

BLEND SAFE MODELS: 66-149GAP-1 & 66-149GAP-2

INSTRUCTION SHEET

1. PARTS CHECK LIST:

- | | | |
|---|--|-------------------------------|
| A. Blend Safe | B. ¼" IDx8' Lg. Vinyl Supply Tubing w/ Foot Valve | |
| C. Ceramic Weight | D. 8 box clips | |
| E. ½" IDx6' Lg. Vinyl Outlet Tubing (for 4 GPM) | F. #10 Screw & Anchor Kit (2 Screws and 2 Anchors) | |
| G. Label Card | H. Metering Tip Kit | I. Tubing Hanger (4 GPM only) |

2. INSTALLATION:

Note: All installations must conform with local plumbing codes and use approved backflow preventers.

Pressure indicating tee is to be install with existing faucets according to local plumbing codes in the state of Wisconsin and any other state that requires the use of a pressure indicating tee.

WARNING: Water supply should not exceed 125 psi and water temperature must not exceed 150°F.

A. MOUNTING AND WATER SUPPLY:

Use mounting template enclosed to locate the mounting screw positions. Drill all of the holes into the drywall using a ¼" diameter bit for use with the included #10 screw and anchor set. (If mounting the Blend Safe to wood and you do not plan to use the included anchors, drill 1/8" diameter holes.) Insert the anchors into drilled holes and hammer them into the wall until they are flush with face of wall. Screw the mounting screws into the anchors, leaving approximately 1/2" extension between the wall and screw head. Mount the Blend Safe by inserting the screw heads through the keyhole slots in the base and tightening the screws (See Figure 1).

The water inlet is equipped with a female garden hose fitting (with strainer washer) for attaching a water supply hose. The water inlet may be removed to permit direct connection to a 3/8" NPT pipe. The unit is designed so water can be supplied to either side by interchanging the pipe plug with the pipe and female hose fitting. **Note: Apply pipe dope, hand tighten, then turn 1 ½ times with a wrench. Do not over tighten.** The Blend Safe can accommodate additional units added to it. Use DEMA kit #66-129 for attaching Blend Safe units to each other.

WARNING: Do not use Teflon® tape to seal internal plastic threads as the extra thickness of the tape may cause the plastic to crack. Use a non-welding liquid sealant instead.

B. PRESSURE INDICATION TEE INSTALLATION:

Screw female quick disconnect to faucet and attach pressure indicating tee to female quick disconnect. Attach female end of reinforced hose to male threads of tee, then attach the male end to the female garden hose fitting at the water inlet of the Blend Center (See Figure 4).

C. CHEMICAL INJECTION ADJUSTMENT:

Warning: use care when handling hazardous chemicals.

Chemical feed rates are controlled by metering tips screwed into the selector valve barbs. Select a tip using Table 1 or 2 as a guide.

D. SELECTOR CONNECTION: (Refer to Figure 3)

Screw selector assembly into proportioner. Attach each small tube to a barb of the selector assembly and bend the tubes around the proportioner body. Behind the proportioner body, attach the end of each tube to a barb of the tee. **Do not force outlet tubing onto the larger barbs on the proportioner.**

E. CHEMICAL SUPPLY:

Slip the ceramic weight over the chemical supply tubing. Remove Blend Safe cover. Install the tubing by attaching tubing to bottom barb of tee. Place the chemical container inside the case. Run the tubing down through the holes in the back of the Blend Safe and insert the foot valve end of the chemical supply tubing into the chemical container. Peel off gummed labels are provided for labeling chemicals.

F. OUTLET TUBING (4 GPM ONLY):

Attach one end of the 9/16 ID tubing to the proportioner outlet barb and run the other end through the hole located at the bottom of the case. Attach tubing hanger to end of tubing, to hang up when not in use.

