

Safe Operating Procedure VICTORY ELECTROSTATIC SPRAYER

UPDATED: 15 DEC 2021Page **1** of 10

VICTORY ELECTROSTATIC SPRAYER

Required PPE	Safety boots, eye protection, hand protection, N95 respirator
Tools/Eqpt	Electrostatic Sprayer
Hazards	Electric shock, exposure to chemicals

SAFE WORK PRACTICES

- a) Refer to Safety Alert issued by Department of Labour dated October 5, 2021 (copy attached to this SOP)
- b) Only use Unitab as disinfectant
- c) Follow all manufacturer's safety instructions as attached to this SOP
- d) DO NOT use this equipment on electronics.
- e) DO NOT use when other people are present.
- f) Protect yourself as per the Safety Data Sheet for the product being used in the sprayer. N95 requirement is based on using Unitab. Contact OHS if another chemical is going to be used in the sprayer.
- g) The use of N95 respirators requires a fit test and training (contact OHS for more information).

JOB PROCEDURE

Follow all manufacturer's numbered procedure steps as attached to this SOP.

Related documents: StFX Respiratory Protection Program

Thank You For Purchasing Dustbane's Victory Sprayer!

Please use this equipment carefully and observe all warnings and cautions. It is the operator's responsibility to read and understand the cautions and warnings in this manual before attempting to operate this machine.

The package should contain:

- · Sprayer Unit
- · 3 Setting Nozzle
- · Nozzle Wrench
- · Carrying Bag

- · Instruction Sheet
- · Battery & Charger

IMPORTANT: The Electrostatic Sprayer has been designed and engineered to be very safe during normal operation. As with all cordless products certain safety precautions should be taken. Please read the following WARNINGS before operating the machine. UNDERSTAND THESE SAFETY PRECAUTIONS BEFORE OPERATING MACHINE. FAILURE TO PROPERLY FOLLOW THESE PRECAUTIONS MAY LEAD TO A FIRE, EXPLOSION, OR ELECTRICAL SHOCK HAZARD.

Important Safety Instructions:

WARNING - When using electric appliances, basic precautions should always be followed, including the following:

- **READ** all the instructions before using the appliance.
- To reduce the risk of injury, close supervision is necessary when an appliance is usednear children.
- DO NOT TOUCH moving parts.
- · Only use attachments recommended or sold by the manufacturer.
- To reduce the risk of electrical shock, do not put electrode in water or other liquid. Do not place or store
 appliance where it can fall or be pulled into a tub or sink.
- WEAR protective clothing and eyewear when dispensing chemicals or other materials or when working in the vicinity of all chemicals, filling or emptying equipment, or changing metering tips.
- ALWAYS observe safety and handling instructions of the chemical manufacturer.
- · ALWAYS direct discharge away from you or other persons or into approved containers.
- ALWAYS dispense cleaners and chemicals in accordance with manufacturer's instructions. Exercise CAUTION
 when maintaining your equipment.
- ALWAYS reassemble equipment according to instruction procedures. Be sure all components are firmly screwed
 or latched into position.
- KEEP equipment clean to maintain proper operation. Always have the machine serviced by a professional, qualified representative. Never attempt to service the machine or access its internal components.
- KEEP work area clean and well lit.
- KEEP bystanders, children, and visitors away while operating the sprayers.
- NEVER operate cordless sprayer in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Cordless Sprayers create sparks, which may ignite the dust or fumes.
- STAY ALERT, watch what you are doing and use common sense when operating a cordless sprayer. DO NOT use cordless sprayer while tired or under the influence of drugs, alcohol, or medication.
- · A moment of inattention while operating cordless sprayer may result in serious personal injury.
- AVOID accidental starting. Be sure switch is in the locked or OFF position before inserting battery pack. Carrying
 sprayer with your finger on the switch or inserting the battery pack into a tool with the switch ON invites accidents.
- DO NOT overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- USE safety equipment. Always comply with any requirements for protective clothing, goggles, gloves, facial masks, or respirator required by the solution label.
- DO NOT use a machine that is broken or damaged in any way.
- DO NOT alter the machine by adding or removing parts.
- DO NOT restrict the motor air inlet area.



- DO NOT tamper with the output nozzle.
- DO NOT allow the machine to operate unattended.
- DO NOT stand in water or hold over water while operating machine.
- DO NOT use outdoors when it's raining.
- DO NOT use cordless sprayer if switch does not turn it on or off. A cordless sprayer that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect battery pack from cordless sprayer or place the switch in the locked or OFF position before making any adjustments, refilling the tank or storing the cordless sprayer. Such preventative safety measures reduce the risk of starting the cordless sprayer accidentally.
- Cordless sprayers are dangerous in the hands of untrained users.
- When battery pack is not in use, keep it away from other metal objects like: paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause sparks, burns, or a fire.
- To clean the sprayer use soap, water and a damp cloth to wipe clean. To clean internal components run water through the sprayer for 3 minutes.



