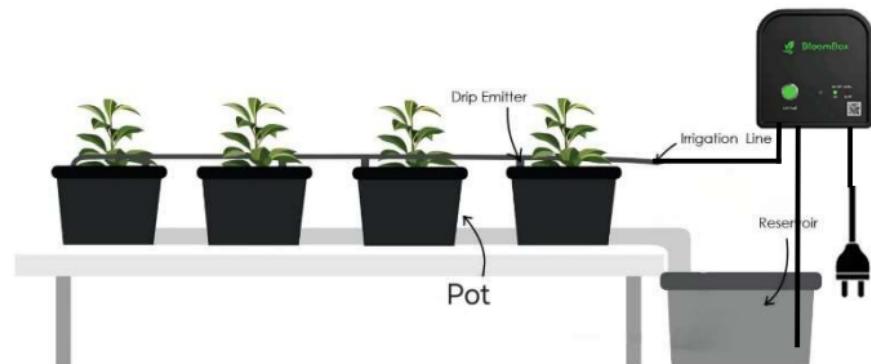


Automatic Drip Irrigation System

B.B – 01.E



Thank you for purchasing our product! For your safety and continued enjoyment of this product, always read the Instruction Book carefully before using it.

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IMPORTANT SAFEGUARDS

When using electrical appliances, basic safety precautions should always be followed, including the following:

1. READ ALLINSTRUCTIONS
- 2.Do not disassemble this product by yourself.
- 3.Do not vigorously vibrate, beat or hit the product

4. It is strictly forbidden to throw this product into fire to avoid the risk of fire or explosion.
5. This product should **NOT** be used by Children.
6. When the ambient temperature is higher than 50°C or lower than 3°C, the product may fail to work, please avoid using it.
7. It is forbidden to put the product into water.
8. Be sure to use a water filter at the water inlet pipe interface, otherwise the main unit will be at risk of damage.
9. Only use approved parts and accessories that come with **BloomBox** system. Use only **BloomBox** Drippers with this model. Using other accessories is not recommended. For replacement parts contact **BloomBox** customer service for further information.

Features

1. Perfect for balconies, patios, small gardens, and offices with a fixed power supply—simply connect and use water from any container or bucket.
2. Automatically waters your plants at preset time intervals.

3. Automatic notification in the app when the water container is empty.

CONTENTS OF PACKAGE

What's in the BOX ?		
 MAIN CONTROL UNIT + POWER ADAPTER X1	 MICRO DRIPPER X15	 10M PIPE X1
 T-BARB CONNECTOR X15	 STRAIGHT CONNECTOR X4	 SEALING END X2
 FILTER X1	 WATER SENSOR CABLE X1	 USER MANUAL

PRODUCT OVERVIEW



No.	Name of each part	Function
1	Green led	Enough Water inside the Container
2	Red led	NOT Enough Water inside the Container
3	Blue led	Pump is working
4	Touch button	Manual pump (Default 5min.s)
5	Water Inlet	Water delivered to the pump
6	Water Outlet	Water distribution to the pots
7	Water sensor socket	Water sensor Cable
8	Power Cable	Power Adapter 12 V
9	Hanging hole	Easy mount the device on the wall

SPECIFICATIONS

MODEL NO.	BB-01.E
NAME	Bloom Box "AUTOMATIC DRIP IRRIGATION KIT"
WORKING PRESSURE	0.6 BAR
WATER FLOW	~600ML/MIN(No COUPLINGS OR DRIPPERS)
WATERPROOF	IPX2
MAXIMUM WATER PRESSURE	>200KPA
WORKING TEMPRETURE	3°C - 50°C
WORKING VOLTAGE	DC 12V
POWERED BY	POWER ADAPTER 12V
MATERIAL	PLASTIC (PETG 3D PRINTED +ACRYLIC)
SCHEDULE SETTING	MOBILE APPLICATION
HOW LONG(WATERING DURATION)	1-60 MIN.
HOW OFTEN (WATERING FREQUENCY)	1-23HOURS 1-7 DAYS
MANUAL WATERING TIME	1-60 MIN.
DEVICE SIZE (L*W*H)	10.5*9.5*4.5 CM

