

Installation and User Manual/Warranty/Certificate

ONLINE Drinking Water System

Model Numbers: KRAUSEN 400 COVER

For indoor use only

Dear customer,

Thank you for purchasing our KRAUSEN water purifier!

You now have water treatment equipment that is at the world's leading position in today's water treatment field. It produces pure water that can be consumed directly so the water you drink is cleaner and also beneficial to your health.

Before you install and use this water purifier, please be sure to read the user manual, this enables qualified and standardized installation as well as reasonable use and maintenance to maximize the effectiveness of your water purifier.

If you experience difficulties during installation or usage, please contact your local distributor to carry out repairs or maintenance for you.

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Safety Considerations (Be sure to read and remember these safety considerations)

In order to avoid property damage and harm to you and others, make note of the following safety precautions.

★Ignoring the following safety precautions could result in a risky situation:

⚠ Warnings If you ignore contents in this section, it may cause permanent damage to the water purifier or cause serious property damage.

⚠ Notes If you ignore the contents in this section, it may lead to damage of some parts of the water purifier or may result in some property damage.

⚠ Warnings

Do not disassemble or modify this water purifier on your own!



Unauthorized disassembly or modification of the machine could lead to machine malfunctions or leakage accidents.

Please check with the store where you purchased this product for product consultation in order to arrange for repairs.

Do not put things on the top of the machine!



Obstructing the heat dissipation may lead to machine damage or fires.

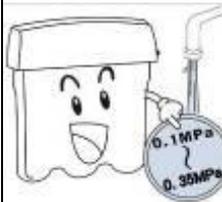
Do not put heavy objects on the water purifier!



If heavy objects are placed on the water purifier, it may result in damage to the water purifier's dust cover or internal components, which could lead to leakage, the machine working improperly, or even serious

property damage.

Do not use this water purifier under high water pressure conditions!



Operating under high pressure conditions may cause the water purifier pipes to rupture, resulting in leakage, the machine working improperly, or even serious property damage.

Recommended inlet pressure is 0.1MPa to 0.35MPa.

Do not let the machine come in contact with corrosive materials!



These materials could corrode the outer cover and affect the water parts or some toxic and hazardous compounds could penetrate the water purifier

pipes, leading to contaminated water production and machine leakage, which could even cause bodily and property damage.

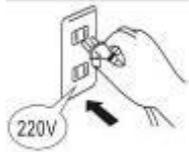
Do not put the water purifier close to the fire!



Do not put the water purifier near a fire source or place where the temperature is too high, this may cause deformation or melting of the machine, causing damage or leakage, which could lead to serious bodily and

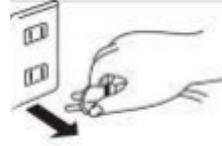
property damage.

Do not use a power source exceeding the machine's specified value, only use 220V AC power!



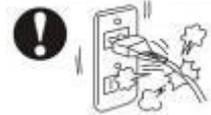
The outlet used for the machine's current must be greater than the machine's specified value; otherwise it may lead to overheating or fire.

When installing or repairing, the machine must be disconnected from the power source!



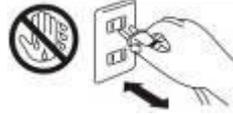
Otherwise it may lead to electric shock.

Do not damage the power cord or outlet!



Doing so may lead to electric shock, short circuiting, or fire.

Do not touch the power plug with wet hands!



It may lead to electric shock.

Notes

Do not use the water purifier when the sewer is blocked!



If it is used while the sewer is blocked, it may cause the waste water to back up or pollution to get inside the water purifier.

The waste water discharge pipe and wastewater ratio device cannot be blocked!



When the waste water discharge pipes and waste water ratio device are clogged, it may lead to high TDS effluent, the RO membrane may get blocked or the water purifier may not work.

Water purifier inlet water temperature should not exceed 38°C!



If the inlet water temperature is over 38°C, it will damage the reverse osmosis membrane leading to membrane failure.

Do not use in conditions under 5°C!



If the temperature in the room is below 5°C, please be sure to take measures to prevent freezing, such as starting the heater or air conditioner to prevent leakage or cracked pipes caused from water freezing inside the machine.

Do not use this water purifier outdoors!



If this water purifier is used outdoors, it can lead to accelerated aging of the water purifier pipes and parts, which can cause leaking or machine failure.

Do not use the water purifier in direct sunlight!



When the water purifier is in sunlight for a period of time, it may create a breeding ground for microorganisms so the water purifier water quality will decrease, and they may pollute the internal components of the water purifier.

