



Kitchen



Proportioners



Laundry



Industrial

Beta

DR-2000 Customer Benefits



- Security; *Tamper resistant programming protects your customer and you!*
- Low maintenance, long battery life & long squeeze tube life; *fewer service calls!*
- Compact, Plastic, Water Resistant housing; *fits in small spaces and won't be damaged by splash or humidity.*
- Flexible dosing; *can be used to fill a variety of different needs including misting applications.*
- Battery powered option; *allows you to install even when line power is not available.*
- Impossible to accidentally leave in program mode; *eliminates mistakes!*
- Cost Effective; *even in small accounts!*

DR-2000 Components

What's in the box!

Battery and Line power DR-2000 pumps come with an install kit and the *Installation and Operation Manual*.



Installation and Set-Up

Changing the Batteries



- Remove the 4 screws on the battery side cover, remove the cover and insert 4 D-Cell batteries into the battery holder aligning the batteries as indicated.

Note: The DR-2000 can be program using only the back up battery. Clock settings and events will be retained, but events will only occur if a primary power source is connected.

Installation and Set-Up

Using the Mounting Bracket



The DR-2000 comes with a mounting bracket taped to the back. Use the screws in the installation kit, and a level if necessary to mount the mounting bracket.

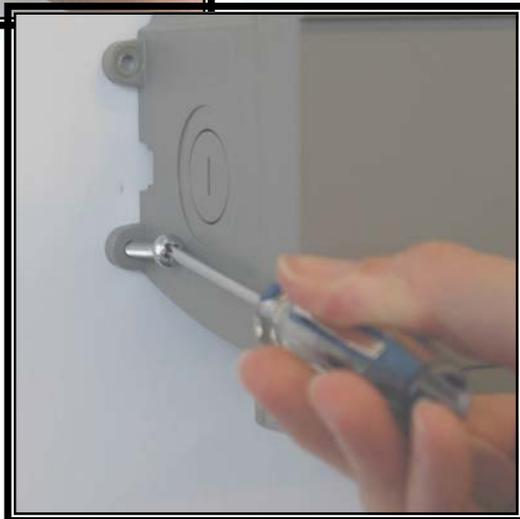


Installation and Set-Up

Hanging the DR-2000



- Slide the DR-2000 down over the mounting bracket.
- If desired a screw can be put in one of the feet to secure the DR-2000 in place.
- The DR-2000 can also be mounted using only the 3 mounting feet. Care should be taken not to put undue pressure on the feet and cracking them.
- *Troubles can be avoided by always mounting horizontally on a smooth surface.*



Installation and Set-up

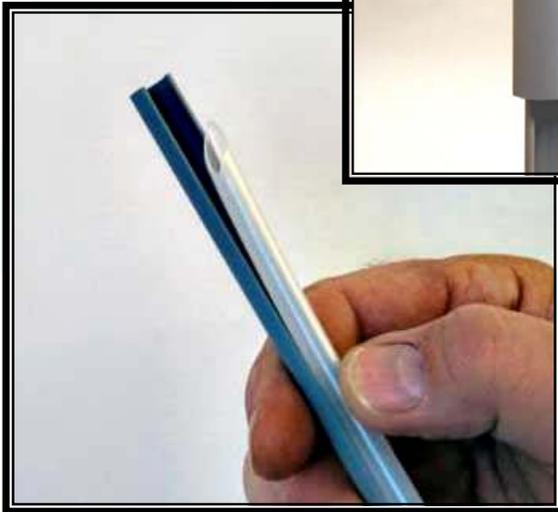
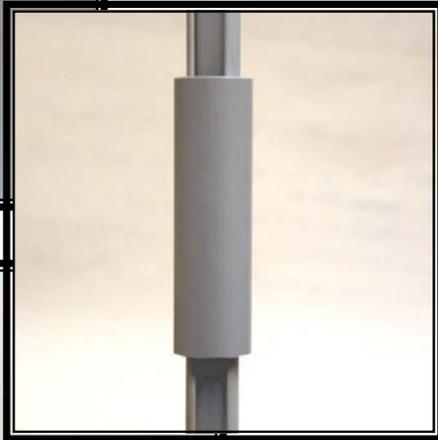
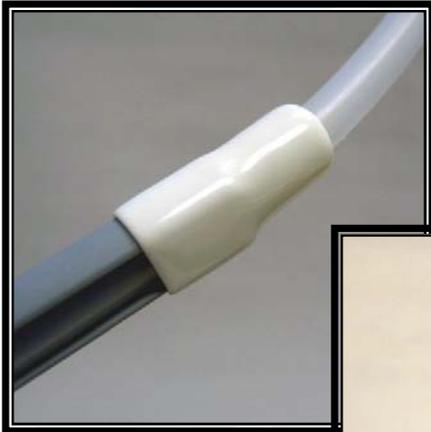
Chemical uptake line connections