Electrical Safety Instructions:

- CAUTION: To avoid electrical shock do not touch or insert any foreign objects into the nozzle.
- A cordless sprayer with integral batteries or a separate battery pack must be recharged only with the specified charger for the battery. A charger that may be suitable for one type of battery may create a risk of fire when used with another battery.
- Use battery operated sprayer only with the specifically designated battery pack. Use of any other batteries may create a risk of fire.

Chemical Compliance:

- ONLY use water-based solutions with this machine.
- NEVER use the sprayers to apply flammable liquids.
- NEVER use oil-based liquids.
- ALWAYS store solution in it's original container.
- ALWAYS ensure that solution is applied only in strict compliance with the solution label as well as local, provincial, and federal regulations.
- ALWAYS review chemical SDS sheet how best to secure and store your chemical solution when not in use.

NOTE: These Victory sprayers are compatible with water-based disinfectants, degreasers, odour neutralizers and counteractants, sanitizers, and all purpose cleaners. For hard surface products, (such as disinfectants, degreasers, sanitizers, all purpose cleaners) avoid spraying in the air to prevent lung inhalation of harsh chemicals.

Important Safety Instructions for Battery Pack:

Your cordless sprayer uses a Victory Innovations, 16.8 volt Lithium Ion battery pack. The battery pack is not fully charged out of the carton. Before using the battery pack and charger, read the safety instructions below. Then follow charging procedures outlined.

30F 10
Parts & Operations Manual Victory Series

CAUTION: The battery used in this device may present a risk of fire or chemical burn if mistreated. Do not disassemble, store in extreme heat or cold. Keep away from children. Do not disassemble. Do not dispose of in fire.

- DO NOT attempt to disassemble the battery or remove any component projecting from the battery terminals. The battery and charger have no user serviceable parts. Fire or injury may result from tampering prior to disposal, protect exposed terminals with heavy insulating tape to prevent shorting.
- DANGER: Electrocution hazard. Never attempt to open the battery pack for any reason. If battery pack case is cracked or damaged, do not insert into charger. Electric shock or electrocution may result.
- WARNING: Fire hazard. Do not store or carry battery so that metal objects can contact exposed battery terminals. For example, do not place battery in aprons, pockets, toolboxes, product kit boxes, drawers, etc., with loose nails, screws, keys, etc.
- CAUTION: Battery pack must be securely attached to the cordless sprayer. If battery pack is detached, personal injury may result. Do not incinerate the battery pack even if it is severely damaged or is completely worn out. The battery pack can explode in a fire.
- · Charge the battery packs only with a Victory charger. DO NOT splash or immerse in water or other liquids.
- DO NOT store or use the tool and battery pack in locations where the temperature may reach or exceed 105°F (40°C) (such as outside sheds or metal buildings in summer).
- · Damaged battery packs should be recycled.
- Transporting batteries can possibly cause fires if the battery terminals inadvertently come in contact with conductive materials such as keys, coins, hand tools and the like.

Important Safety Instructions for Battery Chargers:

SAVE THESE INSTRUCTIONS: This manual contains important safety instructions for battery chargers. Before using charger, read all instructions and cautionary markings on charger, battery pack, and product using battery pack.

- DANGER: Electrocution hazard. 120 volts are present at charging terminals. Do not probe with conductive objects.
- WARNING: Shock hazard. Do not allow any liquid to get inside charger.
- CAUTION: Burn hazard. To reduce the risk of injury, charge only Victory Innovations rechargeable batteries.
 Other types of batteries may burst causing personal injury and damage.
- CAUTION: Under certain conditions, with the charger plugged in to the power supply, the exposed charging
 contacts inside the charger can be shorted by foreign material. Foreign materials of a conductive nature such
 as, but not limited to, steel wool, aluminum foil, or any buildup of metallic particles should be kept away from
 charger cavities. Always unplug the charger from the power supply when there is no battery pack in the cavity.
 Unplug charger before attempting to clean.
- DO NOT attempt to charge the battery pack with any chargers other than the one noted in this manual. The
 charger and battery pack are specifically designed to work together. These chargers are not intended for any
 uses other than charging Victory Innovations rechargeable batteries. Any other uses may result in risk of fire,
 electric shock or electrocution.
- DO NOT expose charger to rain or snow.
- Pull by plug rather than cord when disconnecting charger. This will reduce risk of damage to electric plug and cord. Make sure that cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- DO NOT use an extension cord unless it is absolutely necessary. Use of improper extension cord could result in
 risk of fire, electric shock, or electrocution. An extension cord must have adequate wire size (AWG or American
 Wire Gauge) for safety. The smaller the gauge number of the wire, the greater the capacity of the cable, that is
 16 gauge has more capacity than 18 gauge. When using more than one extension to make up the total length,
 be sure each individual extension contains at least the minimum wire size.
- RECOMMENDED MINIMUM WIRE SIZE FOR EXTENSION CORDS:

Total Length of Cord 25 ft., 50 ft., 75 ft., 100 ft., 125 ft., 150 ft., 175 ft., 7.6 m, 15.2 m, 22.9 m, 30.5 m, 38.1 m, 45.7 m, 53.3 m, Wire Size AWG 18, 18, 16, 16, 14, 14, 12

• DO NOT place any object on top of charger or place the charger on a soft surface that might block the ventilation slots and result in excessive internal heat. Place the charger in a position away from any heat source. The charger is ventilated through slots in the top and the bottom of the housing.

- DO NOT operate charger with damaged cord or plug have them replaced immediately.
- · DO NOT operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way.
- Disconnect the charger from the outlet before attempting any cleaning. This will reduce the risk of electric shock. Removing the battery pack will not reduce this risk.
- NEVER attempt to connect 2 chargers together.
- The charger is designed to operate on standard household electrical power (120 V or 240 V) with proper country plug.

Installation and Maintenance

- 1. To start the use of the Victory Cordless Electrostatic Sprayer first charge your battery by inserting the Victory 16.8 volt battery into the charger and plugging the charger into a wall socket.
- 2. Next fill the tank (1.0) by first removing it from the unit by rotating the tank locking collar (1.2) and pulling the tank release ring (1.1). The tank can now be removed.

 Note: you must hold on to the tank when you pull the tank release ring or the tank will fall to the floor.
- 3. Fill the tank with the desired liquid.
- 4. Insert the tank into the sprayer and rotate the tank locking collar (1.2) until you hear the click of the tank release ring (1.1) snap into place.
- 5. Insert the charged battery into the battery socket and lock in place.
- 6. Pull the trigger and spray on your desired surface.

WARNING: This machine contains an electrostatic device that may interfere with sensitive medical devices such as pacemakers, defibrillators, or similar devices. DO NOT operate this machine or stand within 10 feet if you use such medical devices. Contact your physician prior to operation if you are unsure if this machine will interfere with your medical device.



Nozzle Installation

- Remove the battery from the unit. Next fill the tank by first removing it from the unit by rotating the tank locking collar and pulling the tank release ring. The tank can now be removed.
 Note: you must hold on to the tank when you pull the tank release ring or the tank will fall to the floor.
- 2. Insert the nozzle wrench into the front end of the unit.
- 3. Rotate wrench until the tabs on the nozzle and the slots on the wrench are lined up.
- 4. When the wrench slots and the nozzle tabs are lined up, the wrench will be completely inserted into the front end, rotate the wrench clockwise to adjust to a different size spray. The largest particle tip has a line cut through it, rotate clockwise until you hear a click to get the medium particle and rotate clockwise again until it clicks again to get the smallest particle.
- 5. Remove the wrench when complete.

To Insert Nozzle

- 1. Remove the battery from the unit.
- 2. Insert the nozzle into the wrench, lining up the tabs on the nozzle and the slots on the wrench.
- 3. Insert the wrench with nozzle into the front end of the unit.
- 4. Push in and rotate the wrench ¼ turn counter clockwise. When you hear a click the nozzle is in position..
- 5. Remove the wrench when complete.

Removing The Nozzle

- 1. Remove the battery from the unit.
- 2. Insert the nozzle wrench into the front of the unit.
- 3. Rotate wrench until the tabs on the nozzle line up with the slots in the wrench.
- 4. When the tabs and slots are lined up the wrench will be completely inserted into the front end.
- 5. To remove, rotate the wrench in the counter clockwise direction until the nozzle comes loose (1/4 rotation).
- 6. Remove the wrench when complete.

Cleaning Procedure

All users follow safe cleaning practices to protect themselves from harmful exposure when cleaning the sprayer.

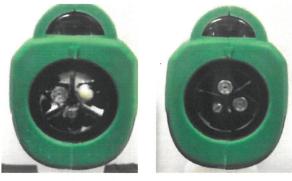
It is recommended that user should purchase a second tank to wash out cordless electric static sprayers to prevent residual solution build up. Disconnect storage tank from sprayer use the black threaded cap that's is provided inside caring case. Disconnect storage tank from sprayer use the locking threaded cap to secure tank and solution when not in use.

- 1. Turn sprayer switch off.
- 2. Remove battery from compartment.
- 3. Remove tank from base.
- 4. Add clean water to tank by removing tank cap.
- 5. Re-install tank into base.
- 6. Turn power ON.
- 7. Spray (1 minute) per each nozzle setting until free of containments.

