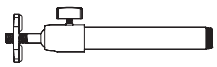
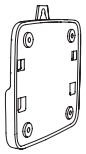
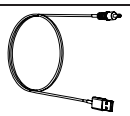
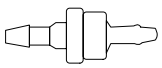
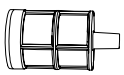
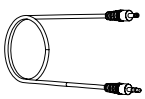
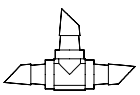
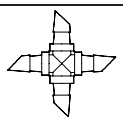
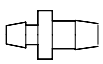
USER MANUAL

Smart Solar Irrigation System

Model No.: HTP137FRF

CONTENT

1.WHAT'S IN THE BOX

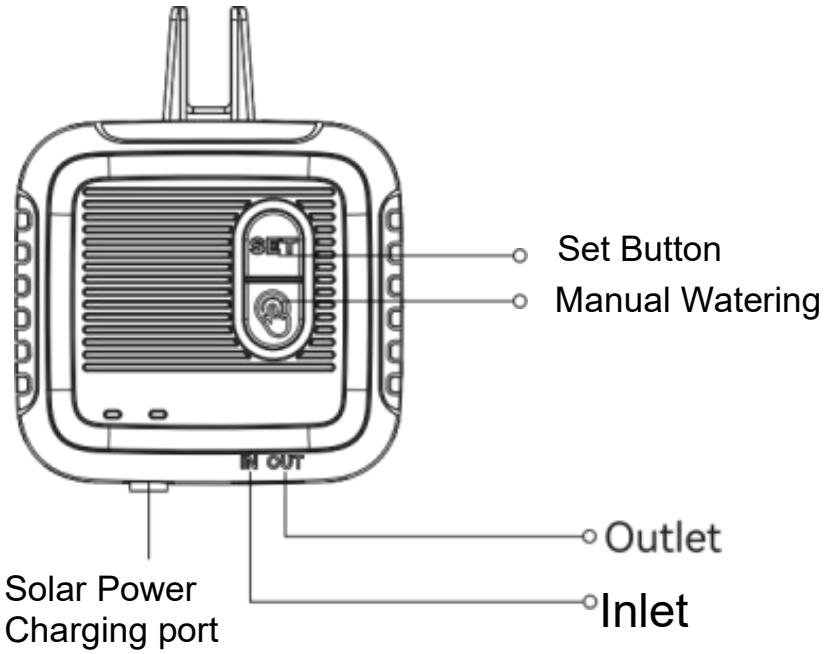
Accessories Included	Name	PCS	Function
	Solar Charger Bracket (Part 1)	1	Allows angle adjustment of the solar panel
	Pump Backplate	1	Mounts the timer/pump to a wall
	USB to DC 5.5x2.1 Charging Cable	1	Provides power supply
	Anti-Siphon Valve	1	Prevents water from flowing back into the pump
	Inlet Filter	1	Filters impurities from the water
	Low Water Level Detector	1	Detects water level
	T-barb Connector	15	Splits tubing into two lines
	Cross Connector	1	Splits tubing into three lines
	End Cap	3	Seals the end of the tubing
	Zip ties	15	Secures and bundles tubing
	Micro Dripper	15	Delivers water directly to the plant roots

	Main Line Tubing	2	Length: 15m (49') • Inner diameter: 1/6" (4mm)
	Branch Line Tubing	1	Length: 5m (16') • Inner diameter: 1/8" (3mm)
	solar panel	1	5V, 1.5W solar charging panel with 3m charging cable
	Stainless steel screws	2	For mounting the solar panel bracket or pump bracket

2. INTRODUCTION

2.1 The Smart Pump

2.1.1 Product Overview



2.1.2 Specification

•**Flow Rate:** 30 L/h (7.93 gal/h)

•**Maximum Pumping Head:** ≥ 3m

•**Working Pressure:** ≥ 0.3 bar (4.3 psi)

