



**The Clear Choice**  
Water Filtration Systems

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# Instruction manual

*Crystal Clear Water  
for You and Your Family  
Every Day!*



**Made in EU**

# Reverse Osmosis System

## 1. Safety instructions

### ATTENTION! Do not use the system with biologically contaminated water and of unknown origin.

The filtration system should only be installed by a trained technician. Use only genuine **Aquafilter®** replacement parts and accessories.

Following this manual thoroughly will guarantee:

- breakdown free use,
- honoring product warranty.

- 1) Read carefully this Instruction Manual before starting system installation.
- 2) Check if all elements needed for the installation are included with the system. (refer to point 2 "Box Content").
- 3) Remember to conduct system flushing right after the installation process is completed and each time after filter cartridge replacement (including sediment and in-line filter cartridges or RO membrane element) as well as after longer periods of time (for instance vacation periods) when the system has not been used Next, leave the system idle for 5-6 hours allowing the filtration environment to set in.
- 4) Before disconnecting any tubing: remove safety clips from quick connectors and next press the connector's flange and pull the tubing out.
- 5) During disconnecting and connecting of tubing be sure not to break it (correctly installed tubing should be inserted 1.5 cm inside of quick connector).
- 6) Do not move or rotate quick connectors which are installed in membrane housing during disconnecting or connection of tubing.
- 7) Secure quick connector with safety clip after tubing has been inserted.
- 8) For sealing plastic components use only Teflon tape!
- 9) Do not use strong detergents when washing filter housings. Rinse filter housings with clean water each time before installing new filter cartridges.
- 10) When installing new in-line filter cartridge, remember about inserting it according to the direction of water flow (refer to direction arrow displayed on each filter cartridge).
- 11) Wash your hands thoroughly before and after filter cartridge or membrane element replacements.
- 12) Remove RO membrane out of packaging only few moments before its installation.
- 13) In case system is leaking, disconnect it from its water supply.
- 14) 4-way valve needs to be cleaned each time after cartridge replacement is completed (or at least every 6 months).
- 15) System disinfection should be conducted ones a year. ATTENTION! Do not use running water for that purpose since it can be contaminated.
- 16) Water that will undergo Reverse Osmosis process must meet certain conditions (refer to point 4).
- 17) In all cases of product returns, the system must be returned in its original packaging – otherwise the return will not be accepted.
- 18) Manufacturer is not responsible for any damages resulted from the use of this product if used for other purposes than filtration of potable water.
- 19) The producer does not hold any responsibility for printing errors.
- 20) We reserve the right to introduce change or amendments of the provided technical informations at any time and without the necessity of a prior announcement.

Use only genuine **Aquafilter®** replacement parts, filter cartridges and membrane elements. In case of use of other manufacturers' parts, Aquafilter is not responsible for any damages caused in the course of product use of.

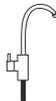
## 2. Reverse Osmosis components



Reverse Osmosis System



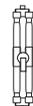
Pressure tank



Single faucet



Pressure gauge



Flush Valve



Drain flow restrictor



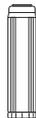
Pump



Wrenches



Block activated carbon cartridge



Granular activated carbon cartridge



RO membrane



Membrane housing



In-line cartridge



Polypropylene fiber cartridge



Centralizing ring



Valve



Teflon tape



Tubing



Clamp



Tank Valve



Pressure regulator



Four-way valve



High pressure switch



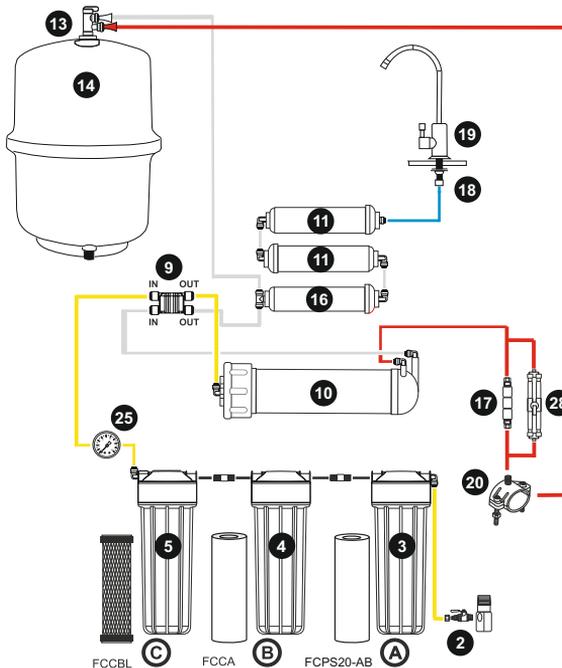
Low pressure switch

### 3. How to Clean & Replace Cartridges in your undersink or Reverse Osmosis Water Filter

These are the step by step instructions for installing or replacing water filter cartridges and sanitizing the filter housings in your water system. It is highly recommended that you clean and sanitize your system once a year.

