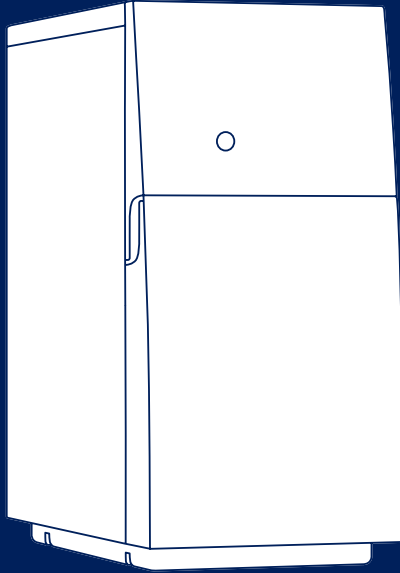


Applies only to products with serial number 1845-01001 and later

COMPLETE USER MANUAL



BLUEWATER PRO

WATER PURIFIER



CONTENTS

INTRODUCTION	03
About this manual	03
Limited warranty	03
Environment information	03
Disposal	03
Symbols	03
Safety instructions	04
Safety information	04
PRODUCT OVERVIEW	06
Models	06
Pro outside	06
Pro inside and replacement components	07
Move the water purifier	08
SYSTEM OVERVIEW	09
System description	09
Leak protection system	10
Low pressure protection	10
Water production	11
INSTALLATION	12
Unpack Pro	13
Position Pro	14
Install clean water faucet	14
Install feed water connection	15
Install drain water connection	15
Connect the water purifier	16
Do a check for leaks	17
MAINTENANCE	18
Each month	18
Each 4-6 months	19
Replace prefilter	21
Each year	22
Other	23
TECHNICAL INFORMATION	30
Technical data	30
Requirements on feed water to water purifier	31
TROUBLESHOOTING	32
How to solve simple problems	32
Product performance	34

INTRODUCTION

About this manual

This manual contains complete user instructions for the Pro. It gives you the necessary instructions to safely install, operate, do maintenance and do troubleshooting on the device.

Original language

The original language of this instruction is English.

Printing options

This manual is made to be printed as a double sided A4 or A5 booklet.

Limited warranty

Refer to www.bluewatergroup.com/warranty for more information on Limited warranty.

Environment information



80% of the the water purifier components and its packaging have a label to help you recycle and discard it correctly. The water purifier is more efficient when it cleans water for longer periods. Example: do not fill a glass with water. Fill a jug instead.

Disposal

At the end of the water purifier's life, disconnect the plug from the electrical supply and cut the cable at the point where it enters the appliance. Make sure that children do not play with the left-over cable. Contact your local authority for information about where the water purifier can be left, or contact your dealer.



Appliances bearing this symbol must be deposited at the designated local reception point for the disposal of electrical and electronic equipment. This product may not be disposed by using the normal household refuse collection processes.


Symbols

The following symbols can be found on the water purifier:

Symbol	Description	Symbol	Description
The WQA Gold Seal logo, featuring a circular emblem with a hand holding a water drop, surrounded by the text "WATER QUALITY ASSOCIATION" and "GOLD SEAL".	The WQA Gold Seal is proof that the water purifier has been independently tested and is certified against NSF/ANSI 58 and CSA Standard B483.1. It has also been tested and certified against NSF/ANSI 372.	The ETL Listed Mark logo, featuring the letters "ETL" inside a circle, with "LISTED" and "US" below it, and the Intertek logo below that.	The ETL Listed Mark is proof that the device has been independently tested and meets the applicable published standard.

Safety instructions

Before you install or operate the device, you must read the safety information. Obey the instructions in this manual to prevent injuries or damage to the equipment. This manual contains CAUTIONS and NOTES that are applicable for the safe operation of the device.


-  A CAUTION identifies conditions that can cause injury, or damage to the equipment. Obey the instructions and do not continue until all conditions are accepted and engaged.
-

-  A Note identifies important information for a trouble free and optimal use of the water purifier.
-


Safety information

-  Install the water purifier in accordance with local regulations. If you are not sure, contact a Bluewater dealer for aid. Bluewater has no responsibility for installation of the water purifier.
-


Be aware! Do not use or drink the water before "Purification level II and/or III" light turns green.

-  When the system has been on standby, turn on the faucet and let the water run until the "Purification level II and/or III" light turns green before using or drinking the water.
-

This appliance can be used by children who are more than 8 years old. It can also be used by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, if they have been given supervision or

-  instruction about the use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

-  Do not repair or modify parts of the water purifier. This can make it operate incorrectly, and lead to injury and damage not covered by warranty.
-

Pro is a reverse osmosis system. It contains a replaceable membrane that is very important for effective reduction of total dissolved solids (TDS). Replace this membrane regularly. Test the cleaned water periodically, at least one time every year, to make sure that Pro performs correctly. If the water is not clean, tastes or smells bad, do not drink it.



Only approved Bluewater staff can do servicing and repairs on the water purifier. Only use original replacement cartridges and parts from Bluewater. For the spare parts catalogue and contact information for purchases, see www.bluewatergroup.com.



The feed water has to follow the requirements stated in "Technical information" on page 30.



Test the purified water at least once per year. Do not drink it if there is any indication that the water is not potable, such as smell, taste, cloudiness or presence of particles.



Installation must comply with applicable local plumbing codes and regulations.

Connect the water purifier to an earthed electrical supply. Use a socket that is easy to access after installation. Only an approved electrician must do permanent wiring on the system. A safety switch must be installed on the system. Incorrect installation can lead to damage, or make the water purifier dangerous to use.



Do not use the power cord if there are visible signs of damage on it. If the power cord is damaged, a qualified electrician must replace it in order to prevent danger.



Do not use Pro without filters. This can cause damage to the system. The filter can be removed when Pro is cleaned or put into storage.



If the water purifier is disconnected from water and electricity for >5 days, store it as described in Complete User manual "Put into storage" on page 27.



PRODUCT OVERVIEW

Models

Model	Capable of handling higher TDS, including brackish inlet water	Suitable for commercial use without an automatic shutoff	Clean water rinse valve suitable for environments where extra high water quality is required
Pro 400B-HR	✓		
Pro 400C-HF		✓	
Pro 400C-HR		✓	
Pro 400BC-HR	✓	✓	
Pro 400CV-HR		✓	✓
Pro 400BCV-HR	✓	✓	✓
Pro 600C-HF		✓	
Pro 600CV-HR		✓	✓

Pro outside

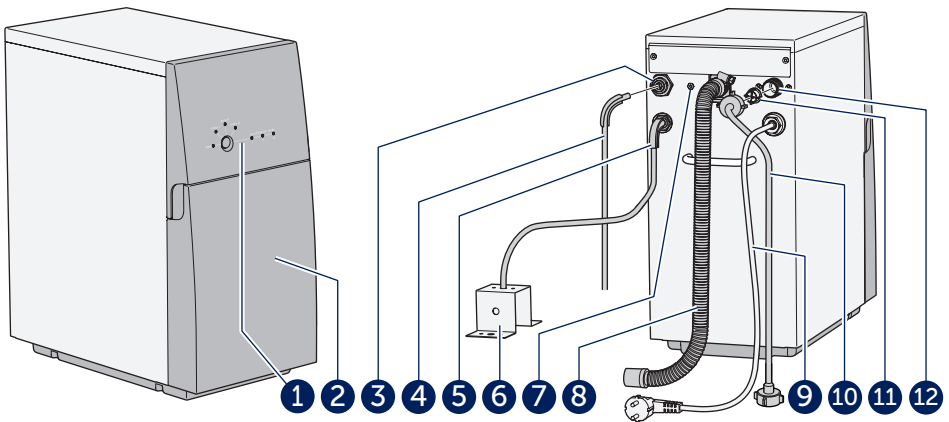


Figure 1. Pro outside

Pos	Description	Pos	Description
1	Control panel	7	Electrical connection for faucet (optional)
2	Front cover	8	Drain water hose
3	Clean water connection	9	Power cord
4	Clean water tube	10	Feed water tube
5	Rinse water tube (only for CV models)	11	Grid filter
6	Air-gap bracket (only for CV models)	12	Feed water connection

Pro inside and replacement components

Pos	Description	Art.-Nr.
1	Base plate	
2	Prefilter I, Pro 600: Carbon Block	919240005
	Prefilter I, Pro 400: Sediment filter	919240002
3	Prefilter II, Pro 600: Carbon Block	919240005
	Prefilter II, Pro 400: Carbon filter, granulated	919240003
4	Reverse osmosis membrane	
	Membrane service kit, type HR (High Rejection)	150718900-SP
	Membrane service kit, type HF (High Flow)	150718901-SP

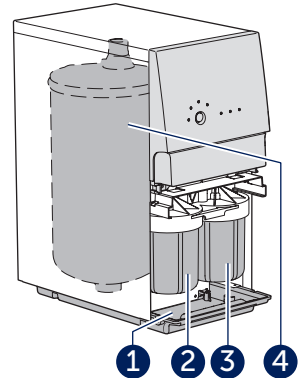


Figure 2. Pro inside

Control panel



For information about combinations of lights that flashes/are on, see "Troubleshooting" on page 32.

