



# emist EX-7000TM TruElectrostatic Sprayer User Manual

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## emist EX-7000TM TruElectrostatic Sprayer



Thank you for choosing the EMist® EX-7000TM TruElectrostatic™ Sprayer.

We've created an easy-to-use system that combines advanced liquid application technologies with improved mobility. The result is superior application and enhanced disinfection, as well as a convenient convertible design for users. We recommend you read through this entire instruction manual before beginning.

Included are assembly, operating, and safety instructions. Following these manufacturer guidelines will help the system perform at peak effectiveness, extend the life of the product, and ensure operator safety.

### Questions?

Each component has been inspected prior to your purchase. However, in the event that there is a problem, please contact our technical support center at [Emist.com](http://Emist.com).

In the event of a conflict between different translations of this document, the English translation shall prevail. In addition, certain services and documents provided by EMist may only be available in English.

## SAFETY NOTICES

This manual contains information that is important for you to know and understand before operating the EMist TruElectrostatic Sprayer. This information relates to protecting your safety and ensures product reliability and performance. **It is the owner's responsibility to ensure that all who operate this equipment read this manual.**

### Warnings

Please read the manual carefully and pay special attention to the symbols and warning labels. Warning labels indicate a potentially hazardous situation which, if not avoided, could result in serious injury or death.

- Read and fully understand the EMist TruElectrostatic Sprayer Operations Manual prior to using the electrostatic sprayer.
- exist TruElectrostatic Sprayers should never be used in a hazardous environment.
- exist TruElectrostatic Sprayers should never be used in an area containing volatile chemicals; nor should it be used in any area containing volatile or explosive levels of gas, vapor or particulates.
- exist TruElectrostatic Sprayers should never be used by untrained personnel.

### **PRESSURIZED EQUIPMENT HAZARD**

Liquid from equipment that leaks or ruptures from a component can splash in the eyes or on skin, causing serious injury. In order help prevent a leak or rupture:

- Check equipment daily. Replace worn or damaged parts immediately.

### **PLASTIC PARTS CLEANING SOLVENT HAZARD**

Many solvents can degrade plastic parts and cause them to fail, which can lead to serious injury or property damage. In order to help prevent against degradation:

- Use only water-based solvents to clean equipment or parts.

### **FIRE, EXPLOSION AND ELECTRIC SHOCK HAZARD**

Flammable fumes, such as solvent and paint fumes, in a work area can ignite or explode. To help prevent fire, explosion and electric shock:

- Electrostatic equipment must be used only by trained, qualified personnel who understand the requirements of this manual.
- Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem.
- Use and clean equipment only in well ventilated area.
- Never spray a flammable chemical (with a flashpoint less than 60°C).
- Do not turn lights on or off when flammable fumes are present.
- Keep spray area free of debris, including solvents, rags, gasoline or any flammable chemicals.
- CAUTION, DO NOT INSERT ANY FOREIGN OBJECT IN THE NOZZLE OF THE SPRAYER TO AVOID DAMAGING THE EQUIPMENT OR STATIC DISCHARGE.
- Disconnect electrostatic equipment from its power source when servicing or replacing parts.

### **PERSONAL PROTECTIVE EQUIPMENT**

Follow the chemical manufacturer's recommended directions of use found on product label including but not limited to wearing appropriate protective equipment to help prevent serious injury.

### **EQUIPMENT MISUSE HAZARD**

Misuse can cause serious injury or death

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Use only water soluble fluids that are compatible with equipment-wetted parts.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine replacement parts from trusted EMist partners only.
- Do not alter or modify equipment. Alterations or modifications void your EMist warranty, and create safety hazards.

### **CHEMICAL USE HAZARD**

Each chemical, such as a disinfectant, has a unique set of hazards and needs to be handled properly to ensure worker safety.

- Be aware of first aid procedures related to the product in use.

- It is a violation of Federal law to use a chemical in a manner inconsistent with its label.
- For use with water-soluble, non-flammable, non-combustible and non-volatile liquids only. Never spray a flammable chemical (flash point less than 60°C).
- Ensure the area being sprayed has proper ventilation.
- Store all chemicals in original containers in a cool, dry place, away from heat and open flames.
- Do not reuse or refill a chemical container.
- Always follow the chemical manufacturer's direction of use.

### **SAFETY WARNING!**

DO NOT USE THE ELECTROSTATIC APPLICATION SYSTEM IF YOU HAVE A PACEMAKER OR AN IMPLANTABLE CARDIOVERTER DEFIBRILLATOR (ICD).