PRESSURE INDICATING TEE INSTALLATION

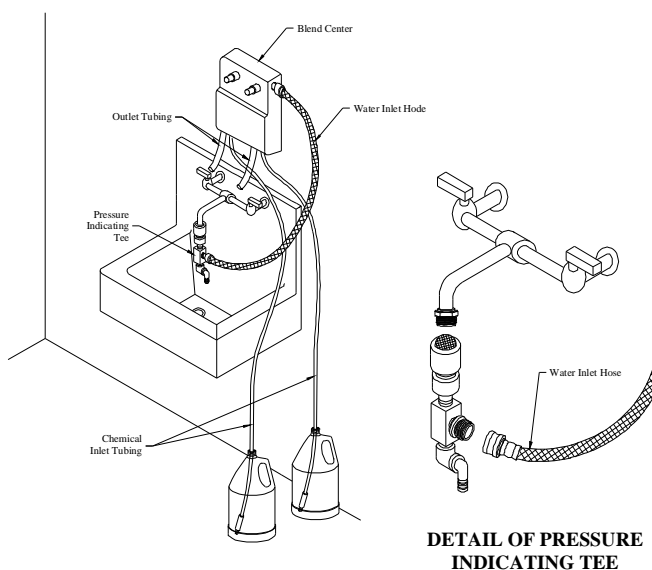


FIGURE 4

BLEND SAFE MODELS: 66-149GAP-1 & 66-149GAP-2

INSTRUCTION SHEET

G. DRIP TRAY (1 GPM ONLY):

The Drip Tray is installed by simply inserting the tabs in the back of the tray into the slots in the door. Push tray down into place. Two-sided tape or velcro (not included) may be used to secure drip tray to door.

1 cps (centipoise) is equal to the viscosity of water
75 cps is approximately equal to the viscosity of 10 weight motor oil
200 cps is approximately equal to the viscosity of most dishwashing detergents

TABLE 1 - 1 GPM FLOW RATE PROPORTIONER, 1/4" I.D. TUBING

Metering Tip Color	Injection Rates For Viscosities Shown					
	1 cps		75 cps		200 cps	
	Oz/Gal	Ratio	Oz/Gal	Ratio	Oz/Gal	Ratio
Tan	1.03	125-1	0.76	168-1	0.38	333-1
Orange	1.24	103-1	0.98	130-1	0.53	241-1
Turquoise	1.43	89-1	1.07	119-1	0.61	211-1
Pink	2.47	52-1	1.58	81-1	0.92	139-1
Light Blue*	3.05	42-1	2.1	61-1	1.06	121-1
Brown	3.48	37-1	2.31	55-1	1.15	111-1
Red	4.38	29-1	2.83	45-1	1.23	104-1
White	5.33	24-1	3.1	42-1	1.37	93-1
Green	6.38	20-1	3.63	35-1	1.4	91-1
Blue	6.77	19-1	3.78	34-1	1.45	88-1
Yellow	9.90	13-1	5.1	25-1	1.48	86-1
Black	15.00	9-1	6.54	20-1	1.53	84-1
Purple	24.94	5-1	7.28	18-1	1.57	82-1
Gray	35.94	4-1	8.5	15-1	1.64	78-1
No Tip	73.21	2-1	9.35	14-1	1.87	69-1

TABLE 2 - 4 GPM FLOW RATE PROPORTIONER, 1/4" I.D. TUBING

Metering Tip Color	Injection Rates For Viscosities Shown					
	1 cps		75 cps		200 cps	
	Oz/Gal	Ratio	Oz/Gal	Ratio	Oz/Gal	Ratio
Tan	0.33	387-1	0.26	500-1	0.12	1090-1
Orange	0.42	307-1	0.32	430-1	0.17	735-1
Turquoise	0.51	251-1	0.34	382-1	0.19	676-1
Pink	0.78	165-1	0.56	230-1	0.3	422-1
Light Blue*	0.87	147-1	0.67	192-1	0.33	391-1
Brown	0.99	129-1	0.74	174-1	0.37	345-1
Red	1.37	93-1	0.91	141-1	0.44	289-1
White	1.52	84-1	1.04	123-1	0.48	264-1
Green	1.72	74-1	1.22	105-1	0.52	244-1
Blue	2.13	60-1	1.27	101-1	0.54	239-1
Yellow	3.05	42-1	1.71	75-1	0.56	229-1
Black	4.50	28-1	1.96	65-1	0.57	224-1
Purple	7.75	17-1	2.4	53-1	0.59	217-1
Gray	9.86	13-1	2.54	50-1	0.63	204-1
No Tip	19.63	7-1	3.16	40-1	0.67	190-1

NOTE: *Metering tip color was formerly clear. All induction rates are based on a water pressure of 40 psi. Leaner dilutions can be achieved by ordering DEMA ultra lean tip kit 100-15KU or capillary tip 44-61P.

3) OPERATION:

The Blend Safe is now ready for use. Depressing a push button opens the valve allowing water to flow through the chemical proportioner that mixes a chemical water solution at the desired rate. The buttons are spring loaded to prevent accidental overflow if unattended, but may be converted to locking buttons by cutting off the tab at the notch (See Figure 2). Pushing the button and turning it a 1/4 turn clockwise at the end of its travel allows the valve to lock on. This makes it unnecessary for the attendant to hold the button while filling large containers. Turning the button in a counter-clockwise direction will release it, allowing the valve to shut off.

