Key No.	Part No.	Description
50	7338111	Screw, #6-19 x 3.5 cm (2 req.)
51	7281291	Motor
52	7337474	Motor Mount
53	7284964	Cam & Gear
54	7030713	Switch
–	7331185	Drain Hose Adaptor Kit (includes Key Nos. 55-59)
55	†	Clip, Drain
56	†	Drain Hose Adaptor
57	†	Hose Clamp
58	†	O-Ring, 15.9 x 20.6 mm
59	†	Flow Plug, 7.6 lpm
–	7129716	Seal Kit (includes Key Nos. 60-65)
60	†	O-Ring, 11.1 x 15.9 mm
61	†	O-Ring, 19.1 x 23.8 mm
62	†	O-Ring, 85.7 x 92.1 mm
63	†	Rotor Seal
64	†	O-Ring, 9.5 x 14.3 mm
65	†	Seal, Nozzle & Venturi
66	7082087	Wave Washer
67	7199232	Rotor & Disc
–	7342665	Drain Plug Kit, 3/4" (includes Key Nos. 64, 68 & 69)
68	†	Plug, Drain Seal
69	†	Spring
70	7337563	Clip, 3/4", pack of 4
71	7342673	Installation Adaptor, 3/4", pack of 2, including 2 ea. Clips & O-Rings (See Key Nos. 70 & 72)
72	7337571	O-Ring, 23.8 x 30.2 mm, pack of 4
–	7113040	Turbine & Support Assembly, including 2 O-Rings (See Key No. 72) & 1 ea. of Key Nos. 73 & 74
73	†	Turbine Support & Shaft
74	†	Turbine
75	7082053	Valve Body
76	7081201	Retainer, Nozzle & Venturi
77	7342649	O-Ring, 6.4 x 9.5 mm, pack of 2
78	1202600	Nut - Ferrule
–	7238450	Nozzle & Venturi Assembly (includes Key Nos. 76, 77 & 79-87)
79	7081104	Housing, Nozzle & Venturi
80	7095030	Cone Screen
81	1148800	Fill Flow Plug, 1.1 lpm
82	7187772	Nozzle & Venturi Gasket Kit
	7204362	Gasket Only
83	0521829	Flow Plug, .38 lpm
84	7146043	Screen
85	7167659	Screen Support
86	7170262	O-Ring, 28.6 x 34.9 mm
87	7199729	Cap
88	7309803	Wire Harness, Sensor
89	7337466	Valve Cover
90	7342657	Screw, #10-14 x 5 cm, pack of 5
91	7327631	Bypass Valve Assembly, 3/4", including 2 O-Rings (See Key No. 72)
–	7290957	Repl. Nozzle, Venturi & Gasket Kit, (includes Key Nos. 76, 80, 82, 86)

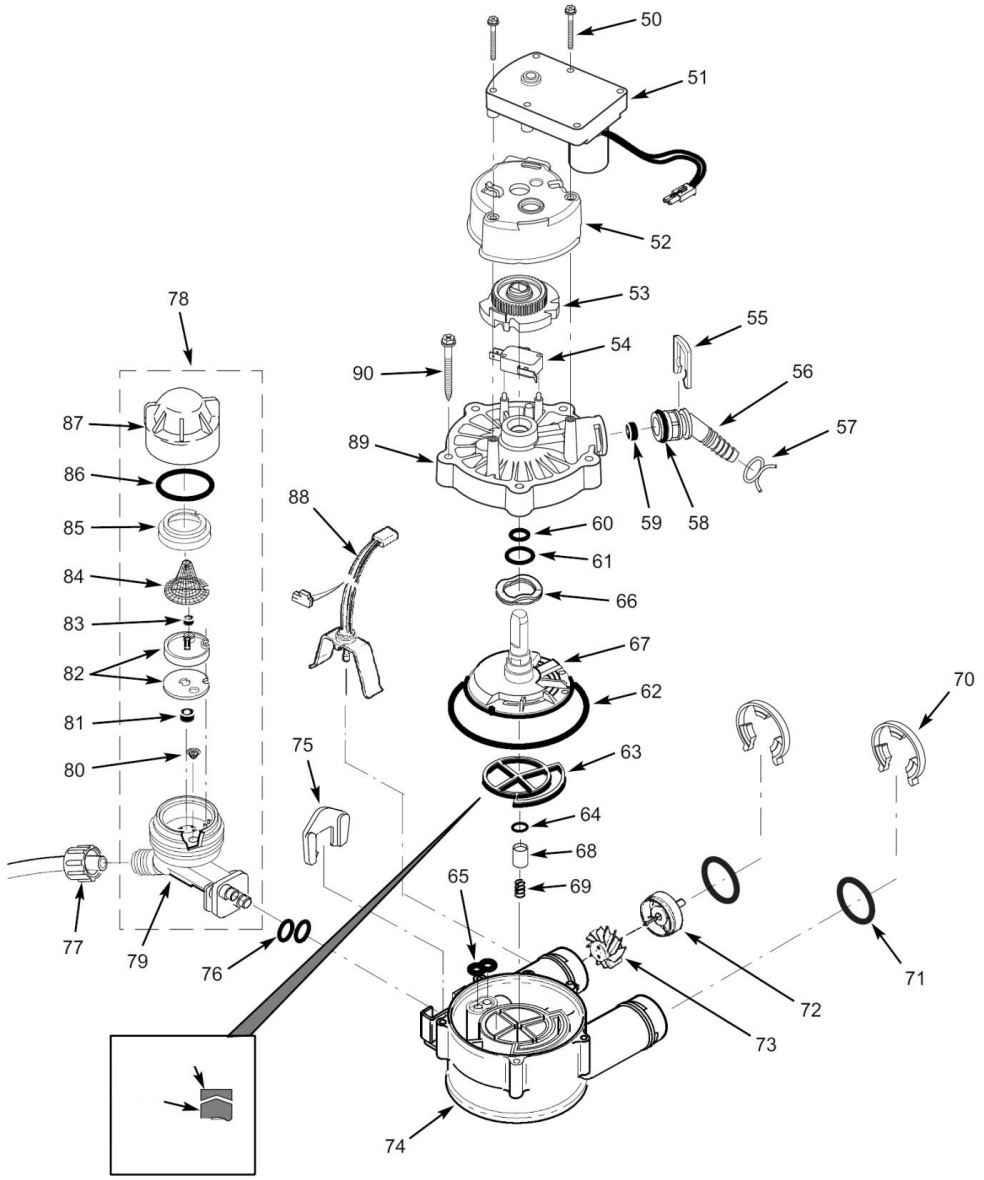
Installation, operations and maintenence manual of multi-function medium filter

