Lafferty Equipment Manufacturing, LLC
Installation & Operation Instructions

Model # 976250-24V · Timed PF Entryway Foam Sanitizer - 24VAC

REQUIREMENTS

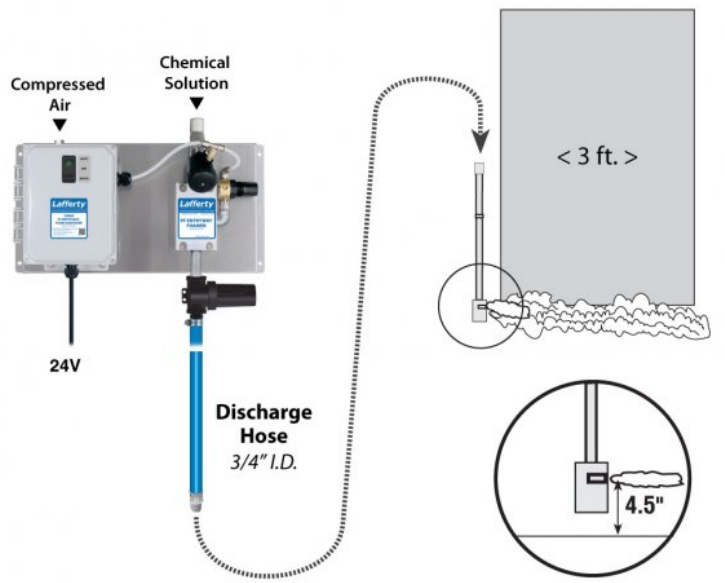
Ready-to-Use Chemical Solution	
Temperature	up to 160°F
Pressure	35 to 75 PSI
Flow	1.34 GPM @ 40 PSI
Supply Line	1/2"
Compressed Air	up to 3 CFM
Hose	3/4" ID x 25'
Nozzle	Entryway Spreader
Electric	24V

OPTIONS

Central Pump Systems (AODD)	
Mini-Central Pump System (1/2" PP)	# 919050
Central Pump System (1" SS)	# 919060SS
Level Masters Provide an Automatic Supply of Ready-to-Use Chemical	
Level Master (Various Tank Sizes)	# 989304
Gemini Level Master (Various Tank Sizes)	# 989316
High Flow Level Masters Provide an Automatic Supply of Ready-to-Use Chemical	
60/10 High Flow Level Master	# 989106
60/20 High Flow Level Master	# 989108

WEIGHT & DIMENSIONS

Single Package	
Shipping Weight	20 lbs.
Shipping Dimensions	22" x 19" x 9"



Lafferty EQUIPMENT MANUFACTURING LLC

CFS TECHNOLOGIES

www.laffertyequipment.com
501-851-2820

WARNING! READ ALL INSTRUCTIONS BEFORE USING EQUIPMENT!

OVERVIEW

The Timed PF Entryway Foam Sanitizer is an automated foam applicator for projecting sanitizing chemicals on to floors of 3' wide employee walk doors to prevent cross contamination. This system receives ready-to-use chemical from a user-supplied central chemical feed system. Rich, clinging foam is created by injecting compressed air into the solution to greatly increase volume and coverage ability. Foam is then projected through the discharge hose and Spreader™ nozzle. The system timer is user-programmable to meet the needs of any facility. This unit requires 24VAC electrical input - a locally sourced standard step-down transformer is required.

SAFETY & OPERATIONAL PRECAUTIONS

- **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 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.
- Disconnect electrical power to the control box prior to opening it.

UNIT FLOW RATES	
PSI	GPM
35	1.25
40	1.34
50	1.50
60	1.64
70	1.77
75	1.83

TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

Illustration on Page 1 shows overall system setup. Refer to companion instructions for control box upgrades.

1. Install foam enhancer to entryway foamer discharge. The arrow on the foam enhancer should point UP - opposite the flow direction.
2. Mount the unit to a suitable surface near the entryway.
3. Connect the unit to the spreader nozzle using only the provided 10' hose, or extend the discharge using hose or piping that matches the ID of the provided hose (hose ID is very important). Use as few elbows as possible. Minimum length of the total hose/pipe between unit and nozzle is 10'.
4. Mount the spreader nozzle slot several inches off the ground (refer to Page 1 illustration for details)
5. Connect chemical solution supply - **a solution check valve is recommended.**
6. Connect compressed air to the unit.

