

# DIY Wicking Bed Controller

## User Manual



DIY Wicking Bed Controller

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## **1. Introduction to the DIY Wicking Bed Controller**

The Wicking Bed Controller automatically maintains the water level in the wicking bed between a low level and the overflow level. The gap between the low level and the overflow level is 28mm. You can leave your wicking bed unattended for months on end.

The water supply for the Wicking Bed Controller can come from a mains pressure tap or directly from a rainwater tank.

The overflow level for the wicking bed can be adjusted by moving the bucket up or down.

If you have more than one wicking bed you can use the same Wicking Bed Controller for all the beds. Connect the Wicking Bed Controller to one of the beds and connect all the beds together using the drain pipes (all wicking beds should have the same overflow level).

The DIY Wicking Bed Controller can be purchased online from the Measured Irrigation website:

<https://www.measuredirrigation.com/product-page/diy-wicking-bed-controller-free-postage-within-australia>

## 2. Instructions for assembling the DIY Wicking Bed Controller

The controller includes everything that you need except for a bucket. The components are as follows:

- Cylindrical float
- Valve assembly with inlet pipe
- Outlet pipe
- Drain pipe



Components of the DIY Wicking Bed Controller

Step 1. Choose a suitable bucket and position it next to the wicking bed. The top of the bucket should be higher than the overflow level of the wicking bed.



Choose a suitable bucket

Step 2. Drill two 20mm holes opposite each other in opposite sides of the bucket. The centres of the holes should be 72mm lower than the overflow level of the wicking bed. Drill a 20mm drain hole in the side of the bucket near the bottom.



Drill 2 holes in opposite sides of the bucket



Three holes in the bucket

Step 3. Remove the inlet adaptor and the round plastic nut from the inlet pipe (connected to the valve assembly). Insert the inlet pipe through one of the holes in the bucket and reattach the round plastic nut and the inlet adaptor.



Insert the inlet pipe through one of the holes



Reattach the round plastic nut and the inlet adaptor

Step 4. Remove the back nut and washer from the outlet pipe. Insert the outlet pipe through the other hole in the bucket and reattach the washer and the back nut.



Insert the outlet pipe through the other hole and reattach the washer and the back nut



Connect the inlet pipe to the valve assembly

Step 5. Connect the outlet pipe to the valve assembly.

Step 6. To prevent water leaking from the bucket, tighten the internal back nuts against the external round plastic nuts.



Tighten the internal back nuts against the external round plastic nuts

Step 9. Connect the water supply (pressurised or gravity feed) to the inlet pipe on the bucket.



Connect the water supply to the inlet pipe on the bucket

Step 10, Use a tube to deliver water from the outlet pipe on the bucket to the inlet pipe of the wicking bed.



Use a tube to deliver water from the outlet pipe on the bucket to the inlet pipe of the wicking bed



Use a tube to deliver water from the outlet pipe on the bucket to the inlet pipe of the wicking bed

Step 11. Adjust the float shaft (clear plastic tube) so that it is vertical. Be very careful to avoid putting any stress on the fragile plastic float shaft.

Step 12. Slide the cylindrical float shaft over the float shaft.



Slide the cylindrical float over the float shaft

Step 13. Remove the elbow from the drain pipe. Inset the drain pipe in the drain hole in the bucket and reattach the elbow.

Step 14. Connect the drain pipe on the bucket to the drain pipe on the wicking bed.



Inset the drain pipe into the drain hole in the bucket and reattach the elbow



Connect the drain pipe on the bucket to the drain pipe on the wicking bed

Step 15. Turn on the water supply and check that there are no leaks into the bucket.



### **3. Key features of the DIY Wicking Bed Controller**

1. Completely automatic
2. No electricity is needed (no batteries, no solar panels, no solenoids, and no electronics)
3. Use for gravity feed or pressurised water supply
4. Responds appropriately to an unexpected heat wave
5. Simple and low tech, easy to assemble and fewer things to go wrong
6. A single controller can control multiple wicking beds
7. Leave your wicking beds unattended for months on end