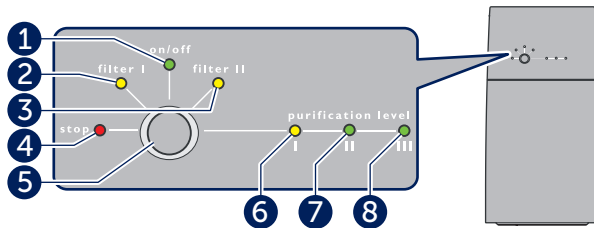


Figure 3. Control panel

Pos	Light/button	Description
1	on/off	On: The water purifier is connected to power. Off: The water purifier is not connected to power. Flashes: The water purifier flushes. Flushing cannot be stopped.
2	filter I	On: The filter must be replaced. Pro 600: Replace both Carbon Block filters.
3	filter II	On: The filter must be replaced. Pro 600: Replace both Carbon Block filters.
4	stop	Flashes/On: Something is wrong, see "Troubleshooting" on page 32.
5	button	Various functions
6	purification level I	On: Purification level I-III indicates clean water purification level. Low level I to high level III.
7	purification level II	On:
8	purification level III	On:

Data plate

The data plate is located on the rear side of the water purifier.

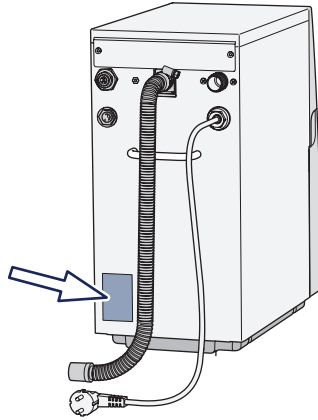


Figure 4. Data plate

Move the water purifier



Always transport the water purifier upright.
Install according to "Installation" on page 12.



Put the water purifier into storage if it will not be used for 4 months or more, or if it is to be disconnected from the water and electricity for >5 days, see "Put into storage" on page 27.



Contact your Bluewater dealer for advice before moving the water purifier from one place to another.

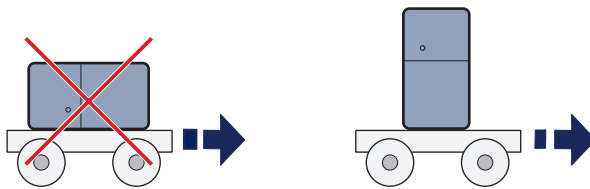


Figure 5. Move the water purifier

SYSTEM OVERVIEW

System description

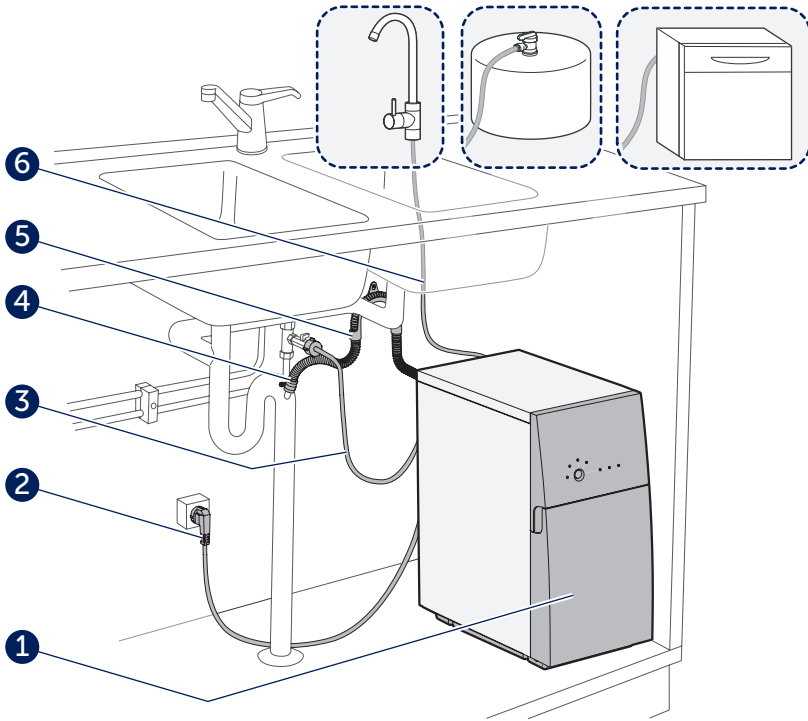



Figure 6. System overview, an example of Pro installation

Pos	Description	Pos	Description
1	Water purifier	4	Drain water hose, installed with an air-gap
2	Power cord	5	Bracket for drain water hose
3	Feed water tube	6	Clean water tube

Leak protection system

A sensor at the bottom of the water purifier senses water leaks. If there is a leak, the feed water supply is stopped. The water purifier cannot be started again until the leak has been repaired.

Low pressure protection

 If Pro stops because of low pressure, the cause of the low pressure must be removed. If not, Pro can be permanently damaged.

Low pressure restart function

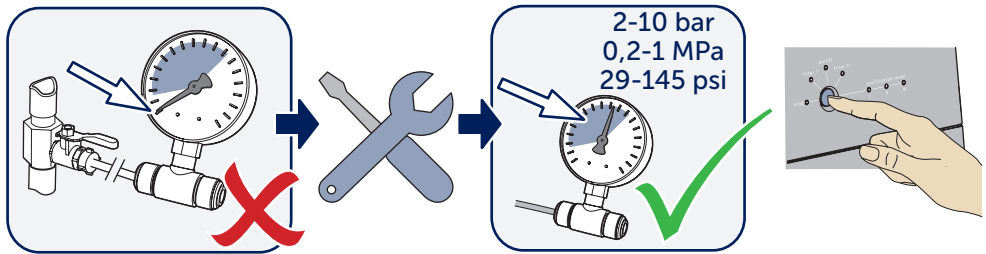


Figure 7. Low pressure restart function

 Only included in models suitable for commercial use.


When Pro has stopped because of a low pressure problem (feed water), water production can be started manually by pushing the button.

The low pressure restart is a function to ensure maximum availability of water.

Pro starts automatically when it has stopped because of low pressure. It tries to start three times: after 3 minutes, after 20 minutes and after 4 hours. If the water pressure is not sufficiently high after three tries, Pro will stop.

Water production

 Be aware! Do not use or drink the water before “Purification level II and/or III” light turns green. It can take up to 60 seconds before the water purifier indicates good water quality.

 For models suitable for commercial use the faucet could be replaced by for example a valve or a tank.

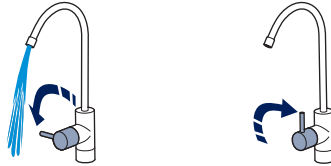



Figure 8. Water production on/off

Automatic flush

 The length of the flush process varies between 5-120 seconds, depending on how long the previous drawing of water lasted.

An automatic flush will be performed if one of the conditions below are fulfilled:

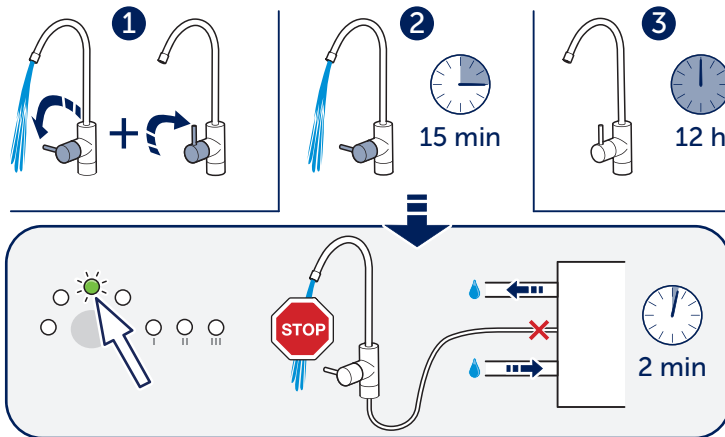




Figure 9. Automatic flush


Pos	Description
1	Flush after drawing water. Every time after drawing water.
2	Flush when drawing water. After maximum operation time 15 minutes. (Pro 400B must be manually restarted)
3	Water purifier in standby mode. Pro is connected to water and power. Flush is performed every 12 hours, regardless of when clean water was last produced.