Product Introduction

1. Blown-up profile of the water purifier

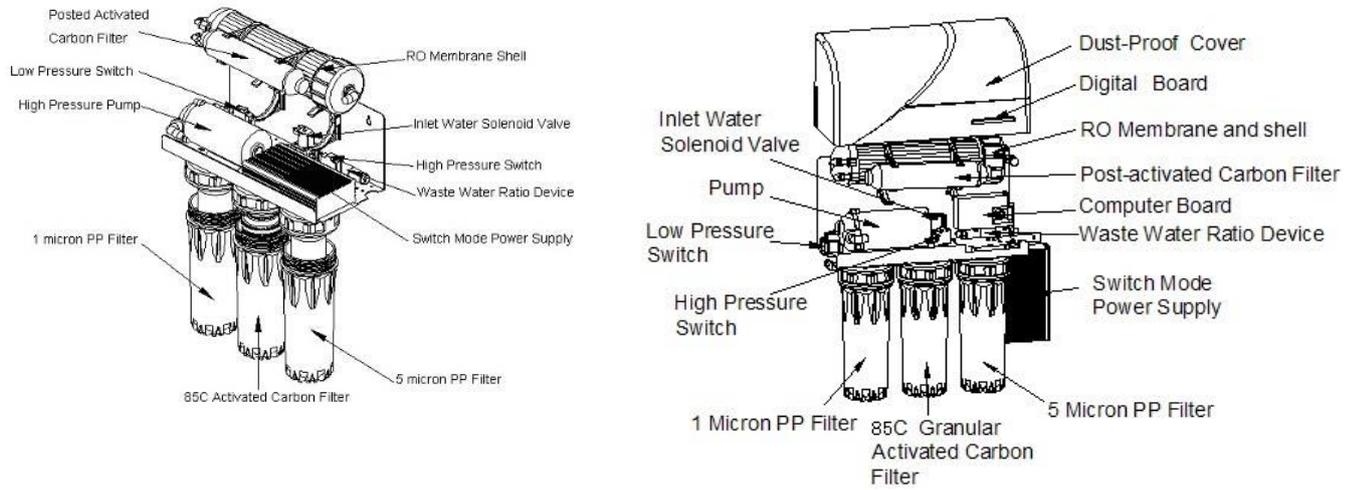


Diagram 1-1
Diagram 1-2

2. Electrical diagram

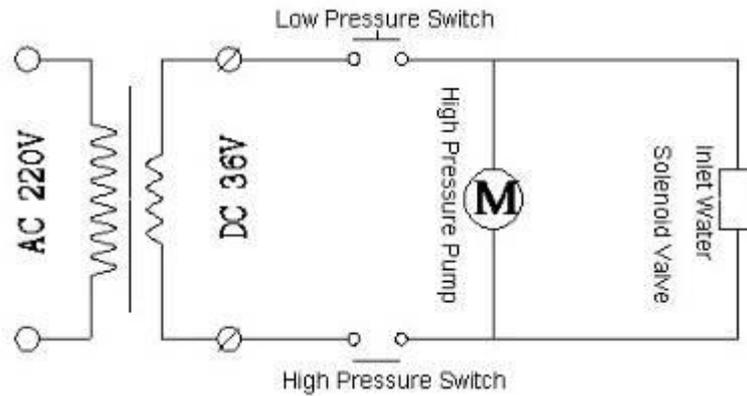


Diagram 2

3. Water route map

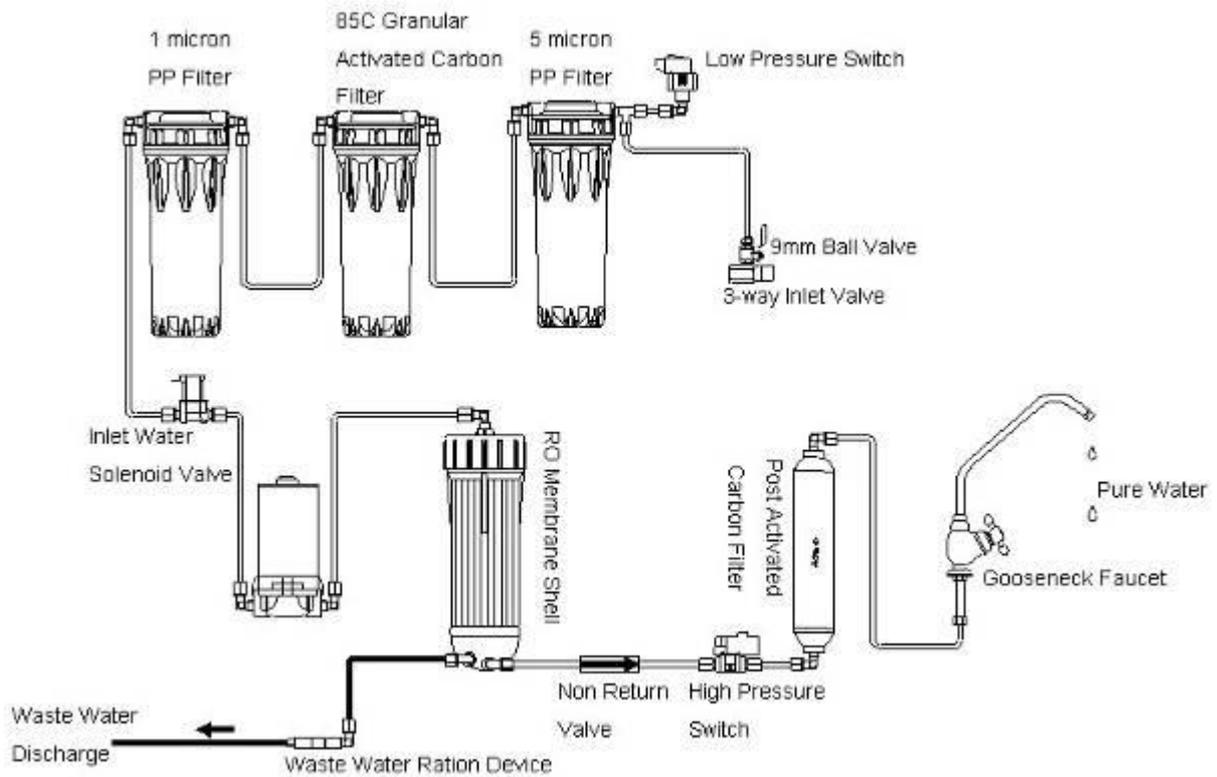


Diagram 3

4. Technical Parameters

Voltage	AC 220V 50HZ
Power Rating	75W
Suitable Water Pressure	0.05~0.35MPa
Operating Pressure	≤0.85Mpa
Inlet Temperature	5-38℃
Maximum Inlet Water TDS Value	≤1000PPM
Maximum Daily Water Production Volume	400 Gallons, approximately 1514 Liters
Electric Shock Protection Type	Type II
Suitable Water Quality	Municipal tap water meeting the GB5749-2006 standards

Note: Due to product improvements, the above parameters may change but the product name plate shall stay the same. TDS refers to the influent total dissolved solids.

5. Water Purifier Main Parts Function Introduction

Using the current most advanced international RO technology, **standard configuration** is as follows:

- ① First is a 10-inch 5-micron PP filter:
The aperture of the PP filter is 5 microns, can effectively filter rust, sand, other larger particles and solid impurities in water.
- ② Second is a 10-inch 85C granular activated carbon filter:
Can effectively adsorb chlorine, humus, disinfection by-products, odors, colors, and other materials.
- ③ Third is a 10-inch 1-micron PP filter:

Can further remove small particles in the water, suspended solids, colloids, etc.

