

---

# Automatic Drip Irrigation Kit

## User Manual



# VIVOSUN

---

## Welcome to **VIVOSUN**

At Vivosun, quality craftsmanship and innovation are at the core of every product we create. Should you require further support or wish to share any suggestions, please don't hesitate to contact us.

# Love Growing Green

---

# Contents

Safety Information	1
Key Features	2
Product Contents	3
Specifications	4
System Diagram	5
Installation	6
Usage	14
Warranty	16

---

# Safety Information

Please read the following instructions carefully before using this device. Failure to follow these safety instructions may result in injury, release Vivosun from all liability, and void the product warranty.

1. This product has components with sharp edges. Be careful when installing and operating it.
2. Keep this product away from children.
3. Make sure your AC power source conforms to the electrical requirements of each device in this product kit.
4. Do not use the product outdoors or in any hazardous locations, such as places near flammable, explosive, or corrosive chemicals.
5. Keep the submerged pump under water when it is operating. Do not operate it in corrosive or flammable liquids, or run it dry.
6. Do not press the power cord against sharp edges, such as bucket rims.
7. Do not cover the power cords with rugs or other fabric materials.
8. Unplug and shut off the pump before installing, performing maintenance, moving it, or if any water leaks are detected.
9. If your device or power cord is damaged, stop using it and contact us for service. Disassembly or modification of devices without Vivosun's permission may cause damage and void the warranty.
10. Check that all tubing and drip arrows are securely connected before starting the system. Loose connections may lead to leaks or uneven water distribution.
11. Ensure a stable Wi-Fi connection for proper scheduling and remote control through the app. Refer to the GrowHub A10 user manual for more details.

---

## Key Features



### SGS Compatible

Comes standard with the GrowHub A10, allowing you to easily customize your irrigation schedule through the Vivosun app for unified control and remote monitoring.



### Anti-Siphon Design

The anti-siphon connector prevents unexpected backflow caused by siphoning when the pump stops.



### Flexible Configuration

Supports up to 16 emitters, each of which can be installed with a different tubing length to suit your setup.

# Product Contents

# D16

A. 8mm Tubing  
(ID 8mm / OD 11mm) – 1.5m



B. 4mm Tubing  
(ID 4mm / OD 7mm) – 16m



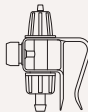
C. GrowHub A10



D. 15W Water Pump  
(8mm Connector Included)



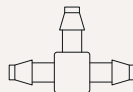
E. Anti-Siphon Connector  
(8mm to 4mm)



