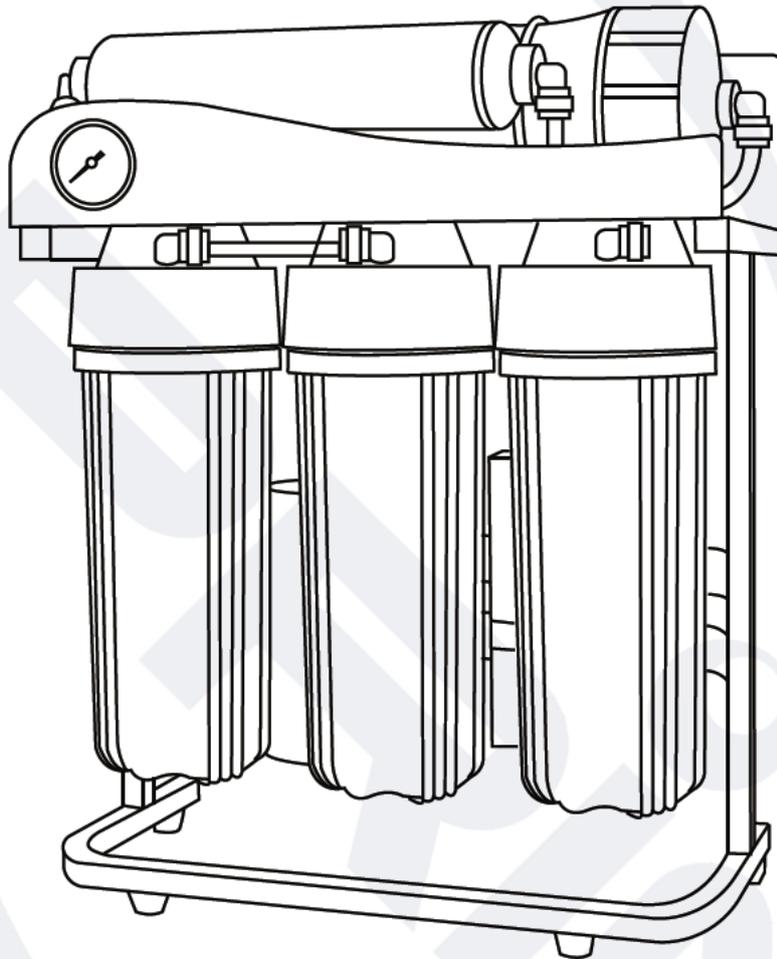


REVERSE OSMOSIS

iSpring RCS5T 500 GPD RO Water Filtration System with Pressure Gauge



Model: RCS5T

Installation Instructions & User Manual

Ver. 11/2022



iSpring Water Systems



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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 purify your water in everyday life and deliver pure, healthy, and tasty water to you and your family.

At iSpring, we strive to develop products to the highest standards and 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 before installation.

Keep this manual readily available for future reference.

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User Information

The user 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 damage, loss, or injury resulting from neglect, improper maintenance, or unauthorized modification of products.

- This product is designed for residential use only. Contact iSpring customer service to inquire about usage in non-residential settings.
- The operating temperature range is 40°F - 100°F (4 - 37 °C). This RO system is NOT designed for HOT water. If the water temperature or ambient temperature falls below 40°F, immediately shut off the inline water supply and drain the remaining water from the system. Within the range, the warmer the water is, the faster is the RO process.
- 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.
- 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.

Product Features

Filtration Performance

Stage	Filter	Purpose
1 st	Sediment Filter	Removes sediments, dust, dirt, sand, silt, rust, and particles.
2 nd	GAC Filter	Removes chlorine, taste, odors, cloudiness and colors.
3 rd	CTO Filter	Further enhances the sense and taste of the water.
4 th	Reverse Osmosis Membrane	Removes up to 99% of contaminants, such as lead, chlorine, fluoride, arsenic, hormones, asbestos, calcium, sodium, iron, etc.
5 th	Post Carbon Filter	Removes any possible residual taste and odors from the tank.