•**Operating Temperature:** 3°C–50°C (37°F–122°F)

•**Wi-Fi Compatibility:** 2.4GHz or dual-band Wi-Fi (2.4GHz required for setup)

•**Waterproof Rating:** IP54

•**Tubing Size:** Suitable for 4mm inner-diameter tubing

•**Battery:** 2000mAh rechargeable 18650 lithium battery

•**Charging Method:** USB charging cable or integrated solar panel

•**Solar Panel Output:** 5V, 1.5W

2.2.3 Product Features

•Remote control and real-time irrigation scheduling via app

•Built-in pump for automatic watering

•24-hour delayed irrigation function

•Solar-powered operation

•Low-water alert

•No faucet connection required

•Waters up to 10 plants

•Flexible micro-drip irrigation system

•DIY system with included accessories

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3.CONNECTION AND INSTALLATION

3.1 Work On APP with Hub

•HOMGAR APP downloads:

Download on the App Store

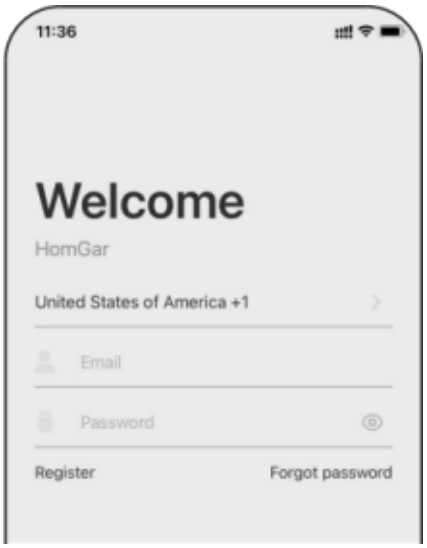
GET IT ON Google Play

•or scan the QR code to download:

IOS Android

•Create an account and log in:

Follow the instructions to sign up for your account or log in with your existing account and start matching devices!



3.2 Before Connection

To ensure successful Wi-Fi connection, confirm the following:

- Connect your mobile device to a **2.4GHz Wi-Fi network** before using the **HOMGAR** app. The hub operates only on 2.4GHz Wi-Fi.
- Keep the hub powered on during setup.
- **iOS:** iOS 11.0 or later with cellular or Wi-Fi service.
- **Android:** Android 6.0 or later with cellular or Wi-Fi service.
- Do not use public Wi-Fi networks.
- Keep the hub and mobile device within 10 feet (3m) during pairing.
- To change the Wi-Fi network, press and hold the reset button on the hub, then reconnect through the app.

3.3 Hub Connection

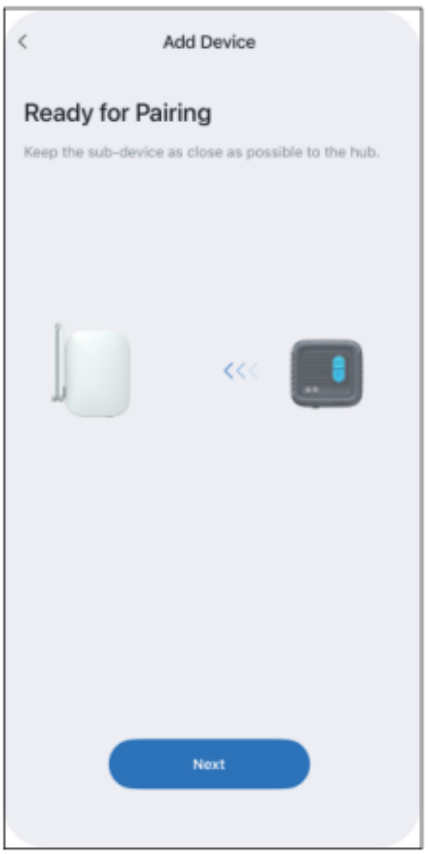
3.3.1 Pairing the Timer with the Hub

To enable remote control and irrigation plan management, the timer must be paired with the hub. Refer to the hub user manual to download the app and connect the hub to a Wi-Fi network before proceeding.

