

MISTGEN
User Manual



MistGen Lithium-Ion Battery Backpack Sprayer (4 gallon)

Contents

- 1 Warnings** **2**

- 2 Tech specs** **3**
 - 2.1 Nozzles 3

- 3 Basic operation** **4**
 - 3.1 Prep 4
 - 3.2 Spraying 4
 - 3.3 After spraying 4

- 4 Storage** **5**

- 5 About the Li-Ion Battery** **5**

- 6 Troubleshooting** **6**
 - 6.1 Motor does not start after turning on. 6
 - 6.2 Motor starts, but sounds abnormal. 6
 - 6.3 No spray. 6
 - 6.4 Sprays, but low flow rate or pressure. 6
 - 6.5 There is a leak. 6
 - 6.6 Motor continues to run after trigger released. 6
 - 6.7 Leak at base of unit. 6
 - 6.8 Droplets too large. 7

- 7 Schematic and replacement parts** **8**

1 Warnings

- **Don't turn upside-down.**
- Don't run the motor on an empty tank – it can damage the diaphragm.
- **Power off when you leave.** Don't leave a powered-on sprayer unattended.
- **Wear protection:** Wear a mask and gloves. Don't spray into the wind, or if conditions are windy. Wear boots with non-slip soles. Only handle chemicals in strict compliance with the safety instructions provided by the chemicals manufacturer.
- **Don't point at people or animals,** whether the sprayer is on or off.
- **No powders:** Do not use to spray powders or particles - they will clog the filter.
- **No corrosives:** Do not spray strong acids/bases or flammable chemicals.
- **Don't submerge:** Do not submerge the base of the unit in water.
- **Not too hot/cold:** Avoid long operation during high temperatures. Keep away from fire. Do not operate sprayer outside of -10-45°C (14-113°F). Do not spray liquids hotter than 43°C (109°F).
- Don't take apart the battery or battery charger.

2 Tech specs

Solution

Solution flow rate	11.1-26.9 gal/hr
Solution capacity	4.2 gal
Solution pressure	21.8-58.0 psi

Power

Power adapter	Input AC 110V 60Hz / Output DC 12V 1A
Battery	12V 8Ah Li-Ion (removable)
Battery life	5 hours
Recharge time	8 hours

Size

Dimensions	7.5 x 0.8 x 21.9 in
Weight, empty	13 lb
Weight, shipping	16.3 lb



2.1 Nozzles

Some nozzles sold separately.

Nozzle	Pressure psi	Flow rate gal/hr
Cone	42-46	11-12
Double cone	24-26	25-27
Flower (orange)	23-25	19-20

3 Basic operation

3.1 Prep

1. Install the round metallic knob on the motor speed dial next to the power switch.
2. Make sure there is a green O-ring between nozzle and wand, and another green O-ring between the wand and handle.
3. Charge the battery. (Power adapter light is **Red** when charging and **Green** when charged.)
4. Open tank lid. Pour your solution **through the provided under-lid filter** (otherwise debris can damage the pump). Then tighten the lid.
5. Insert strap connectors into slots on the sides. Lock the straps by pulling up **until you hear a click**.
6. Put on the backpack.

3.2 Spraying

1. Press | on the power switch.
2. To spray, hold the trigger on the handle.
3. To spray without having to hold the trigger, push in the red button on the handle. To stop automatic spraying, pull out the red button.
4. To increase motor speed (increase flow rate), turn the the motor speed dial (next to the power switch) clockwise.
5. Spray facing away from the wind.

3.3 After spraying

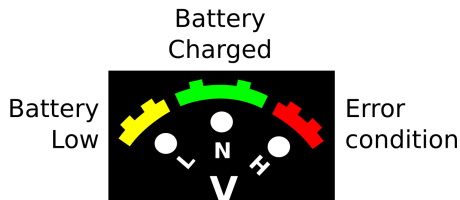
1. Press O on the power switch and turn the motor speed dial all the way counterclockwise.
2. Discharge residual pressure by pointing the wand in a safe direction and squeezing the trigger.
3. After each use, **clean the machine**: Empty the tank and rinse with clean water, then spray water. Wipe the exterior with a damp cloth.

4 Storage

- Turn off the power switch and turn motor speed dial to 0.
- Drain the sprayer tank and relieve any residual pressure.
- Store in a dry place and at least 20 inches above the ground.
- **IMPORTANT:** All Li-Ion batteries gradually drain when not in use. **Li-Ion batteries become unusable if they drain completely.** If you will not be using the sprayer for a long time, charge the battery to full and **recharge to full at least once every 3 months.**

5 About the Li-Ion Battery

- **Batteries drain over time:** The battery is charged at the factory. However, it will self-discharge during transport and storage. When storing for long periods, **you must recharge the battery periodically** - see storage section.
- **Batteries are consumable:** Like all Lithium-ion batteries, the maximum capacity will decrease over time. If battery life gets too low, it may be time to replace it.
- **Battery disposal:** Don't throw away Li-Ion batteries in the trash! Programs like Call2Recycle provide convenient drop-off locations that accept your used Li-Ion batteries.



6 Troubleshooting

6.1 Motor does not start after turning on.

1. **Battery out of power?** Charge and try again.
2. **Loose power cables?** Disconnect battery, open the base, and firmly connect any wires.
3. **Hot weather?** The motor may have overheated, activating the protective breaker. Try again in cooler weather.
4. **Broken power switch?** Replace.

6.2 Motor starts, but sounds abnormal.

1. **Look for loose pump screws.** Tighten.

6.3 No spray.

1. **Check nozzle for clog.**
2. **Check hose for leaks.** There may be air in the hose.
3. **Check pump for clog.** Remove any debris.

6.4 Sprays, but low flow rate or pressure.

1. **Check intake filter for clog.**
2. **Not enough power?** Charge the battery.

6.5 There is a leak.

1. Check for damaged or missing O-rings.
2. Tighten connections.
3. If the hose is leaking due to damage, replace the hose.

6.6 Motor continues to run after trigger released.

1. **Check for pump cover leak.** Tighten the pump cover.
2. **Check for other leaks.**

6.7 Leak at base of unit.

1. Open the base of the unit and tighten the inlet/outlet tube connections.

6.8 Droplets too large.

1. **Check for leaks.** Fix the leak first.
2. **Check nozzle for clogs.**
3. **Check in-tank filter for clogs.**
4. **Battery low power?** Recharge.
5. **Air inside pump?** Remove nozzle to discharge air.

7 Schematic and replacement parts