BLEND SAFE MODELS: 66-149GAP-1 & 66-149GAP-2

INSTRUCTION SHEET

4) SERVICING:

Caution: Turn off water supply before servicing.

A. Proportioner fails to draw chemical:

1. Pinch outlet tube to create back pressure, which will cause unit to prime. The foot valve will keep the inlet tube primed.
2. Insufficient water supply pressure. 20 PSI is the minimum allowable.

B. Proportioner stops drawing chemical:

1. Inspect foot valve for dried chemical or dirt. Soak in hot water to clean.
2. Proportioner metering tip clogged with dried chemical. Remove tip and try injecting in hot water. If there is no suction, remove proportioner and soak in hot water to clear interior passages.
3. Inspect proportioner to ensure that there are no mineral deposit build-ups on the nozzle. If so, soak proportioner body in deliming solution. (Remove all parts attached to proportioner before soaking in deliming solution.) **Note: Use care when handling hazardous chemicals.**

C. Valve Malfunction:

Check that the button moves freely in & out and that a "click" can be heard when the button is pushed and released, indicating that the magnet is activating the plunger properly. Remove cover. To inspect internal parts, unscrew magnet housing and carefully pull off the enclosing tube so as not to drop the plunger, kick-off spring, and spacer. Check for dirt or damage impeding plunger and kick-off spring movement. Inspect the diaphragm, making sure the two small pin holes (bleed hole) in the diaphragm convolution are clear to allow the valve to close.

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

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.

