

# Installation & User Guide – Solar Automatic Drip Irrigation Kit

## Product Overview

- Solar-powered automatic drip irrigation controller with built-in pump and anti-siphon device.
- 6 timing modes; approx. 400 mL/min pump flow; low-water/idle pump alarm.
- IP67 waterproof main unit for indoor/outdoor use; supports up to 10 pots with included drippers (expandable to 15 with additions).

## What's in the Box

- Solar controller unit with integrated pump
- Anti-siphon valve/device and inlet filter
- Tubing (main line + branch lines)
- 10 × drip stakes/emitters (standard package)
- Ground stake and/or screws/mounting kit
- Quick charger cable (if applicable) / user quick start

## Before You Begin

- Place the main unit where the solar panel receives direct sun; switch side must face down as indicated.
- Use a clean water container (bucket/storage box). Keep the pump inlet filter fully submerged.
- Plan your layout: one main line from the pump to a manifold, then branches to each pot.
- For slopes, keep the anti-siphon device above the highest water level to prevent siphoning.

## Assembly & Installation

- Mount the controller: insert into soil with the ground stake or fix to a wall/fence using screws.
- Cut tubing to length; connect the pump outlet to the main line. Use tight, fully seated barbed connections.
- Insert drip stakes at each pot and connect branch lines. Ensure emitters are above soil to avoid clogging.
- Install the inlet filter on the suction tube; route into the water container and weight it so it stays submerged.
- Position the anti-siphon device above the top of the water surface in the container.

## Priming & First Run

- Fill the container with clean water. Press and hold MODE (or MANUAL) to run the pump until water reaches all emitters.
- Check every connection for leaks; push tubing fully onto barbs if needed.
- Adjust the number of emitters per plant based on size and water needs.

## Programming – 6 Timer Modes

- Press MODE to cycle watering schedules. The blue LEDs advance left to right:
- Light 1: waters once every 12 hours for 5 minutes (example baseline).
- Lights 2–6: increasing frequency/duration (see quick reference on unit).
- Select a mode based on plant demand and season. The system re-times from the moment you set it.
- Manual watering: press MANUAL to run 1–23:59 as needed without altering the schedule.

## Operation Tips

- Typical flow ~400 mL/min (total across lines). Balance lines so each pot receives adequate water.
- For 10 pots, start with short equal branch lengths; for up to 15 pots, add expansion kit (not included).
- Use clean water; add a mesh over the container to keep debris/insects out.

## Alarms & Indicators

- Daytime: buzzer beeps twice per minute when water is low or pump is blocked; at night, green LED flashes without beeps.
- If alarm occurs: refill water, clean the inlet filter, or clear pump by injecting warm water into the inlet with a syringe (not included).
- Restart the unit; it will perform one watering and re-time.

## Maintenance

- Rinse inlet filter weekly; flush lines monthly to remove sediment.
- Keep the panel clean for best solar charging; wipe dust with a damp cloth.
- Before long absence, use a larger water container and test run for 24–48 hours.
- For winter: drain tubing, remove from freezing conditions, and store indoors.

## Troubleshooting

- No water at emitters → prime system in MANUAL; check for kinks or loose barbs.
- Uneven flow → equalize branch lengths; reduce total emitters; raise container for shorter lift.

- Frequent alarm → refill water; clean filter; check anti-siphon height and pump inlet depth.
- Short runtime → ensure adequate sun exposure; reposition panel; clear panel of shade/dirt.