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> Wiltec NW-SOFT-R2 2000 l/h Water Softener System User Manual

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Model: NW-SOFT-R2 | Flow Rate: 2000 l/h

1. PRODUCT OVERVIEW

The Wiltec NW-SOFT-R2 water softener system provides a continuous supply of descaled and soft water. This system is designed to improve water quality by reducing hardness, thereby extending the lifespan of household appliances and enhancing the experience of daily water use, such as cooking and showering. Its compact design allows for versatile application in both residential and commercial settings.

Key Features:

- Ion exchanger made of high-quality resin.
- Maximum flow rate of 2000 liters per hour.
- Water hardness level adjustable via an intuitive display.
- Salt tank capacity for up to 10 kg of softening salts.
- Automatic regeneration process for efficient limescale removal.

Video 1: Overview of the Wiltec NW-SOFT-R2 Water Softener System. This video provides a 360-degree view of the product, showcasing its design and overall appearance.

2. SAFETY INSTRUCTIONS

Before installation, operation, or maintenance, please read and understand all safety instructions. Failure to follow these instructions may result in property damage, injury, or system malfunction.

- **Electrical Safety:** Ensure the unit is connected to a properly grounded electrical outlet. Do not operate with damaged cords or plugs. Disconnect power before any service or maintenance.
- **Water Pressure:** Verify that your water supply pressure is within the specified operating range (1.0 bar minimum, 6.0 bar maximum). Excessive pressure can damage the system.

- **Installation:** Installation should be performed by a qualified professional or a person with adequate plumbing knowledge. Ensure all connections are secure and leak-free.
- **Chemicals:** Use only approved water softening salts. Do not use industrial salts or other chemicals not intended for water softening.
- **Temperature:** Do not expose the unit to temperatures above 200°F (93°C) or freezing temperatures.
- **Children and Pets:** Keep the unit out of reach of children and pets.

3. COMPONENTS INCLUDED

The Wiltec NW-SOFT-R2 water softener system typically includes the following components:

- Wiltec NW-SOFT-R2 Water Softener Unit
- Naturewater mounting kit
- 3 m PVC pipe Ø 10 mm (inside diameter)
- User Manual (this document)

4. SETUP & INSTALLATION

Proper installation is crucial for the optimal performance and longevity of your water softener. Follow these guidelines carefully.

4.1 Site Selection

- Choose a location near the main water supply inlet to your property.
- Ensure the location is level, dry, and protected from freezing temperatures and direct sunlight.
- Provide adequate space around the unit for maintenance, especially for salt refilling.
- A nearby drain is required for the regeneration process.

