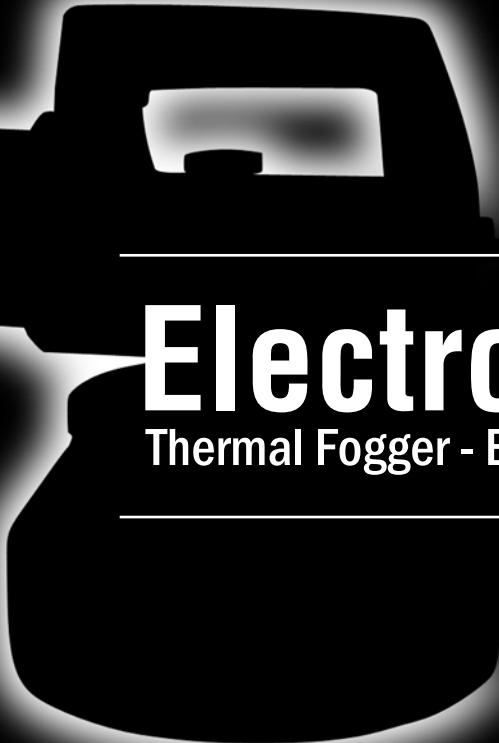


**PRORESTORE**  
P R O D U C T S

**ELECTRO-GEN OPERATOR'S MANUAL**



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# Electro-Gen

Thermal Fogger - Electric Sprayer

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For safe operating and maintenance instructions read carefully.

**PRORESTORE PRODUCTS ELECTRO-GEN™ OPERATOR'S MANUAL**

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Coraopolis, PA 15108

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Printed for ProRestore Products  
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# OPERATING PRINCIPLE OF THE ELECTRO-GEN™ FOGGER

The **ELECTRO-GEN UNIT** is a dual purpose chemical application device: A THERMAL FOGGER which produces a very small size droplet particle and an optional electric sprayer which produces a cold mist spray similar to that produced by an aerosol can.

## **COLD SPRAYING MODE**

At the touch of the trigger, an electric pump draws solution from the solution reservoir. The solution is pressurized and forced through a specially restricted orifice where the solution is atomized into a cold mist.

In the cold spraying mode the operator has a choice of utilizing water based or solvent based formulations, such as fabric protectors, deodorants, flame retardants, spotters, insecticides, etc.

### ***Special Advisory***

*The use of resinous materials such as duct sealants, etc. may clog and damage the unit and are to be avoided.*

## **THERMAL FOGGING MODE**

At the touch of the trigger, an electric pump forces solution drawn from the solution reservoir through an atomizing nozzle and into a thermostatically controlled heating chamber in the barrel. The solution is vaporized instantly and a cloud of smokelike fog surges out of the end of the barrel.

### ***Application Advisory***

*For odor removal applications **always** utilize ODORx® Thermo 55™. ODORx Thermo 55 is ready-to-use and should not be diluted with water. For pest control applications be sure insecticide label permits THERMAL FOGGING.*

For best results **dry fog** is recommended. The dryer the fog the smaller the droplets, resulting in improved penetration and economical treatment.

Dryness of the fog is controlled by the rate of solution passing through the heating chamber. This flow rate is controlled by turning the adjustment knob clockwise for a dryer fog, and counter clockwise for a damper fog.

## **SPECIFICATIONS:**

**MOTOR:** Electro-Mechanical (vibrator)

7,200 strokes per minute

Rating - refer to rating on plate

**PUMP:** Displacement Type

- Output-Spraying: 1 ounce (30ml) per minute

- Fogging: 1,000 cubic feet (28 cubic meters) per minute

Particle Size

- Cold Spraying: 115 microns in diameter

- Fogging: 13.5 microns in diameter

**HEATING ELEMENT:** Thermostatically Controlled

Operating Temperature: 450° - 525°F (232°C - 274°C)

Current: 115v = 8 amps Wattage: 900 Watts

230v = 4 amps

**SOLUTION RESERVOIR:** Spun Aluminum 3 quart (2.8 Liter) capacity

**RECOMMENDED ELECTRICAL EXTENSION CORD SUITABLE FOR OUTDOOR USE:** (not supplied) 3 wire 10, 12, or 14 gauge, length not to exceed 25 linear feet (7.6 meters).

