

## TROUBLESHOOTING CHART:

Problem	Cause	Solution
1. No discharge	a. No water b. Magnetic valve not functioning c. Excessive water pressure d. Eductor clogged	a. Open water supply b. Install valve parts kit c. Install regulator if water pressure exceeds 85 PSI d. Clean* or replace
2. No concentrate draw	a. Clogged foot valve b. Metering tip or eductor has scale build-up c. Low water pressure  d. Discharge tube and/or flooding ring not in place e. Concentrate container empty f. Inlet hose barb not screwed into eductor tightly g. Clogged water inlet strainer h. Selector out of position	a. Clean or replace b. Clean (descale)* or replace  c. Minimum 25 PSI (with water running) required to operate unit properly d. Push tube firmly onto eductor discharge hose barb; replace tube if it doesn't have a flooding ring e. Replace with full container f. Tighten, but do not overtighten  g. Disconnect inlet water line and clean strainer h. Assure selection is in position desired
3. Excess concentrate draw	a. Metering tip not in place b. Orifice seals not secure	a. Press correct tip firmly into hose barb b. Assure proper sealing in selector valve
4. Failure of unit to turn off	a. Water valve parts dirty or defective b. Magnet doesn't fully return  c. Push button stuck d. Excessive water pressure	a. Clean* or replace with valve parts kit  b. Make sure magnet moves freely. Replace spring if short or weak c. Realign cabinet or clean grommet that button passes through d. Install regulator if pressure exceeds 85 PSI

\* In hard water areas, scale may form inside the discharge end of the eductor, as well as in other areas of the unit that 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 vacuum breaker and unthread eductor. Replace in same manner. This will avoid loosening the vacuum breaker. 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.



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## MaxiMizer™ II Proportioning System

Model 2876-2

### Package Contains:

- |                             |                                 |
|-----------------------------|---------------------------------|
| 1. Proportioner unit.       | 5. Metering tip kits.           |
| 2. Supply tubes.            | 6. Mounting anchor kit.         |
| 3. Foot valves and weights. | 7. Drip tray for 1 GPM eductor. |
| 4. Discharge tubes.         | 8. Instruction sheet.           |

### THANK YOU FOR YOUR INTEREST IN OUR PRODUCTS

Please use this equipment carefully and observe all warnings and cautions.

\*\*\*\*\* NOTE \*\*\*\*\*

<b>WEAR</b>	protective clothing and eyewear when dispensing chemicals or other materials.
<b>ALWAYS</b>	observe safety and handling instructions of the chemical manufacturers.
<b>ALWAYS</b>	direct discharge away from you or other persons or into approved containers.
<b>ALWAYS</b>	dispense cleaners and chemicals in accordance with manufacturer's instructions. Exercise <b>CAUTION</b> when maintaining your equipment.
<b>KEEP</b>	equipment clean to maintain proper operation.
<b>WEAR</b>	protective clothing and eyewear when working in the vicinity of all chemicals, filling or emptying equipment or changing metering tips.
<b>ALWAYS</b>	re-assemble equipment according to instruction procedures. Be sure all components are firmly screwed or latched into position.
<b>ATTACH</b>	only to tap water outlets (85 PSI maximum).

- Notes:**
- Be sure the products to be dispensed are compatible with the Viton seal on the inlet stub.
  - Each concentrate can be dispensed at its own individual concentration.
  - A small residue of a dispensed chemical will mix with the incoming flow of the next selected chemical in the selector valve, so the products use in this portion of the equipment must be compatible.

