

2000  
**ELECTROGEN**

Operator's  
Manual

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Manual

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Manual**



Operator must read rules for safe operating  
& maintenance instructions carefully

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**PRORESTORE**  
PRODUCTS

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# **Electro GEN<sup>2000</sup>**

## **Operator's Manual**

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**ProRestore Products  
15180 Josh Wilson Rd  
Burlington, WA 98233  
800-932-3030**

# Electro-GEN 2000

## Thermal Fogging Application Device

Designed and Engineered with Safety in Mind

- The Electro-GEN 2000 was designed and engineered with safety in mind.
- The Electro-GEN 2000 was designed to utilize water-based ODORx-THERMO 2000 formulations, a safer alternative to petroleum based products.
- The Electro-GEN 2000 carries Underwriters Laboratory and TUV/GS safety approvals. In addition, the Electro-GEN 2000 conforms to European Safety Standard EN-60335.
- The Electro-GEN 2000 is equipped with a thermostat controlled sensor. The sensor reduces the risk of operator error and “droplet fall out” during fogging operations by disabling the fog switch until proper operating temperature is reached.

### High performance output

The Electro-GEN 2000 delivers over 7,000 cubic feet of fog per minute.

### Specifications

Input Power: 120 volts / 60 hertz

Heater: 1000 watts

Fuse Type: 120 volts / 10 amperes

Formulation Tank Capacity: 2.5 liters

Warm-up Period: Approximately 7 minutes

Weight: 18 pounds / 8 kilograms

Dimensions: length 17 in. width 8.5 in. height 9.5 in.  
length 430 mm width 210 mm height 310 mm

Dual Purpose Stand and Mounting Bracket

Variable Dual Action Control: Fog interval adjustable from 10 seconds to 5 minutes.

Fog duration adjustable from 1 to 12 second bursts.

- Optional wireless remote system available.



# OPERATING INSTRUCTIONS

**Step 1:** Attach Dual Action Control or Wireless Remote to rear of device.

**Step 2:** Fill formulation tank with ODORx THERMO 2000. Always verify that there is an adequate supply of ODORx THERMO 2000 in formulation tank before turning the device on. **Operating the device DRY or with petroleum-based fogging formulations will damage the pump and heat exchanger!**

**Step 3:** To avoid the risk of electrical shock, plug unit into a grounded electrical outlet. When mobility is desirable during fogging operations use a heavy duty 10, 12 or 14 gauge three prong extension cord. Red power indicator will light to indicate that unit is energized.

**Step 4:** Replace cap on formulation tank and tighten. Remove slack from the clear plastic pickup tube by pushing the tube down through formulation tank cap.

**Step 5:** Allow the device to "COOL DOWN" before packing for transport.

Programmed Operation	Manual Operation
<p>A. Switch timer light to <b>on</b> position and yellow light will come on.</p> <p>B. Green light indicating manual operation will automatically come on when unit reaches proper operating temperature.</p> <p>C. Unit will begin fogging automatically, according to the duration and interval settings. Adjust internal knob to regulate elapsed time between fogging cycles, <b>variable from 10 seconds to 5 minutes.</b> Adjust duration knob to control quantity of fog dispensed, <b>variable from 1 to 12 second bursts.</b></p>	<p>A. Switch the timer to <b>off</b> position. Yellow light will not be lit.</p> <p>B. Green light indicating manual operation will automatically come on when unit reaching proper operating temperature.</p> <p>C. Press illuminated green button to begin fogging.</p> <p>D. When green light goes off, unit is recycling / reheating.</p>

**\*Note: Puffs of smoke may be visible during warm-up period, or at conclusion of fog cycles.**



# CLEANING INSTRUCTIONS

For trouble free operation and long equipment life, it is highly recommended that the device be periodically flushed with Electro-GEN 2000 flushing solution.

