays on continuously, indicating that the state is active or valid.
- ✤ Flash Once: The LED flashes once, indicating a temporary status or trigger.
- ♦ Quick Flash: The LED flashes quickly, typically indicating an error, invalid operation, or waiting state.
- Slow Flash: The LED flashes slowly, often indicating an invalid operation or warning state.

## 5.2. Valve Control Overview

There are four ways to control the valve: **Button control**, **APP Remote Control**, **Plan Control**, and **Smart Control**. Each control mode can interrupt the previous one, and the most recent command will take priority. Example: If the valve is currently open based on a schedule (Plan 1), and then a Smart Scene (A) is triggered (e.g., a smart plan condition has been set to start the smart plan (here: close the valve) when the temperature drops below 18°C), the valve will immediately shut off. It will resume the scheduled plan when the next scheduled watering time arrives.

## 5.2.1 Valve Operation Modes

#### 5.2.1.1 Button Control

Manually control the ball valve using the physical button. The valve opens more the longer the button is held with the opening degree directly proportional to how long the button is pressed.



**Figure 17: Two Touch Buttons** 

## 5.2.1.2 APP Manual Control

Control the valve remotely via the Ecowitt app.

#### ① WFC02 Main Interface

In the WFC02 main interface, tapping the control button Pallows you to

choose between 'Duration', 'Volume' and 'Always On.'After setting and confirming according to your requirements, the ball valve will start working.



Figure 18: Three Manual Mode Setting Conditions

#### **(2)** Running Statement

When in running state, tap the control button to stop running directly. Please note that the total runtime displayed may be slightly longer than the set time as it also includes the time required to close the ball valve.



Figure 19: Manual Stop the Current Plan

#### 5.1.2.3 Plan Control

Automatically opens/closes the valve based on a preset schedule. After successfully setting up the plan, it will be saved on the WFC02.Even if the WFC02 is disconnected from the gateway, it can still execute the plan as scheduled.

① Tap "Plan" to add plans and enter the editing interface.

(2) Set the plan's Start Time, Duration, Volume, Weekly and Daily

operation modes according to your demand.



Figure 20: Edit A Plan

#### 5.1.2.4 Smart Control

Automatically adjusts the valve based on environmental conditions (e.g., temperature, humidity) provided by sensors (single or from your Ecowitt weather station) connected to the hub/gateway.

#### **Important Note:**

APP side operation for the setup of MANUAL(ON/OFF), PLAN, and SMA RT operations involves communication with ecowitt's server. Once comma nds are downloaded, the hub independently executes them when triggered b y local sensor data. Upon completion, the hub sends execution results to the ecowitt server for logging. This ensures that even without a server connecti on, planned command execution proceeds as intended.

#### **1** Add an automation task

Tap "Smart" to enter the interface. You can add one or more trigger conditions on the following page, specify the tasks to be executed when the set conditions are met, and define when to check the conditions you have set.

When either happens: the task is triggered when any one of the conditions is satisfied, similar to OR logic.



Enter smart task setting interface :

Figure 21: Add A Task

#### A. Add a trigger

The conditions can be selected to execute the task when the supported parameters in the gateway are higher than the specified value/lower than the specified value/equal to a certain state.



#### Figure 22: Edit A Task

- You can also set the task to be executed when multiple trigger conditions are satisfied at the same time. After setting "When either happens," the interface will display an option of "And when"."And when" will allow you to set one or more logical AND conditions, i.e. both (or more) conditions, "when either happens" set before and now one or more linked conditions, need to be fulfilled for the action (see next paragraph) to be initiated.
- Once your conditions are set, you can now set an Action(see below section B). Tap "Save", and this smart plan will be set successfully.

Add an automation task	
When either happens	
Indoor: Temperature Is greater than 79.0 °F	
Add a trigger	
And when	
Add a status condition	
Action(s)	
Add an action	
Effective time period	
All day Even	∕day ≻
Save	

Figure 23

#### B. Add an action

The following actions can be set.



