WFC01B User Manual

Content

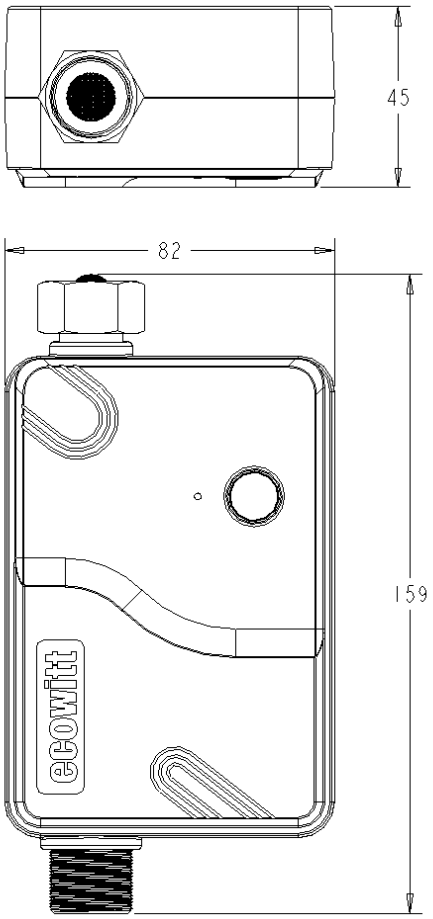
● Product Overview

1. Welcome to use WFC01, a product that enables intelligent irrigation. WFC01 communicates with GW2000 hub on SUB_G ISM radio band. The GW2000 hub can work w/ or without internet (smart mode is only available when the GW2000 hub is connected to our cloud server) .
2. The Smart Water Timer is equipped with a flow meter as well as a built-in temperature sensor, which not only functions as a water timer but also allows real-time monitoring of water flow and temperature, providing you with a better understanding of water usage in your home. WFC01 supports cloud-based control, and all water usage log is stored in the cloud. Users can check their water usage anytime and manage and optimize it for more convenient control and achieve more scientific and rational water usage.
3. This product can be set up in the Ecowitt APP and can be linked with Ecowitt Soil Moisture Sensors to enable automatic irrigation. It is also possible skiping off the current watering plan when predefined skip conditions are met: Like raining detected with Ecowitt Rain Sensors, water temperature is too low/high. The SMART mode or plan skip feature is only accessible when hub is talking to our cloud server normally. Scheduled plans are saved on hub locally and it is not affected in case of network issues, the pre-set plans can still operate normally.
4. The Smart Water Timer utilizes Sub_G radio frequency transmission technology, ensuring stable and reliable communication between the timer and the gateway within a range of 100 meters in an open area. Remote control is possible through the Ecowitt APP, allowing you to control your water timer anytime and anywhere. The radio status can be further monitored by the app with both device's RSSI level.
5. With a design featuring all-copper pipelines and connectors, the Smart Water Timer can withstand water pressure of up to 0.9 MPa. It is IP66 waterproof and dustproof, durable, corrosion-resistant, with a long service life.

● Product Specifications

1. Size

L159 * W82 * H45mm



2. Weight

520g.

3. Material and Protection Level

Shell Material: ABS+PC.

Inlet Interface Material: Brass (CU).

Outlet Interface Material: Brass with Chrome Plating.

Waterproof / Dustproof Level: IP66.

4. Power Supply and Power

Power Supply: 1.5V AA*2.

Power: 1.5mW (Average power of opening and closing once a day).

Battery Runtime: 180 days (Average runtime of opening and closing once a day).

5. Inlet and Outlet Interface

The inlet/outlet interface is G1/2inch thread.

6. Flow and Pressure

Maximum flow rate: 30L/min.

Working pressure: 0.03 ~ 0.9MPa.

Flow rate error: ±10%.

7. Working Temperature and Humidity

Working Temperature: 1~ 60℃ (The equipment can still transfer data during -40 ~ 0℃, but water freezing may cause **damage** to the product).

Working Humidity: 1% ~ 99%.

