

# LAFFERTY EQUIPMENT MFG., INC.

## INSTALLATION / OPERATION INSTRUCTIONS

# LOW PRESSURE AIRLESS FOAMER

### Requirements

35 – 125 PSI Water — Up to 5 GPM  
1/2" I. D. Discharge Hose

Water Temperature  
Ambient to 140° F



## OPTIONS

- *Backflow Preventer*
- *Dual Chemical Pick-up\**
- *Dual Chemical Pick-up with Chemical Ball Valves (DU/CBV)\*\**
- *1 Gallon Stainless Steel Jug Rack (round OR square)*
- *2 ½ Gallon Stainless Steel Jug Rack (inside dimensions 8 ½" x 10 ½")*
- *5 Gallon Stainless Steel Jug Rack (inside dimensions 12" x 12")*

Model # 974200, LP Airless Foamer

\* Model # 974150, LPDU Airless Foamer

\*\* Model # 974155, LPDU/CBV Airless Foamer  
(with A-50 Airless Foam Wand only)

Model # 974250, LP Airless Foamer Complete

\* Model # 974160, LPDU Airless Foamer Complete

\*\* Model # 974165, LPDU/CBV Airless Foamer Complete  
(with 50' hose, ball valve, and A-50 Airless Foam Wand)

***Ask About Our WR-1 and WR-2 Spray-Alls***

# INSTALLATION AND OPERATION INSTRUCTIONS LOW PRESSURE AIRLESS FOAMER

## IMPORTANT: FOAMER SUPPLIED WITHOUT A BACKFLOW PREVENTER

TO PREVENT POSSIBLE CHEMICAL BACK UP INTO THE WATER SYSTEM, COMPLY WITH LOCAL PLUMBING CODES AND INSTALL APPROPRIATE BACKFLOW PREVENTER BEFORE OPERATING.

CAUTION: ALWAYS OBSERVE GOOD SAFETY HABITS. WEAR PROTECTIVE CLOTHING, GLOVES, AND EYE WEAR. DIRECT DISCHARGE AWAY FROM YOURSELF AND OTHERS.

## TO INSTALL (See Parts Diagram, Facing Page)

1. Mount the airless foamer to a suitable surface.
2. **Foamer supplied without a backflow preventer. To prevent possible chemical back up into the water system, comply with local plumbing codes and install appropriate backflow preventer.** Then, connect your 35 – 125 PSI water supply.
3. Connect the hose to the hose barb and the foam wand assembly as shown in diagram. [**Hose must be 1/2" I.D.**]
4. *Stapled to these instructions, with a matching color-coded chart, are metering tips which control your chemical to water dilutions.* If you will be using a tip, you will need to know the **water pressure** and the **number of ounces of chemical needed per gallon of water** to determine the correct tip color. (*See chemical label for manufacturer's recommendation.*)
  - A. Locate your water pressure in the chart. The number below it is your water flow rate in **gallons per minute**.
  - B. Multiply the **gallons per minute** by the number of **ounces of chemical needed per gallon** of water.
  - C. Match your answer(s) to the *nearest* number in the metering tip selection chart below to determine the tip color. [**Tip selection chart is based on water-thin chemical. Thicker chemicals will require a larger metering tip. If the selected metering tip does not produce desired foam consistency, increase tip size until desired foam consistency and cleaning results are achieved. For dual pick-up units without chemical ball valves, it is important to install a metering tip into each solution check valve and immerse both chemical strainers into chemical concentrates.**]

## EXAMPLE OF METERING TIP SELECTION LP Airless Foamer at 60 PSI

- 60 PSI = 2.49 GPM
- 4 ounces of chemical per gallon of water
- $2.49 \times 4 = 9.96$  ounces of chemical
- $9.96 \approx 9.2$  for thin chemical (Clear Pink tip) (thicker chemicals will require a larger tip)

- D. Install selected metering tip into (each) solution check valve. Next, push the chemical tube over the check valve. Immerse the chemical strainer into your chemical concentrate.

## TO OPERATE

1. While holding the foam wand, make sure the discharge ball valve is closed, then completely open the water ball valve.
2. Move to the area to be cleaned and completely open the discharge ball valve. Begin application. To prevent streaking, apply foam from the bottom and work up.
3. When application is completed, close the discharge ball valve. Return to the foamer and close the water ball valve.
4. Open, then close the discharge ball valve to relieve pressure in the hose! Store hose.
5. Rinse the work surface before the foam dries.

