

A600
UNITED
LABORATORIES
CLEAR DRAIN DOSING SYSTEM



Overview

The United Laboratories Clear Drain Dosing System is a chemical dispensing system with a programmable timer designed primarily for safely feeding chemicals from a 6-gallon deltangular package into drains. As a system, the unit is placed over the opening of the deltangular so it can sit steadily on the floor, under a sink or counter near the drain. The timer is programmable to run up to 8 events that can be set for a specified amount of time to run the pump.

Specifications

Packing List

Pre-assembled you will receive:

- 1 each PUMP PAL Metering Pump Stand (A413)
- 1 each SureFlo Metering Pump (A2015MP)
- 1 each SureFlo Power Supply (A2015PS)
- 1 each SureFlo Drain Feed Tubing (A2015FT)
- 3 each Mounting Screws (A41315MS)
- 3 each Hex Nuts (A41315HN)
- 1 each Product Feed Tube with Weighted Assembly (A855T/A855SN)
- 1 each Vented Cap (PCP26)

Operational Requirements for Metering Pump

For indoor use only.

Main Power: 120-240 VAC 50-60 HZ

Case Material: ABS

The integrity and operational characteristics of this unit are not guaranteed outside the above mentioned parameters. Use of this unit outside of these parameters nullifies warranty.

Installation

The Clear Drain Dosing System is nearly ready for use straight out of the box. When choosing an installation site, take into account the proximity to the drain and power source for the unit.

The pump itself is already installed on United's patented PUMP PAL Metering Pump Stand which is balanced to stand on its own, on a flat surface. In addition, the stand is built with an opening that sits over the opening of the deltangular unit containing the product which provides added stability.

1. Stand the product container so it sits with the handle and cap facing up. Remove the cap that comes with the product container.
2. Place the circular opening at the top of the metering pump stand over the opening on the product container.
3. Insert the product feed tube from the pump, with its filtered and weighted end, into the product container, making sure the tubing reaches the bottom of the container.
4. Tighten the cap that is included on the product feed tube to the product container.
5. The other tube included with the unit can then be fed into the drain. You may cut this tube to your desired length as needed.
6. Insert the connection on the included Power Supply into the bottom of the metering pump and then plug into an appropriate power outlet.



The design of the assembled unit provides plenty of stability for placement on the floor, under a sink or counter.

Operation

Programming the Dispenser

The Clear Drain Dosing System ships from United's warehouse pre-programmed to meet the demands of most of our Clear Drain customers. That is to say, the timer is set to feed product at various times of the day. Based on the feed rate a 6 gallon deltangular of drain maintenance product will last 5 weeks. The initial programming will be held in the unit for 200 hours, allowing time for shipment and installation.

However, should you need to reprogram the unit, simply remove the pump from the Clear Drain Dosing System and follow the directions below.

To remove the pump, press back on the lever at the top of the pump itself. Then lift the pump up and out of the housing. The control buttons are found on the back of the pump as shown below.



Reset the timer before programming.

Note: If a mistake is made during the programming, simply push the reset button and start over.

A. Set the Time and Day

When the unit arrives the display may be blank or may display a time. Plug the unit into an outlet before programming.

NOTE: Make sure that the bar in the bottom of the digital display is over the word OFF – if it isn't, press the MANUAL button until it is.

1. To set the time and day of the week, hold the CLOCK button in and press the day, hour, and minute buttons until the proper day, hour, and minute is achieved.



Note: The days will be displayed across the top of the digital screen and will advance as the button is hit. The time must be set to AM and PM which is shown in the left top corner of the display. By holding in the Day, Hour, or Minute button for three seconds, the setting will continue to advance until the button is released.

B. Programming the Dispensing Events:

Up to 8 independent dispensing events can be programmed.

1. Press and release the TIMER button to enter the programming mode. The event number will be in the bottom left corner. **Note: To program a full event, a pump start time and stop time will have to be programmed.**

NOTE: THE PUMP WILL RUN FOR 23 HRS 59 MIN IF A START TIME IS SET BUT NOT A STOP TIME.