8. Accessory List

1 x Hexagon nut; 1 x 3/4" to 1/2"Adapter; 1 x Retaining bracket; 2 x Nylon cable ties;

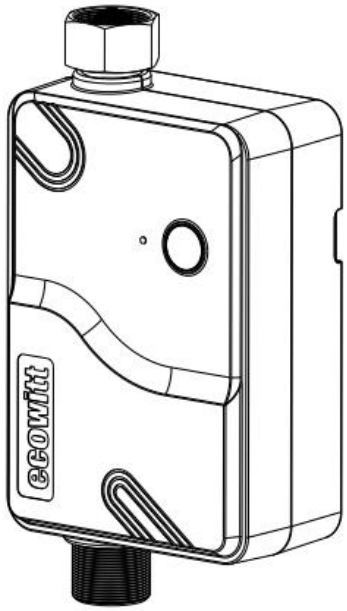
3 x Screws.

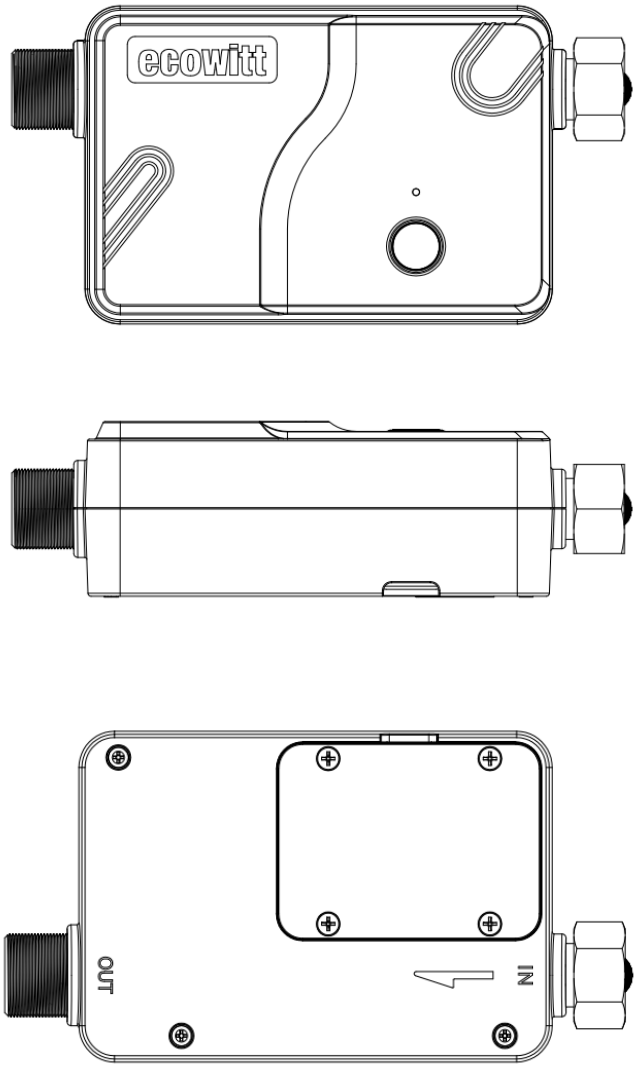
9. Specifications

Product Name	Smart Water Timer
Product Model	WFC01
Product Size	159×82×45(mm) | L×W×H
Weight	520g
Shell Material	ABS+PC
Inlet Material	Brass

Outlet Material	Brass + Chrome Plating
Waterproof Level	IP66
Power Supply	1.5V AA Battery ×2
Power	1.5mW (Average power of opening and closing once a day)
Battery Runtime	6 months (Average runtime of opening and closing once a day).
Interface Type	G1/2inch thread
Maximum Flow Rate	30L/min
Working Pressure	0.03 ~ 0.9MPa
Flow Rate Error	±10%
Working Temperature	1 ~ 60℃ (The equipment can still transfer data during -40 ~ 0℃, but water freezing may cause **DAMAGE** to the product)
Working Humidity	1 ~ 99%
RF Communication Distance	100 meters

● Product Structure





● Installation

1. Power on

Unscrew the 4 screws on the battery door on the back, and put in 2 AA batteries. The blue light on the front indicates that the device is powered on normally, and screw on the screws. Please do not use rechargeable batteries as they are lower in voltage, which is not good for reliable valve control.

