Lafferty Equipment Manufacturing, LLC
Installation & Operation Instructions

Model # 969720HC · Model 20 SSHC Combo Airless Foamer / Sprayer Kit

REQUIREMENTS

Water Temperature	up to 180°F
Pressure Washer	3.5 - 5.5 GPM Optimal with 3.5 - 4.0 GPM
Discharge Hose	3/8" ID minimum Up to 200' length

OPTIONS

Stainless Steel Hose Racks

Large Stainless Steel Hose Rack	# 224150
Small Stainless Steel Hose Rack	# 224145

Safe Flow Lid™ for 1 Gallon Jugs

Lid, Suction Tube, and Strainer	# 709101

Drum & Tote Sticks Available

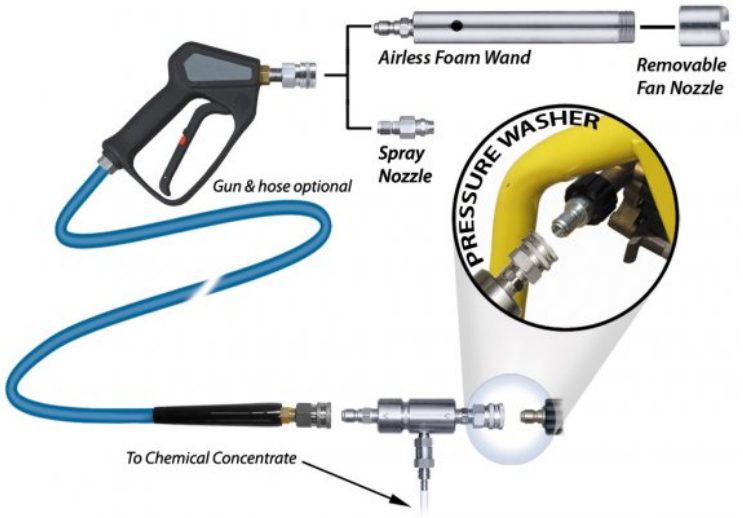
Pressure Washer Hose & Trigger Gun

HP 3/8" x 50' Hose & Trigger Gun Kit	# 807069

WEIGHT & DIMENSIONS

Single Package

Shipping Weight	5 lbs.
Shipping Dimensions	15" x 8" x 5"



Lafferty EQUIPMENT MANUFACTURING LLC

CFS TECHNOLOGIES

www.laffertyequipment.com
501-851-2820

WARNING! READ ALL INSTRUCTIONS BEFORE USING EQUIPMENT!

OVERVIEW

Designed for 3.5–5.5 GPM pressure washers, with optimal performance at 3.5–4.0 GPM. The Model 20 Stainless Steel HC Combo Airless Foamer / Sprayer Kit is a "high concentrate" airless foam and spray applicator featuring a quick connect chemical injector that attaches to a pressure washer outlet. This venturi unit draws and blends a high volume of chemical concentrate into the water stream to create a strong solution. The solution then flows through the hose and gun to the airless foam wand which injects atmospheric air to create and project wet, clinging foam on to surfaces up close or at distances up to 20 feet. Quick connect the fan pattern sprayer nozzle to apply non-foaming chemicals.

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.

TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

1. Determine which way the quick disconnects will be used on your particular washer and install the quick disconnects to the injector body. Make sure to hook up in the right direction. **Do NOT hook up backwards!**
2. Quick disconnect the hose from PW and quick couple the injector to the fitting; reconnect the discharge hose to the discharge of the injector.

See chemical labels for dilution ratio recommendation or consult your chemical supplier.

- For the strongest dilution ratio do NOT install a metering tip.
- For a weaker dilution ratio install the black metering tip or pre-dilute the chemical.
    - If desired, thread the metering tip 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.
- Dilution ratios are based on water thin chemicals with a viscosity of 1CPS.
- Thicker chemicals will draw slower and produce weaker ratios than shown in the chart.

Pressure Washer Volume	No Tip Ratio	Black Tip Ratio*
3.5 GPM	4.2:1 *Pre-dilute by adding 24oz water to each gallon of chemical concentrate to achieve 5:1 NTR*	8.6:1 *Pre-dilute by adding 6oz water to each gallon of chemical concentrate to achieve 9:1 NTR*
4.0 GPM	5.3:1	9:1

***Note:** The black metering tips included with this unit have a larger orifice than standard black metering tips. To reorder, specify Black Metering Tip #439770-47.

