

LAFFERTY EQUIPMENT MANUFACTURING, INC.

Installation & Operation Instructions

Model # 973945 - Portable 5 Gallon Uni-Body 517 Sanitizer

REQUIREMENTS		
Water	U.S.	S.I.
Supply line	3/4 in (min.)	19.1 mm (min.)
Temperature	up to 160°F	up to 70°C
Pressure	35 - 125 psi	2.4 - 8.6 bar
Flow	5.1 - 8.2 gpm	19.3 - 31.0 lpm
Hose		
ID	3/4 in	19.1 mm
Length	25 ft	7.6 m
Nozzle(s)		
Type/size	40100	



**READ ALL
INSTRUCTIONS BEFORE
USING EQUIPMENT!**

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Principles of Operation

This is a venturi sanitizer that will siphon chemical concentrates from any sized container, providing up to 21 different dilution ratios using the supplied metering tips.



Safety & Operational Precautions

- Manufacturer assumes no liability for the use or misuse of this unit.
- Backflow Prevention: If you are connecting to a potable water supply, be sure to follow all local codes for backflow prevention.
- Wear protective clothing, gloves and eyewear when working with chemicals.
- Always direct the discharge away from people and electrical devices.
- For pressures over 100 PSI, remove the discharge ball valve.
- Follow the chemical manufacturer's safe handling instructions.

TO INSTALL *(Refer to diagram, next page. Do not turn on during installation.)*

Backflow prevention: Follow all local codes for preventing backflow into the water supply before installing/operating equipment.

1. Select chemical dilution ratio by selecting and installing a metering tip into chemical check valve. (For the strongest possible chemical dilution ratio, do not install a metering tip.)

How to Select the Correct Metering Tip - See chemical label for dilution ratio recommendation or consult your chemical supplier.

- The dilution ratios provided in the Metering Tip Selection Chart, at right, are based on water-thin chemical.
 - Due to varying chemical viscosities, you may need to increase/decrease the metering tip size.
 - If you have water pressure other than the example, use the Metering Tip Selection Formula.
2. After metering tip is installed, push the chemical tube over the check valve and immerse the chemical strainer into your chemical concentrate.
 3. Connect water supply.

TO SANITIZE

1. With the discharge ball valve closed, open the sanitize ball valve, and move to the area to be sanitized. Open the discharge ball valve and begin sanitizing.
2. When sanitizing is completed, close the discharge ball valve. Return to the unit and close the sanitize ball valve. Briefly re-open the discharge ball valve to relieve pressure in the hose.

Metering Tip Selection		
Metering Tip Color	Oz. per Min.	EXAMPLE: Dilution Ratio @ 40 PSI
Brown	0.62	1053:1
Clear	0.91	717:1
Bright Purple	1.7	396:1
White	2.3	290:1
Pink	3.3	198:1
Corn Yellow	4.0	163:1
Dark Green	5.0	131:1
Orange	6.0	109:1
Gray	6.8	96:1
Light Green	8.1	81:1
Med. Green	9.1	72:1
Clear Pink	11.9	55:1
Yellow Green	13.4	49:1
Burgundy	15.3	43:1
Pale Pink	16.9	39:1
Light Blue	18.0	36:1
Dark Purple	22.5	29:1
Navy Blue	33.1	20:1
Clear Aqua	39.3	17:1
Black	59.0	11:1
No Tip	—	—

The dilution ratios provided above are approximate values. Your actual dilution ratio may be higher or lower due to variation in chemical viscosity.

