

# Lafferty Equipment Manufacturing, LLC Installation & Operation Instructions

## Model # 974220 · Electric FT 2-Way W-25HC Asphalt Release Sprayer

### REQUIREMENTS

<b>Chemical Concentrate</b>	
Temperature	up to 160°F
Pressure	20 to 60 PSI
<b>Hose</b>	1/2" ID x 25'
<b>Nozzle</b>	2540
<b>Electric</b>	120V

### OPTIONS

<b>Stainless Steel Hose Racks</b>	
Small Stainless Steel Hose Rack	# 224145

<b>Heater Assembly</b>	
Retro-Fit Heater Assembly	# 720981

<b>Drum &amp; Tote Stick Lengths &amp; Seal Materials</b>	
Drum Stick, 33" (Viton or EPDM)	# 491643 / 491643-E
Drum Stick, 48" (Viton or EPDM)	# 491648 / 491648-E
Drum Stick, 54" (Viton or EPDM)	# 491645 / 491645-E
Tote Stick, 33" (Viton or EPDM)	# 491653 / 491653-E
Tote Stick, 48" (Viton or EPDM)	# 491654 / 491654-E
Tote Stick, 54" (Viton or EPDM)	# 491656 / 491656-E

<b>Alternate Chemical Check Valve - Viton Standard</b>	
Check Valve, Chemical, PP(W), 1/4" (EPDM)	# 491401



[www.laffertyequipment.com](http://www.laffertyequipment.com)

501-851-2820

**WARNING! READ ALL  
INSTRUCTIONS BEFORE  
USING EQUIPMENT!**

### OVERVIEW

The Electric FT W-25 2-Way Asphalt Release Sprayer is a spray applicator for diluting and projecting 2 asphalt release chemicals on to truck beds or tools to prevent asphalt from sticking. It is designed to work in facilities that have low or fluctuating water pressure. This system features a lockable, stainless steel enclosure and uses an electric pump to draw water from an integrated float tank and drive the system. A venturi injector draws chemical concentrates from any containers and blends them into the water stream to create accurately diluted solutions using precision metering tips. The solution is then projected through the discharge hose, wand and fan nozzle.

SAFETY & OPERATIONAL PRECAUTIONS

- When connecting to a potable water supply follow all local codes for backflow prevention.
- See Additional Safety Precautions included with the Electrical Control Box Installation Information
- Always consider electrical shock hazard when working with and handling electrical equipment. If uncertain, consult an Electrician. Electrical wiring should only be done by a qualified Electrician, per Local and State Electrical Codes.
- For proper performance do NOT modify, substitute nozzle, hose diameter or length.
- For proper performance do NOT modify electrical control box.
- Manufacturer assumes no liability for the use or misuse of this unit.
- Wear protective clothing, gloves and eye wear when working with chemicals.
- Always direct the discharge away from people and electrical devices.
- Follow the chemical manufacturer's safe handling instructions.
- NEVER mix chemicals without first consulting chemical manufacturer.
- Never operate the pump in a harsh environment or hazardous atmosphere, since motor brush and switch may cause electrical arcing.
- Consult with the factory if the pump is to be used with fluids other than water. Do not use with flammable or hazardous fluids.
- Disconnect electrical power to the control box prior to opening it.
- Remove any packing material from inside the control box before operating.

TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

If you are connecting to a potable water supply follow all local codes for backflow prevention.

1. Do NOT connect to electricity yet.
2. Mount the unit to a suitable surface above the chemical supply to prevent siphoning.
3. Connect the discharge hose(s) as shown in the diagram.
4. Connect water supply. If water piping is older, or has known contaminants, install a filter.
5. Turn on water supply and fill the integral tank. Ensure the float turns off properly and does not overflow. It has been factory set. If it overflows remove lid and adjust the float.
6. Mount the push button activation control box.

Set the chemical dilution ratio by threading one of the color coded metering tips into each chemical check valve. See chemical labels for dilution ratio recommendation or consult your chemical supplier.

- For the strongest dilution ratio do NOT install a colored metering tip.
- The dilution ratios in the metering tip chart are based on water thin chemicals with a viscosity of 1CPS.
- Thicker chemicals will require a larger tip than the ratios shown in the chart.
- Application results will ultimately determine final tip color.
- Select the tip color that is closest to your desired chemical strength and thread it into the tip holder. **DO NOT OVER-TIGHTEN.**
- Push the chemical tube over the check valve barb and place the suction tube in the chemical concentrate.
- If necessary, cut suction tube(s) to length before attaching suction strainer.