TO OPERATE

TO FOAM

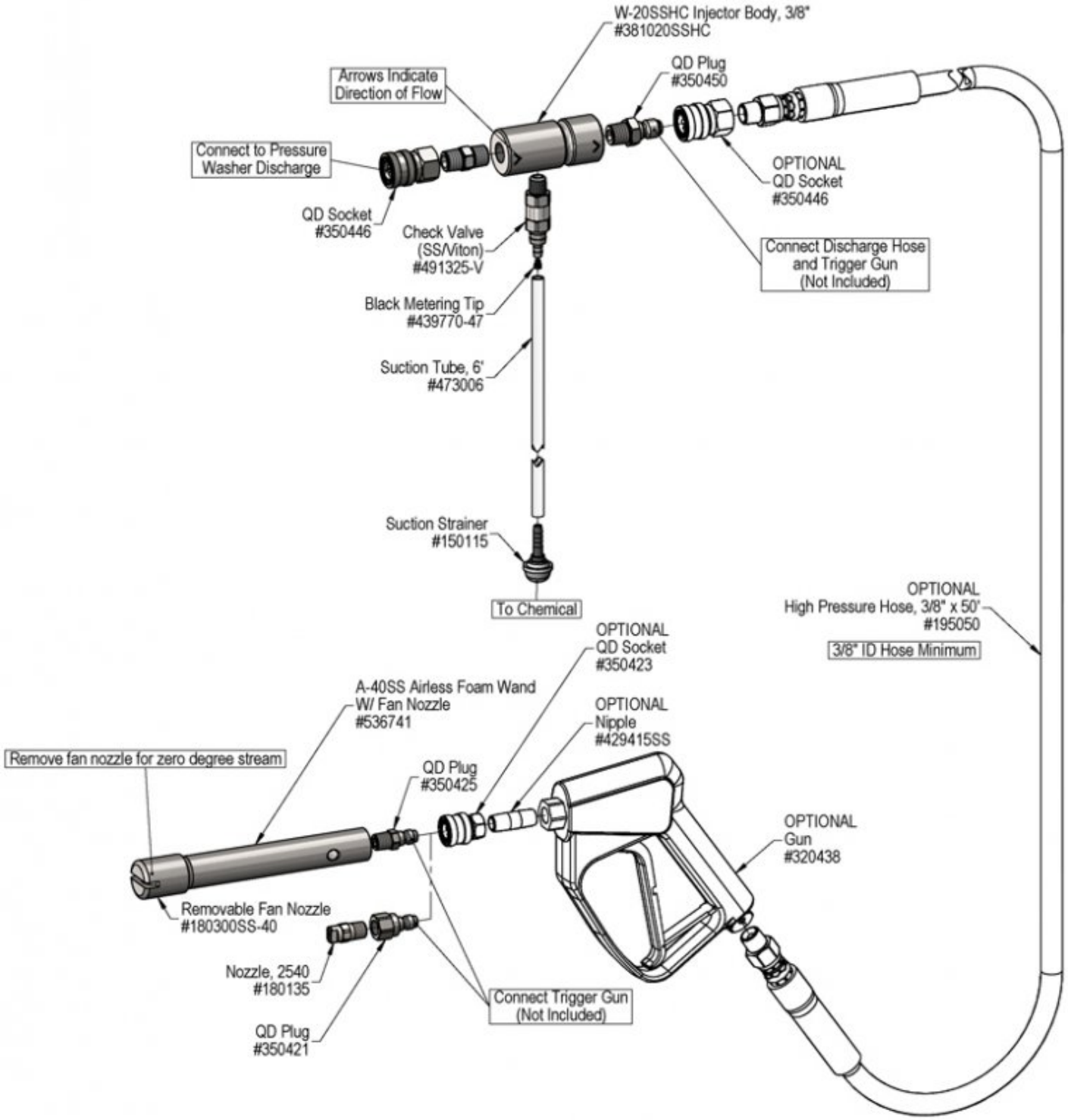
1. Remove the rinse nozzle and quick connect the foam wand to your trigger gun as shown in the diagram. If your trigger gun doesn't have quick disconnects you will have to install them.
2. Hold the trigger gun firmly and direct the discharge in a safe direction. Pull the trigger and begin application.
3. If desired, unscrew the fan nozzle from the end of the foam wand for maximum foam throw distance.
4. Make final dilution adjustments based on application results.
5. Maximum foam throw distance will be achieved using NO metering tip. To achieve maximum foam throw with a leaner dilution ratio, pre-dilute the chemical before drawing it through the injector.