4.2 Physical Dimensions

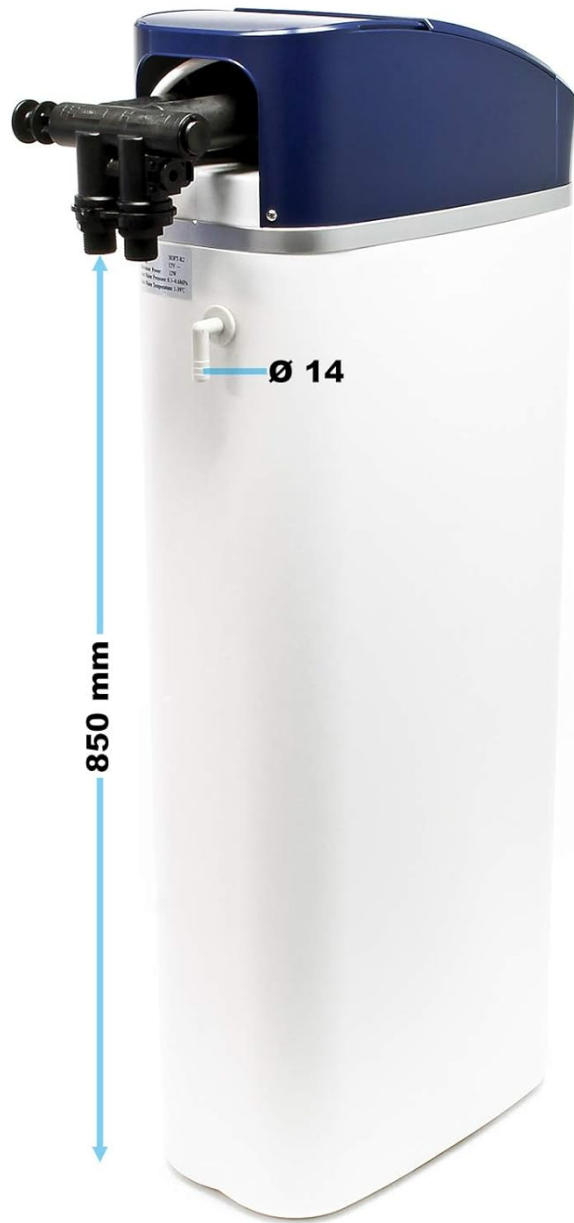


[mm]

Image 1: Product dimensions. The unit measures approximately 220 mm (width) x 510 mm (depth of top part) x 1010 mm (height). The base depth is 390 mm.

4.3 Plumbing Connections

Connect the water softener to your main water line. Ensure the inlet and outlet connections are correctly identified and plumbed. The system uses 3/4" AG (26.44 mm) connections for water lines and a Ø 14 mm drain connection.



[mm]

Image 2: Plumbing connections. This image illustrates the inlet and outlet ports, along with the Ø 14 mm drain connection point, and the overall height of the connection area at 850 mm from the base.



Image 3: Detailed view of connections. A close-up of the inlet and outlet connections, highlighting the 26.44 mm (3/4") AG fittings and a small diameter tube connection.

4.4 Initial Setup of Control Unit

After plumbing and power connection, the control unit needs initial configuration. The primary setting is the water hardness level of your incoming water supply. This is typically done via the display on the top of the unit.



Image 4: Control panel. This image shows the digital display and control buttons used for setting parameters like water hardness and regeneration cycles.

Refer to the specific instructions in the control unit's dedicated manual for detailed steps on setting the water hardness and current time. The automatic control system will then manage the regeneration cycles based on this input.

5. OPERATING INSTRUCTIONS

The Wiltec NW-SOFT-R2 operates on the principle of ion exchange to remove hardness-causing minerals from your water.

5.1 Ion Exchange Process

Hard water, containing calcium (Ca^{2+}) and magnesium (Mg^{2+}) ions, flows through a bed of special resin. This resin contains sodium (Na^+) ions. During the ion exchange process, the resin attracts and binds the calcium and magnesium ions, releasing sodium ions into the water. This effectively softens the water without altering its original

pH value.

