

AQUAPHOR®

water filters

AQUAPHOR CRYSTAL

AQUAPHOR CRYSTAL H

AQUAPHOR CRYSTAL A (VERS. 2)

AQUAPHOR CRYSTAL A (VERS. 3)

AQUAPHOR CRYSTAL ECO

AQUAPHOR CRYSTAL ECO H



OPERATION MANUAL

Aquaphor Crystal water filter is a new generation water treatment solution providing multistage treatment of drinking water.

AQUAPHOR TECHNOLOGIES



AQUALEN™

Unique ion-exchange fiber. Fully eliminates heavy metals and permanently absorbs harmful impurities. Russian Federation patent №2262567.



CFB (CARBFIBER BLOCK)

"Carbon Fiber Block" (CFB) is a technology of manufacturing filtering media of different degree of porosity for any level of water contamination. RF patent №2282494.



SILVER IN AQUALEN™ FIBER

Method of dynamic silver capturing. It allows to utilize active silver as a bactericide. RF patent №2172720, US patent 6.514.413.



CLICK & TURN: EASY USE

Easy cartridge replacement. Clean and safe maintenance. RF patent №2333779.



STC: ABSOLUTE SAFETY

Materials used in Aquaphor water filters meet "Food Grade" global safety standards.



TESTED FOR 250,000 CYCLES

It can hold cyclic pressure (water-hammer effects) in 250,000 cycles. EN №14898.

DELIVERY SET

Housing	1 pc.
Connection tube	1 pc.
Connection tube with a cone sleeve insert	1 pc.
Connection unit	1 pc.
Gasket	1 pc.
Clean water tap with a set of gaskets and adaptors (see Installation Scheme)	1 pc.
Set of replacement filter cartridges (installed in the manifold)	1 pc.
(only in Aquaphor Crystal H, Aquaphor Crystal ECO H) 1 pc.	
Adaptor for recovery of cartridge KH (only in Aquaphor Crystal H, Aquaphor Crystal ECO H) 1 pc.	
Operation manual (product certificate)	1 pc.
Packaging	1 pc.

INSTALLATION

Attention! Measure the water pressure before installation of the filter. If it exceeds 0.63 MPa (6.5 atm), install a pressure reducing valve (not included in the water filter set).

Select appropriate location for the clean water faucet (1), water filter (2) and location for connecting the unit (3) to incoming water line (see the figure). Note that the connecting tubes are loose and not bent. It is recommended to fixate the slack sections of the tubes in such a way as to avoid damaging or connection errors that may reduce the flow rate.

The water filter must be placed at a distance or isolated from any heat sources (kitchen ovens, boilers, hot water supply pipes, dishwashers or washing machines, etc.).

1. Close the cold water main and discharge pressure by opening the tap.

2. Install the connection unit (3) between the cold water main and the flexible John Guest tube.

Attention! To prevent damage to the connection (3), do not apply significant force during installation. No reclamations shall be accepted if mechanical damage is done to the connection unit (3) during inappropriate installation.

3. Drill a 12 mm hole for the clean water faucet in the place selected.
4. Assemble the decorative support (15), rubber gasket (5) and rubber washer (6) on the tap threaded end piece (1).

Attention! Only the clean water faucet (that is included) (1) is permitted for installation. Use of other faucets shall release the manufacturer from any responsibility for the possible consequences of their use.

5. Insert the faucet end piece (1) into the drilled whole. Put on the plastic washer (7), metallic (stopping) washer (8) and tighten them with the nut (9).
6. Put on the tube with pressed-in brass sleeve (10) the cap nut (12) from the clean water faucet set.
7. Connect the faucet (1) with the end of the tube with pressed-in brass sleeve (10) and tighten it with the fastening nut (9).
8. Insert the other end of the tube not containing the sieve into the filter, guided by the arrow "exit". Fixate the tube with the stopping clip (13).
9. Take the tube without a pressed-in metal sleeve. Wet one end of the tube with water, insert it into the filter to a stop according to the arrow "enter" and fixate it with the stopping clip.
10. Assemble the water filter (2) according to the cartridges installation order (see Section "Cartridges Installation").