2. Test

Short press the button to test whether the function of the water timer button is normal.

3. Pair with hub

3.1 Configuration of GW2000

You have to finish the configuration of GW2000 as the video instructs. Please scan the QR code to the video.

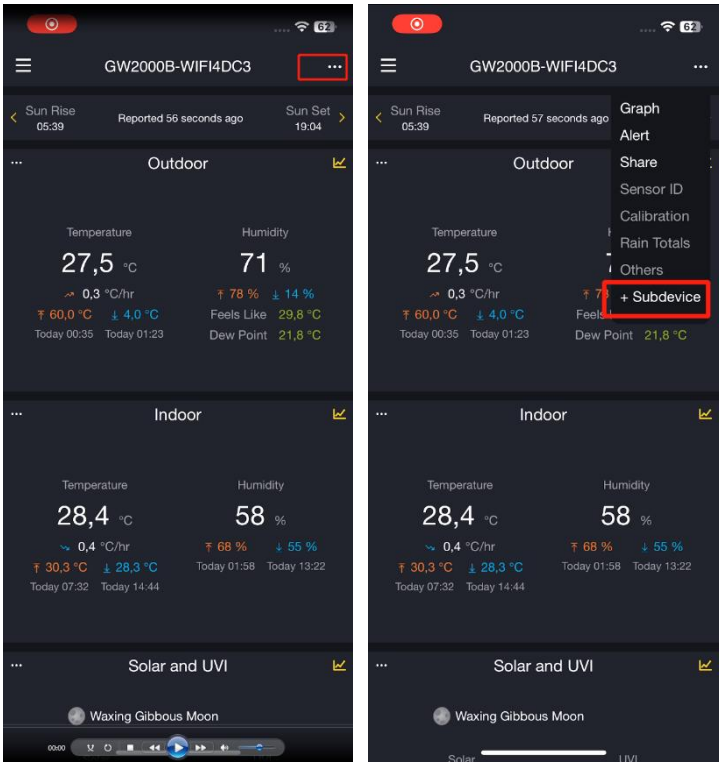
https://s.ecowitt.com/43PBGA

If you've already got a GW2000 configured, go to 3.2.

