

# Lafferty Equipment Manufacturing, Inc. Installation & Operation Instructions

Model # 942124 · Portable 40 Gallon Freedom 2.4 Sprayer

## REQUIREMENTS

Ready-to-Use Chemical Solution

Compressed Air	up to 9 CFM
Hose	1/2" ID x 50'
Nozzle	2520 & 2530

## OPTIONS

Proportioning / Filling Options

1-Way Ball Valve Mixing Station (4 GPM)	# 985100
1-Way Push Lever Mixing Station (4 GPM)	# 981100
High Volume Mixing Station (9.9 GPM)	# 985835



**Lafferty**  
EQUIPMENT MANUFACTURING INC.

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

501-851-2820

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



## OVERVIEW

The Portable 40 Gallon 2.4 Freedom Sprayer is a chemical applicator for projecting ready-to-use chemical solution as a fan pattern spray. This unit features a lockable, stainless steel enclosure, a 4-wheel stainless steel cart, and a rugged 1/2" Sandpiper air-operated, double-diaphragm pump that draws pre-diluted chemical from the 40 gallon tank and discharges the solution through the hose, wand and nozzle. Two spray nozzles are included, which provide either 10 or 6.5 minutes of spraying time per 20 gallons of solution, depending on the nozzle used.

## SAFETY & OPERATIONAL PRECAUTIONS

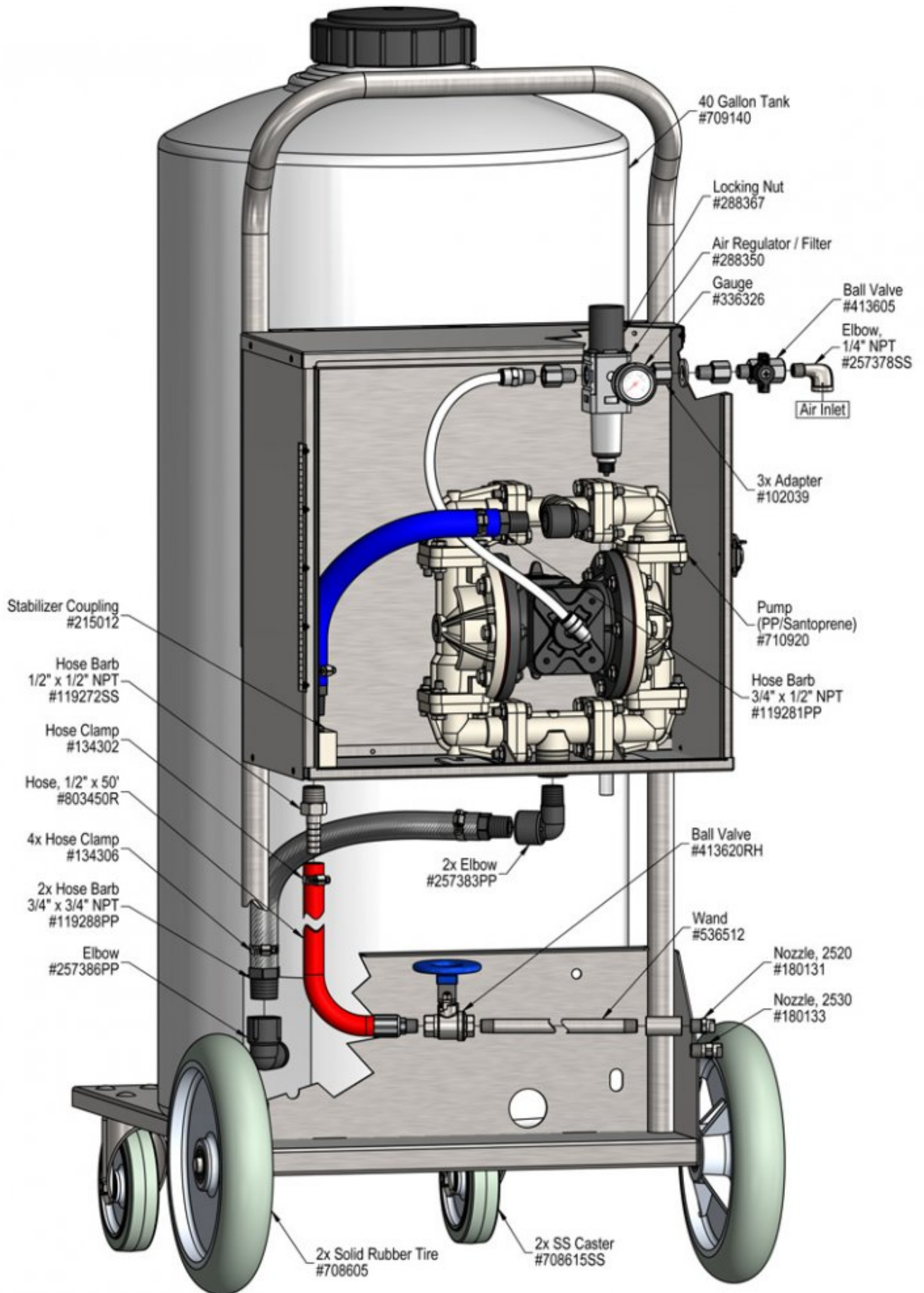
- For proper performance do NOT modify, substitute nozzle, hose diameter or length
- Manufacturer assumes no liability for the use or misuse of this unit.
- Wear protective clothing, gloves and eye-wear when working with chemicals.
- Always direct the discharge away from people and electrical devices.
- Follow the chemical manufacturer's safe handling instructions.
- DO NOT use d-Limonene or other chemicals that are not compatible with the Santoprene diaphragms.
- TEFLON upgrade is available.

## TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

1. Mount the unit above solution supply level to prevent siphoning.
2. Place the strainer in the chemical solution(s).
3. Attach the discharge hose.
4. Attach a compressed airline to the air inlet ball valve. DO NOT TURN ON.
5. Air Filter/Dryer recommend.

## TO OPERATE

- **Always** make sure the discharge ball valve is closed or pointed in a safe direction before turning the air on. Ball valve can be shut off at any time during operation but should not be left unattended for long periods of time.
  - The unit has been tested and is ready to operate, the air pressure preset at 60 PSI. This is the optimum pump pressure. Test "as is" before making any adjustments.
  - 2 nozzles are provided a 2520 (2.0 GPM) and a 2530 (3.0 GPM). Select one and install it.
1. With the wand in hand direct the discharge in a safe direction and open the discharge ball valve and the air ball valve.
  2. Wait several seconds for pump to prime. IF after 30 seconds the pump hasn't primed turn off the air, remove the suction tube and fill with water and replace. Once the diaphragms are wet priming is not an issue. Open air ball valve to resume set up.
  3. When spraying is complete:
    - Close the discharge ball valve.
    - Promptly return to the unit and close the air ball valve.
    - Briefly re-open the discharge ball valve to relieve pressure in the hose.
    - Store the hose on optional hose rack.
  4. Rinse the work surface before the spray dries.



## Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Air pump will not run or pump solution. B) Will not draw chemical. C) Pump runs too fast with no output.	1,3 1,2,3 2	4,5,8,9 5,6,7 5,6,7,8

Possible Cause / Solution	
Startup	Maintenance
<ol style="list-style-type: none"> <li><b>1. Air adjustment too low</b> <ul style="list-style-type: none"> <li>◦ Open air ball valve fully. Adjust air regulator slowly clockwise. Optimum air pressure is 60 PSI.</li> </ul> </li> <li><b>2. Chemical tube not immersed in container or container empty</b> <ul style="list-style-type: none"> <li>◦ Immerse tube or replenish.</li> </ul> </li> <li><b>3. Discharge ball valve closed or hose kinked</b> <ul style="list-style-type: none"> <li>◦ Open ball valve completely / Straighten the hose.</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li><b>4. Air regulator clogged or failed</b> Clean or replace.</li> <li><b>5. Chemical strainer clogged up</b> <ul style="list-style-type: none"> <li>◦ Clean or replace.</li> </ul> </li> <li><b>6. Vacuum leak in suction line.</b> <ul style="list-style-type: none"> <li>◦ Tighten the connection(s).</li> </ul> </li> <li><b>7. Chemical tube stretched out where tube attaches or pin hole/cut in tube sucking air.</b> <ul style="list-style-type: none"> <li>◦ Cut off end of tube or replace tube.</li> </ul> </li> <li><b>8. Problem with air pump</b> <ul style="list-style-type: none"> <li>◦ Refer to air pump instruction manual</li> </ul> </li> <li><b>9. Use of an oiler in the airline will cause pump to stall</b> <ul style="list-style-type: none"> <li>◦ Use only clean, dry air.</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.