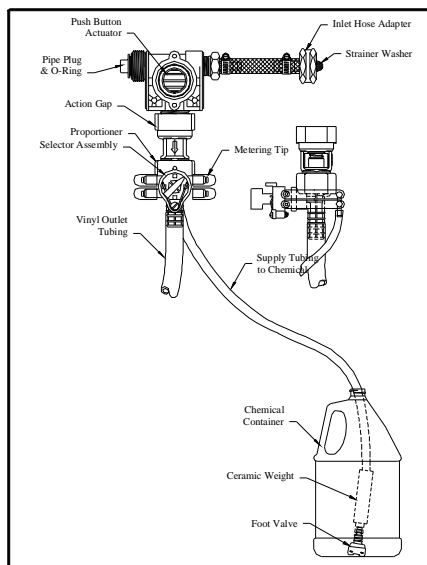


FIGURE 3

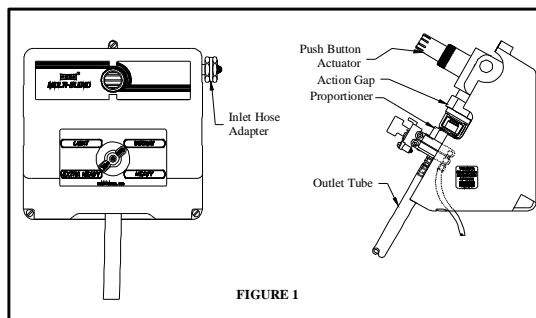


FIGURE 1

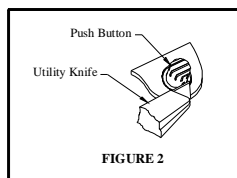
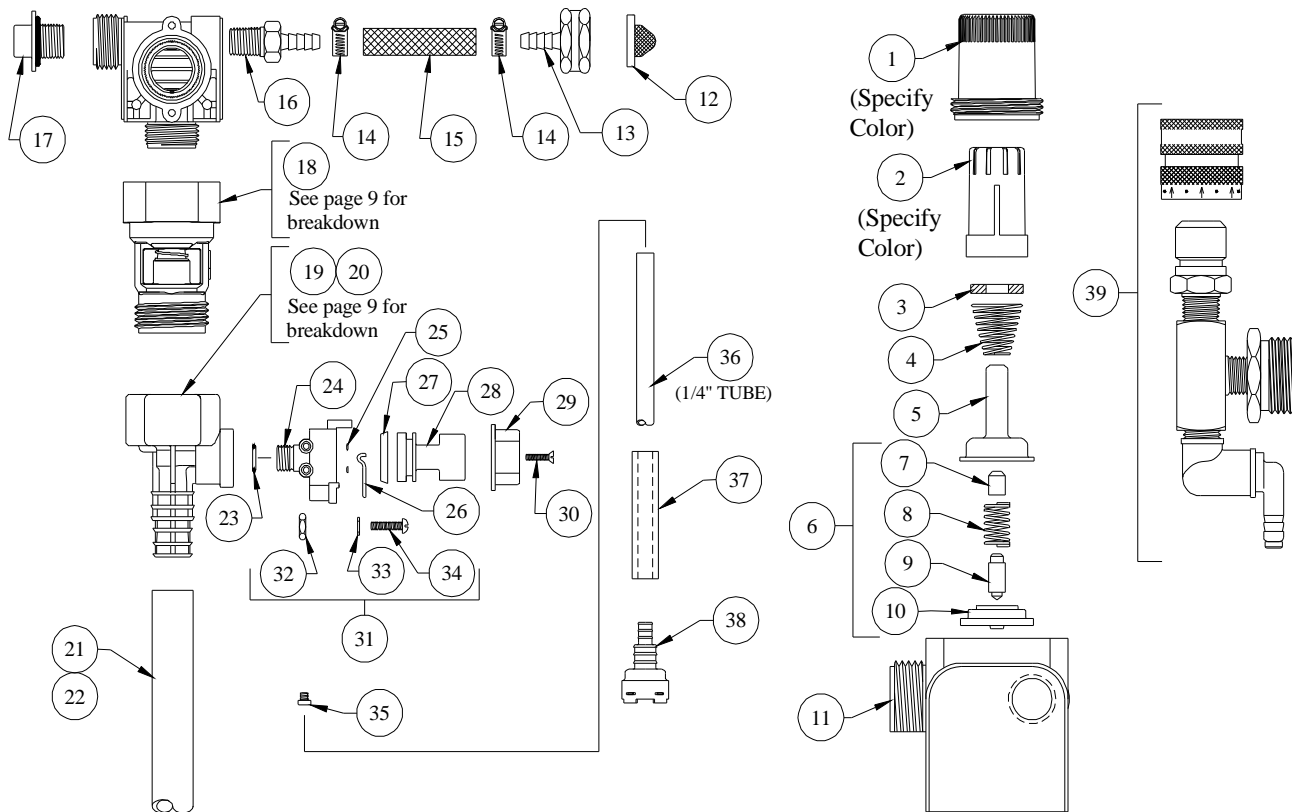


FIGURE 2

BLEND SAFE MODELS: 66-149GAP-1 & 66-149GAP-2

INSTRUCTION SHEET



NO.	PART NO.	DESCRIPTION
1	66-139	Magnet Housing (Specify Color)
2	66-140	Push Button (Specify Color)
3	63-53	Magnet
4	63-36	Spring
5	41-7-25	Enclosing Tube
6	63-87	Valve Repair Kit
7	63-37	Spacer
8	41-1-8	Kick-off Spring
9	63-38	Plunger
10	41-15-10	Diaphragm (EP)
11	63-39	Valve Body
12	100-38	Strainer Washer
13	66-142	Hose Barb (3/8" Barb X Female G.H. Swivel)
14	76-2-3	Hose Clamp
15	66-98-4	Nylon Braided Tube (3/8" ID X 3" Lg.)
16	66-119	Hose Barb (3/8" Barb X 3/8" MPT)
17	66-153	Pipe Plug & O-Ring Assy.
18	16-30	Action Gap Assembly
19	61-22GAP-3	4 GPM Proportioner (Gray)
20	61-99GAP-3	4 GPM Proportioner (Green)
21	16-3-6	1/2" ID X 6" Lg. Vinyl Outlet Tube(1 GPM only)
22	61-21	1/2" ID X 6" Lg. Vinyl Outlet Tube(4 GPM only)