- ④ Fourth stage is RO membrane:
Aperture is .0001 micron (0.1 nm), reduces bacterium by 4,000 fold, reduces viruses by over 200 fold, so you can effectively remove bacteria, viruses, heavy metals, pesticide residues, and other harmful substances from the water.
- ⑤ The fifth-stage is a post-activated carbon filter:
Regulates water taste, keeps water fresh.

Note: This machine also has an optional configuration:

Pretreatment Filter: KDF two stage filter, KDF three stage filter, sintered activated carbon filter

Post-filter: Alkaline filter, infrared mineralization activated carbon filter, alkaline sterilization filter, sterilizing filter

6. Water Purifier Accessory Functions

- High Pressure Pump: Boosts pressure to create a stable environment for the RO membrane.
- Waste Water Ratio Device: Controls waste water flow.
- Low Voltage Switch: To prevent pump idling. When the inlet water pressure is less than 0.03 MPa or when the inlet water stops, the low-voltage switch automatically shuts off the power source so the machine stops.
- High-Voltage Switch: Prevents pump from fully turning. When the pressure tank is full or has reached the set pressure, power supply is automatically cut off to stop the machine.
- Inlet Water Solenoid Valve: Connects or cuts off incoming water. Operating pressure range is less than ≤ 0.6 MPa.
- Non Return Valve: Also known as a one-way valve, controls the flow direction.

