Operating instructions

5-stage Reverse Osmosis System

64409, 64410, 6411

Illustration similar, may vary depending on model

Read and follow the operating instructions and safety information prior to initial operation.

Technical changes reserved!
Illustrations, functional steps, and technical data may deviate insignificantly due to continuous further developments.

Updating the documentation
If you have suggestions for improvement or have found any irregularities, please contact us.

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Although WilTec Wildanger Technik GmbH has made every possible effort to ensure that this operating manual is complete, accurate, and up-to-date, errors cannot be ruled out entirely.
If you have found an error or wish to suggest an improvement, we look forward to hearing from you.
Send us an e-mail to:

service@wiltec.info

or use our contact form:

https://www.wiltec.de/contacts/

The most recent version of this manual in several languages can be found in our online shop:

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Our postal address is:

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To return your goods for exchange, repair, or other purposes, please use the following address. Attention! To allow for a trouble-free complaint or return, it is important to contact our customer service team before returning your goods.

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Introduction

Thank you for choosing to purchase this quality product. To minimise the risk of injury, we ask you to always take some basic safety precautions when using this product. Please read this operating manual carefully and make sure that you understand it.
Keep these operation instructions in a safe place.

Safety information

This device is intended for operation and functioning in accordance with the instructions in this manual. It is not designed to operate outside the listed specifications, and any attempt to do so or tamper with the device may result in damage to the device and/or personal injury. This device is not a toy; therefore, keep it out of reach of small children. If the unit needs to be serviced or repaired, contact your local service technician.

- Make sure that the temperature of the feed water is above 4 ℃. At a water temperature below 4 ℃, ice can form and damage the device.
- Before connecting the device, make sure that the power source is suitable. Incorrect voltage can cause damage to the device and/or pose a fire hazard.
- Do not damage the device and do not use it if the power cable is damaged. A damaged power cable can cause an electric shock or a fire hazard. If the power cord is damaged, unplug the plug from the socket and stop using the device immediately.
- Do not disassemble, open, or modify this unit. Opening the device can cause malfunctions or damage.
- Do not cover the device as this will prevent proper heat dissipation and may cause damage or fire.
- Do not place any objects on the device, as this may cause damage to the device and result in leaks.
- Observe all recommended operating pressures and temperatures, as the device may be damaged otherwise.
- Avoid contact with corrosive materials.
- Keep away from heat.

Before first use

- Read all instructions before installing and using the reverse-osmosis system. Follow all steps carefully, otherwise you risk damaging the system or causing it to malfunction.
- This system contains filters that need to be replaced at certain intervals. The replacement intervals vary depending on the use.
- Please only install the system on the drinking-water network. If the water is undrinkable, the system will not function properly and additional pre-treatment may be required.
- Make sure that the water pressure at the source is between 1 and 4 bar. If the water pressure of the source exceeds the maximum pressure, a pressure-reducing valve may be required.
- Make sure that the temperature of the feed water is between 5 ℃ and 40 ℃. The reverse-osmosis system will not function properly if this temperature range is not respected. Important: Do not install the system to a hot-water source!
- Do not use the system with noticeably dirty water such as raw sewage or well water.
- This unit operates on 110 V–240 V. Please ensure that you are using the correct power source.

Package contents

Reverse-osmosis system – 1 pc.
Food-grade tubing – 4 pcs. (red, white, yellow, and blue)
Tap – 1 pc.
Accessories – pipe plugs, screws, T-piece, ball valve, feed-water valve
Instruction manual – 1 pc.