## **WARNING!**

- Keep away from children and pets!
- Fire and/or explosion may occur if used in confined area.
- Under certain conditions, a flame may be produced at either end of the barrel. If this occurs, release trigger immediately and flame will extinguish. Do not attempt to extinguish flame by blowing it out, smothering it, or submersing in liquid. Turn adjustment knob to a dryer fog setting before resuming operation.
- Barrel is hot when plugged in, allow to cool before touching.
- Do not allow anyone to operate this unit who has not read the operating instructions, safety precautions, and warnings.
- Do not attempt to keep trigger in a constant "on" position by taping or tying it down, etc. Never leave unit plugged in and unattended.
- Do not fog near combustible materials.

- Fog produced is flammable. Do not fog near open flames such as gas burners, or pilot lights.
- Insecticidal fogs may be toxic. Do not inhale fog.
- Do not fog around food, eating utensils, humans, pets, or animals.
- The odor of this product like many common household products with an odor may irritate those who have allergic sensitivity.
- **Cautions for the potentially sensitive:** evacuate area prior to treatment. Potentially sensitive individuals may re-occupy treated area when they feel physically comfortable or upon advice of their physician.
- Use only 3 wire 10, 12, or 14- gauge electrical extension cord, suitable for outdoor use. Never remove or bypass grounding feature. Failure to comply may result in electrical shock, fire, or result in poor treatment results.

## **CAUTION!**

- Follow chemical manufacturer's fogging instructions carefully.
- Be careful to avoid damaging target surfaces when cold fogging/wet spraying.
- Prior to each use, examine both electrical extension cord and unit's primary electrical cord for signs of damage or degradation. Do not operate unit with damaged electrical cord.
- Extinguish cigarettes and/or other ignition sources while filling or utilizing fogger.
- Never fog insecticides not labeled for thermal fogging.

## **EQUIPMENT PREPARATION**

Before each use be sure that nozzle cap is tightened securely and the filter screen is in place on the pick-up tube. Ensure that the solution reservoir is free of all debris before filling.

### **A. COLD FOGGING / SPRAYING**

For spraying with heating barrel removed, emulsifiable concentrates or other materials designed to be mixed with water may be used. Many oil/solvent based formulations suitable for this type of spraying may also be used.

Your Electro-Gen easily converts to a cold fogger/sprayer by pulling the vaporizing barrel straight out. Be sure that barrel is cool before attempting removal.

1. Fill container with appropriate solution to be sprayed. The sprayer works effectively with most deodorants, disinfectants, garden sprays, mothproofers, and insecticides. Wettable powders and resinous materials such as DUCT SEALANTS are not recommended as they will clog pumping mechanism.
2. Attach chemical reservoir and pull trigger to prime unit and spray.

## **B. THERMAL FOGGING**

With the fogger unplugged, attach the heat barrel by positioning the two prongs directly in line with the slots provided for them in front of the housing. Push the barrel firmly...straight into place, being careful not to twist or bend the prongs.

1. Allow the fogger to pre-heat for at least two minutes before operation.
2. Carry the fogger as you would a suitcase, holding it about three feet off the ground and away from your side.
3. Pull the trigger located on the underside of the handle, to start unit operating. Release trigger to stop unit.
4. Turn adjustment knob clockwise to obtain a dry fog. With the proper fog setting, you shouldn't see moisture on an 8" x 12" (20cm x 30cm) minimum piece of paper or cardboard when passed through the fog about a foot out from the barrel. To avoid burns, be careful not to place hand in front of the barrel.

## **C. ELECTRICAL SOURCE**

1. Plug the Electro-Gen into a proper grounded electrical outlet (voltage is indicated on fogger housing).
2. Extension cords must be 3 wire, 10, 12, or 14 gauge. Long lengths of lighter gauge electrical cord will not conduct the necessary current to the heating chamber, and may result in insufficient heating and solution dripping or leaking from the outer end of the heat barrel. Over heating of the extension cord may also occur.

## **PEST CONTROL TIPS**

Follow the label instructions: It is a violation of Federal Law to apply an insecticide in a manner inconsistent with it's labeling.

If you wish to thermally fog an insecticide, the product label must state that the product is suitable for thermal fogging.

If you wish to spray an insecticide indoors, the product must state the product may be utilized indoors.