TO OPERATE

1. With wand in hand and the discharge ball valve closed open the inlet ball valve and flip the switch to the on position.
2. Open the discharge ball valve to begin application.
3. Make final metering tip adjustments based on application results.
4. When application is completed, close the discharge ball valve then close the inlet ball valve.
5. Flip the switch to the off position.
6. Briefly re-open the discharge ball valve to relieve pressure in hose. If applicable rinse the work surface before solution dries.

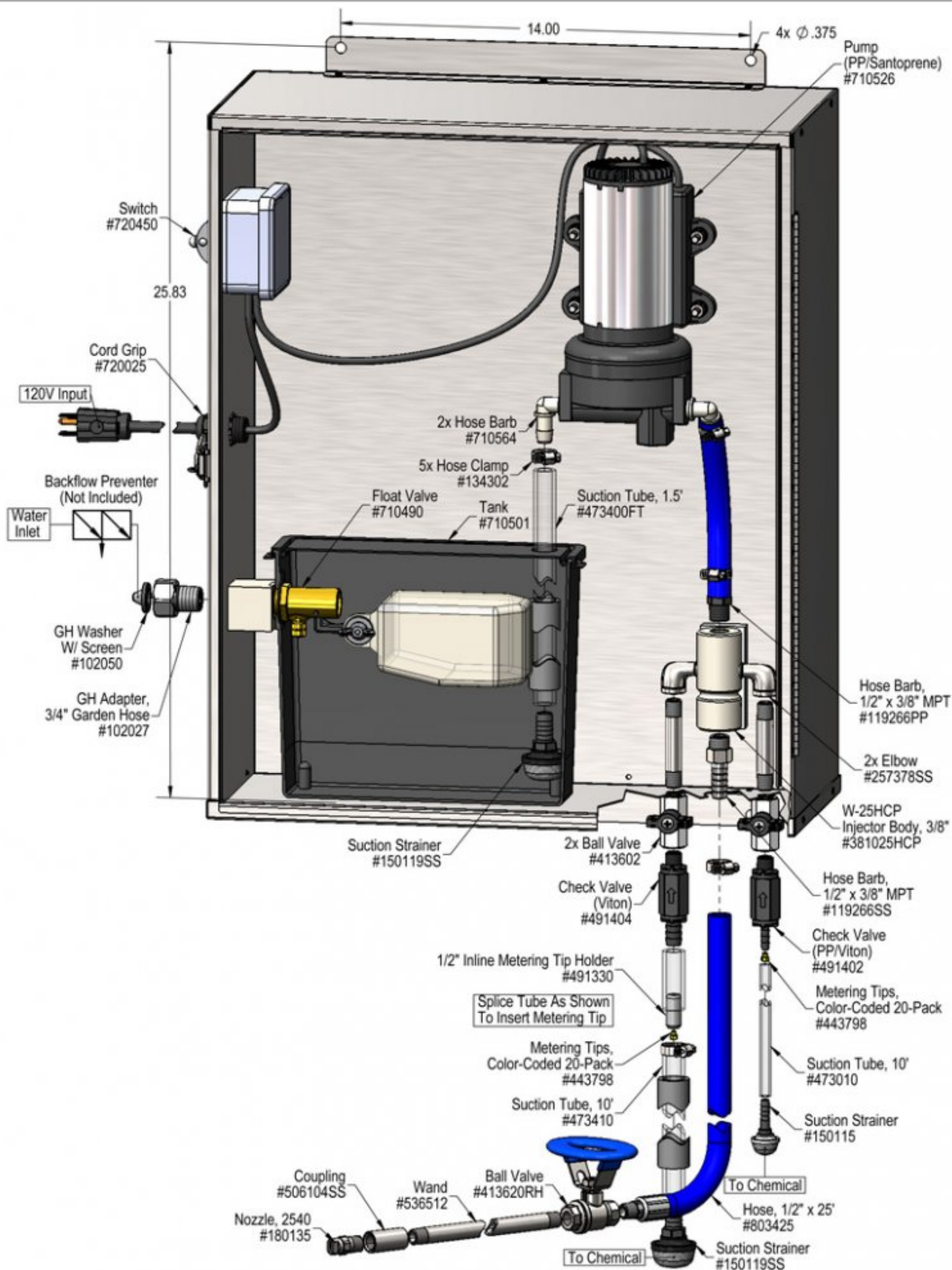
Switch between dilution ratios (or chemicals) using the ball valves at the unit. Activate only one ball valve at a time.