 NOTE: 3-in-1 nozzle has three different nozzle selections (100 Micron) (80 Micron) (40 Micron).
- 8. Rotate nozzle three times for (1 minute) until clear water is present.
- 9. Disconnect storage tank from sprayer when not in use. Use the black threaded cap. Use the locking threaded cap (provided inside caring case) to secure tank and solution.



If your nozzles become plugged, soak in hot soapy water and blow out with pressurized air to remove blockage. If your nozzles become plugged, soak in hot soapy water and blow out with pressurized air to remove blockage.



Nozzle 1: Dirty

Nozzle 2: Clean

Example above dirty nozzle #1 and clean nozzle #2. Nozzle #1 have not been properly cleaned after being use. When not properly cleaned, the sprayer nozzles residual chemical deposits build up. Deposit build up results in decreased bar pressure and decreased spray patterns.

To reduce the chance of blockage we recommend that after every few days of use spray a tank of water through the unit to rinse out any residual chemical build up that may have occurred.

How to Use:

Removing Tank/ **Refilling Tank**

- 1. Rotate collar to unlock icon position.
- 2. Pull locking ring to remove.
- 3. Lift unit off the tank.







Connecting Tank

- 1. Align tank grooves into slide rail, lower machine onto tank.
- 2. Listen for a "click".
- 3. Rotate collar to lock position.





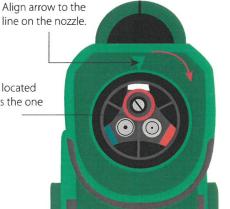


Selecting the Nozzle

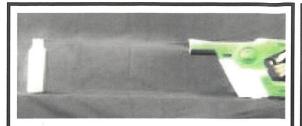
Rotate the nozzle clockwise to change the size of the particules.



line on the nozzle. The nozzle located at the top is the one activated.



Parts & Operations Manual Victory Series



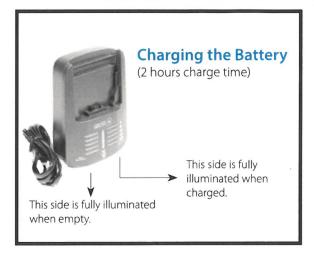
Spraying a Surface

Optimum sprayer distance is 24".



Cleanup

After use, pour clean water in tank to rinse.







Safety Bulletin Number: **0000009** Issued October 5th 2021 by the Department of Labour, Skills and Immigration

Electrostatic Cleaning Equipment Hazards

Legal information

Issued pursuant to the Occupational Health and Safety Act and Regulations

Some of the occupational health and safety legislative requirements that pertain to the use of electrostatic sprayers include:

- Occupational Health and Safety Act employer's obligations for training and safety precautions under section 13
- Occupational Health and Safety General Regulations personal protective equipment covered in section 9 and fire safety covered in section 25
- Workplace Health and Safety Regulations equipment safety in section 1.10, 1.12 and 1.14
- Workplace Hazardous Materials Information System (<u>WHMIS</u>) Regulations chemical safety training and knowledge in sections 4, 12 and 14

Summary

The use of electrostatic sprayers to disinfect surfaces presents many potential hazards. Anyone who uses electrostatic sprayers to disinfect surfaces needs to know about the hazards associated with this equipment and how to control those hazards.

One of these hazards is electrostatic discharge (ESD). An electrostatic discharge is discharged static electricity, which all Canadians have experienced in the winter season or when rubbing a balloon on your hair.

Electrostatic discharges create a potential ignition hazard in areas with flammable liquids, gases, or dust that could lead to a fire or explosion. This equipment should never be used in an area with flammable or combustible substances. The risk for this ignition hazard is higher in the winter when the dry air allows static charges to build-up.

novascotia.ca/lae · 1-800-952-2687 · Issued 2021-05-10

Page 9 of 10

The electrostatic discharge hazard also presents a possible health hazard to people who have sensitive medical implants such as pacemakers, as it may affect their function. Note also that it is unsafe to use this equipment near a defibrillator. For industries with other sensitive electronic equipment, electrostatic discharge is destructive to semiconductor electronic devices.

For portable units, the battery and charging station may have special handling precautions to prevent fires from starting in the battery or the charge station. Some battery units have been <u>recalled</u> due to battery malfunctions that resulted in fires.

Electrical hazards include electrocution from damaged batteries or the battery terminal. Never splash or immerse electrical equipment in water.

Lastly, the chemicals used in the electrostatic sprayers may contain harmful components. Specific training on the Safety Data Sheet is required and protective measures may be necessary.

Ensure all hazards and safety precautions are communicated when training employees on the safe use of equipment. Always follow all safety precautions provided by the equipment and chemical manufacturer when using this equipment.

Contact for bulletin queries

Safety Branch Labour, Skills and Immigration 1-800-9LABOUR / 1-800-952-2687

Page 2/2

Page 10 of 10