Technical specifications

Water source	Municipal tap water
Nominal capacity for pure water (ℓ)	1000
Voltage and frequency	220 V / 50 Hz
Wattage (W)	23–36
Pure water flow rate ($\ell/_{min}$)	0.13
Water temperature at inlet (°C)	5–38
TDS at inlet (ppm)	≤ 250
Chlorine content (ppm)	≤ 0.2
Water purity (desalting rate)	92–99 %
Water inlet pressure (bar)	1–4
Ambient temperature (°C)	5–40
Stability against electric shocks	II

Filter stages

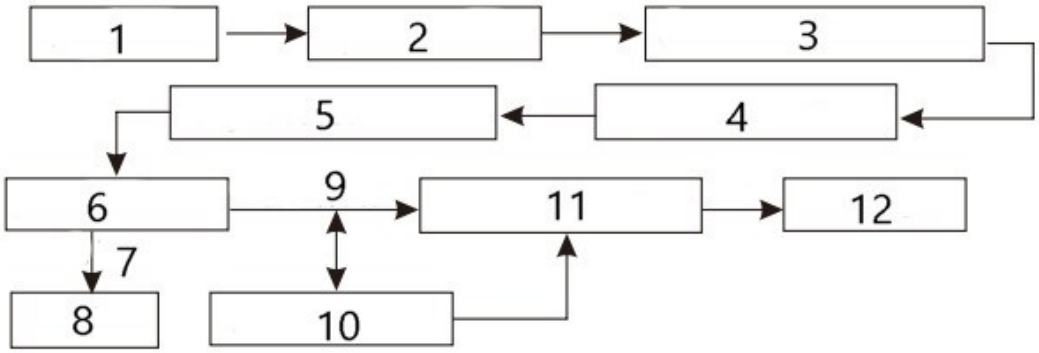
- The first stage is a sediment filter that removes coarse particles such as sand, rust, or mud from the water.
- The second stage is a granular activated carbon filter that removes organic impurities, chlorine, and odours from the water.
- The third stage is a carbon block filter that removes any remaining organic impurities, chlorine, and odours from the water.
- The fourth stage consists of a 50-G reverse osmosis membrane that filters the finest pollutants out of the water and only lets pure water through.
- The fifth stage is an activated-carbon post-filter that cleans the water again and ensures a good taste.

UV steriliser (optional): removes bacteria and micro-organisms from water.

Far-infrared cartridge (optional): emits far infrared rays to regulate the mineral content of water.

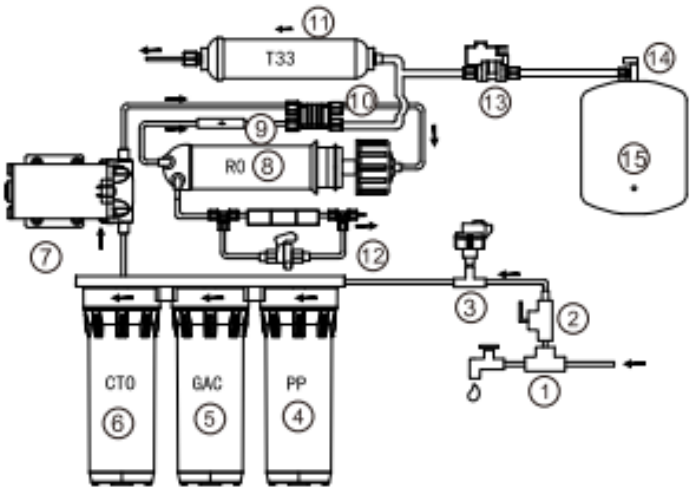
Mineral stone cartridge (optional): regulates the minerals in the water.

Operation of the filter system



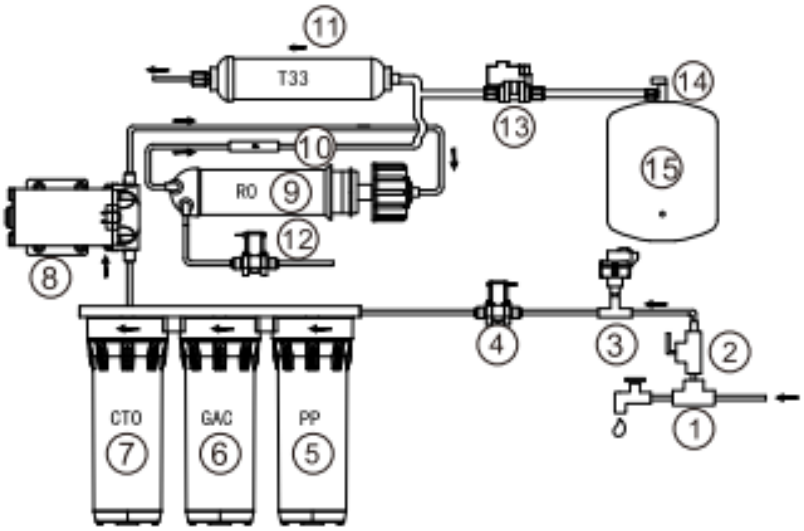
№	Part	№	Part
1	Feed water	6	Reverse-osmosis membrane
2	PP filter	7	Waste water
3	Activated-carbon granulate filter	8	Sink
4	Activated-carbon block filter	9	Pure water
5	High-pressure pump	10	Pressure vessel

