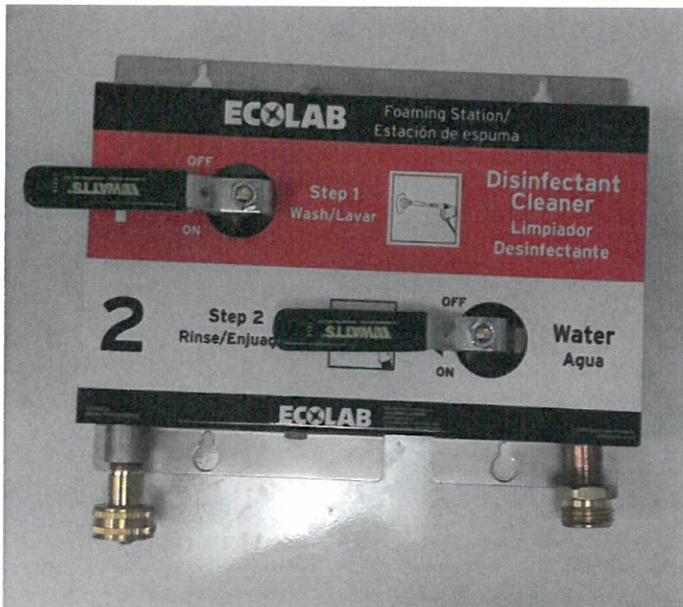
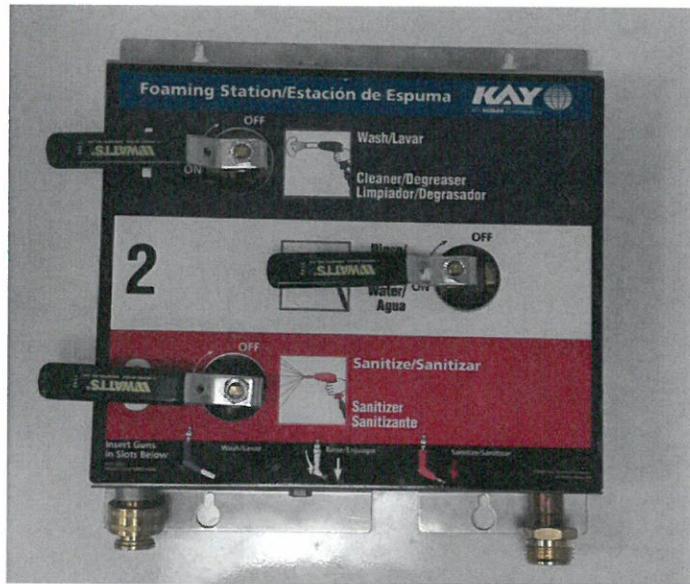




# INSTALLATION & OPERATION MANUAL

## 2 & 3 Lever Dispensing Systems



Retain this manual for installation,  
operation and servicing information.

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## 1. Introduction

### 1.1.Preface

This manual provides basic installation and operation characteristics of the 2 & 3 Lever Foaming Systems. Guidelines pertaining to the preferred method of installation are suggested. **Always install units in accordance with the approved local plumbing code.**

### 1.2.System Features

The 3 Lever dispensing system contains three ball valves and two eductors with two product ports and check valves. The unit is designed to proportion and dispense degreaser and sanitizer products and clear water rinse.

The 2 Lever dispensing system contains two ball valves and one eductor with one product port and check valve. The unit is designed to proportion and dispense disinfectant cleaner product and clear water rinse.

### 1.3.Principle of Operation

The 3 Lever dispensing system contains three ball valve and two eductors that allow degreaser and sanitizer to be aspirated or no product (clear water rinse). The ball valves are also used to turn the unit off between uses. The discharge solution travels through a hose with a trigger release spray gun at the outlet. There is also a foam wand attachment for the trigger release spray gun which will generate foam with a foaming product.

