

## Biling FJH25J-35

# Biling Solar Drip Irrigation System (Model FJH25J-35) Instruction Manual

## INTRODUCTION

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The Biling Solar Drip Irrigation System is designed to provide automatic watering for your plants, especially suitable for balconies, gardens, and greenhouses. This system utilizes solar power to operate, featuring a 2200 mAh battery for continuous operation. It can efficiently water 15 to 20 potted plants, saving up to 80% water compared to traditional methods. This manual provides detailed instructions for the proper installation, operation, and maintenance of your irrigation system.

## SAFETY INFORMATION

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- Ensure the solar panel is installed in a location that receives optimal sunlight for efficient charging.
- Always place the controller unit above the water source to prevent siphoning and ensure proper pump function.
- Before inserting T-connectors and drippers, dip the end of the hose in warm water for approximately 1 minute to soften it, making insertion easier and preventing damage.
- Regularly check the water reservoir to ensure it does not run dry, as this can damage the pump.
- Keep the system components away from extreme temperatures and direct physical impact.

## PACKAGE CONTENTS

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Verify that all components listed below are included in your package:

- Solar Panel (x1)
- Controller (x1)
- Drippers (x15)
- Ground Stake (x1)
- Water Hose 15M (50FT) (x1)
- T-Connectors (x15)

- Screws (x2)
- Filter (x1)
- Anti-siphon Device (x1)



Image: All components of the Biling Solar Drip Irrigation System, including the solar panel, controller, drippers, hose, and connectors.

## PRODUCT FEATURES

The Biling Solar Drip Irrigation System offers several key features for efficient and convenient plant watering:

- **Solar-Powered Automatic Watering:** Utilizes a 3.5W solar panel to power the system and charge the internal battery.
- **Integrated 2200 mAh Battery:** Provides up to 27 days of operation on a full charge, ensuring watering even on cloudy days or at night.
- **IP67 Waterproof Rating:** Ensures durability and reliability in outdoor conditions.
- **Customizable Watering Schedules:** Set watering duration from 1 to 30 minutes and intervals from 3 hours to 7 days.
- **Water-Saving Design:** Delivers water directly to plant roots at approximately 400 ml/min, reducing water waste by up to 80%.
- **Automatic Water Shortage Alarm:** Notifies you when the water source is low.
- **Supports up to 15-20 Potted Plants:** Sufficient capacity for a typical balcony or small garden setup.



Image: Comparison highlighting the advanced features of the Biling system, such as flexible watering modes and a standalone, easily adjustable controller.



Image: The solar-powered system with battery backup, illustrating its ability to function reliably without constant sun exposure.



Image: Illustration of deep irrigation, where water is delivered precisely to the plant's root zone, minimizing evaporation and runoff.

## SETUP INSTRUCTIONS

Follow these steps to set up your Biling Solar Drip Irrigation System:

1. **Prepare the Hose:** Dip the end of the water hose in warm water for about 1 minute. This will soften the hose, making it easier to insert the T-connectors and drippers.
2. **Connect the Filter:** Attach the filter to the inlet port of the controller. Place the filtered end into your water reservoir (e.g., a bucket or tank).
3. **Position the Controller:** Mount the controller unit in a suitable location, ensuring it is positioned **higher than your water source**. This is crucial to prevent siphoning and ensure the pump functions correctly.
4. **Install the Solar Panel:** Connect the solar panel to the controller. Place the solar panel in a sunny spot where it can receive maximum direct sunlight throughout the day for optimal charging. Use the provided ground stake if installing in soil.
5. **Route the Hose and Install Drippers:** Connect the 15-meter water hose to the outlet port of the controller.

Route the hose to your plants. Cut the hose at appropriate points and insert T-connectors. Attach drippers to the T-connectors and place them near the base of each plant.

6. **Consider Plant Water Needs:** Plants with higher water requirements should be placed closer to the controller unit, while plants needing less water can be positioned further along the hose line.
7. **Secure Connections:** Ensure all hose connections, T-connectors, and drippers are securely fitted to prevent leaks.



Image: A schematic diagram demonstrating the complete setup of the Biling Solar Drip Irrigation System, from water source to individual plant drippers.