- a) Press the “DAY” button until all of the days are shown that the first event should be turned on.
 - b) Press the “HOUR” and “MINUTE” buttons until the time is reached when the pump should turn on.
- Note: AM or PM in top left corner of screen.**

2. Press and release the TIMER button again to move to programming the pump to turn off.
 - a) This program will be used to turn the pump off. Use the pump’s output to determine how long the pump must run to dispense the desired amount of product.
 - b) Press the “DAY” button until the days match the days programmed in the pump on portion of the programming.
 - c) Press the “HOUR” and “MINUTE” buttons until the desired run time is reached.
3. To program another event, press TIMER button again for Programs 2-8 and follow Programming Steps 1 and 2 above. **Every ON function needs a corresponding OFF function in order to turn the pump off.**
4. When finished programming, push the CLOCK button again to return to time of day (normal) display.

The length of time each event is programmed to dispense for will control how much product is dispensed into the drain. Refer to the following chart for guidelines:

Time	ml Pumped	Ounces Pumped
1 min.	110 ml	3.5 oz.
3 min.	~295 ml	~10 oz.
5 min.	550 ml	17.5 oz.
6 min.	~590 ml	~20 oz.
10 min.	1100 ml	35 oz.
20 min.	2200 ml	70 oz.

C. Priming the Pump

Always prime the pump when a new container of product is installed.

1. To prime the pump, press the MANUAL button – the bar at the bottom of the display will move from right to left from OFF to AUTO to ON. When it reaches ON, the pump will run until the MANUAL button is pressed again.
2. Use this position to prime the pump as well as to calibrate the pump. To stop priming press the MANUAL button – the bar at the bottom of the display will move from left to right from ON to AUTO to OFF.

Note: The unit may continue to run in the AUTO position and the MANUAL button must be pressed until the bar at the bottom of the display is over the OFF position to stop the unit fully.

D. Setting into Programmed Position

Press the MANUAL button until the bar in the bottom of the display moves from the OFF to the AUTO position. If the unit is not in the AUTO position, the program will not be executed.

Specifications: When the unit is powered the first time, the rechargeable display back up battery begins charging. When fully charged it provides approximately 200 hours of reserve time before the display and program may be lost. If the unit loses power, it will not lose the program for 200 hours, but *it will not run the pump from the rechargeable display back up battery and will not dispense chemical.*

If the unit becomes unplugged from the wall for a short amount of time, plugging the unit back in will not affect the programming done to the unit.

Troubleshooting

Symptom	Probable Cause	Remedy
Pump running when it is not programmed to.	<ol style="list-style-type: none"> 1. The program, date, and time are set wrong. 2. Did not program an off time. 	<ol style="list-style-type: none"> 1. Check the program, date, and time to make sure they are set properly. A common mistake could be where an AM is supposed to be a PM. 2. Check the programs for an off time for each programmed event.
Pump is not priming like it should be or not holding a prime.	<ol style="list-style-type: none"> 1. Hole in the tubing from the chemical container to the pump head. 2. Hole in the squeeze tube in the pump head. 3. Pick up tubing is not sealed to the squeeze tube fitting. 4. The locking mechanism on the gallon housing is not tightened securely. 	<ol style="list-style-type: none"> 1. Check the tubing from the chemical container to the pump head for leaks by feeling the tubing for chemical that has leaked out. Replace the tube if necessary. 2. Replace the squeeze tube after inspecting it for a possible hole or leak. 3. Tighten the nuts on the squeeze tube fitting. 4. Make sure the blue locking mechanism is firmly in place, coupling the product container to the pump feed tube.
Pump over feeding (using too much chemical). Pump under feeding (not enough chemical).	<ol style="list-style-type: none"> 1. The programs entered in the unit were set wrong. 	<ol style="list-style-type: none"> 1. Check the program(s) to make sure they are set properly. A common mistake could be where an AM is supposed to be a PM.
Pump runs constantly.	<ol style="list-style-type: none"> 1. Did not match the Event #, Days or AM/PM for the off time. 	<ol style="list-style-type: none"> 1. Check the programs for an off time for each program; make sure the events are matched up.