- The installation kit (part # 1202579) comes with 25 feet of transport tubing, a metal injection fitting, a 2-part stand pipe screws and tie wraps. Cut the desired length of tubing for the chemical uptake line. Connect one end to the uptake side for the SnapHead pump (the left side).

Installation and Set-up

Chemical uptake line connections



- The white plastic line protector is used to prevent bends and kinks in the uptake line.
- The stand pipe couple is used to connect the two portions of stand pipe if necessary (added to install kit Fall 2003).
- The uptake line entrance should be cut at a 45° angle and snapped into place 1/2 inch above the end of the stand pipe. Attach the white plastic line protector over the uptake line on the pump side of the stand pipe.
- Use the stand pipe couple to unite the two pieces of stand pipe if desired.

Installation and Set-up

Chemical uptake line connections

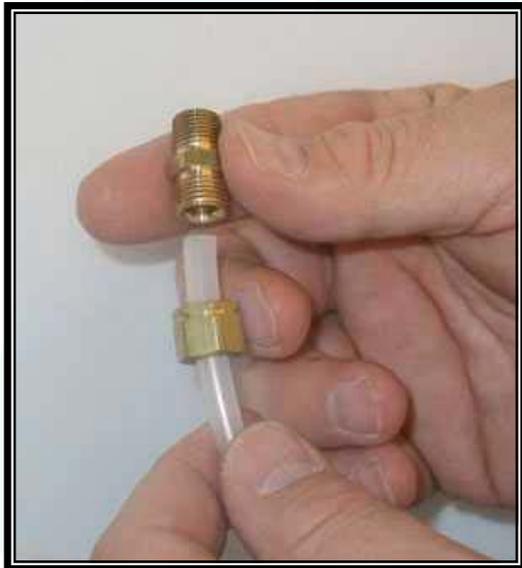


- Insert the stand pipe into the chemical drum. The stand pipe serves to keep the uptake line rigid so that chemical is drawn from the bottom of the drum.
- The 45° angle in the uptake entrance as well as the 1/2 inch space serves to prevent the uptake line from forming a seal with the bottom or sides of the chemical drum, and assuring unobstructed chemical flow.

Installation and Set-up

Chemical delivery line connections

- Cut the desired length of chemical deliver tube. Connect one end to the delivery side of the SnapHead cartridge (the right side). Run the tube to the point where the chemical is to be delivered. Tie wraps can be used to hold the tube in place. A metal injection fitting is provided and can be screwed into a threaded 1/4 inch hole tapped into the drain pipe if desired.