Attention! Wetted tubes are inserted to a stop, minimum depth of 15 mm. Make sure that the tube is properly fixed, it must be secured, it should hold applied force of 8-9 kgf. It is important to follow the "in" and "out" of the water filter; please check the arrows on the housing.

11. Remove the stopping clip, insert the John Guest tube (14) into the connection unit to a stop. Insert the clip.
12. Open the cold water main line.
13. Open the valve (18) on the connection unit (3). Adjust the water.
14. Open the clean water faucet.
15. Check all connections that they are secured.

CARTRIDGES INSTALLATION

Before installing, remove the plug in the housing (for Crystal H water filter).

Assemble the water filter in the order of cartridges installation along the water flow (see Table "Order of cartridges installation along the water flow direction").

Filter cartridge installation:

- Remove protecting film from the cartridge;
- Insert the cartridges into the housing to a stop; rotate the cartridge counterclockwise to a click.

K3: PRELIMINARY SORBITION TREATMENT

Preliminary treatment of water from organic impurities, heavy metals and active chlorine.

Filtering of particles upto 5 micron.

Larger contaminant capacity and efficient removal of colloid and dissolved iron.

Contains silver in its active ionic form.

K2: DEEP SORBITION TREATMENT

Efficient removal of organic impurities and active chlorine.

Filtering of particles upto 3 micron. Ion-exchanging filter AQUALEN™ with modified selective chelate groups treats water deeply and permanently from heavy metals. Contains silver in its active ionic form.

K7: FINAL TREATMENT AND CONDITIONING

Removal of residual contents of organic impurities and heavy metals.

Filtering of particles over 0.8 micron.

Contains silver in its active ionic form.

KH: SOFTENING

Softening of excessively hard water.

Scaling prevention.

Easy recovery in home conditions.

KP5: SECTIONAL

Changeable preliminary water treatment unit PP 5 (55/265 for cold water).

Efficient removal of sand, rust and other non-dissolved particles over 5 micron.

K5: ONE-PIECE

Efficient removal of sand, rust and other non-dissolved particles over 5 micron.

K7B: DEEP SORPTION TREATMENT AND MICROFILTRATION

Efficient removal of organic impurities and active chlorine. Filtering of particles up to 3 micron. Ion-exchanging fiber AQUALEN® with modified selective chelate groups treats water deeply and permanently from heavy metals. Contains silver in its active ionic form.

Hollow-fiber membrane captures particles over 0.1 micron and provides 100% protection from bacteria*.

ATTENTION! Mind the order of cartridges installation.

Positions of the cartridges in the water filter assembly are given in Table 1.

Table 1. Replacement Cartridges installation sequence.

Order of cartridges	1st	2nd	3rd	4th
Water filter				
Aquaphor Crystal	K3	K2	K7	
Aquaphor Crystal H	K3	KH	K7	
Aquaphor Crystal A (type 2)	KP5	K2	K7	
Aquaphor Crystal A (type 3)	K5	K2	K7	
Aquaphor Crystal ECO	K3	K7B	K7	
Aquaphor Crystal ECO H	K3	KH	K7B	K7

AFTER WATER FILTER INSTALLATION AND CONNECTION:

- Install the plug in place of the KH cartridge (only in Aquaphor Crystal H, Aquaphor Crystal ECO H);
 - Open the cold water main, make sure the water filter is not leaking;
 - Open the clean water tap (1);
 - Adjust the water flow rate according to recommended filtering rate using the connection unit (3);
 - Let the water flow through the water filter for 10 minutes;
 - Open the clean water tap and leave the water filter for 10 minutes;
 - Repeatedly let the water flow through the water filter for 50 minutes;
 - Install the KH cartridge in its place and let the water flow through the filter for 3 minutes (only for Aquaphor Crystal H, Aquaphor Crystal ECO H);
 - Close the clean water tap;
 - Make sure that all connections are properly sealed;
 - The water filter is ready for use.
- Attention!** When flushing filter with the plug in place, control the flow rate in order to prevent any leakage (only for Aquaphor Crystal H, Aquaphor Crystal ECO H).