HOW TO ASSEMBLE

**Please Watch the Video on the below link
OR Scan the QR Code**

Link:

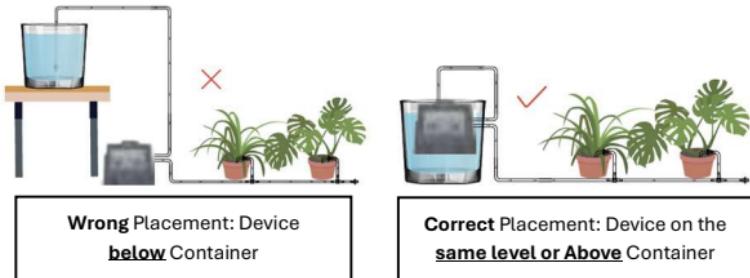
**Before you start - Plan the layout of
plants & water tubing to Bloom Box**



Step1 : its important to plan ahead before you start. Ask yourself how many plants you need to water and how big the pots are. Draw a simple diagram on a piece of paper and work out how many drippers and fittings you will need

**Determine the correct placement
(Vertical distance from Pot to Pump)**

1. Please put the pump below the water level of the Water Container to effectively avoid the siphoning phenomenon.



The Back flow of water (siphoning effect) will cause the water leaking and over-watering problem)

2. The lift length of the water pump: the vertical distance of 2-3m, because the water pipe can not be placed 100% straight, we recommend that the height of the plants than the pump should not exceed 2.5m.

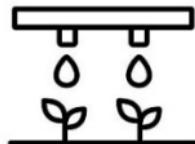


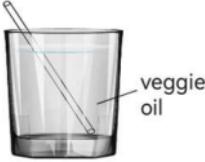
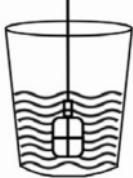
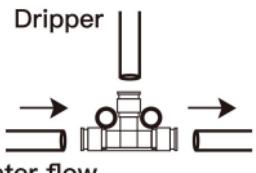
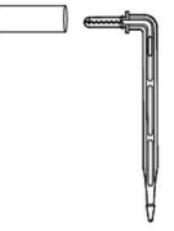
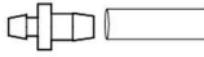
Pots Wrong Placement: Plants height exceed 2.5 Meters from device

Pots Correct Placement: Plants height within 2.5 Meters from device

INSTALLATION INSTRUCTIONS

MAIN LINE WATER TUBE.

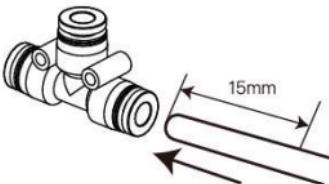
	1. Arrange plants at desired positions.
	2. Connect the hose to water inlet and outlet
	3. Lay Main Line tubing in front of plants
	4. Mark plant positions on Main Line water tube section (tape or bread ties)
	5. Cut tubing with scissors at plant location

 <p>veggie oil</p>	<p>6. Put the head of hose into hot water for 10s or Put a little veggie oil on the end of the hose before connecting</p>
	<p>7. Insert the other end of the hose connected to the water inlet of the pump into the filter, and then put it into the container.</p>
	<p>8. Insert sensor jack cable into the device and the other end into the water container</p>
 <p>Dripper water flow</p>	<p>9. Insert T-Joints into Main Line water tubing at each plant position. When you need to connect the hose while splitting a hose, you can use the T barb fitting</p>
	<p>10. When water needs to be delivered to the soil, you need to use the micro drip emitter</p> <p>Tips: Loosen the soil first, then insert the drips at least 7 cm deep, which will help water enter the plant roots.</p>
	<p>11. Connect a tubing end cap when you finish a branch installation</p>