7. Water purifier features:

- ① **Design without storage tank:** The water flow is equal to the normal one with tank. The user can get the pure water at the same time the machine is producing water. This design solves the contamination problem (such as odors, bacteria etc) caused by long time pure water storage in tank. It supplies the real “pure and fresh water”;
- ② **Large Production Capacity and Big Water Flow:** Use a single 400G RO membrane. The production capacity is 6 times of the standard 50G one;
- ③ **Suit for large range of feed water:** It can start working if the feed water pressure is no less than 0.03Mpa.
- ④ **Quick-fitting Connector:** With newly designed quick-fitting connector on input and output water side, install and uninstall easily.
- ⑤ **shockproof function** --with silica gel mat and its use method in the fitting bag, it can be stucked at the iron board of the machine, prevent noise when machine vibrate
- ⑥ **filter cartridge replacement alarming and 45 minutes protection**——it will automatically alarm when the filter cartridge need to be replaced, the machine will be stopped when continually work 45 minutes.

Installation Method

This company recommends that professionals install the machine for you, because you must use drills and other power tools in the installation process. If you are installing it yourself, please refer to the following steps and diagrams:

1. Pre-Installation Preparations

- ① Confirm the location the water purifier will be installed (when installing, it should depend on the actual circumstances)
- ② Confirm the various tools required for installation

Adjustable spanner	1
Drill	1
Hole saw, $\phi 18\text{mm}$, $\phi 12\text{mm}$, $\phi 6\text{mm}$	1 (high-speed steel or marble hole saw)
Phillips and flathead screwdrivers	1 of each
Scissors	1 pair
21mm wrench	1
16mm wrench	1
14mm and 12mm multi wrench	1
Needle nose pliers	1
- ③ Confirm that you have all the connectivity accessories required for installation
- ④ Prior to installation turn off the water and/or electricity

2. Instructions for Proper Installation

- ① Inlet water metal hose and 3-way inlet water joint installation method (if the metal hose diameter is 9mm the 3-way inlet water joint must be purchased separately)
First close the inlet water valve. Unscrew from the metal hose. Remove the 3-way inlet water joint from the water purifier accessories box, thread one end of the inlet water 3-way joint into the inlet water valve outlet; one end of the newly unscrewed metal hose should be screwed into the 3-way inlet water joint screw nut (See Diagram 4).

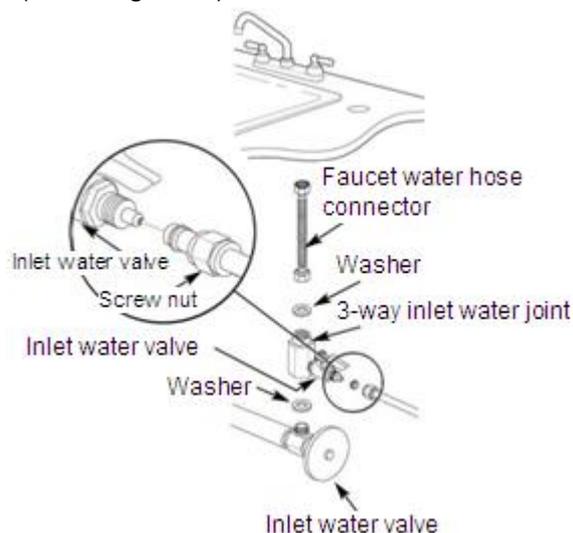


Diagram 4

- ② 3-way inlet water joint and inlet water ball valve installation method
Take out the inlet water ball valve from the water purifier accessories box, wrap one end of the ball valve external threads with the appropriate Teflon tape (See Diagram 5), if you have silica gel, spread

a little on and then screw the ball valve into the corresponding hole of the 3-way inlet water joint (See Diagram 6). Take out the Ø 9mm water pipe from the accessories box, using scissors cut a suitable length of pipe, connect one end of the pipe with the inlet water ball valve (See Diagram 4), finally screw the nut in place.