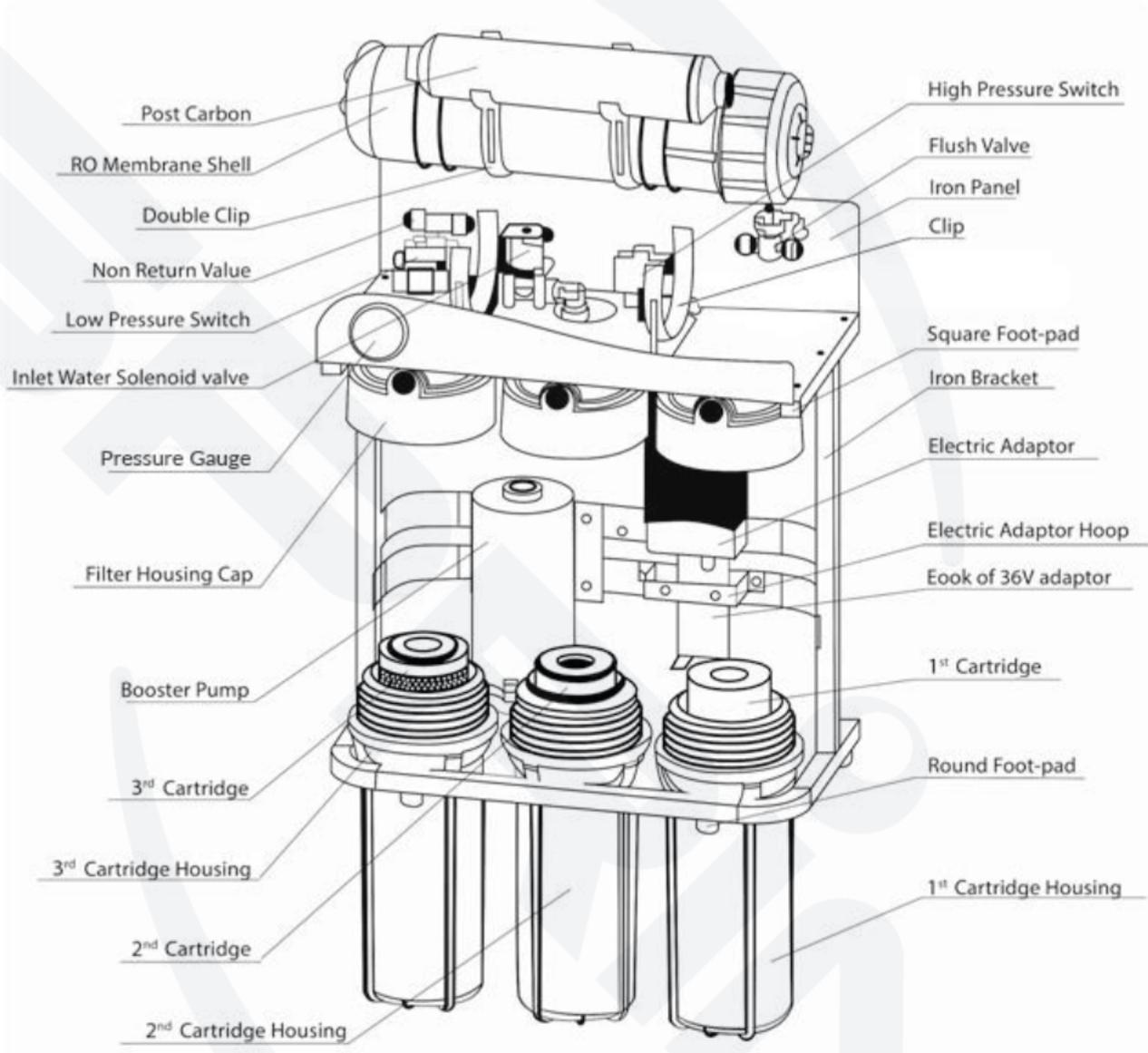
Operating Conditions

Parameter	Specification
Working Pressure	40 - 80 psi
Working Temperature	40 - 100 °F
Maximum TDS	750 ppm

- Maximum water pressure: 80 psi, or a pressure regulator (part# APR70) is required if there is high water pressure or water hammer.
- Minimum water pressure: 40 psi, or a booster pump is needed to improve RO efficiency
- Install this RO system where it is protected from hot/cold weather and direct sunlight. Avoid hitting, dropping, or dragging as they may cause cracks and leaks.