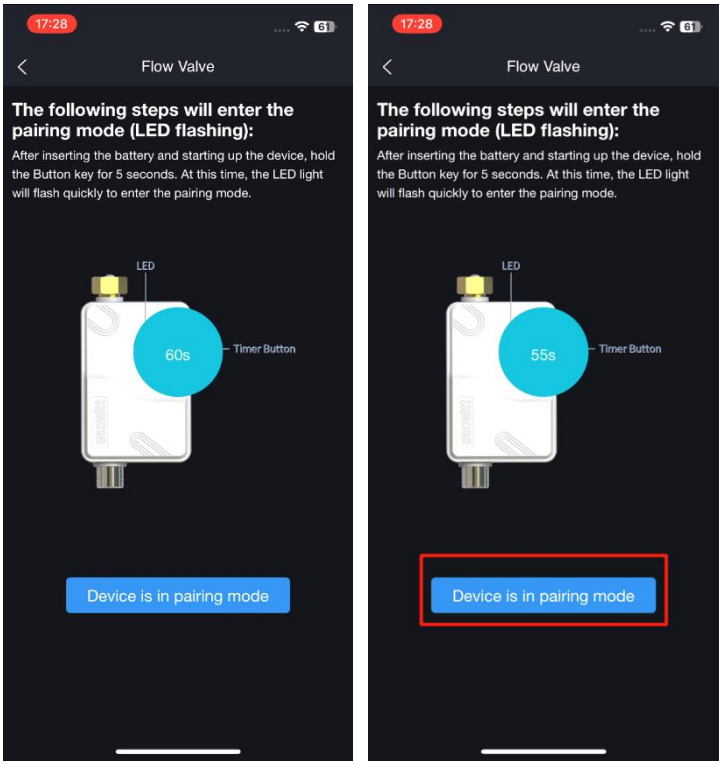
3.2 Configuration of WFC01

3.2.1 Long press the button for more than 5s, the LED will flash quickly and enter the network configuration mode.

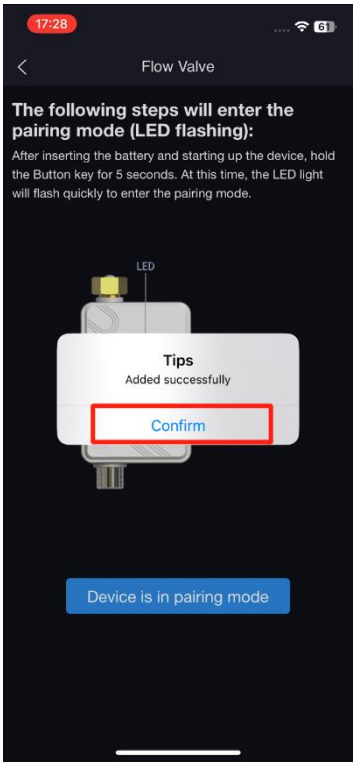
3.2.2 Click as the following pictures indicate to enter the network configuration mode.



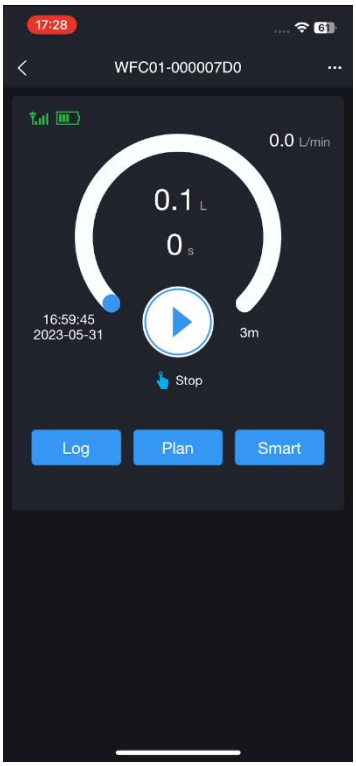
3.2.3 There will be a countdown icon showing on the interface. Click Device is in pairing mode.



3.2.4 Wait for about 20 seconds and the pair will be success.

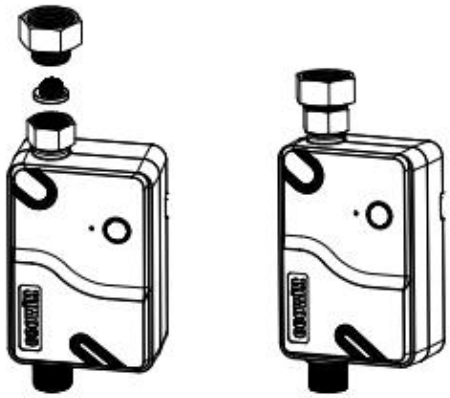


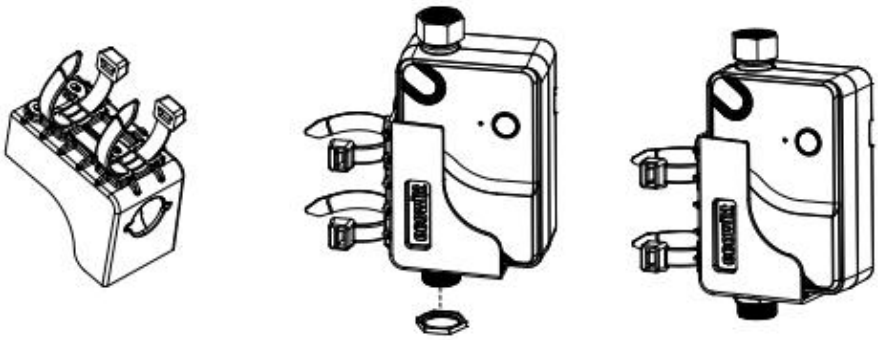
3.2.5 Click Confirm and you will see the operation interface of WFC01.


