

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 flowing water pressure exceeds 60 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 (inner or outer) 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, or replace inner discharge 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 selector is in position desired
3. Excess concentrate draw	a. Metering tip not in place	a. Press correct tip firmly into barb on eductor
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 (with water flowing) exceeds 60 PSI
5. Excess foaming in discharge	a. Air leak in pick-up tube b. Inner discharge tube not in place	a. Put clamp on tube or replace tube if brittle b. Install inner discharge tube
6. Water discharge from air vents of eductor	a. Restricted discharge hose  b. High water pressure	a. Be sure discharge hose is not immersed, kinked or elevated. Be sure there is no liquid in the discharge hose when beginning to operate the dispenser b. Install pressure regulator if flowing water pressure exceeds 60 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 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.



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10083503  
 Rev. B 3/05



MaxiMizer™ II Proportioning System  
Models 2874AG-2 & 2875AG-2

Package Contains:

1. Proportioner unit.  
2. Supply tube (14 feet).  
3. Foot valves and weights.  
4. Discharge tube.
5. Metering tip kits.  
6. Mounting anchor kit.  
7. Drip tray (Model 2875AG-2 only)  
8. Instruction sheet.

Please use this equipment carefully and observe all warnings and cautions.  
\*\*\*\*\* NOTE \*\*\*\*\*

WEAR

protective clothing and eyewear when dispensing chemicals or other materials.

ALWAYS

observe safety and handling instructions of the chemical manufacturers.

ALWAYS

direct discharge away from you or other persons or into approved containers.

ALWAYS

dispense cleaners and chemicals in accordance with manufacturer's instructions. Exercise **CAUTION** when maintaining your equipment.

KEEP

equipment clean to maintain proper operation.

WEAR

protective clothing and eyewear when working in the vicinity of all chemicals, filling or emptying equipment or changing metering tips.

ALWAYS

re-assemble equipment according to instruction procedures. Be sure all components are firmly screwed or latched into position.

ATTACH

only to tap water outlets (60 PSI maximum).

**Notes:** ➤ Be sure the products to be dispensed are compatible with the Viton seal on the inlet stub.

Installation and Operation:

- Unlock the front door panel and open it. The top panel can be removed for easier access: loosen the screws at the bottom edge.
- 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.
- Connect water supply hose of at least ½” 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.
- For Model 2874AG-2: Connect the long, flexible discharge tube to the bottom of the 3.5 GPM (yellow) eductor, applying the end opposite the hook. Route the hose out the bottom of the unit, through the hole provided. A hook is provided which may be attached to the bottom of the discharge tube. The hook allows the discharge tube to hang neatly when not in use. Twist the hose hook gently while guiding it onto the tube. Make sure discharge tube is fully engaged onto the eductor.  
 For Model 2875AG-2: A short discharge tube has already been installed on the grey eductor. Make sure discharge tube is fully engaged onto the eductor.
- 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 color) can be used to block any valve port not being used. (This may be used for dispensing water only.)
- Rig the suction tube assemblies as follows:
  - Tubes should be long enough to reach from the selector valve hose barbs to the bottoms of each concentrate container. Cut the tubing provided to lengths required.
  - Slide a weight over the one end of each piece of tube.
  - Attach a foot valve to the end of each piece of tube and slide the weight down to the foot valve.
  - Attach the other (open) end of each tube to one of the hose barbs on the selector valve.
- Place foot valve ends of suction tubes into the concentrate containers and put containers into MaxiMizer cabinet.
  - REMEMBER TO CHECK FOOT VALVE STRAINERS FOR CLOGGING PERIODICALLY. CLEAN AS NECESSARY.
- Close front door panel and lock. For Model 2875AG-2, put drip tray in place at bottom of section where valve is installed.
- Write product dilutions or uses on the label that has been pre-applied to the system cabinet so that they correspond to the selector positions.
- Purge air from the system be depressing the button briefly. There may be some water discharge from the eductor vent until the air is purged.
- 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 button whenever dispensing is desired. Release button to stop flow of solution. Button on Model 2874AG-2 may be converted to twist-to-latch locking button by installing the latch spring provided (see parts diagram for placement). This allows continuous dispensing without holding button.
- It is essential that the discharge hose not be obstructed. If discharge is restricted, water will flow out the eductor vents. Do not start to operate the dispenser with liquid in the discharge tube.**

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 on the next page to achieve your desired water-to-product ratio. For water-thin products, use the chart on the next page 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:

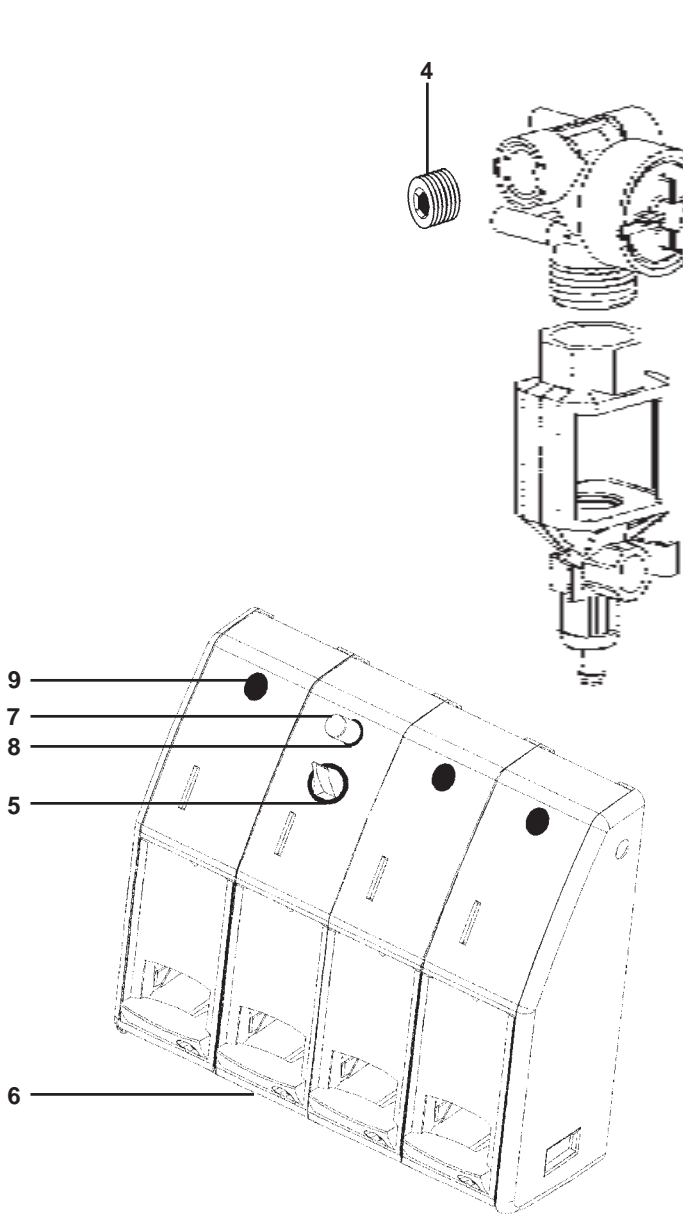
You can determine the dispensed water-to-product ratio for any metering tip size and product viscosity. All that is required is to operate the primed dispenser for a minute or so and note two things: the amount of dispensed solution, and the amount of concentrate used in preparation of the solution dispensed.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

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.