- 1 - Close the shut-off valve (2) that controls the flow to the system.
- 2 - Open the faucet (19) where the filtered water comes out to relief the pressure.
- 3 - Loosen filter housings (3-5) either by hand or with a housing wrench. Be careful to keep filter housing upright as it is full of water.
- 4 - Remove all housings and cartridges (A,B,C).
- 5 - Notice the O-rings in the filter housings. Some manufacturers recommend changing o-rings each year. This may not always be necessary, but having replacement o-rings on hand is always a good idea. Remove the o-rings so they, and their groove, can be wiped clean. Replace each o-rings in its groove making sure it is properly seated. A positive seal will not be possible if the O-ring is missing or not seated properly.
- 6 - Inspect old filter cartridges (A,B,C) for excessive sediment build-up before discarding. If high sediment is detected, you might need to change the cartridges more frequently or consider adding an inexpensive sediment pre-filter cartridge to your system.
- 7 - Clean filter housings (3-5) with warm soapy water and a soft bristled brush. Clean inside the filter housing caps and rinse with clean water.
- 8 - Prepare a sanitizing solution using (4.0L) of clean water in a clean bucket. Add 1/3 teaspoon of unscented household bleach to the water, add 250 ml of this sanitizing solution to each filter housing sump (lower part), or use Aquafilter sanitizing solution special cartridge **PDEZYN2** for easy sanitizing solution.
- 9 - Connect housing (3-5) sumps back together with caps sanitizing solution, but no cartridges.
- 10 - Open the shut-off valve (2) and allow housings to fill with water.
- 11 - When water starts to flow out of the faucet, close the faucet.
- 12 - Allow water and bleach to contact the housings, lines, and faucet for 30 minutes.
- 13 - After 30 minutes, remove filter housing sumps using procedure described above: shut-off the valve (2), remove the housings (3-5), and discard any sanitizing solution in a drain.
- 14 - Regardless of the current order of your cartridges, when using these cartridges, place the (C) Carbon Block Cartridge (with netting) in the 1st housing & the GAC (B) type Cartridge (with plastic casing) in the 2nd. Disconnect the tubing and place the end of tubing in empty bucket.
- 15 - Open the valve (2) and run water through the cartridges for 5 minutes to flush & activate the filters. **Notes:** Cartridges may contain a very small amount of carbon fines (very fine black powder). After installation, follow the instructions for flushing the cartridge to remove the fines before using the water. After flushing turn valve off, install all cartridges in right order.
- 16 - Turn valve (2) on. Close the faucet (19) and check for leaks.

#### REVERSE OSMOSIS SYSTEM



#### System Components

- 2.) Angle Stop Valve
- 3.) Melt Blown Sediment Pre Filter
- 4.) Softening cartridge
- 5.) Carbon Block Pre Filter
- 9.) Automatic Shut-Off Valve
- 10.) RO Membrane Housing
- 11.) Mineral Cartridge
- 13.) Tank Valve
- 14.) Bladder Tank
- 16.) Inline Granular Carbon Post Filter
- 17.) Drain Flow Restrictor
- 18.) Quick-Connect Faucet Connector
- 19.) Reverse Osmosis Water Faucet
- 20.) Drain Clamp
- 22.) Main Water Inlet Valve
- 25.) Pressure Gauge
- 28.) Flush Valve

- Yellow tube - pre filtration water
  - White tube - tank
  - Red tube - dirty water
  - Blue tube - clean water
- A. First stage cartridge  
 B. Second stage cartridge  
 C. Third stage cartridge



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**WARNING:** Do not use with water that is micro biologically unsafe or of unknown quality without adequate disinfection before or after the system.