Components Identification

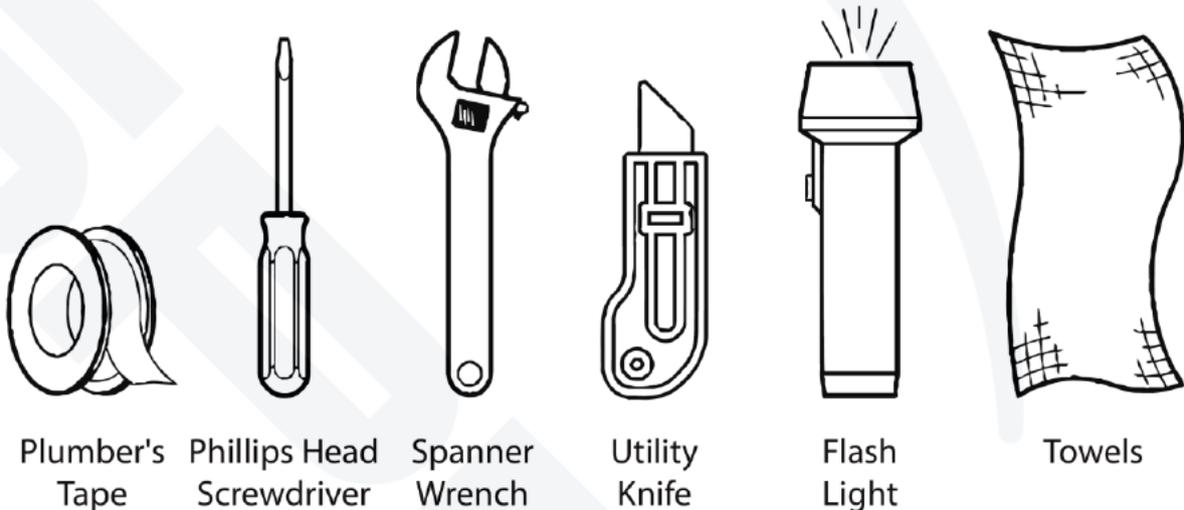
Please open the box and take all the components and tool kit out. Inspect them to ensure that nothing is damaged during shipping. If any part is cracked or broken, please immediately contact iSpring Customer Support for a replacement. Identify and get familiar with the components.



Installation

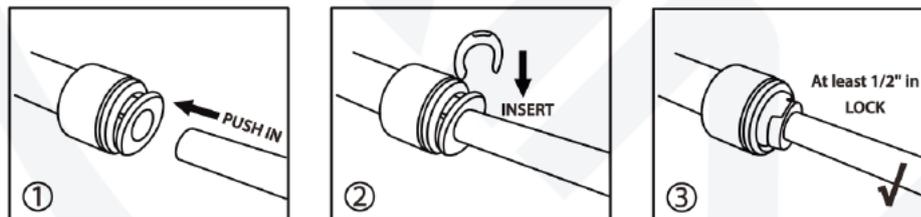
Before you start the installation

- It is highly recommended that you watch the video “**iSpring RCS5T 500 GPD Commercial Grade RO System DIY Installation | Step by Step**” on **YouTube**.
- Choose a suitable location for the system. Again, it must be placed on a flat surface and make sure this system is to be installed on **INDOOR** cold-water supply **ONLY**.
- Check the packing list to confirm all accessories are included in the package. Contact iSpring customer service if any components are missing.
- Required tools:

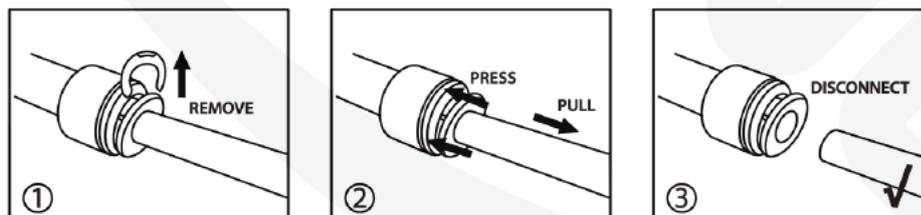


- Recommended tools:
 - Variable speed drill with two bits: 1/4" (for drilling a hole on PVC drain pipe), 1/2" hollow diamond (for drilling a hole on the countertop for drinking faucet)
 - 5/8", 9/16" open-end wrench, or adjustable wrench, pliers
- Quick connect instruction:

HOW TO CONNECT



HOW TO DISCONNECT



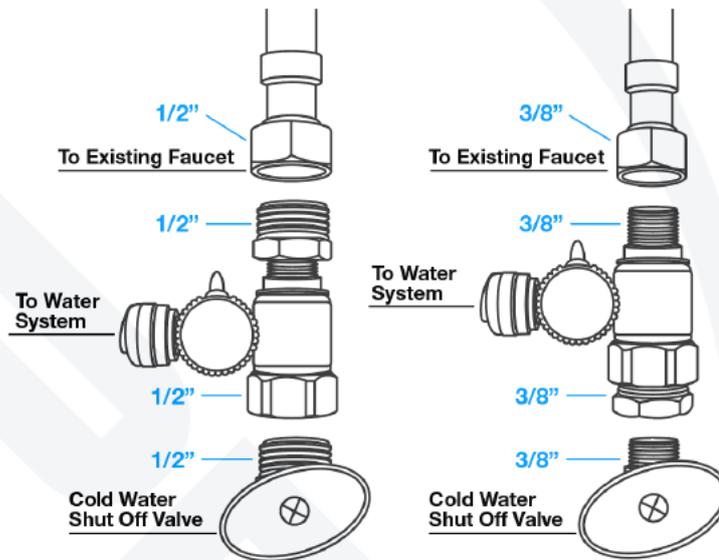
Cut the tubing end squarely using utility knife or scissors. Insert the tubing into the quick connect fitting for at least 1/2". You will need to wiggle the tube and apply additional pressure to create a seal.

Step 1: Install Feed Water Adapter (AFW)

Step 1. a. Turn off the Cold Water Supply Valve (CWSV) under the sink. Open the kitchen faucet to release pressure and ensure the water has stopped before proceeding to the next step. Get a towel or bucket to catch any water drips. Disconnect the Faucet water hose Connector (FC) pipe from CWSV.

Step 1. b. Check the O-ring inside AFW female end, and twist it onto CWSV. Tighten it up using a wrench or pliers.

Step 1. c. Twist the FC onto the male end of AFW. Turn the handle of AFW to the cross (OFF) position. Turn on CWSV slowly, checking for and fixing any leaks.



The included bushing can be threaded on either side of the Feed Water Adapter to fit the configuration of both 3/8" COMP and 1/2" NPT.

Step 2: Install Drinking Water Faucet



How to Drill a Hole in Sink or Counter-top

1. It is highly recommended that you watch the YouTube video "How to Drill Faucet Holes."
2. Choose a 1/2" Diamond Core Bit for granite and a titanium drill bit for steel. Do NOT use a hammer drill on natural stone, glass, and ceramic.
3. An indent should be made with a punch on steel before drilling to help guide the bit.
4. Use caution when drilling on a Porcelain sink, as it could be easily chipped—set drill speed on slow. Press the bit downward firmly until it breaks through the slippery surface.
5. Use a coolant to disperse heat. Choose water for granite and oil for steel. Use the Water Suction Cup to hold coolant inside and prevent the drill bit from slipping.
6. Hold the drill firmly and vertically at the slowest speed to prevent the drill bit from slipping on the counter.
7. Once you break through the smooth surface, swirl the drill a little to evenly apply pressure in a circle. Be patient and deliberate. It can take 20 – 40 minutes to drill through 1".