Manual flushing



№	Part	№	Part	№	Part
1	Inlet valve	6	Carbon block filter	11	Inline carbon filter
2	Ball valve for water inlet	7	Booster pump	12	Flush valve (manual)
3	Low-pressure switch	8	Reverse-osmosis membrane	13	High-pressure switch
4	PP sediment filter	9	Check valve	14	Ball valve for water tank
5	Carbon granulate filter	10	Automatic shut-off valve	15	Pressure vessel

Automatic flushing



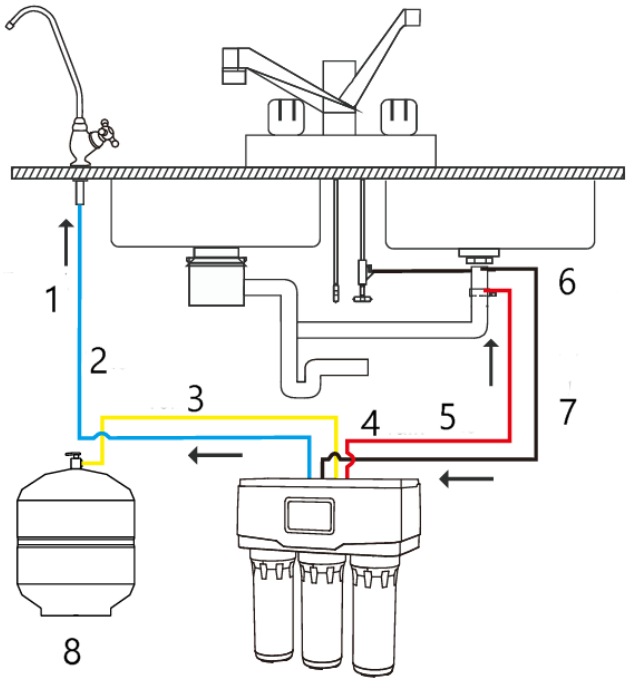
№	Part	№	Part	№	Part
1	Inlet valve	**6**	Carbon granulate filter	**11**	Inline carbon filter
2	Ball valve for water inlet	**7**	Carbon block filter	**12**	Solenoid valve for flushing
3	Low-pressure switch	**8**	Booster pump	**13**	High-pressure switch
4	Inlet solenoid valve	**9**	Reverse-osmosis membrane	**14**	Ball valve for water tank
5	PP sediment filter	**10**	Check valve	**15**	Pressure vessel

Commissioning

Tools and components required for commissioning

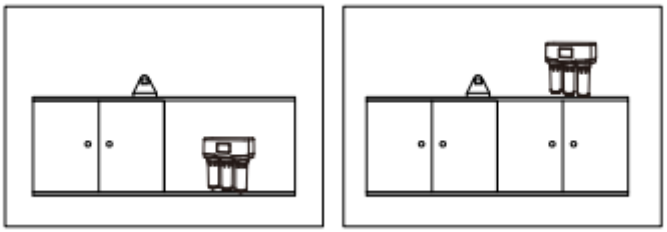
№	Part	№	Part
1	Knife	**8**	Housing wrench
2	Electric drill machine	**9**	Water pipe
3	Sealing tape	**10**	Clamp
4	Hammer	**11**	Tap holder
5	Open-ended spanner	**12**	Reverse-osmosis membrane
6	Scissors	**13**	Operating instructions
7	Water faucet	**14**	Feedwater valve and T-piece