Figure 24: Add An Action

1) Set the water valve opening ratio

The default mode is "always on".

- 2) Set the WFC02 status as on or off
- 3) Set the duration

The default ratio for the ball valve opening is 100%.

4) Set the volume(with flow meter only)

The default ratio for the ball valve opening is 100%.

- 5) Execute the Quick Run setting
- 6) Skip the plan for a set duration

#### C. Effective time period

It refers to when to check the conditions you have set.

**(1)** Manage the automation tasks



Figure 25

#### Smart mode log



Figure 26

#### **③** An operation example

Here, we provide an example of enabling a smart plan, setting it to automatically start executing the "duration" task when the indoor humidity is less than 45%.





Figure 27: A Smart Plan Example

#### 5.1.2.5 Log Introduction

Tap "Log" to enter the log diary interface. On this interface, you can view all water consumption and control logs, and also check alert information.Volume log is only shown with a flow meter connected. Without flow meter only operation (opening) time can be shown.



Figure 28: Log interface

## 1. Log Diary

Each log diary will involve the operation mode, run time, and water consumption.

#### 2. Alerts Introduction

Alerts are also included in the log interface. The following describes seven types of alarms.

# Valve Operation Abnormal !

The valve is currently operating abnormally.Please check!

## • Flow Meter Disconnected !

The flow meter component is currently not detected.Please check!

## No water !

No water was detected some time after the valve was opened. Pleas check if the water supply is sufficient.

# • Water Leakage ! 🔗

Water flow was detected some time after the valve was closed. Please check the equipment for leak.

# • Communication Unstable ! 🛱

Communication is unstable. Smart mode will be disabled.Please adjust the position of the Water Timer or WiFi hub.

# Valve Control Failed!

Valve control failure detected. Please check the device immediately.

## • Low Battery!

Low battery alert. Please replace battery for water timer.

## 5.2.2 Priority of Control Command

The latest control command will take precedence over any previous commands issued. When a new command is given, the ball valve will immediately execute the new command, overriding the previous one.

## 6. Battery Power Related

## 6.1 Low Battery State

- When the battery level is <= Level 1, the system enters a low battery state, and all valve control functions are disabled.
- Once the battery voltage rises to Level 2 or above, the low battery lock will be released, and the system will resume normal operation.

## 6.2 Ball Valve Control in Low Battery Lock

When the system enters the low battery lock state, an open ball valve will be automatically closed to protect the device and prevent abnormal operation due to insufficient power.

## 7. Ball Valve Emergency Operation Guide

In the case of device malfunction during operation, where the ball valve cannot be opened or closed, the below emergency procedure is available:

- 1. Turn the nut counterclockwise to fully loosen.
- 2. Pull the actuator upwards to remove it.



Figure 29

3. Attach the included plastic handle to the valve stem to control the on or off state.



Figure 30

Please refer to the following method to store the ball valve handle (the twist ties is included), or you can keep it in your preferred place for future use.



Figure 31

## 8. Features

- **IoT Device:** Integrated with Internet of Things (IoT) technology, enabling remote monitoring and control of connected systems.
- **Touch Buttons:** The actuator is equipped with two touch buttons, which allows easy manual control the ball valve open and close and other operation.
- Child Lock Mode: A child lock mode ensures safety by preventing unauthorized adjustments or operations, especially in environments with children.
- Adjustable Ball Valve Opening: The ball valve has an adjustable opening range from 0% to 100%, providing precise control over the flow rate to meet specific needs.
- Detachable Flow Meter(optional): In the flow meter version,a detachable flow meter is included, allowing users to easily monitor water usage and performance.
- Remote Control via App: The device can be controlled remotely through Ecowitt app, offering convenience and flexibility for users to manage the system from anywhere.
- Smart Irrigation: It includes smart irrigation features that automate and optimize watering schedules, making it ideal for agriculture or landscaping.Users can set up intelligent plans through the app, and once the specified conditions are met, tasks are automatically triggered, ensuring efficient and timely irrigation without manual intervention.
- Data Upload:Users can clearly view the water flow data, including flow rate and daily/monthly water usage, allowing them to adjust irrigation plans and optimize water resource management.
- Compatibility with Optional Gateways: The device can pair with various optional Ecowitt gateways, enabling seamless integration with different IoT ecosystems or systems.

