

# LAFFERTY EQUIPMENT MFG., INC. INSTALLATION / OPERATION INSTRUCTIONS

## LCSS FOAMER

### Requirements

35 – 100 PSI Water — Up to 3 GPM  
30 – 75 PSI Air — Up to 7 SCFM  
3/4" I. D. Discharge Hose, 40' maximum

Water Temperature

Ambient to 160° F



### OPTIONS

- *Air Gauge*
- *Water Gauge*
- *Water Regulator - for fluctuating water pressures*
- *Backflow Preventer*
- *Dual Chemical Pick-Up\* (Model #s below)*
- *Stainless Steel Hose Rack*
- *1 Gallon Stainless Steel Jug Rack (round)*
- *1 Gallon Stainless Steel Jug Rack (square)*
- *2 1/2 Gallon Stainless Steel Jug Rack (inside dimensions 8 1/2" x 10 1/2")*
- *5 Gallon Stainless Steel Jug Rack (inside dimensions 12" x 12")*

Model # 915110, LCSS Foamer

\* Model # 915510, LCSSDU Foamer  
(with nozzle only)

Model # 915115, LCSS Foamer Complete

\* Model # 915515, LCSSDU Foamer Complete  
(with 40' hose, ball valve, wand, and nozzle)

**Need to foam *and* sanitize? Order our 1035/LCC Combination  
Foam/Sanitize Hose Drop Station - Model # 915125.**

# LCSS FOAMER INSTALLATION / OPERATION INSTRUCTIONS

## 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 LCSS 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 – 100 PSI water and air lines to the foamer.
3. Connect the foam hose to the hose barb and secure with the clamp. **[Foam hose must be 3/4" I.D., 40' maximum.]**
4. Connect the foam wand assembly to the hose. **[Use only the 50250 nozzle supplied with foamer. If your water pressure exceeds 100 PSI remove the discharge ball valve.]**
5. *Stapled to these instructions, with a matching color-coded chart, are metering tips which control your chemical to water dilutions. 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 answer(s) to the *nearest* number in the metering tip selection chart. **[The tip selection chart is based on water-thin chemical. Thicker chemicals will require a larger metering tip. If 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, 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 LCSS Foamer at 50 PSI

- 50 PSI = 1.46 GPM
- 2 ounces of chemical per gallon of water
- $1.46 \times 2 = 2.92$
- $2.92 \approx 2.7$  for thin chemical (pink tip)  
(thicker chemicals will require a larger tip)

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

### TO OPERATE

1. While firmly holding foam wand, **point the discharge away from yourself and others.** Then, open the discharge ball valve. Open the water ball valve and the air ball valve and observe foam quality.
2. Foam consistency can be changed by adjusting the air pressure.

#### AIR REGULATION PROCEDURES

Air pressure is very important for proper operation; air pressure must be LOWER than water pressure. Pull out adjustment knob on **air regulator**, and turn it *slowly clockwise* to increase air pressure until desired foam consistency is achieved. Make only slight adjustments, then wait to see the results. If the flow of foam surges and/or hose "bucks," you must decrease the air pressure by *slightly* turning the regulator **counterclockwise** until the foam stabilizes. "Fine tune" your adjustments by making *slight* turns **clockwise and/or counterclockwise** until foam is desired consistency. Once adjustments are made, push lock **air regulator**. If foam consistency is too wet or hose is still "bucking," try installing a larger **metering tip** and/or see Troubleshooting Guide (pg.4).

3. Apply foam from the bottom and work up to prevent streaking.
4. When foaming is completed, close the discharge ball valve. Return to foamer and close the water ball valve. Then slowly re-open the discharge valve. Expect a strong blast of foamy solution. After hose is cleared out, close the air valve and store the hose.
5. Rinse the work surface before the foam dries.

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

WATER PRESSURE	40 PSI	50 PSI	60 PSI	70 PSI	80 PSI	90 PSI	100 PSI
LCSS FOAMER WATER FLOW RATE	1.34 GPM	1.46 GPM	1.54 GPM	1.59 GPM	1.76 GPM	1.80 GPM	1.91 GPM

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)