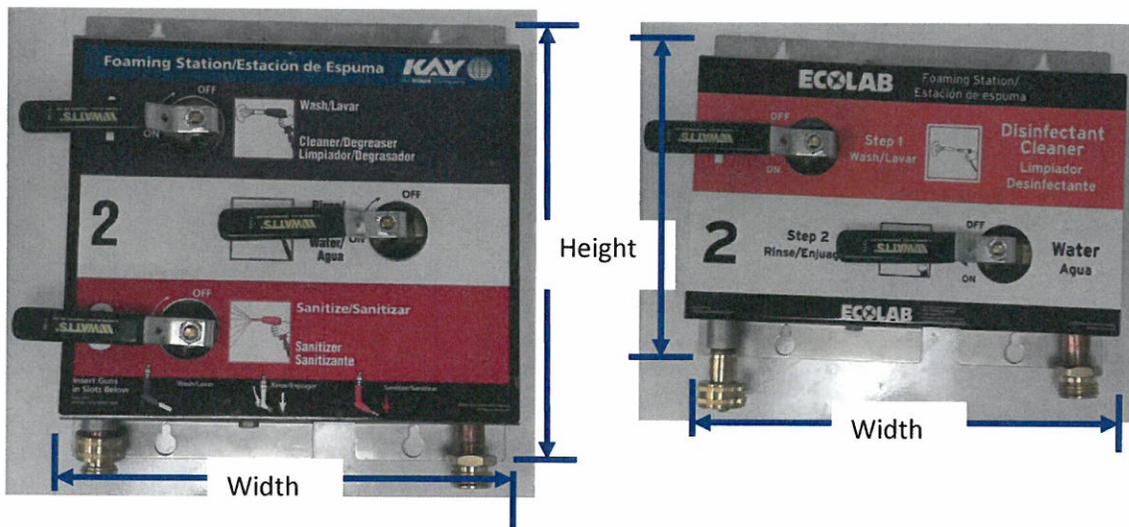
The 2 Lever dispensing system contains two ball valves and one eductor that allow disinfectant cleaner to be aspirated or no product (clear water rinse). The ball valves are also used to turn the unit off between uses. The discharge solution travels through a hose with a trigger release spray gun at the outlet.

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

- Always observe the safety and handling instructions of the chemical manufacturers.
- Always direct discharge away from you and other persons and only spray in designated locations or into approved containers.

- Always dispense cleaners and chemicals in accordance with manufacturer’s instructions. Exercise caution while maintaining your equipment.
- Clean equipment after each use in accordance with instruction sheet.
- Always re-assemble equipment in accordance to instruction procedures. Be sure all components are firmly screwed or latched into position.
- Attach only to tap-water outlets (85 psid maximum).

## 2. Specifications



### 2.1. Dimensions

#### 3 Lever

#### 2 Lever

Height	10.75 inches (37,3 cm)	8.0 inches (20,3 cm)
Width	10.5 inches (26,7 cm)	10.5 inches (26,7 cm)
Depth	1.9 inches (4,8 cm)	1.9 inches (4,8 cm)

### 2.2. Utility Requirements

#### 2.2.1. Water Supply

Maximum water temperature	140°F (60°C)
Minimum water temperature	40°F (4.4°C)
Maximum water pressure	85 psid (5.9 bar)
Minimum water pressure	25 psid (1.7 bar)
Maximum water flow rate	20 gpm (75.2 lit/min)
Minimum water flow rate	5 gpm (18.9 lit/min)

**Use only the hoses supplied with this unit. Outlet hose must not be longer than 50 feet. Water temperature should not exceed 140°F.**

### 2.2.2. Required Installation Tools

- 4-in-1 Screwdriver
- Channel Lock Pliers
- Safety glasses
- Level
- Cutting Tool
- Drill
- Drill bit options
  - ¼" glass & tile bit
  - ¼" masonry bit
  - ¼" split point twist bit
- 5/16" Nut Driver Bit or Handled Nut Driver
- Tube cutter
- Marking pencil
- Silicone caulk
- Hammer

## 3. Installation Procedures

### 3.1. Mounting and Water Supply

3.1.1. Line up the dispenser on the wall using the level and mark the mounting holes. Using a ¼" bit (select the correct bit by wall material), drill holes in the wall. Use silicone caulk to fill all holes not being used.