SPECIAL REMINDER

Tubing Installation and Removal

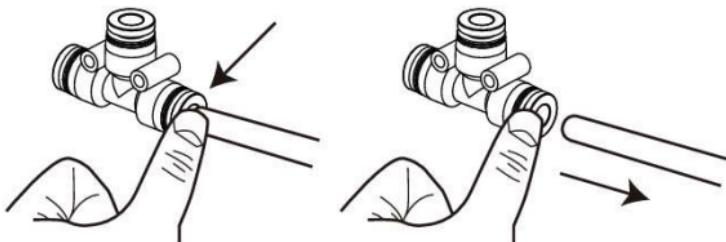
Tubing Installation



NOTE:

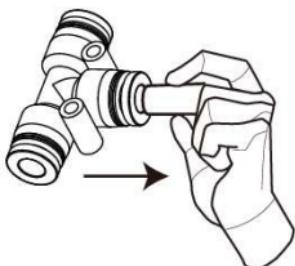
Ensure the tubing is inserted to a depth of at least 15mm

Tubing Removal



Press the blue O-ring of the connector.

Pull out the tubing while pressing the blue O-ring of the connector.



blue O-ring

The installation is correct if the tubing cannot be pulled out without pressing the O-ring.

Planting Tips

- 1.if your plant is big. Use multiple drip heads to supply enough water.
- 2.Add clean cold water for your plants irrigation
- 3.Clean or change the water inlet filter regularly prevents clogging
- 4.Water Sensor Probe should rest at the bottom of water container
- 5.Be certain your plant containers / trays are large enough to contain the programmed volume of water as water spillover could cause damage to surroundings.
- 6. It is recommended to install more than 5 drippers, if there are less than 5 drippers, the water flow will be slow, blockage may be detected.**

WATER LEVEL SENSOR

BLOOMBOX is equipped with a built-in water level sensor that detects whether the water container is empty or full.

- When the water level is low or empty, the system will send a notification in the application prompting you to refill the container.

At the same time, the indicator light will flash red. Please add water — the program will automatically resume once water is detected.

- When the water container is full, the indicator light will flash green, indicating there is sufficient water for normal drip irrigation.

Installation completed and tested

1. Press the Touch button on the device to activate the pump, then the water will pump to your plants.
2. Check if there is any leakage in the connection part of the hose. if so, it means no tightening, please keep tightening until there is no water leakage.
3. To STOP water pump, press the touch button again.
4. After testing with no problems, go to the next step: **Congratulations!** You have successfully connected and installed the drip irrigation kit. Once you confirm that everything is working properly , you can move on to the next step WiFi pairing and programming the water schedule.

Mobile – Device “Direct or WIFI” Connection Pairing

1. First-Time Setup

Your Bloom Kit starts in Access Point (AP) mode for easy configuration.

1.1 Steps:

- Power on the device (12V power supply).
- On your phone/PC, connect to WiFi network: **BLOOMBOX (password: 12345678)**.
- Open a web browser and go to: <http://192.168.4.1>.
- Follow the setup wizard:
 - Scan for your home WiFi (or enter manually).
 - Enter WiFi password and static IP (**default: 192.168.1.200**).
 - Set site name (e.g., "Garden Kit")
 - Select time zone (default: Egypt/Cairo with DST).
- Save & restart. The device connects to your WiFi.
- **Access through any web browser at your device's IP (e.g., <http://192.168.1.200>)**.

Tip: If no WiFi, it falls back to AP mode. Reset with 5 quick button presses.

2. Main Dashboard Overview

The web interface (at your device's IP) shows real-time status.

2.1 Key Elements:

- **Site Selector (Top):** Dropdown for **up to 10 Bloom Kits**. Add sites in "Manage Sites".
 - **Pump Status:** ON (**BLUE LED SWITCHED ON**) or OFF (**BLUE LED SWITCHED OFF**).
 - **Current Time:** Live 12-hour clock (e.g., "2025-11-21 2:30:45 PM"). Updates every second.
 - **Pump Controls:** Start/Stop buttons
 - **Manual Duration:** Set 1-60 min for button/web starts (default: 5 min).
 - **Sections (Collapsible):**
 - Schedules: 2 weekly timers.
 - Network: WiFi/IP/time zone.
 - Sites: Add/remove other kits.
 - Logs: View/download/clear.
-

3. Manual Pump Control

Control watering instantly.