### Installation and Operation:

1. Unlock the front door panel and open it. The top panel can be removed for easier access: loosen the 3 screws at the bottom edge.
2. To mount the unit to a wall, drill mounting holes and insert the plastic toggle anchors provided into the holes. Use the screws provided to secure the unit to the wall.
3. Connect water supply hose of at least 1/2" ID to water inlet swivel at right side of manifold. (Minimum 25 PSI pressure, with water running, is required for proper operation.) Route hose out the side of the cabinet, through the hole provided, and attach the hose to the water supply source. Turn water supply on.
4. Connect the long, flexible discharge tube to the bottom of the 4 GPM (yellow) eductor, applying the closest to the flooding ring. Route the hose out the bottom of the unit, through the holes provided. The hook provided may be installed on the bottom of the long discharge tube to allow the tube to hang from the cabinet when not in use. Twist the hook while gently pushing it onto the tube. Make sure both discharge tubes are fully engaged onto the eductors.
5. 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. (It is suggested that the "low flow" tip for the product to be dispensed at both low flow and high flow be installed in the lower right barb.) A tip with no hole (clear plastic color) can be used to block any valve port not being used. (This may be used for dispensing water only.) Select and install a metering tip for the single product eductor (right side) in the same manner.
6. One product will be connected to both the 4 GPM (yellow) eductor and to one of the barbs on the selector valve (to be dispensed at 1 GPM). Rig the suction tube assembly for this product as follows:
  - Put the 1/4" x 2 1/2" tube on one of the right side selector valve barbs.
  - Locate the in-line check valve in the installation kit. Note that the in-line check valve has arrows molded in the side. Install the end of the in-line check valve to which the arrows point into the short tube just installed.
  - Install one 1/4" x 6" tube on the other end of the in-line check valve. Put the other 1/4" x 6" tube on the check valve attached to the yellow eductor.
  - Install the "Y" fitting between the two 6" pieces of tubing to connect them.
  - Cut a piece of tubing that will reach from the "Y" fitting to the bottom of the concentrate container when it's in place in the cabinet. Install this piece of tubing on the bottom leg of the "Y" fitting, then slide a weight over the open end of the tube. Put the foot strainer into the open end of the tube. Put the strainer into the concentrate container and place container under yellow eductor.
7. Determine the lengths of tubes required to reach from the hose barbs on the selector valve to the bottoms of the various concentrate containers. Cut tubing supplied as needed. Install each of the suction tubes as follows:
  - Slide a ceramic weight over one end of the piece of tubing.
  - Push the hose barb end of a foot valve into one end of the open tube.
  - Slide the weight down to the foot valve.
  - Place foot valve end of suction tube into the concentrate container and put container into MaxiMizer cabinet.
  - Push the other (open) end of the suction tube assembly over the hose barb/metering tip on the eductor.
  - REMEMBER TO CHECK FOOT VALVE STRAINER FOR CLOGGING PERIODICALLY. CLEAN AS NECESSARY.
8. Close front door panel and lock. Be sure the drip tray is in its place at the bottom of the shelf, below concentrate container, for the 1 GPM (selector valve) station.

Continued ...

9. Write product names on the labels that have been pre-applied to the system cabinet so that they correspond to the product that will be dispensed given the selector position.
10. Turn knob to select desired product. Push button to start flow of desired water/concentrate solution, and hold until supply tube is primed (filled). (Be sure to have a bottle or other receptacle under the discharge tube.) Prime each tube in the same fashion. Push the appropriate button whenever dispensing is desired. Release button to stop flow of solution. Buttons may be converted to twist-to-latch locking buttons by installing the latch spring provided (see parts diagram for placement). This allows continuous dispensing without holding button.

**Metering Tip Selection:**

The final concentration of the dispensed liquid is related to both the size of the metering tip opening and the viscosity of the liquid being siphoned. If product viscosity is noticeably greater than that of water, consult the procedure for Measurement of Concentration to achieve your desired water-to-product ratio. For water-thin products, use the chart below as a **guideline**. Use undrilled, clear tip for drilling orifices to sizes not listed, or as a plug for ports not used.

