

PlantMate

Automatic Watering Cube

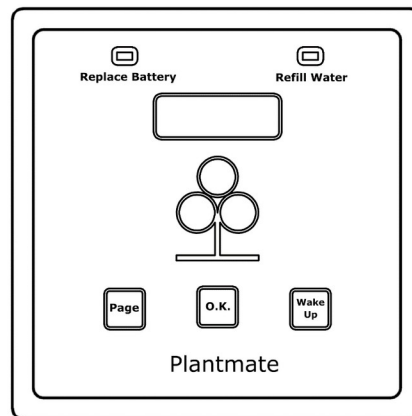
USER GUIDE

Model: PMWC-01 • Firmware V06.3

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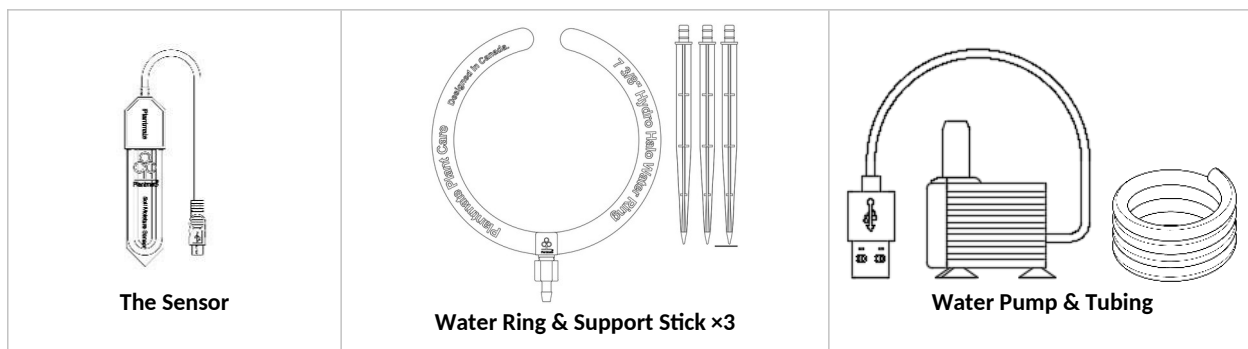
Scan to watch how to use the Cube on video



New in V06.3: Up to three watering runs • 15-second soil soaking • target +5 pump stopping • safer calibration

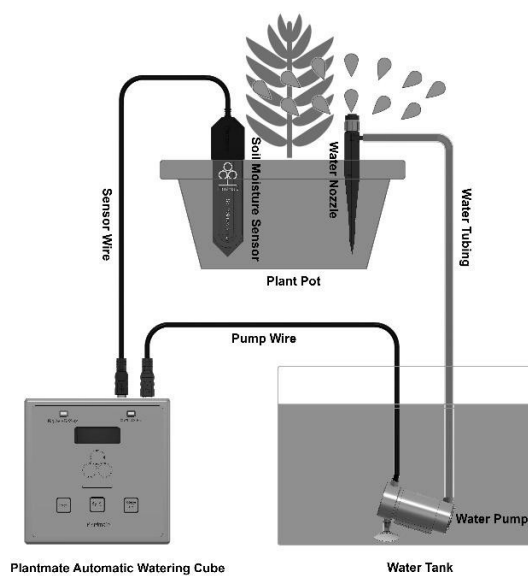
What's in the Box

1. PlantMate Automatic Watering Cube
2. PlantMate Soil Moisture Sensor
3. Water Pump
4. Water Tubing
5. Halo Water Ring and Support Sticks (×3)
6. User Guide

