

# AccuDose Series Proportioner Models 38741GB & 38751GB with E-Gap Eductors

## Package Should Contain:

- 1. Proportioner unit.
- 2. Supply tubing 6.4m total.
- 3. Foot valve assemblies & weights (5).
- 4. Discharge tubing for each eductor.
- 5. Metering tip kits.
- 6. Mounting anchor kit.
- 7. Hose hook for 14 LPM eductor.
- 8. Instruction sheet.

### Installation and Operation:

- Remove cabinet cover. Drill holes for the three wall anchors with an 8mm drill bit, using the cabinet back as a template for correct spacing of the mounting screws. Install mounting anchors, and then screws in top two anchors. Slide key holes in cabinet back over screw heads, tighten screws, then install bottom screw. Do not mount more than 1.8 metres above the bottom of the concentrate container, nor below the highest concentrate level (never mount your concentrate higher than the proportioner).
- 2. Select metering tips (up to 4) for the selector valve. (see next two sections) Push each tip firmly into a separate hose barb extending from the selector valve. A tip with no hole (clear plastic) can be used to block any valve port not being used. (This may be used for dispensing water only).
- 3. Attach the chemical suction tube assembly to the selector valve, sliding the open end of each piece of tubing over one barb on the valve. Make sure suction tubes are on the barb far enough to prevent air from leaking into tube.
- 4. Slip other end of supply tube through an opening in either side of the cabinet and slide a ceramic weight over the tube, then push a footvalve into the end of the tube. (Repeat for all eductors.)
- 5. Place foot valve ends of supply tubes into concentrate containers. REMEMBER TO CHECK FOOT VALVE STRAINERS PERIODICALLY FOR CLOGGING: CLEAN IF NECESSARY.
- 6. A short discharge tube is used with the 4 LPM eductor; minimum tube length is 20cm for correct operation. Longer tubes (1.2 m) are used with a 14 LPM eductor. Do not remove the flooding rings from inside the tubes. Slide end of tube with flooding ring over eductor discharge outlet. (Repeat for all eductors.) Hooks may be installed on longertubes to allow discharge tube to hang from dispenser when not in use.
- 7. Replace cabinet cover. Push the sides in, behind the latch holes, to snap the cover in place. The two screws provided may be installed in the holes in the cabinet sides to prevent easy removal of cover.
- 8. Connect water supply hose of at least 13mm ID to water inlet swivel. (Minimum 1.76 Bar pressure, with water running, is required for correct operation.) Connect opposite end of hose to water supply. Turn water supply on.
- 9. Push button to start flow of desired water/concentrate solution, and hold until supply tube is primed (filled). Then push the button whenever dispensing is desired, and release button to stop flow of solution. If you wishto be able to lock the button in the "on" position: clip or bend the two tabs behind the lower front portion of the button (see diagram). This allows the button to be pushed fully in and so lock in the "on" position. **To unlock, PULL THE BUTTON OUT**.



#### Metering Tip Selection:

The final concentration of the dispensed solution is related to both the size of the metering tip opening and the viscosity of the liquid being siphoned. For water-thin products, the chart at right can be used as a guideline. If product is noticeably thicker than water, consult the Measurement of Concentration Procedure below to achieve your desired water-to-product ratio. Because dilution can vary with water temperature and pressure, actual dilution achieved can only be ascertained by using the Measurement of Concentration Procedure. The clear, undrilled tip is provided to permit drilling to size not listed should you need a dilution ratio that falls between standard tip sizes.

**NOTE:** A 4 LPM eductor is grey; a 14 LPM eductor is yellow. Refer to parts diagram if unfamiliar with names of system components.