1. After the hub is successfully connected to Wi-Fi, select the hub device on the app home page.
2. On the hub home page, tap **“Add Device.”**
3. Select **“Add New Device.”**

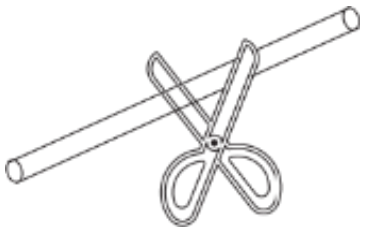
2. Select the Category "Controller" on the left and then find model  "HTP137FRF " .

3. Press and hold the **SET** button on the side of the pump until the red LED indicator flashes rapidly. Then tap “**Next**” in the app to begin searching for the device.



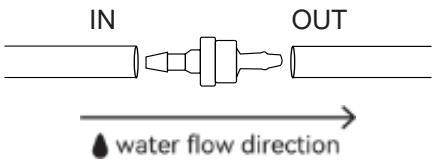
4. Keep the device and the hub close to each other to allow automatic connection.
5. If the initial connection fails, press and hold the reset button to restart the pairing process.

3.6 Pump Installation

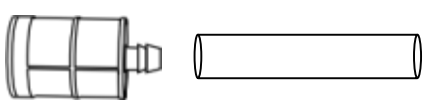


1 Cut the hose to length according to the distance between the device and the plant.

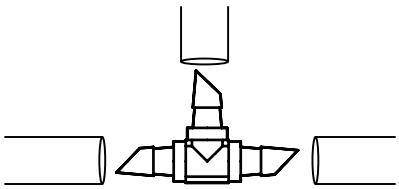
2 Connect the hose to water inlet and outlet.

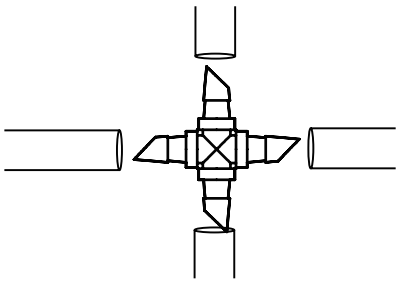


3 Connect the anti-siphon valve to the water outlet hose, positioning it close to the pump. This helps prevent backflow and siphoning.
Note: Install the valve according to the indicated flow direction.



4 Insert the filter into the other end of the water inlet tubing and place it inside the water container.





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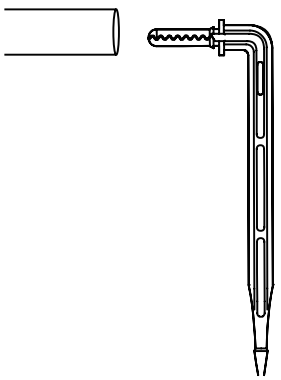
1. Use a **“T” barb fitting** to split the hose into two lines.
2. Use a **cross barb fitting** to split the hose into three lines.



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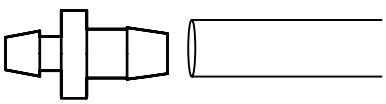
Use the micro drip emitters to deliver water directly to the soil.

Tip: Loosen the soil before installation, then insert each dripper at least 3 inches (8cm) deep to help water reach the plant roots more effectively.