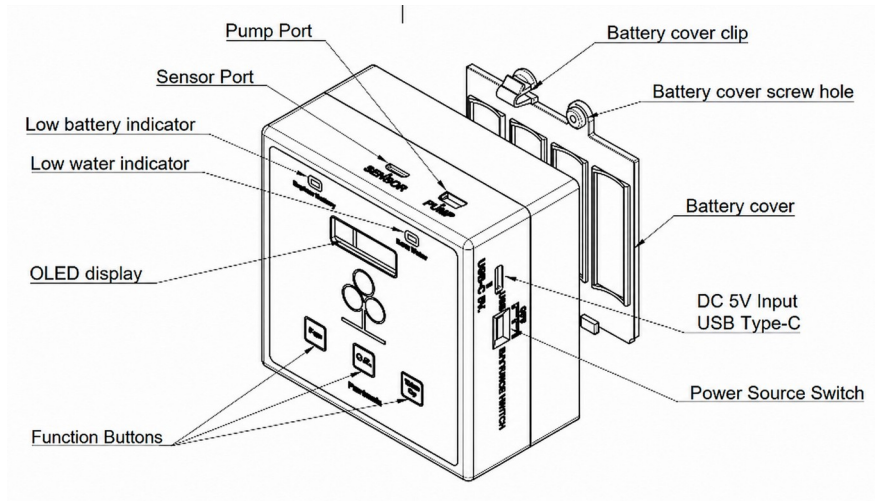


Not included: four AA 1.5 V alkaline batteries; USB-C cable and regulated 5.0 V USB adapter; water reservoir or container. Provide either the batteries or the USB-C power accessories, plus a suitable water container.

The Illustration



Notable design features



✓ Get Things Ready

- Have a cloth handy for wiping spills if necessary.
- Ensure you have a water container that can accommodate the pump.
- Check that the power switch is in the **OFF** position. Insert 4 × AA batteries into the Cube, or connect a USB-C cable to a USB power source.
- Connect the water tubing to the pump and the water ring.
- Connect the moisture sensor cable to the Sensor Port on the Cube.
- Connect the pump cable to the Pump Port on the Cube.

Steps

1. Insert the 3 support sticks into the water ring, then place the ring into the soil.
2. Insert the moisture sensor into the soil, **close to** the water ring.
3. Place the pump into the water container.
4. Turn on the system by selecting the power source on the power switch.

✦ First-Time Setup Wizard

The first time a brand-new (or factory-reset) Cube is powered on, it automatically launches a guided setup wizard after the PlantMate logo. Just follow the screens:

Welcome	WELCOME to PlantMate! [OK] to SET UP
Press [OK] to begin setup.	

Step 1 of 2

STEP 1 of 2
Calibrate Sensor
PAGE=START OK=SKIP

Press **[Page]** to start sensor calibration (recommended), or **[OK]** to skip. See the *Calibration* section for the two capture steps.

Step 2 of 2

STEP 2 of 2
Set Water Target
PAGE=CHANGE OK=SAVE

Press **[Page]** repeatedly to choose your target moisture level (we recommend **92%**), then press **[OK]** to save.

All Set

ALL SET!
SETUP COMPLETE
READY FOR YOUR PLANT

Setup is complete. The wizard will not appear again - the Cube remembers it has been configured, even with the power off.



OLED Display - 6 Screens

If the screen doesn't light up, press the **[WakeUp]** button to wake the Cube. Press **[OK]** on the main screen to step through the settings screens. Screens automatically return to the main screen after 10-30 seconds of inactivity.

Screen 1 Status

BATTERY: 80% []
MOISTURE: 75%
DRY [OK] NEXT

Main screen - battery level, real-time moisture, and soil status.

The soil status label (**VERY DRY** / **DRY** / **GOOD** / **WET**) tells you at a glance how your plant is doing. When running on wall power, the first line shows **USB-C POWER** instead of a battery level. Press **[OK]** to go to Screen 2.

Screen 2 Moisture

MOISTURE LEVEL: 92%
[Page] CHANGE [OK] SAVE

Target moisture setting. Range 0% to 98% in 2% steps (recommended: **92%**). The Cube waters whenever soil moisture falls below this target. Press **[Page]** to change, **[OK]** to save (a ✓ checkmark confirms) and move to Screen 3.