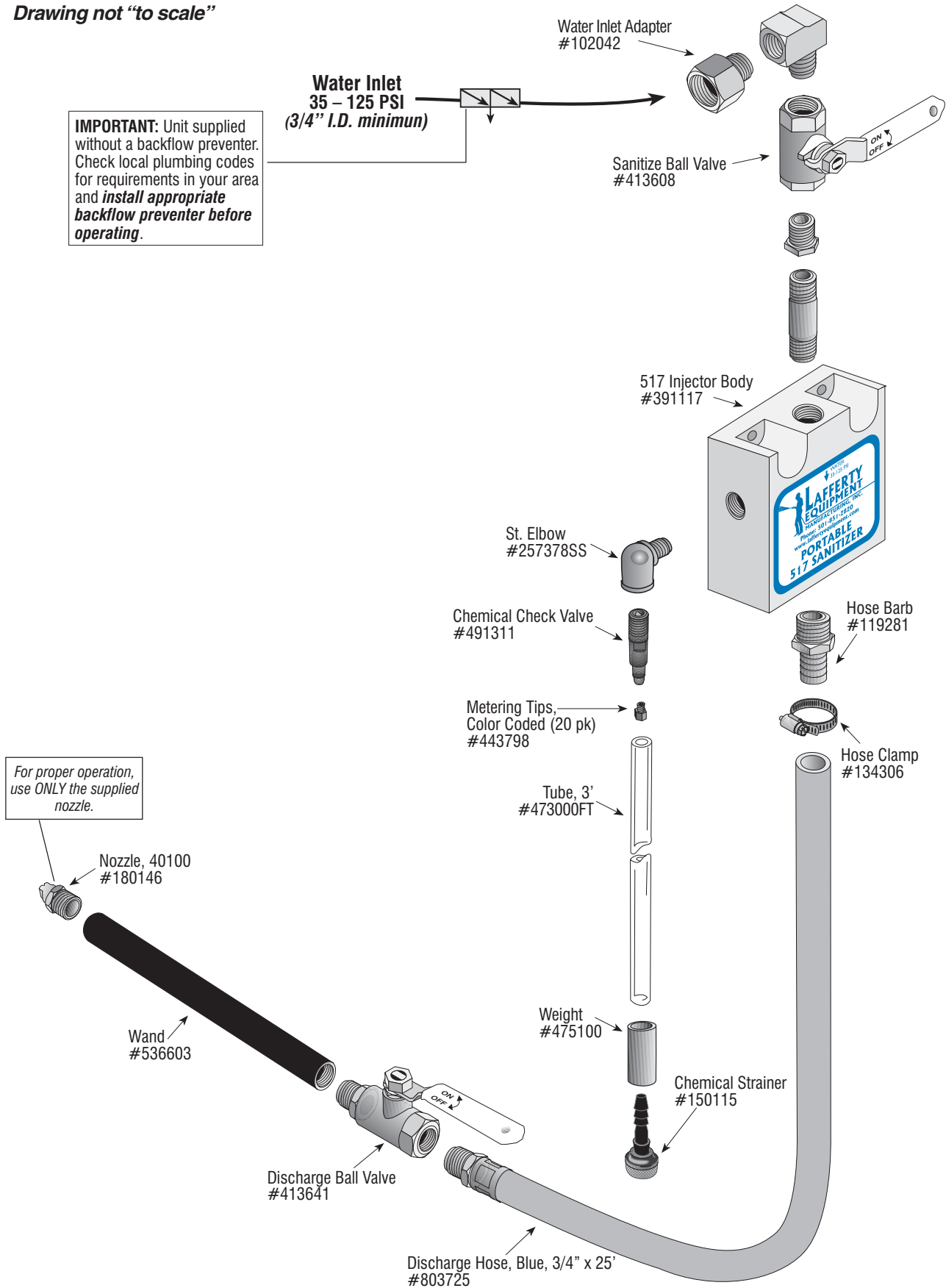
Metering Tip Selection Formula	
(GPM x 128)	See chart below for GPM and convert to oz. per min.
÷	
Dilution Ratio	20:1, 30:1, etc.
=	
Oz. per Min.	Match to nearest number in chart above.

Water Flow Rate Chart	
Water Pressure	Water Flow Rate
PSI	GPM
40	5.1
50	5.6
60	6.1
70	6.5
80	7.1
90	7.6
100	8.2

Turn Off Inlet Ball Valves When Not In Use.

Drawing not "to scale"

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



Troubleshooting Guide

PROBLEMS WITH SANITIZER	Possible Cause / Solution	
	Startup	Maintenance
A) Sanitizer will not draw chemical.	1, 4, 5, 6, 7	8, 9, 10, 11, 12, 13, 14, 15, 17, 18
B) Dilution too weak.	2	
C) Dilution too strong.	3	
D) Water backing up into chemical container.	8	
E) Air or chemical solution backing up into water line.		14

Possible Cause / Solution	
Startup	Maintenance
<ol style="list-style-type: none"> 1. Inlet water or discharge ball valve not completely open • Completely open both valves. 2. Not enough chemical - metering tip too small • Install larger metering tip. 3. No metering tip installed or metering tip too large • Install smaller metering tip. 4. Chemical tube not immersed in chemical or chemical depleted • Immerse tube or replenish. 5. Discharge hose too long, wrong size or kinked (SEE REQUIREMENTS) • Straighten the hose - Replace hose with correct size. 6. Nozzle size too small (SEE REQUIREMENTS) 7. Water pressure or water volume too low / inlet piping too small • Increase water pressure or water volume (SEE REQUIREMENTS). 	<ol style="list-style-type: none"> 8. Chemical check valve stuck or failed • Clean or replace. 9. Chemical strainer or metering tip partially blocked • Clean or replace chemical strainer and/or metering tip. 10. Chemical tube stretched out or pin hole/cut in chemical tube (sucking air in) • Cut off end of tube or replace tube. 11. Vacuum leak in chemical pick-up connections • Tighten the connection(s). 12. Sanitizer inlet orifice clogged • Check/clean inlet orifice for obstructions. DO NOT DRILL OUT. 13. Chemical build-up may have formed in the sanitizer body causing poor or no chemical pick-up • Follow Preventive Maintenance instructions below, using hot water and/or descaling acid. When there is no draw at all, carefully remove fittings and soak entire sanitizer body in descaling acid. 14. No backflow preventer installed and/or inlet ball valve left on when not in use. • Install appropriate backflow preventer into water line.

PREVENTIVE MAINTENANCE: When the unit will be out of service for extended periods, remove chemical tube from chemical concentrate and place in water. Completely open the sanitize and discharge ball valves for several seconds to flush chemical and help prevent chemical build-up. Check and/or clean chemical strainer; replace if missing.