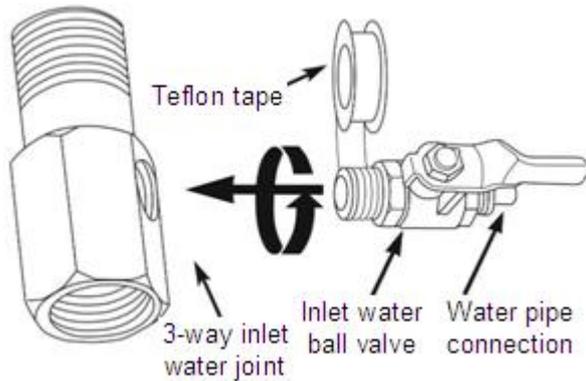


Diagram 5

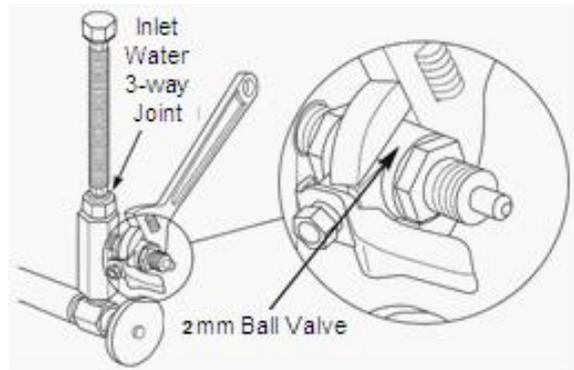


Diagram 6

③ Gooseneck faucet installation

In the counter where the faucet is to be installed drill a $\phi 12\text{mm}$ hole in an appropriate position, then take out the faucet from the water purifier accessory box. Start the faucet installation: first put the stainless steel neck on the faucet main body (See Diagram 7), then lower the main part of the faucet into the already drilled hole, and then put the spacer on the lower part of the faucet. Screw the fixed nut into the bottom end of the faucet to fix the faucet to the counter, finally put the appropriate length of 6mm pipe into the water inlet connection, put the 6mm pipe stopper into one end, put on the 6mm nut, screw to the bottom of the faucet (see Diagram 7). If you want to fix the faucet to the wall, please use the faucet hanging piece. (when installing be sure to tighten the joints to prevent leakage)

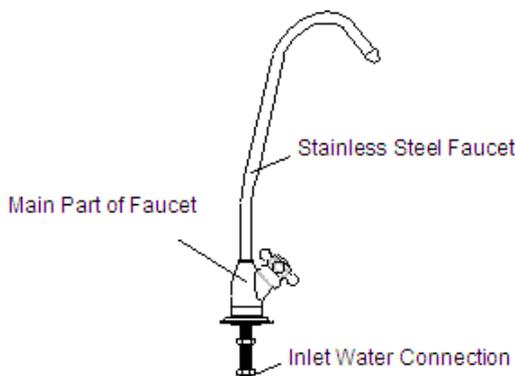


Diagram 7

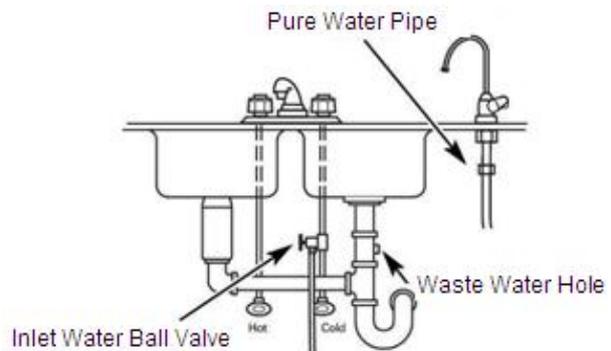


Diagram 8

④ Waste water pipe installation

Using a $\phi 6\text{mm}$ drill punch a small hole into the sink drain pipe, take a suitable length of the 6mm water pipe, lay one end just inside the hole (See Diagram 8), put some silica gel where the 6mm pipe and the drain pipe connect to prevent leakage, use a cable tie to fix the waste water pipe to the drain pipe. (for large flow water purifiers you need waste water clip inserted into the already drilled drain pipe hole)

⑤ RO Membrane Installation

First take the water purifier out from the packaging, open the water purifier outer cover, unscrew the membrane shell cover inlet water connection end, take out the inlet water pipe, then use the membrane shell wrench to unscrew the membrane shell cover. Take the RO membrane from its

packaging, put the end of the membrane with the O-ring into the reverse osmosis membrane shell (See Diagram 9) and push it in, finally screw the membrane shell cover back on, and use the membrane shell wrench to tighten the membrane shell cover, put the inlet water pipe into the membrane shell inlet water connector and screw in the nut, then put the membrane shell card into the large single clip and put the water purifier cover back on.

⚠ Warning:

- ◆ When installing the RO membrane, you should pay attention to the direction of the membrane;
- ◆ When installing the RO membrane, you should first make sure that one end of the membrane has an O-ring;
- ◆ When installing, be sure to put the end with the O-ring into the end of the membrane shell with the pure water connection, when installing correctly you only need a little force to put the reverse osmosis membrane into the membrane shell, if you encounter too much resistance, please do not force the reverse osmosis membrane into the membrane shell, doing so may cause permanent damage to the membrane shell or membrane components (the membrane manufacturer does not assume responsibility for returned components due to damage during installation);
- ◆ Damage to the membrane shell and reverse osmosis membrane element caused as a result of the above reasons is not covered under the water purifier warranty.