AQUACARBON

VIESMANN

AQUACARBON

Table of content



NO	CAT. NO	Description
*	7290876	Assembly, Replacement Mineral Tank, w/media & associated components (Includes LP. 1 - 10)
1	7112963	Seal Kit, includes the following:
	-	O-Ring, 2-7/8'' x 3-1/4''
	-	O-Ring, 13/16'' x 1-1/16''
	-	O-Ring, 2-3/4'' x 3''
2	7077870	Top Distributor
3	7265025	Filter Screen
4	7105047	Repl. Bottom Distributor
5	7088033	Retainer Clip (2 req.)
6	7176292	Clamp Section (2 req.)
7	*	Mineral Tank, 8'' x 25''
8	*	First stratum of bed
9	*	Second stratum of bed
10	*	Third stratum of bed
11	-	Faceplate Decal
12	7296262	Cover
14	7297501	Repl. Electronic Control Board (PWA)
15	7290101	Rim
16	7296296	Outer Shroud Tank
17	7250826	Power Cord
18	7259927	Wire Harness
19	-	Drain Tube, 3 meters
20	1103200	Tube Adaptor (Elbow)
21	7277925	Bypass Valve
22	7116713	Clip (2 req.)
*	7290876	Tank with media (7,8,9,10)

* The tank and medium can be sold only as a set

Tip!

Consider the following instruction and all security rules concerning the start-up and functioning of the device before running the installation. If you have any questions, please contact the service provider.

Basic data

Before running the installation, starting - up and using of the device, please fill in the following boxes:

Model (MOD. NO*)	Serial No. (SER. NO*)

*Information about a model and serial number is put on the sticker, which is visible after 'turning back' the device.