17:28
WFC01-000007D0
0.0 L/min
0.1 L
0 s
16:59:45
2023-05-31
3m
Stop
Log
Plan
Smart

4. Mount

Connect the water inlet and outlet pipes according to the direction of the arrow on the back of the product and fix them.





● Software Functions

1. Watering Methods

1.1 By duration

Set a duration. Open the timer and it will automatically be closed after running for the set opening duration.

1.2 By quantity

Set the amount of water. Open the timer and it will automatically be closed when the set quantity is reached.

1.3 Always on

Keep the timer always on until another manually off operation(press button on faucet or APP) is carried out.

1.4 Off

Keep the timer off.

2. Operation Modes

The operation modes include **Timer Button mode, Manual Watering mode, Plan mode and Smart mode** (not in Beta test period).
Each mode trigger will interrupt the others, and the operation mode generated by the most recent trigger will take effect.
For example, if the watering is currently in progress based on a scheduled plan and a certain condition is met to close the timer, the timer will be immediately closed. When the next scheduled time arrives, the watering will resume and the timer will be opened again.

2.1 Timer Button Mode

2.1.1 Short Press

Execute Manual Watering or terminate the current program.。

2.1.2 Long Press for 5s

Enter the network configuration mode.

2.1.3 Long Press for 10s

Restore factory settings.

2.2 Manual Watering Mode

2.2.1 Timer open state

Click the RUN button to turn off .

2.2.2 Timer closed state

Will execute immediately after setting the watering method on the APP.

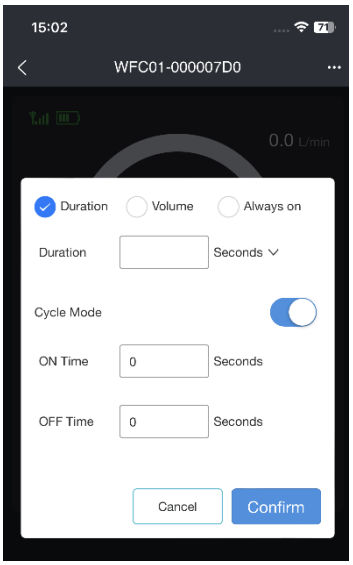
Click the RUN button. Choose one of the three modes: [Duration]/[volume]/[Always on].

[Cycle Mode]:

When cycle mode is turned on, a duty cycle is introduced against the current working mode. The duty cycle can be used to regulate more precisely for lower water rate application.

On/off time :5 ~ 3600 seconds.

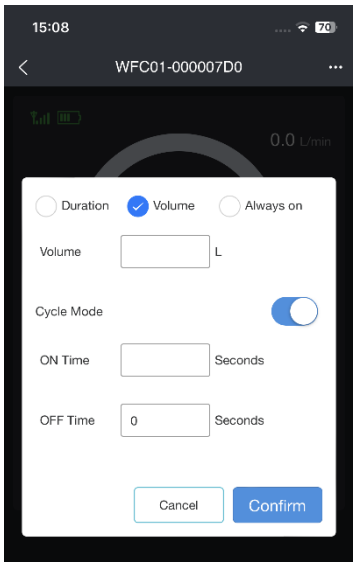
2.2.2.1 By duration



Duration Range:10 ~ 43200 seconds or 1 ~ 720 minutes.

Click Confirm to execute current setting.

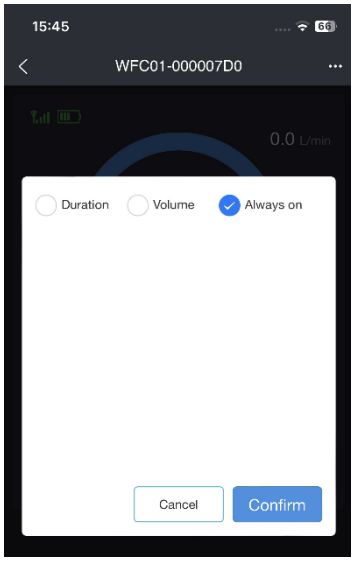
2.2.2.2 By quantity



Volume Range: 1 ~ 6500 L.

Click Confirm to execute current setting.

