

# Lafferty Equipment Manufacturing, LLC Installation & Operation Instructions

**Model # 976001EE-24V · Photocell Upgrade for Venturi Entryway Foam Sanitizers - 24VAC (Specify at Time of Purchase)**

## REQUIREMENTS

Electric	24V
Entryway Foam Sanitizer	976500-24V, 976505-24V, 976530-24V, or 976560-24V

## OPTIONS

Available for 120V Electric	
Photocell Activation Upgrade, 120V	# 976001EE



[www.laffertyequipment.com](http://www.laffertyequipment.com)  
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**WARNING! READ ALL  
INSTRUCTIONS BEFORE  
USING EQUIPMENT!**

## OVERVIEW

The Photocell Upgrade allows any Venturi Timed Entryway Foam Sanitizer (24V) to be activated via a photocell sensor and apply foam to the entryway floor, "on-demand", for a set amount of time. The multi-function timer also controls the minimum amount of time between activation, preventing costly over-application when traffic is heavy. Timer settings are field adjustable. Requires 24VAC electrical input - a locally sourced standard step-down transformer is required. This upgrade must be specified at the time of purchase.

## SAFETY & OPERATIONAL PRECAUTIONS

- When connecting to a potable water supply follow all local codes for backflow prevention.
- 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.
- 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.
- If the control box is connected to compressed air, the compressed air pressure should be kept to a maximum of 90 PSI.

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

*Refer to companion instructions for Entryway Foamer installation instructions (plumbing, initial setup, etc.)*

1. Mount and align the photocell sensor and reflector on either side of the entryway.
2. They will need to be mounted far enough in front of the door to allow time for the foam to be dispensed onto the floor, prior to the person or vehicle passing through the entryway. Actual distances will vary, depending upon the plumbing used and the timer setting.

## TO OPERATE

### TO TEST

1. This unit requires 24VAC electrical input - a locally sourced standard step-down transformer is required.
2. Connect the 24V output from the transformer to the electrical input to the control box.
3. Plug the transformer into the wall electrical outlet.
4. Open your water supply valve and your air supply valve, and then turn on the power switch. Push and hold down the switch on the box that is labeled "Manual".
5. The unit will activate so you can see how long it takes the foam to travel through your plumbing and foam the entryway. Final adjustments can now be made to the positioning of the photocell sensor and reflector.
6. Final chemical dilution and air adjustments will now have to be made.
7. 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 drier foam and counterclockwise for wetter foam. Wait a few seconds to see each adjustment.
  - You may also have to try different sized metering tips and air settings until foam consistency is acceptable. Once this is set and desired foam consistency is achieved push lock the knob. You are ready to start.

### TIMER ADJUSTMENT

1. Make sure the system is not plugged in to a power source. Remove control box cover. The box contains one timer with "Run & Delay" adjustment knobs.

**Run:** The length of time the unit runs each time the photocell beam is broken. Turn the knob to set the run time (0-60 Seconds). Generally 8-10 seconds will provide sufficient foam.