**CAUTION: SHUT DOWN AFTER EACH USE! NEVER LEAVE FOAMER UNATTENDED WITHOUT CLOSING THE INCOMING VALVE AND RELIEVING PRESSURE IN THE HOSE.**

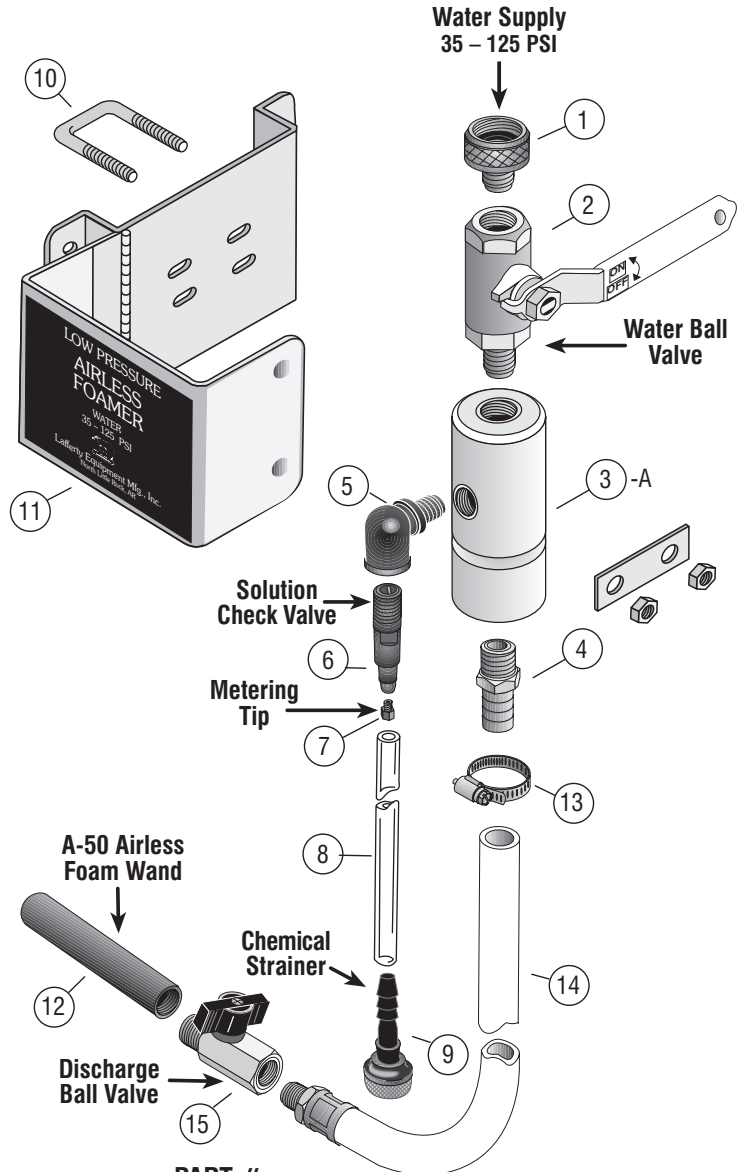
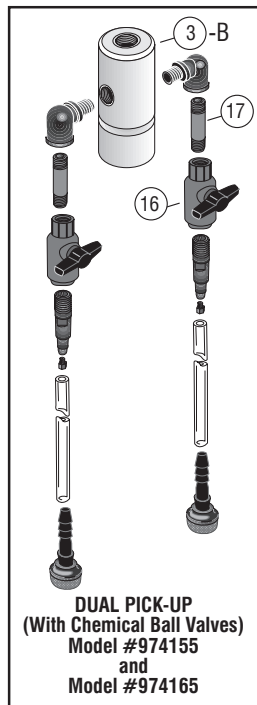
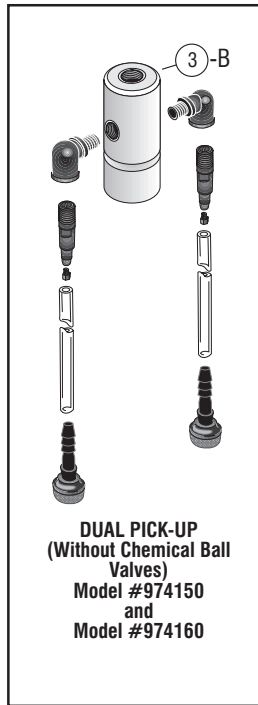
Low Pressure Airless Foamer Flow Chart	WATER PRESSURE IN POUNDS PER SQUARE INCH (PSI)						
	40 PSI	50 PSI	60 PSI	70 PSI	80 PSI	90 PSI	100 PSI
	AIRLESS FOAMER WATER FLOW RATE (GPM)						
	2.10	2.28	3.49	2.67	2.8	3.0	3.2

The number under each color in the chart below represents the **average ounces of water-thin chemical which will pass through the tip per minute.**

METERING TIP SELECTION IN OUNCES PER MINUTE (AVERAGE)																				
COLOR	Brown	Clear	Bright Purple	White	Pink	Corn Yellow	Dark Green	Orange	Gray	Light Green	Medium Green	Clear Pink	Yellow Green	Burgundy	Pale Pink	Light Blue	Dark Purple	Navy Blue	Clear Aqua	Black
Thin Chemical	0.84	1.16	1.4	2.0	2.7	3.4	4.0	5.3	6.1	7.0	8.5	9.2	11.2	12.5	12.9	14.2	17.6	21.4	30.2	40.4

# LP AIRLESS FOAMER COMPLETE - Model # 974250

**IMPORTANT:** Foamer supplied without a backflow preventer. Check local plumbing codes for requirements in your area and **install appropriate backflow preventer before operating.**



QTY. SINGLE	QTY. DUAL	CALL #	DESCRIPTION	PART #	
1	1	1	ADAPTER, FGH x 3/8" MPT	102023	
1	1	2	BALL VALVE, NPB, 3/8" FM(A)	413626	
1		3-A	INJECTOR BODY, W-50, 3/8"	381050	
	1	3-B	INJECTOR BODY, W-50DU, 3/8"	381150	
1	1	4	HOSE BARB, 1/2" x 3/8"	119266	
1	2	5	ELBOW, ST., POLY, 1/4"	257379	
1	2	6	CHECK VALVE, SOL., VITON BALL, 1/4"	491311	
1	1	7	METERING TIPS, SET (20)	443798	
1	2	8	TUBE, CHEMICAL, 1/4" x 6"	474745	
1	2	9	STRAINER, CHEMICAL, SS(BLUE), 1/4"	150113	
1	1	10	U-BOLT ASSEMBLY, # 6 SQUARE	392486	
1	1	11	BASE & COVER, STANDARD HINGED	222111	
1	1	12	WAND, AIRLESS FOAM, A-50	536606	
1	1	13	HOSE CLAMP, 1/2"	134302	These 3 items are not included with LP Airless Foamer Model #974200, #974150, and #974155.
1	1	14	HOSE, 1/2" x 50', 1/2" MPT	803650	
1	1	15	BALL VALVE, 1/2" FMB	413617	
<b>MODELS WITH CHEMICAL BALL VALVES</b>					
	2	16	BALL VALVE, PVC, 1/4" FF	413651	
	2	17	NIPPLE, PVC, 1/4" x 3"	429903	

# TROUBLESHOOTING GUIDE

*for*

## LOW PRESSURE AIRLESS FOAMER

**PREVENTIVE MAINTENANCE:** When the foamer will be out of service for extended periods, the risk of residual chemical build-up is increased. To prevent build-up, remove the chemical tube from chemical concentrate and place in warm water. Completely open the water ball valve and the discharge ball valve for approximately 30 seconds to flush the injector body and foam wand. Check and/or clean the chemical strainer periodically; replace if missing.

PROBLEMS	POSSIBLE CAUSE / SOLUTION															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A) Foamer will not draw chemical.	•	•	•	•	•	•		•	•	•	•				•	•
B) Foam output too wet.	•	•	•	•	•	•	•		•	•	•		•		•	•
C) Water flowing into chemical container.					•											
D) Foamer draws too much chemical.												•				
E) Foam does not clean properly.							•						•	•		•

## POSSIBLE CAUSE / SOLUTION

- |   |  |
|---|--|
| <p>1. <b>Water pressure too low or temperature too high</b> – Increase water pressure if possible and ensure water supply line is at least 1/2". Decrease water temperature.</p> <p>2. <b>Hose too long or wrong size or kinked; must be a 1/2" I.D.</b> – For pressures under 65 PSI, maximum recommended hose length is 50'. For pressures over 65 PSI, 75' is the maximum. Straighten the hose.</p> <p>3. <b>Foam wand screen blocked</b> – Dried chemical build-up may be obstructing screen. Back flush with hot water to remove debris or soak in descaling acid.</p> <p>4. <b>Water inlet and discharge ball valves not completely open</b> – Completely open the water and discharge ball valves.</p> <p>5. <b>Solution check valve clogged or failed</b> – Clean or replace solution check valve.</p> <p>6. <b>Water inlet screen clogged</b> – Disconnect airless foamer from water source. Clean or replace screen.</p> <p>7. <b>Improper chemical</b> – Ensure product is recommended for foaming and/or the application.</p> | <p>8. <b>Chemical tube not immersed in chemical or chemical depleted</b> – Immerse tube or replenish.</p> <p>9. <b>Chemical strainer or metering tip blocked</b> – Clean or replace chemical strainer and/or tip.</p> <p>10. <b>Chemical tube stretched out where tube slides over check valve or pin hole/cut in chemical tube</b> – Cut approximately 1/2" off end of tube or replace tube.</p> <p>11. <b>Vacuum leak in chemical pick-up assembly</b> – Tighten the connection(s).</p> <p>12. <b>Chemical to water ratio too high</b> – Install smaller tip.</p> <p>13. <b>Chemical to water ratio too low</b> – Install larger tip.</p> <p>14. <b>Soil has hardened on surface</b> – Reapplication may be necessary. Always rinse foam before it dries.</p> <p>15. <b>Water scale or chemical build-up may have formed in the injector body causing poor pick-up</b> – To descale, carefully remove body and soak <i>entire</i> body in descaling acid.</p> <p>16. <b>Chemical too thick</b> – Install 7/16" pickup tube and strainer (order Lafferty part # 474749 and 150119).</p> |
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