3.1.2. Mount unit on a vertical surface using the four mounting holes in the backplate using #10 x 1-1/4 screws and anchors when needed. When mounting, be aware of possible obstructions or interference caused by the inlet hose, discharge hose, and product holders.

- 3.1.3. Mount product holders no lower than 6 feet below the dispenser and no higher than the bottom of the dispenser.
- 3.1.4. Attach backflow preventer to water inlet source.
- 3.1.5. Connect water inlet hose to backflow preventer.
- 3.1.6. Attach water inlet hose to the left side of the unit.
- 3.1.7. Attach discharge hose to the right side of the unit.
- 3.1.8. Put in metering tip and connect product tubing. To measure concentration, refer to section 3.2.
- 3.1.9. Connect trigger sprayer to the exit side of the discharge hose. Once connected, turn on water source to check for leaks in the system.
- 3.1.10. Operate unit to check for product draw, leaks and proper performance.
- 3.1.11. If problems occur, refer to section 5 for troubleshooting.

### 3.2. Measurement of Concentration

The final concentration of the dispensed solution is related to the size of the metering tip orifice, viscosity of the liquid being pulled, water pressure, water flow rate and various other factors in the application. Using the "Suggested Starting Tip Chart", pick a tip that would deliver the desired ratio. Continue to choose and test tips until the desired dilution is achieved.

Use the appropriate titration kit for the product you are dispensing to determine correct titration.

## 4. Start Up Procedure

### 4.1. Basic Operating Procedure – Wash

- 4.1.1. Turn on water at the source.
- 4.1.2. Rotate the wash ball valve to "On" position.
- 4.1.3. Attach foam wand to the end of the trigger sprayer (for 3 Lever Foamer only).
- 4.1.4. Actuate trigger sprayer at the end of the discharge hose in order to apply the desired wash solution.
- 4.1.5. Rotate the wash ball valve to the "Off" position when complete.

#### 4.2. Basic Operating Procedure – Rinse

- 4.2.1. Remove foam wand from the end of the trigger sprayer (3 Lever Only).
- 4.2.2. Rotate the rinse ball valve to “On” position.
- 4.2.3. Actuate trigger sprayer at the end of the discharge hose.
- 4.2.4. Allow at least one minute of spray time for previously selected use-solution to clear the discharge hose.
- 4.2.5. Rotate the rinse ball valve to the “Off” position when complete.

#### 4.3. Basic Operating Procedure – Sanitize (3 Lever only)

- 4.3.1. Rotate the sanitize ball valve to “On” position.
- 4.3.2. Actuate trigger sprayer at the end of the discharge hose.
- 4.3.3. Allow at least one minute of spray time for previously selected use-solution to clear the discharge hose.
- 4.3.4. Rotate the sanitize ball valve to the “Off” position when complete.

\*\*Always make sure the spray gun is pointed in the proper direction.