## OPERATING INSTRUCTIONS

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### Controller Overview

The controller unit features a digital display and several buttons for easy programming:



Image: Detailed view of the controller's interface, indicating the functions of each button and port.

- **1. Interval Time:** Displays the set watering interval.
- **2. Watering Time:** Displays the set watering duration.
- **3. '+':** Press to increase numbers or cycle through options.
- **4. SET:** Press to switch between setting interval time and watering time. Press and hold for 3 seconds to turn the device On/Off.
- **5. Output:** Water outlet port.
- **6. In:** Water inlet port.
- **7. Water Sensor Cable:** Port for the water level sensor.
- **8. Solar Panel Cable:** Port for the solar panel connection.

### Setting Watering Modes

To program your watering schedule:

1. **Turn On:** Press and hold the **SET** button for 3 seconds to turn on the device.
2. **Set Watering Duration:** Press the **SET** button once to select the watering duration setting. The display will show the current duration. Use the **+** button to adjust the watering time (e.g., 01, 02, ..., 30 minutes).
3. **Set Watering Interval:** Press the **SET** button again to select the watering interval setting. The display will show the current interval. Use the **+** button to adjust the interval (e.g., 3, 6, 8, 12, 18 hours, 1, 2, ..., 7 days).
4. **Confirm Settings:** The system will automatically save your settings after a few seconds of inactivity.
5. **Start Watering:** The system will begin watering according to your programmed schedule.

The watering flow rate is approximately 400 ml/min. Adjust the number of drippers and the watering interval based on the specific water needs of your plants.

## MAINTENANCE

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Regular maintenance ensures the longevity and optimal performance of your irrigation system:

- **Clean the Filter:** Periodically check and clean the water inlet filter to prevent blockages and ensure consistent water flow.
- **Inspect Drippers:** Check drippers for any clogs from dirt or mineral deposits. Clean them as needed to maintain even water distribution.
- **Check Hoses and Connections:** Regularly inspect hoses for kinks, cracks, or leaks. Ensure all connections are secure.
- **Monitor Water Source:** Ensure the water reservoir is clean and free of debris that could enter the system.
- **Solar Panel Cleaning:** Keep the solar panel clean from dust and dirt to maximize charging efficiency. Wipe it gently with a soft, damp cloth.
- **Winter Storage:** In colder climates, drain the system completely and store components indoors to prevent freezing damage.

## TROUBLESHOOTING

If you encounter issues with your Biling Solar Drip Irrigation System, refer to the following table for common problems and solutions:

Problem	Possible Cause	Solution
No water flow	Empty water reservoir, clogged filter/drippers, kinked hose, controller off, low battery.	Refill water, clean filter/drippers, straighten hose, turn on controller, ensure solar panel is charging.
Uneven watering	Clogged drippers, uneven hose distribution, controller not above water source.	Clean drippers, adjust hose layout, ensure controller is elevated.
Battery not charging	Solar panel not receiving enough sunlight, dirty solar panel, faulty connection.	Relocate solar panel to a sunnier spot, clean solar panel, check cable connections.
Water leakage	Loose connections, damaged hose/dripper.	Tighten all connections, replace damaged components.
Water shortage alarm	Water reservoir is low or empty.	Refill the water reservoir immediately.

## SPECIFICATIONS

Feature	Detail
Model Number	FJH25J-35
Power Source	Solar Powered
Solar Panel Power	3.5W
Battery Capacity	2200 mAh

Feature	Detail
Hose Length	15 Meters (50 Feet)
Number of Drippers	15
Watering Flow Rate	Approx. 400 ml/min
Watering Duration Options	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30 minutes
Watering Interval Options	3, 6, 8, 12, 18 hours, 1, 2, 3, 4, 5, 6, 7 days
Material	Plastic
Special Feature	Automatic Watering
Package Dimensions	24.5 x 21 x 5.8 cm; 810 grams

## WARRANTY AND SUPPORT

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Biling products are manufactured to high-quality standards. For warranty information or technical support, please refer to the documentation included with your purchase or contact Biling customer service through their official website or the retailer where the product was purchased. Please retain your proof of purchase for warranty claims.