Chapter I

1. Hydraulic installation

A. Security information

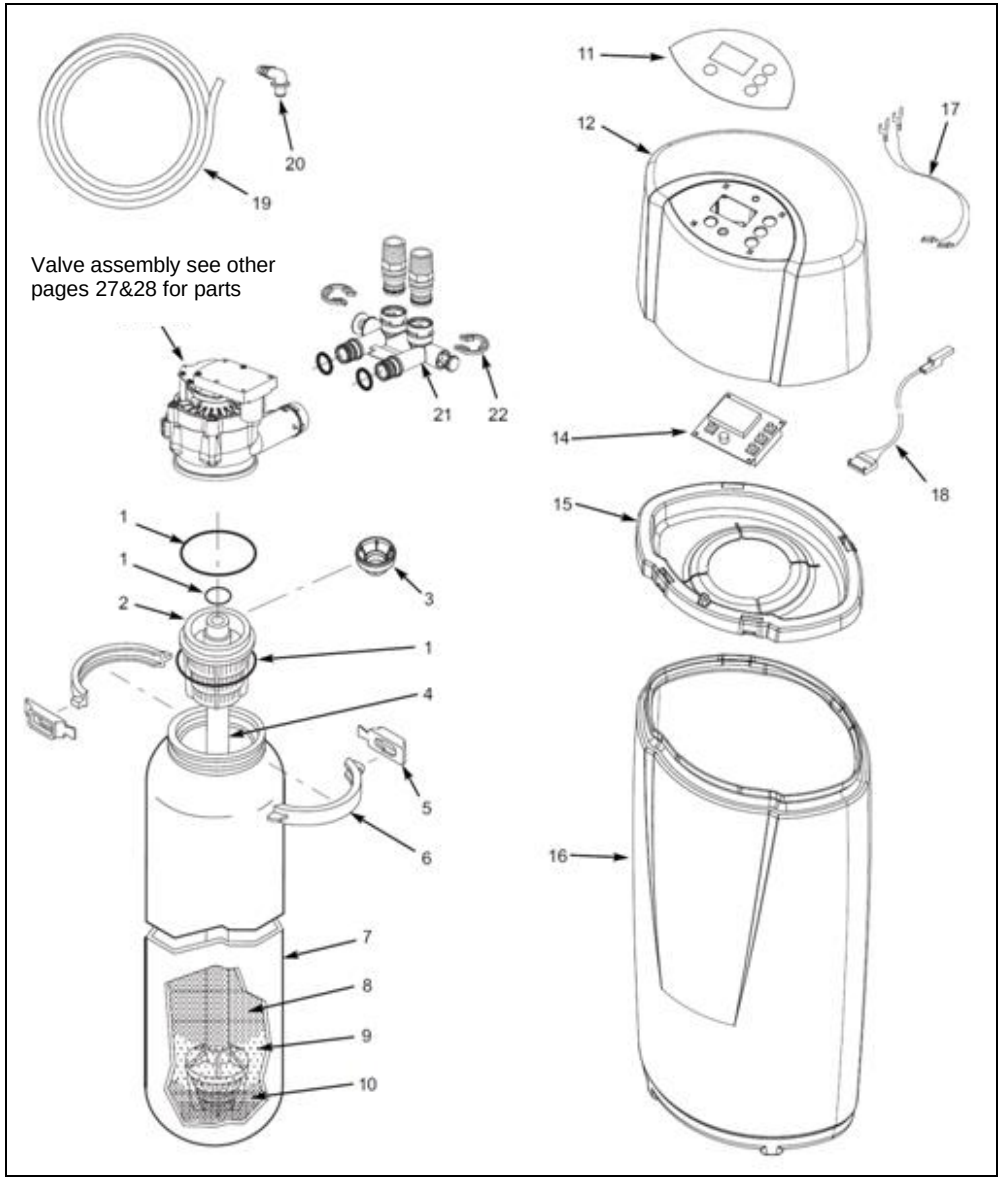
- Please consider the following instruction before running the installation and starting - up the Aquacarbon filter. Following these suggestions will ensure security and full use of the purchased device. Disobeying this instruction may cause material losses and health damage.
- **The Aquacarbon Filter ensures mechanical filtration at the minimal level of 20 microns and corrects the taste and smell of water.**
- The maximum water temperature, which the device can treat, shall not be higher than 49 ºC.
- Avoid installation of the Aquacarbon Filter in places of the direct sunlight. Excessive heat from the sun can cause distortion or another damage to non-metallic parts.
- The device is supplied at the voltage of 28 V. Please use the transformer supplied together with a device.
- In case of damage the power cord, disconnect the transformer. Before you turn on the power again, the cord should be repaired or replaced.
- Before removing the external valve cover it is absolutely necessary to disconnect electrical power of device.
- The device mustn't be used to treat water of oversize physicochemical and bacteriological parameters.
- The Aquacarbon Filter does not remove iron from the water.
- The device is not able to remove the hydrogen sulphide smell from the water.
- Despite the fact that the Aquacarbon Filter ensures the mechanical filtration at the level of 20 microns, in case of much polluted water, the initial mechanical filtration could be necessary before starting - up.

B. Unpacking the device

First of all, take out all parts of the device from the cardboard. Check if the Aquacarbon Filter was not damaged during transport. If so, immediately report it to the seller.
Take out the device carefully. It is supplied assembled and as a result it is heavy. Please hold it „from the bottom" during carrying and avoid shifting on the floor. Do not turn upside down, do not drop and do not put on angular or pointed surfaces.