Screen 3 Water Flow	WATER FLOW: High [Page] CHANGE [OK] SAVE
Pump speed setting. Three levels: Low, Medium, High (recommended: High). Press [Page] to change, [OK] to save and move to Screen 4.	
Screen 4 Water Time	WATER TIME: 8 SEC. [Page] CHANGE [OK] SAVE
Watering duration per run. Choose 2, 4, 6, 8, 10, 12, 14, 16, 18 or 20 seconds (recommended: 8). Each automatic watering sequence may use up to three runs, with a 15-second soak and sensor check after every run. Press [Page] to change, [OK] to save and move to Screen 5.	
Screen 5 Calibration	CALIBRATION? [Page] START [OK] SKIP
Sensor calibration. Press [Page] to start or [OK] to skip. The Cube validates the dry and wet readings before saving them.	
Screen 6 Info	LAST WATERED: V06.3 NOT YET PLANTMATE.CA [OK] EXIT
System information & Last Watered tracker. Shows "NOT YET" before the first confirmed successful watering; afterward it shows how long ago watering occurred, plus the firmware version. Settings remain stored with the power off. Press [OK] to return to the main screen.	

Calibrating the Moisture Sensor

Calibration teaches the Cube what “completely dry” and “fully wet” mean for your sensor. Do it during first-time setup and any time readings seem off.

1. Go to Screen 5 and press **[Page]** to start.
2. **STEP 1 - DRY:** Hold the sensor in the air (completely dry). The live VALUE reading is shown on the display. Press **[OK]** to capture; a ✓ checkmark confirms saving.
3. **STEP 2 - WET:** Place the sensor in a cup of clean water. Press **[OK]** to capture; a ✓ checkmark confirms saving.

Smart correction: if the two steps are performed in the wrong order, the Cube automatically swaps the values. **Safety check:** if the readings are too close to provide safe calibration, the Cube displays “CALIBRATION ERROR - VALUES TOO CLOSE.” Press **[OK]** and repeat the dry and wet steps.

Watering in Action

When soil moisture drops below your target while the main screen is active, watering starts automatically. Each sequence uses up to three pump runs and stops early if the target is reached. The Cube soaks and measures the soil after every run:

Watering run	WATERING RUN 1/3 Now: 78% Target: 92%
Live watering display. Shows the run number, current moisture and target. Stable stop rule: the pump stops early after three consecutive readings reach 5 percentage points above the target (maximum 100%); the selected per-run time remains the hard limit. Emergency stop: press [OK] or [Page] during pumping or soaking. The Cube confirms “WATERING STOPPED - No changes saved,” and does not reset Last Watered.	
Soaking	RUN 1/3 COMPLETE SOAKING: 15 SEC ANY BTN TO STOP
Fifteen-second soak. After each run, the pump and sensor turn off while water spreads through the soil. The Cube then measures against your normal target. If it is still below target, the pump may run again, up to three times. It will not begin a fourth run until the next scheduled wake-up.	
Done	WATERING DONE! Soil now at 93% GOOD
Confirmation screen. After the sensor confirms a moisture increase, the Cube shows the new level and soil status for 2.5 seconds, records the successful watering and resets the Last Watered timer.	
Refill	REFILL NEEDED! CHECK WATER TANK PRESS [OK] to CONT.
Smart refill detection. When a watering sequence ends with less than a 2% moisture increase, the Cube warns that the tank may be empty or the tubing may be blocked. The message stays visible for four seconds; then the OLED turns off to save power while the blue LED keeps flashing. Refill the tank, check the tubing and press [OK] to continue.	