REPLACEMENT OF FILTERING CARTRIDGES

Throughout its service life, the water filter does not require any maintenance – you only need to timely replace filtering cartridges.

- Close water before the water filter and open the clean water tap to discharge pressure.
- Press the used filtering cartridge to a stop and, while holding the stopping button on the filter cap, rotate the cartridge clockwise to remove it (see Figure).

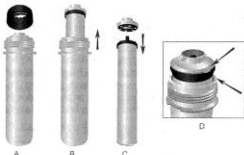
* Hollow-fiber membrane protects from bacteria and animalcule: *Escherichia coli* 1257, *Enterobacter cloacae*, *Pseudomonas aeruginosa*, *Lambda intestinalis*. It comes in the sets of AQUAPHOR Crystal ECO, AQUAPHOR Crystal ECO H (certified testing report №1/12 of 22.02.12).

- Remove shrink wrap film from the new cartridge.
- Insert the new cartridge into the housing to a stop and, pressing it slightly, rotate the cartridge counterclockwise to a click.

REPLACEMENT OF UNIT PP5 (55/265) IN KP5

(A NEW DESIGN BROUGHT TO THE MARKET IN 2014):

- Press the stopper of KP5 cap to a stop; while holding it pressed, unscrew the cap (you may release the stopper after the cap is rotated at more than 5 degrees) (A);
- Pull at the cap and take out the used replacement element from the housing (B);
- Take off the cap from the replacement element by pulling it down (C);
- Remove protective film from the new filtering element;
- Flush the housing under running water and assemble the filtering cartridge in reverse order aligning the ridges on the cap with slots in the cartridge housing (D).



Attention! Follow the order of cartridges installation.

After installing new filtering cartridges, flush the filter as described in Section "After Water Filter Installation and Connection".

RECOVERY OF KH CARTRIDGE

Frequency of recovery shall depend on the initial water hardness.

Initial water frequency, mEq/l	Amount of water softened prior to recovery, l
1-2	1000-500
2-3	500-330
3-4	330-250
4-5	250-200

Use of the softening replacement cartridge KH with ion-exchange resin is efficient for water of moderate or average hardness. If the water hardness is more than 5 mEq/l, it is recommended to use a reverse osmosis water filter.

KH replacement cartridge recovery:

- Step 1 and 2 from Section "Filtering Cartridges Replacement";
- Assemble and connect the recovery adaptor to KH cartridge (the adaptor comes in the water filter set or is purchased separately);
- Insert the gasket (3) into the nut (2);
- Put the nut (2) with the gasket (3) on the adaptor (1) to a stop;
- Put the plastic tube (4) on the adaptor fitting (1);
- Insert the adaptor (1) tightly into the cartridge (6);
- Screw onto the nut (1) a clean standard plastic bottle (5) with a cut-off bottom (to use it as funnel);
- Prepare a saturated solution of cooking salt (approx. 300 g/l) in 2-2.5 liters of boiling water (use non-iodized salt);
- Set the cartridge with the attached plastic bottle vertically (for example, by putting it into a jar). Direct the plastic tube into the sink.
- Run the salt solution through the cartridge. Check the sediment left after the salt is dissolved would not get into the cartridge.
- After flushing the salt solution, flush 2.5 liters of boiled water through the cartridge.
- Do the last 4 steps in Section After Water Filter Installation and Connection*.

NOTE THE FOLLOWING:

If the water hardness is more than (7 mEq/l), it may acquire a slightly salty taste after softening. This is due to exchange of calcium ions into sodium ions. It does not indicate failure of the water filter and is not harmful to your health.