## 4. Installation of Reverse Osmosis components

### How to Install Pressure Booster Pump kit

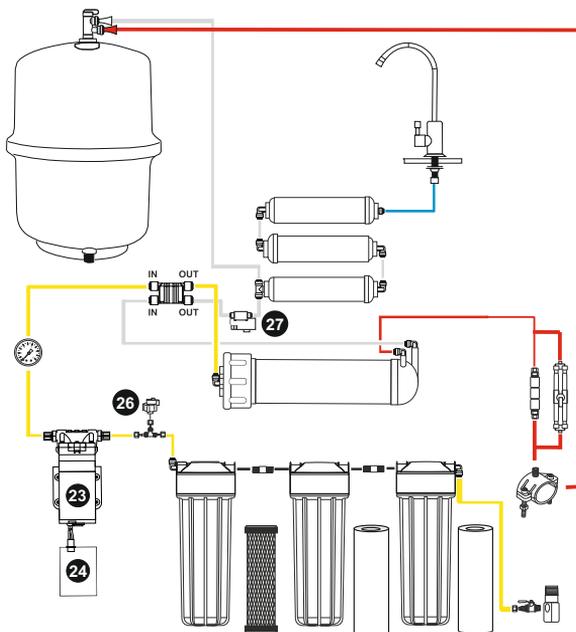
Mount the Pump kit in relation to the RO System as indicated in the figure shown below.

- 1 - Close the shut-off valve that controls the flow of the system. Open the ledge faucet and keep it open to relieve pressure. Booster Pump (23) should be installed on the input line to the RO membrane, between low pressure switch (26) and four - way valve (9) (prevents a decline in system performance due to unfiltered particles that could damage the pump).
- 2 - High pressure switch (27) should be installed between the Four-way valve (9) and the tank (14). Low pressure switch (26) must be installed prior to the pump.
- 3 - Between the input of the pump and the water supply connection should be limited to 20 feet (6 meters) in case the water pressure is less than 30 psi. For greater distances or lower pressure, increase the tubing diameter from the water source.
- 4 - Locate the pump and note the flow direction arrow on ht front of the pump head. When making the plumbing connections to the pump head be sure that the water flow corresponds with this arrow.
- 5 - Cut the inlet and outlet tubing where convinient. Use the pump to reconnect the two cut ends.
- 6 - Connect the electrical wires from the pump and the transformer into the High pressure switch.
- 7 - Locate the male connector of the booster pump and plug it into the the female connector on the transformer.
- 8 - Turn inlet water supply on and check for leaks.

#### REMARKS

- The recommended operating pressure is 5.5 bar (80 psi). Pump pressure will change in accordance with variations of incoming water pressure.
- The input and output tubing attached to the booster pump will vibrate. This is considered normal.
- Mount pump in a dry place and away from any source of heat. Do not subject pump to extreme temperatures out of the operating ambient temperature range between 0 to 46 °C (or 32 to 115 °F)-Avoid any sharp bends in tubing that is leading to of from the pump. This may cause crimp and restrict the flow. Use elbow connectors if necessary

#### REVERSE OSMOSIS SYSTEM equipped with pressure booster pump kit



#### Booster Pump kit Components

- 23.) Delivery Pump
- 24.) Transformer
- 26.) Low pressure Switch
- 27.) High Pressure Switch

- Yellow tube - pre filtration water
- White tube - tank
- Red tube - dirty water
- Blue tube - clean water

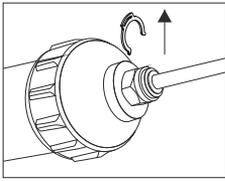


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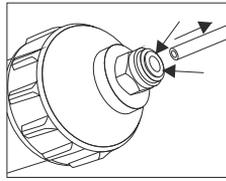
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**IMPORTANT NOTICE:** In case your RO System is equipped with a booster pump, follow all instructions described for Reverse Osmosis Water Filter in Section 3 for **Cleaning and replacing cartridges** - Closure of shut-off valve will stop the water flow into the system as well as the booster pump (23) through the automatic opening of the Low pressure switch (26)

## How to Install & Replace In-line cartridges



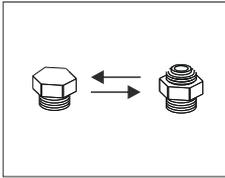
(A)



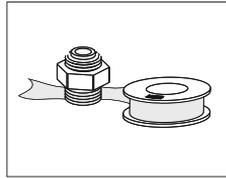
(B)