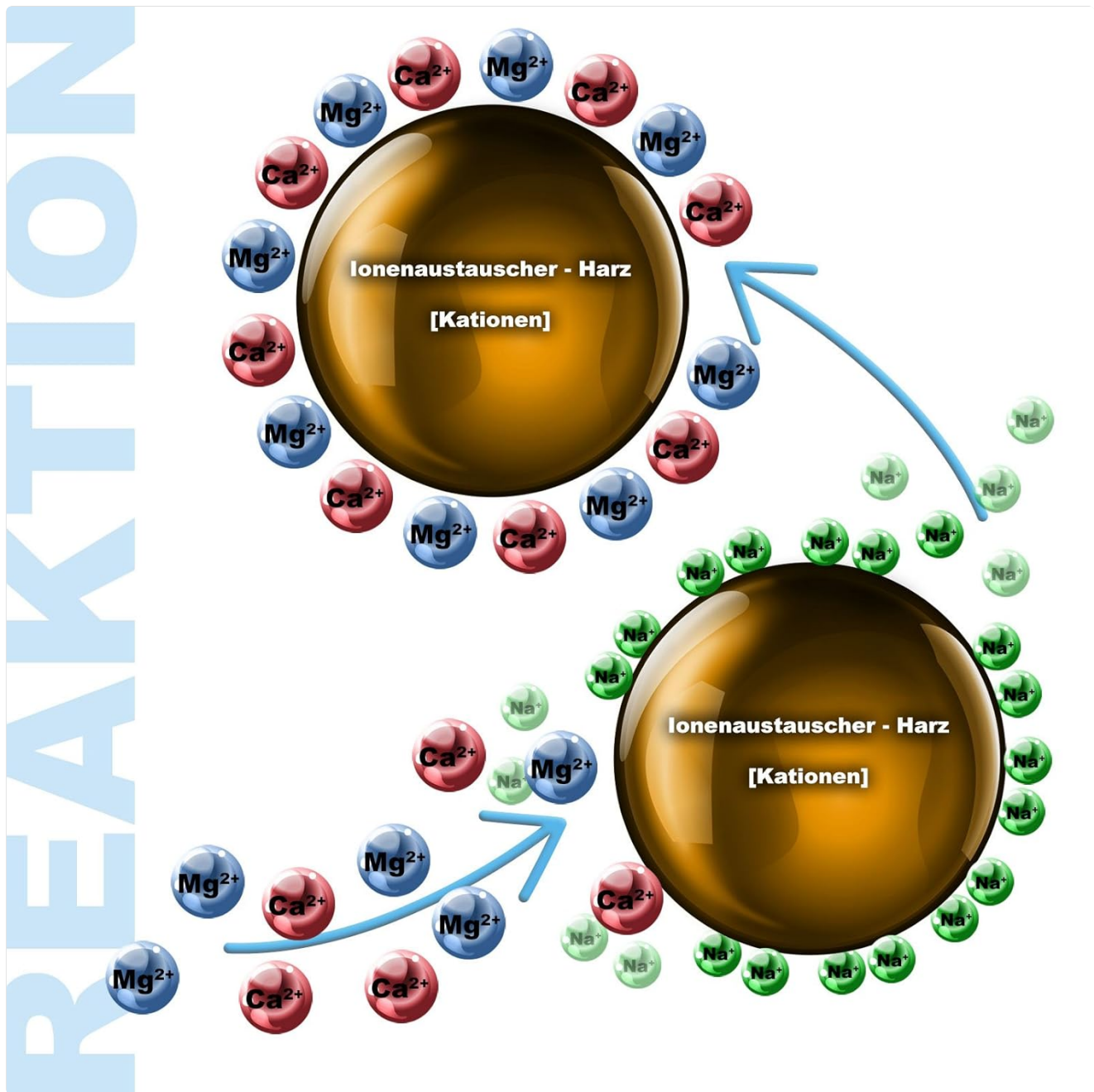


Image 5: Ion exchange reaction. This diagram visually explains how the ion exchange resin (Kationen) captures calcium (Ca²⁺) and magnesium (Mg²⁺) ions from hard water and releases sodium (Na⁺) ions, resulting in softened water.

5.2 Automatic Regeneration

Over time, the resin beads become saturated with calcium and magnesium ions and lose their softening capacity. The NW-SOFT-R2 features an automatic regeneration process to restore the resin. During regeneration, a brine solution (saltwater) from the salt tank is flushed through the resin bed. The sodium ions in the brine displace the accumulated calcium and magnesium ions from the resin, which are then flushed out of the system to a drain. This process allows the resin to regain its full softening capability.