Placement of the reverse-osmosis system



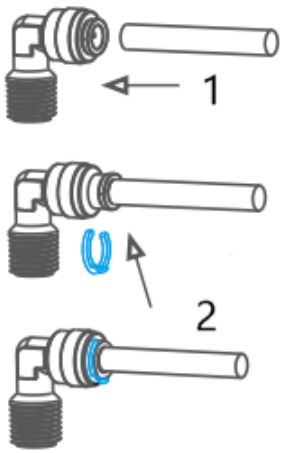
№	Part
1	Water faucet
2	Blue
3	Yellow
4	Drain
5	Red
6	white
7	Feed water
8	Pressure vessel

- This device is designed to be placed under the sink or on the countertop. However, if you want to place the device in another suitable location due to lack of space or other restrictions, you can do so.
- When selecting the installation site, make sure that access to the cold water pipe is available, that the socket is easily accessible, and that there is sufficient space for changing the filter.

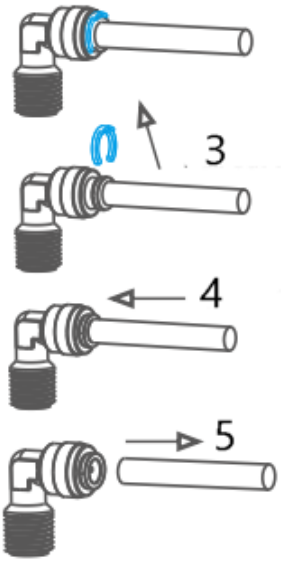


Quick coupling

Attaching the water pipe



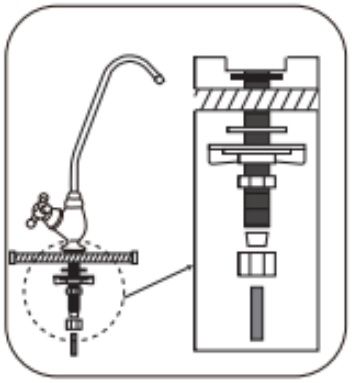
Removing the water pipe



№	Part	№	Part
1	Insert water pipe	**4**	Press to release the lock
2	Insert clamp	**5**	Pull out water pipe
3	Pull out clamp		

Installing the tap

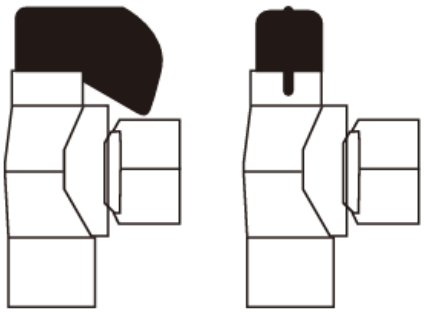
- Chose a suitable spot near your washbasin to install the water faucet.
- Drill a 12-mm diameter hole into the worktop.
- Install the washers, plates, gaskets, and nuts in the order shown and tighten them on the worktop.
- Fix the blue pure-water line to the underside of the water faucet, then connect the line to the device.



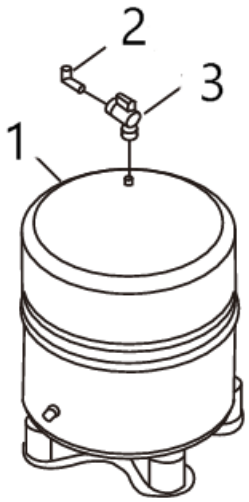
Attention! Check that the hoses are connected correctly according to the connection diagram at the beginning of the section.

Pressure vessel

- Hold the pressure vessel within 3 metres of the tap.
- If longer hoses are required, use only ¼″ hoses to avoid a pressure drop.
- The tank can weigh up to 14 kg when full, so make sure you choose a firm and level surface.
- Install the ball valve by screwing it onto the tank and cover it with sealing tape to prevent leakage.
- Connect the red hose from the filter to the pressure tank.