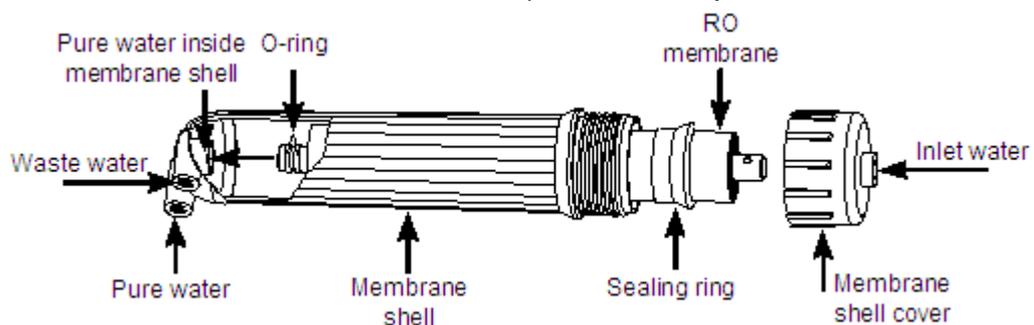


Diagram 9

⑥ Installation of pretreatment filter cartridge

Take the filter cartridge out from package, tear the packing film and put into the filter housing by sequence, from right to left: first put 5 micron PP filters; The second put 85 C particles activated carbon filter, (rubber gasket side direction up; The third put 1 micron pp filters (diagram 10)

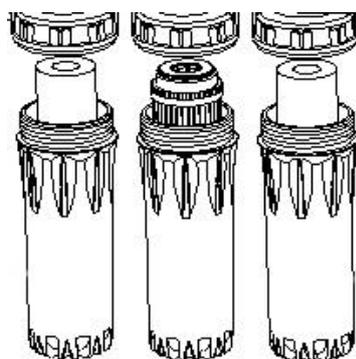


Diagram 10

3. Installation Considerations

- ① When installing the water pipes, cannot install a drain stopper, in addition, for the water pipe bottom connector, the screw nut should have no wire teeth exposed.
- ② If the inlet water pipe is 9mm, should ensure that the inlet water tube and connector have 30-40cm of straight piping to avoid burst pipe accidents caused by bending in the pipe.
- ③ If the power cord wiring needs to be longer, then according to the wiring requirements use a $\Phi 8$ mm pinched tube to wrap around the connection, then on the outside wrap around insulating electrical tape, do not place it on the floor, it should be suspended in the air or in another place away from the ground.
- ④ When installing, if you need to make a hole in the wall, you should first make sure that there are no electricity or water lines in the location you plan to drill.
- ⑤ ! The machine must be connected with the switch with reliable grounding line , otherwise manufacturers are not responsible for safety accidents caused.
- ⑥ ! The switch power supply must switching power supply must put in ventilated and waterproof place, and keep adequate distance with machine, in avoid of accidents caused by water input.

Adjustment Methods

After confirming that the water route connections are correct, confirm that you have a power supply and/or water supply. Then follow these steps to troubleshoot the machine:

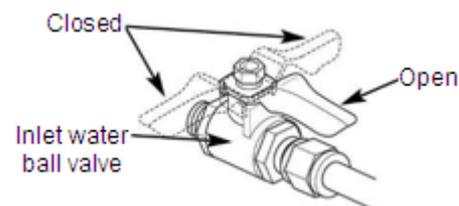


Diagram 11

1. Open the tap water inlet valve as well as the water purifier inlet water ball valve, plug in the power source (See Diagram 11), close the storage tank ball valve, then automatically start a 120 second flushing process, water will start to drain through the discharge outlet.
2. Wait for the water purifier to operate stably (about 5-10 seconds), check each connection to make sure it is secure, see if there is any leakage from the membrane shell, filters, etc.
3. Close the pure water gooseneck faucet and storage tank ball valve, wait approximately 30 seconds, check whether or not the water purifier waste water has stopped.
4. Open the gooseneck faucet, observe whether pure water is flowing through the faucet, if no pure water is flowing, check whether the tap water pressure is too low or whether the high pressure switch cannot be reset.
5. Wait until the machine is operating, close the inlet water ball valve, after a short time observe whether it has stopped operating, if it has stopped operating, check whether the low-voltage switch can be reset.
6. Wait some time to make sure everything is correct, then the water purifier can be used safely.

Usage Methods

1. The major components of this product are plastic, when using the product always observe the integrity of the water purifier to ensure safe use.
2. In order to prevent microbial contamination of membrane components during storage and transportation the reverse osmosis membrane element package contains a small amount of protective solution while the

post-activated carbon filter will emit activated carbon powder the first time it is used. So for the first hour the water purifier is operated, do not open the water storage tank. It is recommended that the water produced is thrown out, otherwise the pure water taste may be unusual.