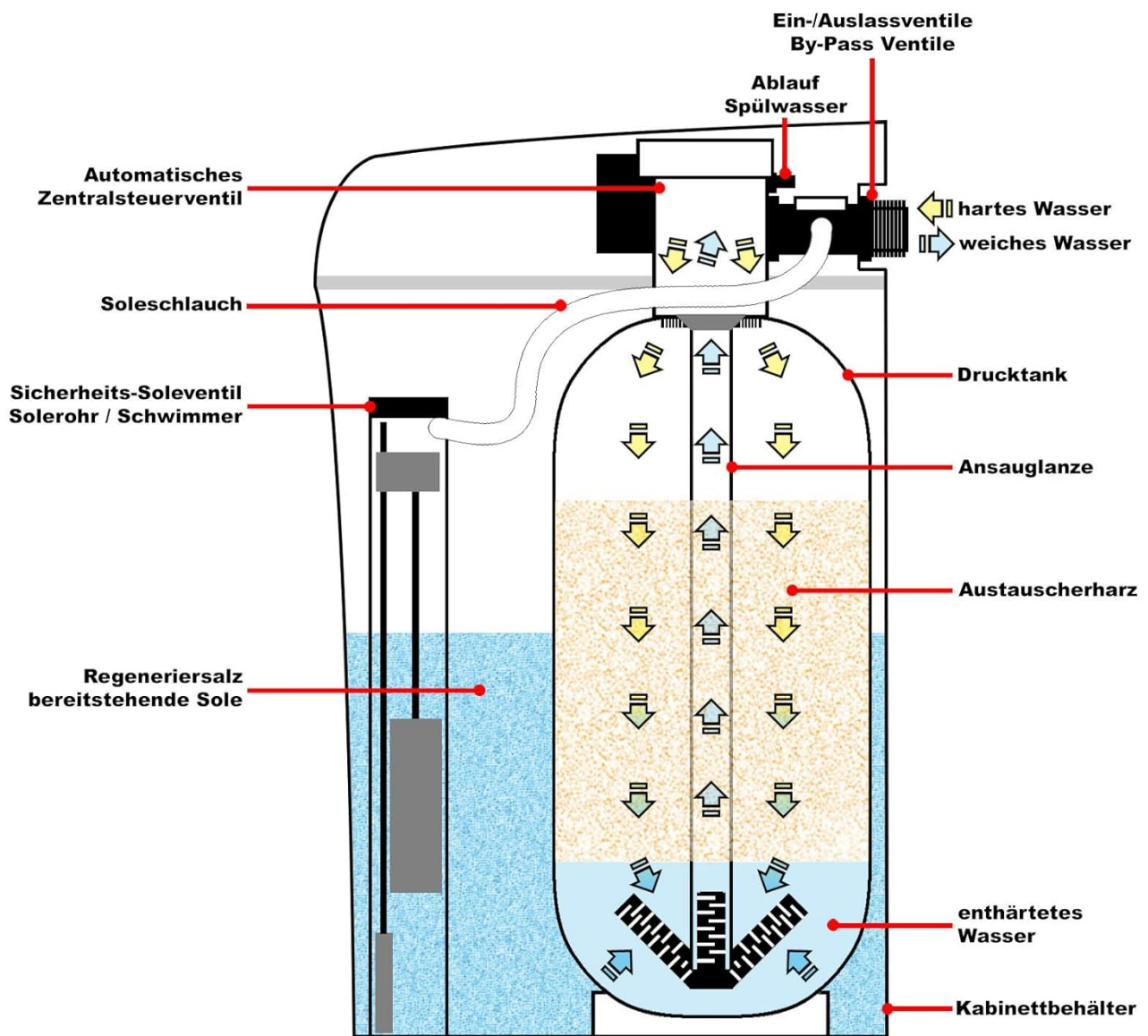


Image 6: System diagram. This diagram illustrates the internal components and water flow paths during both normal operation (hard water in, soft water out) and the regeneration cycle (brine solution flushing the resin and draining waste water).

6. MAINTENANCE

Regular maintenance ensures the continuous efficient operation of your water softener.

6.1 Salt Refill

The most critical maintenance task is refilling the salt tank. The system requires common water softening salt (e.g., tablet salt or crystal salt) for the regeneration process. The salt tank has a capacity of up to 10 kg. Check the salt level periodically and refill before it runs completely empty to ensure uninterrupted soft water supply.



Image 7: Salt tank opening. This image shows the access point for refilling the salt, with internal dimensions of approximately 170 mm by 55 mm for the salt compartment.

6.2 Resin Maintenance

The ion exchange resin itself is designed to be practically maintenance-free. Its regeneration process automatically cleans and recharges it. No manual cleaning or replacement of the resin is typically required under normal operating conditions.

7. TROUBLESHOOTING

If you encounter issues with your water softener, refer to the following common problems and solutions:

- **No Soft Water:**
 - Check salt level in the brine tank. Refill if low.
 - Ensure the unit is powered on and the display is active.