Chapter VI

1. System parts pictures



C. Checking local hydraulic conditions

- Pressure of tap water

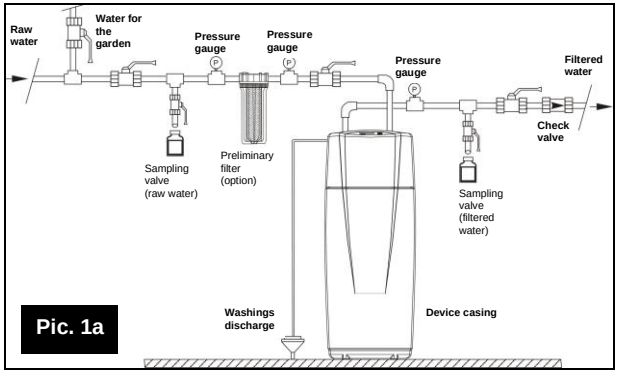
For the properly device functioning, the water pressure may not be less than 2.0 bars and cannot exceed 8.0 bars. If the pressure is below the minimum, the hydrophore increasing the pressure should be used; if it exceeds the maximum permissible value, the pressure reducing valve (pressure reductor) should be installed.

→ ***Important!***

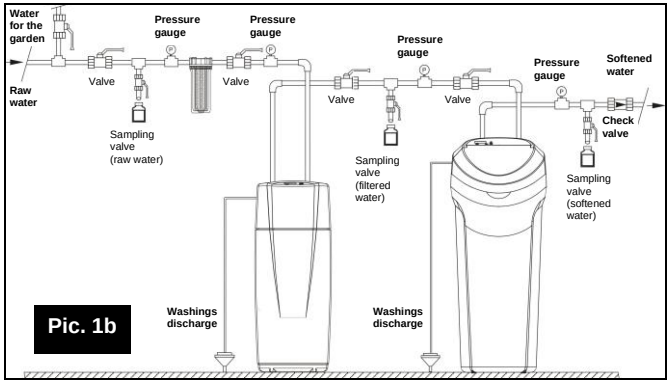
If during the day, the water pressure is very high, it may occur that it will exceed the value of 8.0 bars. We suggest installing pressure reducing valve (pressure reductor) in such a case. To control the working pressure in the installation, we suggest fitting the installation with manometers.

D. Choice of the place of device installation

- Aquacarbon Filter should be placed as close as possible to the hydrophore (in case of water supplying from private intake) or the water meter measuring the whole water in a household (in case of supplying with water tap). The device should be located in the immediate vicinity of the outlet drain (pic. No 1a).
- When connecting the device before water heater (or boiler), it should be noted that the temperature of water at the connection does not exceed 49 ° C. It is preferably to install a check valve between the Aquacarbon Filter and a water heater (or boiler), which prevents the withdrawal of the hot water to the filter. Too hot water can damage the components of the control valve and the medium.
- The Aquacarbon Filter should be installed in a place not exposed to freezing.
- In case of application of the water softener, the Aquacarbon Filter should be installed between the main water entrance to the building and a water softener (pic. No. 1b).
- Do not install the Aquacarbon Filter on the hot water thread.
- The Aquacarbon Filter is supplied with power at the voltage 28 V. The transformer with an electric cord is supplied together with the device. The socket with the grounding should be in the immediate vicinity of the device, protected from rain and frost. The Aquacarbon Filter must always be connected to the power supply, a socket cannot be controlled by a switch that could be inadvertently turned off.



Pic. 1a



Pic. 1b

E. Connecting the slops drain after medium rinse

- To connect the slops drain installation from the Aquacarbon Filter, the hose supplied together with the device should be used. Put one of the host ends onto the backwash slops outlet, located at the rear of the control head and the second place over the sewer manhole (pic. No. 2). Between the end of the hose and drain outlet **must be min. 4 cm interval. This prevents the possibility of sucking dirt by the device.**

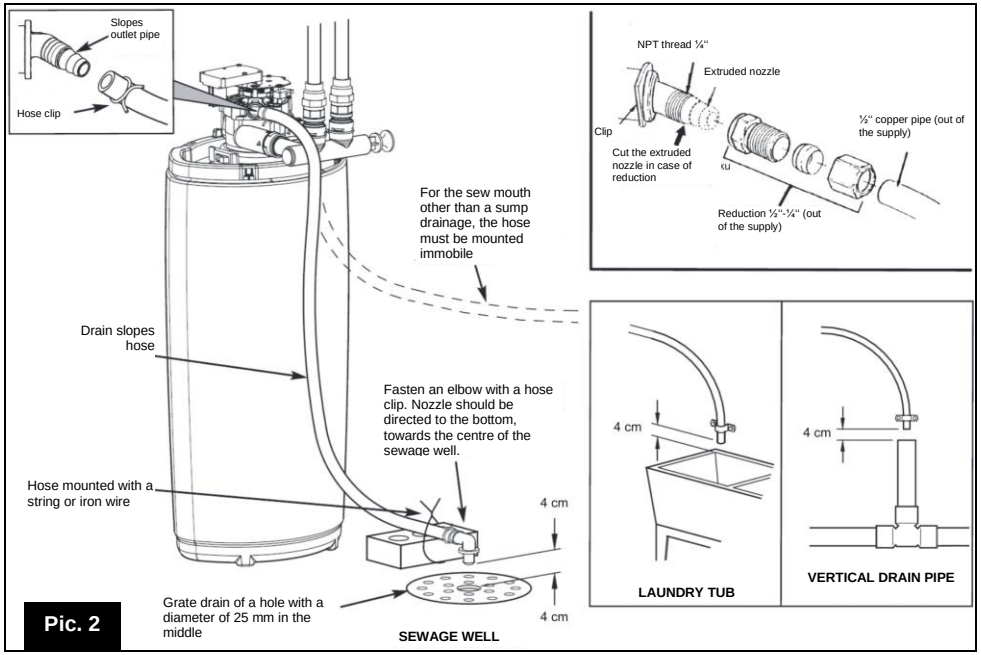
- The hose should be mounted in such a way, that during the intensive slops outflow it did not move. It cannot be bent, twisted or pierced.