3. When you start operating the water purifier the pure water TDS value may be a little high, after running for some time the TDS value for pure water will gradually decrease until it is stable.
4. When you are using the water purifier, the inlet water ball valve should be opened and the pure water faucet needs to be turned on. When you are not using water turn off the water faucet, the high pressure switch will automatically cut off the water supply.
5. In these “usage methods”, “usage” refers to when the power supply is connected and/or the inlet water ball valve is open so the water purifier is in a working condition.

Maintenance and Upkeep

1. Filter Replacement Time

- ① This machine’s filter replacement cycle for the various filters is derived from statistical indicators on average tap water use estimates. If there are big discrepancies between the user’s actual water quality and utilization rate and the average indicators, there will be more obvious differences between the filter’s actual use time and the estimated cycle such as premature filter clogging, premature failure, etc. If this happens, filter replacement should be based on actual use, you should also promptly contact your local after-sales service department.
- ② This machine’s estimated filter replacement cycle is based on average household water consumption and is suitable only for residential use, do not install this machine in places that require large volumes of water. If the water volume requirements are large, this company has appropriate machines for business purchase.
- ③ According to economic statistics on municipal tap water, a three person family on average uses 10L of water a day, according to the water volume and inlet water quality conditions, overall filter volume is approximately as follows (the following data is for reference only):

Progression	Water Volume (tons)
First: 10-inch 5-micron PP filter	4
Second: 10-inch 85C granular activated carbon filter	4
Third: 10-inch 1-micron PP filter	8
Fourth: RO Membrane	28~36
Fifth: Post-activated carbon filter	8

Note: It is recommended that filter element replacement is carried out by after-sales staff. Water quality has a great influence on the life of the filter, the RO membrane’s lifespan is affected by many factors, the above table expresses lifespan under standard conditions, in actual usage, because the water quality may be different, the lifespan may exceed the above estimate, it may also be lower than the estimate, this data is for reference only. Under normal circumstances if the following situations are experienced, you should consider replacing the filter:

- ◆ Poor water quality, taste declines, TDS value of water rises;
- ◆ Water flow is significantly reduced, check to see if the filter or membrane is blocked (and determine that it was not caused by a temperature drop);
- ◆ If the filter’s outer surface is covered in mud or the filter has significantly changed color;
- ◆ If serious filter clogging leads to no pure water from the water purifier.

2.The Show Status of Computer Board

1.Computer Board

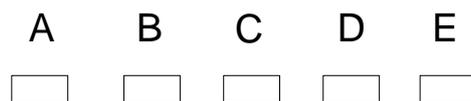


Diagram 12

As (diagram12) show

① The work status of the indicator show

A.Working status ; **B.**First cartridge replacement alarming ; **C.** Second cartridge replacement alarming
D. Third cartridge replacement alarming ; **E.** Fifth cartridge replacement alarming

Working: The machine start working after 3 seconds when turn on the power, A~E display in turn.

Standby: A keep light and the pump stop working.

Shortage of water: A will flash and alarm 30 seconds when lack of water, the pump stop working

45 minutes protection: A light flash 45 minutes and alarm 30 seconds when the machine continually working 45 minutes , then stop working, the machine will work automatically after 45 minutes (cut off power and restart don't influence the function).

Filter cartridge replacement alarming:It will be alarming when the first,and second filter cartridge used after 80 hours accumulatively, the third,and fifth filter cartridge used after 100 hours accumulatively, the corresponding indicator lights flashing 15 seconds and alarm 15 seconds when the filter cartridge need to be replaced.

②Reset after replacement of the filter cartridge

Open the cover, have No.1 and No.2 hole on the computer from left to right , No.1 is reset button, No. 2 is shift button.A stay light under standby mode, , press no. 2 to choose the cartridge need to be reset, then press No.1 to reset.

3. Filter Replacement Method

① Replacing the 1st and 3rd stage PP filters

First close the inlet water ball valve, using the filter cartridge wrench unscrew the 1st and 3rd stage filter cartridges, remove the old filters, then take the new filters out of the packaging, finally place the filters in the filter cartridges (Note: place the 5 micron PP filter in the 1st stage filter cartridge, the 1 micron PP filter in the 3rd stage filter cartridge), using the filter wrench, tighten the filter cover.

② Replacing the 2nd stage granular activated carbon filter

First close the inlet water ball valve, using the filter cartridge wrench unscrew the 2nd stage filter, remove the old filter, then take the new filter out of its packaging (the rubber pad on the filter does not need to be taken off), finally place the filter inside the filter cartridge (note: the direction of the granular activated carbon filter should be with the rubber pad end up towards the filter covers), use the wrench to tighten the filter cover.

③ For replacement of membrane elements please see “RO Membrane Installation” (Page 8).