Open Closed

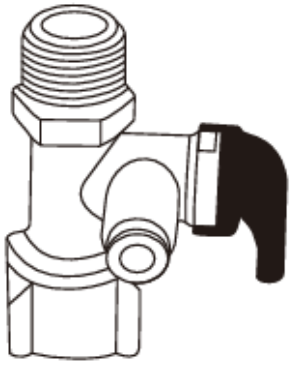


№	Part
1	Tank
2	Hoses
3	Tank valve

- Attach sealing tape to the nozzle on top of the tank.
- Install the tank valve and tighten by hand.
- Connect the yellow hoses from the system.
- Check that the ball valve on the tank is open.

Feedwater valve and T-piece

- Install the T piece and the feedwater valve according to the illustration.
- Wrap the thread of the feedwater valve and the T-piece with sealing tape.
- Connect the white feedwater hose from the unit to the feedwater valve.



Install the feed water valve

Install the T piece of the feedwater valve, then connect it to the water source.

Note! Use only cold drinking water as feed water; hot water will damage your device. Softened feedwater extends the service life of the RO membrane.

Operation and maintenance

LED display and control panel

Switching on

After switching on, the display flashes three times, and the buzzer emits a triple beep. This is followed by a 90-second intensive flushing.

Flushing

The “FLUSH” symbol flashes during the flushing process. To start a 90-second intensive flushing, press and hold the “FLUSH” symbol for three seconds. The symbol continues to flash during the process. If you wish to end the flushing process early, press “FLUSH” again.

Insufficient feedwater

When the low-pressure switch is activated, the “LACK” symbol flashes, and the device emits a beep ten times.

Filter change

The lifespan of the filter cartridges and membrane is indicated by five bars on the display. A new filter is indicated by a fully illuminated bar. During use, the small blocks of the bars gradually disappear. When the lifespan of a filter has expired, the entire bar goes out and the device emits 30 beeps.

Reset after filter change

1. Switch the device on.
2. Press and hold the “SELECT” button for three seconds to enter the selection mode.
3. The bar of the filter to be selected starts flashing.
4. Press the “RESET” button to make the filter life bar light up fully again. This indicates that the reset has been completed successfully.

Prefilter flushing (initial operation)

Prepare the system for operation by flushing the prefilters:

- Remove the inlet hose of the RO element from the cap of the element housing. Open the main water and inlet valves and run the system through the two prefilters.
- Direct output water into a container or down the drain.
- Continue the flushing until the output water is visibly clean. Reconnect the hose.

Note! The pump and diaphragm can be severely damaged if the system is operated without flushing the prefilters. Discard all water from the flushing; it is not suitable for use or consumption.

- After flushing the prefilters, open all valves to start operation.
- Wait for about 2 min before opening the tap.
- Let the system flush for the first 10–15 min with the tap running.
- Do not use water from the device during this time. When the water running out is clear, it is ready for use.

Flushing the pressure vessel

- After flushing the prefilter, leave the device running and fill the pressure vessel.
- It takes about 3.5 hours to fill the tank. When the tank is full, leave the tap open to empty the pressure vessel.
- If the tank is completely empty, turn off the tap and have the tank refilled. After flushing, the system is ready for use.

Regular operation

Once the system is set up and connected to a power source, it automatically starts treating the water as soon as the tap is opened. When the tap is turned off, the device switches off automatically. After use, the system is automatically flushed if it is equipped with the appropriate flushing function.