F. Drip Emmitter (4mm)  
x 16



G. Equal Tee Connector (4mm)  
x 16



H. End Cap (4mm)  
x 2



I. Filter Cotton  
x 5



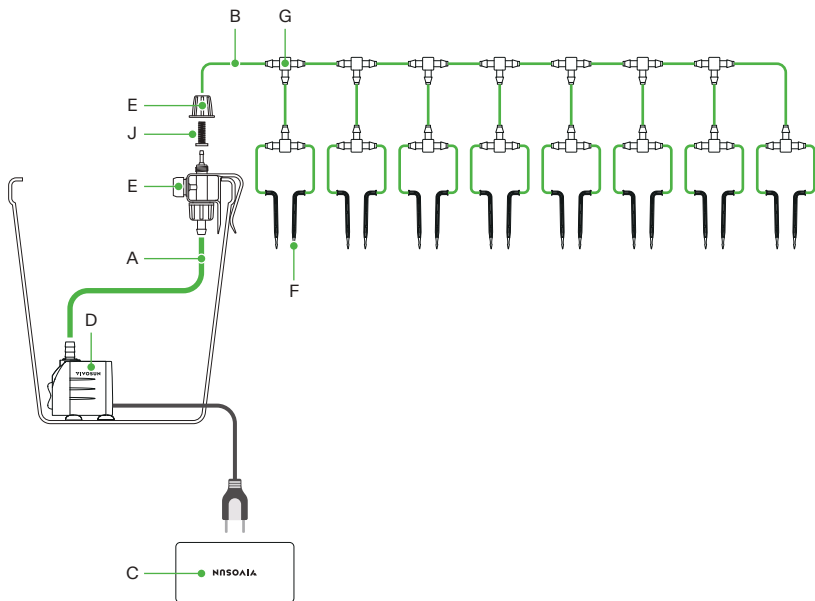
J. Anti-Kink Spring



# Specifications

Input (Pump)	120V, 60Hz, 15W
Input (GrowHub)	120V, 60Hz
Total Output Power (GrowHub)	1800W max, for resistive load
Connectivity (GrowHub)	IEEE 802.11 b/g/n, 2.4 GHz
Water Flow Rate (Pump)	1000L/H max
Water Lift (Pump)	1.6m
Number of Emitters	16
Drip Rate	0.7L/H per emitter (typical)
Irrigation Settings	8–16 pots
Growing Medium	Suitable for soil, coco coir, rock wool, clay pebbles, and perlite growing
Operating Conditions	10–40°C (50–104°F)

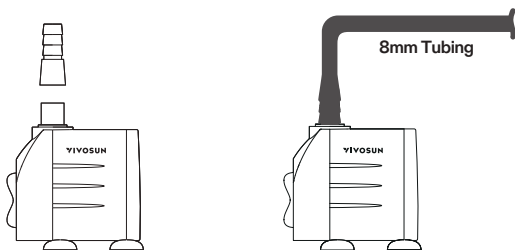
## System Diagram



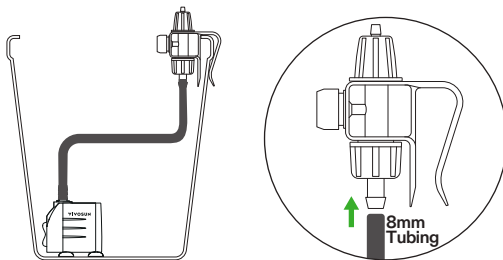


# Installation

**Step 1** Connect the 8mm adapter fitting to the water pump, then attach one end of the 8mm tubing to the adapter.

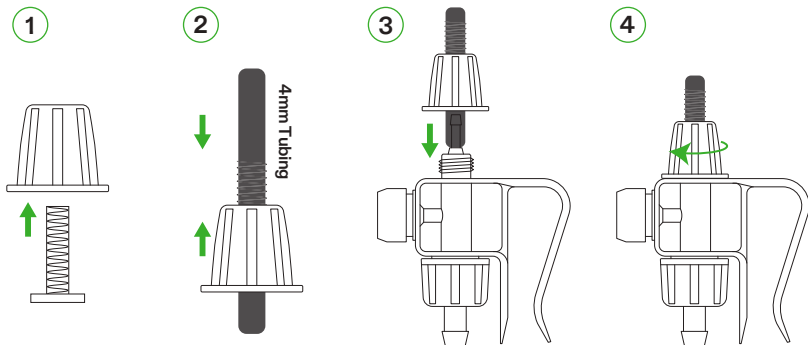


**Step 2** Choose a suitable container and place the water pump inside, securing it with the suction cups. Clip the anti-siphon connector onto the container's edge, then connect the other end of the 8mm tubing to the lower port on the connector.



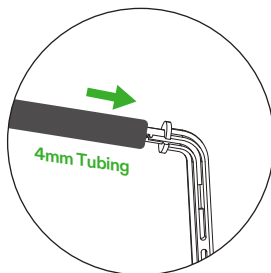
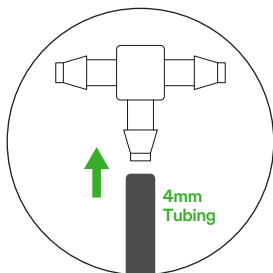
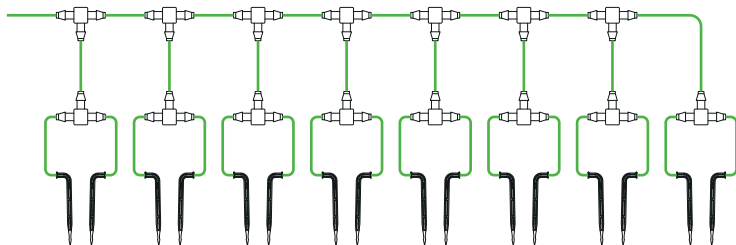
## Installation