4. Notes

① RO membrane water production volume

The RO membrane component water volume is influenced by the inlet water pressure and water temperature, this machine's stated volume of 400GPD is tested with net pressure of 0.5MPa and inlet water temperature of 25°C, if the net pressure is less than 0.5MPa or if the inlet water temperature is less than 25°C, the RO membrane element water production will be less than 400GPD.

② Disposal of old filters

After replacing old filters, they cannot be cleaned and reused; it is recommended that you dispose of them with solid waste garbage.



Notes

- ★ When any of the following situations occur, immediately disconnect the water purifier water source (close the inlet water ball valve) and/or the power source and carry out repairs.
 - If the water purifier pipes or related components are leaking.
 - If the water purifier's related components stop working.
 - If any components leak electricity.
 - If there are any other anomalies or failures.
- ★ When you go out or do not use the machine, disconnect the water purifier water source (close the inlet water ball valve) and/or power source.
- ★ If the water purifier parts are damaged, it is recommended that the water purifier be entrusted to the manufacturer or distributor, service center, or specialized technical personnel for replacement to prevent loss caused by improper operation, the manufacturer is not liable for losses caused by operation or use not in accordance with the instructions and reminders.

Failure Diagnosis and Resolution

Failure Experienced	Reason	Resolution Method
The machine will not start	● The power source is not connected	● Check the power source or the power source plug
	● Low inlet water pressure or no water	● Check the inlet water pressure
	● Low-pressure switch failure, cannot connect the power source	● After connecting the inlet water, measure the resistance, replace
	● High-pressure switch cannot be restored	● After letting off the pressure, measure the resistance, replace
	● Switch Mode Power Supply is burned out	● Measure the output voltage, replace
The high pressure pump is working properly, but no water is being produced	● High-pressure pump has lost pressure	● Measure the water pump pressure, replace
	● Inlet water solenoid valve is faulty, no water can get in (no pure water)	● Replace the solenoid valve
	● A pre-filter is blocked	● Observe the pure water and waste water, replace the pre-filter
	● Non return valve is blocked (waste water, no pure water)	● Replace the non return valve
	● The RO Membrane is plugged	● Clean or replace the RO membrane
The machine is turned off but waste water has not stopped	● Inlet solenoid valve failed, cannot effectively cut off the water supply	● Observe the waste water, replace the inlet solenoid valve
	● Non return valve has lost pressure (small waste water flow rate)	● Observe the waste water, replace the non return valve
After the	● Non return valve has lost pressure	● Replace the non return valve

machine is filled with water, the machine starts repeatedly	● High-pressure switch failure	● Replace the high pressure switch
	● System is exhibiting a loss of pressure	● After checking the non return valve, check whether there is water leakage in the pipelines
The pure water flow is small or not flowing	● Pre-filter is plugged	● Replace the pre-filter
	● RO membrane is plugged	● Wash or replace the RO membrane
	● Inlet solenoid valve failure	● Replace the inlet solenoid valve
	● Non return valve is plugged	● Replace the non return valve
	● Post-carbon filter is plugged	● Replace the post-carbon filter
	● High pressure pump pressure is not enough	● Measure the high pressure pump water pressure, replace

After-Sales Service

1. The warranty is valid from the date of installation.
2. Warranty period: One-year machine warranty. The warranty does not include consumables (consumables include filters, RO membranes, and storage tanks).
3. Please keep the warranty in a safe place, for maintenance you must have your purchase invoice, only then is the warranty effective.
4. No invoice, altered machine number, the user replacing parts or modifying the water purifier on their own, the user not following the requirements of the user manual, and man-made damage do not fall under the scope of the warranty.
5. If your water purifier exhibits abnormal behavior, please immediately turn off the water source, cut off the power, and contact your local vendor.

Notes:

The company reserves the right to change product design, configuration, and specifications without notice.

The company has the final explanation rights if this manual is unclear, has mistakes, or if there were printing problems which caused problems.

Packing List

· Main machine (including RO membrane)	1 unit
· Water pipe (ø6mm and ø9mm)	Each 1 roll
· Installation and User Guide (including certification, warranty, 4 barcodes)	1 copy
· Gooseneck faucet	1
· Filter cartridge wrench	1
· Membrane shell wrench	1
· Accessory pack	1 package
Consisting of: 3 way inlet valve	1
Inlet water ball valve	1
Pipe stopper ø6mm	2
Faucet hanging piece	1
Drain clamp	1

Notes:

Unit Conversion: $0.1\text{MPa} = 1.02\text{Kg/cm}^2 = 14.5\text{Psi}$

$1\text{Psi} = 0.07\text{ Kg/cm}^2$

$1\text{ Gallon} = 3.785\text{ Liters}$