TO OPERATE

TO TEST

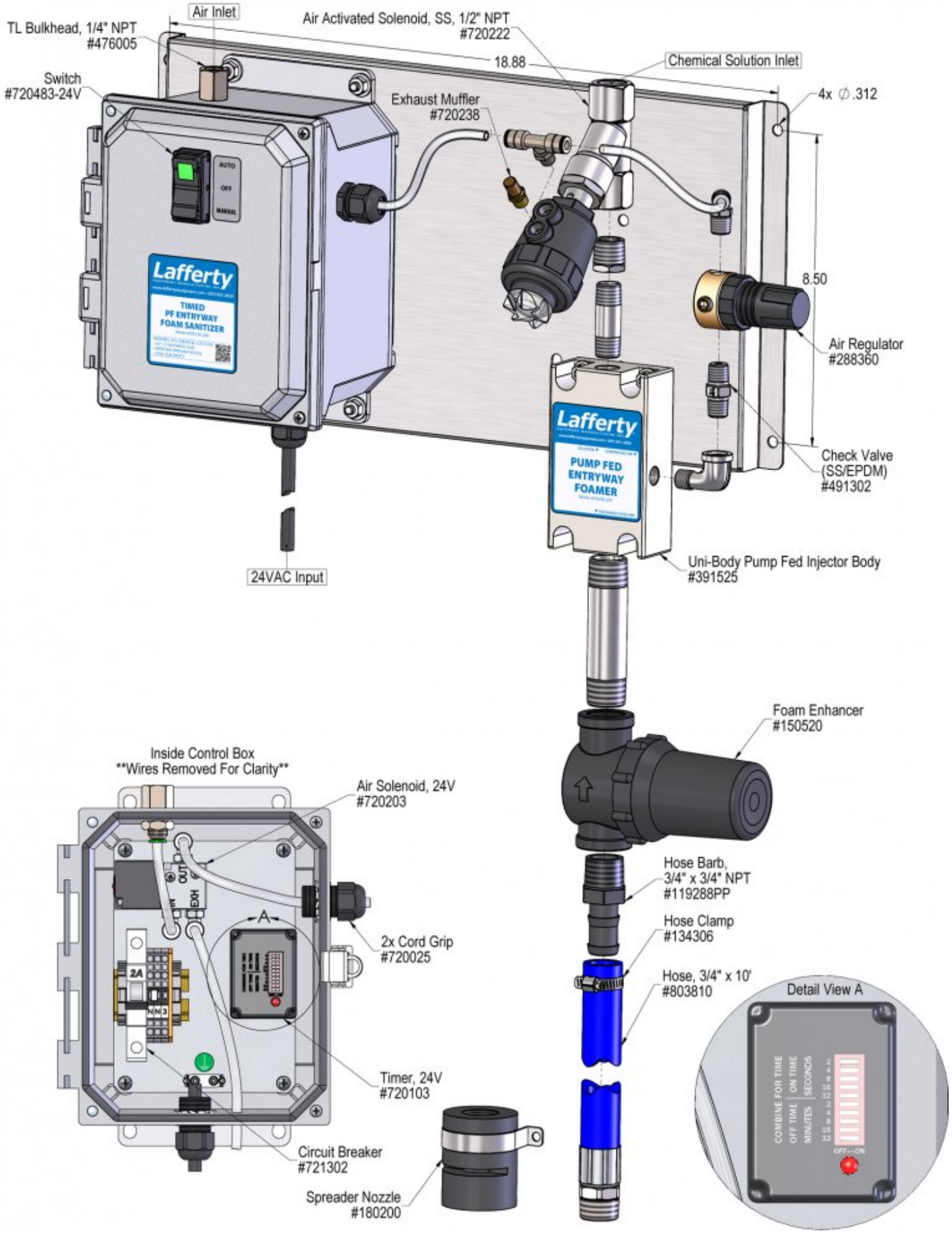
1. This unit requires 24VAC electrical input - **a customer supplied standard step-down transformer is required.**
2. Connect the 24VAC output from the transformer to the electrical input to the control box.
3. Plug the transformer into the wall electrical outlet.
4. The unit has been tested and the timer is preset to run for 60 seconds to allow for final adjustments. (ON TIME will activate first.) Open your chemical solution supply valve and your air supply valve, and then turn on the power switch.
5. Final air adjustments will now have to be made.
6. Wait a few seconds and observe foam consistency.
    - Use the least amount of air needed to achieve good foam quality to prevent water pressure fluctuations from affecting performance. Air pressure must be kept lower than water pressure.
    - To adjust foam consistency pull out on the air regulator knob, turn slightly clockwise for dryer foam and counterclockwise for wetter foam. Wait a few seconds to see each adjustment.
    - Once desired foam consistency is achieved push lock the knob. You are ready to start.

