EL Series Fogger

Instruction Manual
Please read and keep these instructions

For Models:

- EL2 Wall Mount
- EL3 Wall Mount
- EL4 Wall Mount
- EL2 Cart Mount
- EL3 Cart Mount
- EL4 Cart Mount
- EL3 Generator
- EL4 Generator

EL-3 Wall Mount

EL-3 Cart Fogger

EL-3 Generator Fogger
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction/Specifications</td>
<td>3</td>
</tr>
<tr>
<td>Use Warning</td>
<td>4</td>
</tr>
<tr>
<td>Safety Precautions</td>
<td>5</td>
</tr>
<tr>
<td>Calibration Procedures</td>
<td>6</td>
</tr>
<tr>
<td>Installation (Wall Mount Only)</td>
<td>7</td>
</tr>
<tr>
<td>Directions For Use</td>
<td>8-9</td>
</tr>
<tr>
<td>Cleaning/Maintenance</td>
<td>10-11</td>
</tr>
<tr>
<td>Accessories/Replacement Parts</td>
<td>12</td>
</tr>
<tr>
<td>Warranty</td>
<td>13</td>
</tr>
<tr>
<td>Contact Information</td>
<td>14</td>
</tr>
</tbody>
</table>
Introduction

The EL Series ULV fogger is designed for permanent installation on walls or other suitable supporting structures. The EL Series is also available for portable use on carts, for easy maneuverability in structures. Each unit will treat approximately 300,000 cubic feet, or much larger areas when used on a cart.

Specifications (Motor):
- Height: 14 inches
- Width: 11 inches
- Depth: 11 inches
- Weight: 15 lbs.
- Droplet size: 85% 1-20 μm (microns)

Electrical:
- 115 Volts
- 50/60 Hz
- 10 Amp continuous
- 30 Amp start

Notice:
Except as stated on the warranty enclosed with your EL Series ULV fogger, there are no warranties of merchantability, fitness for a particular purpose, performance or otherwise, express, implied or statutory, and the company shall have no liability for consequential, incidental or other damages, howsoever caused.
WARNING – RELATING TO
RISK OF FIRE, ELECTRIC SHOCK
OR INJURY TO PERSONS

When using this electric appliances please follow these safety precautions:

- Read all the instructions before use.
- To minimize the risk of injury, use supervision when necessary
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Unplug from outlet when not in use and before maintenance and cleaning are performed.
- Do not operate this appliance with a damaged cord or plug, or if the appliance malfunctions or is damaged in any way. Please contact an authorized manufacturer representative for any repairs needed.
- To reduce the risk of electrical shock, do not place fogger in or above water or other liquids.
- This appliance must be grounded. In the event of malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- Check with a qualified electrician or manufacturer representative if the grounding instructions are not completely understood. Do not modify the plug provided with the fogger. If it will not fit the outlet, have a proper outlet installed by a qualified electrician or utilize another appropriate outlet.
Safety Precautions

- **Do not inhale fog output.** Liquid droplets can remain suspended in the air a long time and are quickly absorbed by the lungs. Depending on the material being fogged, this could result in serious injury or death.

- **Do not use to apply any liquid that is hazardous to people, animals or property.** The surface area of small droplets increases their activity and potential to form an explosive or flammable mixture. Be aware of possible dangerous interactions between liquid droplets and the treatment area.

- **Read the label of the chemical you plan to use, and follow ALL instructions.** If necessary, obtain directions for use and safety precautions including personal protective equipment (respirator, face mask, special clothing) from the chemical manufacturer or distributor.

- **Do not use this fogger near an open flame.**

- **Risk of Electric Shock – Do not expose to rain. Store indoors. Use only a properly grounded (earthed) three pin electric outlet.** The ground wire is an essential safety feature of this product. Do not remove or alter the grounding plug on the power cord.

- **Do not use an ungrounded plug adapter.** If using an extension cord, it must have a continuous ground wire leading to earth and an amperage rating greater than the rated rating of the fogger.

[Safety Symbols]
Calibration of the EL Series Fogger

The application rate of the EL Series ULV fogger should be monitored with each insecticide that is applied. The calibration rate will depend on the viscosity of each insecticide formulation. In general, the application rate will be approximately 2 ounces per minute per nozzle. Therefore, if you are using the EL-3, which has three nozzles, the unit’s application rate will be approximately 6 ounces per minute. Once you have determined what the actual flow rate is, you can calculate the amount of time that will be necessary to run the EL-3 foggers.

Example:
- Insecticide applied: Card-O-Vap™ 8 at 1 ounce/1,000 cubic feet
- Flow rate: 2 ounces per minute per nozzle
- EL-3: 3 nozzles x 2 ounces/minute = total flow rate of 6 ounces/minute

- 500,000 cubic foot warehouse: 500 ounces of insecticide is required
- 500 ÷ 6 ounces/minute (flow rate of EL-3) = 83 minutes
- If two EL-3 Cart Foggers are used, each must run for 42 minutes

EL-3 Cart Fogger

Card-O-Vap™ 8
Installation Of The Wall Mount EL Series Fogger

For maximum efficiency and proper chemical application, the units should be evenly positioned around the area to be treated. In general, each unit should effectively cover approximately 10,000-15,000 square feet for controlling various insects. Installation can be made at any convenient height, but should be above or away from obstructions which would interfere with the spray discharge from the nozzles. Each nozzle can be adjusted independently up or down. EL Series foggers can be custom ordered with one to four nozzles per unit. In most situations the units can be positioned so they are in close proximity to existing electrical outlets.

The flange of the unit base has two holes for mounting. Bolt or screw the unit to a sturdy support, located as described above.

The chemical container bracket has two pre-drilled holes for mounting. The bracket should be sufficiently anchored to support the size of chemical container to be used. A five gallon container of Cardinal insecticide may weigh as much as 75 lbs., therefore, the bracket should be mounted so it will support at least 100 lbs. The top of the chemical container should be located a few inches below the level of the nozzles to prevent siphoning of the chemical when the unit is turned off.
Directions For Use

Before use, inspect the unit to make sure that it is functional. Check that there are no obstructions in the nozzles, inline filters or lines, and make sure that there is no damage to the electric cord. If there is damage or obstructions of any kind, **DO NOT USE! Repair, clean, or replace any part that may malfunction before operating the unit!**

It is also important to make sure that all label required personal protective equipment is utilized during the operation of the units. Please read the fogging insecticide label before use for a listing of the proper PPE needed.

Place the fogger in the desired location (mobile units only), and check that there are no obstructions in front of the fogging heads that may block the dispersal of the fogging insecticide. If there are obstructions, they must be removed, or the fogger needs to be relocated to a more open area.

Place the desired fogging insecticide into the wall mounted or cart mounted chemical container bracket, utilizing the insert accessory for 2.5 gallon containers to control spillage. Remove the lid from the fogging insecticide and place the siphon tubes into the container, making sure that they reach the bottom of the container. In many cases, two different fogging liquids can be dispersed at the same time, by separating the siphon tubes and placing them into different containers containing different formulations. **Please make sure to read the product labels fully before performing this action to make sure the insecticides are compatible!**
Directions For Use (cont.)

Once the unit is in the desired location (mobile units only), and the siphon tubes are in place, you are ready to operate the unit. Plug the unit in, making sure to never stand in the path of the fogging concentrate as it is dispersed. Each nozzle should disperse the fogging liquid in a steady, even fog. If any of the nozzles aren’t dispersing evenly please unplug the unit and inspect for obstructions in the lines or inline filters.

For generator fogger units only: Make sure that each fogging motor is plugged into a separate circuit, as the equipment may not function properly otherwise. The generator fogger also has an adjustable bed for the fogging motors that allows for three different nozzle positions. Adjust the bed to the desired setting for optimal dispersal.

Follow the calibration instructions found on page 6 of this manual for a guideline on the appropriate application times for the fogging application. It is also important to follow the fogging insecticide application guidelines as listed in the label of any insecticide used.

Once the fogging is complete, remove the siphon tubes from the chemical containers and follow the cleaning and care instructions found on page 10 of this manual.

Please contact a manufacturer’s representative for any questions relating to the operation of this equipment before use.
Cleaning The EL Series Fogger

When fogging is complete, remove the siphon tubes from the fogging insecticide and operate the fogger until any liquid remaining in the fogger’s lines has been expelled.

After fogging with a viscous liquid, begin by removing the siphon tubes from the fogging insecticide and operating the fogger until the lines have been expelled. Then place the siphon tubes into an appropriate solvent for your fogging chemical (water for water-dispersible liquids, odorless mineral spirits for oil-based liquids, etc.) and operate the unit for 1-2 minutes, flushing out the residual chemical with clean solvent. Then remove the siphon tubes from the liquid and operate the unit until all liquid has been expelled.

To prevent tubing from becoming brittle in prolonged storage, fog a few minutes with odorless mineral spirits each 6-9 months and then remove the siphon tubes from the liquid and operate the unit until all liquid has been expelled. This will help keep tubing pliable.

User Maintenance Instructions

DANGER - RISK OF ELECTRIC SHOCK
Remove electrical plug from outlet before attempting any service. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.

Users may undertake routine maintenance if they wish. However, we recommend that a manufacturer’s representative be contacted before such repairs are made, and if there are any extensive repairs needed.

Please note: Any maintenance performed by other than an authorized manufacturer’s representative may void any warranty.
User Maintenance Instructions (cont.)

It is necessary to replace the in-line filters no less than once per fogging season, or when the fogging insecticide flow has become restricted due to debris found inside the filter. To change the filter, pull the lines apart at the filter base and replace with a new filter. Replacement filters are available through any manufacturer’s representative.

It is also sometimes necessary to replace the tubing due to cracks, leaks, pin holes, clogs, or discoloration. To replace the tubing, remove the screws from the nozzle portion of the fogging head and gently release the nozzle head from its base. Once this is done, it is possible to detach the tubing from the nozzle head by releasing the clamp. Gently pull the tubing from the nozzle head and replace with a new section of tubing, making sure to secure the clamp back on the new section of tubing and nozzle head.

Maintenance Instructions for the gas powered generator (EL Series Generator Fogger Only):

Before performing any maintenance on the gas powered generator on the EL3 and EL4 Generator Fogger, please refer to the generator’s instruction manual (provided at the time of purchase). It is important to follow all safety and maintenance instructions for this equipment, as outlined by the manufacturer.
Accessories/Replacement Parts

5 Gallon Chemical Container Bracket
Part #807

2.5 gallon container insert
Part #2756

Head Assembly Complete
EL2: Part #1531
EL3: Part #1532
EL4: Part #2646

Poly Siphon Tube With Fittings
Part #833

Vinyl Tubing
Part #859

Inline Filter
Part #1213
Warranty:
Cardinal Professional Products, herein referred to as the “Company”, warrants that the Micron Master™ Chemical Dispersal System herein referred to as the “Equipment”, shall meet the standard specifications for the Equipment in effect at the time of manufacture of same, and shall be free from defects in material and workmanship if properly maintained and operated under normal conditions in accordance with the applicable instructions published by the Company concerning the operation and maintenance of the Equipment. The term of this warranty shall commence on the date on which the Equipment is purchased as new by the first user thereof from the Company or a licensed dealer of the Company and shall remain in effect thereafter (i) for a period of one year with respect to the motor and (ii) for a period of ninety days with respect to all other parts. If repairs or replacements are made to the Equipment or any of its parts without the Company’s prior written authorization, then the Company shall have no obligation or liability under this warranty. The liability of the Company (whether in contract or in tort) arising out of warranties, representations, instructions or defects from any cause shall be limited to the replacement or repair, at the Company’s factory or other location designated by the Company, any part or parts which shall appear to the satisfaction of the Company to have been defective in material and workmanship. This warranty does not cover (i) defects, damage or deterioration due to normal use, wear and tear or exposure, (ii) normal maintenance services, such as replacing lines and filters, and (iii) defects or damage due to misuse, alteration, negligence or accident. The Company shall not bear any transportation charges in connection with its obligations under this warranty.

EXCEPT AS STATED HEREIN, THERE ARE NO WARRANTIES OR MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE OR OTHERWISE, EXPRESS, IMPLIED OR STATUTORY, AND THE COMPANY SHALL HAVE NO LIABILITY FOR CONSEQUENTIAL, INCIDENTAL OR OTHER DAMAGES, HOWSOEVER CAUSED. No person is authorized by the Company to give any other warranties on behalf of the Company or to assume for the Company any obligation or liability in connection with the Equipment not stated herein.
Southern California:
2674 W. Woodland Dr.
Anaheim, CA 92801
1-714-761-3292

Northern CA Office:
57 Matmor Rd.
Woodland, CA 95776
1-800-548-2223

Midwest/East Coast Office:
3150 N. Woodford
Decatur, IL 62526
217-330-6119

Manufactured by Cardinal Professional Products
Please contact your local Cardinal Professional Products
representative for any questions regarding this equipment, any
fogging product information, or to place an order.

© 2013 Cardinal Professional Products