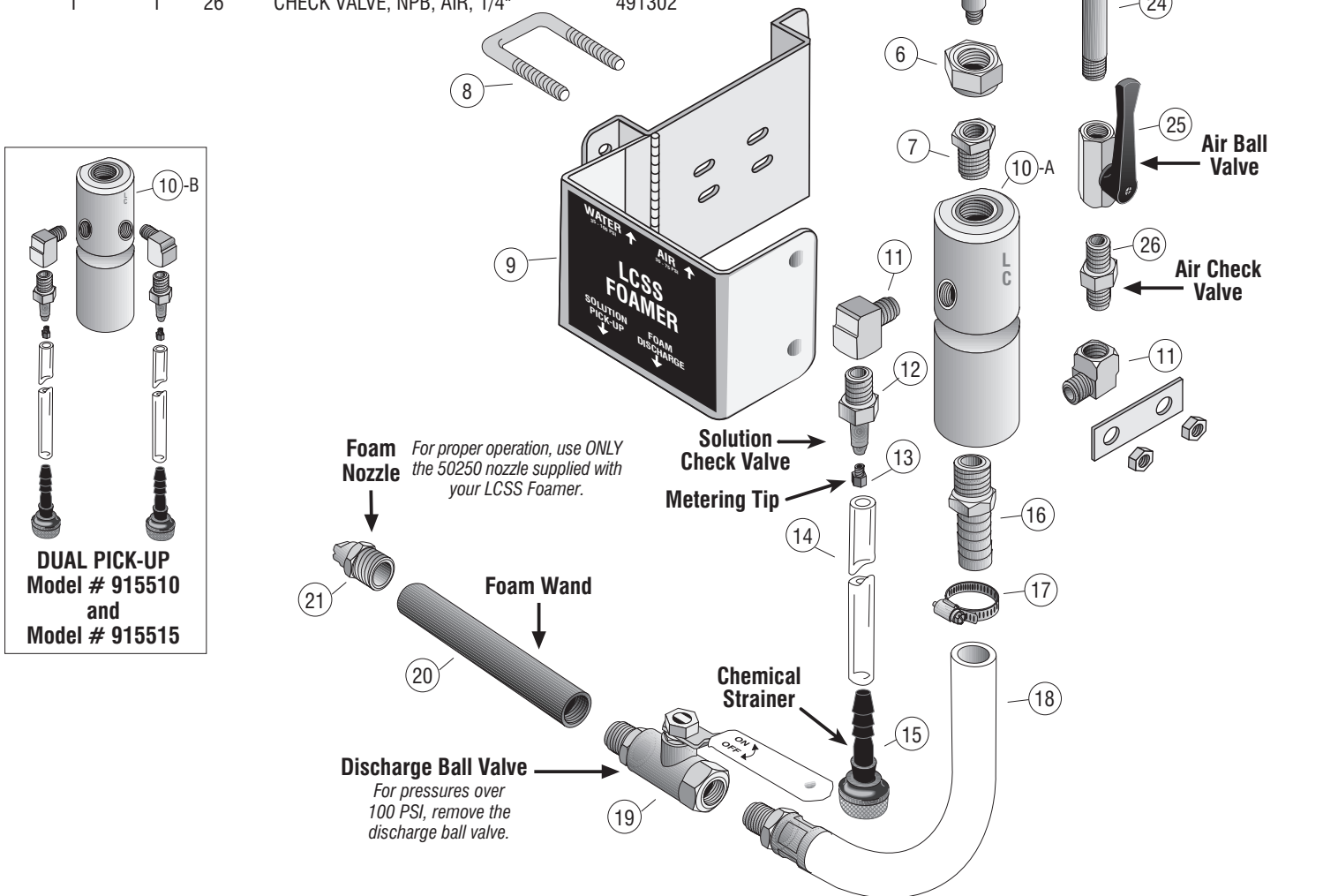
COLOR	Brown	Clear	Bright Purple	White	Pink	Corn Yellow	Dark Green	Orange	Gray	Light Green	Medium Green	Clear Pink	Yellow Green	Burgundy	Pale Pink	Light Blue	Dark Purple	Navy Blue	Clear Aqua	Black
Thin Chemical	0.84	1.16	1.4	2.0	2.7	3.4	4.0	5.3	6.1	7.0	8.5	9.2	11.2	12.5	12.9	14.2	17.6	21.4	30.2	40.4