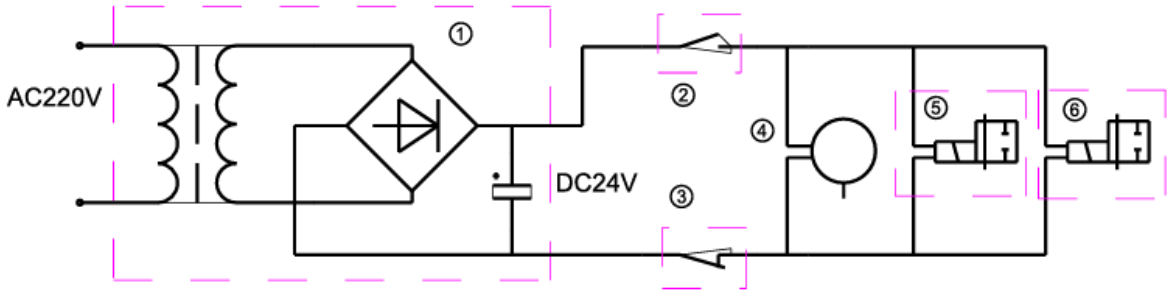
Filter maintenance

Regular maintenance is required to ensure that the system operates optimally. The frequency of maintenance depends on the quality of the feed water. Follow some guidelines for changing filters according to schedule. Please note that the frequency of filter changes can vary. If necessary, contact a qualified person.

- Replace the PP sediment filter and block carbon filter every 3–6 months or as needed.
- Replace the inline carbon filter every 6–12 months or as needed.
- Replace the reverse-osmosis membrane every 18–24 months or as needed.

If you are going to be absent for a long period of time or are not using the device, please disconnect the device from the power supply. If the unit has been switched off and is not used for a long period of time, perform the same flushing procedure as for the initial start-up.

Electrical diagram



№	Part	№	Part
1	Adaptor	**4**	Booster pump
2	Low-pressure switch	**5**	Solenoid valve for inlet
3	High-pressure switch	6	Solenoid valve for automatic flushing

Troubleshooting

Problem	Possible cause	Solution
The pump is not working and no water is being produced	Low water-inlet pressure makes low-pressure switches unusable	Increase the water inlet pressure.
	No or poor power supply	Connect with electricity.
	High-pressure switch not working properly	Replace high-pressure switch.
	Overloading of the water pump caused the transformer fuse to blow.	Replace transformer or repair pump.
The pump head is leaking	Leakage due to a worn pump membrane or internal parts of the pump blocked by limescale deposits	Have the pump repaired.
	Reverse-osmosis membrane blocked due to an aged flow restrictor. The water not delivered in the RO membrane increases the pressure in the pump.	Replace the flow-restriction valve.
The pump is running, but the system is not producing water.	Reverse-osmosis membrane blocked or pump without pressure	Replace diaphragm or have pump repaired.
Storage tank is full, but no pure water	Insufficient pressure in the storage tank	Fill air into storage tank (0.48 bar / 7 psi) or replace tank.
	Clogged carbon filter	Replace the carbon post-filter.
The power is out, but the water keeps flowing.	Solenoid valve for water inlet damaged	Replace the solenoid valve.
The machine does not stop or restart after the tank is full	Standard pressure of high-pressure switch too high or high-pressure switch damaged	Replace or repair high pressure switch.
	Solenoid valve damaged	Replace non-return valve.

Regulations for waste disposal

The Waste Electrical and Electronic Equipment Directive (WEEE Directive, 2012/19/EU) of the EU was implemented in the German law related to electrical and electronic equipment and appliances.

All WilTec electric devices that fall under the WEEE directive are labelled with the symbol of a crossed-out wheeled rubbish bin. This symbol indicates that this electric device must not be disposed of with the domestic waste.

WilTec Technik GmbH is registered with the German registration authority EAR (Stiftung Elektro-Altgeräte Register) under the WEEE-registration number DE45283704.

Disposal of used electrical and electronic devices (intended for use in the countries of the European Union and other European countries with a separate waste collection system for these devices).
The symbol on the packaging or the product itself indicates that this product must not be treated as normal domestic waste but must be disposed of at a recycling collection station for electrical and electronic waste.
By disposing of this product correctly, you contribute to the protection of the environment and the health of your fellow people. Inappropriate disposal threatens the environment and health.

Material recycling helps to reduce the consumption of raw materials.

Additional information about the recycling of this product can be provided by your local commune, the municipal waste disposal facilities, or the store where you purchased the product.

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Important note: