

INSTRUCTION

AUTOMATIC WATERING KIT

FOR CONTAINER OR POTTED PLANTS





DESCRIPTION

The watering kit is an automatic watering system that can pump water from a bottle or tank and deliver it for daily watering of maximum 10 container or potted plants.



PART LIST



1 × Controller unit
(with built-in pump and
lithium-ion battery)



1 × One-way valve



1 × USB charging cable



10 × Drippers



1 × Bottle adaptor



10 × Barbed tees



1 × Water tank hanger



2 × End plugs



1 × 10m pvc tube
(ID: 3.8mm)



10 × Tube holder stakes



A PREPARATION BEFORE SETTING UP THE SYSTEM



Require 7 hours charging to 100% battery

a. Charging the controller unit

Charge the controller unit before use with the **USB charging cable (included)**, and a USB adaptor or portable charger with **output 5V DC (not included)**.

note:

1. Keep controller off during charging
2. The **red LED** at the back side will be **constantly ON** during charging and will be OFF when fully charged



when battery is low, the LED at the front side will flash quickly (1 blink per second), and controller unit will shut off



b. Flow rate test and calculation

1. Total flow rate of the system is around 200 ml/minute (you can test the actual flow rate by turning the **Frequency** knob to **OFF** and the **Duration** knob to 1 minute)
2. Find out how often you will water the plants and how much water is required for each
3. Check how long you will be away for vacation to decide how big the water tank shall be

Example a: If you have 10 plants which require 1 minute watering per day for each plant, then each will get 20 ml per day on average. (200 ml/min ÷ 10 plants * 1min=20 ml)

If you will be away for 4 weeks, then the total volume required will be 5.6L, so the recommended tank size shall be minimum 6L. (200 ml/min * 1min/day * 28 days=5.6 L)

Example b: If you have 5 plants which require 3 minutes watering

per day for each plant, then each will get 120 ml per day on average.
 $(200 \text{ ml/min} \div 5 \text{ plants} * 3 \text{ min} = 120 \text{ ml})$
 If you will be away for 2 weeks, then the total volume required will be 8.4L, so the recommended tank size shall be minimum 9L.
 $(200 \text{ ml/min} * 3 \text{ min/day} * 14 \text{ days} = 8.4 \text{ L})$

c. Decide how to fix the controller unit (choose one option from below possible solutions)

Option 1

Hang it on fences or to the wall



Option 2

Hang it on a water tank



a Fix the hanger to the bottle adaptor



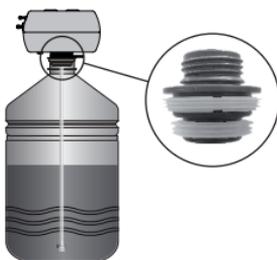
b Place the adaptor through the inlet hose until to the controller unit



c screw the adaptor tight to fix the hanger with the controller

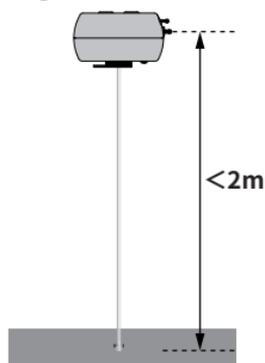
Option 3

Fix on top of the bottle

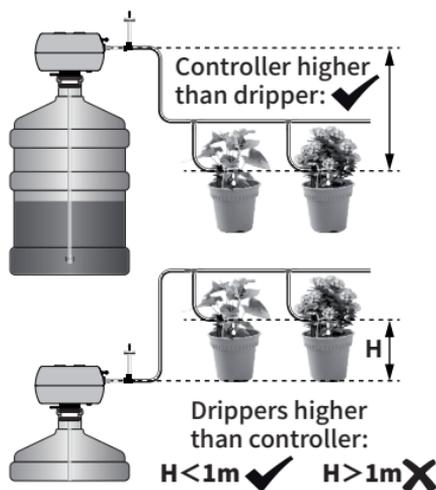


d. Key points to check for successful set up of the system

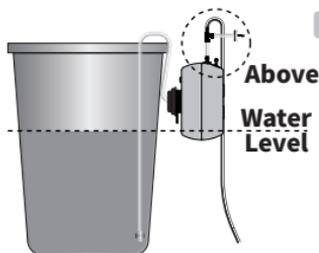
- 1 Max height for pump to deliver water is 2m, make sure the water source is less than 2m away from the pump (inlet tube length is 60cm)