**Step 3** Unscrew the cap from the 4mm port on the anti-siphon connector. Slide the anti-kink spring onto the cap, then insert the 4mm tubing through both the spring and cap. Connect the tubing to the port and tighten the cap securely.



# Installation

**Step 4** Connect the emitters to the 4mm equal tees using 4mm tubing, as illustrated in the diagram.



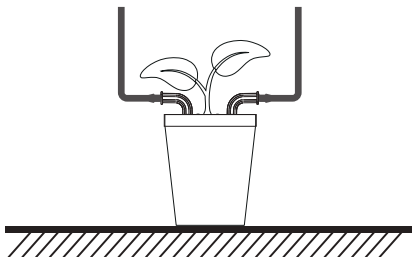
---

## Installation

**Step 5** If one end of the 4mm equal tee is unused, cut a 10cm piece of 4mm tubing and attach it to the open port. Then, connect a 4mm end cap to the tubing's other end to prevent water flow.



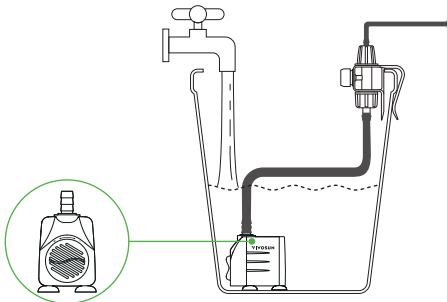
**Step 6** Insert the emitters into the growing medium. We recommend using two emitters per pot for optimal irrigation.



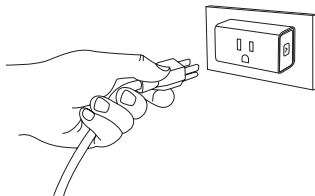
---

## Installation

**Step 7** Add water or nutrient solution to the container, making sure the pump is fully submerged at all times.



**Step 8** Plug the GrowHub into an AC outlet and connect the water pump's power cord to the smart outlet. Use the Vivosun app to configure the smart outlet for scheduled on/off control of the pump (see the GrowHub user manual for details).

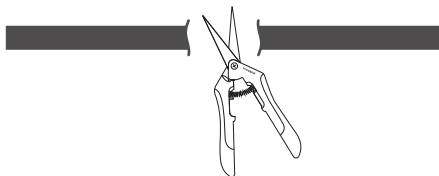


---

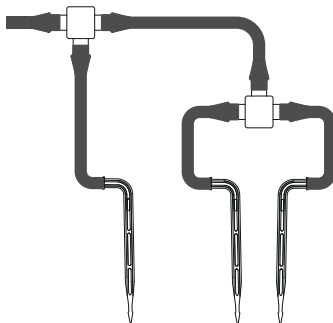
# Installation

## Tips:

**Tips 1:** Cut the 8mm and 4mm tubing to the appropriate lengths to suit your layout.

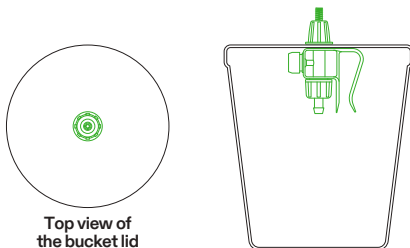


**Tips 2:** The installation method and number of emitters and 4mm equal tee connectors can be adjusted as needed.

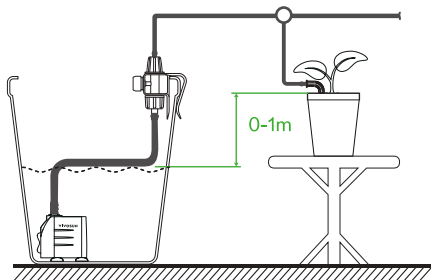


# Installation

**Tips 3:** If the container has a sealed lid, refer to the suggested mounting method below for installing the anti-siphon connector.

