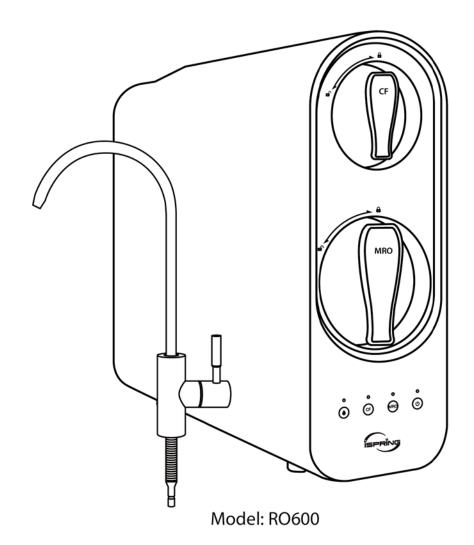
## **UNDER SINK**

# iSpring RO600 Series 600 GPD Reverse Osmosis Water Filtration System



## **Installation Instructions & User Manual**

Ver. 09/2021





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### We stand behind our products

Since 2005, iSpring has been dedicated to providing high-quality drinking water to families across the United States. We provide various residential faucets and water filtration systems that deliver pure, healthy, and tasty water to you and your family.

At iSpring, we strive to develop products to the highest of standards and aim to make excellent drinking water accessible for all households. With affordable pricing, reliable quality, prompt delivery, and top-notch customer service, we hope to assist in bringing you great water for years to come.

## **Prior to Installation**

Read this instruction manual carefully prior to installation.

Keep this manual readily available for future reference.

## **Table of Contents**

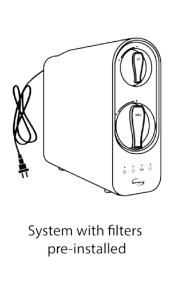
User Information	3
Component Identification	4
Product Features	5
Product Structure and Size	6
Filter Life Indicator	6
<u>Installation</u>	
Preparation	6
Feed Water Adapter Installation	7
Faucet Installation.	7
Filter Installation.	8
System Installation and Setup	9
Connect Faucet Power Supply and Main Power Supply	11
Using the System	
Starting for the First Time	12
Routine Maintenance	12
Changing the Filters	12
Display and Operating Area	13
Machine Function Description	14
Filter Service Life Reset	14
Malfunction Inspection	15
Warranty	
Warranty	16
Warranty Registration	17

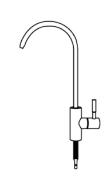
## **User Information**

Users must adhere to the installation specifications described in this Product Installation and Operation Manual (hereinafter referred to as the "instruction manual"). iSpring is not responsible for any damage, loss, or injury resulting from neglect, improper maintenance, or unauthorized modification of products.

- The unit should be placed only on flat surfaces. Do not mount the product on a wall.
- This product is designed for residential use only. Contact iSpring customer service for inquiries related to usage in non-residential settings.
- The operating temperature range is 41°F 100°F. If the water temperature or ambient temperature falls below 41°F, immediately shut off the inline water supply, turn off the inline water adapter, and drain the remaining water from the system.
- In case of malfunction due to damage or failure of the power supply system, unplug the system immediately and contact iSpring customer service for guidance.
- If leaking occurs, shut off the inline water supply by turning off the adapter. Then unplug the system and contact iSpring customer service.
- Use only authorized iSpring parts and filters. Using unauthorized or aftermarket components will void the product warranty.
- This product is equipped with built-in systems to prevent internal leaks and minimize the risk of water damage. However, it is recommended that users check external fittings and connections regularly to ensure all components are secure and operating properly.
- Unauthorized modification and disassembly are strictly prohibited and will void the warranty.
- Never touch the power cord connector when your hands are wet, as this may result in electric shock.
- Use only water to clean this product. Do NOT use corrosive cleaning products or any materials that could damage the product.

## **Component Identification**

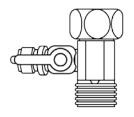






RO Drinking Faucet

Drain Saddle



Feed Water Adapter



3/8" PE Pipe



1/4" PE Pipe



1/4" C-Clip



3/8" C-Clip



Instruction Manual

## **Product Features**

### 1) Product Scope

- For residential use ONLY.
- Applicable water quality: municipal.

#### 2) Specifications

Item	Specification
Inlet Water Pressure	15 - 60 psi
Working Pressure	60 - 100 psi
Working Temperature	41–100°F
Production Rate	65%
Flow Rate of Purified Water	Up to 0.4 gal/min.
Dower Specifications	Input: 220V
Power Specifications	Output: 24V/5V

#### 3) Water Treatment Process

Municipal tap water → Composite filter → Reverse osmosis filter → Purified water

#### 4) Filtration Performance

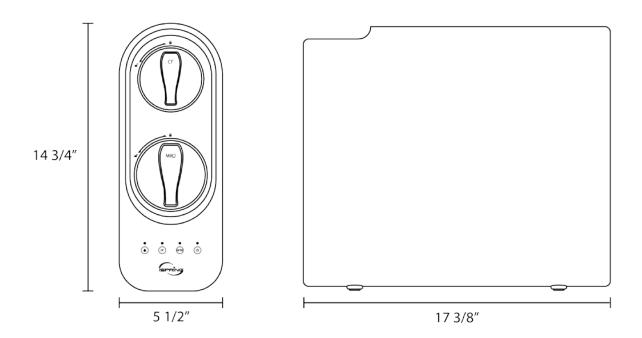
Stage	Filter	Purpose	
	Commonito	Removes unpleasant chlorine, taste, odor, cloudiness, and coloring.	
1 <sup>st</sup>	Composite Filter	Removes dirt, sand, silt, rust, and scale particles and absorbs THMs and pesticides.	
	Reverse	Removes lead (removes up to 98% of lead), chlorine, fluoride,	
$2^{\text{nd}}$	Osmosis	arsenic, hormones, asbestos, calcium, sodium, and more using a	
	Membrane	0.0001 (one ten-thousandth) micron membrane.	

#### 5) Filter Service Life Table

Stage	Filter	Recommended Replacement Cycle
1 <sup>st</sup>	Composite Filter	6 months
$2^{\text{nd}}$	Reverse Osmosis Membrane	24 months

**Note:** The actual water flow rate will vary depending on several factors such as water quality, high TDS (500 ppm+), low temperatures (below 55°F), and low pressure (below 25 psi). These will limit the performance of the system and reduce filter life.

## **Product Structure and Size**

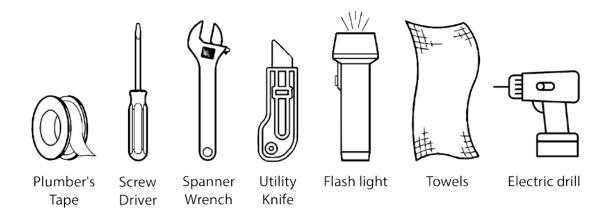


## **Installation**

### 1) Preparation

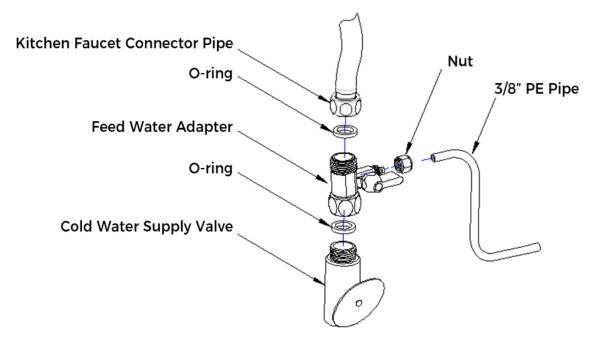
Check the packing list to confirm all accessories are included in the package. Contact iSpring customer service if any components are missing.

- A. Choose a suitable location for the system. Again, it cannot be mounted and must be placed on a flat surface. Ensure the system is installed ONLY INDOORS using a cold-water supply.
- B. Required tools:



#### 2) Feed Water Adapter Installation

- A. Slide the nut onto the 3/8" PE pipe, then insert the pipe into the male fitting on the feed water adapter and tighten the nut using a spanner wrench.
- B. Turn off the cold-water supply valve and unscrew the kitchen faucet connector pipe.
- C. Install the feed water adapter on the cold-water supply valve and tighten using a spanner wrench: (make sure the O-ring is seated inside the adapter).
- D. Re-install the cold-water hose on the feed water adapter, then tighten using a spanner wrench (make sure the O-ring is seated inside the hose cap).



#### 3) Faucet Installation

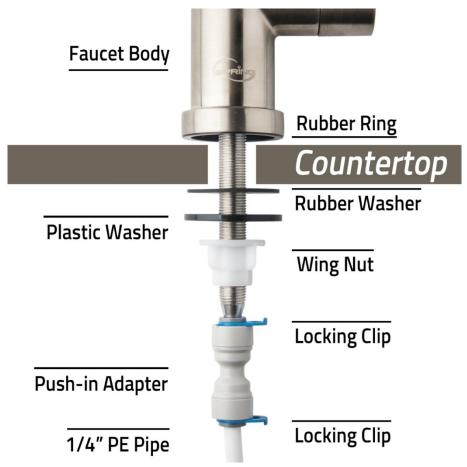
Choose a suitable location on the sink or countertop and install the faucet on a flat surface, as shown in the image below. You will need to drill a 1" hole (no larger than 1 1/2") if your kitchen sink does not have an existing one.

### How to drill a 1" hole in your sink or countertop

- a. It is highly recommended that users watch the YouTube video "How to Drill Faucet Holes" to better understand this process. Depending on your countertop, you may want to hire an experienced professional to ensure the hole is drilled correctly.
- b. Choose a 1/2" Diamond Core Bit for granite counters and a titanium drill bit for steel. Do NOT use a hammer drill on natural stone, glass, and ceramic.
- c. An indent should be made with a punch on the steel before drilling to help guide the bit.

- d. Use caution when drilling on a Porcelain sink, as it could be easily chipped. Set drill speed to slow. Press the bit downward firmly until breaking through the slippery surface. Some users find it easier to secure the bit by drilling through a piece of wood firmly pressed on the surface.
- e. Use coolant to disperse heat. Choose water for granite and oil for steel. Use the Water Suction Cup to hold the coolant inside and prevent the drill bit from slipping.
- f. Starting at the slowest speed, hold the drill firmly and vertically and prevent the drill bit from slipping on the counter.
- g. Once breaking through the smooth surface, swirl the drill slightly to evenly apply pressure in a circle.

Be patient and deliberate. It can take 20 - 40 minutes to drill through 1".



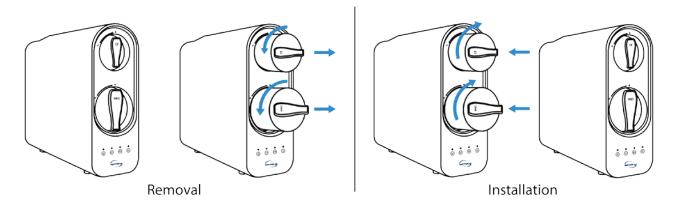
#### 4) Filter Installation

This product features an easy-change design that allows users to change the filter without shutting off the water supply. To install the filter, follow the steps listed below.

A. Install each filter in the appropriate slot with the name of the filter listed on the side. The CT and MRO filters are mounted to the top and middle slot, respectively.

**Note:** The system came with filters pre-installed.

B. Insert the filters with the handles pointed toward the "unlocked" sign. Swirl the handles clockwise and align the arrow with the mark on the side of the slot until they reach the end. The filters should fit snugly into the system's fittings. Swirl the handles counterclockwise until they reach the end and pull them out to remove the filters.



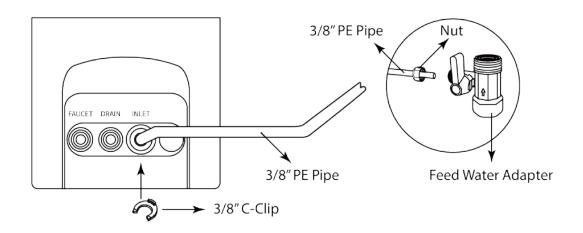
#### 5) System Installation and Setup

#### **Precautions:**

- Make clean cuts on the tube to ensure a tight, sealed connection.
- Insert each pipe about 1/2" into the port to prevent leaks.
- Always use the C-clips to secure the quick-fitting connections.
- After assembly, check to ensure the connection is not leaking.

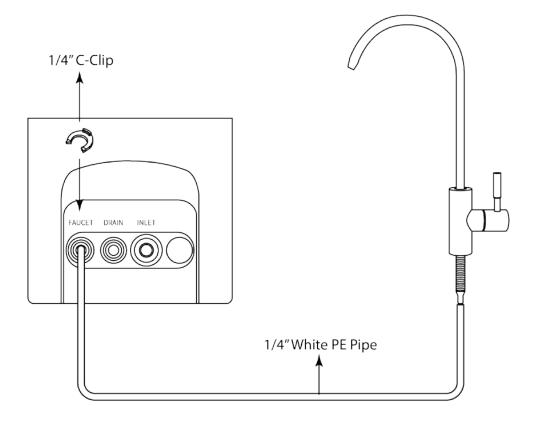
#### **Inlet Water Pipeline Installation:**

- A. Cut the <u>WHITE</u> 3/8" PE pipe, which is connected to the feed water adapter, to the appropriate length using a utility knife.
- B. Insert the other end of the <u>WHITE</u> tube into the 3/8" port marked "Inlet" at the top of the system. Secure the connection by inserting the enclosed 3/8" C-clip.



#### **Drinking Faucet Pipeline Installation:**

- A. Cut the 1/4" WHITE tubing with a utility knife to the appropriate length.
- B. Insert the <u>WHITE</u> tubing into the 1/4" port marked "Faucet". Insert the 1/4" C-clip to lock the connection.
- C. Insert the other end of the 1/4" <u>WHITE</u> tubing into the push-in fitting of the drinking faucet and secure it using the 1/4" C-clip.



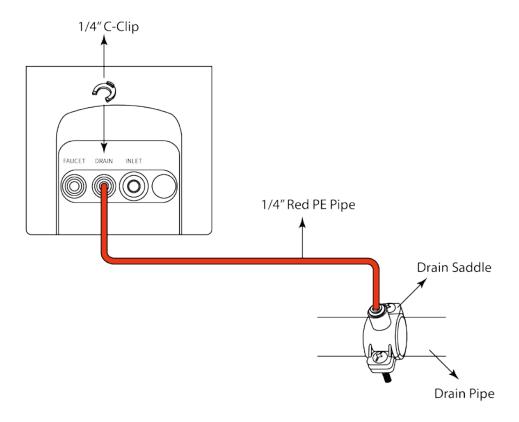
#### **Drain Pipeline Installation:**

- A. Choose a spot on the drainpipe that is convenient for installing the drain saddle and tubing.

  A horizontal pipe is recommended to minimize dripping sounds during use.
- B. Drill a 1/4" hole in the drainpipe and paste the black sticky pad around the hole.
- C. Cut the 1/4" RED tubing end tip to make a 45-degree angle. Insert the tubing through the hole to the drainpipe. Then install the backplate and tighten the two screws with hex nuts while the tubing remains in the hole. Pull the tubing lightly to verify it is securely in place.

**Note:** The YouTube video **''iSpring RO System Drain Saddle ADS1K DIY Installation''** is a good reference.

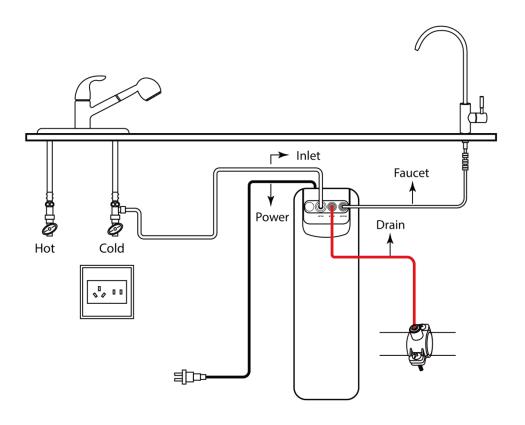
D. Insert the other end of the 1/4" <u>RED</u> tubing to the port marked "Drain" at the top of the system and secure it using the 1/4" C-clip.



### 6) Connecting the Power Supply

Plug the system into the power supply. Ensure your hands are not wet to avoid risk of electric shock.

The completed system connection should be as shown below.



## **Using the System**

#### 1) Starting for the First Time

- A. To start the system, first plug it in and turn on the feed water adapter. Then turn on the faucet. Vibrations can be expected as the pump starts.
- B. Turn on the faucet and let it run for at least 30 minutes to flush the system. This should be done each time the filters are changed. Let the system run as much as possible to remove preservatives of the RO membrane on the first day, and do NOT use the tap water for drinking during this period. Alternatively, users can flush the system for 20 minutes every 2 hours after installation, repeating the process 12 times or more.
- C. During this process, carefully check all fittings for secure connections. Use a damp paper towel to wipe clean and verify that no connections are leaking.
- D. Once the rinsing is completed, turn the faucet off and check again for leaks. If no leaks are present, the system is ready for use.

#### 2) Routine Maintenance

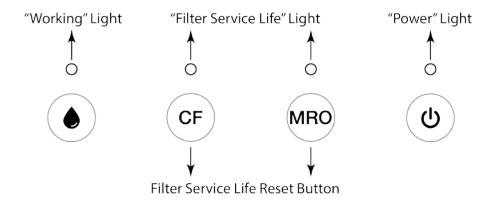
- If you plan on not using the system for one week or longer, take out the filter and seal it with plastic wrap. Store the sealed filter in the fridge to protect the system against microbiological growth. To start the system again after the period of non-use, flush the system for at least 10 minutes OR change the filters.
- If you discontinue using the system for an extended time, disconnect the water supply, drain the system, and disconnect the power.
- Follow the recommended filter replacement schedule. Replace the filter any time the indicator is on. Note that the actual filter life depends on the number of people in the household and water source quality. Failure to replace the filter at the appropriate times can damage the system and potentially cause health hazards.

#### 3) Changing the Filters

- A. Disconnect the water supply and turn on the faucet to drain the remaining water in the system.
- B. Unscrew the filter to be replaced counterclockwise and relieve the pressure. (A small amount of water leaking from the old filters is expected due to the pressure.)
- C. Screw the corresponding replacement filter into each slot.

- D. Reconnect the water supply.
- E. Rinse the system by running water for at least 30 minutes after installing a new filter(s).
- F. Reset the filter status. Please refer to the "Filter Service Life Reset" section for instructions.

### 4) Display and Operating Area/Indicators



#### A. "Working" Light:

The blue light will remain on when the system is running and filtered water is being dispensed. The light will remain off when the system stops dispensing water.

#### B. "Filter Service Life" Light:

		Remaining Capacity (net water/liter)	Prompt	
Service Life Stage	Remaining Life (Days)		Indicator Color	Buzzer
Normal	>15	>150	Blue	None
Warning	0 - 15	0 - 150	Purple	Sounds twice
Alarming	0	0	Red	Sounds when water is flowing

The filter life indicators are controlled by a timer and flow monitor. Change the filter when the light runs red. To reset the indicator after filter replacement, see the "Filter Serve Life Reset" section.

#### C. "Power" Light

This light remains activated when the system is powered on.

### 5) Machine Function Description

No.	Function	Operation	Status Indicator
1	First System Start-up	System performs self-inspection.	The buzzer sounds when the system is powered on. All lights turn on in proper order.
2	Rinsing Before the First Use	The system performs auto-rinsing for 5 minutes, then the user rinses the system by running water for 30 minutes.  Note: If the faucet is turned off during the 30 mins rinsing process, it will continue rinsing when turned on next until it reaches 30 mins.	While rinsing, the "working" light flashes. After rinsing is complete, it remains on continuously and is off when the drinking faucet is turned off.
3	Running Water	Normal operation.	The "working" light only turns on when water is running and remains off at all other times.
4	Standby	The machine stops operation and enters standby mode.	The "working" light turns off.
5	Re- powering On	System performs self-inspection and auto-rinsing.  Note: The system will switch to its normal mode if the user runs water during the rinsing process.	The buzzer sounds when the system is powered on. All lights turn on in proper order. The "working" light flashes during rinsing and stops when rinsing is complete.
6	Self- Cleaning Rinsing	If not used after 24 hours, the system performs auto-rinsing for 20 seconds.  Note: The system will switch to its normal mode if the user runs water during the auto-rinsing process.	The "working" light flashes during rinsing and stops when rinsing is complete.
7	Rinsing after Filter Change	After replacing each filter:  1. Composite filter: System performs auto-rinsing for 5 minutes.  2. RO membrane filter: The user performs rinsing by running water for 30minutes.  Note: If the faucet is turned off during the rinsing process, it will continue rinsing when turned on next until it reaches 30 mins.	During the rinsing process, the "working" light is flashing. Once the rinsing is complete, the "working" light remains continuously and turns off when the drinking faucet is turned off.

### 6) Filter Service Life Reset

To perform a manual reset, press and hold the corresponding "Filter Service Life" button for 5 seconds. When the filter service life indicator light is lit blue and the buzzer sounds, this indicates that the reset was successful.

**Note:** Two filters cannot be reset at the same time.

## **Malfunction Inspection**

Malfunction	Possible Issue	Possible solution
	1. PE pipe is cracked.	1. Replace the pipe.
	2. PE pipe is not inserted properly into	2. Reinsert the pipe about 1/2" into the
Lookaga in	the port.	port.
Leakage in connections	3. The tubing end tip is not cut well.	3. Make clean cuts on the tubing.
Connections	The filter is not installed correctly.	Correctly assemble the filter.
	The feed water adapter is not installed	Correctly assemble the feed water
	correctly.	adapter.
No display on		
the control	The system is not connected to power.	Check the power.
panel		
	The booster pump is overworking.	Unplug and plug in the booster pump.
Automatic shutdown	The booster pump turns on and off frequently.	Close the inlet valve and verify there is
		no leakage in the system. Unplug and
	irequentry.	plug in the booster pump.

## **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 the 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 due to 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 a potable water supply only.
- 2. Feed water pressure to the unit is no less than 15 psi and no greater than 60 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 41°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 5.0.
- 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 seasonally or over a while. Your water usage may differ as well. Water characteristics can also change if the drinking water appliance is moved to a new location. The Manufacturer assumes no liability for determining the proper equipment necessary to meet your requirements, and we do not authorize others to take such obligation on our behalf.

This Limited Warranty does not cover any Manufacturer-supplied items that are defective due to 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 over 1.0 mg/L (ppm). In addition, damage to the unit due to fire, accident, negligence, an act of God, or events beyond the Manufacturer's control 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. If some states do not allow the exclusion or limitation of incidental or consequential damages, you may choose to return the system. If you decide 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 per 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.

### **Warranty Registration**

To register your product for its warranty, visit our website at 123filter.com and go to the "Warranty" tab.

We provide a 30-day money-back guarantee, a 1-year manufacturer warranty, and lifetime tech support for all our products. However, we do not have the order information from websites other than 123Filter.com (Amazon, Home Depot, etc.), so please be sure to fill in all relevant information upon registration of your system. If you have any questions or concerns about your product, please do not hesitate to call or email us or put it in the notes/comments upon your warranty registration. Your satisfaction is our business!

If you are happy with our products and service, please show your support by writing a product review on Amazon, even just a single line. It takes you just a minute but means a lot to us. Thank you!



Atlanta, GA USA

# iSpringFilter.com

For questions, comments, or technical support, contact us at:

support@123Filter.com

(678) 261-7611

Monday-Friday 8:30 a.m. - 5:30 p.m. EST