
Portable Battery Powered Electrostatic Sprayer

6.56' Spray Distance - 4.22G Tank Capacity - No-Contact Disinfection

Instruction Manual

Thank you for your purchase of the IND-MD-DF-ESF-R1 Portable Battery Powered Electrostatic Sprayer. Please read these instructions and entirely and familiarize yourself with operations and maintenance practices pertaining to this product before operating. Keep these instructions for future reference, should you need them.

Warnings and Safety

- This sprayer should only be operated and maintained by someone who is familiar with it's operation and correct maintenance practices as outlined in this manual.
- Company is not liable for decreased reliability, damages, or injuries due to improper maintenance or modifications to the sprayer.
- Be sure the lid is completely tightened before operating. **Spillage could be poisonous** and cause skin irritation or other injury. Clean the outside of the tank if any spillage occurs, and immediately clean skin if you come in contact with the chemicals inside.
- **WARNING: BE SURE TO INSTALL GREEN GASKET BEFORE USE OF UNIT.** Refer to Operation Section for installation instructions.
- Wear eye protection and gloves when filling the sprayer, **avoid contact with skin and eyes** while filling and during operation.
- Liquids being put into the tank must be filtered clean of particles in order to keep the nozzle from becoming clogged. **Do not use powders** in the tank as this will cause buildup and clog the nozzle. If using soluble solutions, mix them outside the tank and then filter before pouring into the tank.
- **ALWAYS REVIEW THE SAFETY INFORMATION AND WARNINGS FOR THE CHEMICALS USED IN THIS SPRAYER.** Larson Electronics is not responsible for any injury associated with the chemicals used in the sprayer. Avoid using chemicals that are corrosive to metal or plastic. Always wear protective equipment to avoid ingesting or coming into contact with harmful chemicals.
- **Do not** use this sprayer in an explosive or flammable environment.
- **Always keep the sprayer dry and clean.** Do not submerge in water or use in overly wet location to protect the motor and electronics from water damage.
- **The use of strong acids or bases is prohibited.** Other chemicals should be used in accordance with manufacturer instructions and safety warnings.
- Battery contains high voltage, **DO NOT** disassemble the sprayer yourself as electric shock could occur.
- Avoid contact with other persons during operation. Avoid touching the spray rod and charging port during operation.
- Place a megaohmmeter in the area needing to be tested to make sure you have a true earth ground.
- **Avoid all possible insulators:**
 - Do not wear insulated or rubber shoes. We recommend leather soles.
 - Do not stand on paper unless it is conductive.
 - Make sure the floor is clean and dry. Any liquid overspray on the ground can act as an insulator.
- It is recommended to use a grounding strap. If using a grounding strap, make sure to always wear it during operation. These are not included with unit.
- Grounding straps can be connected to the unit by clamping to the cable attachment found on bottom of the unit.

The IND-MD-DF-ESF-R1 Portable Battery-powered Electrostatic Sprayer is a no-contact disinfection solution for hard-to-reach surfaces in work sites, outdoor areas, gyms, offices, daycare centers, warehouses, airports, healthcare facilities, and more. This wireless device sprays a mist consisting of a sanitizing agent, which applies an even coating on surfaces and equipment. Equipped with a 4.22-gallon tank capacity, the sprayer comes with a power charger, lithium-ion battery, nozzle adjuster, and tank with lid.

Battery

The IND-MD-DF-ESF-R1 is powered by a 8aH lithium-ion battery, which offers a runtime of 4 hours per full charge. A wall charger that operates on 110 V, 50/60 Hz is included with the unit. Allow the unit to sit for 10 minutes following a charge, before using. The battery should be charged at least once per month to maintain good working order. Proper use and maintenance of the battery can greatly extend the life of the battery.

Mounting

The IND-MD-DF-ESF-R1 is equipped with a carrying handle and is completely wireless, allowing for portable use to allow maximum reach of areas and surfaces that may be hard to get to. Keep handle dry during operation to prevent slippage or dropping of the tank. Also includes straps so device can be worn as a backpack.

Operation

The IND-MD-DF-ESF-R1 disinfects hard-to-reach surfaces, areas and odd-shaped equipment without contact. This portable electrostatic unit is equipped with a 4.22-gallon tank capacity that holds the sanitizing agent. The device turns the liquid solution into a mist (approximately 5-40 μ m droplet size) as the mixture is released into the area. For best results, a 6.56' spraying distance between the sprayer and the target surface should be observed during application. This device has a working pressure of 0.15-0.4 Mpa and a flow rate of 3.17 gallons/hour. In addition to sanitation, the portable sprayer can be used for pest control and plant fertilization (using various liquid material, soluble powder or emulsion). Start by filling the tank with your solution. If you are using a soluble powder based solution, mix outside of the tank and then filter before pouring in to prevent clogging the nozzle. Be sure the solution is free of particles before putting into the tank. Tighten the lid securely and clean/dry the outside of the tank and handle.

First switch on the main power switch located at the bottom of the tank, and then squeeze sprayer handle to spray. Be sure you are holding the sprayer by the handle, not the spray rod, and point the nozzle away from yourself before squeezing the handle. When spraying is done, switch off the handle before switching off the main power switch.

After spraying, always clean the device with water. Dispose of chemicals in accordance with regulations and chemical instructions, and then spray water through the device to clean out the spray rod and nozzle. Pour out the remaining water and wipe the device clean. Store in a clean, dry area. Do not spray in rain, snow, heavy fog, or high winds. Winds may carry poisonous chemicals downwind, be mindful of this when spraying.



BEFORE OPERATION: install gaskets where needed.

- Unit **MUST** have green gasket installed before use.
 1. Locate and disconnect the hose from the sprayer wand.
 2. With your green gasket, place into sprayer wand and make sure it is snugly inside lining and flush with the walls.
 3. Reconnect sprayer wand and hose.
 4. NOTE: if there ever is a leak from this connection, the gasket may need replacing. Simply follow the steps again while the unit is off to replace gasket.



BEFORE OPERATION: install gaskets where needed.

- Unit may need gaskets replaced as it is used over time. Unit comes with a black gasket preinstalled on the end of the sprayer wand where a wand attachment may be connected.
 1. If this gasket needs to be replaced, first take off any wand attachment to locate the gasket.
 2. Remove the gasket from the wand and replace with a new one.
 - a. Make sure when putting the new gasket on it is flush with the base so it forms a tight seal when connected.
 3. Connect desired wand attachment and make sure it is screwed on tightly so a liquid tight seal is created at the base

**USE AND CARE**

Unauthorized modification may impair the function and/or safety of this device and could affect the life of the equipment. Always check for damaged or worn out parts before using the device. Store it in a secure place out of the reach of children when not in use. Inspect for good working condition prior to storage and before re-use.

REPLACEMENT PARTS

The IND-MD-DF-ESF-R1 is designed to provide years of reliable performance.