2.2.3.3 Always On

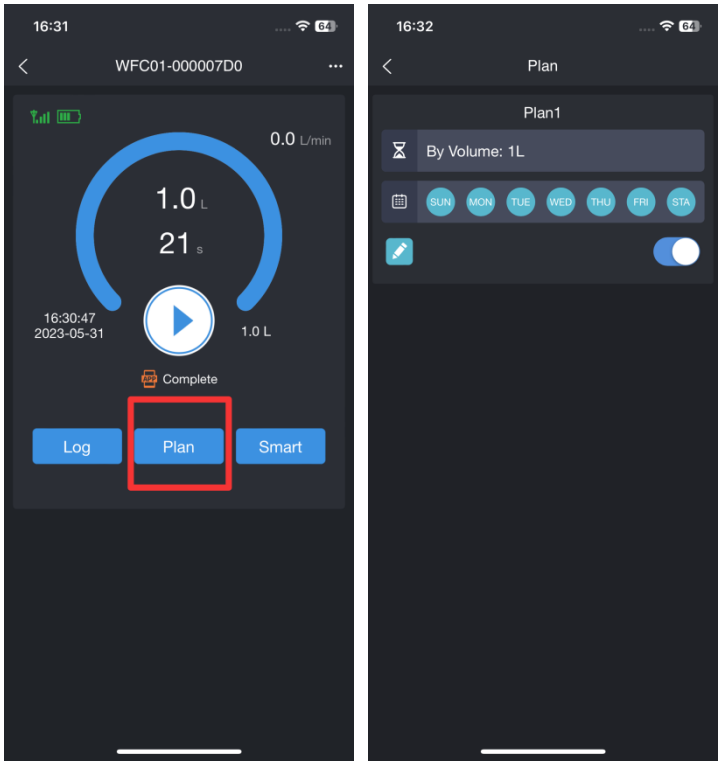


Click Confirm to execute Always On setting.

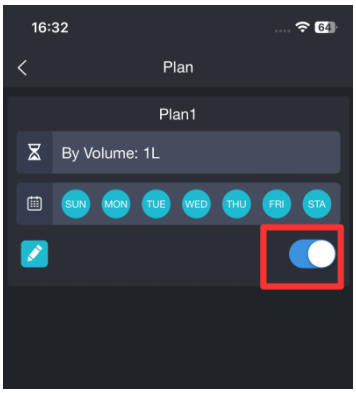
2.3 Plan mode

You can set a plan to start, and the plan can be set up to 24 start times.