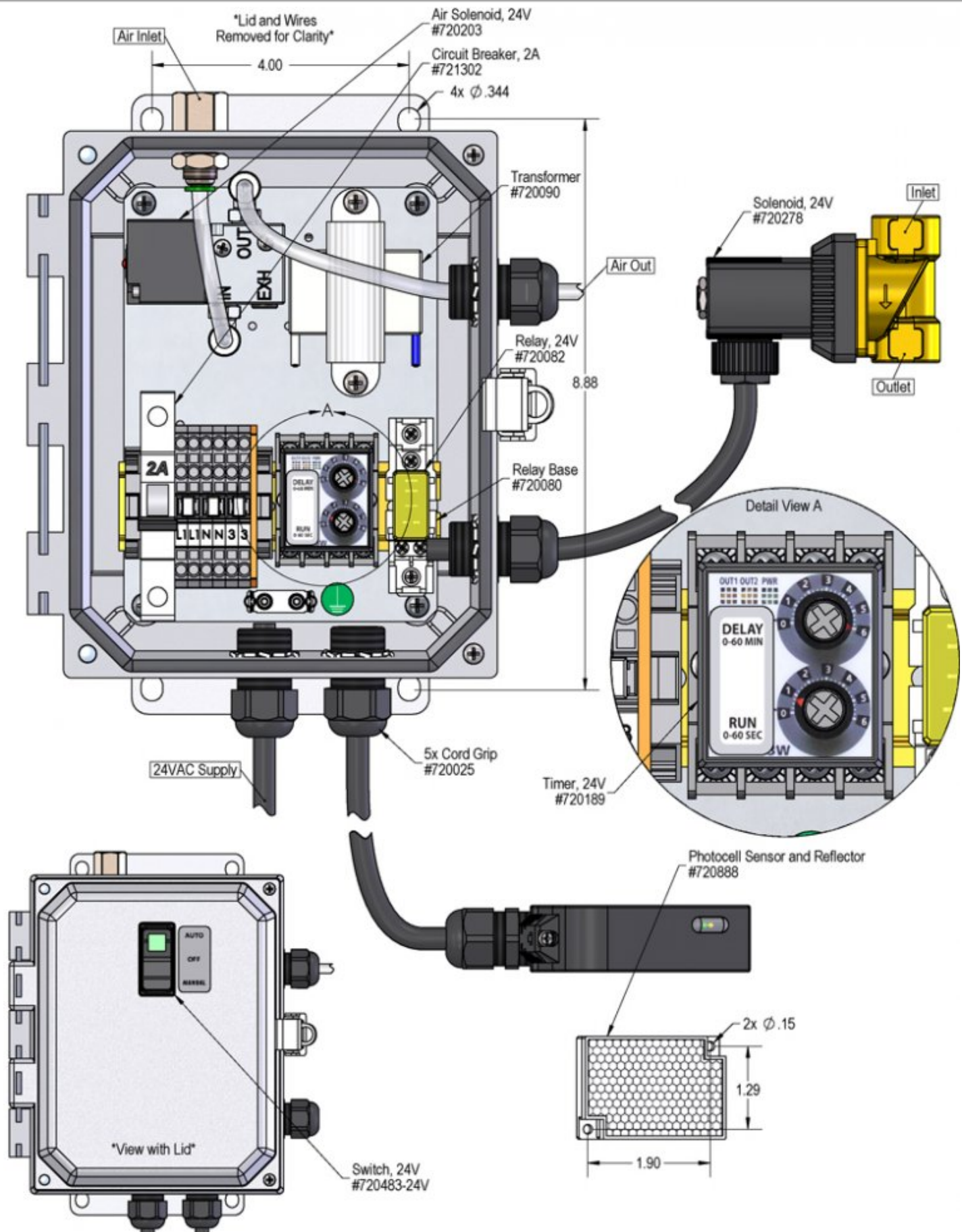
**Delay:** The length of time the unit is inactive after each application. Turn the knob to set the delay time (0-60 Minutes). Generally the foam will be good for 10-15 minutes.
2. Replace the control box cover and connect the unit to a 24V power source.
3. The unit is ready for operation. The run mode will activate the unit for the preset time and then time out. It will not reactivate until the time runs out on the delay mode.

Note: The unit will run 24 hours a day unless the power switch is manually turned off.

For extra foam at any time, use the Manual function (See Switch Settings, below.)

### SWITCH SETTINGS (on front of Control Box)

- Automatic control – Top of switch is depressed. Green light glows.
- OFF – Switch is in middle position; green light is off
- Manual – Press and hold bottom of switch to activate manual foaming



## Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Foamer will not draw chemical.	1, 7, 8, 9, 10	14, 15, 16, 17, 18, 20, 21
B) Foam surges.	1, 2, 3, 4, 6, 7, 8, 9, 10	14, 15, 16, 17, 18, 20, 21
C) Foam output too wet.	2, 3, 4, 6, 7, 8, 9, 10	14, 15, 16, 17, 18, 19, 20, 21
D) Foam output too dry.	1, 5	18
E) Doesn't come on when switch is turned on.	11, 12, 13	
F) Comes on and runs continuously.	11	
G) Comes on but no water through solenoid.	10	20
H) Air or solution backing up into water line.		22

