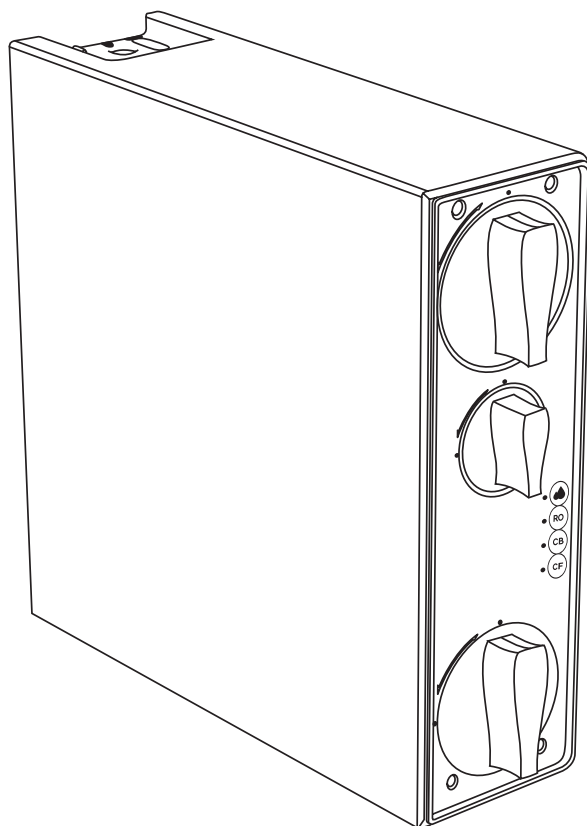




Installer and user guide for CROSS direct flow
reverse osmosis filters: MO3400PECO, MO3600PECO,
MO3600MPECO

• MO3400...> **CROSS-60**

• MO3600...> **CROSS-90**



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DEAR CUSTOMER!

Thank you for choosing our products.

We want you and your family to enjoy clean drinking water. With Ecosoft filter you will forget the trouble of using large bottles. Pure spring water for drinking, cooking and making drinks will always be at hand. Please read this instruction manual and check validity of the warranty card before using the system.

1. PURPOSE OF THE PRODUCT



Before installing and using the reverse osmosis filter, carefully read this manual. Following the instructions will ensure the safe and efficient operation of the system and help prevent potential injuries or damage to equipment and property.

Reverse osmosis is by far the most advanced technology of water purification in use today. Special semipermeable membrane structure similar in its properties to the membrane of a living cell is capable of purifying drinking water from virtually all harmful impurities (see Figure 1). The membrane can be conceived of as having tiny pores, 200 times smaller than viruses and 4000 times smaller than bacteria. Domestic water filters with reverse osmosis membranes harness the principle of body's metabolism on a cellular level. Only molecules of certain size can penetrate cellular membrane.

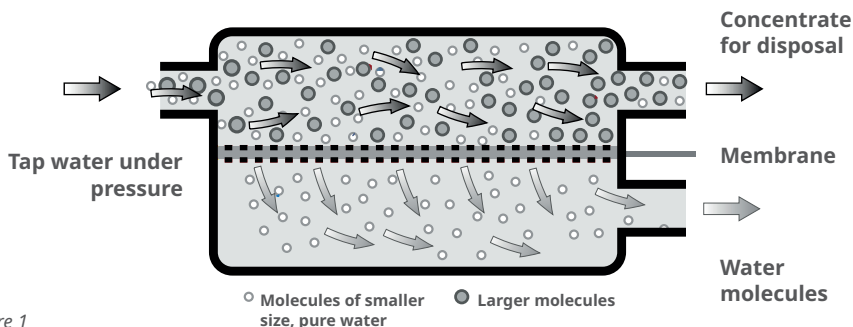


Figure 1

Direct flow reverse osmosis filter CROSS is a four-stage in three steps filtration unit with three cartridges functioning as follows (see section (2.3) for reference numbers). Filter rack is connected to cold water supply with feed water adapter (4). White tube (3/8") carries water from feed valve through low pressure switch (for MO3600PECO and MO3600MPECO) and inlet solenoid valve to the CF filter cartridge. Incoming water then passes through pre-filter cartridge (7). Pre-filter cartridge is a complex cartridge with (2) stages inside. It is designed to remove solids (such as rust, sand, silt, etc), residual chlorine, and organochlorines from water. After undergoing pre-treatment steps in the pre-filter, water enters into the third (and the most important) stage: reverse osmosis membrane (7) contained in a cartridge RO. One of the two outlets supplies purified water (permeate), and the other carries away water with rejected impurities (concentrate). The membrane purifies water at the molecular level by passing through its pores only the water molecules and the molecules of dissolved oxygen.

1. PURPOSE OF THE PRODUCT

Inside the membrane, water is separated into two streams: concentrate, which is discharged into drain, and permeate, which enters next step – post-filter **(7)**.

After opening the purified water valve **(3)**, the pressure in the system drops and the high pressure switch is activated, opening the inlet valve and starting the pump, automatically resuming the flow of water through the pretreatment cartridge to the membrane. After opening the purified water valve **(3)**, the pressure in the system drops and the high pressure switch is activated, opening the inlet valve and starting the pump, automatically resuming the flow of water through the pretreatment cartridge to the membrane. The purified water after the membrane enters the fourth stage of purification — the CB carbon post-filter or MCB mineralizing carbon post-filter, designed for final water purification. The purified water after the membrane enters the fourth stage of purification — the CB carbon post-filter, designed for final water purification. It contains extruded activated carbon. This filter improves the taste and smell of the purified water. This filter is direct-flow, so no water storage tank is required. With a capacity of **600 GPD (90 l/h)**, it takes only 8 seconds to fill a 200 ml glass.

2. SPECIFICATIONS AND COMPONENTS

2.1 MODEL DESIGNATIONS

Models

Please, find model of your filter on enclosure

MO 3 400 P ECO

MO 3 600 P ECO

MO 3 600 M P ECO

MO X YYY ZZZZ AAA BBB

MO — The type of filter. RO stands for reverse osmosis

X — Number of stages

YYY — Capacity of reverse osmosis membrane in GPD (gallons per day)*:

400GPD	1 440 liters per day	60 liters per hour
600GPD	2 160 liters per day	90 liters per hour

* Capacity of the reverse osmosis filter is variable and depends on a number of factors. These include supply water quality, wear of pre-filter cartridges and of membrane itself, supply water pressure and temperature.

ZZZZ — Legend of additional equipment (no letters specify base model with no extra equipment):

M	The filter is equipped with mineralizing post-filter
P**	The filter is equipped with pressure booster pump

AAA — Trademark

2. SPECIFICATIONS AND COMPONENTS

For example: MO3600MPECO means reverse osmosis unit with 3 stages equipped with membrane of 600 gallon per day capacity (90 l / h), mineralizing post-filter and booster pump. Trademark ECOSOFT.

** Models equipped with a pressure booster pump (marked with the letter «P» in the model designation), are intended for connection to the single-phase AC power with a voltage of 230 V, 50 Hz.

The system is equipped with a power cord with a plug and should be connected in the proper type of socket with grounding complying with the local standards. **Electrical safety notice:** this appliance should be connected into a circuit with an RCB installed Before performing any operations system must be disconnected from the electric power source.



CAUTION!

Filter installation should be carried out by a specialist with appropriate qualifications and experience.

The product should only be used with cold water supply!

2.2 SPECIFICATIONS AND REQUIREMENTS

Parameter	MO3400PECO	MO3600PECO	MO3600MPECO
Main pressure, bar		2-5*	
Feed water temperature, °C		+5...+30**	
Flow capacity, l/min	1	1.5	1.5
Electrical rating		230 V, 50 Hz	
Power, W		120	
Weight of the system, kg		11	
Ambient temperature, °C		+5...+40	
Water supply connection		½" thread and ¾"	
Filter dimensions, H × W × D, mm		435 × 140 × 458	

* If supply water pressure is below required value, purchase pumped model or fit your existing filter with booster pump. If the pressure in the water system is above the limit, it is necessary to install a pressure regulator on the main pipe. If pressure in tank bladder is outside this range, it is necessary to pump up or release the pressure until it conforms to the requirement.

** If supply water temperature is up in the range of +20...+30 °C, rejection of impurities will be decreased and system capacity increased, bringing about an increase in TDS. Using the product with supply water temperature in excess of +30 °C is not recommended.



Reverse osmosis systems must be protected from high pressure and sudden pressure surges caused by local water supply systems. A pressure regulator must be installed at the system's inlet.

The optimal operating pressure for the system is 3.5 bar (52.5 psi). Failure to install a pressure regulator may result in damage to pressure-sensitive components and void the warranty.

2. SPECIFICATIONS AND COMPONENTS

2.3 WATER QUALITY

2.3.1 SUPPLY WATER QUALITY REQUIREMENTS*

Index	Value**	Index	Value**
pH	6.5–8.5	Manganese	<0.1 ppm
TDS	<1500 ppm	Chemical oxygen demand	<5 ppm O ₂
Hardness	<500 ppm CaCO ₃ (<28 °dH)	Total bacterial count (TBC)	<50 CFU/mL
Free chlorine	<0.5 ppm	E. coli titer	<3
Iron	<0.3 ppm		

Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before the system.

* If water supply does not meet the requirements, service life of membrane and/or pre-filter cartridges may be shortened.

** If your home is supplied with raw well water, perform laboratory test of your water before installing a reverse osmosis filter. If any of your water indices exceed the limit, consider using a water treatment system to correct supply water quality. Refer to water treatment specialists or companies for advice and proper equipment selection.

2.3.2 WATER QUALITY AFTER FILTER*

Index	Value
pH	5.5–6.5
TDS	5–15 ppm
Calcium	<2 ppm
Magnesium	<1 ppm
Sodium + Potassium	<5 ppm

* Values are determined under the following conditions: temperature of supply water is 25 °C, supply water quality and operation conditions correspond to manufacturer's requirements.

2.3.3 QUALITY OF MINERALIZED WATER MO3600MPECO*

Index	Value
pH	6.5–7.7
TDS	40–70** ppm
Calcium	4–6 ppm
Magnesium	–

Please note!

Changes in the taste and odor of purified water after replacing the carbon post-filter and mineralizer are due to the maximum capacity of the filter material at the beginning of the cartridge life. During the operation of the cartridges, the mineralization and organoleptic characteristics of the water gradually decrease.

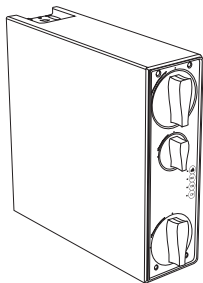
Follow the maintenance schedule for your filter to ensure consistent quality of treated water.

* Values are determined under the following conditions: temperature of supply water is 20 °C (68 °F), supply water quality and operation conditions correspond to manufacturer's requirements, water consumption as typical for a family of three. As the temperature of supply water drops in winter, the minerals content may be lower, and with increasing temperature in summer - higher.

** After standby for one hour or more the content of minerals in the first glass of purified water may be higher than the specified values, as more minerals can dissolve during this period. This is normal and does not impair the quality of the purified water.

2. SPECIFICATIONS AND COMPONENTS

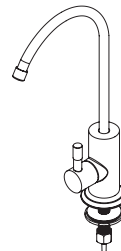
2.4 REVERSE OSMOSIS FILTER COMPONENTS



1) Filter rack

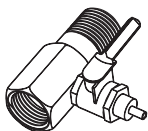


2) Power adaptor



3) Drinking water faucet

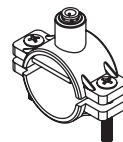
- with light indication for models MO3600PECO and MO3600MPECO
- without light indication for model MO3400PECO



4) Feed water adapter with valve

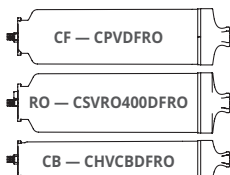


5) Set of colored tubes

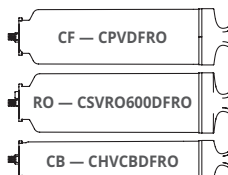


6) Drain saddle

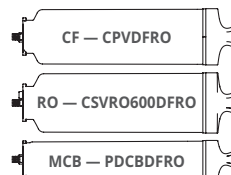
Code: MO3400PECO



Code: MO3600PECO



Code: MO3600MPECO

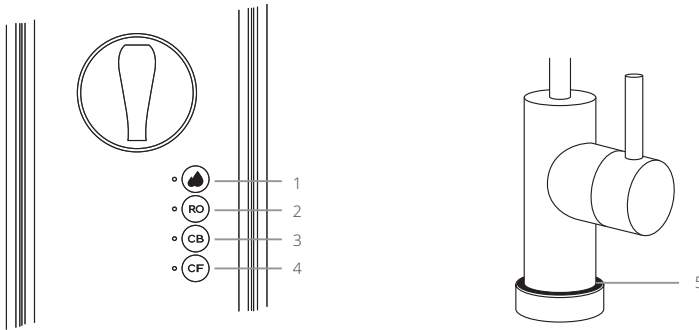


7) Set of cartridges

The manufacturer reserves the right to modify product design or specific components if such modification does not entail deterioration of consumer properties of the product.

2. SPECIFICATIONS AND COMPONENTS

2.5 REVERSE OSMOSIS FILTER INDICATORS



1 – System performance indicator - making water indication, water quality indication, faults indication, flushing indication

2 – RO replacement filter lifetime indicator

3 – CB or MCB replacement filter lifetime indicator

4 – CF replacement filter lifetime indicator

5 – Faucet indicator - making water indication, faults indication, replacement indication, flushing indication for MO3600PECO and MO3600MPECO

3. FILTER INSTALLATION

Before installing a domestic reverse osmosis filter please carefully read this instruction. This system must be installed in compliance with local codes.

For correct installation of the system, request one of the Ecosoft Authorised Service Centres. The manufacturer is not responsible if the system was installed by an unqualified specialist

3.1 BEFORE COMMENCING INSTALLATION

1) Check that all parts are in the package. Do not open the plastic bags with filter parts before you make sure everything is in place to be able to return faulty/incomplete package.

2) Check conformity of your local variables to requirements specifications:

Main pressure*	Supply water temperature*
Check water pressure at mains before installing the product. Compare to the requirements in paragraph (2.1).	Check temperature of supply water. Compare to the requirements in paragraph (2.1).

*** Refer to paragraph 2.1 for recommended measures in case any of the above variables does not meet the requirements.**

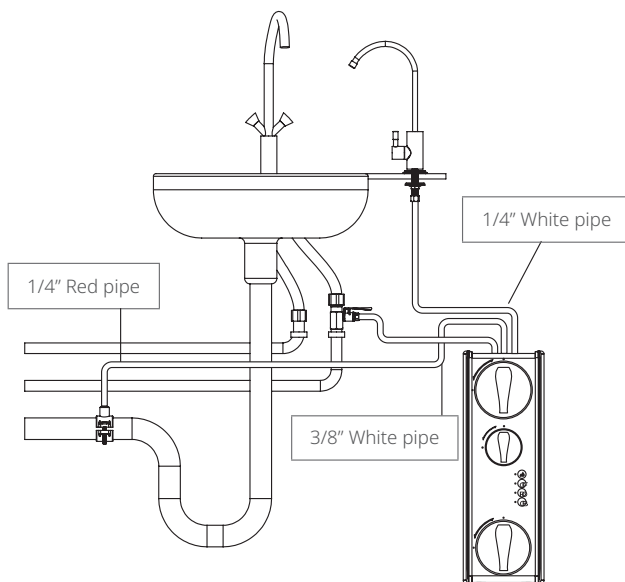
3. FILTER INSTALLATION

- verify that your product is as specified in **paragraph 2.1**;
- verify that your supply water quality** meets the requirements in **paragraph 2.2**.

**** If supply water quality does not meet the requirements, it is necessary to consult with a water treatment specialist.**

- 3) Before installing the system, make sure there is enough space for the filter rack under the sink.
- 4) **Electrical safety notice:** This appliance should be connected into a circuit with an RCB installed. Please note voltage requirements.
- 5) Install the system per the guidelines of this manual.
- 6) The unit is to be supplied with single-phase 230 VAC, 50 Hz electrical power. The unit is supplied with power cord and can be connected to a properly installed IEC 60884-1 compliant socket. Electrical specification of the unit can be found on manufacturer's factory sticker. That system and installation must comply with state and local laws and regulations.
- 7) Reverse osmosis systems must be protected from high pressure and sudden pressure surges caused by local water supply systems. A pressure regulator must be installed at the system's inlet. The optimal operating pressure for the system is 3.5 bar (52.5 psi). Failure to install a pressure regulator may result in damage to pressure-sensitive components and void the warranty.

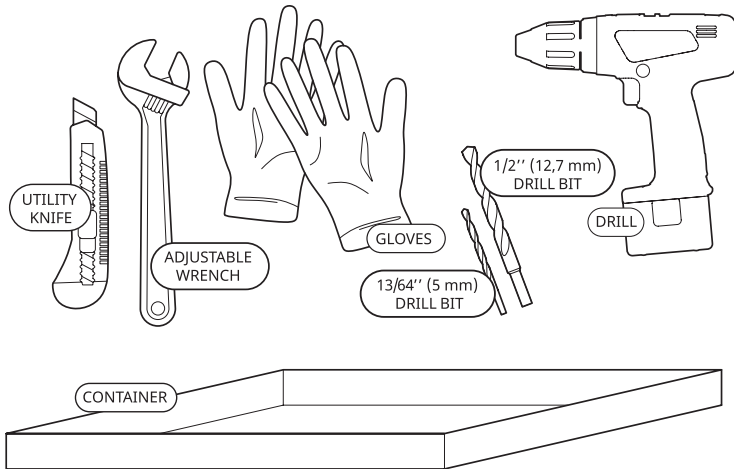
3.2 CONNECTION DIAGRAM



3. FILTER INSTALLATION

3.3 RECOMMENDED TOOLS FOR INSTALLATION

NE



Do not allow children under the age of 3 to come into contact with small parts during the installation or maintenance of the filter. Keep children away from the filter system and its components without adult supervision.

3.4 INSTALLATION PROCEDURE

Wash your hands thoroughly with anti-bacterial soap before handling tubes, cartridges, and membrane.

This system should desirably be installed in places protected from direct sunlight and away from heating appliances.

1. Remove the reverse osmosis system from its packaging and check the equipment.
2. Shut off water supply in your kitchen or whole home and open water tap where you are about to install the system (on your kitchen sink) for 1 minute to relieve pressure in the system, and then close it.

3. FILTER INSTALLATION

3. Screw the feed water adapter with valve **(4)** (see section (2.3) for reference numbers) into the cold water plumbing.

Connections size is selected to fit most common size ½ inch pipe. If your pipe is of another size, prepare an appropriate adapter.

Fig. A1

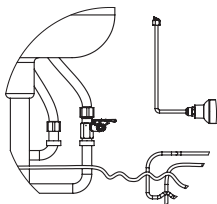


Fig. A2

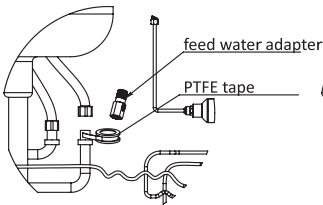
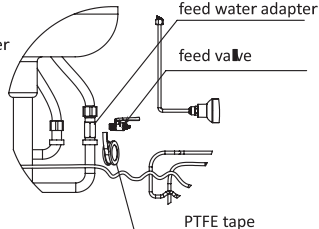
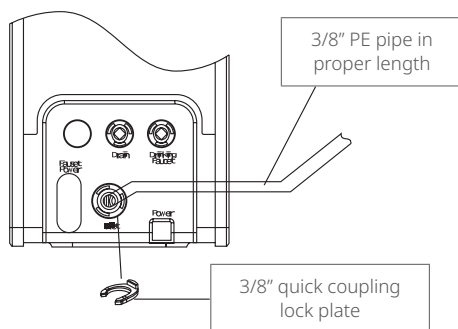


Fig. A3



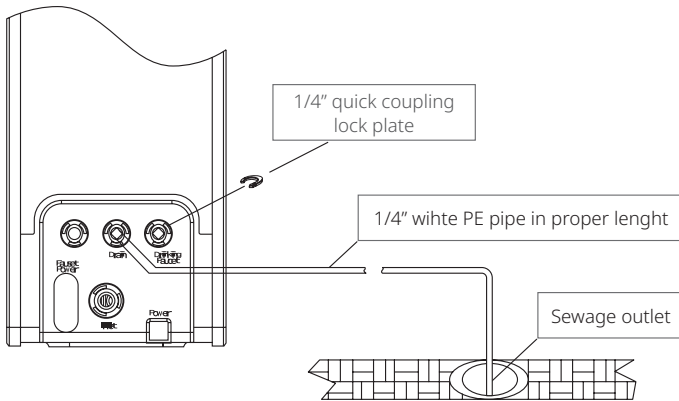
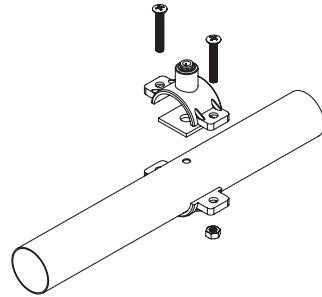
4. Unscrew the compression nut from the feed valve **(4)** and put it on the 3/8" white tube. Push the white tube on the end of feed valve's fitting and screw on the compression nut. Connect the free end of the 3/8" white tube with the quick connect fitting "Inlet" on the connection panel of the rack. Insert the 3/8" quick coupling lock plate between the quick connect and the claw of the water inlet pipe.



3. FILTER INSTALLATION

5. Connect the drain saddle (6) with drain pipe from the kitchen sink. The drain saddle is compatible with most standard drain pipes. Drill a hole of 5.0 mm (0.2") diameter in the kitchen sink drain pipe, apply rubber gasket with sticky base (included in the package).

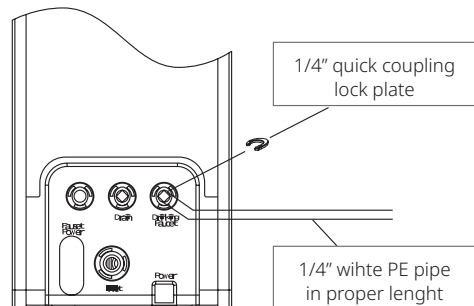
Install the drain saddle (6) on the drain pipe over the hole. Tighten screws on drain saddle with a screwdriver. Insert red tube into the connection on the clamp. Connect the other end of the red tube with concentrate outlet «Waste» on the connection panel of the rack. Insert 1/4" quick coupling lock plate between quick coupling and jack catch of pipe.



CAUTION!

If RO systems do not use air gap faucets, it is required that they be plumbed in with a physical air gap between the waste water outlet and the drain. This is so if the drain backs up, sewage will not push up into the RO system.

6. Connect one end of 1/4" white tube to the «Filtered» output on the connection panel of the rack. Insert the 1/4" quick coupling lock plate between the quick connect and the claw of the water inlet pipe.



3. FILTER INSTALLATION

7. Installation of the faucet.

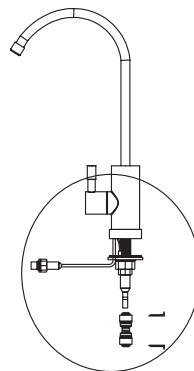
7.1. To install drinking water faucet **(3)** drill 15.5 mm (1/2") diameter hole for single way tap in a convenient location at the sink or countertop.



Caution!

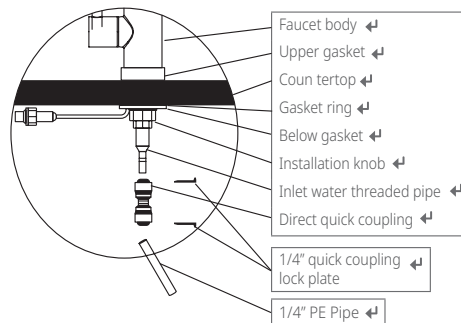
Metal shavings can damage your unit, remove them carefully as soon as you have drilled the hole. If the mounting surface is ceramic or stone, you may need a special carbide drill.

Mount the faucet on the sink or countertop as shown in the figure. Upper gasket, gasket ring, below gasket and installation knob on the faucet shank must fix the faucet firmly on the surface.

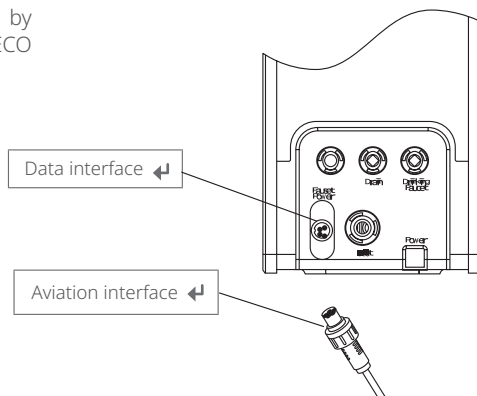


7.2 Push the direct quick coupling as deeply as possible to the bottom of the faucet's inlet water threaded pipe and insert the fixing clip.

7.3 After the faucet is installed, insert the other end of the 1/4" white tube of pure water pipe connected to the rack into the quick connection of the faucet and insert the fixing clip.

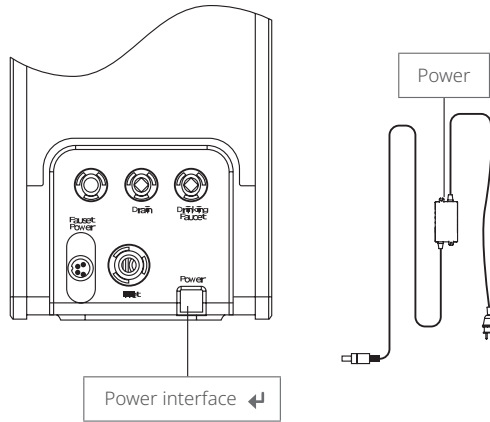


7.4 Take the faucet aviation connector and insert it into the special connector on the connection panel in the required direction, and fix it by screwing it with a plastic ring (for MO3600PECO and MO3600MPECO).



3. FILTER INSTALLATION

8. Connect the power adapter to the power output on the connection panel of the rack.

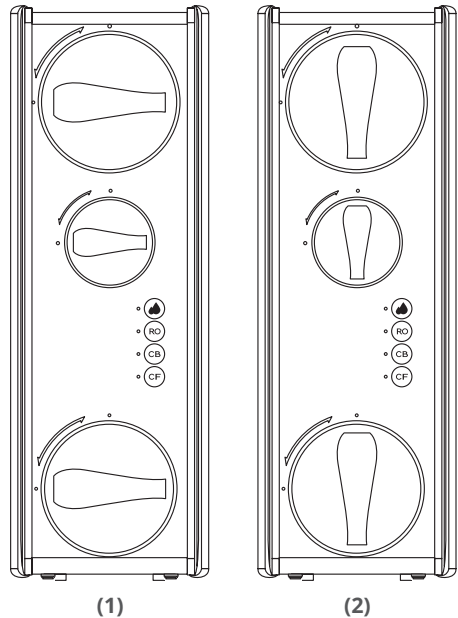


Be sure to remove the plastic caps from the inlet and outlet of the filters before installing the filters.

9. To install the filters, present each filter in its respective housing with the handle in a horizontal position **(1)**:

1. The CF filter cartridge is installed on the first stage CF of main body tank;
2. The RO filter cartridge is installed on the second stage RO of main body tank;
3. The CB or MCB filter cartridge is installed on the third stage CB or MCB of main body tank.

Insert firmly all the way and turn the handle 90 degrees clockwise. After installation, the filters should be as shown in position **(2)**.



3. FILTER INSTALLATION

3.5. FIRST TIME USE

1. Turn on the feed water valve **(4)** (see section (2.3) for reference numbers).
2. Connect the machine to the power supply. When the machine is powered on, the buzzer will sound for 0.1 seconds, and the four indicator and the indicator on the purified water faucet will light up in turn (blue-violet-red) for 1 second;
3. The machine will automatically wash for 5 mins. During washing, the filter life indicators **(2-4)** are constantly lit in blue, and the system indicator **(1)** flashes red. The main part of the water is draining (for MO3600PECO and MO3600MPECO).
4. Flush for 30 mins after washing. Open the purified water facet **(3)**. During flushing, the filters lifetime indicators **(2-4)** lights are always on, and the system indicator **(1)** light flashes blue (or as an indicator **(1)** is also a water quality indicator it flashes according to the present water quality situation), faucet indicator **(5)** is also flashes blue.
5. When washing, be sure to carefully check the tightness of all parts of the product, wipe the connection points with a paper tissue to see if the paper tissue is wet. Check whether the water pipes are installed correctly and completely.
6. When the flushing is complete, turn off the purified water faucet **(3)** and make sure that the faucet does not leak, then the machine debugging is completed.
7. After washing, the whole machine enters the normal water-making state, and the system indicator **(1)** and faucet indicator **(5)** are always blue during water supply . At this time, if you have no need for water, turn off the faucet.

4. STEPS AFTER INSTALLATION

VERIFICATION OF THE UNIT'S OPERATING PARAMETERS

1. Measure recovery (proportion of supply water that becomes purified). You will need 1 L (1 quart) measuring cup and a stopwatch.
Open faucet **(3)** and measure time that the unit takes to produce 1 L (1 quart) of permeate (purified water), then close faucet **(3)**. Write down the result (t_{Permeate} in the equation below).
Disconnect the red tube connected to sink drain from drain saddle. Open faucet **(3)** and measure time that the unit takes to produce 1 L (1 quart) of concentrate (waste water), then close faucet **(3)**.
Write down the result ($t_{\text{Concentrate}}$ in the equation below). Calculate recovery using formula:

$$R = \frac{t_{\text{Concentrate}}}{t_{\text{Permeate}} + t_{\text{Concentrate}}} \times 100 \%$$

Where t is the number of seconds to obtain 1 L (1 quart) of water, R is recovery.

2. Measure TDS of supply water and TDS of purified water using a calibrated TDS meter.

4. STEPS AFTER INSTALLATION

3. Check the operation of the inlet solenoid valve. When closing the inlet valve **(4)**, after 1.5 minutes (90 seconds), the low pressure switch is activated, the inlet valve is closed, and the pump stops, the corresponding sound and light indication is activated (for MO3600PECO and MO3600MPECO) **(paragraph 6.6)** . When the purified water faucet is turned off, the high pressure switch is activated, the inlet valve is closed and the pump stops.
4. Check the unit for leaks.
5. Make record of commissioning in the maintenance log in paragraph 9 of this book.

5. USAGE

1. Domestic reverse osmosis system is designed for purification of cold water only.
2. To enjoy purified water of consistent quality, replacement filters should be replaced on time. Delay in the replacement of cartridges can lead to deterioration or destruction of the membrane. If the rate of filtration drops significantly and is not helped by replacing CF filter, you need to replace reverse osmosis membrane.
3. If you do not plan to use the system for a long time, it is recommended to shut off the water supply to the system and disconnect it from the power supply.
4. Water Pressure Check
Water should be supplied to the system at a pressure that matches the manufacturer's recommended parameters (usually 2-5 bar). If the water pressure is too low, the system may operate inefficiently, and if it is too high, it may damage the membrane. Using a water pressure reducer to adjust the pressure is mandatory.
5. Installing a Pressure Regulator Before the Reverse Osmosis System
The reverse osmosis system must be protected from high pressure and sharp pressure fluctuations, which may occur due to local water supply system characteristics. A pressure regulator must be installed at the system's inlet. The optimal working pressure for the system is 3.5 bar (52.5 psi). The absence of a pressure regulator may lead to damage to pressure-sensitive components and void the warranty.
6. Do Not Use the System to Purify Water Containing Oils, Solvents, or Aggressive Chemicals
Reverse osmosis is not suitable for purifying water containing organic solvents, oils, or other aggressive chemicals. Such contaminants can damage the membrane and reduce filtration efficiency. Specialized filtration systems are required for purifying water with such pollutants.
7. Cleaning External Components
To maintain cleanliness and safety of the system, clean the external components (e.g., the casing, connections) with a soft cloth dampened with a cleaning solution. Avoid using harsh chemicals that may damage the system's surface and components.
8. Monitoring System Operation
Periodically check the system's operation, monitor changes in performance. If the system starts

5. USAGE

working at reduced levels or there are unusual noises or smells, it may signal the need for immediate servicing or component replacement.

9. Record the Date and Work Done in the Maintenance Log During Each Service
For convenience and proper system operation, it is recommended to maintain a maintenance log. It should record the dates of cartridge, membrane, and other component replacements, as well as the dates of disinfection and other important maintenance tasks.

10. Check the System for Leaks
Check the system for leaks. If any leaks are detected, contact the service team.

Warranty Disclaimer:
The warranty does not cover damages caused by violation of operating conditions, such as using the system for purposes other than intended, improper maintenance or modifications, absence of a pressure regulator, or the use of water containing aggressive chemicals. Failure to follow recommendations regarding cartridge replacement, membrane replacement, water pressure checks, or disinfection may result in the loss of warranty.

5.1 REPLACEMENT FILTER

Replacement filter	Replacement filter lifetime / Pure water treatment capacity
CF Filter cartridge	12 months / 4 000 L
RO Filter cartridge	24 months / 8 000 L
CB Filter cartridge	12 months / 4 000 L
MCB Filter cartridge	12 months / 4 000 L

Warning. The replacement cycle of each filter element suggested for this system is an average value obtained according to the tap water conditions in different locations. If the local water quality is below average, the actual filter element life will differ from the recommended filter element life. If the filter element is prematurely clogged or defective, use the actual state of use as a basis for replacing the filter element.

* The service life of the membranes and cartridges and the frequency of their replacement depend on the quality of the incoming water.

5.2 THE PROCEDURE FOR CARTRIDGES REPLACING

Please replace the filter cartridge regularly according to the violet and red lights of the respective replacement filter lifetime indicator (2-4) or faucet indicator **(5)** (see section (2.3) for reference numbers).

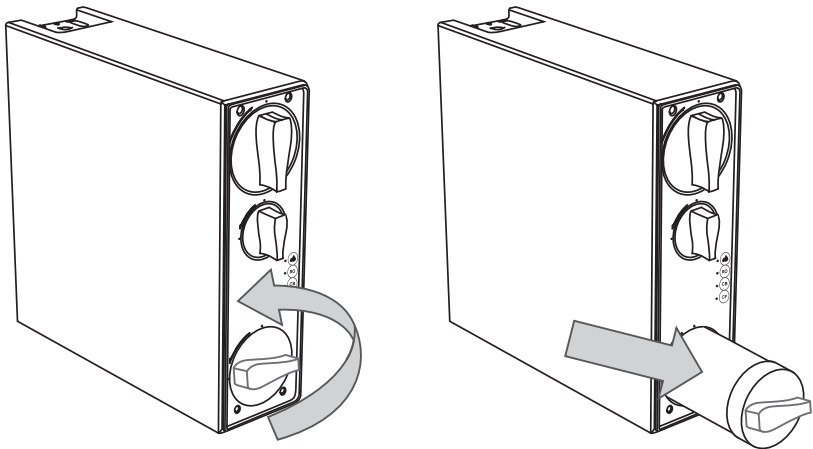
The system has FAST&DRY filter replacement technology. The replacement process does not need to cut off the water source. However, we recommend you close off the inlet water while replacing the cartridges.

5. USAGE

NE

To replace the cartridge you need to make easy steps:

1. Turn the exhaust filter counterclockwise.
2. Pull the exhausted filter towards you.
3. Present a new filter in its respective housing with the handle in a horizontal position.
4. Insert firmly all the way and turn the handle 90 degrees clockwise.
5. Reset the filter cartridge: long press the corresponding filter cartridge reset key for 5 seconds, the buzzer will sound once (1s), the corresponding filter cartridge life indicator will flash purple twice and then turn on blue. The system will start flushing the respective filter for 5-6 minutes (for CF and RO), indicator **(1)** flashes red. After this time expires, you must complete the rinsing of the filters (RO and CB) by opening the purified water valve **(3)**, and indicator 1 and the indicator on the purified water valve will flash in the color corresponding to the current water quality. The rinsing time for the RO filter is 30 minutes, and for the CB or MCB filter – 15 minutes. When the rinsing is complete, indicator **(1)** and indicator **(5)** on the purified water valve light up blue.



5.3 FILTER LIFETIME DISPLAY

Period of life	Time of life remaining (days)	Liters of capacity remaining	Lifetime display	Acoustic
Normal	> 15	> 150	Permanent blue	No alarm
There is little left	≤ 15	≤ 150	Permanent violet	One beep when opening the faucet
Exhausted	≤ 0	≤ 0	Permanent red	Double beeps when opening the faucet

5. USAGE

5.4 WATER QUALITY DISPLAY

Water quality	Tds range, ppm	Water quality display
Excellent	< 100	Permanent blue
Good	≥ 100 and < 150	Permanent violet
Bad	≥ 150	Permanent red

5.5 SYSTEM OPERATION MODES

Function	Action logic	Replacement filter lifetime indicator status	System indicator status
Power on	Buzzer beeps 0.1S, indicator display 3S	Blue-Purple-Red indicator light on 1S	Blue-Purple-Red indicator light on 1S
First time use washing	Automatic flushing 5 mins	Blue always lights on	Red flashing
	The user turns on the tap to go on running water for 30 minutes	Blue always lights on	Flashing according to current water quality status
Washing for a replacement filter	1. CF filter cartridge: automatic flushing for 5 minutes. 2. RO filter cartridge: automatic flushing for 5 minutes, open the tap and flush for 30 minutes. 3. CB or MCB filter cartridge: open the tap and flush for 15 minutes.	Blue always lights on	1. Water quality indicator light red flashing when flushing. 2. When opening the faucet to flushing, the water quality indicator will be flashing according to the current water quality.
User takes water	Water making action	Always light on (based on filter lifetime display)	Always light on according to the current water quality
Standby	The machine stops making water and goes into standby mode.	Always light on (based on filter lifetime display)	Go out
Fault	The whole machine does not work	See part 6.6	

5. USAGE

5.6 SMART FEATURES

SMART features	Display	Acoustic	Solution
Leak inside the machine (for MO3600PECO and MO3600MPECO)	System indicator (1) (see section (2.3) for reference numbers), filters lifetime indicators (2-4) and faucet indicator (5) flashing red	Beeps for 3 minutes	When the leak is eliminated, the alarm is deactivated, and it returns to the normal state
Protection by pump time	Filters lifetime indicators (2-4) and faucet indicator (5) flashing red	3 beeps	The pump has been working between 30 and 33 minutes. Disconnect and reconnect the electrical connection
Protection against lack of inlet water pressure (for MO3600PECO and MO3600MPECO)	Pressure loss while the system is running: the system runs for 90 seconds, then the pump stops, service life indicators (2-4) flash blue, open purified water valve (5) flashes red	3 beeps	Open the inlet water valve. Check the incoming water supply line for blockages
	No inlet pressure at system start-up: service life indicators (2-4) flash blue, open purified water tap (5) flashes red	3 beeps	Open the inlet water valve. Check the incoming water supply line for blockages
Protection by start / stop (for MO3600PECO and MO3600MPECO)	Filters lifetime indicators (2-4) and faucet indicator (5) flashing violet	4 beeps	Disconnect and reconnect the electrical connection

5.7 AUTOMATIC FLUSHING FOR MO3600PECO AND MO3600MPECO SYSTEMS

- The filter starts flushing the membrane element every time it is connected to the power supply
- The filter starts rinsing the membrane element 5 minutes after each water extraction
- The filter starts flushing the membrane element every 12 hours of inactivity

5.8 AUTOMATIC FLUSHING FOR MO3400PECO

- The filter starts rinsing the membrane element 5 minutes after each water extraction
- The filter starts flushing the membrane element every 12 hours of inactivity

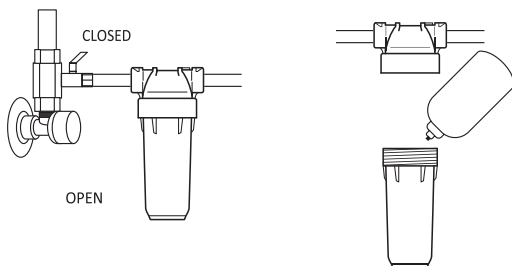
6. SANITIZATION OF REVERSE OSMOSIS FILTER

Necessary material:

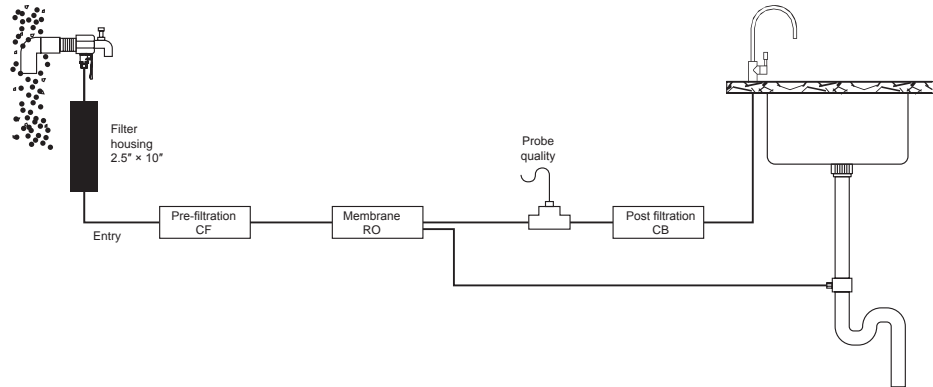
- Filter housing 2.5" x 10" and connectors
- 3% hydrogen peroxide (1 l)
- Brush
- Single-use vinyl gloves
- Easy-rinse soap or detergent
- Sanitizing spray
- Paper napkin

Carry out a sanitization of the equipment after filters replacement and continuous stand-by. The water used during sanitization must be potable water (from a public distribution network complying with the corresponding potability requirements). To do this, follow the steps below:

- Open faucet 3 and let water recirculate in order to renew the water inside the equipment.
- Close the inlet valve **(4)** (see section (2.3) for reference numbers) and open faucet **(3)** to decrease the pressure in the equipment.
- Use single-use vinyl gloves to handle sanitizing products.
- Remove the exhausted replacement filters for disposal and clean the inside of the housing and the connections with a brush (which must be kept clean and disinfected) together with Easy-to-rinse soap or detergent (low-sudsing) and suitable for cleaning surfaces in contact with food. Subsequently rinse the housings and connections correctly ensuring that all traces of detergent are removed.
- Change the filters and wash them as indicated in the corresponding section 6.2. To sanitize the equipment, the filters must be inside their housings.
- Disconnect the inlet tube to the system marked as **"Inlet"**, and insert the Filter housing 2.5" x 10" with connectors between the feed water valve **(4)** and the system's water **"Inlet"**.
- Once the assembly is installed, keep the feed water valve **(4)** closed. The Filter housing 2.5" x 10" must be empty.
- Pour 1 L of Hydrogen Peroxide into the Filter housing. Screw the samp correctly to its head.
- The feed water valve **(4)** and the faucet **(3)** must be closed. Connect the equipment to the electrical supply.
- Open the feed water valve 4 and the faucet **(3)**, allowing the system to start operating and letting the Oxygenated Water suck into it. When first potion of sanitizing liquid (about 300 ml) will run out close the faucet **(3)**. At this time the entire circuit contains sanitizing liquid.
- After 10 minutes open faucet **(3)** and let the water flow for 5 minutes.



6. SANITIZATION OF REVERSE OSMOSIS FILTER



- Pay special attention to sanitizing the faucet spout. Use the sanitizing spray (or, failing that, hydrogen peroxide, dosing it in such a way that it penetrates the faucet spout) and single-use blotting paper. Spray the spray on the faucet nozzle, rub the spout and faucet nozzle with the disposable paper and do not touch it directly with your hands.
- Given that sanitization and rinsing do not ensure the complete removal of carbon dust from new filters or sanitization residues, rinse the osmosis equipment with plenty of water, after each sanitization, circulating mains water of adequate quality for 5 minutes or more. Discard the first 5 liters of water before consuming it.
- Remove sanitizing installation when disinfection is finished
- At the end, take a drying kitchen paper, dry all the parts that may have gotten wet and especially the leak detection probe.

7. TROUBLESHOOTING

Problem	Cause	Solution
Fitting leak	Tube is not joined tightly	Remove and rejoin the tube
Drain saddle leak	Drain saddle is not installed properly	Reinstall drain saddle as described in paragraph 3.3 in this manual
Water runs too slowly from the faucet or slows down substantially a few seconds after the faucet is opened	CF filter is dirty	Replace CF filter
	Contaminated membrane	Measure permeate flow rate by opening the faucet. Use a measuring cup to check if the time it takes to produce 1 L drinking water is 40 seconds. If it took twice as long or more to produce 1 liter of water, the membrane may need to be replaced
	Drain saddle is not installed properly	Straighten the tube
High noise	Water supply pressure too high	If necessary, install a pressure regulator or refer to a plumber. Contact the service center
The system keeps switching on and off and will not stop	Surges in feed water pressure just above low pressure switch setting	Eliminate pressure surges. Check supply water piping for clogs and other obstructions and eliminate if present
The system will not switch on	Feed valve or main shutoff valve is closed	Open all valves on supply water pipes. Check for clogs/ obstruction
	Defective low pressure switch High pressure switch is	Low pressure switch defective Replace the switch. Check the contact group
	Defective high pressure switch	Low pressure switch defective Replace the switch. Check the contact group
	Pump overrun protection has been triggered	Disconnect and reconnect the electrical connection
The system will not switch off	High pressure switch failure	Replace high pressure switch. Verify proper electrical contact
The system has switched off but continues to send water to drain	Solenoid valve failure	Replace the solenoid valve

8. SERVICE RECORD

Manufacturer strongly recommends to keep record of your system’s operation. Information recorded in this log will help specialists carry out maintenance or repair if needed. Also, this information can be requested by the manufacturer in case any malfunctions are encountered.

COMMISSIONING

Commissioning date, DD: MM: YY	
Main pressure	
Sanitization performed, YES / NO	
Recovery, %	
Recommendations	
Further information about installed equipment: name, date of installation (Example: pressure regulator; pump, POE water filter etc.)	
Seller’s identity	
Installer’s identity	

Installation works were completed. The product was tested and is fully functional. No claims as to product quality and/or installer’s performance were encountered

Owner

Signature / Name

Installer

Signature / Name

8. SERVICE RECORD

MAINTENANCE LOG

Type of job	
Consumables used for the job: product, date of manufacture, serial number (example: cartridges, membrane)	
Sanitization performed, YES / NO	
Recovery, %	
Recommendations	
Date of maintenance, DD:MM: YY	
Servicing company name	
Installer's name	
Servicing company contact information	
Signature	

9. ENVIRONMENTAL AND HEALTH SAFETY

The product does not have any chemical, radiological, electrochemical impact on the environment. The product is not regarded as hazardous by their impact on the human body, meets requirements of relevant sanitary legislation for its intended scope of use.

10. PURCHASING

Desirably, the product should be purchased from authorized sales establishments. When buying, check integrity of packaging, absence of mechanical damage and other defects, contents of the system (without opening the plastic bags), availability of user documentation, particularly this manual.

11. TRANSPORTATION AND STORAGE

Shipping of the product may take place by any means of transport (except unheated during cold seasons in colder climates) in accordance with the rules of transportation of goods, applicable to each type of transport. Observe handling labels when handling and shipping the product. Product should be stored indoors with protection from mechanical damage, impact of moisture and aggressive chemicals. Store this product in the manufacturer's original packaging at ambient temperatures ranging from 5 °C to 40 °C (from 41 °F to 104 °F) and relative humidity up to 80%, at least 1 m (3.3 ft) away from heating equipment.

12. WARNING

Dear User,

Before using your reverse osmosis system, please carefully review the following warnings and recommendations. Adhering to these instructions will not only ensure the correct operation of your system but also help you avoid serious issues that could result in equipment damage and loss of warranty coverage.

1. User Manual and Local Standards

Before installing and using the reverse osmosis system, carefully read the user manual, local plumbing standards, and regulations, and strictly follow all instructions. Proper adherence ensures safe and efficient system operation and prevents possible injuries or damages. It is recommended to consult qualified professionals for system installation and related tasks.

2. Pressure Protection

To ensure proper system operation, it is essential to protect it from high pressure and sudden pressure surges in the water supply network. A pressure regulator must be installed at the inlet. The absence of a pressure regulator may damage system components and void the warranty. The optimal operating pressure for the system is 3.5 bar (52.5 psi).

3. Maintenance Log

The manufacturer strongly recommends maintaining a technical maintenance log (Section **9.1**) to record all performed activities, such as commissioning, cartridge replacement, membrane replacement, disinfection, and other procedures. This information is vital for technical specialists diagnosing your reverse osmosis system and may be required for warranty claims or troubleshooting.

4. Installation by Qualified Professionals

The system must be installed and commissioned exclusively by qualified specialists. It is designed solely for cold water purification.

5. Water Analysis

Before using the system, conduct an analysis of the incoming water at a certified laboratory to assess its quality and ensure compliance with the parameters (Section **2**) necessary for the system's proper operation.

12. WARNING

Requirements for water supplied to the reverse osmosis system:

Indicator	Value
pH	6.5–8.5
Mineralization	<1500 ppm
Hardness	<500 ppm CaCO ₃ (<28 °dH)
Free chlorine	<0.5 ppm
Iron	<0.3 ppm
Manganese	<0.1 ppm
Chemical oxygen demand	<5 ppm O ₂
Total bacterial count (TBC)	<50 CFU/mL
E. coli titer	<3

6. Water Disinfection

Do not use the system to purify microbiologically unsafe water or water of unknown quality without proper prior disinfection.

7. Water Pressure Check

Water must be supplied to the system at a pressure recommended by the manufacturer (2–6 bar). The use of a pressure reducer is mandatory.

8. Leak Inspection

After installation, check the system for leaks, especially during the first two weeks of use. Perform periodic checks afterward.

9. Regular Cartridge Replacement and Maintenance

Pre-filter cartridges should be replaced at least every six months. Timely replacement helps prevent membrane damage and ensures effective system operation (Section 6).

10. Reverse Osmosis Membrane Replacement

To maintain consistent water quality, the reverse osmosis membrane must be replaced every 1–1.5 years. If the TDS level in the purified water exceeds 15 mg/L, this signals the need for membrane replacement and consultation with qualified service support (Section 6).

11. Disinfection After Extended Downtime

If the system has not been used for more than two weeks, disinfection and complete replacement of filter elements are required (Section 7).

12. Shutting Off Water Supply

In case of extended absence (more than two days), it is recommended to shut off the water supply to the system to prevent leaks or damage.

13. Limitation of Liability

The manufacturer is not responsible for any incidental or indirect damages caused by non-compliance with explicit or implied warranty conditions or any device defect. This includes damage to the device, loss of time, inconvenience, damage to personal property, loss of income,

12. WARNING

commercial losses, shipping costs, travel expenses, phone charges, or other similar damages.

14. Warranty Attention

Improper installation, the absence of a pressure regulator, untimely component replacement, or failure to follow instructions will result in warranty voidance.

Adhering to these recommendations will ensure the stable operation of your reverse osmosis system and protect you from unwanted issues.

13. WARRANTY

We are grateful that you purchased the reverse osmosis system manufactured by Ecosoft. We hope that our system will serve you for a long time and provide your family with the enjoyment of clean drinking water.

Warranty Period

The warranty period for the product is 12 months from the date of sale through the retail network (unless otherwise specified in the product warranty card).

Warranty Conditions

The manufacturer guarantees that this water purification system is free from manufacturing defects, and these defects will not appear during the warranty period, provided the system is installed and operated according to the technical requirements and operating conditions.

Important!

Before using the system, please carefully review:

- The installation and operation manual of the reverse osmosis system,
- The warranty terms,
- Check the accuracy of the warranty card and the availability of a document confirming the purchase (receipt, invoice, delivery note, commissioning report).

Warranty Card

The warranty card is valid only if:

- The model is correctly specified, the date of sale is indicated,
- Clear stamps of the selling company are present.

Manufacturer's Responsibility

The manufacturer is not responsible for any damages caused by a defect in the device resulting from the customer's compliance with the requirements of this manual or after the expiration of the warranty period.

13. WARRANTY

Protection from High Pressure

To ensure proper operation of the system, protection from high pressure and sudden pressure changes in the water supply network is necessary.

It is required:

- A pressure regulator must be installed at the inlet,
- The optimal operating pressure for the system is 3.5 bar (52.5 psi).

Important!

The absence of a pressure regulator may lead to damage to the system components and void the warranty.

Conditions for Loss of Warranty

Incorrect installation, absence of a pressure regulator, untimely replacement of components, non-compliance with water input requirements, or violation of instructions will result in the loss of warranty.

Warranty obligations do not cover:

- Damage caused by normal wear and tear,
- Breakdowns due to improper use,
- Damage caused by modifications, changes, or repairs made by the buyer or a third party,
- Consumables (cartridges, reverse osmosis membranes, post-carbon filter, remineralizer, and other replaceable elements), whose service life depends on water quality and operating conditions,
- Damage caused by external factors: pressure surges, temperature fluctuations, contamination, mechanical or chemical impacts,
- Electrical equipment without grounding or a voltage stabilizer in the network,
- Failure to comply with storage, transportation, or operation conditions,
- Failures and malfunctions due to untimely replacement of replaceable components or use of elements from other manufacturers.

Important!

Any claims regarding water quality, taste, and odor of water purified using this filter will only be accepted if supported by an analytical protocol conducted by an accredited laboratory.

Termination of Warranty Obligation

The warranty obligation is terminated:

- If the product is used for purposes other than its intended use,
- If the operating conditions specified in the passport and operation documents are not followed,
- If the product exceeds the specified technical norms for use (see item 2),
- If safety rules, storage, or transportation conditions are violated,
- If the product has been repaired or tampered with by an unauthorized service center,
- If the pressure regulator is not installed before the system.

13. WARRANTY

We recommend using the services of authorized service centers for installation and commissioning of the system. If you choose self-installation or installation by third-party service engineers, the warranty may be voided if:

- The system is incorrectly installed, resulting in improper operation or leakage of components,
- The system operates incorrectly due to violation of the sequence of actions during commissioning,
- The pressure regulator is missing before the system.

Following these recommendations will ensure the stable operation of your reverse osmosis system and protect you from unwanted problems.

After performing warranty works, the supplier prepares and sends the customer a report listing the completed works and materials that do not require payment. The customer must sign the report and return one copy within 5 calendar days from the moment of receipt.

If the report is not returned or no objections are raised within this period, the work and materials are considered accepted by the customer without comment.



WARNING!!!

In the case of self-installation of the system, the manufacturer is not responsible and does not accept any claims that may arise due to incorrect installation and improper operation of the system as a whole.