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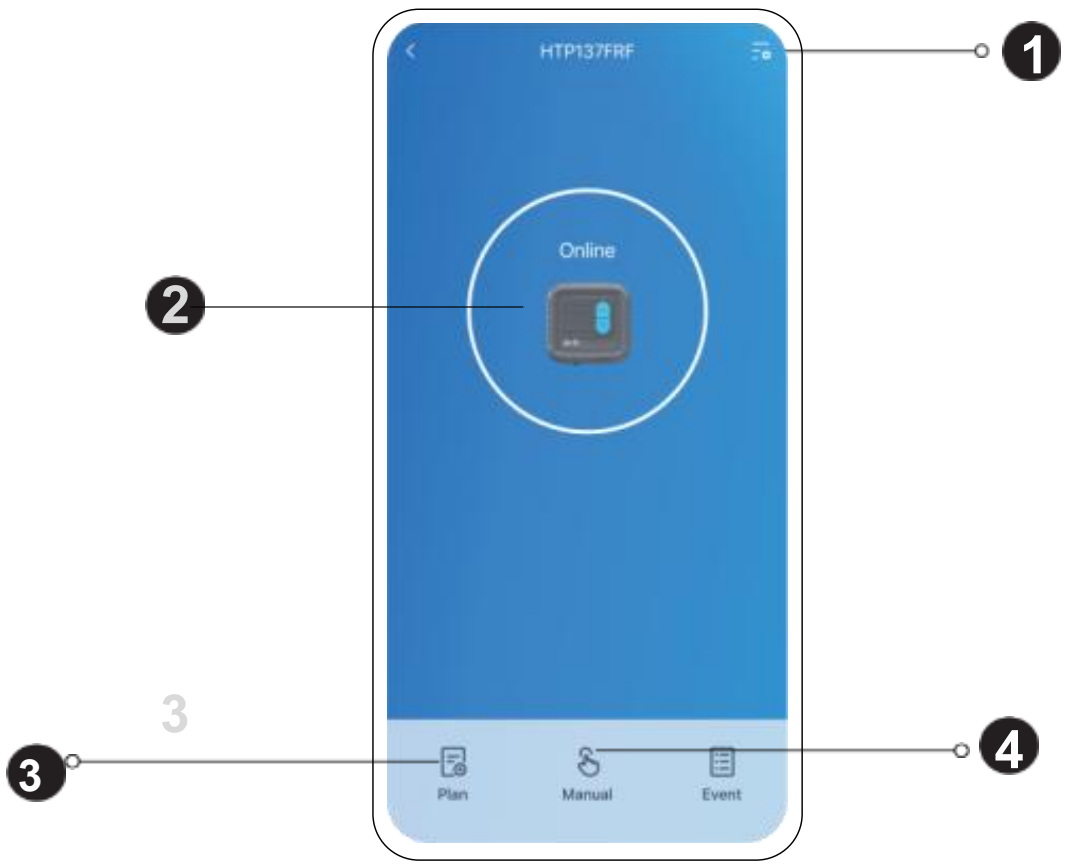
After allowing water to flow through the tubing, install the end cap at the end of the line. This helps prevent air from entering the tubing and ensures smooth water flow.

3.7 APP FEATURES AND FUNCTIONS

3.7.1 Device Home Page

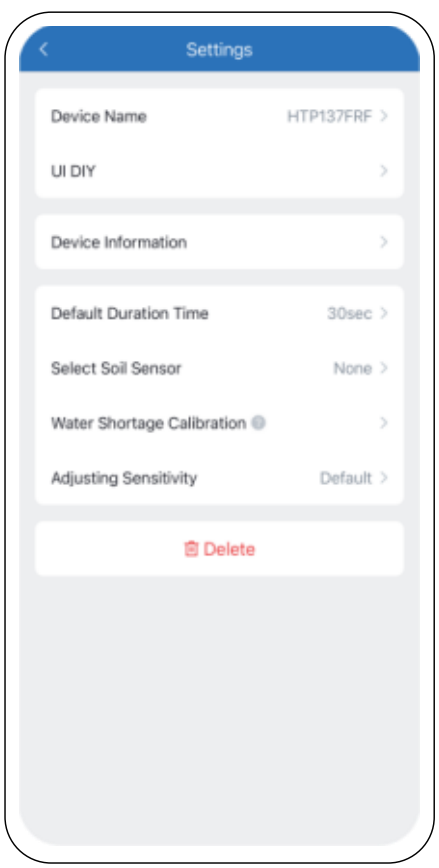


1 **Settings:** Configure basic pump settings.
2 **Pump Status Icon:** Displays the current operating status of the pump.
3 **Plan:** Create and manage watering schedules.
4 **Irrigation:** Start manual watering.