If you use Aquaphor Crystal or Aquaphor Crystal A for additional treatment of hard water, you might see white sediment in filtered water or a surface film of salts. This does not indicate failure of the water filter. Preferably use Aquaphor Crystal H or Aquaphor Crystal ECO H for water softening.

If you didn't use your water filter for more than one week, run water through it for 5 minutes before use.

If you doubt bacterial safety of the initial water, boil water after filtering.

It is not recommended to store filtered water. Use only freshly filtered water.

Protect the water filter from shocks and falling during transportation, storage and use, as well as from water freezing inside of the water filter.

The water filter shall be utilized in compliance with the environmental, sanitary and other requirements set by the national standards for environmental protection and sanitary.

MANUFACTURER WARRANTY

Service life of the water filter (excluding replacement filter cartridges) is 5 years* from manufacturing date**. The water filter shall be replaced upon expiration of the service life.***

Service life of the replacement filter cartridges of various filter types:

K3, K2, K7 – 8000 liters but maximum 1.5 years****;

K3, KH, K7 – 6000 liters but maximum 1.5 years ****;

KP5, K2, K7 – 6000 liters but maximum 1.5 years ****;

K5, K2, K7 – 6000 liters but maximum 1.5 years ****;

K3, K7B, K7 – 8000 liters but maximum 1.5 years ****;

K3, KH, K7B, K7 – 8000 liters but maximum 1.5 years ****.

Service life of the replacement filter cartridges is set for filtering water meeting existing sanitary standards. Service life of the cartridges is calculated starting from the day it is purchased at the retail. The purchase date of the water filter (with the replacement filter cartridges) is the date of the retailer's stamp in this product certificate of date of the sales receipt. If the purchase date is not available, the service life is calculated from the replacement filter cartridges manufacturing date.

Shelf life of the water filter (with the set of the replacement filter cartridges) before operation is maximum 3 years at temperature from +5 to +38 °C, without removing the packaging.

Warranty period***** of the water filter operation (excluding the replacement filter cartridges) is 1 year from the purchase date. The manufacturer shall bear no warranty if this product certificate containing dates of manufacturing and/or sale is lost and there are no other ways to determine the period of the product operation.

The manufacturer shall bear no responsibility in any of the following cases:

- The customer does not follow installation instructions described herein;

- Replacement filter cartridges are not replaced in due course after their service life has expired;

- The water filter is used beyond the limits set by the technical specifications (in the Manual).

Please contact the retailer or the manufacturer in case of any claims to operation of the water filter. No claims are accepted if the water filter has any visible external defects.

The cartridge does not require any preparation for sale.

EN

Numbers on the Figure designate the following components:

1. Clean water tap
2. Water filter
3. Connection unit
4. Housing
5. Rubber seal
6. Rubber washer
7. Plastic washer
8. Metallic washer (stopping washer)
9. Fastening nut
10. Tube
11. Metallic sleeve (cone sleeve)
12. Cap nut
13. Stopping clips
14. Tube
15. Decorative support
16. Cold water main
17. Sink (tabletop) (not included)
18. Inflow tap set in "Closed" position

* Regardless of the operation starting date.

** Manufacturing date is the date in the format DD.MM.YYYY shown by the manufacturer on the label placed on the back of the housing.

*** Using the water filter beyond its service life term may result in harm to the health or property of the consumer or third persons and shall be avoided.

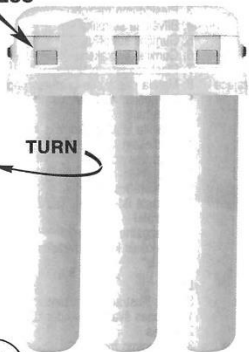
**** The period during which the manufacturer is obliged to ensure proper operation of the product by the user and is responsible for any material defects of the product.

***** The period during which the manufacturer must satisfy the customer's claims in case of faults in the product.

PRESS

TURN

3



5

4

3

2

1

6

4