## **ADVANTAGES OF THERMAL FOGGING**

1. Smaller particles penetrate cracks and dense areas more thoroughly than mist sprays.
2. Thermal fogging is recommended for treatment of large areas.
3. Thermal fogging is less likely to build-up an oily residue on plants, furniture, etc. unless over applied.

Most insecticides are applied at a suggested rate of 1 ounce (30ml) per thousand cubic feet of space. A 15-20 second application generally covers a 1,000 cubic foot (28 cubic meters) area.

*Note: to compute cubic feet multiply the L (length) x W (width) x H (height) of area to be treated  $L \times W \times H = \text{Cubic Footage}$ .*

## **TIPS ON THERMAL FOGGING OUTDOORS**

Thermal fog is affected by air currents and drafts which can carry the product away from treatment area. For maximum effectiveness:

- Do not fog open areas outdoors on windy days.
- Outdoor fogging is most effective when performed at dawn or dusk.
- Move downwind and utilize the available outdoor air currents to circulate and carry the fog over the target area whenever and wherever possible.

## **ADVANTAGES OF SPRAYING**

1. Preserves the potency of insecticides adversely effected by heating.
2. Applicator is better able to observe where solution is deposited.
3. Larger heavier spray droplets are not as easily effected by wind drift.

Most insecticides are applied at a suggested rate of 1 ounce (30ml) per thousand cubic feet (28 cubic meters) of space. A 15-20 second application generally covers a 1,000 cubic foot (28 cubic meter) area.

*Note: to compute cubic feet multiply the L (length) x W (width) x H (height) of area to be treated  $L \times W \times H = \text{Cubic Footage}$ .*

## **SPECIAL PROCEDURE FOR HEAVY INSECT INFESTATIONS**

One method of insecticide application which is very effective is to first apply a suitable residual insecticide to cracks, crevices, and other probable partially concealed or protected insect harborages. Then thermally fog the suspected harborages and the airspace with a suitable natural or synthetic pyrethrum base insecticide which also acts as a



flushing agent. Thus you've doubled your chances of exposing the insects to a lethal dose of insecticide.

*Remember: Only the proper product, utilized in the proper concentration, applied over the recommended area will give satisfactory results.*

## **DEODORIZATION TIPS**

Thermal fogging is the third step in the Unsmoke® Structural Smoke Odor Removal Procedure.

### ***Prior to thermal fogging:***

#### **STEP 1**

Suppress odor sources such as charred wood, or horizontal structural surfaces, etc. by low pressure spraying with a solution of 3-4 ounces (89ml - 118ml) ODORx 9-D-9 or ODORx Double-O per gallon of water.

A deodorizing pre-sealer for containing odors on structural surfaces such as charred wood, attic insulation, voids above suspended ceilings etc. can be prepared by adding the following to an empty 5 gallon container:

- 1 gallon (3.8 Liters) ODORx Unsoot #1
- 1 quart (0.95 Liters) ODORx 9-D-9
- 5 ounces (150ml) ODORx Last Resort™
- Fill the balance with water to make 5 gallons

Apply with low pressure electric sprayer or commercial airless paint sprayer. One gallon covers approximately 500 square feet.

#### **STEP 2**

Vapor phase odor control is achieved by applying 2 ounces (60ml) of ODORx Crystal Odor Counteractant (C.O.C.™), per 100 sq. ft./9.3 square meter (of floor area) to floors throughout the area to be treated.

#### **STEP 3**

##### ***Thermal Fogging***

A. When thermally fogging it is advisable to begin treatment at the furthest inward point of the area to be treated and work your way back to the entry.

B. Close doors in rooms and closets after thermally fogging to contain fog in treated areas.

C. Treat rooms and closets prior to treating open public areas.

D. When thermally fogging indoors, pause after each 15 seconds of thermal fogging and release trigger for 30 seconds to allow barrel to re-heat to most efficient thermal fogging temperature.

# **PROPER PRODUCT SELECTION FOR THE ODORx THERMO 55 ODOR COUNTERACTANT SERIES**

The ODORx Thermo 55 series is the restoration industry's most effective thermally activated fogging odor counteractant.