INSTALLATION


 Install the water purifier in accordance with local regulations. If you are not sure, contact a Bluewater dealer for aid. Bluewater has no responsibility for installation of the water purifier.

 Install the water purifier in a vertical position on a horizontal surface. Make sure that hose and cables can move freely when the water purifier is installed.

 Plumbing must be done by an approved plumber. Installation must comply with applicable local plumbing codes and regulations.

 Only connect the water purifier to the cold water supply. The water must be of sufficient quality and fulfill the requirements on feed water.

 The first time Pro is connected to water and power, it does an automatic cleaning procedure. The cleaning time is 60 minutes. Cleaning cannot be stopped. Keep Pro connected to power, and leave the faucet open.

 Use the hose set that is supplied with the water purifier. Do not use used hose sets again.

Unpack Pro



Warning! Discard the packing material. It can cause injury to children if they play with it.



Make sure that Pro shows no signs of damage, and that no accessories are missing. Tell the Bluewater dealer about missing parts, damage and other problems. Tell the transport company immediately if Pro is damaged during transport.

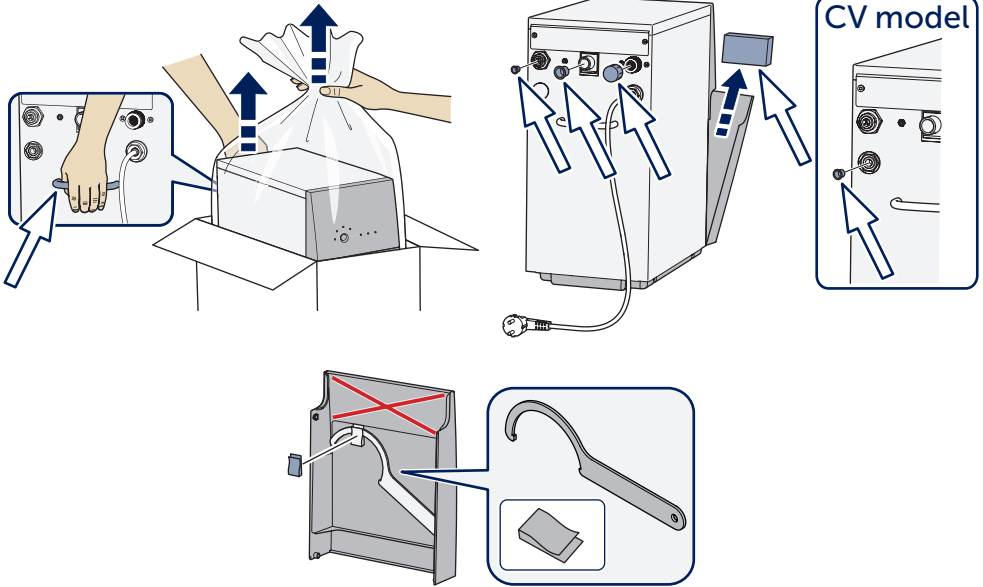


Figure 10. Unpack Pro

Position Pro



Put Pro in a vertical position on a horizontal surface below the kitchen sink. Make sure that the surface can support Pro.

Position Pro near the cold water supply, the drain and an earthed electrical supply.

- Make sure that it is easy to see the control panel.
- Make sure that the front cover can be opened to get access to the prefilters.
- Hoses and cables can go in all directions from the connection point. Make sure that nothing can crush them or cause damage to them.

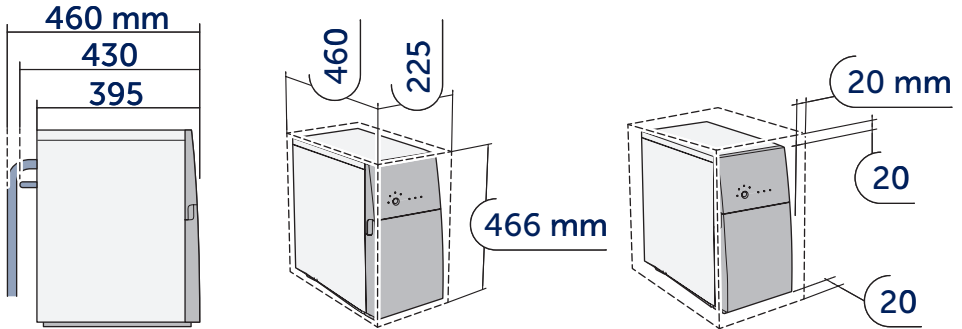


Figure 11. Position Pro

Install clean water faucet



For models suitable for commercial use the faucet could be replaced by for example a valve or a tank.

Install the faucet according to the manufacturer's instructions.

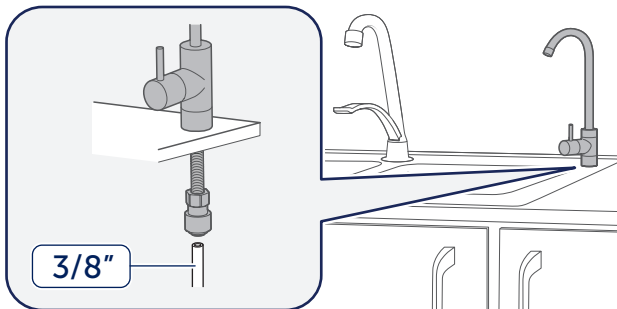


Figure 12. Install clean water faucet

Install feed water connection

- ⚠️ Only connect the water purifier to the cold water supply. The water must be of sufficient quality and fulfil the requirements on feed water.

The water purifier is connected to cold water via the feed water hose. See "Requirements on feed water to water purifier" on page 31.

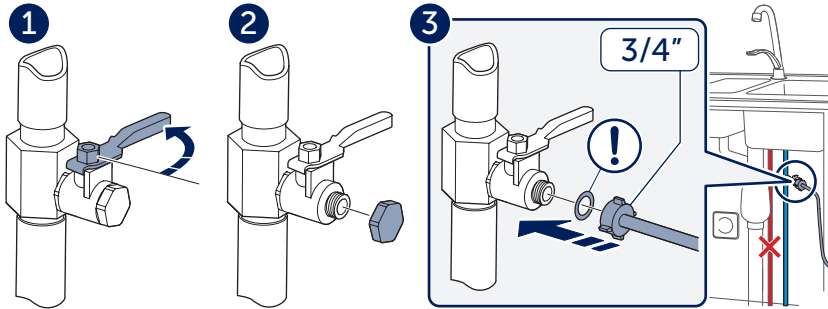



Figure 13. Install feed water connection

Install drain water connection

- ⚠️ Install the drain water hose with an air gap.

 The flushed water goes through the drain water hose to the drain water outlet. This hose can be a maximum of four meters long. The minimum internal diameter is 13 mm.

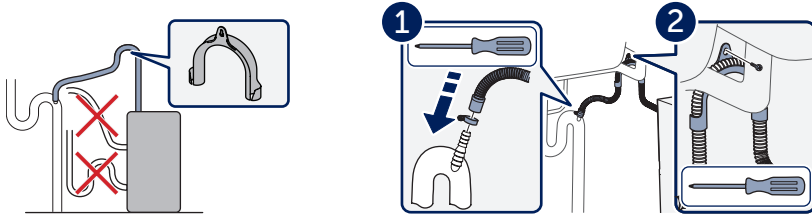


Figure 14. Install drain water connection

Connect the water purifier



Do not connect the clean water hose to other drinking water equipment before Pro has been flushed.



Applies to models that connects to a faucet.