3.1 How-To:

- **Single Pump:** Click ► Start Pump (runs for set duration, stops if low water).
- **Stop:** Click ■ Stop Pump anytime.
- **Safety:** Auto-stops if there is no water

3.2 Touch Button: Single press toggles pump (5 min default).

3.3 LEDs:

- LED1 (GREEN): ON, **Enough** water.
 - LED2 (RED): ON, **No** Water.
 - LED3 (BLUE): ON, Pump Working
-

5. Weekly Watering Schedules

Automate 2 daily timers

5.1 Setup (Per Schedule):

- **Time:** HH:MM (uses 12-hour display, but input 24-hour).
- **Duration:** 1-60 min.
- **Days:** Check Sun-Sat checkboxes.
- **Enabled:** Toggle on.
- Click  **SAVE #1** (or #2).

5.2 How It Works:

- Run daily at set time if water is sufficient and pump off.
- Logs each run (duration, Starting time, etc.).
- Example Default:
 - #1 at 6:00 AM (Mon-Fri, 5 min);
 - #2 at 6:00 PM (Sat-Sun, disabled).

6. Managing Multiple Sites (Up to 10)

Control 10 Bloom Kits from one dashboard.

6.1 Add a Site:

- Click  **Manage Sites**.
- **Site 1**: Enter name (e.g., "Backyard Kit") and IP (e.g., **192.168.1.201**).
- Click **Add Site** (saves to Dropdown list).
- **Site 2**: Enter name (e.g., "Balcony Kit") and IP (e.g., **192.168.1.202**).
- Click **Add Site** (saves to Dropdown list).

6.2 Switch Sites:

- Top dropdown: Select site → jumps to its Settings.
- Remove: Click **Remove** next to site (confirms).

Max: 10 total (including local). Stored permanently.

7.Time Zone & Clock Settings



Accurate time for schedules/logs (12-hour AM/PM display).

7.1 Time Zone:

- In **Network Settings**, select from list (e.g., Egypt, US Eastern).
- Handles DST auto (e.g., +1 hour in summer).
- Save & restart applies.

7.2 Manual Clock Set (in case there is no network):

- Click **Set Clock**.
- Pick date/time (YYYY-MM-DDThh:mm format).
- Click **Save Time** – updates RTC & system clock.
- Syncs to NTP hourly if WiFi connected.

Display: Shows "YYYY-MM-DD h:mm:ss AM/PM" (e.g., 2025-11-21 2:30:45 PM).

Note: recommended to have network connected with the device.

8.Physical buttons controls

Touch button.

8.1 Functions:

- **Single Press:** Toggle pump (starts 5 min if off & water OK; stops if on).

- **5 Quick Presses** (<1 sec apart): Factory reset WiFi (blinks Blue LED, restarts to AP mode).
-

9. Logs & Reports

Track every irrigation.

9.1 View Logs:

- Click  **Manage Logs** to View Logs.
- **Table:** Type, Timestamp, Duration, Network, Details.
- Latest first; monthly auto-clear.

9.2 Download/Clear:

- **Download CSV:** Saves full log as file.
- **Clear:** Resets log (keeps header).

Log Example: "Irrigation, Garden, 2025-11-21 2:30:45 PM, 5.00, 25, -45, Source: schedule_1, Reason: duration"

10. WiFi Scanning & Network Config

Advanced WiFi tools.

10.1 Scan Networks :

- In AP mode (192.168.4.1), click  **Scan WiFi Networks**.

- Lists SSIDs by signal (bars: excellent/good/fair/weak/poor).
- Click **Select** to pre-fill SSID.

10.2 Network Settings :

- **Direct connection:**
 - Always available (**BLOOMBOX/ Password:12345678**) for reconfiguration.
- **Local Network Settings:**
 - **SSID/Password:** Enter & save/restart.
 - **Static IP:** e.g., 192.168.1.200

Note: To Reset Network Settings: Clears WiFi, restarts to AP mode.

