RYOBI P2870

RYOBI ONE+ P2870 18V Cordless Electrostatic Sprayer User Manual

Model: P2870

1. Introduction

This manual provides essential instructions for the safe and effective operation, maintenance, and troubleshooting of your RYOBI ONE+ P2870 18V Cordless Electrostatic Sprayer. This device is designed for applying water-soluble disinfectants, cleaning solutions, and lawn and garden chemicals with the convenience of battery power. Please read this manual thoroughly before initial use and retain it for future reference.

2. Important Safety Information

WARNING: This product utilizes electrostatic spray technology and is intended for use with various chemicals. This poses potential risks of electric shock and chemical exposure. Always engage the on/off switch when handling the power source and adhere to all safety guidelines provided for the specific chemicals being used. Refer to the product manual for comprehensive safety information.

- Always wear appropriate personal protective equipment (PPE) as recommended by the chemical manufacturer.
- Ensure the work area is well-ventilated.
- Do not spray near open flames, pilot lights, or other ignition sources.
- Keep children and pets away from the spraying area.
- Disconnect the battery before performing any maintenance or cleaning.
- Do not immerse the sprayer in water.
- Use only RYOBI ONE+ 18V batteries and chargers.

3. Package Contents

Verify that all items are present upon unpacking:

- RYOBI ONE+ 18V Cordless Electrostatic Sprayer (P2870)
- 1 Gallon Tank with Backpack Harness
- (2) RYOBI ONE+ 18V 2.0 Ah Lithium-Ion Batteries

- (1) RYOBI ONE+ 18V Charger
- Operator's Manual (this document)



Figure 1: RYOBI ONE+ P2870 Cordless Electrostatic Sprayer, showing the main sprayer unit, backpack tank, two 18V batteries, and charger.

4. Components Overview

Familiarize yourself with the main parts of your sprayer:

- **Sprayer Unit:** The handheld device containing the motor, electrostatic generator, and nozzle.
- **1 Gallon Tank:** Detachable reservoir for liquids, integrated with a backpack harness for comfortable carrying.
- **Battery Port:** Location on the sprayer unit for inserting the 18V ONE+ battery.
- **On/Off Switch:** Controls power to the sprayer and activates/deactivates electrostatic technology.
- **3-in-1 Adjustable Nozzle Selector:** Allows selection of spray patterns (Low, Medium, High).
- **Hose:** Connects the tank to the sprayer unit.
- **Backpack Harness:** Adjustable straps for carrying the tank.

5. Setup

5.1. Battery Installation and Charging

1. Insert the 18V ONE+ battery into the charger.
2. Plug the charger into a standard electrical outlet. The indicator light on the charger will show charging status.

3. Once fully charged, remove the battery from the charger.
4. Align the charged battery with the battery port on the sprayer unit and slide it in until it clicks into place.
5. To remove, press the release latch and slide the battery out.

5.2. Tank Assembly and Filling

1. Ensure the 1-gallon tank is clean and free of debris.
2. Unscrew the tank cap.
3. Carefully pour the desired water-soluble disinfectant, cleaning solution, or lawn/garden chemical into the tank. **Do not overfill.**
4. Securely screw the tank cap back on.
5. Attach the filled tank to the backpack harness. The tank features a handle for easy transport during filling.

5.3. Hose Connection

1. Connect one end of the hose to the outlet on the bottom of the tank.
2. Connect the other end of the hose to the inlet port on the sprayer unit. Ensure both connections are secure to prevent leaks.

5.4. Backpack Setup

1. Adjust the backpack straps for a comfortable and secure fit. The design allows for comfortable, one-handed operation of the sprayer.
2. The holster on the backpack is designed for both right-handed and left-handed use. Position the sprayer in the holster when not actively spraying.

6. Operation

6.1. Powering On and Electrostatic Activation

1. With the battery installed and tank connected, press the on/off switch located on the sprayer unit.
2. The sprayer will power on. To activate the electrostatic technology, ensure the switch is in the "ON" position.
3. To deactivate electrostatic technology (for conventional spraying), move the switch to the appropriate position as indicated on the unit.

6.2. Nozzle Adjustment

The 3-in-1 Adjustable Nozzle Selector allows you to choose from three spray patterns:

- **Low Setting:** Sprays 65 microns up to 2 feet away. Ideal for fine, close-range application.
- **Medium Setting:** Sprays 85 microns up to 5 feet away. Suitable for general purpose spraying.
- **High Setting:** Sprays 160 microns up to 10 feet away. For broader coverage and longer reach.

To adjust, simply turn the nozzle selector on the front of the sprayer unit to the desired setting.

6.3. Spraying Techniques

- Maintain a consistent distance from the target surface for even coverage.
- Move the sprayer at a steady pace.
- For optimal performance and to prevent priming issues, ensure the sprayer unit is held lower than the liquid level in the backpack tank during operation. Gravity feed requires the liquid to flow downwards.
- Avoid spraying into strong winds to prevent drift.
- When finished, release the trigger and turn off the sprayer.

7. Maintenance

7.1. Cleaning the Sprayer

1. After each use, especially when changing chemicals, empty any remaining liquid from the tank.
2. Rinse the tank thoroughly with clean water.
3. Fill the tank with clean water and operate the sprayer for a few minutes to flush out the hose and nozzle.
4. Wipe down the exterior of the sprayer unit with a damp cloth. Do not use harsh chemicals or abrasive cleaners.
5. Ensure all components are dry before storage.

7.2. Battery Care

- Store batteries in a cool, dry place away from direct sunlight and extreme temperatures.
- Do not store batteries in a discharged state for extended periods. Charge them periodically.
- Avoid dropping or damaging batteries.

7.3. Storage

- Store the sprayer in a dry, protected area, out of reach of children.
- Ensure the tank is empty and clean before storage.
- Disconnect the battery from the sprayer when not in use for extended periods.

8. Troubleshooting

Problem	Possible Cause	Solution
Sprayer does not turn on.	Battery not charged or improperly installed.	Ensure battery is fully charged and securely inserted.
No spray or weak spray.	• Tank empty or low on liquid. • Hose kinked or disconnected. • Nozzle clogged. • Sprayer unit held too high relative to tank (priming issue). • Air in the feed tube.	• Refill tank. • Check hose for kinks or secure connections. • Clean nozzle. • Ensure sprayer is held lower than the tank for proper gravity feed. • To prime: Ensure tank is full, remove all air from the feed tube, or slightly pressurize the tank by blowing gently into the tank opening (with cap removed) before re-sealing and operating.
Sprayer leaks.	Loose connections or damaged seals.	Check all hose connections and tank cap for tightness. Inspect seals for damage.
Electrostatic function not working.	Switch not engaged or internal fault.	Ensure electrostatic switch is in the "ON" position. If problem persists, contact customer support.

9. Specifications

- **Model:** P2870
- **Brand:** RYOBI
- **Power Source:** 18V ONE+ Lithium-Ion Battery

- **Tank Volume:** 1 Gallon
- **Nozzle Settings:** Low (65 microns, up to 2 ft), Medium (85 microns, up to 5 ft), High (160 microns, up to 10 ft)
- **Included Components:** Sprayer unit, 1-gallon tank, (2) 18V 2.0Ah Batteries, (1) 18V Charger
- **Product Dimensions:** 18.9 x 6.5 x 16.5 inches
- **Item Weight:** 12.67 pounds
- **Material:** Plastic
- **Color:** Green

10. Warranty and Support

For warranty information, technical support, or to order replacement parts, please refer to the official RYOBI website or contact RYOBI customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.
Note: Specific warranty terms and conditions may vary by region and product.

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