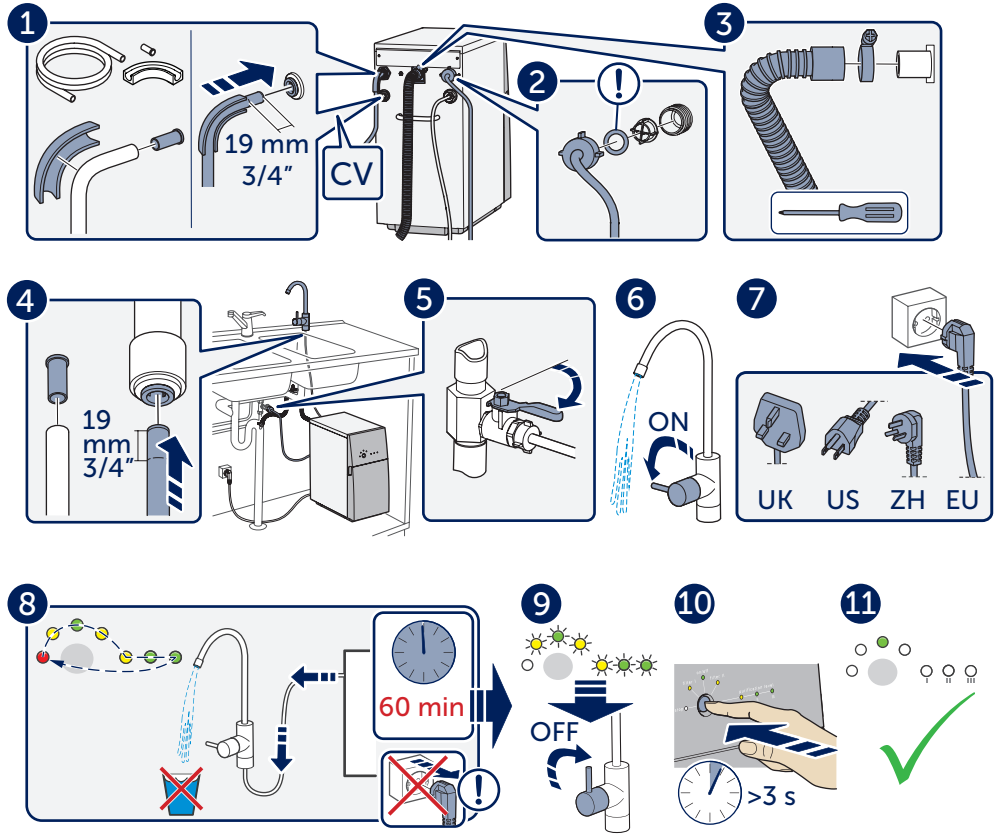


Figure 15. Connect the water purifier

Do a check for leaks

 The hose connections must be tight!

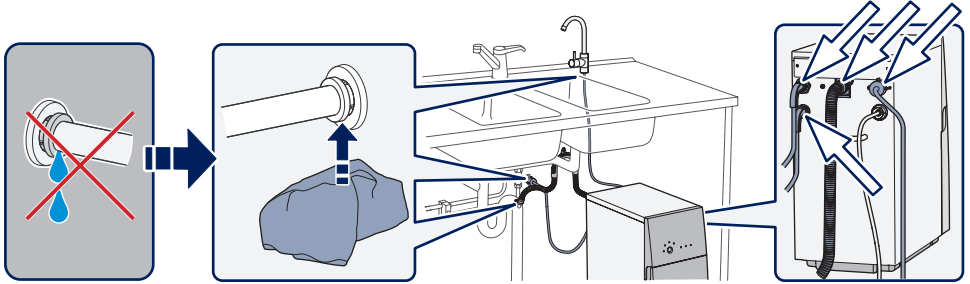






Figure 16. Do a check for leaks

MAINTENANCE

-  Regular maintenance is important for correct function and long term operation. Only educated and approved personnel can do the maintenance.
-  If the water quality changes greatly, contact your Bluewater dealer for advice.
-  Do not drink the water when the water purifier flushes, or when you do maintenance with chemicals. It is not safe to use.
-  The water quality controls the maintenance frequency. If the feed water is of low quality, do maintenance more frequently.

Each month

Do a check for leaks

See "Do a check for leaks" on page 17

Repair leaks

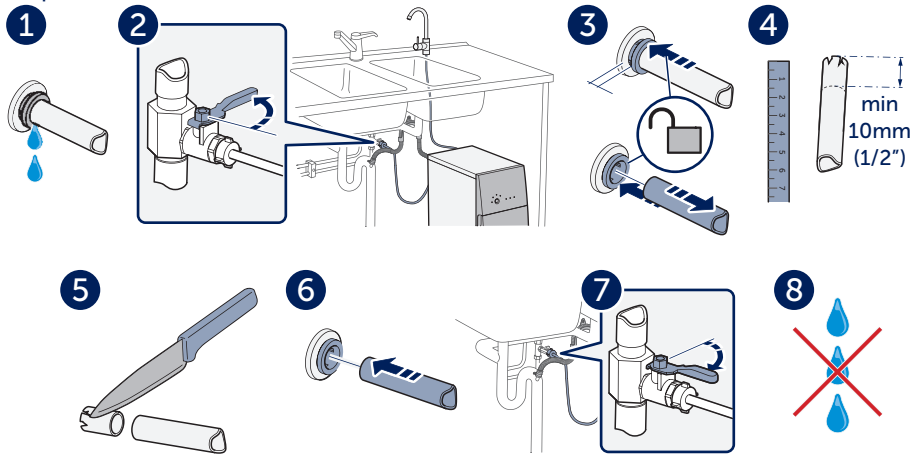


Figure 17. Repair leaks

Wipe off condensation from base plate

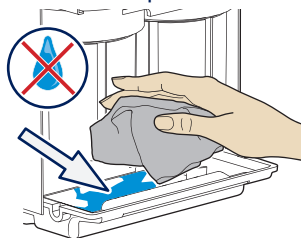


Figure 18. Wipe off condensation from base plate

Each 4-6 months

Descal



The descaling product is harmful. Keep it where children cannot get it. Clean your hands when you have used it.



Order the descaling product from a Bluewater dealer.



Frequency depends on water quality and usage!

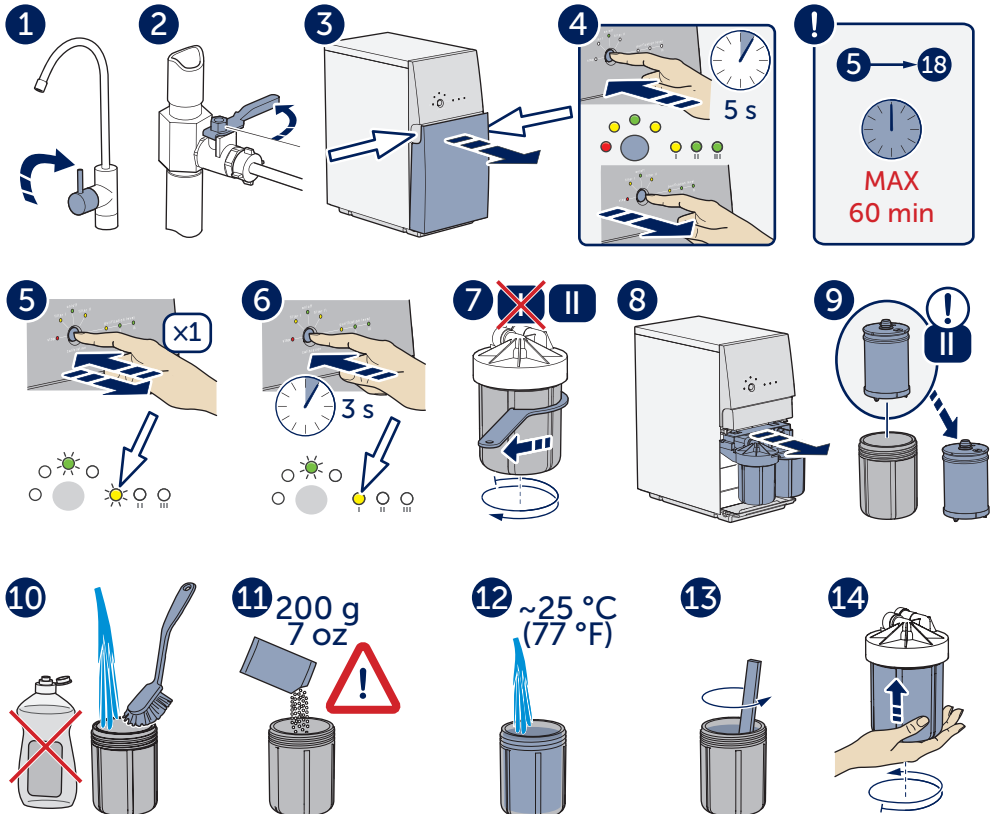
To extend the water purifier lifetime: Descal Pro with 6 month intervals or when the flow is decreased.