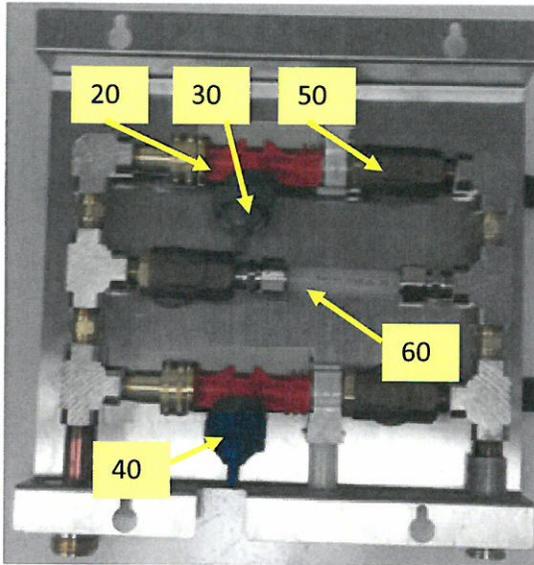
### 5. Troubleshooting

Problem	Cause	Solution
1. No Discharge	<ul style="list-style-type: none"> <li>a) No Water</li> <li>b) Excessive water pressure</li> <li>c) Eductor clogged</li> <li>d) Gun clogged</li> <li>e) Nozzle clogged</li> </ul>	<ul style="list-style-type: none"> <li>a) Open water supply</li> <li>b) Install regulator if pressure exceeds 85 psid</li> <li>c) Clean<sup>1</sup> or replace</li> <li>d) Clean<sup>1</sup> or replace</li> <li>e) Clean<sup>1</sup> or replace</li> </ul>
2. No concentrate draw	<ul style="list-style-type: none"> <li>a) Concentrate container empty</li> <li>b) Check valve clogged</li> <li>c) Metering tip clogged</li> <li>d) Eductor clogged</li> <li>e) Clogged water inlet</li> <li>f) Clogged foot strainer or cap</li> <li>g) Low water pressure and/or flow</li> <li>h) Product inlet not screwed into eductor firmly</li> <li>i) Discharge hose too long or too</li> </ul>	<ul style="list-style-type: none"> <li>a) Replace with full container</li> <li>b) Clean<sup>1</sup> or replace</li> <li>c) Rinse in hot water or replace – Do Not Ream Clean</li> <li>d) Clean<sup>1</sup> or replace</li> <li>e) Clean<sup>1</sup> or replace</li> <li>f) Clean<sup>1</sup> or replace</li> <li>g) Minimum 25 psid and 4 gpm flow required</li> <li>h) Tighten, but do not over tighten</li> </ul>

	small of diameter j) Gun and/or nozzle clogged	i) Use maximum 50 foot hose. j) Clean <sup>1</sup> or replace; make sure correct gun is being used
3. Excess concentrate draw	a) Metering tip not in place b) Metering tip too big c) Metering tip not fully inserted into barb d) Product concentrated mounted above the dispenser	a) Put in proper metering tip b) Put in proper metering tip c) Push metering tip fully into place d) Relocate concentrate so it is below the dispenser inlet port.
4. Water flow will not shut off	a) Ball valve defective	a) Replace
5. Low or no water flow	a) Inlet screen clogged b) Water source inadequate c) Scaled eductor or fittings	a) Clean <sup>1</sup> or replace b) 4 GPM flow necessary to unit. Move unit or replumb inlet line. c) Clean <sup>1</sup> or replace
6. Backflow into concentrate	a) Eductor check valve inoperable	a) Clean <sup>1</sup> or replace
7. Leaking unit	a) Leaking out of eductor b) Leaking out of discharge – garden hose fitting	a) Replace eductor b) Tighten or replace hose washer

<sup>1</sup> In hard water areas, scale (mineral deposits) may form. This scale may be removed by soaking part in a descaling (deliming) solution or by running the descalant through the system.

## 6. Replacement Parts

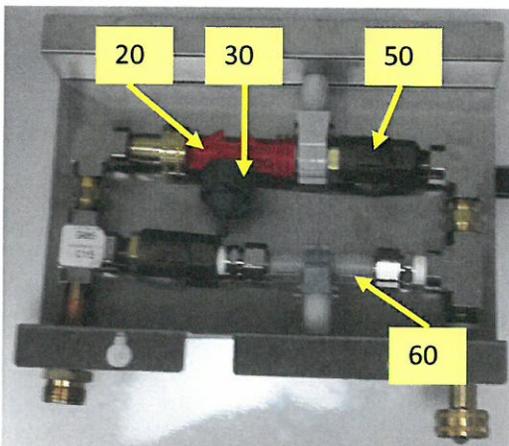


10	92222553	NMPLT FOAMING STA WL MT
20	92225272	ASPRTR 3/8FNPTX3/4MGH PLSTC
30	92842003	VLV CHK EPDM HYDRO 912/932
40	92844595	VLV CHK 1/4MNPTX1/4BARB BLU
50	85250579	VLV BALL 3/8FNPT BRS
60	85016200	TBG FLX .500X.062 NYL



10

3 Lever Foaming Station - 92211159



10	92212717	NMPLT 2LVR FMGSTA TPLPLY
20	92225272	ASPRTR 3/8FNPTX3/4MGH PLSTC
30	92842003	VLV CHK EPDM HYDRO 912/932
50	85250579	VLV BALL 3/8FNPT BRS
60	85016200	TBG FLX .500X.062 NYL



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2 Lever Foaming Station - 92211158