Customer Service

EMAIL: INFOR.BLOOMBOXEG@GMAIL.COM

SCAN FOR MORE INFORMATION



PROUDLY MADE IN EGYPT

Bloom Kit

Troubleshooting

If you encounter issues with your Bloom Kit, try these steps before seeking further help. Common problems and solutions are listed below.

1. Device Not Connecting to WiFi

- **Symptoms:** Can't access the web interface via the configured IP, or the device stays in Access Point mode.
- **Solutions:**
 - Verify WiFi credentials (SSID and password) in the Network Settings section. Re-enter and save them.

- Check signal strength using the "Scan WiFi Networks" feature—ensure the network is strong (at least "good" signal).
- Reset network settings via the web interface (this reverts to Access Point mode: SSID "Bloom Box", Password "12345678"). Connect to it and reconfigure.
- Ensure no interference from other devices or thick walls. Restart your router if needed.
- If using static IP, confirm it doesn't conflict with other devices on the network.

2. Pump Not Starting or Stopping

- **Symptoms:** Pump doesn't turn on manually/scheduled, or doesn't stop when expected.
- **Solutions:**
 - Check water status—pump won't start if level is low (refill tank and ensure sensor is clean/submerged properly).

- Test manual control via the web interface. If it works there but not via schedules, verify schedule settings (time, days, enabled status).
- For physical button: Press once to toggle (defaults to 5 minutes). If unresponsive, adjust touch sensitivity in the web interface.
- Ensure no low water emergency shutdown occurred—check logs for details.
- Power cycle the device (unplug/replug) to reset any temporary glitches.

3. Touch Button Not Responding

- **Symptoms:** Button presses don't toggle the pump or register.
- **Solutions:**
 - Adjust sensitivity slider in the web interface (lower values = more sensitive; start at 40 and test).
 - Avoid touching with wet hands or in humid environments, as this can cause false readings.
 - Check for electrical interference (e.g., nearby power lines or devices). Move the kit if possible.

- To reset WiFi via button: Press 5 times quickly—LED will flash to confirm.
- Clean the touch area and ensure no debris or moisture buildup.

4. Time or Schedule Issues

- **Symptoms:** Schedules don't trigger, current time is wrong, or DST not applying.
- **Solutions:**
 - Verify time zone in Network Settings—select the correct one and restart.
 - Manually set time using the "Set Clock" feature if NTP sync fails (requires WiFi).
 - Ensure WiFi is connected for NTP updates. If offline, the RTC module provides backup time.
 - Check for valid time (year > 2020)—if not, sync with NTP or set manually.
 - Schedules use local time; confirm days/hours match your expectations.

5. Logs Not Appearing or Download Failing

- **Symptoms:** Empty logs, can't view/download, or errors in the web interface.
- **Solutions:**

- Clear logs via the Manage Logs section and test a new event (e.g., start/stop pump).
- Ensure SPIFFS is mounted (restart device). If issues persist, re-upload firmware.
- Logs auto-delete monthly—check if it's a new month.
- For network events, confirm WiFi stability; disconnects are logged automatically.

6. LED Indicators Not Working

- **Symptoms:** LEDs don't light up as expected.
- **Solutions:**
 - LED1 (Green): On if water detected; off if low.
 - LED2 (RED): On if no water; off if OK.
 - LED3 (Blue): ON during resets or indicates pump active.
 - Check wiring/pins in hardware setup. Power cycle to test.

7. Web Interface Not Loading

- **Symptoms:** Can't access via IP or AP mode.
- **Solutions:**
 - Use the correct IP (check via serial monitor or router). In AP mode, use 192.168.4.1.
 - Clear browser cache or try incognito mode.
 - Ensure device is powered and not in a boot loop (check serial output if possible).

- If stuck, reset to AP mode via button (5 quick presses) or network reset.

8. General Tips

- **Restart Device:** Unplug power for 10 seconds and replug.
- **Hardware Check:** Inspect connections for pump, sensor, LEDs, and touch button.
- **Support:** If unresolved, note error details/logs and contact support (or check community forums).

Customer Service

EMAIL: INFOR.BLOOMBOXEG@GMAIL.COM

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