### **STATE OF CALIFORNIA – PROPOSITION 65 WARNING**

- This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

### **EMIST EX-7000 TRUELECTROSTATIC SPRAYER COMPONENTS**

- **POWER PACK**

Power pack with applicator may be used with either the backpack harness, carried by the handles or used on a pullcart.

- **TANK**

Interchangeable 3.1 L liquid tank includes strain filter and cap. It is inserted with a light downward pressure then locked in place by the tank latch located on the back of the power pack.

- **APPLICATOR WAND**

The applicator is connected to the application power pack housing by a hydroelectric cord. This hand-held device is trigger activated for the charging and applying of your liquids.

- **BATTERY**

The system comes with two 14.4V lithium ion batteries. Each has a green LED indicator to determine charge. The system can accommodate two batteries for longer run time, but only requires one to operate.

- **BATTERY CHARGER**

The battery charger kit comes with AC adapter, cable, charger and provides approximately 45 minutes recharge time.

- **HARNESS**

This commercial harness for the backpack configuration is designed for comfort and safety. It is adjustable to the user from small to large frame individuals.



**INSPECTION**  
**AFTER UNPACKING, INSPECT COMPONENTS**  
**FOR ANY DAMAGE OR MISSING HARDWARE PIECES, ETC.**

- Power Pack with Applicator
- 3.1 L Interchangeable Liquid Tank
- (2) 14.4V Rechargeable Batteries
- Battery Charger
- Backpack Harness

**INSTALL BATTERY (PROCEDURE SAME FOR BOTH BATTERY PORTS)**

**Charge the battery first**

1. Plug charger cord into wall outlet.
  1. Install battery into charger.
  2. Reference power indicator (3 bars = full charge).
2. With the power pack battery ports located toward the bottom of each side:

1. Install the battery into one port. With the battery release button facing up, gently push the battery into the port and the battery will click into place.
2. Depress the trigger on the applicator to verify power is on. Red indicator light on the back of the handle will turn red and the system will engage.

## **LIQUID TANK REMOVAL**

1. Locate the tank latch toward the top center of the back panel of the power pack. Gently pull and hold the latch away from the unit, this will release the tank.
2. With the latch pulled back, firmly grip the tank's handle and pull straight up.
3. Lift the liquid tank out of the power pack.

## **LIQUID TANK INSTALLATION**

1. For initial set up/test, fill the liquid tank 1/4 full with water.
2. Gently slide the tank back into the power pack.
3. When the tank is fully inserted, it will lock/click into place.

## **POWER PACK AND APPLICATION FUNCTION CHECK**

1. With the tank and battery installed, depress the trigger switch located on the front of the applicator handle.
2. The clear LED on the back of the applicator handle will light up RED. This indicates power on and the high voltage power supply is engaged and charging the liquid droplets.
3. Once the trigger switch is released, the liquid spray will stop, and the fan will turn off. This indicates the system is off.

## **HOW TO ATTACH HARNESS TO POWER PACK**



1. Position the hydroelectric cord toward the front of the system out of the way. Open the flap on the harness. Feed it under the vertical nylon strap attached to the power pack of the EX-7000 system. Fold the flap back toward the harness and match the two sides of hook and loop fastening strips, securing the harness to the power pack.
2. Repeat step 1 for the second flap on the harness.
3. Connect the two ends of the side squeeze buckle connectors between the harness and the power pack.



## POWER PACK HARNESS STRAP ADJUSTMENTS

1. Following harness installation, put the power pack on like you would a backpack and adjust the straps to fit comfortably.

## ASSEMBLY INSTRUCTIONS AND TIPS



Keep the battery release button facing upwards as it slides into the battery ports.

### RECHARGEABLE BATTERY

The system uses up to two lithium-ion batteries.

1. The battery should be fully charged prior to the start of a project.
2. Inspect the battery for any debris or damage prior to inserting.
3. The indication bar at the end of the battery will light up to show remaining charge (3 bars = full charge).
4. One bar during startup may limit time of use without charging.
5. The connector side of the battery enters the power pack case with the release latch facing up.
6. The battery easily sits in the power pack. Over applying pressure may make the battery difficult to remove without causing overall damage.

### INTERCHANGEABLE 3.1 LITER LIQUID TANK

1. Remove the vented cap, leaving strain filter in place.
2. Fill as needed and replace vented cap.
3. Utilize liquids for duration of project or until refill is required.
4. You may exchange tanks with different liquids at any time after flushing the system.