DR-2000 Programming

Entering Program Mode

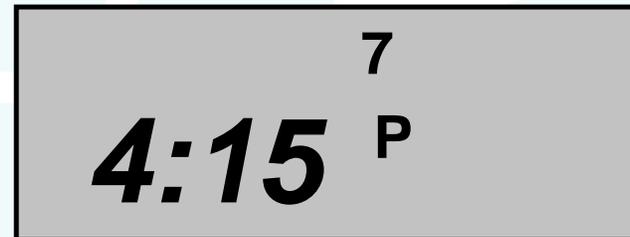
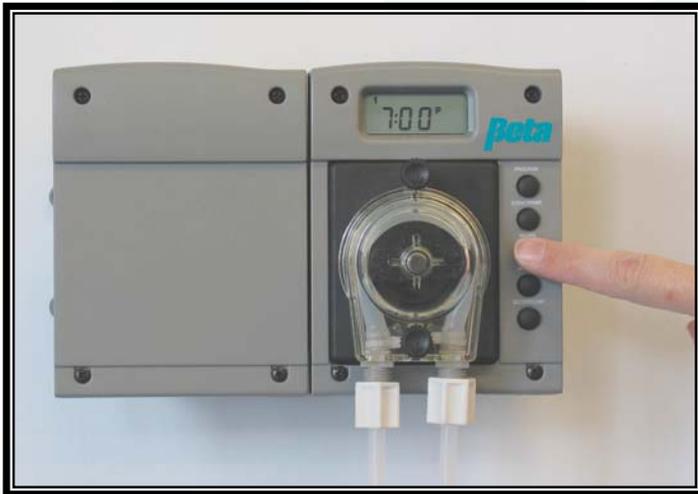


- Press the Program button and hold it down for 8 seconds.
- The screen will flash and the colon will stop blinking to indicate that you have successfully entered *Program Mode*. Release the program button. The screen will continue to display the current day and time.

DR-2000 Programming

Setting the Clock / the time of day

- Use the HOURS and MINUTES buttons to set the clock. A “P” will appear to indicate PM settings. Set the current time of day.



The above screen indicates the time is 4:15 PM on day 7 (Sunday).



DR-2000 Programming

Setting the Clock / the day of the week



- From this screen you can also set the day of the week. To do so press the DAY button until the current day appears (day 1 to 7).
- *It is suggested that you set day 1 as Monday.*

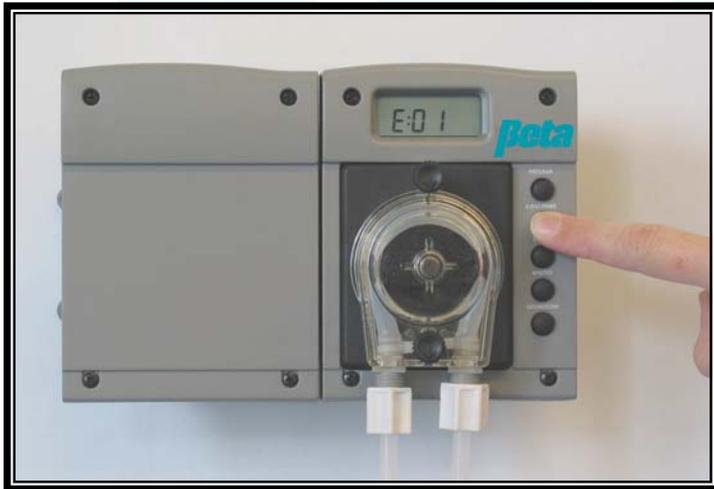
1

6:45

The above screen indicates the time is 6:45 AM on Day 1 (Monday).

DR-2000 Programming

Programming when an event will occur / time



- Press the EVENT button once, the screen will display E:01 to indicate you are entering Event 1. There are 24 such events.
- Press the Event button again, the screen will display the time of day and day (s) of the week the event is programmed to occur. Use the HOURS and MINUTES buttons to set the time you want the event to start.

DR-2000 Programming

Programming when an event will occur / day

1
7:30 P

The above screen indicates an event will occur at 7:30 PM day 1 (Monday)

1 2 3 4 5
7:30 P

The above screen indicates an event will occur at 7:30 PM days 1-5 (Monday-Friday)

6 7
7:30 P

The above screen indicates an event will occur at 7:30 PM days 6-7 (weekends)