- The hose should be placed below the outlet connector of the control valve..

- Avoid the use of conductors of longer than 9 meters.

- If it is impossible to mount an elastic hose to slops outflow, there should be used a stiff pipe to slops outflow.

- It is recommended to install the Aquacarbon Filter near the sewage outlet. In the absence of access to the sewage outlet, the device can work in the manual mode of running the rinse cycle. Then it is necessary to lock the automatic rinse cycle.



Pic. 2

F. Manual start of the rinse cycle during the device running

→ ***Important!***

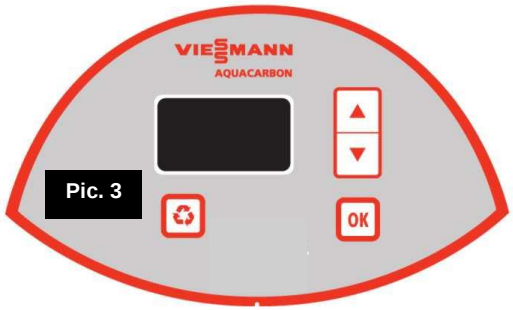
During the production and transport, the filter medium, located on the device, may be slightly crushed. These particles of the medium, if they are small enough to get out of the device when the water flows, they can lightly stain the water. To avoid getting the coloured water to points of use in the household, you must manually run the rinse cycle when you start up the device. However before it you should:

- Make sure if the drain slopes hose is properly attached
- Set the by-pass valve mechanism of the device in position "service"
- Open water supply valve to the installation

The rinse cycle will be about 20 minutes. During it you should avoid using water. During the rinse cycle, you are not allowed to set the time or press any other buttons, because the cycle could be broken. Do not disconnect the transformer during the rinse cycle. In case of breaking the rinse cycle, it should be started again and allowed to be finished.
If the rinse cycle is finished successfully for the first time, it will not be a possibility to conduct it again. The Aquacarbon Filter will be ready to act. If after the rinse cycle the water is still coloured, you must run manually a rinse cycle, until it is clean.
If before the rinse cycle the time was not set, please do so at this time.
The installation water tightness should be checked. Remove any leaks.

2. Initial commissioning of the device

A. Programming the control panel



Pic. 3

After switching on the transformer to the electrical outlet, a beep sounds (BIP), and on the display screen is visible for a few seconds the device model code (CF 8) and software version (eg, J1.3). Then there is the information PRESENT TIME 12:00 Hour, which starts to flash.

- If the display shows - - - - press the button DOWN (▼) or UP (▲), until there appears information CF 8. If there is a code other than CF 8, should contact the service provider.
- Sound signalling device (BIP): a signalling device works with each press of a button. One beep indicates a change in the display. A series of beeps tells you that you have pressed the wrong button and press another button.

Setting the time
To set the time, press the button DOWN (▼) or UP (▲), until the correct time appears.

→ ***Important!***
In some models, operating the twelve-hour clock, between. 0^{00} and 11^{59}, the notice "AM" will appear on a display; between 12^{00} and 23^{59}, the notice "PM".
If we press one of the buttons, the time changes by one minute forward or backward. If we hold the pressed button, the time will change faster.

Next we should press three times the button OK to approve the time.

Manual running of the rinse cycle
Press the RINSE button ♻ (pic. No. 3) and hold it, until on the display appears and flashes information *RECHARGE NOW*. After finishing the rinse cycle, the device will be ready to work.