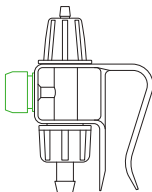


**Tips 4:** If the emitters are positioned more than 1 meter above the pump, the water flow rate may be reduced.

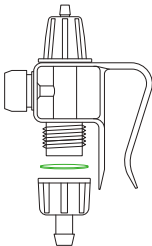


# Installation

**Tips 5:** To ensure proper anti-siphon function, keep the air balance port exposed to air and avoid submerging it in water.



**Tips 6:** Replace the filter cotton inside the anti-siphon connector at least once a month to prevent clogging and maintain steady flow.



**Tips 7:** The daily pump run time can be estimated using this formula:

$$\text{Pump Run Time} = \text{Daily Water Volume per Pot} \div \text{Emitters per Pot} \div \text{Drip Rate per Emitter}$$

**Tips 8:** Always ensure the water level in the container remains above the bottom of the pump.

**Tips 9:** If the tubing is difficult to insert into connectors or emitters, soften it by soaking in warm water (100–140°F) before installation. Afterward, ensure all connections are secure to prevent leaks.



---

# Usage

Please read the following usage information carefully before using this product for growing:

## 1. Growing Medium

It is recommended to use this product with a loose and aerated growing medium such as mixed soil, coco coir, perlite, or rock wool.

## 2. Start Time of Each Irrigation Cycle

The first irrigation of each day should begin 1–2 hours after the lights turn on, and the last irrigation should end 1–2 hours before the lights turn off. It is recommended to avoid irrigating when the lights are off.

## 3. Runtime of Each Irrigation Cycle

The runtime should be sufficient for the irrigation water to just start seeping out of the pot. Regularly check the plants and growing medium, adjusting the runtime as needed.

**Note:** Runtime varies depending on pot size, plant type and growth stage, environmental conditions, and other factors.

## 4. Irrigation frequency

During the seedling and vegetative stages, irrigate plants 1–2 times per day. During the flowering stage, irrigation is needed only once per day or every other day. Reduce irrigation frequency for larger pots.

**Note:** Suitable irrigation frequency varies based on plant type and environmental conditions.

---

# Usage

## 5. Irrigation Management

Regularly check the water level, temperature, pH, and EC in your container. Maintain the water temperature between 20°C and 22°C (68°F–72°F), and keep the pH within 5.8 to 6.5 for optimal irrigation. Adjust the EC of the nutrient solution based on the plant's growth stage and condition.

## 6. Fertilizer Use

Use water-soluble fertilizers or liquid nutrients. Ensure the fertilizer is fully dissolved before use.

## 7. Maintenance

Inspect the water pump and drip emitters regularly, and clean them as needed to prevent clogging.

**Note:** If the emitters stop dispensing water but are not clogged, unplug the tubing from the pump and briefly turn it on to release any trapped air.

---

# Warranty

Vivosun offers a 1-year warranty on all FlexFeed products purchased directly from us or through authorized dealers.

This warranty reflects our commitment to addressing any manufacturing defects or premature failures that occur under normal use.

The warranty covers replacement or refund for any product that exhibits material defects within one year of the original purchase date. To initiate a claim, customers must provide proof of purchase for verification.

Please note that this policy does not cover damage resulting from misuse, abuse, or intentional harm. It also excludes normal wear and tear and cosmetic imperfections such as minor scratches.

All LumaRay products undergo rigorous quality testing, and this warranty stands as a testament to their reliability and durability in everyday use.

If you discover a defect, we encourage you to contact us right away. Your satisfaction is our priority, and we're committed to resolving issues promptly and professionally.



**VIVOSUN**  
vivosun.com