3.7.2 Basic Setting

Tap the icon in the top right corner of the app home page to open the "**Settings**" page. In Basic Settings, you can view and manage device information such as the device name and description.

Additional advanced settings are available to configure specific functions:



Default Duration:

Set the default watering duration for manual irrigation.

Soil Sensor:

Pair a soil sensor to display moisture data on the home page and enable the automatic stop function based on soil moisture levels.

Stop Irrigation at Set Moisture Level:

Set a maximum soil moisture value to prevent overwatering.

All watering plans will pause when soil moisture exceeds the set value and will resume automatically once moisture falls below the threshold.

Water Shortage Calibration:

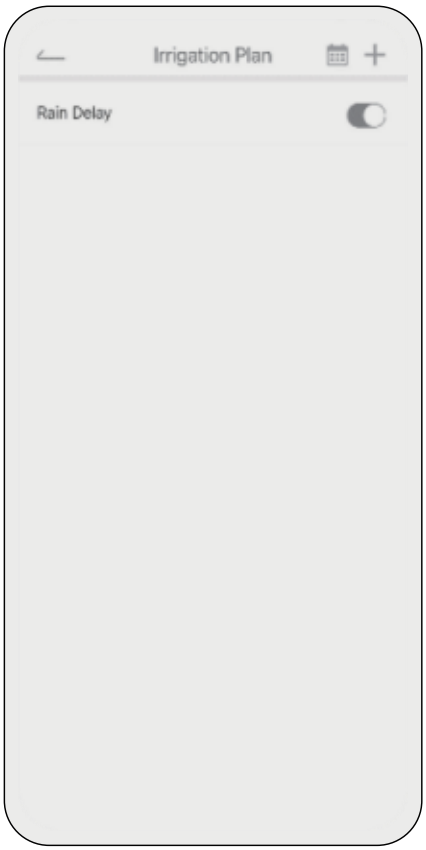
Calibrate the pump to define the current water level as the low-water reference point.

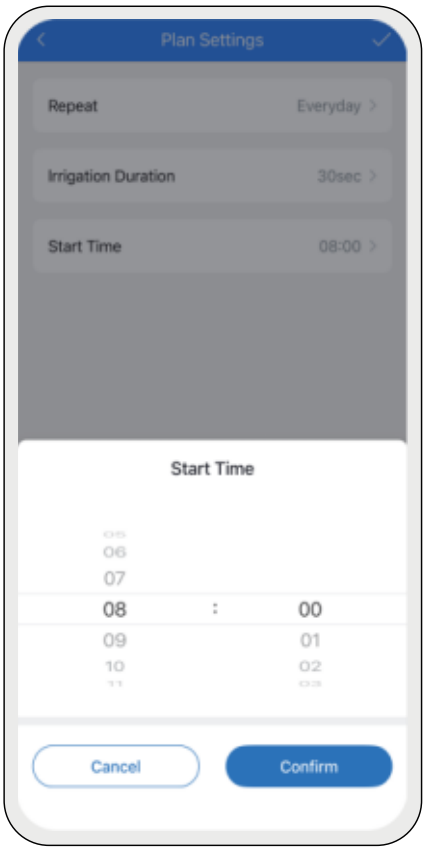
Water Shortage Detection Sensitivity:

Adjust the sensitivity of the low-water detection alarm if it is triggering too frequently or not frequently enough.

3.7.3 Plan Setting

Select Plan to create a new automatic watering schedule.