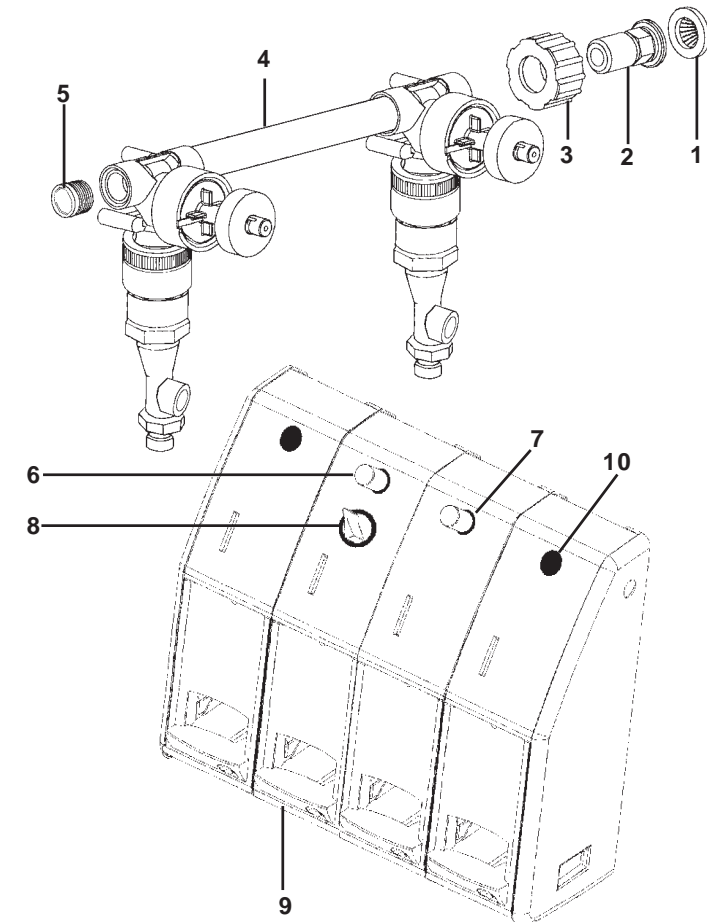
**Measurement of Concentration:**

You can determine the dispensed water-to-product ratio for any metering tip size and product viscosity. All that is required is to operate the primed dispenser for a minute or so and note two things: the amount of dispensed solution, and the amount of concentrate used in preparation of the solution dispensed. The water-to-product ratio is then calculated as follows:

$$\text{Dilution Ratio (X:1) where X} = \frac{\text{Amount of Mixed Solution} - \text{Amount of Concentrate Drawn}}{\text{Amount of Concentrate Drawn}}$$

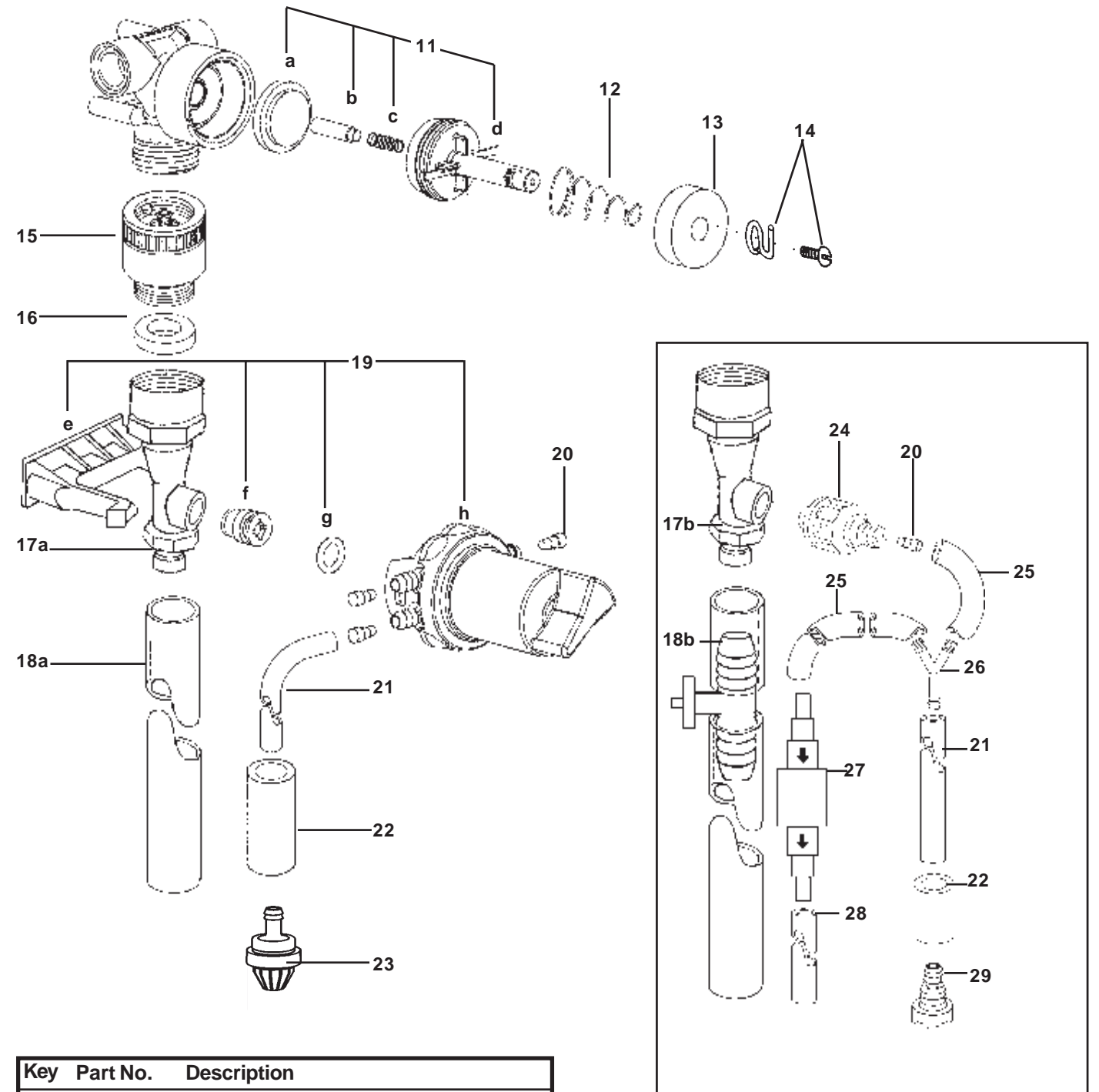
Dilution Ratio, then, equals X parts water to one part concentrate (X:1). If the test does not yield the desired ratio, choose a different tip and repeat the test. Alternative methods to this test are 1) pH (using litmus paper), and 2) titration. Contact your concentrate supplier for further information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

