

# Lafferty Equipment Manufacturing, LLC Installation & Operation Instructions

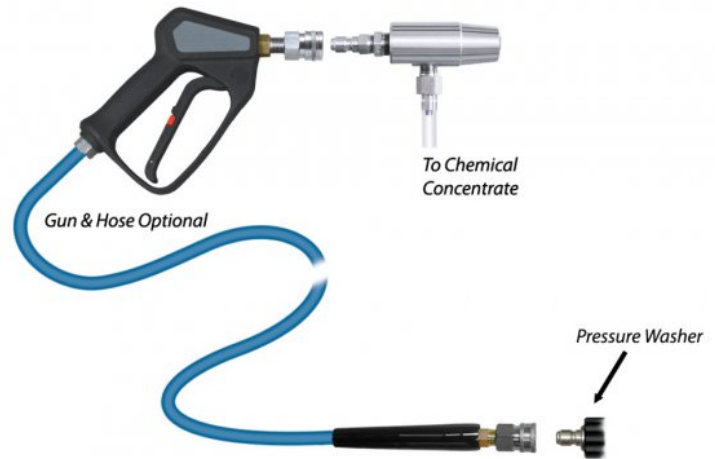
## Model # 969520 • Model 20 SS Hose End Sprayer

### REQUIREMENTS

Water Temperature	up to 180°F
Pressure Washer	2.2 - 5.5 GPM
Supply Hose	3/8" ID minimum

### OPTIONS

<b>Stainless Steel Hose Racks</b>	
Large Stainless Steel Hose Rack	# 224150
Small Stainless Steel Hose Rack	# 224145
<b>Pressure Washer Hose &amp; Trigger Gun</b>	
HP 3/8" x 50' Hose & Trigger Gun Kit	# 807069
<b>Safe Flow Lid™ for 1 Gallon Jugs</b>	
Lid, Suction Tube, and Strainer	# 709101



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

501-851-2820

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

### OVERVIEW

Designed for 2.2–5.5 GPM pressure washers. The Model 20 Stainless Steel Hose-End Sprayer is a chemical spray applicator for quickly diluting and applying virtually any liquid chemical. This venturi unit draws chemical concentrate into the water stream to create an accurately diluted solution. The solution is then projected as a fan pattern chemical spray on to surfaces up close or at a distance.

## SAFETY &amp; 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.

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

1. Remove your rinse nozzle and quick connect the sprayer to your trigger gun. (1/4" quick connect).



SCAN QR CODE FOR  
OVERVIEW & SETUP VIDEO  
<https://vimeo.com/515352837>

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.

