

# DEMA PROPORTIONER

## MODEL 167 & 167T

### INSTALLATION INSTRUCTIONS

**1. PARTS**

- A. Proportioner Assembly.
- B. Supply tubing with foot valve & ceramic weight.

**2. INSTALLATION**

Screw proportioner directly onto standard external aerator threads. Remove inlet adapter for mounting on garden hose threads. For other faucets see reverse side for adapter part numbers. For cities with plumbing codes requiring back siphonage protection, install Dema part 34-22 between faucet and proportioner. See Fig. 1 for supply tubing attachment. Cut vinyl tubing to any convenient length, slip on the ceramic weight, and push the open end over the detergent inlet barb. Soften end of tubing in hot water to facilitate attachment. See Section 4 for adjustment screw setting guide. For filling buckets or mop rigs: a short length of open ended garden hose may be attached to the proportioner outlet. Replace screen retainer part 100-8 with hose adapter part 100-10. Use one screen part 100-7 to insure priming.

**3. OPERATION**

Turn on water and push red button to draw in chemical. Push green button for clear water.

**4. PROPORTIONER ADJUSTMENT**

**WARNING: USE CARE WHEN HANDLING HAZARDOUS CHEMICALS.**

MODEL 167:

The injection rate of the detergent or disinfectant into the water can be adjusted by turning the recessed screw in the left side of the proportioner. The injection rates for various settings and for products of different viscosities are as shown in Table 1.

**Table 1, 167 Proportioner (Metering Screw)**

Turns Counterclockwise from Closed Position	Injection rate for viscosities shown		
	1 cps	75 cps	200 cps
	Oz/Gal	Oz/Gal	Oz/Gal
1	0.40	-----	-----
2	3.25	1.75	0.90
2 2	5.75	2.50	1.00
3	8.25	2.75	1.05
4	12.85	3.00	1.10

MODEL 167T:

The injection rate of the detergent or disinfectant into the water is controlled by screwing a color coded metering tip selected from Table 2 into the chemical inlet barb.

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#### 5. SERVICING

**CAUTION: Turn off water supply before servicing.**

- A. Failure to inject chemical
  - a. Low water pressure. At least 10 psi is required.
  - b. Dirt or chemical on outlet screens. Clean.
  - c. Detergent passage blocked. Back off adjusting screw. Remove proportioner and soak in hot water to clean internal passages.
  - d. Foot valve clogged. Soak in hot water.
  - e. Lime deposits in water passages. Remove proportioner and soak in a deliming solution.
  - f. Outlet hose (if used) obstructed or too long.
  
- B. Injection in "clear" slide position.
  - a. Slide valve of vacuum breaking air vent clogged with grease or dirt. Remove proportioner and soak in hot water.
  - b. Chemical container above level of faucet. Place container on floor.

**CAUTION: When servicing unit, be sure that replacement parts have been installed according to drawing.**

**Table 2, 167T Proportioner (Metering Tips)**

Metering Tip Color	Injection rates for viscosities shown					
	1 cps		75 cps		200 cps	
	Oz/Gal	Ratio	Oz/Gal	Ratio	Oz/Gal	Ratio
Tan	0.25	512-1	0.17	756-1	0.15	853-1
Orange	0.35	366-1	0.25	512-1	0.20	640-1
Turquoise	0.50	256-1	0.33	384-1	0.25	512-1
Pink	0.63	205-1	0.45	284-1	0.33	384-1
Clear	0.75	171-1	0.66	213-1	0.45	284-1
Brown	1.00	128-1	0.70	183-1	0.50	256-1
Red	1.25	102-1	0.80	160-1	0.60	213-1
White	1.50	85-1	1.00	128-1	0.70	183-1
Green	1.75	73-1	1.15	111-1	0.75	171-1
Blue	2.00	64-1	1.35	95-1	0.85	150-1
Yellow	3.20	40-1	1.85	69-1	0.95	135-1
Black	4.00	32-1	2.20	58-1	1.00	128-1
Purple	6.40	20-1	2.50	51-1	1.05	122-1
Gray	10.00	12-1	2.75	47-1	1.07	120-1
No Tip	12.00	10-1	3.20	40-1	1.10	116-1

*Note: 1 cps (centipoise) is equal to the viscosity of water, 75 cps is approximately equal to the viscosity of 10 weight motor oil, and 200 cps is approximately equal to the viscosity of most dishwashing detergents.*