4. Device commissioning protocol (copy No. 1) – for the person actuating the device

Place	
Date	
User	Address: Tel. / fax:
User's representatives	1: 2:
The actuating person's representatives	1: 2:
The actuated device Aquacarbon *Information about a model and serial number is placed on the sticker, which is visible after 'turning back' the device	Mod. No: Serial No:
Notes	
Supplement:	
The origin of raw water*	1: tap water 2: well water 3. others
User's signature:	1: 2:
The actuating person's signature:	1: 2:

* delete as appropriate

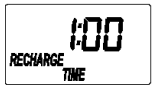
Chapter II

1. Control panel functions

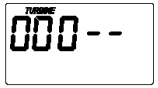
A. Change of factory settings

Programming the period between the rinse cycles (counted in days)
Press two times the button OK, until on the screen appears the information *RECHARGE* and *14.day* (which will flash). At the factory setting (*14.day*) the device will rinse automatically every 14 days. To change the period between the first and the second medium rinse, you should press the button DÓWN (▼) or UP (▲), until we get the demanded value. It is possible to set from 1 to 99 days (*day*). Press two times the button OK to approve the changes and return to the main screen.

Setting the rinse time
Press three times the button OK, until on the screen appears the information *RECHARGE TIME* (rinse time) or eg. *1:00* (which will flash). By default, the rinse time is scheduled for 1:00 at night. Because of the minimal consumption of water at this time, it is the optimum time for washing. If we want to do the rinse cycle at another time, we should press the button DOWN (▼) or UP (▲) to set the new rinse time. Press once the button OK, to approve changes and return to the main screen.



Setting the time display mode (12 or 24-hour)
Press and hold the button OK, until on the screen appears information *000--*.



Press again (without holding) the button OK, until on the screen appears the notice *TIME* and *24 hr* (which will flash). The default setting is 24-hour time display mode. If we want to change mode for 12-hour, we should press the button DOWN (▼). To return to 24-hour mode, press the button UP (▲). Press three times the button OK, to approve changes and return to the main screen.

Setting the RECHARGE duration in counter-current and the fast rinsing
Press and hold the button OK, until on the screen appears information *000--*.
Press two times (without holding) the button OK, until in the screen appears information *TIME* and *bA-2*, which will flash. It means the rinsing duration in counter-current *(BACKWASH)* for 2 minutes. If we press again the button OK, on the screen appears information *Fr-1*, which will flash. It means fast rinsing duration *(FAST RINSE)* for 1 minute.

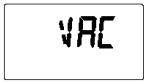
To return to the main screen, press the button OK**.**
The changes of the rinsing duration in counter-current and the fast rinsing can only be performed by the service team of the manufacturer or supplier.

B. Rinsing in the manual or automatic mode

Rinse cycles are performed automatically, until you lock the automatic rinsing. When you lock this function, all rinse cycles need to be started - up manually. Rinse cycles are recommended at least once a month or more frequently if necessary.
You can use the manual rinsing mode, when the sewage outlet is not available (necessary for automatic rinsing). However, the automatic rinsing is recommended, if the requirements concerning the sewage outlet are fulfilled.

→ ***Important!***
During the rinsing cycle, started - up manually or automatically, water flows from the outlet of the slopes. If the slopes drain is not permanently installed, it should be secured before starting the rinse cycle.

Turning off the automatic rinsing mode
Press (without holding) the button RINSING . On the display should flash the notice *VAC* informing that the device works in the manual rinsing mode (automatic rinse function was turned off). To rinse the medium in this mode, you must every time start - up the rinse cycle manually, pressing and holding the button RINSING .



Turning on the automatic rinsing mode again
Press (without holding) the button RINSING . The notice *VAC* flashing on a display will disappear from the screen.

2. The lack of power supply

If there is a break in power supply, a display will turn off but the microprocessor keeps on functioning for about. 8 hours. When electrical power is restored, check and adjust the time, when the time displayed on the screen blinks or is inappropriate. Even if after a long break the power supply the displayed time is not correct, the device continues to function properly. The incorrect time will cause that until setting the correct time, rinsing will begin at the wrong time. When the power is restored, the device will continue the process of rinsing.

3. Device commissioning protocol (original) – for the User

To get information concerning the actuating, you should contact with the device supplier.

Place	
Date	
User	Address: Tel. / fax:
User's representatives	1: 2:
The actuating person's representatives	1: 2:
The actuated device Aquacarbon *Information about a model and serial number is placed on the sticker, which is visible after 'turning back' the device	Mod. No: Serial No:
Notes	
Supplement:	
The origin of raw water*	1: tap water 2: well water 3. others
User's signature:	1: 2:
The actuating person's signature:	1: 2:

* delete if appropriate

Chapter III

1. Securing the device in case of lack of water consumption and protecting against freezing

A. Securing the device in case of long breaks of water consumption

If you plan the break in using the Aquacarbon Filter for a longer period (few months), please follow herein recommendations:

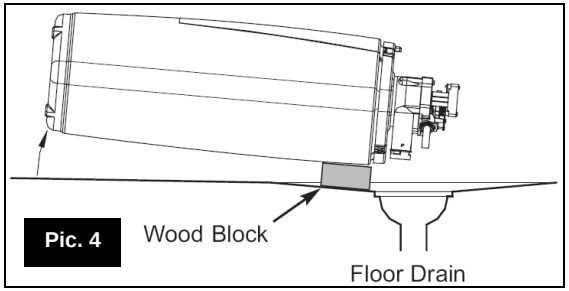
- If the water supply to the device is not cut and the automatic rinsing function was not turned off, then no further actions are required.
- If due to disconnection of water supply, transformer disconnection or turning off the automatic rinsing, it is not possible to run automatically the rinse cycle, it is advisable to conduct at least two manually-operated cycles when you restore the device to work.
- If the Aquacarbon Filter is the element of the installation, where there is the risk of freezing, the device should be disconnect and the water drained from the device.

B. Protecting device against freezing

If the Aquacarbon Filter will not be used for a longer period (few months), please follow herein recommendations:

If the Aquacarbon Filter is installed in a place, where there is a risk of freezing (a cottage, a house at the lake, etc.), the water should be removed from the device completely, which prevents possible damage from the frost. To remove the water from the device, please:

1. Close the shut-off valve on the urban water supply or from the hydrophore, which is near the water meter or the pressure tank.
2. Open treated water taps to vent pressure in the device.
3. Move the mechanism of the by-pass valve from „service" on „by-pass". To restore the water in the installation, reopen the shut-off valve on the main urban water supply or from the hydrophore.
4. Unplug the transformer from the socket. Remove the cover. Take off the drain slopes hose if it interferes with moving the Aquacarbon Filter to putting it over the sewage outlet.
5. Remove the clips at the water inlet and outlet from the device. Separate the Aquacarbon Filter from the installation adaptors or the by-pass valve.
6. Lay a piece of 2 cm thick board near floor drain grate.
7. Move the Aquacarbon Filter close to the sewage outlet. Slowly and gently tip it over until the rim rests on the wood block (pic. 4) and the inlet and outlet over the sewage drain. Do not allow the device's weight to rest on the inlet and outlet fittings, as it could cause their destruction.
8. Tip the bottom of the Aquacarbon Filter a few cm up and hold until all water has drained. Leave the device lying like this until there is a need for the next use of it. Plug the inlet and outlet with clean rags to protect the device from dust, insects, etc.



Pic. 4

2. Operation recommendations

During the operation of the device must be protected from:

- too much dust in the room of device installation
- too low and too high ambient temperature prevailing around the device - it cannot be under 4 ºC and exceed 40 ºC
- possibility of a sudden emergency heat source
- emergency possibility of reversing the hot water (over 49 ºC) - in the case of the possibility of such a situation, install a check valve

6. The warranty will not cover:

6.1. review service,
6.2.changing of the device programming,
6.3.damage caused by: theft, fire, external factors or weather conditions, improper use of consumables, installation of additional parts and components without the consent of Provider.,
6.4.damages which are the result of the incorrect operation,
6.5.damages which are the result of the incorrect storage,
6.6.consequences resulting from the device immobilization.

7. The Purchaser shall lose warranty rights if:

7.1. does not comply with the recommendations contained in this document,
7.2. installation and initiation against the guidelines,
7.3. do not make the reviews in time,
7.4.making by the Purchaser or third parties unauthorised repairs, alterations and modifications inconsistent with the terms of the warranty Providers,

Date ……. Stamp and signature ……..

Review certificates:

1. guarantee review : date: …….. stamp and signature: …….

2. guarantee review : date: …….. stamp and signature: …….

3. guarantee review : date: …….. stamp and signature: …….

4. guarantee review : date: …….. stamp and signature: …….

5 guarantee review : date: …….. stamp and signature: …….

6. guarantee review : date: …….. stamp and signature: …….

7. guarantee review : date: …….. stamp and signature: …….

8. guarantee review : date: …….. stamp and signature: …….

2. Guarantee card

Authorised service provider: **User:**

....

....

Herein guarantee card covers the following device:

Item no.	Device name	Type	Part name	Part number
1	Multi-bed filter	Aquacarbon	Mod. No.	
			Serial No.	

TERMS AND CONDITIONS OF THE WARRANTY

1. Provider guarantees the smooth operation of the supplied equipment, when used as intended and described in this documentation.

2. Particular components of the device, after the initiating date are covered under the following conditions:
   - the external cover – the period of 5 years
   - resin tank – the period of 5 years
   - the control head – the period of 3 years
   - electronic sub-assemblies – the period of 1 year

3. The Warranty is the hydraulic assembly and the device starting - up in accordance with the guidelines contained in this documentation.

4. The User should make a guarantee review in a year. The cost of the review shall include the costs of labour and delegation the worker and his travelling. The Supplier shall make this review a fee, after notification by the user of the impending deadline. Notification should be made in writing (fax, e-mail or mail) or by phone at least 7 days before the expiration of the review.