If Pro has been descaled and the filters have been replaced, but the water flow cannot be restored, contact your Bluewater dealer.



The descale takes approximately 10 hours. Do not use the water purifier during this time.





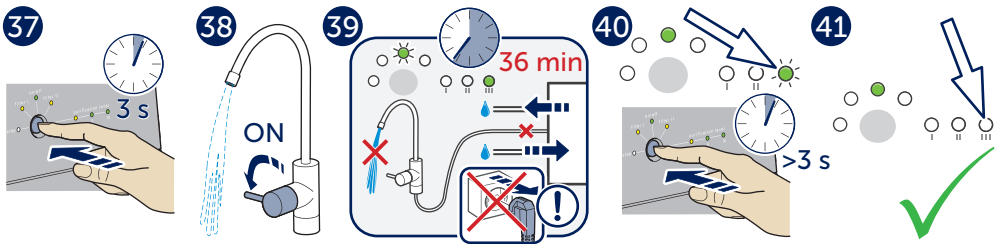


Figure 19. Descal and flush

Replace prefilter



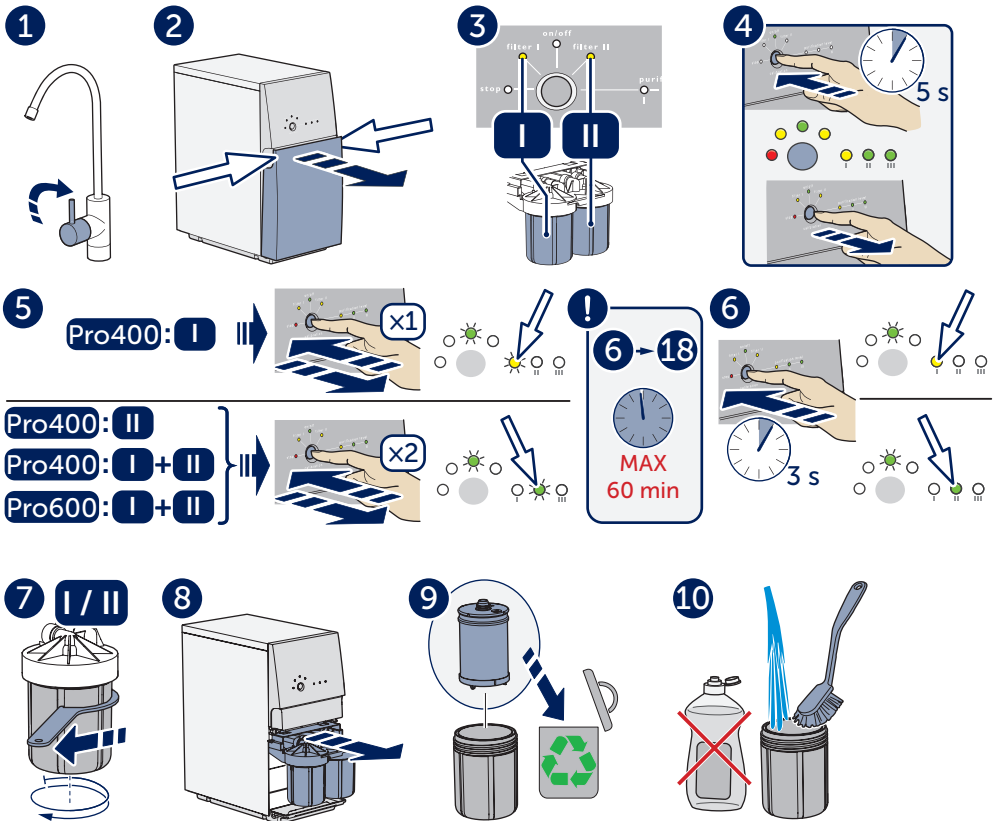
Replace the filters after what comes first of 4-6 months or 37 850 l (10 000 gal) of purified water.



Pro 600: change both filters when filter light I or II lights up.



Order filters from a Bluewater dealer.



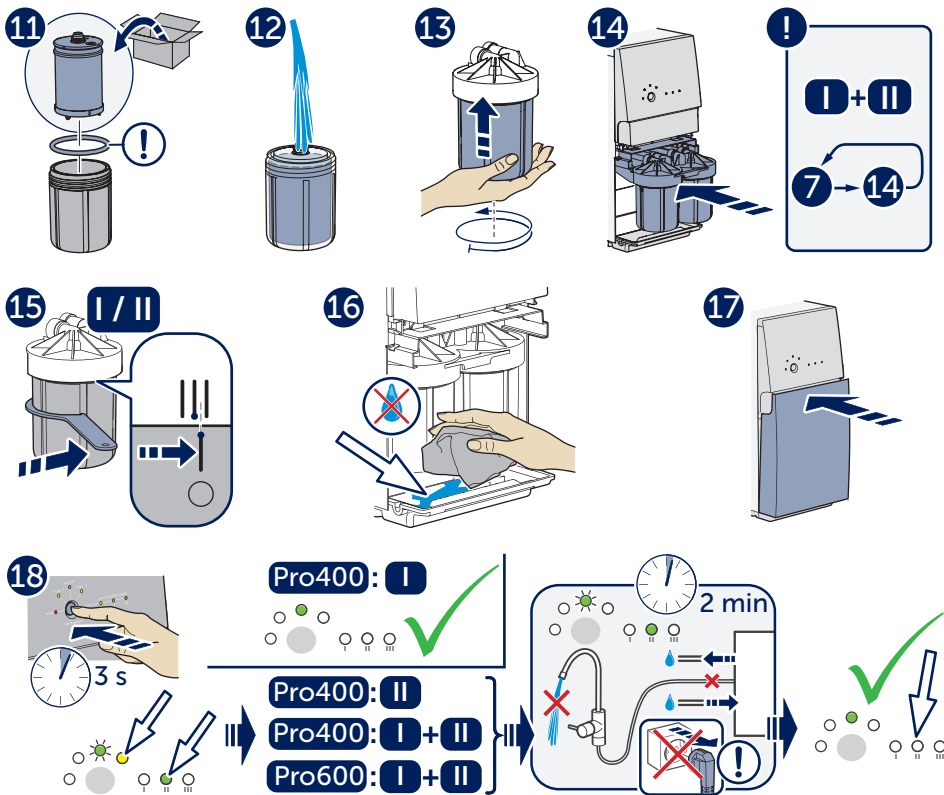


Figure 20. Replace prefilter

Each year

Test the water



An approved lab must do a test of the water that is cleaned by Pro at least one time every year, if the feed water has been classed as unfit.

Other

Flush Pro



Do not drink the water when the water purifier flushes. It is not safe to use.

The water purifier should always be flushed:

- when it is installed again after storage/freeze protection
- when it has been cleaned
- when the membrane has been replaced.

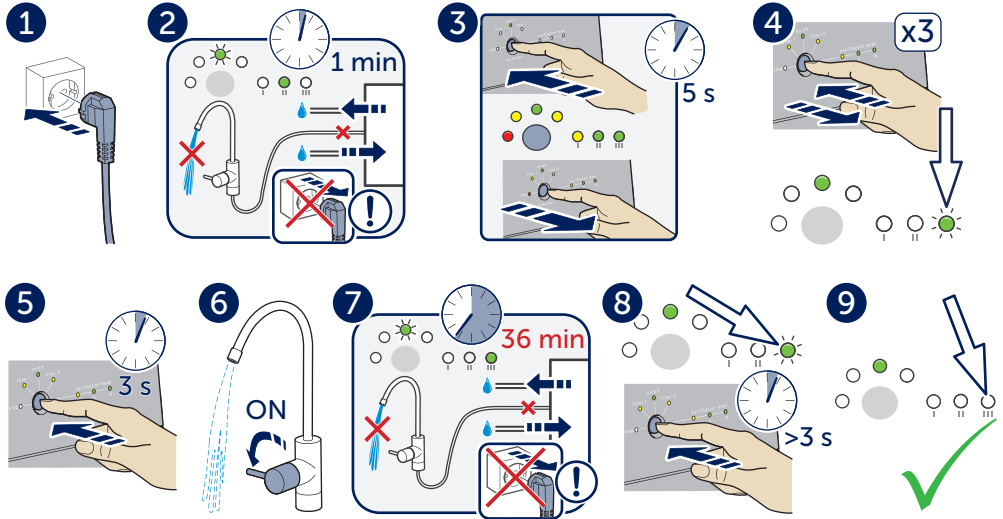


Figure 21. Flush Pro

Clean the grid filter



The grid filter in the feed water connection catches larger particles. If the flow is decreased or if Pro makes a noise, the grid filter can be blocked.