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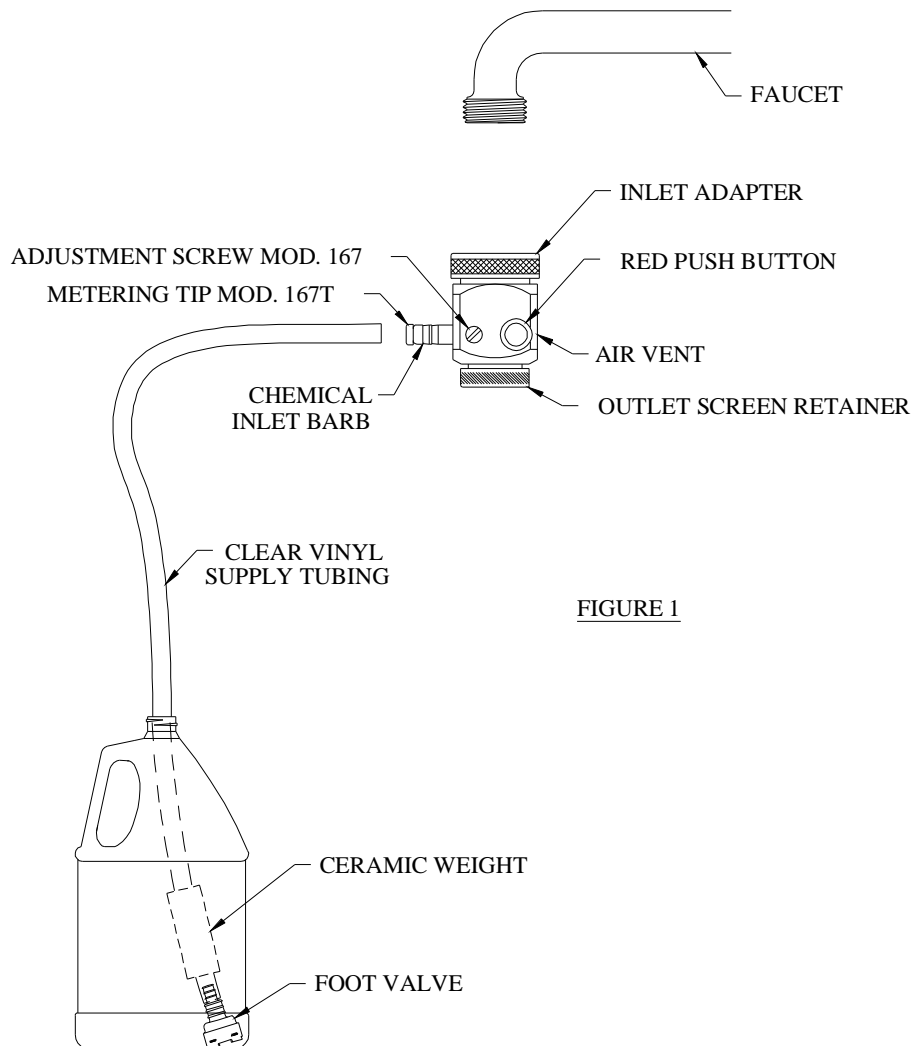
**RETURNS:**

*NO MERCHANDISE MAY BE RETURNED FOR CREDIT WITHOUT DEMA'S WRITTEN PERMISSION. RETURN MERCHANDISE AUTHORIZATION NUMBER REQUIRED IN ADVANCE OF RETURN.*

**WARRANTY:**

DEMA products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper voltage supply, physical abuse, or misapplication. Rubber and synthetic rubber parts such as "o"-rings, diaphragms, squeeze tubing and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of DEMA products. If products are altered or repaired without prior approval of DEMA, this warranty will be void.