2.3.1 Click plan to enter the Plan mode.

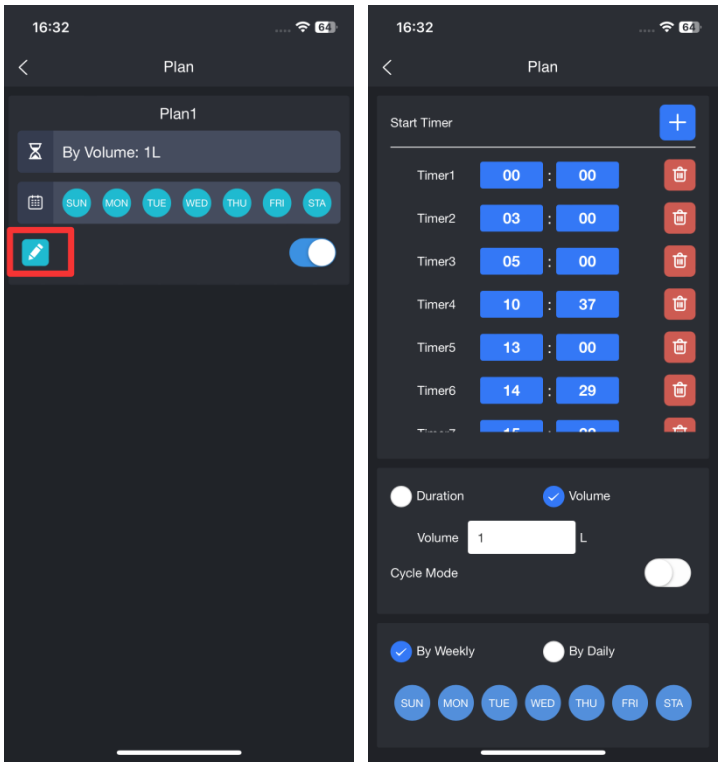


2.3.2 Click the right button to activate or deactivate a plan.



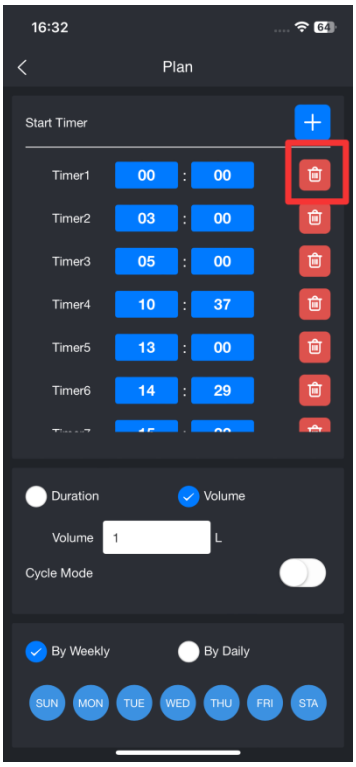
Skip function is under development, and user defined skip condition can be edited here.
(currently this feature is not implemented, but it will be available in the next upgrade)

2.3.3 Click the left icon to enter the plan editing interface.

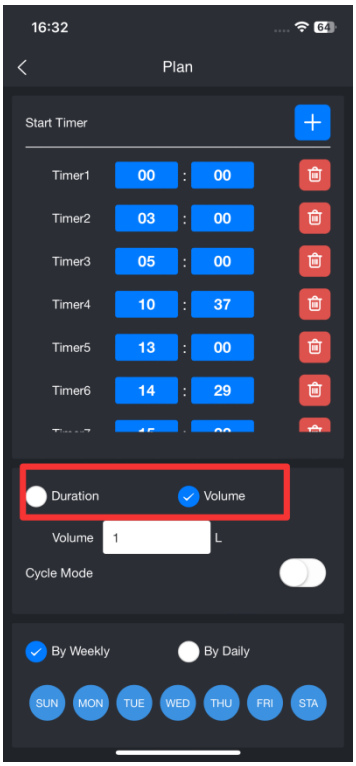


2.3.4 Adjust the details of the plan on the editing interface.

2.3.4.1 Add or delete a beginning time.



2.3.4.2 Set the method of watering. By Duration or by volume.



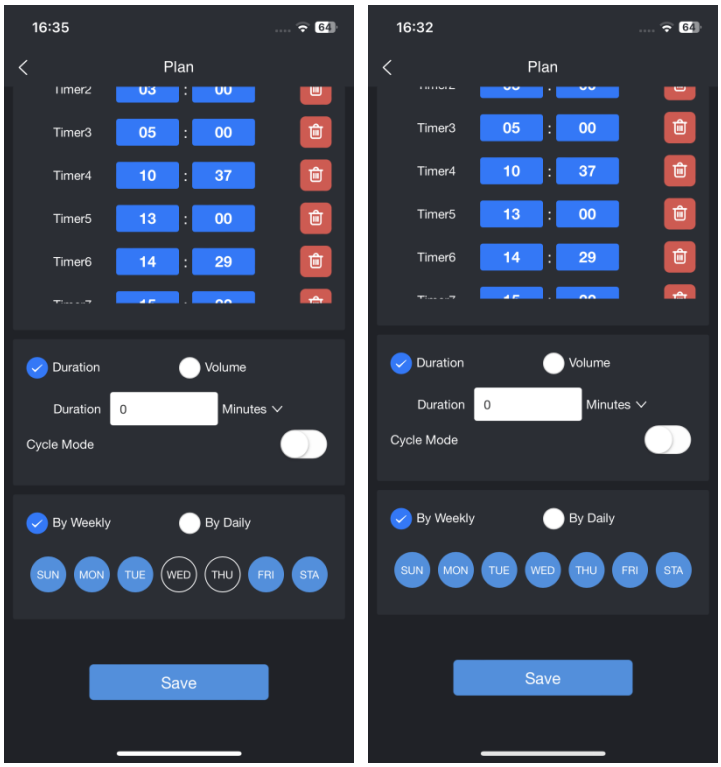
2.3.4.3 Select the Cycle Mode.