## To flush the system:

1. Remove the formulation tank and wash with soap and water. Rinse with water.
2. Flush unit by running through a solution of 50% household white vinegar and 50% tap water. Run 2-3 cycles of this solution through the machine. Next, run the same number of cycles of tap water through the machine as was used in the prior process.
3. Follow operating instructions for fogging. 30-60 seconds of fog time is sufficient to purge system. Wear goggles and respirator or operate in unoccupied area to avoid irritation.

## DEODORIZATION TIPS

Thermal fogging is the third step in the UNSMOKE® structural smoke odor removal procedure.

### Step 1: Suppression Spraying

Suppression spray odor sources such as charred wood, smoke damaged surfaces that will require painting and horizontal surfaces such as floors and carpeting. For protein smoke odors (resulting from burned meat or poultry) add 3-5 ounces of ODORx DOUBLE-O to a gallon of water. For fires of wood or synthetic origin, use 3-6 ounces of ODORx 9-D-9 (per gallon of water). For heavy smoke odor situations, 1-2 ounces of ODORx LAST RESORT may be added to each gallon of diluted ODORx 9-D-9 solution. Apply with electric or manually pressurized sprayer.

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 ODORX UNSOOT ENCAPSULANT
- 1 quart ODORx 9-D-9
- 5 ounces ODORx LAST RESORT

Fill the balance with water to make 5 gallons. This formulation is viscous (thick), so application with an electric sprayer or airless paint sprayer is recommended. One gallon covers 500 square feet.



## Step 2: Vapor Phase Odor Control

Control of smoke odors in their airborne or vapor phase is achieved by applying 2 ounces of ODORx CRYSTAL ODOR COUNTERACTANT (COC) per 100 square feet of floor area in the area to be treated.

## Step 3: Thermal Fogging

Before treatment, determine if any of the occupants of the area to be treated are potentially chemically sensitive. Special precautions should be taken or alternative deodorization methods utilized when building occupants suffer from respiratory problems and/or allergies. Infants, pregnant women, those suffering from allergy or respiratory problems, may occupy treated spaces when they feel physically comfortable or upon advice of their physician.

Evacuate the area before application! Cover food and cooking utensils. Wear respirator during application.

1. When thermal fogging it is advisable to begin treatment at the furthest inward point of the structure or area to be treated. Systematically work your way back to the building's entrance.
2. Close windows. Close doors in closets and rooms after treatment to prevent migration of fog.
3. Treat closets and rooms prior to treating public areas.
4. Ventilate treated areas before re-occupancy.

## ADVANTAGES OF THERMAL FOGGING

1. Smaller size thermal fog droplets more readily penetrate cracks and dense materials.
2. Thermal fogging is the fastest method of treatment for large areas.
3. Thermal fogging is less likely to leave residue than other application methods.



# THE THERMO 2000 PRODUCT SERIES

- The ODORx THERMO 2000 product series was a significant breakthrough in odor removal technology.
- The ODORx THERMO 2000 series is the result of a blend of science and risk management.
- The ODORx THERMO 2000 system combines the speed and efficiency of the thermal fogging process with risk minimization.
- The ODORx THERMO 2000 product series is formulated from food, cosmetic, and fragrance grade materials and purified water, resulting in formulations that are safer for both the applicator and occupants than their petroleum-based alternatives.
- The ODORx THERMO 2000 series formulations are non-flammable, and are suitable for application with both gasoline-fueled ProRestore Products THERMO-GEN VF fogging devices and the electric-powered ProRestore Products Electro-GEN 2000.