**MaxiMizer™ II Parts Diagram/List:**



Key	Part No.	Description
1	238100	Strainer washer
2	10064687	Swivel stem
3	10064681	Swivel collar
4	10075901	Nipple
	10075950	O-ring (at each end of nipple)
5	10075925	Pipe plug
6	10077480	Button, dark grey (includes #7)
	10077481	Button, blue (includes #7)
	10077482	Button, red (includes #7)
	10077483	Button, green (includes #7)
	10077484	Button, yellow (includes #7)
	10077485	Button, light grey (includes #7)
	10082750*	Button, dark grey locking
	10082751*	Button, blue locking
	10082752*	Button, red locking
	10082753*	Button, green locking
	10082754*	Button, yellow locking
	10082755*	Button, light grey locking
	* Locking button parts kits include grommet and latch spring	
7	10068810	Grommet (around button)
8	10020700	Grommet (around selector)
	10020900	Backing ring for #8 grommet
9	10075160	Drip tray
10	10068885	Hole plug (for cabinet openings)
11	10075980	Water valve parts kit: a. diaphragm, b. armature, c. spring, d. valve bonnet
12	10079010	Spring
13	10079000	Magnet
14	10068835	Locking button kit
15	10035310	Siphon breaker
16	270702	Washer

**MaxiMizer™ II Parts Diagram/List:**



Key	Part No.	Description
17 a	440205	1 GPM Eductor (yellow)
b	441200	4 GPM Eductor (grey)
18 a	10077436	Discharge tube, 1 GPM eductor
b	10032250	Discharge tube, 4 GPM eductor
19	10059920	Selector valve replacement kit: e. selector valve support clip, f. inlet stub, g. O-ring, h. selector valve assembly.
20	690014	Metering tip (kit)
21	500814	Tubing: ¼" x 14' (cut to lengths desired)
22	509900	Weight
23	10089410	Foot valve - Viton (EPDM: #10076302)
24	10069252	Check valve
25	10062570	Tubing: ¼" x 6"
26	10068721	"Y" fitting
27	10076303	In-line check valve

Key	Part No.	Description
28	10068730	Tubing: ¼" x 2½"
29	609600	Strainer
NOT SHOWN:		
	10075150	Lock
	10029509	Nut for lock
	10075128	Keys for lock (2)
	10075158	MSDS Envelope
	10080730	Hose hook, dark grey (standard)
	10080731	Hose hook, sky blue
	10080732	Hose hook, red
	10080733	Hose hook, green
	10080734	Hose hook, light grey
	10080735	Hose hook, yellow
* Hose hooks are for 3.5 GPM discharge tube		