APPROXIMATE DILUTIONS AT 40 PSI FOR WATER-THIN PRODUCTS (1.0 CP)				
	Orifice / Std. Drill		Ratio (per Eductor Flow)	
Tip Color	Size /	Number)	1 GPM	3.5 GPM
No Tip	.187	(3/16)	3:1	6.5:1
Grey	.128	(30)	3:1	6.5:1
Black	.098	(40)	3:1	7:1
Beige	.070	(50)	4:1	10:1
Red	.052	(55)	5:1	16:1
White	.043	(57)	7:1	20:1
Blue	.040	(60)	8:1	24:1
Tan	.035	(65)	10:1	30:1
Green	.028	(70)	16:1	45:1
Orange	.025	(72)	20:1	56:1
Brown	.023	(74)	24:1	64:1
Yellow	.020	(76)	32:1	90:1
Aqua	.018	(77)	38:1	128:1
Purple	.014	(79)	64:1	180:1
Pink	.010	(87)	128:1	350:1

Dilution Ratio (X:1) where X = <u>Amount of Mixed Solution — Amount of Concentrate Drawn</u> Amount of Concentrate Drawn

Dilution Ratio, then, equals X parts water to one part concentrate (X:1). If the test does not yield the desired ratio, choose a different tip and repeat the test. Alternative methods to this test are 1) pH (using litmus paper), and 2) titration. Contact your concentrate supplier for further information on these alternative methods and the materials required to perform them.





## Troubleshooting Chart:

Problem	Cause	Solution
1. No discharge	<ul> <li>a. No water</li> <li>b. Magnetic valve not functioning</li> <li>c. Excessive water pressure</li> <li>d. Eductor clogged</li> <li>e. Clogged water inlet strainer</li> </ul>	<ul> <li>a. Open water supply</li> <li>b. Install valve parts kit</li> <li>c. Install regulator if water pressure exceeds 4.3 Bar (flowing)</li> <li>d. Clean* or replace</li> <li>e. Disconnect inlet water line and clean strainer</li> </ul>
2. No concentrate draw	<ul> <li>a. Clogged foot valve</li> <li>b. Scale build-up in metering tip or eductor</li> <li>c. Low water pressure</li> <li>d. Discharge tube and/or flooding ring not in place</li> <li>e. Concentrate container empty</li> <li>f. Inlet suction stub not screwed into eductor tightly</li> <li>g. Clogged water inlet strainer</li> <li>h. Air leak in chemical pick-up tube</li> <li>i. Selector out of position</li> </ul>	<ul> <li>a. Clean or replace</li> <li>b. Clean (descale)* or replace</li> <li>c. Minimum 1.76 Bar (with water running) required to operate unit correctly</li> <li>d. Push tube firmly onto eductor discharge hose barb, or replace tube if it does not have a flooding ring.</li> <li>e. Replace with full container</li> <li>f. Tighten, but do not overtighten</li> <li>g. Disconnect inlet water line and clean strainer</li> <li>h. Put clamp on tube or replace tube if brittle</li> <li>i. Ensure selector is in desired position</li> </ul>
3. Excess concentrate draw	<ul><li>a. Metering tip not in place</li><li>b. Chemical above eductor</li></ul>	<ul><li>a. Press correct tip firmly into barb on selector valve</li><li>b. Place concentrate below the eductor</li></ul>
4. Failure of unit to turn off	<ul> <li>a. Water valve parts dirty or defective</li> <li>b. Magnet does not fully return</li> <li>c. Push button stuck</li> </ul>	<ul> <li>a. Clean* or replace with valve parts kit</li> <li>b. Make sure magnet moves freely.</li> <li>c. Remove button and clean cabinet/ button to remove any dirt lodged in slide recess</li> </ul>
5. Excess foaming in discharge	a. Air leak in pick-up tube	a. Put clamp on tube or replace tube if brittle

\* In hard water areas, scale may form inside the discharge end of the eductor, as well as in other areas of the unit which are exposed to water. This scale may be removed by soaking the eductor in a descaling solution (deliming solution). To remove an eductor located in the cabinet, firmly grasp water valve and unthread eductor. Replace in same manner. Alternatively, a scaled eductor can be cleaned (or kept from scaling) by drawing the descaling solution through the unit. Operate the unit with the suction tube in the descaling solution. Operate the unit until solution is drawn consistently, then flush the unit by drawing clear water through it for a minute. Replace concentrate container and put suction tube into concentrate.



Hydro Systems Europe Ltd, Unit 3 The Sterling Centre, Eastern Road, Bracknell, Berks RG12 2PW UK Tel: +44 (0)1344 48 88 80 Fax: +44 (0)1344 48 88 79 www.hydrosystemseurope.com