## ODORx THERMO 2000 PRODUCT SELECTION GUIDE:

- **ODORx THERMO 2000 FRAGRANCE FREE**  
Highly effective general purpose smoke odor counteractant. Contains no fragrance materials. Works synergistically with either ODORx 9-D-9, ODORx DOUBLE-O and ODORx COC formulations. Product related residual odors dissipate rapidly. This formulation does not provide residual air freshening characteristics.
- **ODORx THERMO 2000 KENTUCKY BLUE GRASS (KBG)**  
Excellent general purpose counteractant to airborne malodors. Works synergistically with ODORx 9-D-9 and ODORx COC. Highly effective against synthetic smoke odors such as burnt plastic and rubber. Affords moderate length residual air freshening characteristics.
- **ODORx THERMO 2000 CHERRY**  
Excellent general purpose counteractant to airborne malodors. Works synergistically with ODORx 9-D-9 and ODORx COC. Highly effective in wood and paper fire situations. Affords moderate length residual air freshening characteristics.
- **ODORx THERMO 2000 CITRUS**  
Excellent general purpose counteractant to airborne malodors. Works synergistically with ODORx DOUBLE-O and ODORx COC in protein fires such as burnt meat or poultry. Provides long lasting residual air freshening action.



# OPERATIONAL CHARACTERISTICS AND PERFORMANCE STATISTICS

The ProRestore Products Electro-GEN 2000 application device allows the operator a choice of three different modes of operation. With the Dual Action Timer which comes as standard equipment with the ProRestore Products Electro-GEN 2000, the device may be operated either manually or in a timing mode where both the time between fog generation cycles and the duration or length of the cycles may be precisely controlled. The optional wireless remote control system, which consists of a remote receiver control and a hand-held transmitter allows the unit to be operated remotely from distances of up to 80 feet away.

To ensure the generation of dry fog droplets, the unit is equipped with a very sensitive thermostat controlled temperature monitoring system. The ProRestore Products Electro-GEN 2000 may be operated manually or automatically. **Manual Operation-** To manually operate the device, switch the Interval and Duration indicator lights on the Dual Action Timer to the off position. Once the device has achieved proper operating temperature the device will dispense fog when the button marked "Manual" is pushed. The device will automatically stop dispensing fog when the thermostat senses that a less than adequate temperature is being maintained in the heat exchanger. The unit will continue to dispense fog when the heat exchanger reaches proper operating temperature and the "Manual" button is depressed.

**Automated Operation -** For most efficient operation, control the device with the Dual Action Timer. This reduces the need to rely on operator reaction to the indicator lights when operating the device in the "Manual" operation mode. When using the Dual Action Timer, the unit will cycle on and off automatically.





**Maximum fog generation in timing mode:**

Timer settings of minimum interval and maximum duration use approximately 25 ounces per hour.

**Mid-range fog generation in timing mode:**

Timer settings of mid range for interval and duration use approximately 6.5 ounces per hour.

**Minimum fog generation in timing mode:**

Timer settings of maximum interval and minimum duration use approximately 1 ounce per hour.

The timing modes control the interval of time between each fog delivery cycle and the length or duration of time that the device will dispense fog. Setting the interval and duration settings on the dual action timer allows the operator to precisely control each application.

## PROGRAMMING THE DEVICE FOR UNATTENDED OPERATION

Prior to programming the device for unattended operation it is imperative that the operator perform a safety check:

1. Set the fog device on a metal stand or other suitable non-flammable surface.
2. Place a flame retardant blanket under the device. A flame retardant blanket can be made by immersing a cotton towel (bath size) in Unsmoke UNFLAME flame retardant, and allowing it to dry.
3. Determine the number of ounces of formulation necessary for the application:
  - Light smoke odor- (0.5 oz./1,000 cubic feet)
  - Moderate smoke odor- (1 oz./1,000 cubic feet)
  - Heavy smoke odor- (1.5 oz./1,000 cubic feet)
4. Assure that a more-than-adequate supply of fogging formulation is available. In situations where the required amount of formulation exceeds the capacity of the devices formulation tank, the pick-up tube may be inserted into a larger formulation reservoir such as a one gallon container. Be sure that the formulation intake filter is securely attached to the formulation pickup tube.