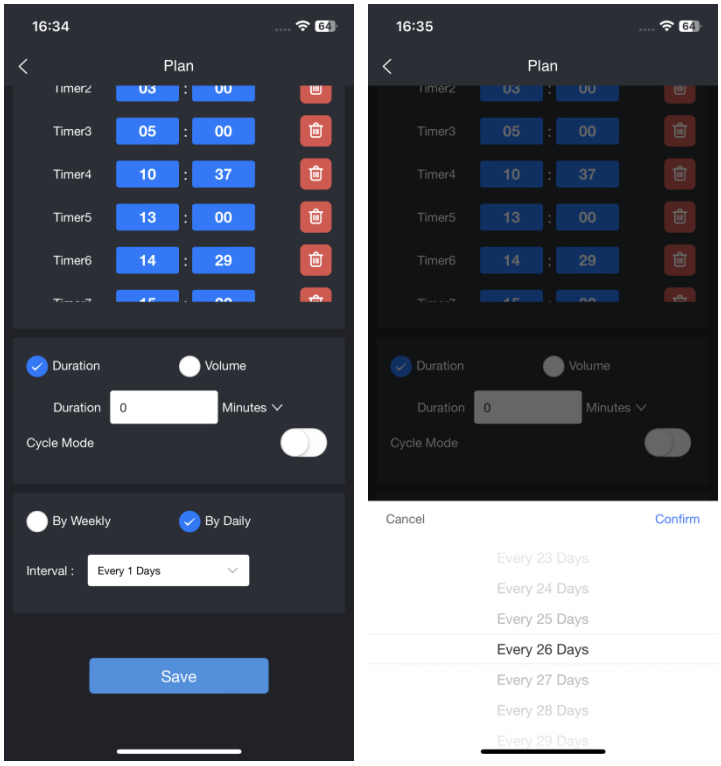
Cycle Mode

Can be set as on/off;

On/off time range:5 ~ 3600 seconds.

2.3.4.4 Set the repeat mode of watering. By weekly or by daily.





3. Alerts

There are 5 kinds of alerts. The details of the alerts can be inquired below.

3.1 No Water!

No water detected a while after the Water Timer has been open. Please check if the water sour ce is sufficient.

3.2 Water Leakage!

Water flow still
detected after the Water Timer has been closed. Please check the equipment immediately for leaks.

3.3 Ice Alert!

Current temperature below 5℃. Ice formation may be caused.

3.4 Overheating!

Current temperature above 60℃. Safety threat may be caused.

3.5 Communication Unstable!

Communication is unstable. Plan skip function will be disabled. Please adjust the position of t he Water Timer or WiFi hub.

● Note

1. Installation

The smart water timer should be installed in a dry and well-ventilated location, avoiding prolonged exposure to humid, high or low temperature, or harmful gas environments. The installation position should be as close as possible to the water source or the water pipe that needs to be controlled, and avoid excessive bending or twisting of the water pipe.

2. Usage environment

The smart water timer is suitable for both residential and commercial use. Do not install the smart water timer in areas prone to moisture or high temperatures. Additionally, it is prohibited to use chemical or corrosive substances to clean the smart water timer.

3. Maintenance

To ensure the normal operation of the smart water timer, regular maintenance is required. During daily use, please pay attention to cleaning the water timer and its surrounding area to prevent the accumulation of dust and dirt. Also, remember to replace the batteries promptly.

4. Precautions during use

When using the smart water timer, do not use it for substances other than liquids. Avoid hitting, impacting, or forcefully pulling the smart water timer during use to prevent damage to its mechanical components. Additionally, keep children and pets away from the smart water timer to prevent accidents.

Please read this user manual carefully and install and use the smart water timer correctly according to the instructions. If you have any questions, please contact our customer service team, we will be happy to assist you.

5. FCC WARNING

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

Any 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 FCC’s RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.