**IMPORTANT: DO NOT DROP TANK INTO THE TANK WELL. CAREFULLY SLIDE THE TANK BACK INTO THE POWER PACK TANK WELL UNTIL IT LOCKS/CLICKS INTO PLACE.**



## ASSEMBLY & OPERATING INSTRUCTIONS



**CAUTION:** ATTEMPTING TO REMOVE THE TANK WITHOUT RELEASING THE TANK LATCH CAN CAUSE DAMAGE OR BREAK THE LATCH. DROPPING OR FORCING THE TANK INTO THE POWER PACK TANK WELL CAN CAUSE DAMAGE TO THE SPRAYER.

### TIPS

- Optimal distance from a target is 24"-36".
- Applicator will shut off once battery is completely drained of charge.
- Ensure applicator wand is secured while putting the backpack on/adjusting straps/taking backpack off to avoid damaging the applicator.



## **SPRAY APPLICATION**

### **PREPARING THE SPRAY AREA**

1. Make sure food and drinks are removed, or covered before application.
2. Spotless, clean interiors require no prep work prior to application.
3. Loose debris must be swept from floors and other surfaces prior to application.
4. Inspect the area for mechanical barriers such as: magazines on table tops, chairs touching each other, a table or a wall.

The intended target surface area for application will need to be accessible.

5. Please cover and remove valuables. Electronics, furniture, paper or other common necessities do not need to be removed from the area.
6. Once the area has been cleaned, application can begin.
7. This system is NOT a mechanical cleaner.

### **SPRAY APPLICATION PROCESS**

1. EMist recommends the use of disinfecting products on EPA's Disinfection List N that are approved for electrostatic application.
2. Begin at the farthest point from the doorway, work back toward the doorway so you can step out when application is complete.
3. Aim applicator wand 24"-36" (optimal distance) from the surface target area, begin with a smooth figure "S" movement aiming below, at, and above the surface target area while walking at an average pace (continuously moving).
4. Make sure you are working in a methodical "S" pattern and let your passes overlap when moving to the next surface target area.
5. Allow treated area to sit for contact time as recommended by the chemical manufacturer's label before re-entry into the area.

**TIP: IF THE APPLICATOR BECOMES WET OR BEGINS TO DRIP, YOU ARE MOVING TOO SLOWLY OVER THE SURFACE TARGET AREA AND NEED TO SPEED UP THE APPLICATION PROCESS. DO NOT OVER-SATURATE THE SURFACE. IF YOU SEE RUNS OR PUDDLES YOU ARE APPLYING TOO MUCH CHEMICAL. THE GOAL IS TO ACHIEVE EVEN COVERAGE OVER THE TARGET SURFACE AREA.**



**Note:** When using tablet forms of disinfectant, the following process should be used: Fill the liquid tank to the bottom of the neck with the tank filter in as this keeps any contaminants from going into the pump. When ready to use the tablets to make disinfectant product, remove the tank filter, drop tablet(s) into the tank, replace the tank filter. Let the tablet dissolve for at least 6 minutes ( or longer if directed by the tablet manufacturer ) before pulling the trigger on the system to allow the tablet to completely dissolve before use.

## **FLUID MANAGEMENT**

The system is designed for single or multiple application environments. Please use the multiple tank applications carefully by marking tanks with your chemical identifiers when necessary. Application Tips:

1. While depressing the trigger button, move the applicator in an “S” pattern from bottom to the top of the surface target area in a continuous motion.
2. Stay in motion – electrostatically charged droplets will accumulate in higher levels at the tip of the applicator if you move too slowly while the device is in use.
3. Do not over apply.
4. In between chemical changes, press the trigger while pointing to the floor or other safe target area for 1-2 minutes to clear the remaining chemical in the system.

## **BATTERY MANAGEMENT:**

### **Tips:**

1. Fully charge each battery before use.
2. Keep the batteries, charger and all connectors clean and dry at all times.
3. Insert with the battery release button facing upwards into the battery port. The battery indicator light bar will be inside the system when insertion is completed into battery port.
4. Do not expose batteries, chargers or connectors to liquid.