Possible Cause / Solution	
Startup	Maintenance
<b>1. Air pressure too high</b> <ul style="list-style-type: none"> <li>Adjust air regulator slowly counterclockwise until output stabilizes.</li> </ul>	<b>14. Chemical check valve stuck or failed</b> <ul style="list-style-type: none"> <li>Clean or replace.</li> </ul>
<b>2. Air adjustment too low</b> <ul style="list-style-type: none"> <li>Adjust air regulator very slowly clockwise.</li> </ul>	<b>15. Chemical strainer or metering tip partially blocked</b> <ul style="list-style-type: none"> <li>Clean or replace chemical strainer and/or metering tip.</li> </ul>
<b>3. Use of an oiler in the airline will cause poor foam quality</b> <ul style="list-style-type: none"> <li>Use only clean, dry air.</li> </ul>	<b>16. Chemical tube stretched out where tube slides over check valve or pin hole/cut in chemical tube (sucking air in)</b> <ul style="list-style-type: none"> <li>Cut off end of tube or replace tube.</li> </ul>
<b>4. Not enough chemical - metering tip too small</b> <ul style="list-style-type: none"> <li>Install larger metering tip.</li> </ul>	<b>17. Vacuum leak in chemical pick-up connections</b> <ul style="list-style-type: none"> <li>Tighten the connections.</li> </ul>
<b>5. No metering tip installed or metering tip too large</b> <ul style="list-style-type: none"> <li>Install smaller metering tip.</li> </ul>	<b>18. Air regulator failed allowing too much air or not enough air</b> <ul style="list-style-type: none"> <li>Clean or replace.</li> </ul>
<b>6. Improper chemical</b> <ul style="list-style-type: none"> <li>Ensure product is recommended for foaming and/or the application.</li> </ul>	<b>19. Air check valve or air solenoid clogged or failed</b> <ul style="list-style-type: none"> <li>Clean or replace.</li> </ul>
<b>7. Chemical tube not immersed in chemical or chemical depleted</b> <ul style="list-style-type: none"> <li>Immerse tube or replenish</li> </ul>	<b>20. Water solenoid clogged or failed</b> <ul style="list-style-type: none"> <li>Clean or replace the water solenoid.</li> </ul>
<b>8. Foam hose kinked or hose/plumbing too short or wrong size</b> <ul style="list-style-type: none"> <li>(See REQUIREMENTS on page 1)</li> </ul>	<b>21. Chemical build-up may have formed in the body, causing poor or no chemical pick-up</b> <ul style="list-style-type: none"> <li>Follow PREVENTIVE MAINTENANCE instructions below, using hot water or descaling acid. When there is no draw at all, carefully remove fittings and soak entire body in descaling acid.</li> </ul>
<b>9. Water pressure too low or water volume too low/inlet piping too small</b> <ul style="list-style-type: none"> <li>Increase water pressure or water volume. (See REQUIREMENTS on page 1)</li> </ul>	<b>22. No backflow preventer installed</b> <ul style="list-style-type: none"> <li>Install appropriate backflow preventer into water line.</li> </ul>
<b>10. No water to the unit</b> <ul style="list-style-type: none"> <li>Ensure that the water supply is not shut off to the unit.</li> </ul>	
<b>11. Timer failed/Controller not set properly or malfunctioned</b> <ul style="list-style-type: none"> <li>Replace timer. See Controller manual.</li> </ul>	
<b>12. Photocell sensor and receiver not aligned or malfunctioned</b> <ul style="list-style-type: none"> <li>Align sensor and receiver</li> <li>Consult sensor/receiver instruction manual</li> </ul>	
<b>13. May have electrical problems</b> <ul style="list-style-type: none"> <li>Ensure circuit breaker (5 Amp) has not been tripped.</li> <li>Have a qualified electrician check electrical connections.</li> </ul>	

**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.