Set the watering mode:

Tap the **"+"** icon in the top right corner of the *Irrigation Plan* page to create a new watering plan.

-**Start Time:** Set the time the plan will begin.

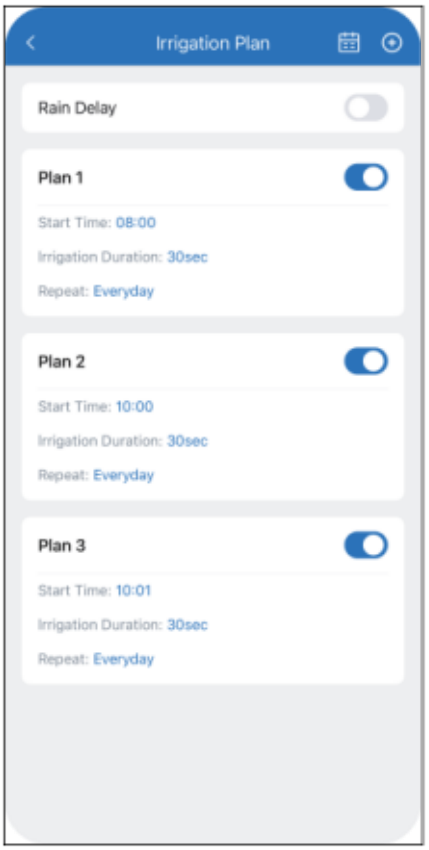
-**Duration:** Set how long watering will run.

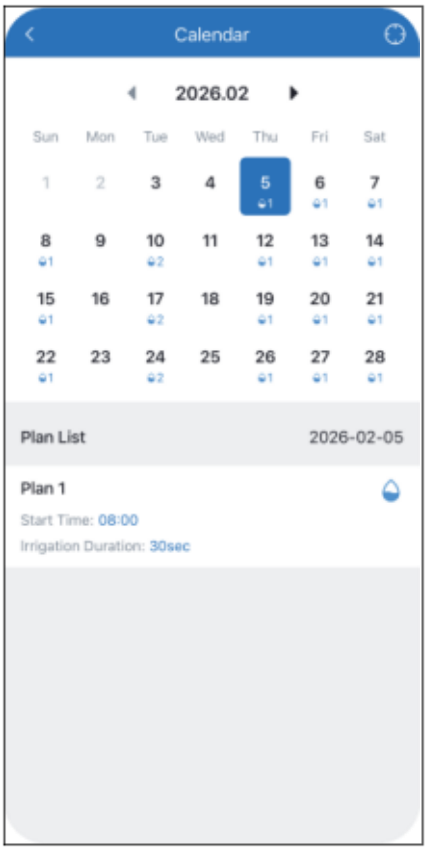
-**Repeat:** Set the watering frequency.

After completing the settings, tap **“Save”** in the top right corner to save the plan. The plan overview will appear in the list.

Use the toggle button on the right to turn the plan on or off.

Up to six plans can be created.

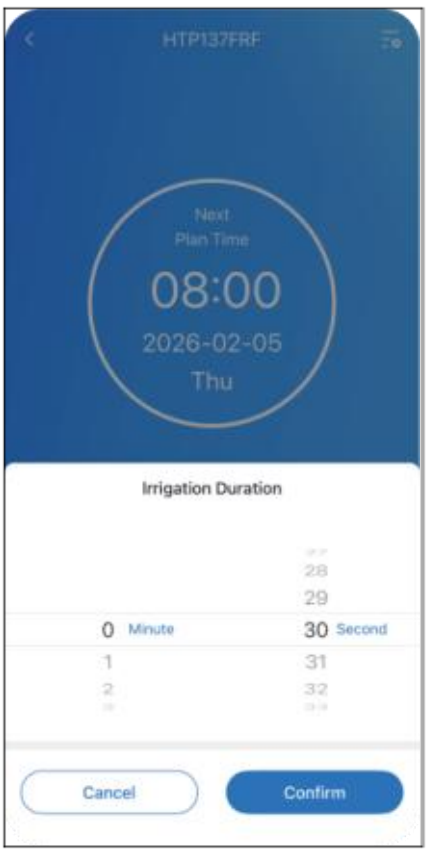




A **Plan Calendar** is also available to view an overview of all scheduled plans.