The ODORx Thermo 55 Series is compounded from the purest base materials and finest aroma ingredients available. The Thermo 55 Odor Counteractants have been used internationally on over **2,000,000 successful smoke odor removal applications.**

## ***THERMO 55 NEUTRAL***

Excellent general purpose smoke odor counteractant. Works synergistically with ODORx 9-D-9™. Provides moderate length residual air freshening characteristics.

## ***THERMO 55 CHERRY***

The strongest of the ODORx Thermo 55 SERIES, recommended for moderate to heavy smoke odor situations. Provides long-lasting residual air freshening characteristics. Works synergistically with ODORx 9-D-9.

## ***THERMO 55 CITRUS***

Recommended for PROTEIN SMOKE ODORS resulting from burnt meat, poultry, etc. Works synergistically with ODORx DOUBLE-O®. Provides relatively short duration air freshening characteristics.

## ***THERMO 55 KBG***

Recommended for SYNTHETIC SMOKE ODORS resulting from burnt plastic or rubber. Excellent general purpose air freshener. Works well on light-moderate general smoke odor situations. ODORx Thermo 55 KBG offers moderate length residual air freshening characteristics.

## ***THERMO 55 TABAC-ATTACK™***

Recommended for TOBACCO RELATED ODORS. Works well with ODORx Tabac-Attack.

# **MAINTENANCE**

## **CLEANING YOUR ELECTRO-GEN UNIT**

### ***After Use As A Sprayer***

Clean and purge system by spraying water with a small amount of suitable detergent through unit. Rinse system by spraying clear water through unit. Wash solution reservoir with detergent and water solution, rinse with clear water and wipe dry after each use. Remove the filter, thoroughly wash, rinse, and replace filter.

*Note: If the unit has been utilized to apply water based or volatile dry solvents, the pump and atomizing mechanisms require lubrication. The mechanisms may be lubricated by spraying a small amount of ODORx THERMO 55 through the unit.*

### ***After Use As A Thermal Fogger***

ODORx THERMO 55 SERIES odor counteractants are compounded from the finest base materials and constituents available. It is recommended to flush the system (without the barrel) with mineral spirits to ensure optimal performance.

### ***Preserve and Maintain Full Potency of the Deodorant***

It is recommended that un-used ODORx THERMO 55 be transferred from formulation reservoir to original container.

### ***Formulation Reservoir Maintenance***

Remove screen filter, thoroughly clean, rinse, and replace filter. Wash solution reservoir with a mild detergent and water solution, rinse with clear water, and dry.

## **DE-CARBONIZING BARREL**

Formulation residues may accumulate inside the barrel. It is advisable to clean out the barrel with a rag or soft bristled brush periodically to remove accumulations of foreign matter.

## **STORAGE**

Storing unit in original container between uses prevents accumulation of dusts and other soil.

## **WINTERIZING**

Protect unit utilizing water based formulations from freezing if unit is to be transported, or stored in an area where freezing is likely. Drain solution reservoir, and spray some winterized windshield cleaning solution through unit. Solvent based formulations such as ODORx® THERMO 55™ do not freeze, so when utilizing solvent based formulations no special winterizing procedure is necessary.

## **CLOGGING**

Foreign matter in the liquid can result in clogging the pump or nozzle. To insure proper operation it is recommended that clean formulation always be utilized, or that it should first be filtered through paper coffee filters before use if foreign matter is present or suspected.

Replace nozzle every 8 hours of operation to insure small fog particle size.

## **PRESSURE PURGING THE MECHANISM**

Aerosol solvent carburetor cleaner may be used to purge and flush dirty or clogged pump mechanisms, or for periodic maintenance.

*Note: Unit's motor must make normal buzzing sound for this maintenance/repair technique to be effective.*

1. Protect work area from solvent related damages by covering with newspaper or other absorbent material.
2. Wear protective goggles and rubber gloves.
3. Insert the plastic tube from the aerosol carburetor cleaner into the can nozzle.
4. Remove formulation reservoir from fogger.
5. Remove formulation filter from brass stem.
6. Disengage heat barrel from fogger. Plug fogger into electrical outlet.
7. Insert straw from aerosol can into white plastic nut at bottom of brass stem.
8. Simultaneously pull trigger on fogger while depressing spray nozzle on aerosol can to inject a 1 second burst of cleaner into the mechanism to purge and flush system. A stream or spray of cleaner should be visible at nozzle cap.
9. Fill formulation reservoir with suitable solution, clean formulation filter and re-install on brass stem, attach formulation reservoir to unit and test operate. If necessary, repair or replace pump/piston system.