1 2 3 4 5 6 7
7:30 P

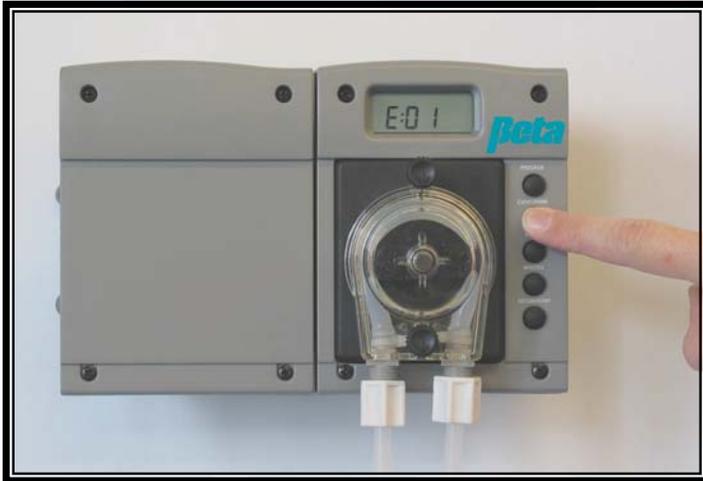
The above screen indicates an event will occur at 7:30 PM days 1-7 (everyday)

- While programming when an event will occur you have the option to differentiate between days of the week. Use the DAY button to select which days of the week, or combination of days you want the the event to occur.
- Day dosing options:
 - One day a week (selected individually 1-7)
 - Every Day (1-7 appear together)
 - Only Weekdays (1-5 appear together)
 - Only Weekend days (6 & 7 appear together)

The logo for Beta, featuring the word "Beta" in a stylized, italicized blue font.

DR-2000 Programming

Programming the duration of an event



- After programming dosing time of day press the EVENT button again. The screen will display the duration of the event and MIN:SEC will appear.
- Use the MINUTES and SECONDS buttons to program the duration of the event. The minimum event duration is 1 second and the maximum event duration is 19 minutes and 59 seconds.
- Programming an event of zero seconds will assure that no event occurs.

2:20 MIN:SEC

The Screen above indicates the event will have a duration of 2 minutes and 20 seconds

DR-2000 Programming

Programming the duration of an event / tips

- *As batteries age the DR-2000 will spin slower and deliver less chemical in any give time period.*
- *A set of Procell batteries will deliver about 50 L (Two 5 gallon pails) of chemical.*
- *It is recommended that you allow at least 20 minutes intervals between events.*
- *The 115 VAC line powered unit will deliver about 120 mls per minute with Viton squeeze tube.*
- *The Battery powered unit will deliver about 110 mls per minute with new batteries and Viton squeeze tube.*
- *Delivery rate will vary with the age of the squeeze tube, the viscosity of the chemical being pumped, the distance of the run and the ambient temperature.*

DR-2000 Programming

Erasing unwanted Events



- *To avoid the occurrence of unwanted events it is advisable to be sure that all unused events are erased. To do this DR-2000 has a built in easy-erase feature.*
- To use the erase feature begin on the Event Screen of the first event you wish to erase.
- Press and hold the HOURS and MINUTES buttons and then press the EVENT button. The DR-2000 will scroll through all higher numbered events setting each run time to 0:00. The process will stop when it reaches the Event 1 screen.

DR-2000 Programming

Leaving Program Mode



- When you have finished programming the DR-2000 you can leave *Program Mode* and return to *Run Mode* by pressing the Program button once.
- When in Run Mode the colon blinks once per second and the PRIME button primes the pump.
- *If the DR-2000 is left unattended for 2 1/2 minutes it will automatically return to Run Mode.*

DR-2000 Troubleshooting

What do I do if...?

- The pump runs backwards?
 - *Switch the on the motor.*
- The screen has no display?
 - *Change the coin cell backup battery on the main PCB and check the power source.*
- Events do not occur?
 - *Check the power source (batteries or plug).*
 - *Check that the events are properly programmed.*
- The DR-2000 does not deliver the amount of chemical expected?
 - *Deliver rates can vary, check the flow rate and adjust the length of the event accordingly.*

DR-2000 Troubleshooting

What do I do if...?

- Pump spins but chemical does not move?
 - *Check the uptake line for kinks or blockage.*
 - *Check that the uptake line is properly attached to the pump.*
- The clock resets and events are lost when the electricity goes out?
 - *Change the coin cell backup battery on the main PCB.*

For more troubleshooting tips see the Troubleshooting section of the Installation and Operation Manual of your DR-2000 Chemical Pump.