

Cordless Atomizer for Disinfecting





INSTRUCTIONS FOR HVLP CORDLESS ATOMIZER (XF102)

Before using the atomizer, read this manual thoroughly.

Any improper use can cause damage or serious injury including death.



Disinfecting Log Sheet

Area Disinfected	Chemical Used	Date	Time



SAFETY GUIDELINES FOR XANIGO ATOMIZERS, BATTERY PACKS and CHARGERS

Before using this atomizer, battery pack and charger, it is important to read and understand this manual. The information it contains relates to protecting YOUR SAFETY and PREVENTING PROBLEMS. Improper use can cause damage or serious injury including death.

The labels below are used to help you recognize this information.

DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. **WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. **NOTICE:** Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS - To reduce the risks of fire or explosion, electrical shock and the injury to persons, read and understand all instructions included in this manual. Be familiar with the controls and the proper usage of the equipment.

WARNING: FIRE OR EXPLOSION HAZARD. *Only use Xanigo approved chemicals*. Other chemicals may have solvents which can generate spray material fumes that can explode or ignite. Severe injury or property damage can occur. Only clean up with water or soap & water.

To avoid these risks, take the following preventions:

• Exhaust and fresh air introduction must be provided to keep the air within the spray area free from accumulation of flammable vapors.

• Keep spray area well ventilated

• Avoid all ignition sources such as static electricity sparks, open flames, pilot lights, hot objects, lit tobacco products, and sparks from connecting and disconnecting power cords or working light switches.

- Fire extinguisher equipment shall be present and working.
- Keep area clean and free of paint or solvent containers, rags, and other flammable materials.
- Follow the disinfectant manufacturer's safety precautions and warnings.
- Do not spray flammable or combustible materials.
- Know the contents of the spray materials and their cleaning chemicals. Read all Material Safety Data Sheets (MSDS) and container labels provided with the disinfectant materials. Follow the disinfectant manufacturer's safety instructions.

WARNING: EXPLOSION HAZARD DUE TO INCOMPATIBLE MATERIALS. Severe injury or property damage can occur. To avoid these risks, take the following preventions:

- Do not use paint.
- Do not use solvents.
- Do not use bleach.

• Do not use halogenated hydrocarbon solvents such as methylene chloride and 1,1,1 - trichloroethane. They are not compatible with aluminum and may cause an explosion. If you are unsure of a material's compatibility with aluminum, contact your disinfectant supplier.



WARNING: HAZARDOUS VAPORS. Spray materials, solvents, and other materials can be harmful

if inhaled or come in contact with the body. Vapors can cause severe nausea, fainting, or poisoning.

To avoid these risks, take the following preventions:

- Keep spray area well ventilated.
- Use a respirator or mask as vapors can be inhaled. Read all instructions supplied with the mask to ensure proper use.
- Wear protective eyewear.
- Wear protective clothing as required by disinfectant manufacturer.

WARNING: ELECTRIC SHOCK HAZARD. May cause severe injury.

To avoid these risks, take the following preventions

• Keep charger electrical cord plug free from spray material and other liquids. Never hold cord at plug

connections to support cord or product. Failure to observe may result in an electrical shock and death.

- Never immerse electrical parts in water or any other liquid.
- Do not expose atomizer, charger or battery pack to rain or wet conditions.
- Unplug battery charger before cleaning.
- Do not abuse the cord. Never use the cord to carry the charger or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace charger if cord is damaged.

WARNING: SKIN INJECTION HAZARD. May cause severe injury.

To avoid these risks, take the following preventions

- NEVER aim the atomizer at any part of the body.
- Do not aim the atomizer at or spray any person or animal.
- NEVER allow any part of the body to come in contact with the fluid stream.
- NEVER put your hand in front of the atomizer.
 - ALWAYS wear gloves while operating the unit; however, gloves will not provide protection against an injection injury.
- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.
- Always remove battery from the atomizer before servicing, cleaning tip guard or leaving unattended.
- Always use the nozzle tip guard. Do not operate atomizer without nozzle tip guard in place.
- Only use a nozzle tip specified by the manufacturer.
- Use caution when cleaning nozzle tips.
- High-pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, seek medical attention immediately.
- Verify that all connections are secure before operating the unit.



WARNING: FIRE OR EXPLOSION HAZARD. Do not charge or use batteries in explosive atmospheres.