- Verify that the water hardness setting on the display is correct.
 - Check if the bypass valve is in the service position (not bypass).
 - Initiate a manual regeneration cycle to see if it resolves the issue.
- **Excessive Salt Consumption:**
 - Ensure the water hardness setting is accurate; an incorrect high setting can lead to more frequent regenerations.
 - Check for leaks in the brine tank or connections.
- **Water Pressure Drop:**
 - Check for blockages in the inlet or outlet lines.
 - Ensure the bypass valve is fully open in the service position.
- **Unit Not Regenerating:**
 - Verify power supply to the unit.
 - Check the time and day settings on the control unit.
 - Ensure there is sufficient salt in the brine tank.

If these troubleshooting steps do not resolve the issue, please contact Wiltec customer support or a qualified service technician.

8. SPECIFICATIONS

Technical data for the Wiltec NW-SOFT-R2 water softener system:

Specification	Value
Brand	Wiltec
Model	NW-SOFT-R2
Special Feature	Automatic Ion Exchanger Regeneration
Product Dimensions (L x W x H)	22L x 51B x 101H cm
Material	Resin
Purification Method	Ion Exchanger
Power Source	Mains Powered
Item Weight	26.42 Kilograms
Maximum Flow Rate	2000 Liters per hour
Salt Tank Capacity	10 kg (softening salts)
Minimum Pressure	1.0 bar
Maximum Pressure	6.0 bar
Regeneration Time	30 min

Specification	Value
Upper Temperature Limit	200 Degrees Fahrenheit
Country of Origin	China

Technische Informationen	Technical Information	51865 SOFT-2	51866 SOFT-A	52360 NW-SOFT-C1	52361 NW-SOFT-C2	52362 NW-SOFT-D	52363 NW-SOFT-R1	52364 NW-SOFT-R2
Für Haushalte bis zu	For households up to	1-6 people	1-6 people	1-3people	1-3 people	1-4 people	1-3 people	1-4 people
Kapazität bei 10°dH	Capacity at 10° dH	5600 l	5800 l	1500 l	1600 l	3500 l	1500 l	4900 l
Kapazität bei 15°dH	Capacity at 15° dH	4400 l	5800 l	1000 l	1200 l	2200 l	1000 l	3700 l
Kapazität bei 20°dH	Capacity at 20° dH	3300 l	3600 l	800 l	1000 l	1800 l	800 l	2800 l
Nenndurchfluss (20°dH zu 8°dH)	Nominal flow (20°dH to 8°dH)	2 m3/h	2 m3/h	2 m3/h	2 m3/h	2 m3/h	2 m3/h	2 m3/h
Nenndurchfluss (20°dH zu 0,5°dH)	Nominal flow (20°dH to 0,5°dH)	0,3m3/h	0,3m3/h	0,3m3/h	0,3m3/h	0,3m3/h	0,3m3/h	0,3m3/h
max. Rohrwasserfließdruck	max Pressure	6,0 bar	6,0 bar	6,0 bar	6,0 bar	6,0 bar	6,0 bar	6,0 bar
min. Rohrwasserfließdruck	min Pressure	1,0 bar	1,0 bar	1,0 bar	1,0 bar	1,0 bar	1,0 bar	1,0 bar
Druckverlust bei max. Durchfluss	Pressure drop max Flow	0,6 bar	0,6 bar	0,6 bar	0,6 bar	0,6 bar	0,6 bar	0,6 bar
Salzverbrauch je Regeneration	Salt consumption per regeneration	1,82 kg	2,10 kg	0,8 kg	0,9 kg	1,28 kg	1,00 kg	1,28 kg
Regenerationsdauer	Regeneration time	30 min	30 min	30 min	30 min	30 min	30 min	30 min

Image 8: Technical Information Table. This table provides a comparative overview of specifications for various Wiltec water softener models, including the NW-SOFT-R2, detailing capacity, flow rates, pressure, salt consumption, and regeneration times.

9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided with your product or visit the official Wiltec website. In case of technical issues, questions, or to obtain replacement parts, please contact Wiltec customer support.

Manufacturer: WilTec

Contact Information: Please refer to the contact details provided on the official Wiltec website or your purchase documentation for the most up-to-date support channels.