

## **ELECTRONIC RESEARCH GROUP**

P.O. Box 536 Halfway House 1685      Tel / Fax +27 11 314-1632

Email: [erg@erg.co.za](mailto:erg@erg.co.za)

Web Site: [www.erg.co.za](http://www.erg.co.za)



# **Biological Dosing Unit**

## **Installation Guide**

### **Description**

The Bio-Dosing Unit is used for keeping drainage systems free of build up and blockages by dosing a preset amount of enzyme at preset intervals.

It is suitable for dosing a controlled amount of enzymes or other products into drains and grease traps.

The dosing interval can be set from 8 to 24 times a day, and the volume to be dosed can also be adjusted.

The enzyme material is dispensed by a peristaltic pump which eliminates the need for a foot valve, and can work with long lengths of piping and viscous fluids.

## **The kit contains:**

- 2 x Rawlplugs and screws - for mounting the box to the wall.
- 1 x Cable gland - to clamp the electric cable where it enters the box.
- Cable ties - for strapping the chemical piping and electric cable.

## **You will need the following:**

- Electric hammer drill with a 6 mm masonry bit.
- A length of three core cabtyre electric cable with a suitable plug.
- A small and a medium size flat point screw driver.
- Diagonal cutting pliers (side cutter).
- A measuring beaker.
- 6mm or 1/4 inch rigid tubing
- For a neat and easy installation a Hot Glue Gun is worthwhile.

## **Installation Guide**

### **Mounting the box**

Note that the box has mounting holes provided at the top of the base.

The two + marks at the top of this sheet are the drilling marks for mounting the box.

Use them as a template to drill two 6 mm holes for the rawlplugs.

NOTE: This on-line manual does not contain a template: use the printed manual supplied with the unit.

Screw the box to the wall using the supplied rawlplugs.

### **The Enzyme Container**

Locate the enzyme container not more than two meters below the dosing unit.

## **Tubing**

Fit the chemical tubing by inserting it to a depth of at least 15 mm into the tubing which projects from the pump. The arrows indicate the direction of flow.

Tighten a cable tie around each chemical pipe inside the box and located flush against the box wall. This will help prevent the weight of the piping from hanging on the pump tubing. This is **VERY** important to ensure long tube life and accurate dosing.

Using the remaining cable ties, strap the chemical piping and electric cable as neatly as possible. Use the electric cable to support the weight of the chemical tubing.

Ensure that the chemical pipe reaches the bottom of the enzyme container. Cut the end of the pipe at a slight angle to prevent it forming a seal against the container.

No foot-valve is needed as the pump is a positive displacement unit and will prevent any flow unless the pump is running.

## **Electrical Connections**

The Live and Neutral wires are connected to the green circuit board plug using the two open positions alongside the orange pump wires. Connect the Earth to the connector which has two green wires.

## **Setting the Dosing Interval**

On the PC board is a row of 8 pairs of pins and a jumper plug which can be placed over a pair to select the time interval between doses.

## **Prime / Reset Push-button**

Each push will run the pump for the selected time and will also reset the dosing interval timer to zero, i.e.: the timed interval will start from the beginning after pushing the button.

## Setting the Dosing Volume

Push the 'Prime' pushbutton repeatedly until the tubing is filled with liquid.

Push 'Prime' and catch the discharge in a measuring container.

The dosing volume is adjusted by means of the small blue rotary adjuster located to the left of the Prime / Reset pushbutton. Turning clockwise gives more pumping time and therefore more volume.

## Pump Mounting in the Box

The pump is held in place by a pump mounting bracket which is screwed to the base of the box.

If it is necessary to remove the pump proceed as follows:

1. Switch off the mains power and pull out the plug.
2. Slide the pump towards the electrical connections on the pump body.
3. Pull the pump just far enough out of the box to disconnect the electrical connections.
4. The pump can now be removed.

Reverse the steps to reinstall the pump.

## Tips & Hints

- When using the hot glue gun, run a bead of hot glue along the surface and then place the cable or pipe on the bead.
- Do not contact the chemical pipe with the hot tip of the glue gun.
- You are very welcome to phone us if you have problems with the installation.