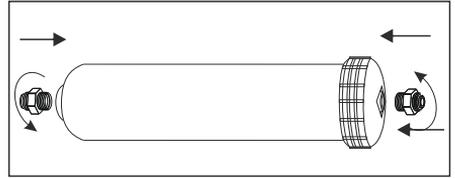
(C)



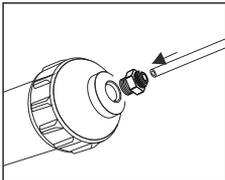
(D)



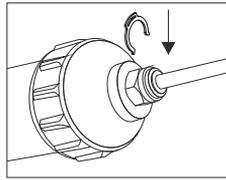
(E)



(F)



(G)



(H)

### Disconnecting elbow connector from filter cartridge:

- A) Remove safety clips from quick connector.
- B) Push quick connector's flange symmetrically and pull the tubing out.
- C) Unscrew inlet and outlet connectors from old filter cartridge.
- D) Inlet and outlet closures will be replaced by system elbow connectors.
- E) Take the system elbow connectors and straightaway apply multiple layers of new Teflon tape (ensuring that Teflon tape is wound in the opposite direction to the direction connector will be installed)
- F) Screw elbow connectors back to In-line cartridge
- G) Put the tubing into the connector (not required pushing connector's flange)
- H) Place safety clips in quick connectors

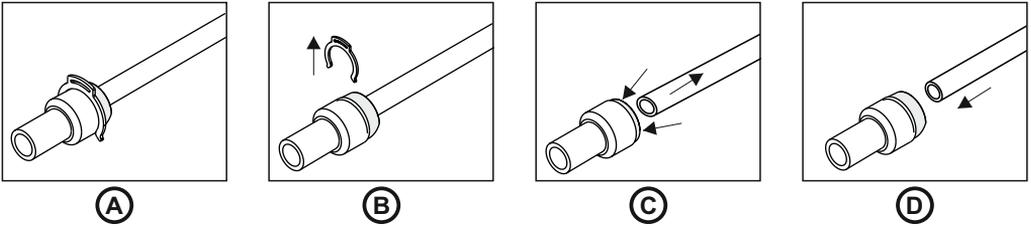
### Connecting elbow connector with filter cartridge:

- 1) Screw the elbow connector back to new filter cartridge.

**NOTE! Do NOT remove elbow connector after the installation has been started. Stopping and removing (unscrewing) the element may result in inadequate connection and water leak.**

## 5. Installation of Reverse Osmosis components

### How to Install Quick Connectors



Disassembling the bushing from the cartridge:

**A)** Remove the safety clip from the quick connector (B).

**B)** Symmetrically press the collets of the quick connector and pull out the tubing (C).

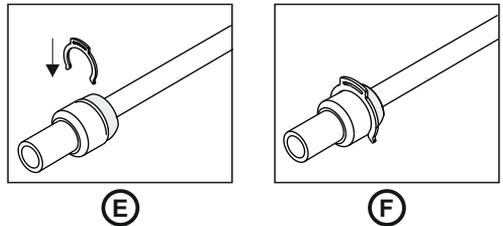
**C)** Unscrew the coupling from the old cartridge (at the water inlet and outlet).

**D)** Remove the old pipe tape from the coupling thread.

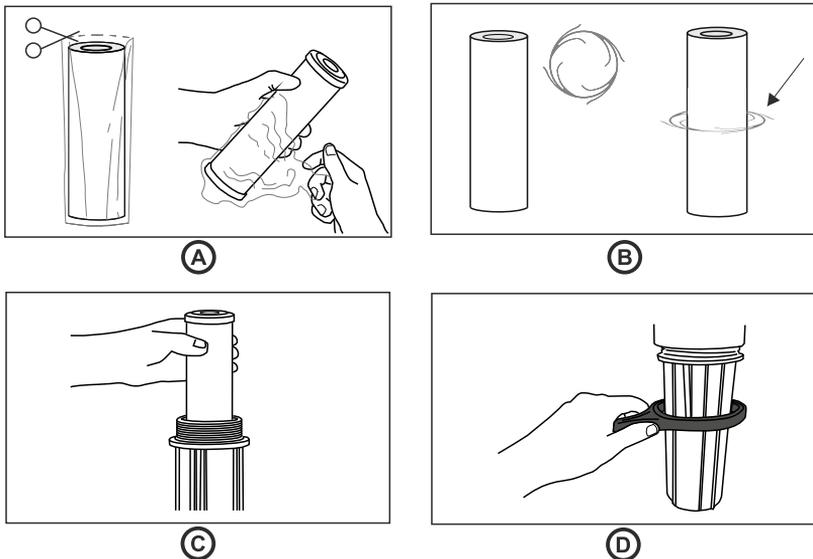
**E)** Roll several layers of pipe tape on the coupling thread. The thread should be placed in the direction reverse to the direction in which the coupling is screwed in (fig. 5).