# LCSS FOAMER COMPLETE – Model # 915115

QTY. LCSS	QTY. LCSSDU	CALL #	DESCRIPTION	PART #
1	1	1	ADAPTER, FGH x 1/4" MPT	102020
1	1	2	BALL VALVE, 1/4" FMB	413605
1	1	3	STRAINER BODY, 1/4"	552007
1	1	4	STRAINER ELEMENT	552009
1	1	5	STRAINER ADAPTER, 1/8"	552002
1	1	6	STRAINER CAP, SS	552004
1	1	7	BUSHING, 3/8" x 1/8"	305212
1	1	8	U-BOLT ASSEMBLY, #6 SQUARE	392486
1	1	9	BASE & COVER, STANDARD HINGED	222111
1		10-A	FOAMER BODY, LCSS	212136
1		10-B	FOAMER BODY, LCSSDU	212236
2	3	11	ELBOW, ST., 1/4"	257378
1	2	12	CHECK VALVE, SOLUTION, SS, 1/4"	491324
1	1	13	METERING TIPS, SET (20)	443798
1	2	14	TUBE, CHEMICAL, 1/4" x 6'	474745
1	2	15	STRAINER, CHEMICAL, SS (BLUE)1/4"	150113
1	1	16	HOSE BARB, 3/4" x 1/2" MPT	119281
1	1	17	HOSE CLAMP, 3/4"	134306
1	1	18	HOSE, 3/4" x 40', 1/2" MPT	801241
1	1	19	BALL VALVE, NPB, 1/2" FM(A)	413641
1	1	20	WAND, POLY, FOAM/SANITIZE	536603
1	1	21	NOZZLE, 1/2" – 50250	180152
1	1	22	HOSE, AIR, 1/4" x 24"	195182
1	1	23	REGULATOR, AIR, 1/4"	288360
1	1	24	NIPPLE, SS, 1/4" x 2 1/2"	429704
1	1	25	BALL VALVE, 1/4" FFL	413603
1	1	26	CHECK VALVE, NPB, AIR, 1/4"	491302

These 4 items are **not** included with the LCSS Foamer, #915110 or the LCSSDU Foamer, #915510.

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



# TROUBLESHOOTING GUIDE

for

## LCSS WALL MOUNT 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 chemical tube from chemical concentrate and place in warm water. Completely open the water supply valve for 30 seconds to flush. Check and/or clean the water strainer element and chemical strainer; replace if missing.

PROBLEMS WITH FOAMER	POSSIBLE CAUSE / SOLUTION																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A) Foamer will not draw chemical.	•			•		•	•	•	•	•	•		•	•	•	•				•
B) Foam surges and/or hose “bucks.”	•	•	•	•		•	•	•	•		•	•		•	•	•		•		•
C) Foam output too wet.		•	•	•	•	•	•	•	•		•	•	•	•	•	•		•		•
D) Foam output too dry.	•			•														•		
E) Water flowing into chemical container.										•										
F) Foam does not clean properly.												•						•	•	
G) Water/chemical backing up into air line.					•															

## POSSIBLE CAUSE / SOLUTION

- Air pressure too high for available water pressure** – Adjust the air regulator slowly counterclockwise.
- Use of an oiler on the airline will cause poor foam quality** – Use only clean, dry air.
- Inadequate air supply** – Open air inlet valve fully. Adjust air regulator slowly clockwise.
- Air regulator clogged or failed** – Clean or replace air regulator.
- Air check valve clogged or failed** – Clean or replace the air check valve.
- Water pressure fluctuating or temperature too high** – Install a water regulator to stabilize pressure or decrease water temperature.
- Foam hose too long or wrong size or kinked; must be 3/4" I.D.** – For pressure below 40 PSI, 25' is the maximum length **recommended**; for pressures over 40 PSI, 40' is the maximum. Straighten the hose.
- Nozzle size too small** – Must be a 50250 nozzle.
- Water inlet and discharge ball valves not completely open** – Completely open the water and discharge ball valves.
- Solution check valve clogged or failed** – Clean or replace solution check valve.
- Water strainer element clogged** – Clean the water strainer element. [Completely unscrew strainer cap from strainer for easy cleaning or replacement of strainer element; see diagram, pg. 3.]
- Improper chemical** – Ensure product is recommended for foaming and/or the application.
- Chemical tube not immersed in chemical or chemical depleted** – Immerse tube or replenish.
- Chemical strainer or metering tip blocked** – Clean or replace chemical strainer and/or tip.
- Chemical tube stretched out where tube slides over check valve or pin hole/cut in chemical tube** – Cut approximately 1/2" off end of tube or replace tube.
- Vacuum leak in chemical pick-up assembly** – Tighten the connection(s).
- Chemical to water ratio too high** – Install **smaller** tip.
- Chemical to water ratio too low** – Install **larger** tip.
- Soil has hardened on surface** – Reapplication may be necessary. Always rinse foam **before** it dries.
- Water scale or chemical build-up may have formed in the foamer body causing poor pick-up** – To descale, carefully remove body and soak *entire* foamer body in descaling acid.

**Lafferty Equipment Manufacturing, Inc.**

5614 Oak Grove Road  
North Little Rock, AR 72118

Telephone: (501) 851-2820 — FAX: (501) 851-3719

**Made in the USA**

Distributed by: