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VONROC WS504XX

VONROC Portable Water Softener WS504XX

Instruction Manual

1. INTRODUCTION

The VONROC Portable Water Softener WS504XX is designed to remove calcium and magnesium ions from water through an ion-exchange process. This results in softened water, ideal for cleaning applications where limescale-free results are desired, such as washing windows, solar panels, and vehicles. Its portable and compact design makes it suitable for frequent and varied use.

This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your water softener. Please read it thoroughly before initial use and keep it for future reference.

2. SAFETY INFORMATION

- **Important:** Softened water produced by this unit is for cleaning purposes only and is not suitable for drinking.
- Always ensure all connections are secure before operating to prevent leaks.
- Do not expose the unit to freezing temperatures, as this can damage internal components.
- Use only recommended regeneration agents (normal table salt).
- Keep out of reach of children.

3. PACKAGE CONTENTS

The VONROC Portable Water Softener WS504XX comes as a complete set, ready for efficient cleaning. Please check that all items are present and undamaged.

- VONROC Portable Water Softener Unit
- Water Flow Meter
- Inlet Hose
- Outlet Hose
- Quick Connectors
- 10x Water Hardness Test Strips

- Drying Cloth



Image: The VONROC Portable Water Softener WS504XX shown with its complete set of accessories, including hoses, flow meter, test strips, and drying cloth.

4. PRODUCT OVERVIEW

Familiarize yourself with the components of your water softener before use.



Image: Diagram showing the components of the VONROC Portable Water Softener WS504XX, including the lid with carrying handle, flow meter, valve with quick connector, 10x test strip, flush hose, and drying cloth.

Key Components:

- **Lid with Carrying Handle:** For easy transport and access to the resin tank.
- **Water Softener Unit:** Contains the ion-exchange resin.
- **Inlet/Outlet Valves with Quick Connectors:** For connecting water hoses.
- **Flow Meter:** Measures the volume of water processed.
- **Water Hardness Test Strips:** To check water hardness before and after softening.



Image: Close-up view of the inlet and outlet valves with quick connectors on the VONROC Portable Water Softener WS504XX.

5. SETUP

Follow these steps for initial setup of your VONROC Portable Water Softener:

1. **Unpack:** Carefully remove all components from the packaging.
2. **Positioning:** Place the water softener unit on a stable, level surface near your water source and the area where you will be cleaning.
3. **Connect Inlet Hose:** Connect the inlet hose to your water source (e.g., garden tap) and to the 'INLET' quick connector on the water softener unit. Ensure connections are tight.
4. **Connect Outlet Hose:** Connect the outlet hose to the 'OUTLET' quick connector on the water softener unit. The other end of the outlet hose will connect to your cleaning equipment (e.g., pressure washer, telescopic

brush).

5. **Install Flow Meter:** Integrate the flow meter into the outlet hose line, following the directional arrows on the meter to ensure correct water flow measurement.
6. **Initial Flush:** Before first use, slowly open the water source to allow water to flow through the softener for a few minutes. This flushes out any air and loose resin particles.
7. **Test Water Hardness:** Use one of the provided test strips to check the hardness of the softened water. Compare it to your tap water hardness to confirm the unit is functioning correctly.

6. OPERATION

Once set up, operating the water softener is straightforward:

1. **Open Water Supply:** Slowly open the water tap to allow water to flow through the softener and into your cleaning equipment.
2. **Monitor Flow Meter:** The flow meter will display the volume of water that has passed through the softener. The resin beads can filter up to 1000 liters of water per cycle before regeneration is needed.
3. **Perform Cleaning Task:** Use the softened water for your desired cleaning application, such as washing cars, windows, or solar panels, to achieve spot-free results.
4. **Check Water Hardness Periodically:** Use the test strips to periodically check the hardness of the output water. When the water starts to show signs of hardness again, it's time to regenerate the resin.
5. **Close Water Supply:** After use, close the water tap and disconnect the hoses.



Image: A person washing a car with a pressure washer, demonstrating an application where softened water from the VONROC unit would be beneficial for spot-free cleaning.

7. MAINTENANCE

7.1. Resin Regeneration

The ion-exchange resin needs to be regenerated after approximately 1000 liters of water have been processed, or when the output water shows signs of hardness. Regeneration restores the resin's ability to remove calcium and magnesium.

Materials Needed: Normal table salt (sodium chloride).

1. **Disconnect Hoses:** Disconnect the inlet and outlet hoses from the water softener unit.
2. **Remove Lid:** Unscrew and remove the lid with the carrying handle from the top of the unit.
3. **Add Salt:** Pour a sufficient amount of normal table salt into the unit. The exact quantity may vary, refer to the unit's markings or a general guideline of 1-2 kg for a full regeneration.
4. **Fill with Water:** Slowly add water to the unit until the salt is dissolved and the resin is submerged. Stir gently if necessary to help dissolve the salt.
5. **Soak:** Allow the salt solution to soak with the resin for at least 30 minutes to an hour. This allows the ion-exchange process to reverse, releasing calcium and magnesium and recharging the resin with sodium.
6. **Flush:** Reattach the lid and hoses. Connect the inlet hose to your water source and the outlet hose to a drain or an area where the salty water can be safely discharged. Slowly open the water source and flush the unit thoroughly until all salty water is expelled and the water runs clear and tasteless. This typically takes several minutes.

7. **Test Hardness:** After flushing, use a test strip to confirm that the water is soft again.

7.2. Storage and Care

- **Cleaning:** Clean the exterior of the unit with a damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Winter Storage:** If storing the unit in an area where temperatures may drop below freezing, ensure all water is drained from the unit and hoses to prevent damage. Store in a dry, frost-free location.
- **Long-Term Storage:** For extended storage, it is recommended to regenerate the resin before storing the unit.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Water is not soft after passing through the unit.	Resin is exhausted (needs regeneration).	Perform a resin regeneration cycle as described in Section 7.1.
Water flow is reduced.	Hoses are kinked or blocked.	Check hoses for kinks or obstructions.
Water is leaking from connections.	Connections are not tight or seals are damaged.	Ensure all quick connectors and hose fittings are securely tightened. Check O-rings and seals for damage and replace if necessary.
Flow meter not working.	Incorrect installation or blockage.	Check flow meter installation direction. Ensure no debris is blocking the impeller.

9. SPECIFICATIONS

Technical details for the VONROC Portable Water Softener WS504XX:

- **Model Number:** WS504XX
- **Brand:** VONROC
- **Item Volume:** 5 Liters (Resin tank capacity)
- **Regeneration Capacity:** Up to 1000 liters per cycle
- **Dimensions (L x W x H):** 25.5 x 25.5 x 35.5 cm
- **Item Weight:** 5.1 Kilograms
- **Material Feature:** Recyclable
- **Scent:** Unscented
- **Country of Origin:** China



Image: The VONROC Portable Water Softener WS504XX with its height (35.5 cm) and width (25.5 cm) indicated.

10. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the documentation provided with your purchase or

visit the official VONROC website. Keep your proof of purchase for any warranty claims.