**F)** Mounting the coupling in the cartridge:

**G)** Screw the elbow connector into the new cartridge. Watch out not to reverse the elbow connector. Reversing the screwed element may unseal the connection and lead to water leaks



### How to Install & Replace cartridges for filter housing



**Installing a filter cartridge in filter housing:**

**A)** Remove the filter cartridge from its plastic envelopment

**B)** Place the centralizing ring in the cartridge in a half-way position

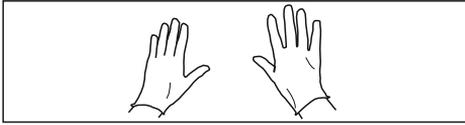
**C)** Locate the cartridge inside the filter housing

**D)** Connect the filled-housing with its head and ensure the closure with the wrench

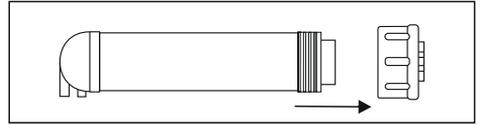
**IMPORTANT NOTE:** For replacing any filter cartridge after operating the system, please follow the instructions described in **Section 4. How to Clean & Replace cartridges in your undersink or Reverse Osmosis Water Filter**

## 5. Installation of Reverse Osmosis components

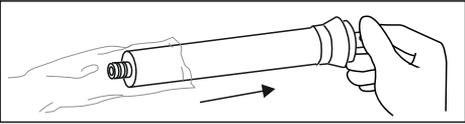
### How to Install & Replace Reverse Osmosis membrane



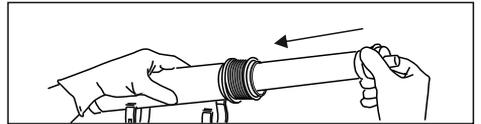
(A)



(B)



(C)



(D)

For installing the RO membrane ensure your hands are clean. It is recommended to wear gloves (e.g. latex). (A)

1) Remove the safety clip and pull the inlet tubing to the membrane cap out. (B)

2) Loosen and remove the RO membrane cap using the wrench. (B)

3) Using scissors, cut the end of the plastic envelopment from the membrane. Leave it in the wrapper so you do not touch the membrane directly with your fingers. (C)

4) Insert the membrane all the way into the housing (D)

5) Check that the o-ring is properly located and install the cap onto the RO membrane housing. Tighten cap firmly by hand and ensure the closure with the wrench..

### How to Install faucet

1) Drill a 12 mm hole for nipple (1) in the kitchen sink worktop (in case of enamelled sinks the manufacturer recommends drilling the holes in the construction supporting the sink) or in the kitchen worktop

2) Put metal washer (2) and the rubber seal (3) on the threaded faucet connector.

3) Mount the faucet in the previously drilled hole.

4) From the underside of the countertop, put washers (4, 5), and screw it with a nut (6).

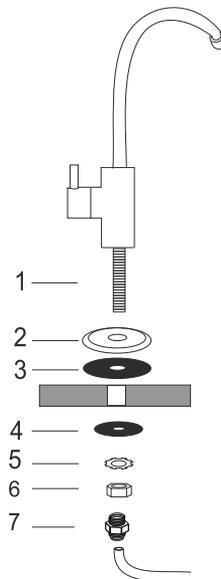
5) Mount the tubing supplying the water, connecting the faucet with system: Install the faucet adaptor fitting (7) and tighten until the fitting bottoms out on the o-ring inside to create the seal. Ensure it with the wrench.

**NOTE:** To seal the threaded connections, use teflon tape during the installation. This doesn't apply to threads for plastic and faucet nuts.

### Cartridge Disposal information

Usually the filter has to dry for a couple of days first. Then you can wrap it in plastic and ship it in an appropriate container.

Recycle if possible. Otherwise throw in trash.





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