# TROUBLE SHOOTING GUIDE

## PROBLEM

## CAUSE

## SOLUTION

Buzzing sound

Normal motor noise

This is a normal sound created by this type of motor.

Motor runs but no spray is emitted

Insufficient solution level

Nozzle cap plugged

Check to see if the valve is stuck

Add additional solution.

Remove nozzle from threaded stem, clean nozzle by spraying with aerosol carburetor cleaner or blowing out with air. **WARNING; DO NOT ATTEMPT TO UNCLOG NOZZLE BY INSERTING SHARP OBJECT OR DAMAGE TO NOZZLE WILL OCCUR!**

Pressure purge the mechanism (See Maintenance Section)

Flame from heating element

Nozzle orifice broken

Nozzle loose

Low input voltage

Replace nozzle.

Tighten nozzle.

Check extension cord and power sources.

Cord must be a 3-wire grounded type of either 10, 12 or 14 gauge.

Motor hums - no spray (bound)

Over-adjusted

Pump bound

Turn adjustment knob counter-clockwise.

Pressure purge the mechanism (See Maintenance Section) disassemble clean/replace as needed.

Poor Spray

Improper adjustment

Worn/damaged nozzle

Dirty/contaminated formulation.

Turn adjustment knob.

Replace nozzle every 8 hours of operation.

Filter or discard formulation and clean nozzle.

Leakage

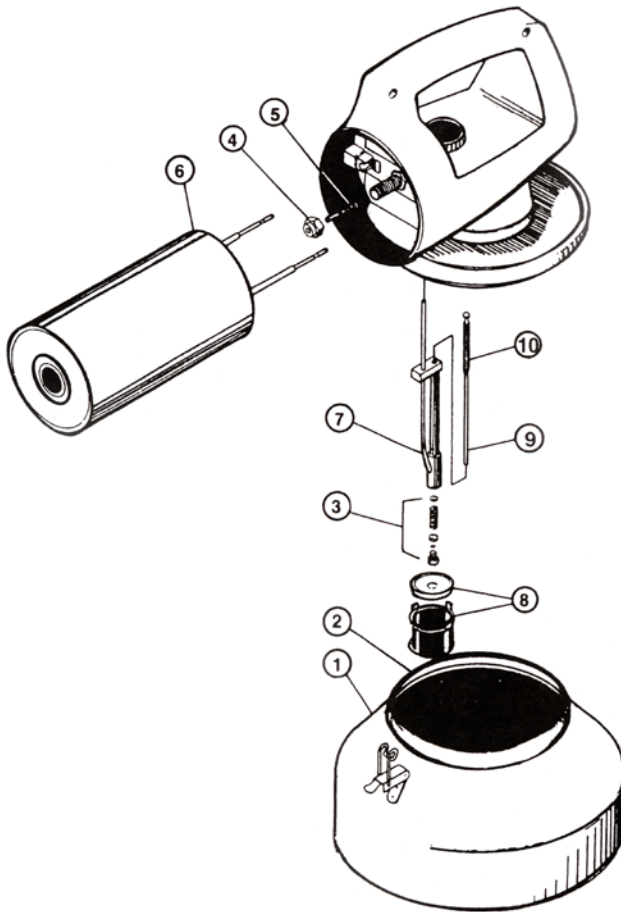
Nozzle leakage.

Internal leakage.

Worn piston & o-ring seal.

Tighten nozzle.

Replace piston and o-ring seal.



## PARTS LIST

KEY	PART NO.	QTY.	DESCRIPTION
1	102259001	1	3 qt. (2.8 liters) Aluminum Reservoir
2	102259002	1	Gasket
3	102259003	1	Pump Parts Kit
4	102259004	1	Nozzle Nut & Sapphire Orifice (Restricted Flow)
5	102259005	1	Spinner & Spring Assembly
6	102259006	1	Heat Barrel Assembly (Complete)
7	102259007	1	Suction Tube
8	102259008	1	Screen Filter
9	102259010	1	Plastic Rod
10	102259011	1	Spring



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