TO SPRAY

1. Quick connect the spray nozzle to your trigger gun as shown in the diagram.
2. Hold the trigger gun firmly and direct the discharge in a safe direction. Pull the trigger and begin application.

TO RINSE

1. When foaming or spraying is completed, release the trigger.
2. Replace the airless foamer or spray nozzle with the rinse nozzle. Remove injector from pressure washer and replace hose.
3. Rinse the work surface as you normally would and rinse before the chemical dries.
4. If the foamer /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 components.


W-20SSHC Injector Body, 3/8"
#381020SSHC
QD Plug
#350450
Arrows Indicate
Direction of Flow
Connect to Pressure
Washer Discharge
OPTIONAL
QD Socket
#350446
QD Socket
#350446
Check Valve
(SS/Viton)
#491325-V
Connect Discharge Hose
and Trigger Gun
(Not Included)
Black Metering Tip
#439770-47
Suction Tube, 6'
#473006
Suction Strainer
#150115
To Chemical
OPTIONAL
High Pressure Hose, 3/8" x 50'
#195050
3/8" ID Hose Minimum
OPTIONAL
QD Socket
#350423
A-40SS Airless Foam Wand
W/ Fan Nozzle
#536741
OPTIONAL
Nipple
#429415SS
Remove fan nozzle for zero degree stream
QD Plug
#350425
OPTIONAL
Gun
#320438
Removable Fan Nozzle
#180300SS-40
Nozzle, 2540
#180135
Connect Trigger Gun
(Not Included)
QD Plug
#350421

Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Unit will not draw chemical.	1, 2, 3, 7	8, 9, 10, 11, 12, 13
B) Does not foam properly	1, 4, 5, 7	8, 9, 11, 12
C) Using too much chemical	6	

Possible Cause / Solution

Startup

1. **Water volume too low**
   - See requirements.
2. **Water inlet clogged**
   - Clean the water inlet. DO NOT DRILL OUT
3. **Hose size too small**
   - MUST be 3/8" ID hose, minimum
4. **Ensure chemical is recommended for foaming and/or the application**
   - Refer to chemical manufacturer.
5. **Dilution too weak / Chemical is very thick.**
   - Install larger metering tip or remove metering tip.
6. **Dilution too strong / No metering tip installed or wrong metering tip installed**
   - Install a metering tip or install a smaller metering tip
   - If the exact dilution ratio cannot be achieved with metering tips, pre-dilute the chemical with water before drawing it into the injector for final dilution and application
7. **Hose too long**
   - Use a shorter discharge hose to alleviate back pressure on the injector
   - The allowable length of hose varies based on individual pressure washers and equipment setups. 200' max recommended hose length between injector and nozzle. Longer hose could affect dilution ratios.

Maintenance

8. **Chemical check valve stuck, clogged, loose or failed**
   - Clean, tighten or rebuild.
9. **Chemical strainer or metering tip blocked**
   - Clean or replace chemical strainer and/or metering tip.
10. **Chemical tube stretched out where tube slides over check valve or pin hole/cut in chemical tube (sucking air in) which reduces chemical intake. Chemical tube not immersed in chemical or depleted.**
    - Cut off end of tube, replace tube or immerse tube in chemical
11. **Discharge nozzle is wrong size**
    - Install correct nozzle (see parts drawing)
    - Use only provided nozzles/wands for chemical application
12. **Chemical build-up or hard water scale may have formed in the foam wand or injector 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 inlet fitting and chemical check valve. Soak injector body and or foam wand in de-scaling acid.
13. **Bypass ball valve open (Bypass models only)**
    - Close bypass valve.

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.