## **MAINTENANCE & CLEANING**

### **FLUSHING THE ELECTROSTATIC SPRAYER**

IT IS IMPORTANT TO FLUSH THE APPLICATION SYSTEM AT LEAST EVERY 24 HOURS WITH CLEAN WATER BETWEEN EACH USE. DO NOT STORE CHEMICALS IN THE RESERVOIR WHILE THE SYSTEM IS NOT IN USE FOR GREATER THAN A 24 HOUR PERIOD.

The system is designed to minimize maintenance and cleaning.

- Clear the system at least once a day by spraying clean water through the system for at least 1-2 minutes.
- Some chemicals are harsher or more volatile than others. Because corrosion caused by chemicals is not covered under Manufacturer's limited warranty, it is imperative that you properly flush the system as directed herein. Note that the use of some chemicals may require more frequent flushing of the system based on the chemicals corrosive nature. Signs of failing to properly flush the system include clogged nozzle, hardened or calcified hoses or lines, deterioration of the plastics such as the manifold, and/or clogged filters.
- Keep batteries charged.
- Inspect cord for cuts, tears or damage.
- Inspect applicator for debris or damage.

## **CHANGING CHEMICALS**

IT'S IMPORTANT TO FLUSH THE SYSTEM IN BETWEEN USE OR WHEN SWITCHING CHEMISTRY TO PREVENT RESIDUAL BUILD UP OR CORROSION AND TO AVOID MIXING CHEMICALS.

- To flush the system, empty the liquid tank and fill with at least 1 inch (2.5cm) of clean water.
- Spray for at least 1-2 minutes to flush the previous fluid from the system.

## **BATTERY REMOVAL**

- Remove battery by depressing the battery release button.
- The battery will slide easily from the port once it is disengaged.
- Place batteries into charger to fully charge for next usage. Each battery takes approximately 45 minutes to fully charge.
- Store batteries and chargers in a cool, dry place.

**CAUTION: DO NOT STORE THE SYSTEM IN AN AREA THAT MAY FREEZE (TO AVOID DAMAGE FROM LIQUID REMAINING IN THE SYSTEM AND LINES). THIS WILL VOID THE WARRANTY.**

## **STORAGE**

- Empty fluid or run until empty.
- Insert at least 1 inch (2.5cm) of clean water in the liquid tank.
- Run the electrostatic sprayer for at least 1-2 minutes to flush active chemicals from the system.
- Remove batteries and re-charge by placing on the charger.
- Wipe down exterior with water or alcohol to remove dirt and soil.
- Use the power indicator on the end of the battery to determine the battery state of charge (3 bars = full charge).
- Coil the hydroelectric cord up neatly and securely.

## **TROUBLESHOOTING, SUPPORT, & REPAIR**

### **INDICATIONS & REMEDIES**

**PLEASE SEE BELOW FOR EASY INSTRUCTIONS FOR ADDRESSING ISSUES THAT MAY ARISE WHILE USING THE EX-7000™**

Issue	Reason	Troubleshooting
No power to the system	Battery not charged	Fully charge the battery (3 bars = full)
	Battery not installed correctly	Install battery with connector side of battery entering the power pack; keep battery release button facing upwards as it slides into the port
	Battery connection not working	Verify battery connector issue by using the opposing battery port with charged battery
	Red LED not illuminating when trigger switch is engaged	Verify a fully charged battery, installation of battery is correct, no obstruction when inserting the battery
No mist/ inadequate mist	Tank is empty	Fill tank with appropriate liquid
	Battery not charged	Fully charge the battery (3 bars = full)
	Tank is not installed correctly in the power pack	Verify the tank is locked into place as instructed for insertion
	Leaking at the nozzle	Verify the nozzle tip is hand tightened in place
	Nozzle clogged	Remove nozzle tip from sprayer, rinse with water. Reinstall, hand tightened
	Pump not engaged	Verify all the above troubleshooting steps for results
System turns on and off automatically	Main electrical components have been exposed to liquid	Verify if liquid is noted coming out of the bottom of the system

## SUPPORT OR REPAIR

If your system fails to return to normal use, excluding obvious user damage, please contact EMist or your authorized EMist distributor.

If an issue occurs that is not addressed in the troubleshooting methods, please contact a technical support

representative at: 888.534.7001 or visit Emist.com.

The EX-7000™ is designed and manufactured to function without defects. The system will operate normally with properly maintained batteries and without abuse to the connector or other system parts.

## Documents / Resources



[emist EX-7000TM TruElectrostatic Sprayer](#) [pdf] User Manual  
EX-7000TM, TruElectrostatic Sprayer, EX-7000TM TruElectrostatic Sprayer

Manuals+