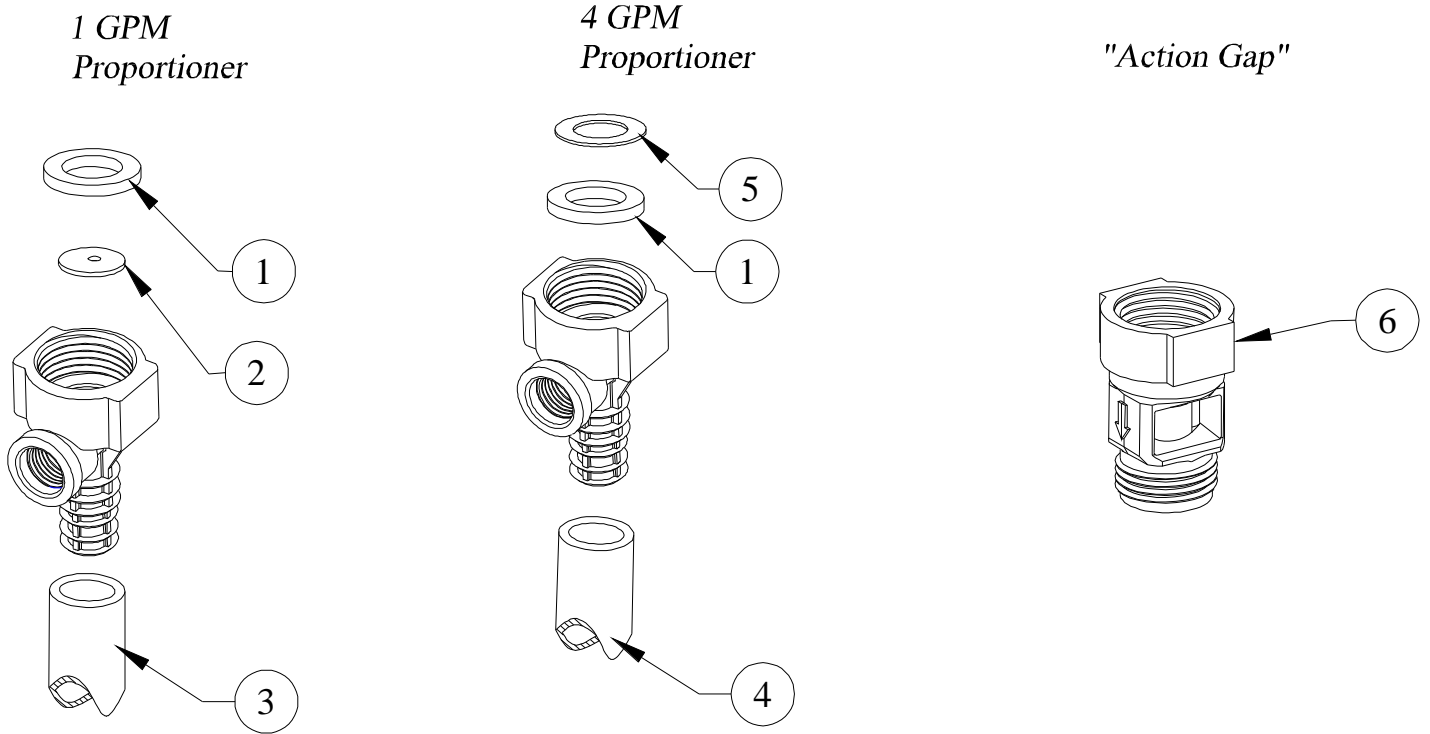
NO.	PART NO.	DESCRIPTION
23	63-78	O-Ring (EP)
24	63-98	Selector Valve Body
25	25-77	O-Ring (Silicone)
26	63-100	Retainer Spring
27	63-51	"U" Cup
28	63-101-2	Selector Knob
29	63-111-2	Stamped Selector Knob
30	58-60	#6 Hi Lo Screw 1/2" Lg.
31	63-96-3	Selector Valve Assembly
32	66-13	Nut
33	63-104	Washer
34	63-103	#8-32 round Head Screw 3/4" Lg.
35	100-15K-1	Metering Tip Kit (14 Sizes)
36	100-12	1/4 ID X 8' Lg. Vinyl Supply Tube
37	61-107-2	Ceramic Weight
38*	100-16E-1	Foot Valve
ACCESSORIES		
NO.	PART NO.	DESCRIPTION
39	68-6QD2	Pressure Indicating Tee

*Foot Valve also available with silicone (100-16S-1) or Viton (100-16V-1) rubber seals.

Please specify material when ordering

BLEND SAFE MODELS: 66-149GAP-1 & 66-149GAP-2 INSTRUCTION SHEET

PROPORTIONER AND ACTION GAP BREAKDOWN



NO.	PART NO.	DESCRIPTION
1	150-6	Rubber Washer
2	61-36	Flow Disk
3	16-3-6	1/2" I.D. x 6" Lg. Vinyl Outlet Tube (1 GPM Only)
4	61-21	1/2" I.D. x 6' Lg. Vinyl Outlet Tube (4 GPM Only)
5	63-89-1	Rubber Washer (1/32" Thick)
6	16-30	Action Gap Assembly