5. Assure that all electrical cords, plugs, and outlets are in good condition and working order.
6. Unattended operational periods should be of short to moderate duration, such as 1-4 hours.
7. Thermal fog droplets will activate smoke detectors. The smoke detectors within the area to be treated need to be located and deactivated. As a safety precaution it is imperative that smoke detectors in adjacent areas remain operable! You may be required to notify local fire department officials for certain commercial structures.
8. Adjust the Dual Purpose Stand and Mounting Bracket so that the fog discharge is pointed upward at a slight angle.
9. Strategically locate fans throughout the area to be treated to effectively circulate and distribute the fog.
10. Allow the unit to go through at least one operational cycle before leaving the device unattended. Be sure that the unit goes on and off before leaving job site!
11. Before leaving the job site, be sure that you have the necessary keys, etc. to regain access to the job site.

## DEODORIZATION CHAMBERS

The Electro-GEN 2000 and the THERMO 2000 SERIES FORMULATIONS have been proven highly effective in the deodorization of fire damaged contents, when used in conjunction with a deodorization chamber.

To utilize the beneficial effects of thermal fog deodorization, the Electro-GEN 2000 device may be either temporarily or permanently attached to a deodorization chamber. You have the option of using the Dual Purpose Stand and Mounting Bracket to accomplish this or the unit may be placed on a shelf or stand.

The device may be placed either inside the chamber or utilized externally. For use inside the chamber, it is suggested that the unit be attached to the ceiling by using its mounting bracket capabilities. A shelf may be constructed on one of the upper corners of the room. Drill a hole through one of the walls large enough to permit the connection assembly from the Variable Dual Action Control to pass through. Pass the connection assembly through to the interior of the chamber and attach it to the device. Pack fiberglass insulation into the hole to make it as airtight as possible.



To use the unit externally, mount the unit on the exterior of an upper wall of the chamber, and drill a hole into the upper portion of a wall 1/2" larger than the fog outlet of the device. Insert the fog outlet of the device into the opening.

Some suggestions for construction your chamber. If properly constructed the chamber may be used for drying documents, etc.

1. Construct the chamber from plywood, drywall or other easy to work with building materials.
2. Make the chamber as airtight as possible, by caulking or sealing all large cracks and crevices.
3. Install windows or Plexiglas view panels.
4. Install weather stripping on entry doors.
5. Install at least one duplex electrical outlet in the room.
6. Install an exhaust fan to the exterior.
7. Paint all interior surfaces including the floor with epoxy paint.
8. Install a suitable lighting fixture.
9. Have all electrical switches for exhaust fan, lighting, etc. conveniently mounted on the exterior of the chamber.
10. Suitable size openings may be cut when feasible to permit attachment of ozone units, dehumidifiers, etc.



# **Electro GEN<sup>2000</sup>**

## **12 month**

### **Limited Warranty**

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Please complete the following and return within ten (10) days of the purchase date.

Model No. \_\_\_\_\_

Company Name \_\_\_\_\_

Contact Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Phone No. (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Fax No. \_\_\_\_\_

Date Purchased \_\_\_\_\_

Purchased From \_\_\_\_\_

\_\_\_\_\_

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Detach & Mail to:

ProRestore Products  
Electro-GEN 2000 Warranty Return  
15180 Josh Wilson Rd  
Burlington, WA 98233  
800-932-3030

## **12 Month Limited Warranty**

ProRestore Products guarantees the original purchaser that this product shall be free of defects in material and workmanship, under normal use, for a period of one year from the date of purchase shown on sales receipt. This warranty covers parts and labor providing the product is returned to ProRestore Products in the original shipping carton and packaging.

Damage resulting from shipping, accidents, misuse, negligence, unauthorized repairs or modifications is not covered by warranty. All transportation costs to and from the factory are the responsibility of this purchaser and must be pre-paid. No liability is accepted for injury or for loss, damage or expense from any interruption whatsoever in the operation of the product or from any consequential loss arising therefrom. No liability is accepted for normal wear & tear.

Date of Purchase: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Month Day Year