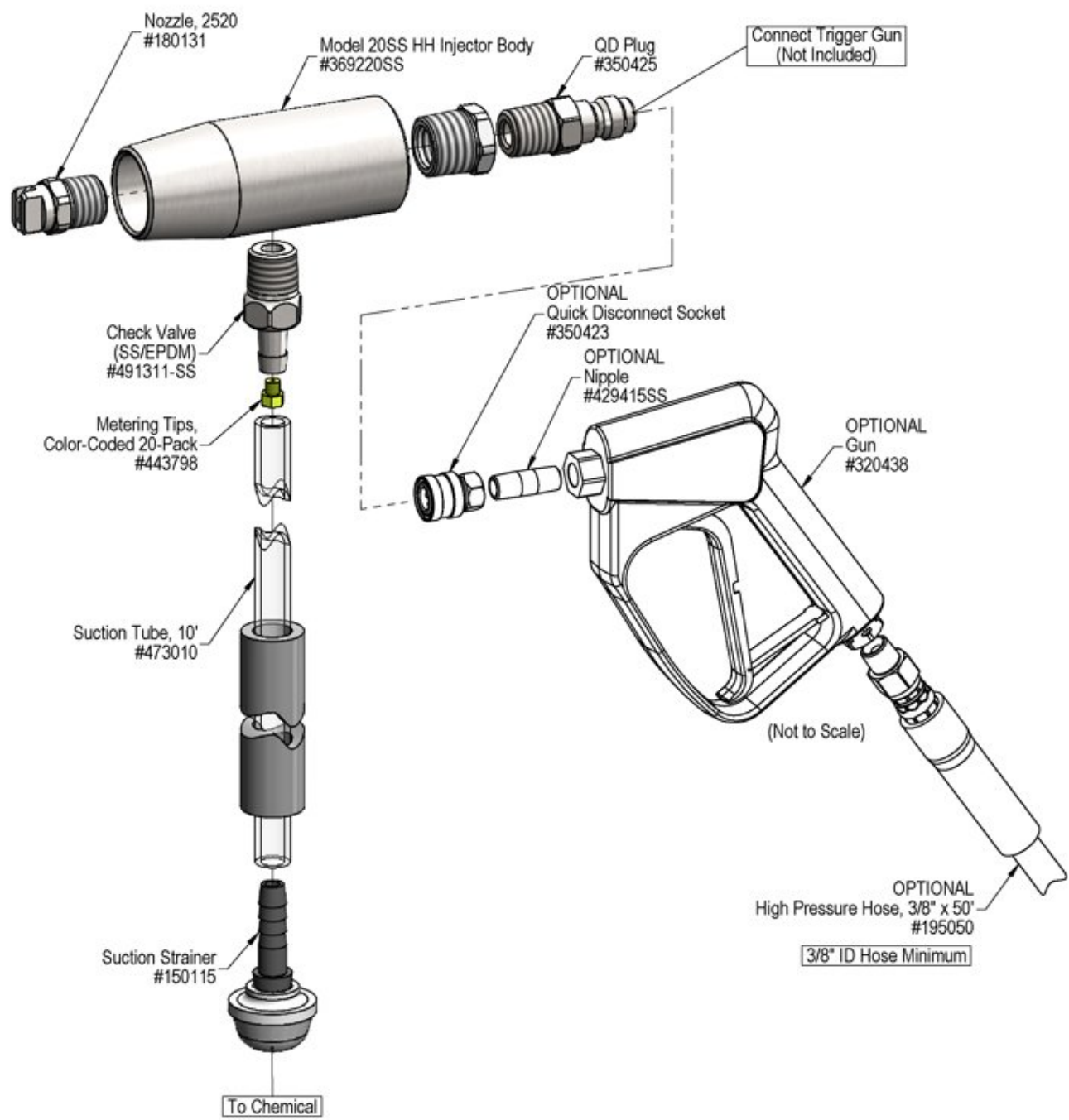
## TO OPERATE

1. Hold the trigger gun firmly and direct the discharge in a safe direction. Pull the trigger and begin application. Make final metering tip adjustments based on application results. Try the next larger sized metering tip until the results are acceptable.
2. When application is complete, release the trigger.
3. To rinse, disconnect the sprayer and re-connect the original rinse nozzle. Rinse the work surface before the chemical dries.
4. To increase the distance and impact of the discharge the fan nozzle can be removed.
5. If the sprayer will not be used for a period of time it is BEST to draw fresh water through the pick up tube to prevent chemical from drying inside the check valve and injector body.

## METERING TIP SELECTION

METERING TIP COLOR	DILUTION RATIO AT GPM						
	2.5	3.0	3.5	4.0	4.5	5.0	5.5
Brown	571:1	686:1	800:1	914:1	1029:1	1143:1	1257:1
Clear	364:1	436:1	509:1	582:1	655:1	727:1	800:1
Bright Purple	232:1	278:1	325:1	371:1	417:1	464:1	510:1
White	149:1	179:1	208:1	238:1	268:1	298:1	327:1
Pink	109:1	131:1	153:1	175:1	197:1	218:1	240:1
Corn Yellow	83:1	100:1	117:1	133:1	150:1	167:1	183:1
Dark Green	66:1	79:1	92:1	105:1	118:1	131:1	144:1
Orange	55:1	67:1	78:1	89:1	100:1	111:1	122:1
Gray	53:1	64:1	75:1	85:1	96:1	106:1	117:1
Light Green	46:1	55:1	64:1	73:1	82:1	91:1	100:1
Med. Green	40:1	48:1	56:1	64:1	71:1	79:1	87:1
Clear Pink	34:1	41:1	48:1	54:1	61:1	68:1	75:1
Yellow Green	28:1	33:1	39:1	45:1	50:1	56:1	61:1
Burgundy	27:1	32:1	38:1	43:1	48:1	54:1	59:1
Pale Pink	23:1	28:1	32:1	37:1	42:1	46:1	51:1
Light Blue	21:1	25:1	30:1	34:1	38:1	42:1	46:1
Dark Purple	18:1	21:1	25:1	29:1	32:1	36:1	39:1
Navy Blue	13:1	15:1	18:1	20:1	23:1	25:1	28:1
Clear Aqua	11:1	13:1	16:1	18:1	20:1	22:1	25:1
Black	6:1	8:1	9:1	10:1	12:1	13:1	14:1
No Tip Ratio Up To:	5:1	5:1	6:1	7:1	8:1	9:1	10:1

*The dilution ratios above are approximate values. Due to chemical viscosity, actual dilution ratios may vary.*



## Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Unit will not draw chemical.	1, 2, 3	6, 7, 8, 9, 10
B) Does not clean properly	1, 4	6, 7, 8, 10
C) Using too much chemical	5	

Possible Cause / Solution	
Startup	Maintenance
<b>1. GPM too low</b> ◦ See requirements.	<b>6. Metering tip holder clogged or loose.</b> ◦ Clean or tighten.
<b>2. Water inlet clogged</b> ◦ Clean the water inlet. DO NOT DRILL OUT	<b>7. Chemical strainer or metering tip blocked</b> ◦ Clean or replace chemical strainer and/or metering tip.
<b>3. Chemical tube not immersed in chemical or depleted</b> ◦ Immerse tube or replenish.	<b>8. Chemical tube stretched out where tube slides over check valve or pin hole/cut in chemical tube (sucking air in) which reduces chemical intake</b> ◦ Cut off end of tube or replace tube.
<b>4. Dilution too weak / Chemical is very thick.</b> ◦ Install larger metering tip or remove metering tip.	<b>9. Discharge nozzle is wrong size</b> ◦ Install correct nozzle (see parts drawing).
<b>5. Dilution too strong / No metering tip installed or wrong metering tip installed</b> ◦ Install a metering tip or install a smaller metering tip.	<b>10. Chemical build-up or hard water scale may have formed in the injector body causing poor or no chemical pick-up</b> ◦ Follow Preventive Maintenance instructions below, using hot water and/or descaling acid. When there is no draw at all soak entire sprayer in de-scaling acid.

**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.