METERING TIP SELECTION

METERING TIP COLOR	OZ/MIN	DILUTION RATIO @ 40 PSI
Brown	0.56	297:1
Clear	0.88	189:1
Bright Purple	1.38	121:1
White	2.15	77:1
Pink	2.93	57:1
Corn Yellow	3.84	43:1
Dark Green	4.88	34:1
Orange	5.77	29:1
Gray	6.01	28:1
Light Green	7.01	24:1
Med. Green	8.06	21:1
Clear Pink	9.43	18:1
Yellow Green	11.50	14:1
Burgundy	11.93	14:1
Pale Pink	13.87	12:1
Light Blue	15.14	11:1
Dark Purple	17.88	9:1
Navy Blue	25.36	7:1
Clear Aqua	28.60	6:1
Black	50.00	3:1
No Tip Ratio Up To:		3:1
The dilution ratios above are approximate values. Due to chemical viscosity, actual dilution ratios may vary.		
FORMULA		
<b>GPM × 128 ÷ Desired Dilution Ratio = oz/min</b> <ul style="list-style-type: none"><li>• See Unit Flow Rates chart for GPM</li><li>• Use 20 for 20:1 dilution ratio, 30 for 30:1, etc.</li><li>• Match calculated ounces per minute (oz/min) to nearest oz/min in Metering Tip Selection chart.</li></ul>		

UNIT FLOW RATES

PSI	GPM
50	1.45



## Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Unit will not draw chemical	1,4,5,6,7	10,11,12,13,14,15,16
B) Dilution too weak	2,4,5	11,12,13,14,15
C) Dilution too strong	3	10
D) Water backing up into chemical container		
E) Unit doesn't come on when button is pushed.	8,9	

Possible Cause / Solution	
Startup	Maintenance
<ol style="list-style-type: none"> <li><b>1. Switch not in the on position or discharge ball valve not completely open</b> <ul style="list-style-type: none"> <li>◦ Completely open discharge ball valve.</li> <li>◦ Electric problems, ensure unit is plugged in (GFI recommended)</li> <li>◦ Turn Switch to the "On" position.</li> </ul> </li> <li><b>2. Not enough chemical - metering tip too small</b> <ul style="list-style-type: none"> <li>◦ Install larger metering tip.</li> </ul> </li> <li><b>3. No metering tip installed or metering tip too large</b> <ul style="list-style-type: none"> <li>◦ Install smaller metering tip.</li> </ul> </li> <li><b>4. Chemical tube not immersed in chemical or chemical depleted</b> <ul style="list-style-type: none"> <li>◦ Immerse tube or replenish.</li> </ul> </li> <li><b>5. Discharge hose kinked</b> <ul style="list-style-type: none"> <li>◦ Straighten the hose.</li> </ul> </li> <li><b>6. Nozzle size too small (SEE REQUIREMENTS)</b></li> <li><b>7. Water supply or water tank empty.</b> <ul style="list-style-type: none"> <li>◦ Fill water tank</li> <li>◦ Turn water supply on.</li> </ul> </li> <li><b>8. Timer failed/Controller not set properly or malfunctioned</b> <ul style="list-style-type: none"> <li>◦ Replace timer.</li> <li>◦ See Controller manual.</li> </ul> </li> <li><b>9. May have electrical problems</b> <ul style="list-style-type: none"> <li>◦ Ensure circuit breaker (5 Amp) has not been tripped.</li> <li>◦ Have a qualified electrician check electrical connections.</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li><b>10. Chemical check valve stuck or failed</b> <ul style="list-style-type: none"> <li>◦ Clean or replace.</li> </ul> </li> <li><b>11. Chemical strainer or metering tip partially blocked</b> <ul style="list-style-type: none"> <li>◦ Clean or replace chemical strainer and/or metering tip.</li> </ul> </li> <li><b>12. Chemical tube stretched out or pin hole/cut in chemical tube</b> <ul style="list-style-type: none"> <li>◦ Cut off end of tube or replace tube.</li> </ul> </li> <li><b>13. Vacuum leak in chemical pick-up connections</b> <ul style="list-style-type: none"> <li>◦ Tighten the connection.</li> </ul> </li> <li><b>14. Water strainer clogged or missing/injector inlet orifice clogged</b> <ul style="list-style-type: none"> <li>◦ Clean or replace strainer; check/clean inlet orifice for obstructions. DO NOT DRILL OUT.</li> </ul> </li> <li><b>15. Hard water scale or chemical build-up may have formed in the injector body causing poor or no chemical pick-up</b> <ul style="list-style-type: none"> <li>◦ Follow Preventive Maintenance instructions below, using hot water and/or de-scaling acid. When there is no draw at all, carefully remove fittings and soak entire injector body in de-scaling acid.</li> </ul> </li> <li><b>16. May have pump problems</b> <ul style="list-style-type: none"> <li>◦ Refer to pump manual.</li> </ul> </li> </ol>

**PREVENTIVE MAINTENANCE:** When the unit will be out of service for extended periods, place chemical tube(s) in water and flush the chemical out of the unit to help prevent chemical from drying out and causing build-up. Periodically check and clean chemical strainer and replace if missing.

