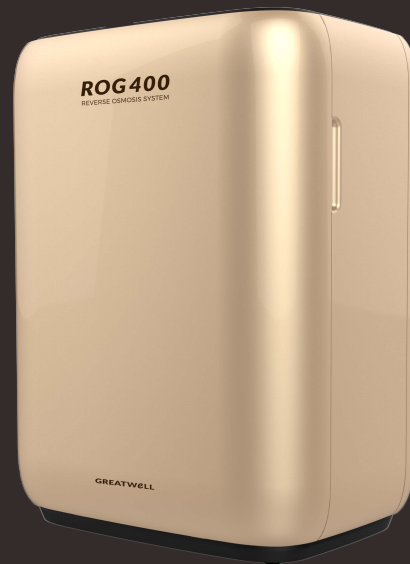


# GREATWELL

**Water Filtration System**

**Installation and Maintenance Manual**

*Model ROG400*



Please read the User's Manual carefully and keep it available.

<b>Safety Instructions .....</b>	<b>2</b>
<b>Usage Precautions .....</b>	<b>3</b>
<b>Display Instructions.....</b>	<b>6</b>
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<b>Basic Parameters .....</b>	<b>7</b>
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## Safety Instructions

Use by disabled persons should only be with proper supervision.


Do not allow children to play with this appliance.


Not intended for commercial use.

If the supply cord is damaged, it must be replaced by a qualified service technician.


Do not clean the appliance using a water hose.

Suitable for indoor use only.

 Keep ventilation openings in the appliance enclosure and in the enclosing structure clear of obstruction.

 Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

Do not immerse the appliance in water.

 This appliance contains a UV-C emitter. Do not operate the UV-C emitter when it is removed from the appliance enclosure. The UV-C emitter is not user-serviceable.

Improper use of the appliance or damage to the housing may result in the escape of dangerous UV-C radiation. UV-C radiation, even in small doses, may cause harm to the eyes and skin.

Do not operate the appliance if damaged.

Power to the appliance must be supplied through a GFCI-protected outlet having a rated residual operating current not exceeding 30 mA.

Do not dispose of this appliance in regular garbage. Please recycle through an approved electronics recycler.

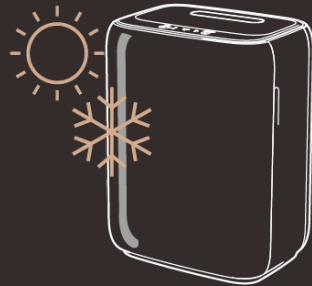


## Usage Precautions

Failure to observe the following precautions could result in property damage or serious personal injury.



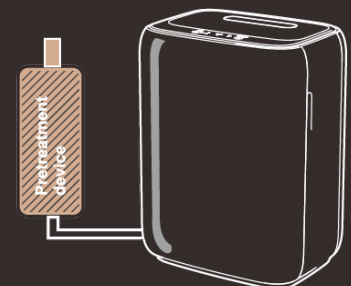
- ! If the power cable becomes damaged, stop using the unit and have it serviced by a qualified service technician. Do not pull, bend, kink, tie or otherwise stress the power cable.



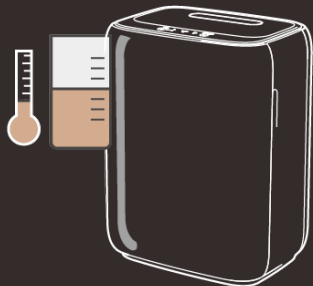
- ⊘ Do not store the unit in direct sunlight or at less than 32 degrees Fahrenheit.



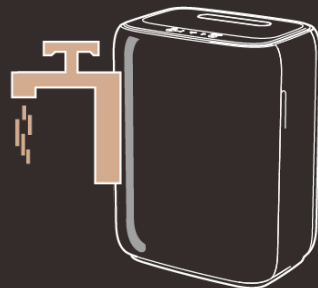
- ! To avoid dangerous electrical shock or damage to the unit, installation, relocation or servicing must be performed by a qualified service technician.



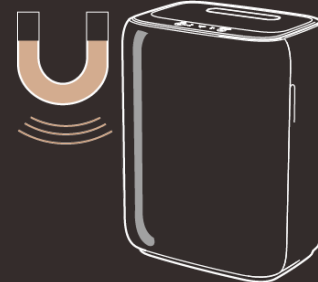
- ! When the inlet water doesn't meet the municipal tap water standard (e.g. includes excessive sand or mud or chlorine exceeds standards), please install a pretreatment device in front of this



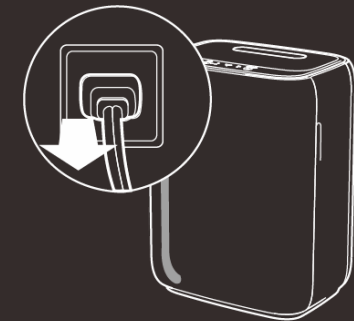
- ! The recommended working pressure of the unit is 14.5 - 58 psi. Please install a pressure regulating device if water pressure is above or below this range.



- ! If the unit becomes damaged, immediately shut off the power and water supply, unplug the power cord and contact a qualified service technician.



- ⊘ Colder temperatures will cause a decrease in the flow rate. This is normal.



- ! Avoid exposure to magnetic field. Exposure to a strong magnetic field could damage the unit or result in fire.

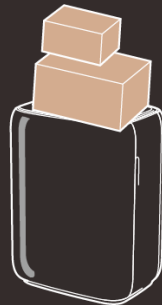
- ! Instructions on what action must be taken. ⊘ Instructions on what must be avoided. ⚠ Precautions to prevent device or property damage or injury

# Usage Precautions

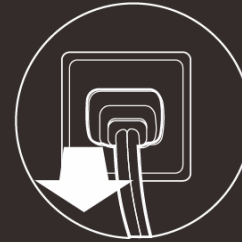
Failure to observe the following precautions could result in property damage or serious personal injury.



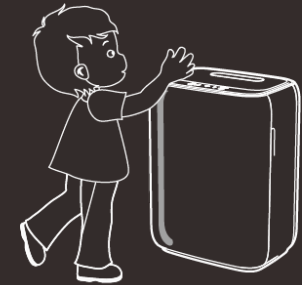
⊘ Damp or dusty environments may cause damage to the device.



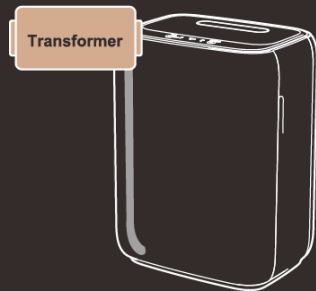
⊘ Please do not put heavy objects on the device.



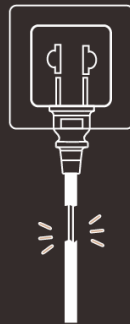
⚠ If there is no water supply or the plumbing is being repaired, unplug the unit and turn off the three-way ball valve. Before restarting the device, to prevent filter clogging, turn on the kitchen faucet to flush out sand and other debris before turning on the three-way ball valve and restoring power.



⊘ Do not allow children to operate, climb on, or be near the product. Children and disabled persons should be assisted in the use of the product.



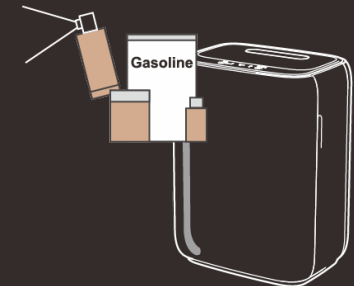
⊘ Do not use a step-up transformer with the device.



⊘ To avoid damaging the cord, do not pull on the cord when unplugging.



⊘ Keep the power cord clean. Do not touch the power cord with wet hands.

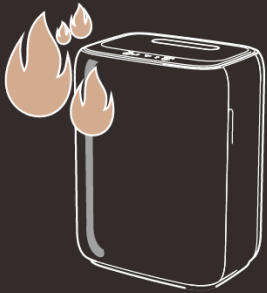


⊘ Do not expose the unit to combustible or volatile substances.

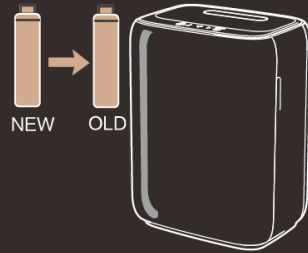
⚠ Instructions on what action must be taken. ⊘ Instructions on what must be avoided. ⚠ Precautions to prevent device or property damage or injury

## Usage Precautions

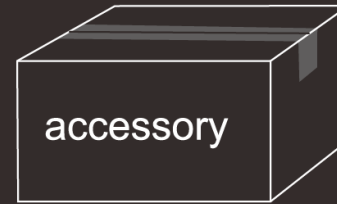
Failure to observe the following precautions could result in property damage or serious personal injury.



- ⊘ Do not expose the unit to heat source or flame.



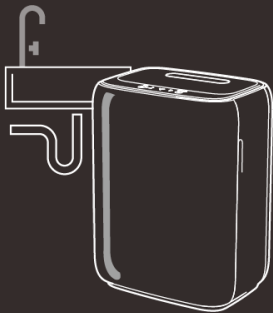
- ! Periodically clean and replace the filter.



- ! Use only manufacturer approved components.



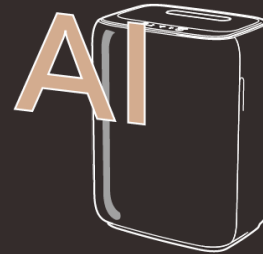
- ! It is normal for the device to vibrate or hum while producing water.



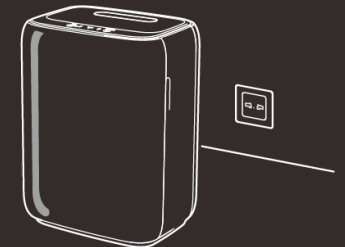
- ! Please install the device under the sink with access to the drain pipe.



- ! If the product won't be used for a long period of time, unplug the unit and turn off the three-way ball valve. When using it again, please run the water for 3-5 min before normal use.



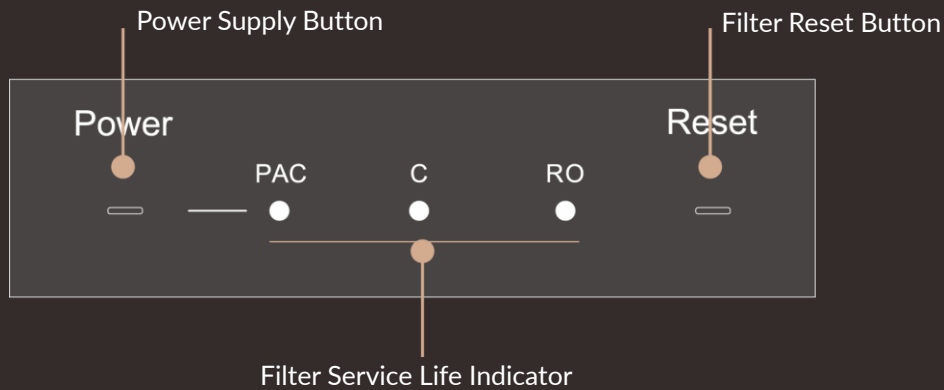
- ! The water production and flushing functions will continue automatically, even if the unit is not being used.



- ! The unit must be within 3 feet of a 110V outlet. Not to be used outdoors.

- ! Instructions on what action must be taken.
- ⊘ Instructions on what must be avoided.
- ! Precautions to prevent device or property damage or injury

## Display Instructions



## Filter Configuration

5/N	Filter name	Functions	Filter Service Life	Quantity
1	PAC composite filter	Effectively removes mud, sand, rust, suspended materials, residual chlorine and odors from water.	6-12 months	1 pcs
2	Activated carbon filter	Improves the taste of water and removes chlorine and odor from water.	6-12 months	1 pcs
3	RO membrane	With a filter rating of 0.0001-0.001 micron, removes organics (trichloroethane, carbon tetrachloride) and heavy metals (arsenic, lead and cadmium) from water.	24-36 months	1pcs

### Special considerations:

1. The Filter Service Life recommendation is based on what is required to maintain national quality standards for drinking water based on normal water use by an average family.
2. Actual optimal filter replacement will depend upon the local environment, local water quality, usage amount and season.

## Basic Parameters

The following parameters are subject to change without prior notice. Please refer to information attached to your actual product.

The purified water flow rate is tested with an environment temperature of  $77 \pm 3$  ° F, water temperature of  $77 \pm 2$  ° F and water inlet pressure of  $35 \pm 3$  psi.

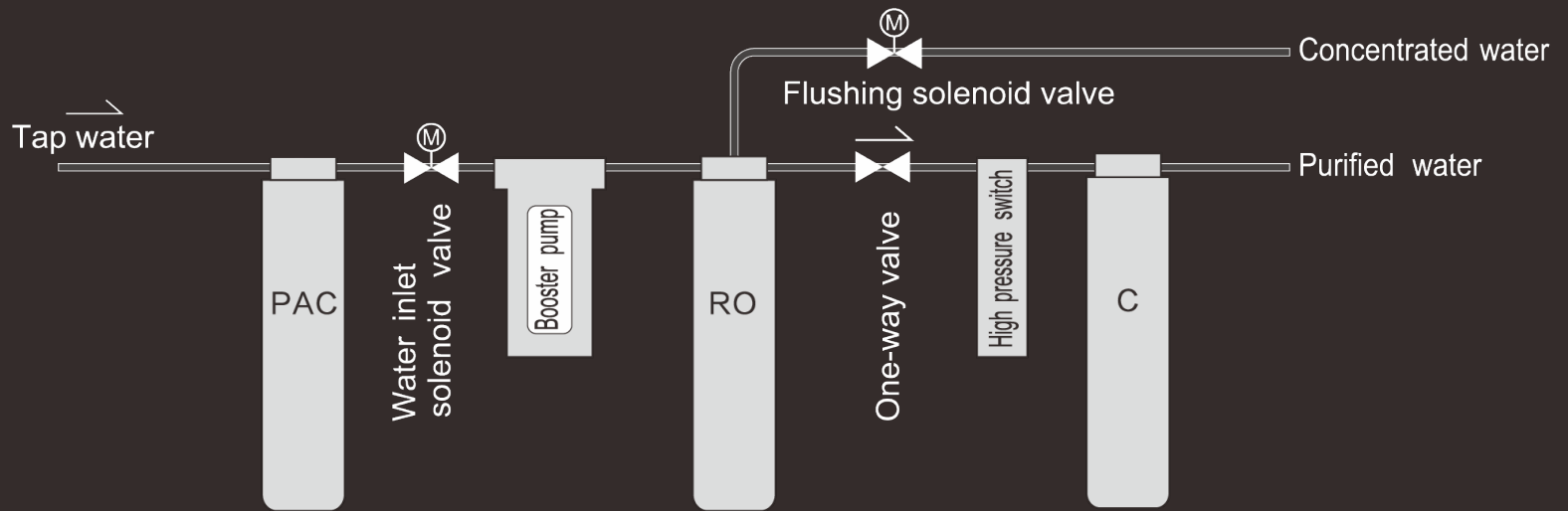
Model	ROG400	
Rated general purified water flow rate	RO water output: 528 gal	Active carbon water output: 528 gal
Rated voltage / Frequency	100V~240V 50/60Hz	
Rated total power	65W	
Purified water flow rate	RO water output: 0.26 gal/min	Activated carbon water output: 0.53 gal/min
RO film working pressure	14.5~58 psi	
Inlet pressure	14.5~58 psi	
Working pressure	14.5~58 psi	
Applicable water quality	Municipal tap water	

## Daily Maintenance

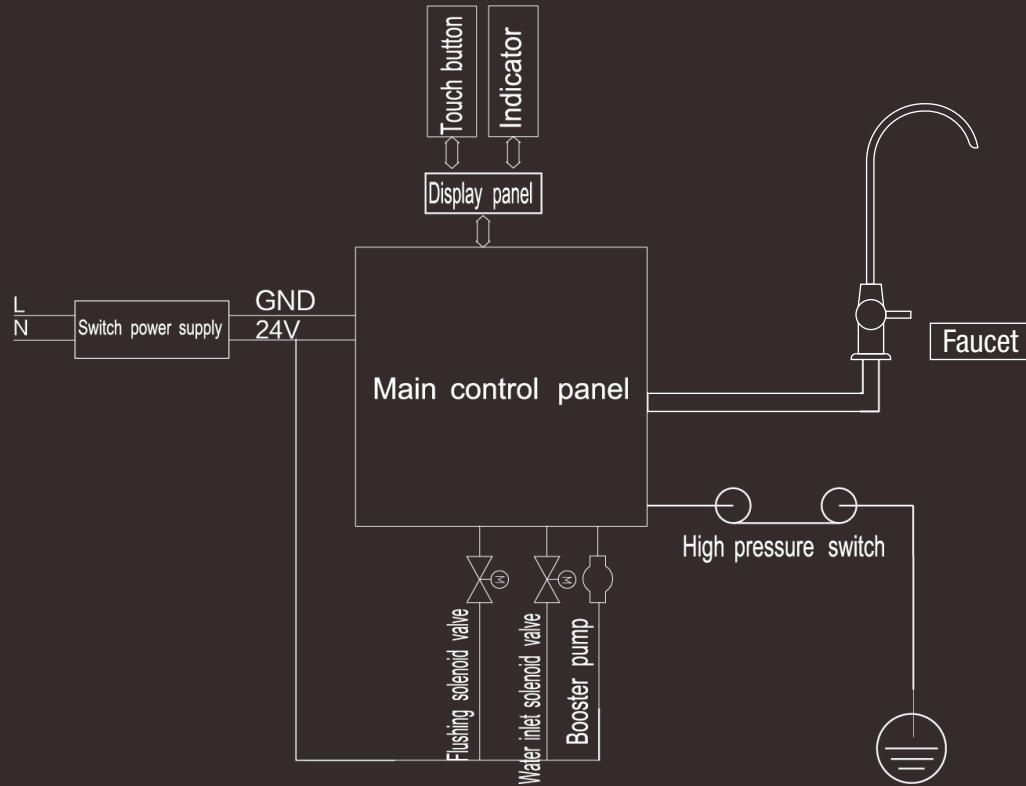
Daily maintenance of the water purifier is necessary in order to maintain water quality and safety, to ensure proper operation of the product and to prevent damage to the unit.

1. To ensure continued high-quality water output, have this product periodically maintained and filters replaced.
2. To prevent cracking, scratching or discoloration, do not clean with soap, detergents or strong chemicals such as thinner, gasoline or alcohol.
3. Do not clean the device by directly spraying with water.
4. Periodically check for water leakage from the unit.
5. Periodically check for water leakage from the outlet faucet.
6. Periodically check to make sure that the drain line is securely attached.
7. Before leaving the unit unattended for a long period of time, disconnect the power and make sure the inlet three-way ball valve is turned off.
8. The unit must be mounted level and upright.
9. Do not service the plumbing of the device by yourself.
10. Do not operate the product in an environment lower than 32° F

## Water Treatment Process Diagram



# Electrical Schematic Diagram



The contents of this manual have been carefully checked. For questions on content or potential printing errors, please contact iSpring Water Systems.

Note: Technical data is subject to change in new editions without prior notice. Please refer to the product as purchased for appearance and color.

## Troubleshooting

The following are possible solutions to common problems. If a problem can't be resolved through these measures, please contact us directly at 678-261-7611 or support@123filter.com. To avoid injury or damage, do not attempt to dismantle or repair the unit.

1. During the purifying and filtering process, the water purifier may generate some soft noise. This is normal operation.
2. If the following procedures don't resolve the issue you are experiencing, please contact our technical support team.

Phenomenon	Possible Causes	Solutions
The water output volume drops abnormally	Filter is clogged.	Flush or replace the filter.
	Filter has exceeded its service life.	Replace the filter.
	The ball valve or faucet is not completely turned on.	Make sure the water inlet ball valve or the faucet is completely turned on.
Poor output water quality	Filter is damaged.	Replace the filter.
	The device has not been used for a while. (more than 3 days)	Turn on the purified water faucet and let it run for 3-5 minutes.
	Quality of source water is low.	Confirm that water source is municipal tap water.
Water leakage	Component is damaged	Shut off water and power supply and contact iSpring.
No water output after replacing the filter	Air jam	When replacing the filter, shut off power, then shut off water supply, replace the filter, and then restore supply water and power.
No purified water comes out of faucet after interrupting and restoring tap water.	Air jam	Restore supply water and power, turn on the purified water faucet and let it run for 3-5 min. If this doesn't resolve the issue, contact iSpring.

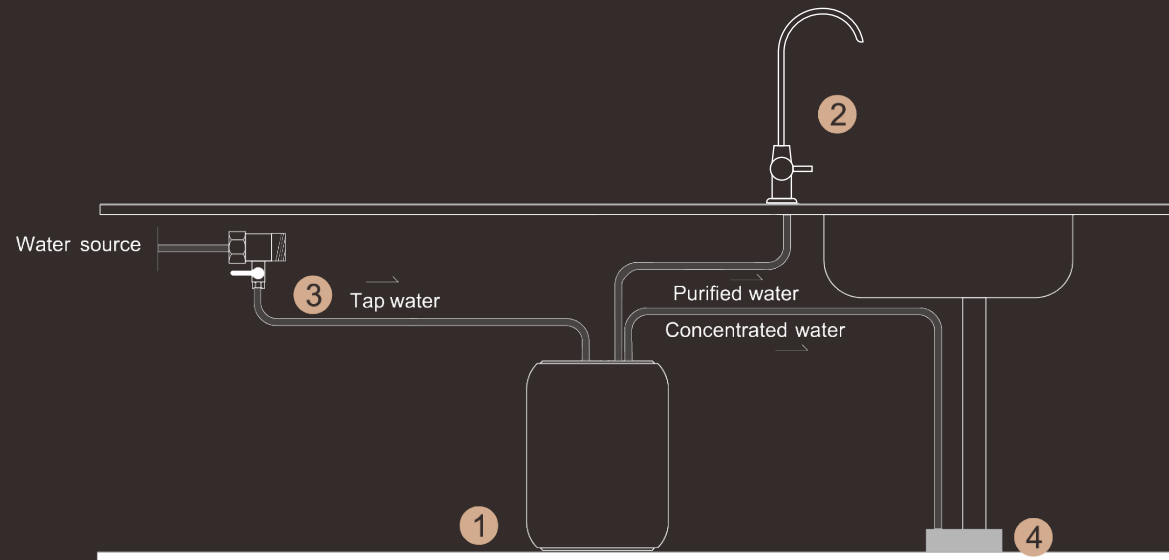


## **Installation and Maintenance**

This section refers to components of different models. Please refer to the product you purchased.

## Water pipe installation diagram

- ① Main unit
- ② Faucet
- ③ Water inlet ball valve
- ④ Drain pipe



### Tools needed for Installation



PE Tubing



Adjustable wrench



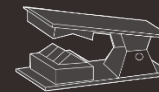
Towel



Tissue



Cup



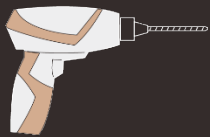
Pipe cutter



Price list



TDS pen



Electric drill



Screwdriver



Pliers

## Installation Precautions

The following are possible solutions to common problems. If a problem can't be resolved through these measures, please contact our customer service hotline. To avoid injury or damage, do not attempt to dismantle or repair the unit.

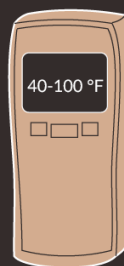
- 1 Confirm that the water source is municipal tap water. This device is not designed for well water or underground water.



- 2 Confirm that the incoming water pressure is in the range of 15-60 psi. If inlet pressure exceeds this range, a relief valve must be installed.



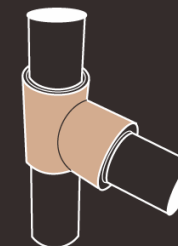
- 3 Confirm that the temperature of the installation environment is between 40-100 °F.



- 4 The device should be installed under the kitchen sink or other suitable location. Do not install in direct sunlight or outdoors.



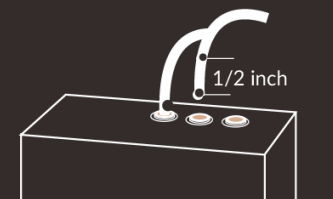
- 5 Make sure the pipe that the device will be connected to is sound and not corroded.



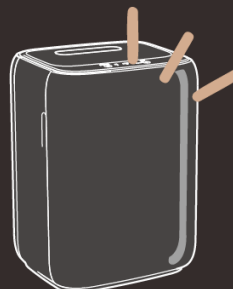
- 6 Check to make sure that all required parts are included. Do not install if there are missing parts.



- 7 The polyethylene tubing (PE tubing) should be inserted 1/2 inch into the device before installing the device. Measure and mark the tubing and insert it up to the mark.



- 8 After installing, check for leaks and proper performance of the whole system.



- 9 Test the TDS value of the output water.

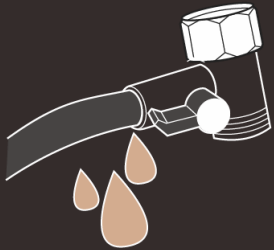


- 10 Review the daily usage and maintenance instructions.



## Installation Precautions

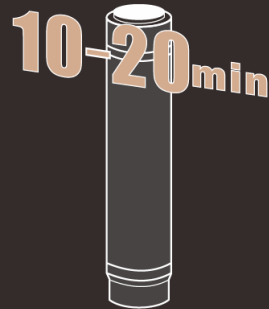
- 1 Make sure that the three-way ball valve doesn't leak.



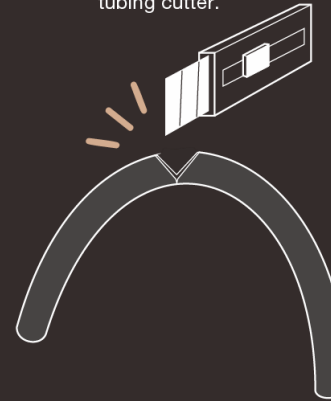
- 2 Mount the unit, including the pressure tank, upright on a level surface.



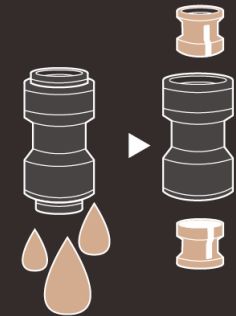
- 3 Do not use the filter before flushing it with water for 10-20min.



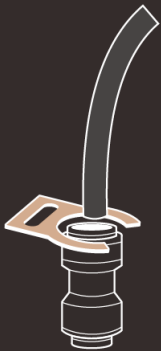
- 4 Do not cut the PE tubing with any tool other than the proper tubing cutter.



- 5 If a fitting is leaking, the whole fitting must be replaced, not just the lock clip.



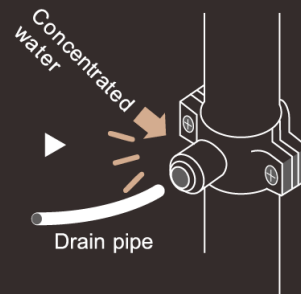
- 6 Make sure no lock clip are missing.



- 7 Make sure the tubing isn't kinked.

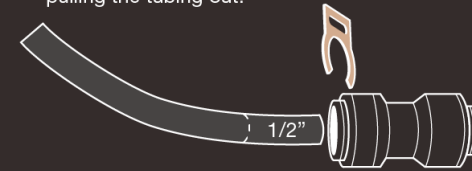


- 8 Please refer to the installation instructions of the drain saddle and install the drain line properly and securely.



- 9 To connect, cut tubing evenly, remove the lock clip, push the tubing 1/2 inch into the quickfitting, and reinstall the Lock Clip. Pull on the tubing gently to make sure it is locked in.

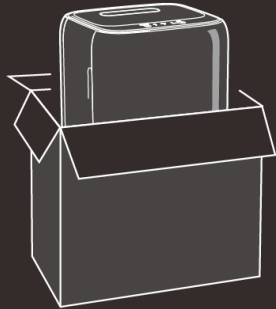
To disconnect, remove the Lock Clip and compress and hold down the Collet into the Fitting Body to eliminate the gap where the locking clip was occupying while simultaneously pulling the tubing out.



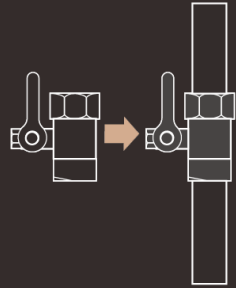
Note: Watch "RO Quick-Fitting" YouTube videos for your reference.

## Device Installation

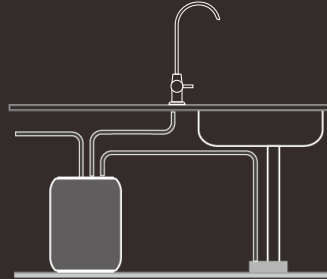
- 1 Remove the device from the packaging.



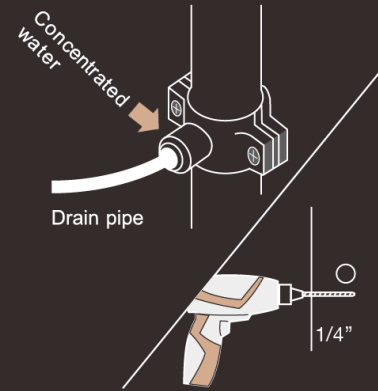
- 2 Take out the three-way combined ball valve and install it in the tap water pipe.



- 3 Connect the pipes and faucets according to the water pipe installation diagram.



- 4 Concentrated water can be directly drained into the drain pipe or reclaimed.



Choose a spot on the drain pipe that is convenient for installing the drain saddle and tubing. A horizontal pipe is recommended to minimize the dripping sound.

Drill a 1/4" hole in the drain pipe, and paste the black sticky pad around the hole.

Cut the tubing end to make a 45 degree angle. Slip the plastic nut and front plate on the tubing. Insert the tubing into the 1/4" hole in the drain pipe, install the back plate, and tighten the two screws with hex nuts while the tubing remains in the hole.

Tighten the nut on the Drain Saddle by hand. Pull the tubing lightly to make sure it is secure.

## Flushing

Before using the new active carbon filter, flush it for 15 minutes.

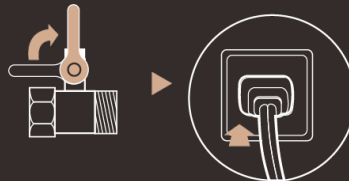


Flushing 15min

## Whole Device Debugging

When using the device for the first time, flush until the purified water output runs clear with normal flavor. (Turn on the purified water faucet and let it run to produce water and flush the pipelines. It is recommended that the system be flushed for 2 hours, then left on standby for 2 hours and then flushed again for 1 hour before normal use.)

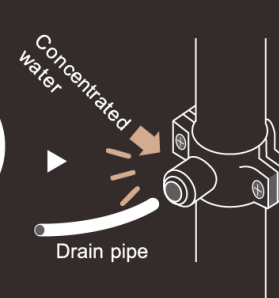
- 1 First turn on the three-way ball valve and turn on the power on the device. The system will start in its default state.



- 2 Close the faucet, wait 60 seconds, and check that the concentrated water has stopped flowing.



60 seconds

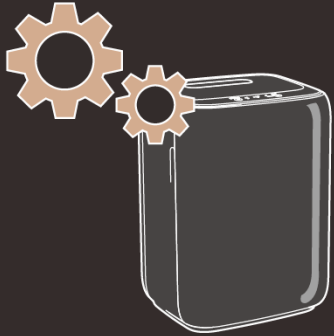


- 3 The device can now be used safely.

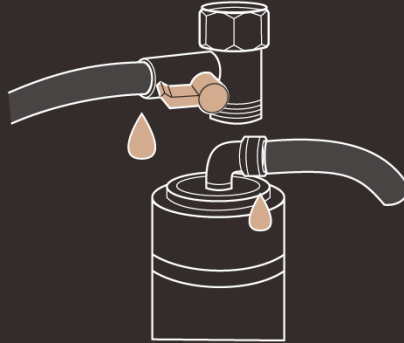


## Maintenance Precautions

- 1 Check to make sure all functions of the system are operating properly.



- 2 Check to make sure that none of the pipes or tubing is leaking (inlet Tee, external PE tubing, internal joint, etc).



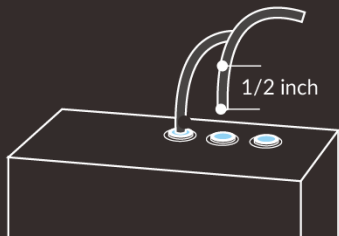
- 3 Check if any key components have reached the end of their recommended replacement period and if so, maintain and replace them. Check that any fitting or PE tubing that have been in service for 2 years or more are distorted or aging, and if so, replace them.



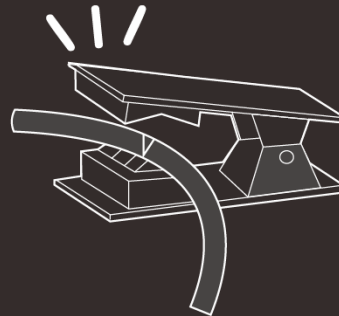
- 4 Flush water for 10-20 min after replacing with a new filter until the outlet water is clear.



- 5 Check that the PE tubing which is connected to the device with the quick fitting is not cut. If it is, cut 1 inch off and then install it again. The polyethylene tubing (PE tubing) should be inserted 1/2 inch into the device. Measure and mark the tubing and insert it up to the mark.



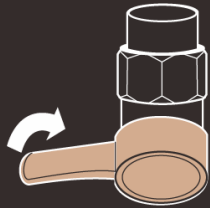
- 6 Use only the special tubing cutter to cut the PE tubing. The tubing must not have bevels or burrs.



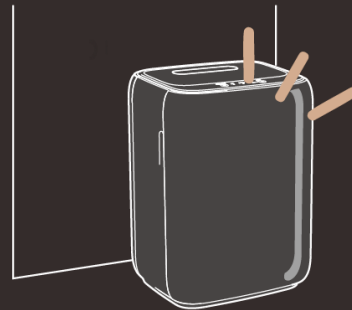
## Regular Maintenance

Regular maintenance is required in order to ensure continued proper operation and to maintain optimal water quality and safety. Please refer to the user manual or contact Greatwell when maintenance is desired. Regular maintenance includes cleaning, replacing filters and inspecting and repairing the system. You may follow the following steps.

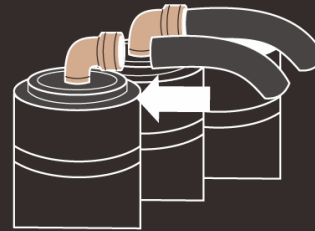
- 1 Check to be sure all functions of the device are operating properly. Shut off the power and water source for the device.



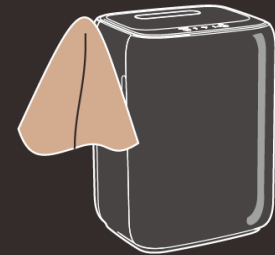
- 2 Check if there is any physical damage to the system.



- 3 Check the connection to key components. Push the PE tubing at the fittings one by one to ensure the PE tubing is firmly in place.



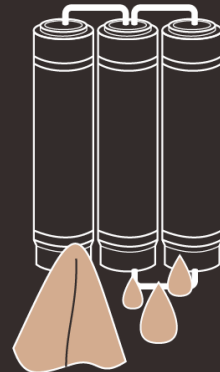
- 4 Clean the inside components and housing with a clean cloth. Make sure there is no dust or foreign objects inside.



- 5 Replace the filter if necessary: Identify if the filter should be replaced based on how long the filter has been in use and the service life of the filter.



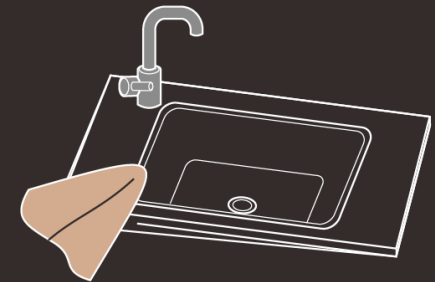
- 6 Turn on the water and keep the water running normally. Using a dry tissue, check to see if there is leakage at any of the fittings.



- 7 Check the water quality and taste:  
A. Replace the RO film and perform TDS test for water quality.  
B. Replace the other filters and drink a cup of water, using your own cup, to confirm that the output water doesn't have any problems.

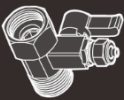


- 8 When finished, clean up the site.



## Component Maintenance

Over time, components may age, become clogged and lose effectiveness. This may result in hidden safety issues. In order to keep this device in good working order, the table below is a list of key components. Please observe regular maintenance practices. \*Note: The appearance and color of the product and components are subject to change without notice. Please refer to the current product.

S/N	1	2	3	4	5	6
Variety	Consumables	Electric control	Electric control	Electric control	Electric control	Electric control
Name	Filter	Electric control panel	Water pump	High pressure switch	Waste water solenoid valve	Inlet solenoid valve
Picture						
Reason of Failure	Clogging, saturation	Fatigue, aging	Fatigue, aging	Fatigue, aging	Fatigue, aging	Fatigue, aging
Maintenance Cycle	Periodically maintain and replace the filter based on local water quality.	36 months	36 months	30 months	30 months	30 months
S/N	7	8	9	10	11	12
Variety	Electric control	Pipe fittings	Components	Pipe fittings	Pipe fittings	Pipe fittings
Name	Switch Power	Check Valve	Stainless steel faucet	Three-way ball valve	Elbow fitting	PE tubing
Picture						
Reason of Failure	Fatigue, aging	Fatigue, aging	Fatigue, aging	Fatigue, aging	Fatigue, aging	Aging
Maintenance Cycle	30 months	36 months	36 months	36 months	36 months	36 months

## Warranty

This Limited Warranty extends to the original purchaser of the system only. This warranty covers all Manufacturer-supplied items only that prove to be defective in material, workmanship, or factory preparation. This warranty covers parts only; all labor is excluded from this warranty, including, but not limited to, services related to the removal, replacement, installation, adjustment, maintenance, and/or repair of the unit or its components items. excludes all non-Manufacturer labor required for any servicing of the unit, including, but not limited to, servicing related to installation, adjustment, maintenance, and repair of the unit. This warranty applies only for the first full calendar year from date of purchase. The following items are excluded from this warranty: membranes, filters, O-rings, and all other parts or components that require regular replacement as a result of ordinary usage.

Disclaimers: This Limited Warranty applies only if the system is installed, used, and maintained in compliance with all instructions and requirements enclosed with the system. This warranty will be void for failure to observe the following conditions:

1. The system is to be used with potable water supply only.
2. Feed water pressure to the unit is no less than 40 PSI (30 PSI for systems with built-in booster pump) and no greater than 80 PSI.
3. The system is to be used on water supplies with chlorine concentrations of 1.0 mg/L (ppm) or less.
4. Feed water temperature to the unit must be no less than 40°F and no more than 100°F.
5. Total dissolved solids (TDS) in feed water must be less than 750 mg/L (ppm).
6. Feed water must have a pH between 4 and 8.
7. Turbidity must be less than 1.0 NTU.
8. SDI must be less than 5.
9. Feed water must be completely free of iron, manganese or hydrogen sulfide.

While the testing was performed under standard laboratory conditions, actual performance may vary. The Manufacturer does not know the characteristics

of your water supply. The quality of water supplies may vary seasonably or over a period of time. Your water usage may vary as well. Water characteristics can also change if the drinking water appliance is moved to a new location. The Manufacturer assumes no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume such obligation on our behalf.

This Limited Warranty does not cover any Manufacturer-supplied items that are defective as a result of the use of improper parts, equipment or materials. This warranty does not cover alterations or modifications of the unit or failure of a unit caused by such alterations and modifications.

This Limited Warranty does not cover malfunctions of the unit due to tampering, misuse, alteration, lack of regular maintenance, misapplication, fouling due to hydrogen sulfide, manganese or iron, scaling from excessive hardness, turbidity greater than 1.0 NTU, Silt Density Index (SDI) greater than 5.0 SDI, or excessive membrane hydrolysis due to chlorine levels in excess of 1.0 mg/L (ppm). In addition, damage to the unit due to fire, accident, negligence, act of God, or events beyond the control of the Manufacturer are not covered by this warranty.

**Incidental and Consequential Damages Limitation:** The Manufacturer will not be responsible for any incidental or consequential damages as a result of the failure of this unit to comply with express or implied warranties or any defect in the unit, including but not limited to, lost time, inconvenience, damage to personal property, loss of revenue, commercial losses, postage, travel, telephone expenditures, or other losses of this nature. In case some states do not allow the exclusion or limitation of incidental or consequential damages, you may choose to return the system. If you choose to keep it, you insist this exclusion STILL apply to you.

**Owner's Warranty Responsibilities:** As a condition of this Limited Warranty, the owner must ensure that periodic maintenance of the system is performed as described in the literature enclosed with the system. Neglect, improper maintenance, abuse, modification, or alteration of the unit will invalidate this Warranty. Should your unit develop a defect or otherwise fail to perform in accordance with this warranty, you should contact the retailer from whom the product was originally purchased.

**Implied Warranties:** The implied at-law warranties of merchantability and fitness for a particular purpose shall terminate on the date one year after the date of purchase.

**NOTE: IN CASE SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, YOU MAY CHOOSE TO RETURN THE SYSTEM. IF YOU CHOOSE TO KEEP IT, YOU AGREE THAT THE ABOVE LIMITATIONS STILL APPLY TO YOU.**

## Warranty Registration

We provide a 30-day money back guarantee, one-year Manufacturer Warranty and lifetime tech support for all of our products.

However, we do not have your order information from the vendors other than our website.

The easiest way to activate the warranty is to go to [www.123filter.com](http://www.123filter.com), and submit your warranty registration under “[Warranty Registration](#)”.

You can also email the following information via email to [support@123filter.com](mailto:support@123filter.com), along with your comment.

Greatwell Warranty Registration	
Your Name:	
Your E-Mail:	
Your Phone:	
Order#:	
Model#:	
Order Date:	
Reviewer ID:	
Notes:	

*Please remember, we love to help our customers. If you have any questions or concerns about our products, please don't hesitate to **call** or **email** us. We will do everything we can to make your purchase a 5-star experience.*

678-261-7611    [support@123filter.com](mailto:support@123filter.com)

*If you are happy with our product and service, please show your support by writing a product **review** on the website you purchased from, even if it's just a single line. It takes you just a minute, but means a lot to us. Thank you!*

# GREATWELL

Local / International: 678-261-7611

Office Hours: Monday-Friday 9:00 a.m. – 5:00 p.m. EST

Technical Support Hours: Monday-Friday 9:00 a.m. - 5:00 p.m. EST

ISPRING WATER SYSTEMS, LLC

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