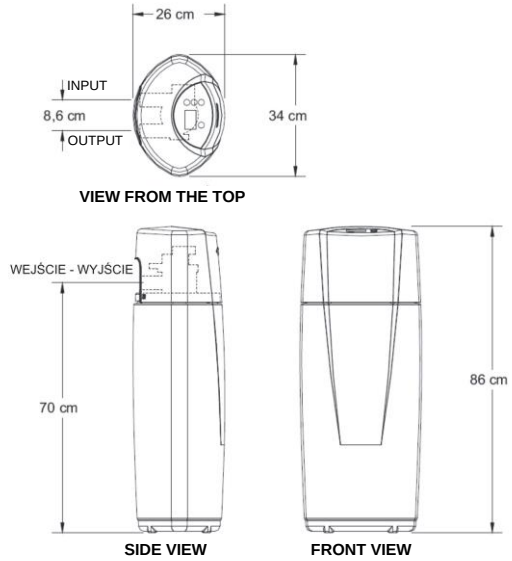
5. Provider is obliged to remove any defects or malfunctions as warranted within 7 working days of notification. Confirmation of acceptance will be by entering the name and the surname of the person receiving the notification.

3. Troubleshooting table

PROBLEM	CAUSE	THE WAY OF CORRECTION
Water has grey or black colour	(NEW DEVICE) Start - up procedure has not been completed	Run start up procedure (See: page 8) or run consecutive rinse cycles (see: page 8), until water colour returns to normal.
	(NOT A NEW DEVICE) Abrasion of medium.	Start up manually the rinsing cycle (see: page 8).
Law water pressure at the household	Sediment filter screen is clogged.	Start up manually the rinsing cycle (see: page 8).
		Clean the sediment filter screen. If the filter screen is regularly plugging, it may be necessary to adjust the frequency of conducting rinsing cycles.
	Medium is blocked with dirt.	Start up manually the rinsing cycle (see: page 8).
		Replace the medium. If the medium is regularly blocked with dirt, it may be necessary to increase the frequency of rinsing cycles.
Water has objectionable taste and/or odour	The by-pass valve is set on „by-pass".	Set the mechanism of by-pass valve in position „service" (work).
	Medium is blocked with dirt.	Start up the rinsing system manually (see page 8).
		Replace the medium. If the medium is regularly blocked with dirt, it may be necessary to increase the frequency of rinsing cycles.
Water does not flow to the sewage outlet during rinsing cycle	The device works in by - pass mode.	Set the mechanism of by-pass valve in position „service" (work).
	Slopes flow control is plugged	Clean drain slopes flow control .
	Drain slopes hose is plugged or twisted.	Straighten the drain slopes hose.
	Transformer is unplugged from the socket (display will be empty).	Check if the power is plugged in and correct.
Rinsing cycle does not run automatically	If display reads VAC, automatic rinsing function was disabled.	Press and release the RINSING button, until display will not read VAC.
	If display is blank, the transformer could be unplugged from the socket.	Check if the power is plugged in.
Rinsing cycle does not run at the set time	If time display flashes, it means that a long power cut caused the clock to lose its time setting.	Reset the clock to the correct time on the display (see: page 8).
Valve motor stalls or clicks	Motor is defective or inner valve defect is causing high torque on the motor.	Replace the rotary piston or the sealing kit.
		Replace motor and switch.

Chapter IV

1. Measurement



2. Basic technical data

Description	Unit	AQUACARBON
Total medium volume	[l]	14
Flow rate during operation	[m^3/h]	1.4
Flow rate of the rinsing water	[m^3/h]	0.8
Consumption of rinsing water	[l]	<50
Minimal/maximum water pressure	[bar]	2.0 – 8.0
Minimal/maximum water temperature	[°C]	4 – 49
Terminal diameter	[cal]	1
Power supplying	[V / Hz]	230 / 50
Approximate lifetime of medium (dependent on the quality of the raw water)	[years]	10

Chapter V

1. Maintenance activities

→ ***Important!***

The following instruction should be stored near the device. In the case of repairs, a service technician should have this documentation. For help with technical services, please contact the dealer service department.

Review of maintenance should be always done according to the following points:

1. Check if the present time is on a display
   - if there is no information on a display, check the electric supply
   - if the time is not current, that means the electric power cut exceeding 8 hours. The device treats water but rinsing may be done at another time than it was set.
2. Check if the by-pas valve is on the position Work.
3. Check if the inlet and outlet cables are connected to the inlet and outlet holes.
4. Check if the transformer is plugged to the socket with the grounding and the terminal cord is properly fastened.
5. Check if the drain slopes hose is not twisted or broken.

If the above steps did not allow to identify the causes of the accident, please contact the Seller's service.