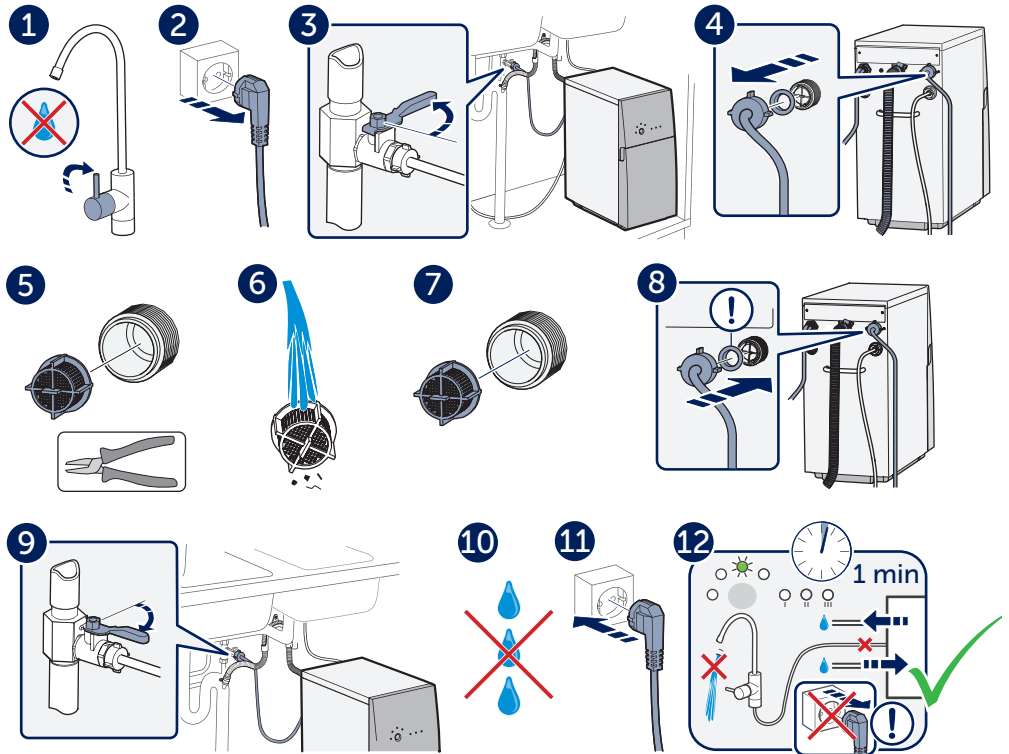


Figure 22. Clean the grid filter

Use disinfectant to clean the system



Disinfectant is harmful! Keep it where children cannot get it.
Clean your hands when you have used it.



Use sodium hypochlorite (NaClO) without added color or fragrance additives.



Disinfect the water purifier when the water tastes or smells bad.