Sleep Mode & Power

- After about 15 seconds without button presses, the Cube shows a short “**SLEEP 6 HOURS**” countdown, turns the display off, and enters a deep sleep to save battery.
- While asleep the Cube is completely inactive - it will **not** water your plant, even if the soil is dry. It wakes on its own about every 6 hours to check the soil, water if needed, and go back to sleep.
- Press [**WakeUp**] at any time to wake it immediately and check status or change settings.
- Power options: Four matching AA 1.5 V alkaline batteries (about one year of normal use) or a USB-C cable with a 5.0 V adapter. On USB power the main screen shows **USB-C POWER**.

LED indicators

- **Blue LED flashing:** refill or water-flow check needed; it continues until [**OK**] is pressed.
- **Red LED flashing:** at 5% or lower, batteries are too low for watering; replace all four AA batteries together.

Low-battery warning: when the displayed battery level reaches 5%, the Cube prevents watering and shows "LOW BATTERY! REPLACE 4x AA" for four seconds, turns the OLED off and keeps blinking the red LED. Press [**OK**] to turn the display back on and review settings. Watering remains paused at 5% or below until fresh batteries are installed, and all settings stay safely in memory.

Safety & Care

- For indoor use. Keep the Cube, USB adapter and connectors dry; only the pump, tubing and water ring may contact water.
- Turn power OFF before installing parts, replacing batteries or handling the tank. Use only a regulated 5.0 V USB adapter.
- Use four matching alkaline AA batteries. Do not mix brands, ages or chemistries; replace all four together and remove leaking batteries immediately.
- Keep the pump submerged in clean water, check tubing for leaks or kinks, and place the tank where a spill cannot damage furniture or electronics.

Frequently Asked Questions

How do I check status or change settings?

Press the **[WakeUp]** button, then use **[OK]** to step through the screens.

Why can't I change settings while the pump is running?

Settings are locked during watering. Press **[OK]** or **[Page]** during a pump run or 15-second soak to stop the sequence. The display confirms that watering stopped and no changes were saved.

What kind of battery is needed, and how long does it last?

Use four matching AA 1.5 V alkaline batteries and replace all four together. Duracell or Energizer Max batteries are recommended. A fresh set is designed to last about one year under normal use; actual life depends on battery quality, pump frequency and the selected pump time.

Can I use wall power instead of batteries?

Yes. Connect a USB-C cable to a 5.0 V USB adapter. The main screen will show "USB-C POWER".

Why is the device doing nothing in sleep mode?

That's normal - when asleep, the Cube is completely inactive and will not water, even if the soil is dry. It wakes about every 6 hours to check the soil. Press **[WakeUp]** to wake it sooner.

Why does water only flow well on the 'High' flow setting?

We recommend keeping Water Flow at High. If the tubing is long, or the plant pot sits much higher than the water tank, the pump may struggle at lower speeds and the flow can look weak or stop entirely.

The device says "REFILL NEEDED" but the tank is full?

The Cube shows this when a watering sequence produces less than a 2% moisture increase. Check that the tubing is not kinked or blocked, the pump is submerged and the sensor is positioned **close to the water ring**. The OLED turns off after four seconds to save power, but the blue LED continues flashing. Press **[OK]** after correcting the problem.

How do I recalibrate the sensor?

Go to Screen 5 and press **[Page]**. Capture the sensor dry in air, then fully wet in clean water. The Cube corrects swapped steps automatically. If it reports "VALUES TOO CLOSE," press **[OK]** and repeat both steps with the sensor completely dry and fully wet.

How do I know when my plant was last watered?

Open Screen 6 (Info). The **Last Watered** line shows "Not yet" before the first confirmed successful watering. After that, it shows "Just now," hours ago or days ago, and resets only after the Cube confirms another successful moisture increase.

Will I lose my settings if the power goes out?

No. All settings, calibration values, and the watering history are stored in internal memory and survive power loss and battery changes.



Warranty & Support

Your device is covered by a **1-year limited warranty**. Keep your proof of purchase and contact PlantMate support for service.

Need help? plantmateinfo@gmail.com • www.plantmate.ca

Latest guides: plantmate.ca/users-guides/ | Setup videos: scan the QR code below.



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