Xanigo battery packs are only compatible with Xanigo battery chargers. Xanigo battery chargers are only compatible with Xanigo battery packs. Other uses can result in fire or explosion. Severe injury or property damage can occur.

To avoid these risks, take the following preventions:

- Do not attempt to open any Xanigo battery pack or charger. There are no serviceable parts inside.
- Only use Xanigo battery packs with Xanigo chargers. Only use Xanigo chargers for Xanigo battery packs.
- Damaged battery packs and/or chargers should be removed from service and recycled.
- Do not incinerate Xanigo Li-Ion battery packs. This could result in an explosion and/or the release of toxic fumes and materials.
- Battery liquid is flammable if exposed to spark or flame.
- If battery liquid comes in contact with skin, wash with mild soap and water. If battery liquid gets into the eye, flush with water for 15 minutes or until irritation ceases. If irritation continues seek medical attention.

GENERAL SAFETY WARNINGS

WARNING: GENERAL.

To reduce the risk of severe injury or property damage, take the following actions:

- Always wear appropriate gloves, eye protection, and a respirator or mask when disinfecting.
- Do not aim the atomizer at, or spray any person, including self, or animal.
- Do not spray outdoors on windy days
- Wear protective clothing to keep spray material off skin and hair.
- Follow all appropriate local, state, and national codes governing ventilation, fire prevention, and operation.
- Always use appropriate gloves, eye protection and a respirator or mask when spraying, thinning, mixing, pouring, or cleaning.

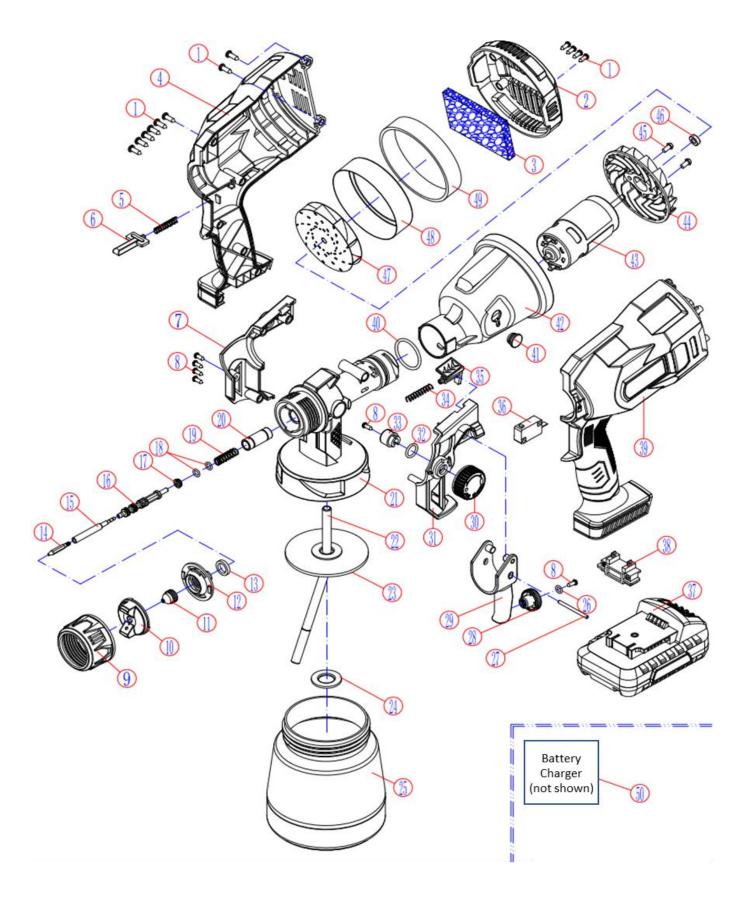
• Do not operate or spray near children. Keep children away from equipment at all times. Keep atomizer out of the reach of children.

- Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.
- Stay alert and watch what you are doing.
- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Read all instructions and safety precautions for equipment and spray material before operating any equipment.
- Hearing protection is recommended.

WARNING: Some spray materials contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. To reduce your exposure wear appropriate safety equipment such as face masks, gloves, and other appropriate protective equipment. Please review and follow the safety precautions on the disinfectant/chemical container.



Freedom XF102- User Manual





I Exploded view:

1	ST2.9*10 Screw	18	O-ring	35	Lock catch
2	Rear cover	19	22 Needle spring	36	Switch, DC micro
3	Cotton filter	20	Needle set	37	Battery pack, XB104-20P
4	Right cover	21	GUN	38	Battery pack pin
5	Switch plunger spring	22	Pipette	39	Left cover
6	Switch plunger	23	Cup-ring	40	Gun ring
7	Right side cover	24	Suction pipe splint	41	Stopper
8	ST3.5*10 Screw	25	Cup	42	Motor cover
9	Big nut	26	Φ3 flat gasket	43	550 motor
10	Air cap	27	Short pin	44	Diffuser
11	Spray nozzle	28	Adjusting knob	45	M4*8 SCrew
12	Barge board	29	Trigger	46	Motor gasket
13	Nozzle seal	30	Spray a knob	47	Fan
14	Needle	31	Left side cover	48	Fan cover
15	Needle insert	32	O-ring	49	Damping ring
16	Needle seat	33	Atomization circle	50	Battery Charger, XC101
17	bowl seals	34	Vent spring		

II Technical parameters:

Model: XF102				
Rated power: 120W	er: 120W Atomized particle size: nominal 90-120 microns when used with water-thin disinfectant			
Rated voltage: 20V Peak	Battery capacity: 2000mAh			
Charger Voltage & Frequency: 120VAC 50/60HZ	Spraying distance: Up to 8 feet			
Rated speed: 30000RPM	Spray envelope: 30 degrees			
Air flow: 160L/MIN	Viscosity: Water-thin viscosity			
Disinfectant flow: 100-150 ml/min	Disinfectant capacity: 800ml			

III Function:

Product is suitable for spraying disinfectant only. Other uses are not approved.

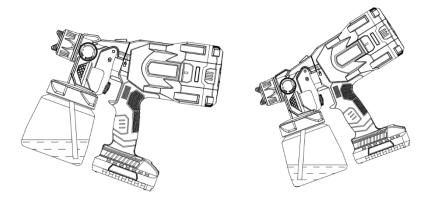


IV Operating Instructions

- 1. NOTE- Before operation, review the battery and charger information, Section VI of this user manual.
- 2. Ensure disinfectant is prepared as per manufacturer's instructions and atomizer battery pack is removed.
- 3. Unscrew disinfectant container from atomizer.



- 4. Adjust suction tube orientation to match atomizer angle in use.
 - a. If spraying upward, the angled end of the suction tube should be pointing toward the rear of the atomizer.
 - b. If spraying downward, the angled end of the suction tube should be pointing toward the front of the atomizer
 - c. Do not operate nor store atomizer on its side or inverted when liquid is in the canister.
 - d. The suction tube in the canister should always be submerged in the liquid in the canister when in use. Do not operate the atomizer in a manner/attitude that allows the suction tube to become unsubmerged.
 Examples of improper use include (but are not limited to) use while inverted or use while being held sideways. Bubbling of the liquid in the canister indicates improper use.



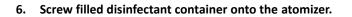
Pour prepared disinfectant into the container. Do not exceed the maximum capacity mark on the container.

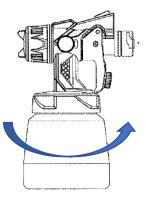




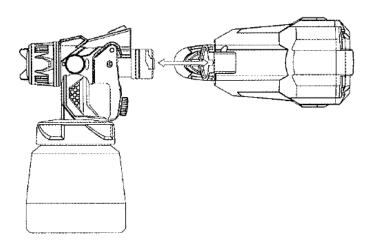
- 5. Remove motor/blower assembly from the atomizer.
 - a. Hold the atomizer in your left hand and press the latch in the direction of the arrow.
 - b. At the same time hold the motor/blower handle assembly with your right hand and rotate it counterclockwise 90 degrees.
 - c. Pull out to remove the motor/blower from the atomizer.





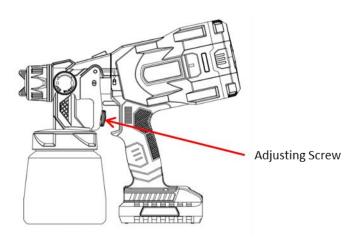


- 7. Connect atomizer body with motor/blower.
 - a. Hold atomizer body in your left hand and align the slot on the atomizer with the slot on the motor/blower and insert (as shown in the figure).
 - b. Rotate the motor/blower 90 degrees clockwise.
 - c. When the atomizer and motor/blower are parallel, the latch button will engage.

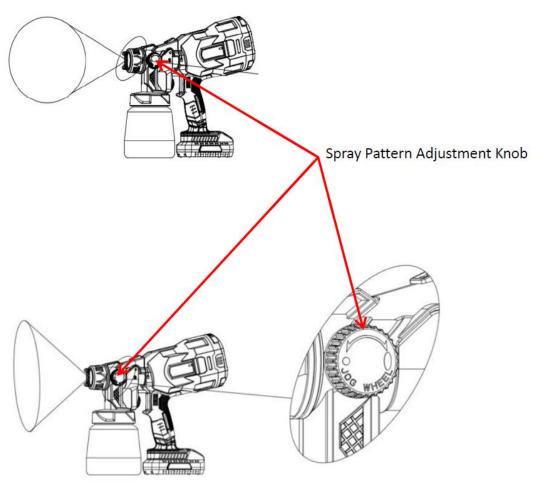




- 8. Adjust the needle adjusting screw to meet your desired level of disinfectant coverage
 - a. Adjust the screw to the left to decrease coverage
 - b. Adjust the screw to the right to increase coverage



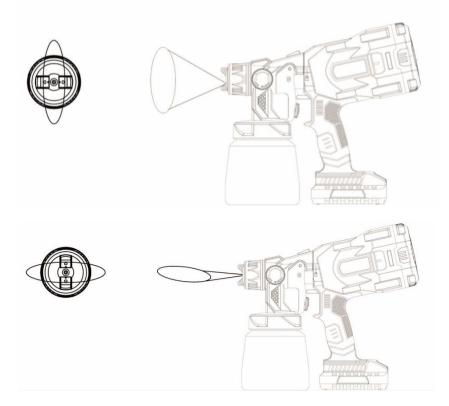
9. Spray pattern adjustment. Turn the knob to adjust from round pattern to fan pattern.





10. Adjusting spray pattern orientation

- a. The fan pattern can be adjusted from horizontal to vertical by adjusting the air cap.
- b. Slightly loosen the air cap retaining nut and rotate air cap to desired position.
- c. Retighten the air cap retaining nut.



- 11. Plug charged battery into atomizer. Pull trigger and disinfectant will spray from the nozzle.
- 12. Application distance and speed are important. Atomizer should be 4 feet or greater from the surface being disinfected. Surfaces being sprayed should be completely dry within 5-10 minutes of spraying. Wiping wet disinfectant off the surfaces should not be required. However, the surfaces should remain wet long enough (dwell time) for the disinfectant to be effective, at least one minute. See disinfectant manufacturer's recommendations for dwell time for the specific disinfectant being applied.
 - a. If surfaces remain wet longer than 5-10 minutes, increase movement speed of the atomizer to produce a lighter coating.
 - b. If surfaces are not fully wetted, slow down movement speed of the atomizer.



V Maintenance

- 1. Cleaning
 - a) Remove battery from atomizer.
 - b) Separate atomizer from motor/blower assembly
 - c) Remove disinfectant container from atomizer
 - d) Remove any remaining disinfectant from disinfectant container and dispose of as per disinfectant manufacturer's recommendations.
 - e) Add approximately 200 mL of water to disinfectant container. A few drops of liquid soap or dishwashing liquid can also be added.
 - f) Reassemble container to atomizer, then assemble atomizer with motor/blower.
 - g) Swish water in container to wet the interior of the container (and to mix in soap, if used).
 - h) Reattach battery pack.
 - i) Turn on atomizer and run until container is empty.
 - j) Repeat steps above one additional time with water only.

NOTE- Cleaning should be done daily/before storing the unit. Do not store unused chemicals in the canister.



VI Battery Pack and Charger

- 1. NOTE- Battery pack is shipped approximately 30% charged. Please charge battery before using in the atomizer.
- 2. Charging procedure
 - a. Plug charger into appropriate outlet. The green LED will illuminate. Then slide battery pack onto charger.
 - b. The green LED on the charger will go out and the red LED on the charger will indicate charging is in progress.
 - c. When charge is complete, the green LED on the charger will illuminate.

NOTE- IF THE BATTERY PACK IS TOO COLD TO CHARGE, THE GREEN LED ON THE CHARGER WILL REMAIN LIT UNTIL THE BATTERY PACK REACHES A SAFE CHARGING TEMPERATURE. CHARGING WILL START AUTOMATICALLY AND IS INDICATED BY THE GREEN LED TURNING OFF AND THE RED LED ILLUMINATING. THE CHARGING PROCESS CAN BE SPEEDED UP BY ENSURING THE PACK AND CHARGER ARE IN A NORMAL INDOOR ROOM TEMPERATURE ENVIRONMENT, IDEALLY 60°F TO 80°F.

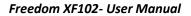
NOTE- IF THE BATTERY PACK IS TOO HOT TO CHARGE, THE GREEN LED ON THE CHARGER WILL REMAIN LIT UNTIL THE BATTERY PACK REACHES A SAFE CHARGING TEMPERATURE. CHARGING WILL START AUTOMATICALLY AND IS INDICATED BY THE GREEN LED TURNING OFF AND THE RED LED ILLUMINATING. THE CHARGING PROCESS CAN BE SPEEDED UP BY ENSURING THE PACK AND CHARGER ARE IN A NORMAL INDOOR ROOM TEMPERATURE ENVIRONMENT, IDEALLY 60°F TO 80°F.

- 3. Battery pack fuel gauge
 - a. The battery pack has a fuel gauge to help the user understand approximately how much capacity is left in the battery charge. Push the button on pack to light the indicators.
 - i. 3 LEDs indicates the pack is above 40% charged
 - ii. 2 LEDs indicates the pack is between 5 and 40% charged
 - iii. 1 LED indicates low battery and the pack should be charged. If the 1 LED is flashing, battery shutdown is imminent.
- 4. Battery Use
 - a. Remove battery pack from charger
 - b. Slide battery pack onto foot of atomizer. When a click is heard, the pack is locked onto the atomizer.
 - c. To remove battery from atomizer, depress button on battery pack and pull pack toward the rear of the atomizer.
- 5. Battery tips
 - a. For optimal performance, always use a freshly charged battery.
 - b. Charge only between 40°F and 105°F. If pack is too hot or too cold, the charging process will be delayed until it is within the proper temperature range.
 - c. Do not store a completely discharged battery for long periods of time. The pack should be charged before storing. Do not store the pack in an unplugged charger.
 - d. Storing a battery pack in an active (powered) charger is acceptable.
 - e. Batteries are best stored in a cool, dry atmosphere. Avoid direct sunlight.
 - f. Do not force pack into charger or tool.



VII Troubleshooting

Problem	Cause	Solution
A. little or no material flow	1. nozzle clogged	1. clean
	2. suction tube clogged	2. clean
	3. material volume setting turned too far to the right	3. turn to the left
	4. suction tube loose	4. insert
	5. container is loose	5. tighten the container
B. material leaking	1. nozzle loose	1. tighten
	2. nozzle worn	2. replace
	3. nozzle seal worn	3. replace
	4. material build-up on spray pattern dial and nozzle	4. clean
	5. atomizer used or stored in an inverted or sideways	5. disassemble atomizer from motor/blower
	orientation	assembly and used compressed air to remove liquid
		from atomizer assembly. If liquid has entered motor
		/blower used compressed air to remove all liquid and
		allow to dry overnight. Replace motor/blower
		assembly if erratic operation occurs after drying
		overnight.
C. atomization is too coarse	1. material volume setting too far to the left	1. turn to the right
	2. nozzle clogged	2. clean
	3. too little pressure build-up in container	3. tighten container
D. spray jet pulsates	1. material in container is depleted	1. refill
E. pattern runs, sags or remains wet	1. applying too much material	1.adjust material flow or increase movement of
		atomizer
F. too much over-spray	1. atomizer too far from target area	1. reduce distance
	2. too much material applied	2. turn material volume setting to right
G. pattern is very light and splotchy	1. moving the atomizer too fast	1. adjust material flow or decrease movement of
		atomizer
H. large cloud of disinfectant	1. atomizer too close to target area	1. move atomizer away from target area
		and reduce disinfectant flow
I. disinfectant not drying	1. atomizer too close to target area	1. move further away (4 feet or greater)
J. disinfectant drying too quickly	1. atomizer too far away from target area	1. move closer
K. battery pack not charging	1. charger not plugged into live outlet	1. plug charger into outlet and ensure green LED is on
	2. pack too cold to charge, green LED on charger is on	2. move pack and charger to warm location, 60-80°F.
		Pack will charge upon reaching a safe temperature.
	3. pack too hot to charge, green LED on charger is on	3. move pack and charger to cool location, 60-80°F.
		Pack will charge upon reaching a safe temperature.
	4. defective pack	4. try another charger. If still not charging, replace
		pack
	5. defective charger	5. try another pack. If still not charging, replace
		charger







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