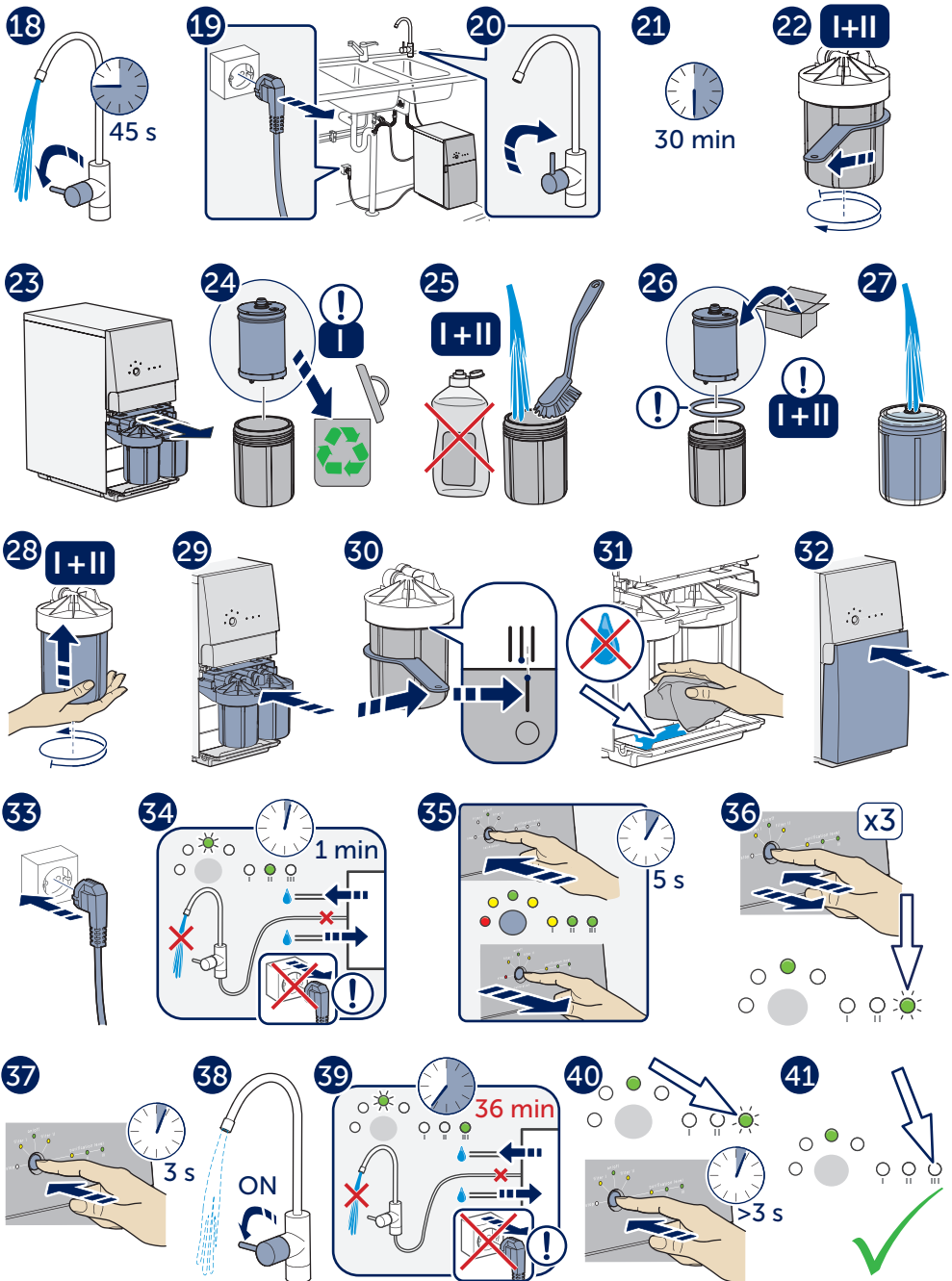


Figure 23. Use disinfectant and flush

Put into storage



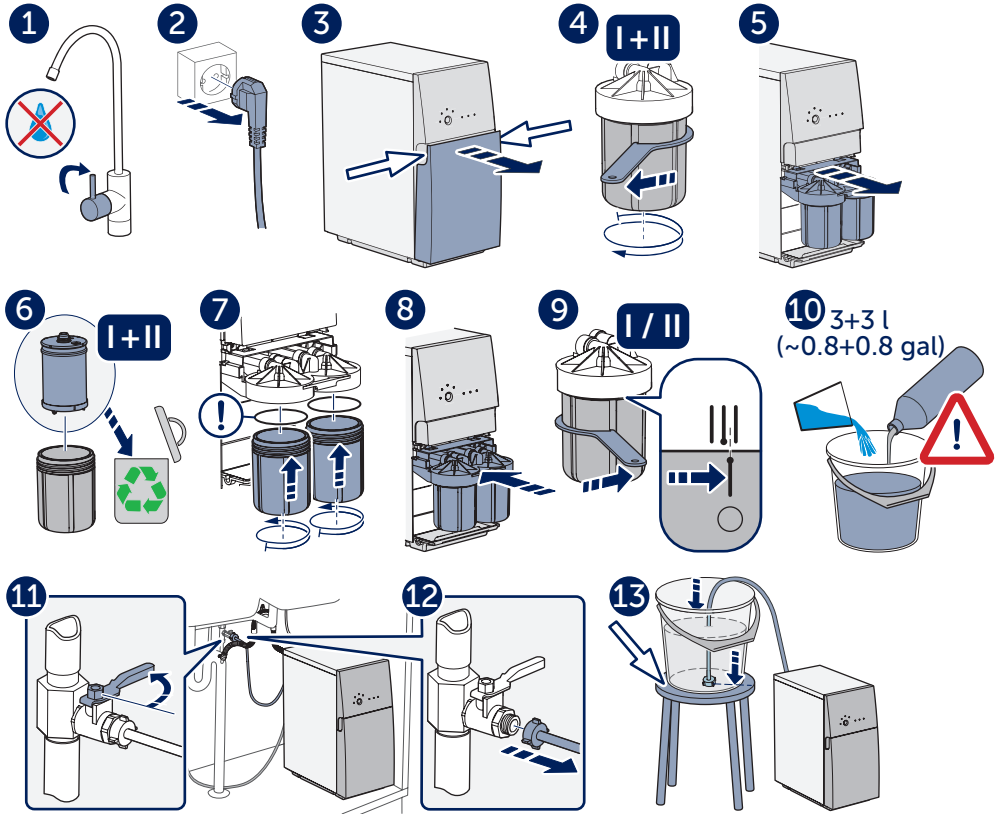
Preserving agent is harmful! Keep it where children cannot get it. Clean your hands when you have used it.



Put the water purifier into storage if it will not be used for 4 months or more, or if it is to be disconnected from the water and electricity for >5 days.



Order the preserving agent from a Bluewater dealer.



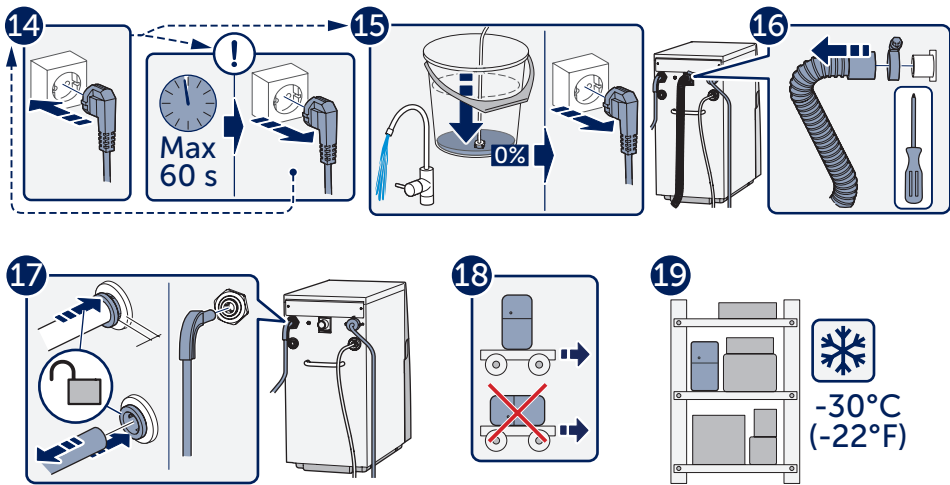

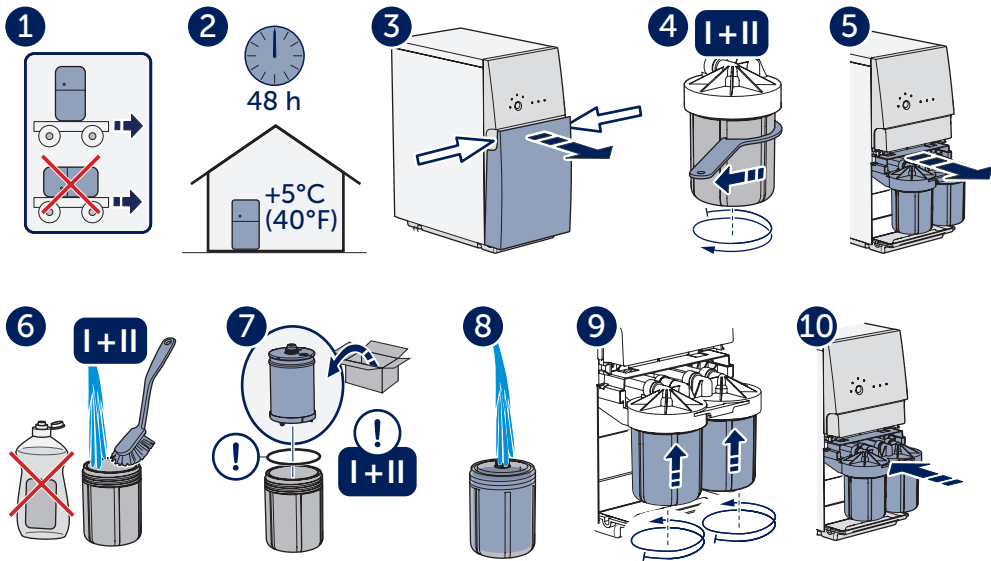


Figure 24. Put into storage

Reinstall after storage

 Preserving agent is harmful! Keep it where children cannot get it. Clean your hands when you have used it.