- Long-Range RF Transmission: Up to 100 meters, suitable forhard-to-reach locations such as remote outdoor areas, providing exceptional installation flexibility.
- **IP65 Protection Rating:** Designed with excellent waterproof capabilities, ensuring stable operation in harsh outdoor environments.

## 9. Specifications

The following tables list the specifications for the actuator, ball valve, and flow meter.

Item	WFC02 Actuator	
Size	146*99*51mm	
Weight	258.6g	
Housing Material	ABS	
Waterproof Level	IP65	
Power Supply	AA Battery $\times$ 8 (Not Included)	
Power	3.6mW (Average power of switching on and	
	off once a day)	
Detter Der time	Over 10 months (Average runtime of	
Battery Kulttille	switching on and off once a day)	
Working Temperature	$-40^{\circ}C \sim 60^{\circ}C(-40^{\circ}F \sim 140^{\circ}F)$	
<b>RF</b> Communication	100 motors	
Distance	100 meters	

#### **Table 4: Actuator Specification**

Item	1"(DN25)Ball Valve
Size	141*84*68mm
Weight	734g
Housing Material	ABS, PA66
Inlet and Outlet Material	Brass
Waterproof Level	IP65

Ball Valve Interface Type	G1" BSP Female Thread	
Fully OPEN or CLOSE	About 7a	
Time for Ball Valve DN25	Adout /s	
Valve Opening Ratio	$0\% \sim 100\%$ , 11 levels, 10% per level	
Valve Rotation	10% rotation per trigger	
Working Pressure	≤1.6 MPa	
Working Temperature	>0°C	

#### Table 5: 1"(DN25)Ball Valve Specification

Item	2"(DN50)Ball Valve	
Size	141*93*68mm	
Weigh	1174g	
Housing Material	ABS, PA66	
Inlet and Outlet Material	Brass	
Waterproof Level	IP65	
Ball Valve Interface Type	G2" BSP Female Thread	
Fully OPEN or CLOSE	Altrant 7-	
Time for Ball Valve DN25	Adout /s	
Valve Opening Ratio	0% ~ 100%, 11 levels, 10% per level	
Valve Rotation	10% rotation per trigger	
Working Pressure	≤1.6 MPa	
Working Temperature	>0°C	

Table 6: 2"(DN50)Ball Valve Specification

Item	1"(DN25)Flow Meter
Size	60*34*34mm
Weight	250g
Housing Material	Brass
Maximum Flow Rate	70L/min
Flow Meter Interface Type	G1" BSP Male Thread
Flow Rate	4-50L/min
Flow Rate Accuracy	±1L/Min,<10L/Min
	±10%,≥10L/Min
Working Temperature	>0°C

#### Table 7 :1"(DN25) Flow Meter Specification

Problem	Solution
The WFC02 is equipped with a flow meter, but the water volume and flow rate data are still not displayed on the dashboard.	Please check if the direction
	indicated by the arrow on the flow
	meter matches the direction of
	water flow. The direction
	indicated by the arrow is the flow
	direction, so make sure it's not
	installed in reverse.
When operating the device on the	You can try restarting the device
app interface, a message "The device is abnormal" appears, preventing further operation.	(press the power button on the
	right side of the actuator) or
	re-plugging the ball valve and
	flow meter to solve it.
The data is displayed as "" or not displayed at all.	This is because the WFC02 device
	has been offline for 2 hours. After
	2 hours, the data will turn to ""
	and will no longer be
	displayed.Please check the battery
	level.
Т	able 7

# 10. Troubleshooting Guide

Table 7

# 11. 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

# **12. 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.

# 13. Contact Us

## 13.1 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.

# 13.2 Stay in Touch

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



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