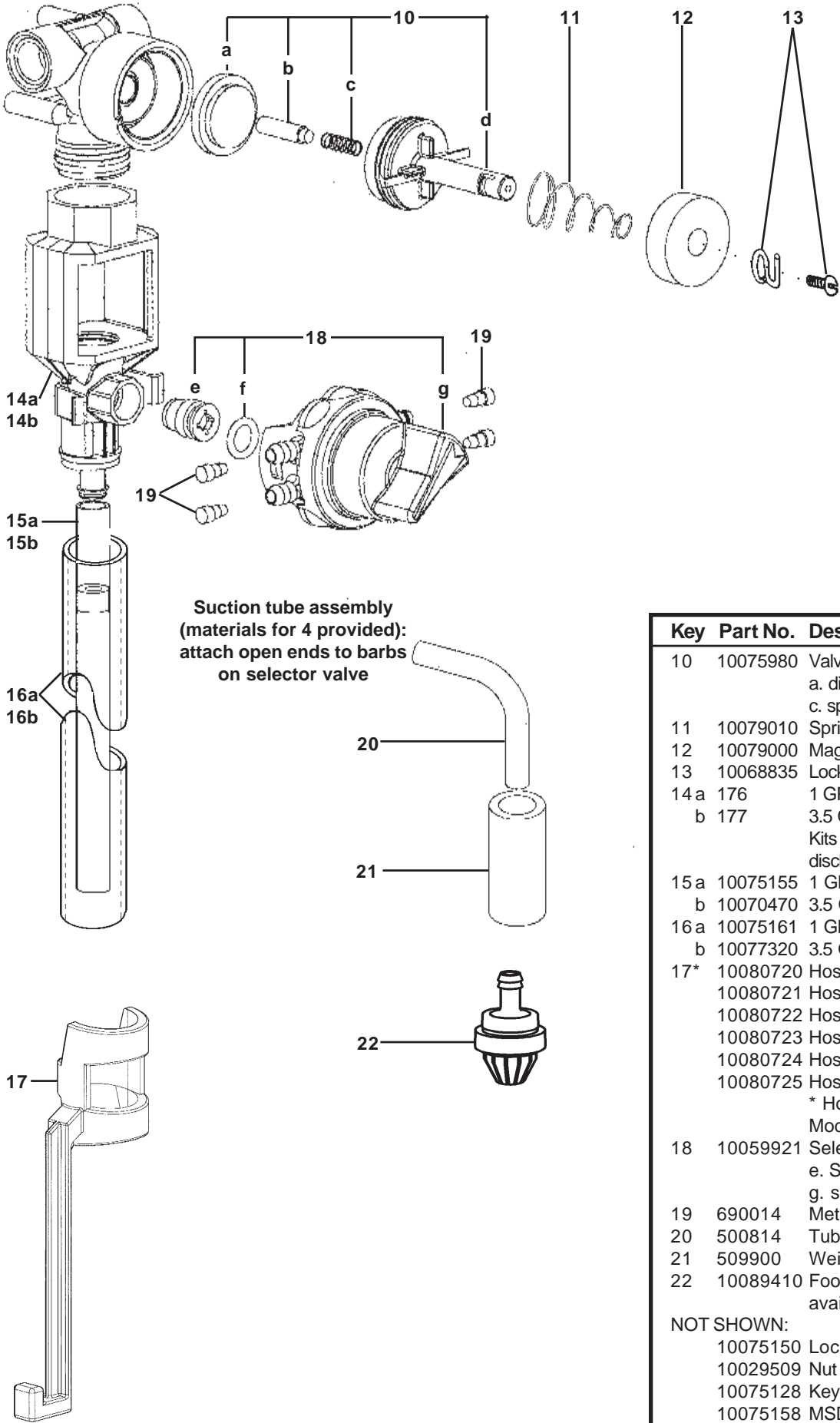
MaxiMizer™ II Parts Diagram/List:

APPROXIMATE DILUTIONS AT 40 PSI FOR WATER-THIN PRODUCTS (1.0 CP)				
Tip Color	Orifice Size	Std. Drill Number)	Ratio (per Eductor Flow)	
			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



Key	Part No.	Description
1	238100	Strainer washer
2	10064687	Swivel stem
3	10064681	Swivel collar
4	10075925	Pipe Plug
5	10020700	Grommet for selector valve
	10020900	Back up ring for grommet #5
6	10075160	Drip tray (Model 2875AG-2)
7	10077480	Button, dark grey (includes #8)
	10077481	Button, blue (includes #8)
	10077482	Button, red (includes #8)
	10077483	Button, green (includes #8)
	10077484	Button, yellow (includes #8)
	10077485	Button, light grey (includes #8)
	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 #8 grommet and #13 latch spring	
8	10068810	Grommet
9	10068885	Hole plug for cabinet openings

MaxiMizer™ II Parts Diagram/List:



Key	Part No.	Description
10	10075980	Valve parts kit a. diaphragm, b. armature, c. spring, d. valve bonnet
11	10079010	Spring
12	10079000	Magnet
13	10068835	Locking button kit (spring/screw)
14 a	176	1 GPM Eductor kit (grey)
b	177	3.5 GPM Eductor kit (yellow)
		Kits include inner and outer discharge tubes
15 a	10075155	1 GPM inner discharge tube
b	10070470	3.5 GPM inner discharge tube
16 a	10075161	1 GPM outer discharge tube
b	10077320	3.5 GPM outer discharge tube
17*	10080720	Hose hook, dark grey (std)
	10080721	Hose hook, sky blue
	10080722	Hose hook, red
	10080723	Hose hook, green
	10080724	Hose hook, light grey
	10080725	Hose hook, yellow
	* Hose hook provided with Model 2874AG-2 only	
18	10059921	Selector valve replacement kit: e. Suction stub, f. O-ring, g. selector valve assembly
19	690014	Metering tip (kit)
20	500814	Tubing, ¼" x 14'
21	509900	Weight
22	10089410	Foot valve -- Viton (EPDM also available. Order 10076302.)
NOT SHOWN:		
	10075150	Lock
	10029509	Nut for lock
	10075128	Keys for lock (2)
	10075158	MSDS Envelope