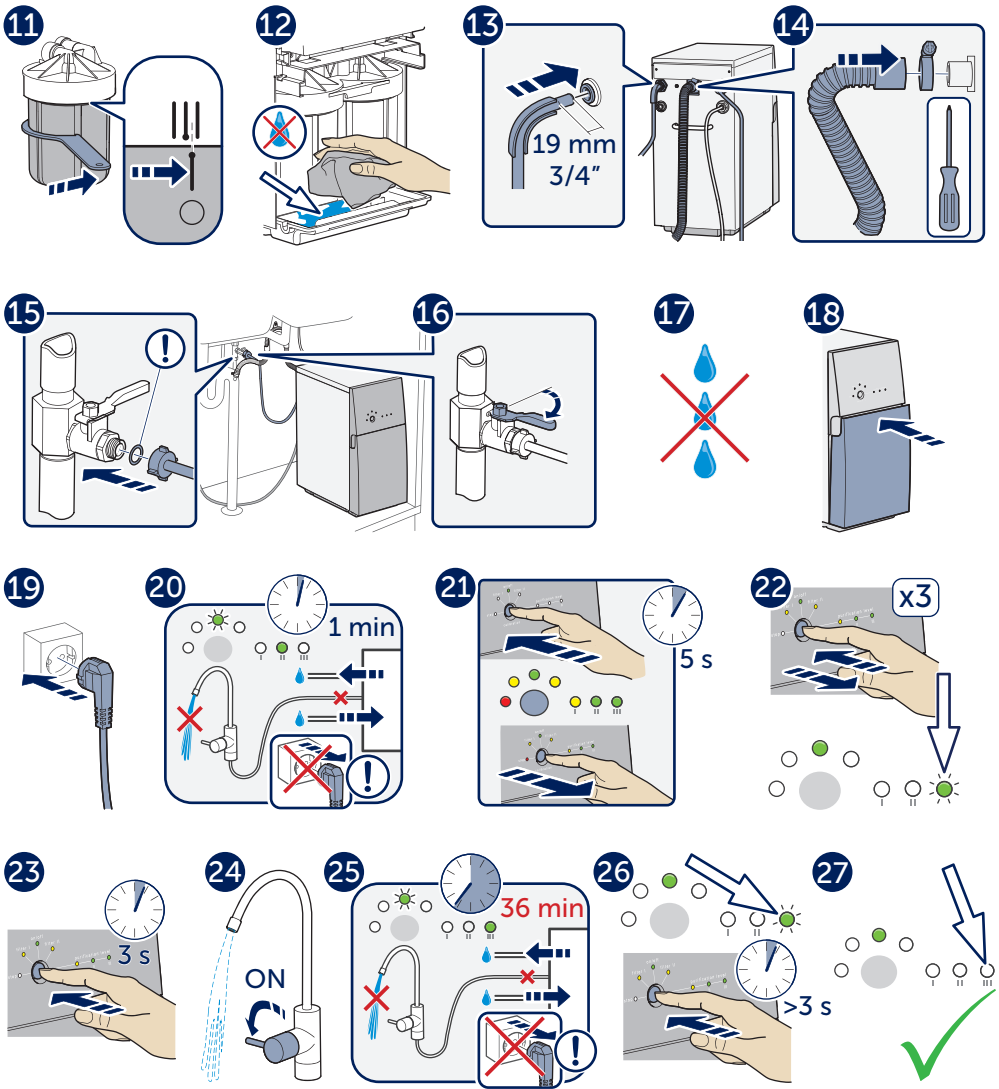


Figure 25. Reinstall after storage and flush

TECHNICAL INFORMATION

Technical data

Model	Size WxHxD	Weight	Power	Power supply earthed	
Pro 400B-HR Pro 400C-HF Pro 400C-HR Pro 400BC-HR Pro 400CV-HR Pro 400BCV-HR	220-240V	225x466x460 mm	29 kg	530 W	220-240V, 50-60 Hz
	120V	8.9x18.3x18.1 "	64 lbs	6 Amp	120V, 60 Hz
Pro 600C-HF Pro 600CV-HR	220-240V	225x466x460 mm	29 kg	720 W	220-240V, 50-60 Hz

Model	On/Off [bar psi]	Membrane type	Prefilter	Operation sequence (production/flush) [minutes]
Pro 400B-HR	0.5/2 (7.3/29)	High rejection	Particle Granulated carbon	Max 15
Pro 400C-HF	3/4.5 (44/65)	High flow	Particle Granulated carbon	15/2
Pro 400C-HR	3/4.5 (44/65)	High rejection	Particle Granulated carbon	15/2
Pro 400BC-HR	0.5/2 (7/29)	High rejection	Particle Granulated carbon	15/2
Pro 400CV-HR	3/4.5 (44/65)	High rejection	Particle Granulated carbon	15/2
Pro 400BCV-HR	0.5/2 (7/29)	High rejection	Particle Granulated carbon	15/2
Pro 600C-HF	3/4.5 (44/65)	High flow	Carbon block	15/2
Pro 600CV-HR	3/4.5 (44/65)	High rejection	Carbon block	15/2

Requirements on feed water to water purifier



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



Only connect to the cold water supply. The temperature limits are in the table "Requirements on feed water to water purifier" on page 31.



If the water quality changes greatly, contact your Bluewater dealer for advice.

	Pro 400B-HR Pro 400BC-HR Pro 400BCV-HR		Pro 400C-HF Pro 400C-HR Pro 400CV-HR		Pro 600C-HF Pro 600CV-HR
	230V	120V	230V	120V	230V
Temperature	2-30 °C	36-86 °F	2-35 °C	36-95 °F	2-35 °C
Feed water flowing pressure	2-10 bar 0.2-1 MPa	29-145 psi	2-10 bar 0.2-1 MPa	29-145 psi	2.5-10 bar 0.25-1 MPa
TDS (Total Dissolved Solids)	< 7500 ppm		< 1500 ppm		< 1500 ppm
Water flow	> 10 l/min	> 2.6 gal/min	> 10 l/min	> 2.6 gal/min	> 10 l/min
Conductivity [µS/cm, 25 °C (77 °F)]	< 13 000		< 2000		< 2000
Hardness	< 20 °dH	<20.9 gpg	< 20 °dH	<20.9 gpg	< 20 °dH
pH	4-10		4-10		4-10
Turbidity [FNU]	< 0.5		< 0.5		< 0.5
Iron Fe(II)/Fe(III)	<1.5 / <0.3 mg/l	<1.5 / <0.3 ppm	<1.5 / <0.3 mg/l	<1.5 / <0.3 ppm	<1.0 / <0.3 mg/l
Manganese Mn	<0.3 mg/l	<0.3 ppm	<0.3 mg/l	<0.3 ppm	<0.3 mg/l
Chlorine Cl ₂	<1.0 mg/l	<1.0 ppm	<1.0 mg/l	<1.0 ppm	<1.0 mg/l

TROUBLESHOOTING

How to solve simple problems



If Pro stops because of an emergency, disconnect it from power and connect it again, or press the button to reset the emergency stop.

Symptom	Cause	Solution
	The on/off light flashes.	The water purifier flushes. Flushing cannot be stopped.
	Filter I must be replaced. Pro 600: Replace both filters.	See "Replace prefilter" on page 21.
	The grid filter is blocked.	See "Clean the grid filter" on page 24.
	The feed water pressure is too low.	Make sure that the feed water pressure is sufficient. If necessary, increase the pressure.
	Filter II must be replaced. Pro 600: Replace both filters.	See "Replace prefilter" on page 21.
	Pro 400 B-HR Filter II must be replaced.	See "Replace prefilter" on page 21. Reset filter II.
	The feed water pressure is too low. The water purifier has stopped. It waits and must be started again.	The water purifier will try to start automatically. Make sure that the feed water pressure is sufficient. If necessary, replace the filters. See "Replace prefilter" on page 21.
		Push the button to start the water purifier. Release the button when the filter I light and the stop light go out.
	Filter I or filter II is blocked.	Make sure that nothing in the filter makes the water not flow. If necessary, replace filters. See "Replace prefilter" on page 21.
	The grid is blocked.	See "Clean the grid filter" on page 24.
	The feed water pressure is too low.	Install a pump with increased pressure for the feed water. Do a check of the parts that have an effect on the feed water pressure (the water line, the coarse filter, the extra pre-filter).
	The water purifier has stopped. The clean water quality has become too low.	Disconnect the water purifier from power. Connect it again to start the automatic flush. Do this 2 times.
	The salinity of the feed water has increased.	Contact your Bluewater dealer.
	The water quality meter does not work correctly.	Disconnect the water purifier from power. Connect it again to start the automatic flush. Do not use the water purifier for 30 minutes.

Symptom	Cause	Solution
	The tap has been on for more than 15 minutes. The water purifier has stopped. (Pro 400B)	Turn off the tap and wait at least 30 minutes.
		Push the button to start the water purifier. Release the button when the stop light goes out.
	The leak protection system is activated.	Disconnect the water purifier from power, and clean the base plate.
	The first time cleaning procedure is ongoing.	The water purifier is working correctly.
	The first time cleaning procedure has been interrupted.	Make sure that the feed water pressure is sufficient. Push the button to start the water purifier.
	The first time cleaning procedure has been interrupted.	Open the faucet on the clean water tube (and on the rinse water tube for CV models).
The flow rate from the clean water faucet is low.	The clean water tube is tensioned or jammed.	Make sure that the clean water tube can move freely.
	The water purifier needs to be descaled.	See "Descale" on page 19.
The water purifier starts and stops again (short starts).	The water pressure between the water purifier and the faucet/valve/tank is below the starting pressure level.	Examine the connections.
		Make sure that the ends of the water tubes are circular and have no burrs.
		Make sure that the faucets and the valves are water tight when they are closed.
There is a bad smell from the water purifier.	Microbial growth in the water because the water purifier has not been used for a week or longer.	See "Use disinfectant to clean the system" on page 25.

Product performance



The WQA Gold Seal proves that the Bluewater water purifier has been independently tested and certified against NSF/ANSI 58 and CSA Standard B483.1. WQA certifies product performance, and reviews the manufacturing facility and procedures to assure product consistency and integrity.

The Bluewater Pro water purifier has been tested according to NSF/ANSI 58 for reduction of the substances listed below:

- TDS
- Chromium(+3)
- Lead
- Arsenic(+5) (also known as pentavalent arsenic, As(+5), As(V) or arsenate).

The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for the water leaving the system, as specified in NSF/ANSI 58.

See performance data sheet on www.bluewatergroup.com for more details. In the arsenic fact sheet, also found on www.bluewatergroup.com, you will find information about the conditions that is related to reduction efficiency of arsenic(+5), and why other forms of arsenic may not be removed to the same extent.

Bluewater is a world leading water purification company. Headquartered in Stockholm, Sweden, the company helps people and businesses globally enjoy the health and wellbeing benefits of cleaner, healthier tap water. Bluewater innovates, makes and sells compact water purifiers that harness the company's patented reverse osmosis technology to remove virtually all pollutants from tap water, including lead, bacteria, pesticides, medical residues, chlorine and lime-scale.

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