3.7.4 Manual Watering

Select **“Irrigation”** on the home page to manually start a temporary watering cycle. The watering duration can be set as needed.



Note: If manual watering is activated while a scheduled plan is running, or if a plan is set to start during the manual watering period, the scheduled plan will be skipped for that cycle.

4. TROUBLESHOOTING

Problem	Some Solutions
Hub Disconnected or Offline	1. Check whether the router is operating normally. 2. If there has been a power outage, ensure the router has restarted properly, then reconnect the hub following the setup instructions in this manual. 3. Check whether the Wi-Fi signal is unstable. 4. If the hub is too far from the router, move it closer to improve connection stability.
Timer or Other Sub-Devices Disconnected	1. Check that the Wi-Fi signal is stable. 2. If there are strong signal sources or interference between the hub and the devices, relocate the devices to reduce interference.
Button or Socket Not Working	Contact customer service for further assistance.

Problem	Possible Factors	Some Solutions
Pump Cannot Connect to Hub	1. The pump is too far from the hub or there are obstructions between them. 2. The pairing time window was missed during setup. 3. The hub firmware version is outdated.	1. Keep the pump close to the hub during pairing.. 2. Restart device search in the app. Once the search countdown begins, press and hold the SET button until the red LED starts blinking. 3. Go to **Settings** (top right corner of the hub home page), open **Device Information**, and check for available firmware updates.
Pump Not Working or Unable to Draw Water	1. Debris or impurities have entered the pump. 2. The pump was damaged during shipping or from being dropped.	If the pump does not operate or cannot draw water, contact customer service at the place of purchase within the warranty period.
Water Leakage at Pump Inlet or Outlet	The tubing is not fully or securely inserted.	Reinstall the tubing and ensure it is fully and tightly inserted into the inlet and outlet ports.

Problem	Possible Factors	Some Solutions
Weak Water Flow	1. The pump is too far from the pots or water container. 2. Air is trapped in the end section of the tubing.	1. Move the pump closer to the plants and reduce the tubing length if possible. 2. During installation, allow water to fully fill the entire tubing before installing the end caps to remove trapped air.
Hub Cannot Connect	1. The network is not 2.4GHz Wi-Fi. 2. Incorrect Wi-Fi password. 3. The hub is too far from the router or there are obstructions blocking the signal.	1. Connect using a 2.4GHz or dual-band Wi-Fi network (ensure the 2.4GHz band is enabled). 2. Verify the Wi-Fi password and re-enter it carefully. 3. Move the hub closer to the router during setup.

5. Safety and Installation Notes

- Use a 2.4GHz Wi-Fi network when connecting this product.

- Ensure the solar pump receives at least one hour of direct sunlight per day.

- Securely tighten the tubing to the inlet and outlet ports during installation to prevent leakage.

- Position the pump higher than the water source to prevent siphoning.

- Do not block the vent or insert fingers or objects into openings, as this may cause equipment failure or injury.

- Do not use the product near gas appliances, heaters, microwave ovens, or other sources of interference.

- In freezing temperatures, remove timers from the faucet and store them indoors to prevent freeze damage.

- Clean the filter regularly and replace it if worn to extend the product’s service life.

6. FCC STATEMENT

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.

FCC Warning: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this 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 harm interference to radio or television reception, which can be determined by turning the equipment on and off. The user is encouraged to try to correct the interference by one of the following measures:

- •Reorient or relocate the receiving antenna.
- •Increase the separation between the equipment and the receiver.
- •Connect the equipment to 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.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.