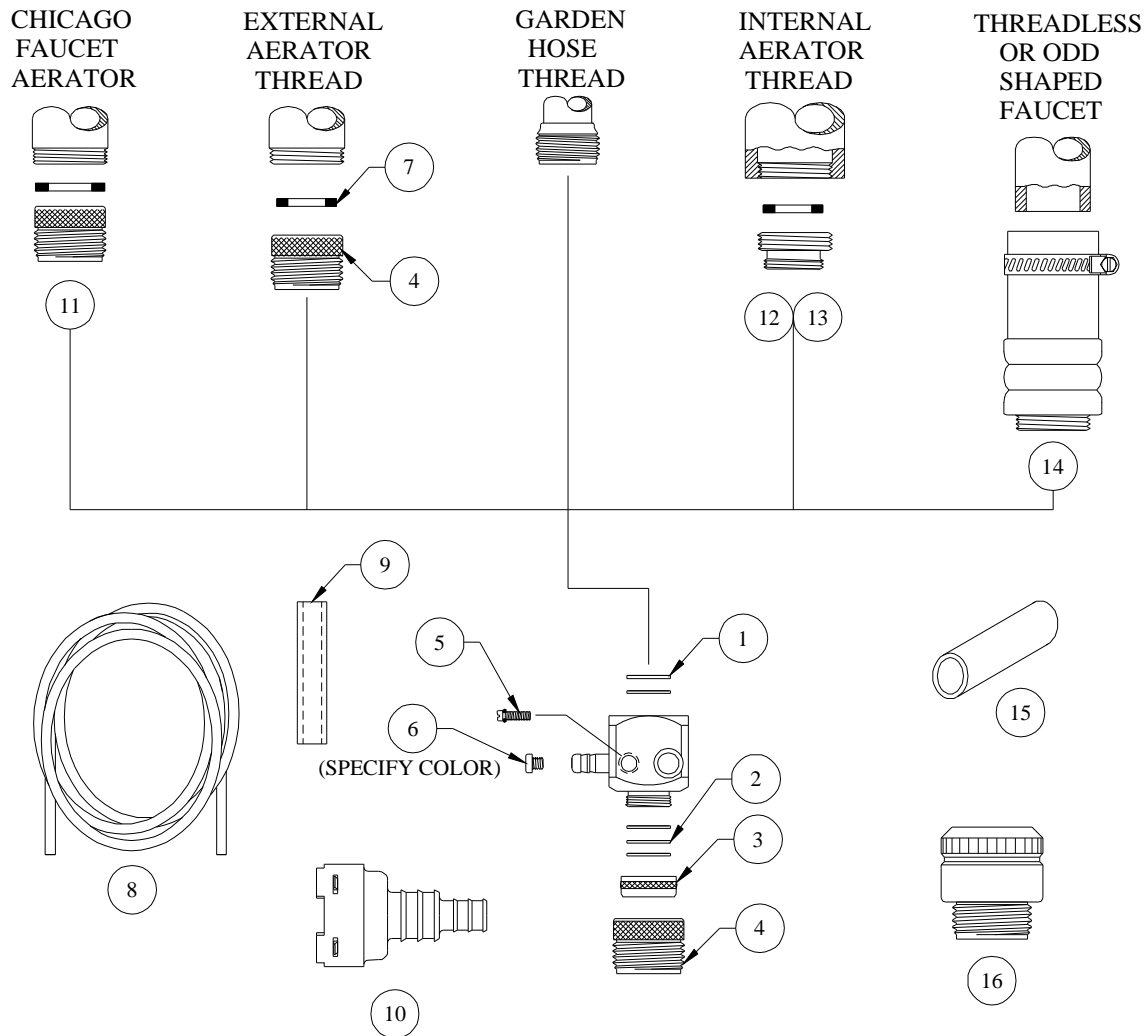
Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. DEMA assumes no liability for damages. Return merchandise authorization number, to return units for repair or replacement, must be granted in advance of return.



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### INSTALLATION INSTRUCTIONS



NO.	PART NO.	DESCRIPTION
1	100-3	Inlet Washer (2-Reqd.)
2	100-7	Priming Screens (1 To 3 Needed)
3	100-8	Screen Retainer
4	100-10	Adapter
5	100-24	Metering Screw
6	100-15	Metering Tip
7	150-6	Adapter Washer
8	100-12	7/32" ID x 3/8"OD x 8' Lg. Supply Tubing
9	61-107-2	Ceramic Weight (1/4" ID x 3/8" OD Tubing)
10	100-16E	Foot Valve

ACCESSORIES		
NO.	PART NO.	DESCRIPTION
11	150-23	Outside Chicago Thread Adapter
12	150-21	Inside Aerator Thread Adapter
13	150-32	Inside Kohler Thread Adapter
14	150-9-2	Irregular Faucet Adapter
15	100-14M	Coupling For 1/4" ID x 8' Lg. Tubing
16	34-22	Backflow Preventer