- 2 The drippers shall be lower or max 1m above the pump



- 3 Make sure the tank water level is below the one-way valve. If not, turn the unit by 45 degree counter-clockwise, so the one-way valve is higher than the water level

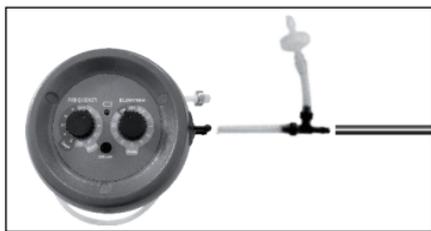


- One-way valve above water level ✓
One-way valve below water level ✗

B SET UP THE SYSTEM



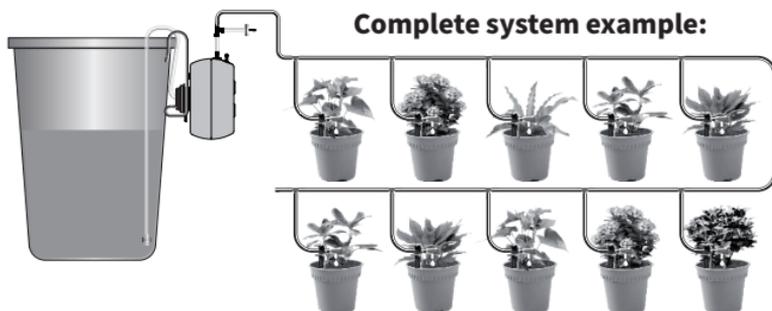
- a Cut the tube to the desired length



- b Connect the one-way valve to the controller outlet, then connect to the main tube



C Cut the tube to desired length, connect it with drippers by a barbed tee, and fix the drippers by tube holder stakes
Close the tube with a plug at end of the pipe



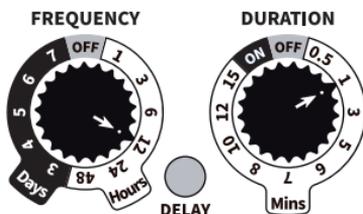
C PROGRAM THE CONTROLLER UNIT

Power on the controller unit by pressing the button for more than 7 seconds, until you see the led blinks



1. Set Frequency (determine how often you will water, at every 1, 3, 6, 12, 24, 48 hours or 3, 4, 5, 6, 7 days)
2. Set Duration (determine how long to water, for 30 seconds, 1, 3, 5, 6, 7, 8, 10, 12 or 15 minutes)

EXAMPLE 1: To water 2 times a day for 1 minute, set Frequency to 12 and Duration to 1. First watering will start 12 hours after the knobs are set.

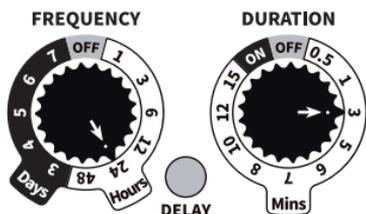




EXAMPLE 2: How to use Delay button

Now is 8:00 am, your setting is Frequency=24 and Duration=3, which means to water for 3 minutes every 24 hours, so controller will start watering at 8:00 am everyday.

If you want the controller to water at 10:00 am everyday, which means 2 hours delay of current clock time 8:00 am, just press Delay button for 3 seconds until led is constantly ON, then press again twice the Delay button, controller will then start watering at 10:00 am every 24 hours.



 Press Delay button for 3 secs

 **Batt.** Led is constantly ON

 Press X times, X means how many hours to delay. In this case, X=2

MANUAL WATERING

DURATION



1. To start manual watering, set **Duration** to **ON**
 2. To stop manual watering, set **Duration** to **OFF**
 3. When done, set **Duration** to other desired setting
- NOTE: Don't forget to turn it off to avoid over flooding**

Press this manual watering button, it will water maximum 15 minutes unless you press it again to turn it off



D PROTECT THE SYSTEM FROM DAMAGE

1. This system is only designed for indoor or outdoor use to water for the plants, and can not be used for industrial purposes which in contact with food, chemicals and pesticides.
2. Use with clean and freshwater only whose temperature shall be above 1°C and below 60°C .
3. Protect system during winter season or freezing conditions.
4. Controller unit is water resistant, NOT water proof. The controller





- must be installed above ground and NOT be submerged in water.
5. If controller doesnot work, please read through instruction to double check or contact your store service before returning to the store.
 6. If used outdoor, please make sure:
 - a. close the USB charging port seal on the controller unit tight to avoid water entry
 - b. hang the controller unit to avoid rain water stay at the front panel