TIMER ADJUSTMENT

1. CAUTION! UNPLUG THE POWER CORD! Then open control box and adjust the timer. The ON TIME dip switches control how long the foam will be applied. The OFF TIME dip switches control how long the unit will stay off between foam applications. Add up the seconds for each activated dip switch to arrive at the desired duration of the ON cycle. Usually 8-10 seconds is sufficient to foam the floor (longer plumbing runs will require a longer application cycle). Add up the minutes for each activated dip switch to arrive at the desired duration of the OFF cycle. Set your OFF TIME to maintain the foam's presence according to your flow (anywhere from 6 to 15 minutes).
2. Close control box and plug in the power cord. Turn on the power switch. The unit will now function according to the timer settings. (ON TIME will activate first.)
    - Note: The unit will run 24 hours a day unless the power switch is manually turned off.
    - For extra foam at any time, press and hold the lower end (Momentary control) of the door switch. (See Switch Settings, below.)

SWITCH SETTINGS

- Automatic control – Top of switch is depressed. Green light glows.
- OFF – Switch is in middle position; green light is off
- Momentary control – Press bottom of switch. Unit is active only while switch is pressed. When released, the switch returns to the OFF position.


Air Inlet
TL Bulkhead, 1/4" NPT
#476005
Air Activated Solenoid, SS, 1/2" NPT
#720222
18.88
Chemical Solution Inlet
Switch
#720483-24V
Exhaust Muffler
#720238
4x ∅.312
8.50
Air Regulator
#288360
Check Valve
(SS/EPDM)
#491302
24VAC Input
Uni-Body Pump Fed Injector Body
#391525
Foam Enhancer
#150520
Inside Control Box
Wires Removed For Clarity
Air Solenoid, 24V
#720203
Hose Barb,
3/4" x 3/4" NPT
#119288PP
Hose Clamp
#134306
2x Cord Grip
#720025
Hose, 3/4" x 10'
#803810
Detail View A
Timer, 24V
#720103
Circuit Breaker
#721302
Spreader Nozzle
#180200

Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Foam surges.	1, 2, 3, 4, 6, 7, 8, 9, 10, 11	13, 15, 16
B) Foam output too wet.	2, 3, 4, 6, 7, 8, 9, 10, 11	13, 14, 15, 16
C) Foam output too dry.	1, 5	13, 14
D) Unit doesn't come on when switch is turned on.	11, 12	
E) Unit comes on and runs continuously.	11	
F) Unit comes on but no solution through solenoid.	12	15

Possible Cause / Solution

Startup

1. **Air pressure too high**
   - Adjust air regulator slowly counterclockwise until output stabilizes.
2. **Air adjustment too low**
   - Adjust air regulator very slowly clockwise.
3. **Use of an oiler in the airline will cause poor foam quality**
   - Use only clean, dry air.
4. **Not enough chemical**
   - Increase chemical concentration.
5. **Too much chemical**
   - Decrease chemical concentration.
6. **Improper chemical**
   - Ensure product is recommended for foaming and/or the application.
7. **Foam hose kinked or hose/plumbing too long or wrong size (See REQUIREMENTS)**
   - Straighten the hose.
8. **Nozzle size too small (See REQUIREMENTS)**
9. **Chemical solution pressure too low or volume too low / inlet piping too small**
   - Increase solution pressure or volume (See REQUIREMENTS).
10. **No chemical solution to the unit**
    - Ensure that the chemical solution supply is not shut off to the unit.
11. **Timer failed/Controller not set properly or malfunctioned**
    - Replace timer. See Controller manual.
12. **May have electrical problems**
    - Have a qualified electrician check electrical connections. Ensure circuit breaker (5 amp) has not been tripped at control box.

Maintenance

13. **Air regulator failed allowing too much air or not enough air**
    - Clean or replace.
14. **Air check valve or air solenoid clogged or failed**
    - Clean or replace.
15. **Chemical solution solenoid clogged or failed**
    - Clean or replace.
16. **Chemical build-up may have formed in the body, causing poor or no chemical pick-up**
    - Follow PREVENTIVE MAINTENANCE instructions below, using water. In extreme cases, carefully remove fittings and soak entire body in descaling acid.

PREVENTIVE MAINTENANCE: When the unit will be out of service for extended periods, run water through the system to flush the chemical and help prevent chemical build-up.