Step 2. a. If your kitchen sink does not have an existing 1/2" faucet hole, you will have to drill one. (Refer to *How to drill a Hole on Sink or Countertop*). Wipe clean, and dry the area.

Step 2. b. Slip the front plate on the faucet stem, followed by the rubber washer. Insert the faucet stem into the hole on the countertop. Under the sink, slip on the back rubber washer, and tighten the nut with the plastic wing.

Step 2. c. Slide the quick connecting up the push-in adapter on the base so that it seats securely into the faucet stem, then lock it in place by sliding the blue clip under the collet.

Step 2. d. Insert the tubing about 1/2" into the push-in fitting, and again, secure it with the blue clip.

Step 3: Install Drain Saddle



Step 3. a. Choose a proper spot anywhere before the P-trap on the drain pipe to install the drain saddle and tubing. Remember the drain saddle should NOT be installed after the P-trap to prevent potential microorganism growth.

Step 3. b. Drill a 1/4" hole on the drainpipe; paste the black sticky pad around the hole.

Step 3. c. Cut off the 1/4" tubing end to form a 45-degree angle. Insert the tubing into the 1/4" hole in the drainpipe, install the back plate and tighten two screws with hex nuts while the tubing remains in the hole.

Step 3. d. Insert Lock Clip. Pull-on the tubing to check if it is secure.

Step 4: Install the Vertical Filters: Stages 1, 2, and 3

Step 4. a. Make sure that the O-ring is seated inside the groove at the top of the filter housing. Food-grade silicone jelly may help the O-ring stay in place and seal better.

Step 4. b. Filter cartridges are preserved in shrink wrap. Note the direction sign on the sticker before removing the wrap (GAC stage).

Step 4. c. When placing the filter cartridge into its housing, make sure it is centered, and the knob is protruding from the bottom of the housing fits in the central hole of the filter.

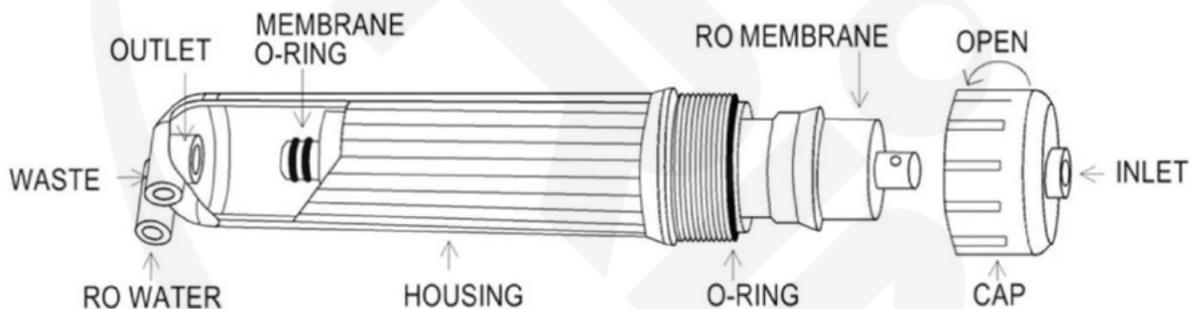
Step 4. d. Screw the housing, with filters attached, onto the housing caps (caps are pre-assembled on the machine head). The cap also has a center knob that should be inserted into the center hole of the filter cartridge. Twist the housing on in a counter-clockwise direction by hand, and then use a housing wrench to tighten it up for about 1/4 – 1/2 turn. **Do not overtighten. This can cause leaks and make it difficult to unscrew the housing when replacing filters.**

Note the second stage GAC is the only filter that must go in a certain direction. Make sure that the end with the rubber washer faces up, attaching to the housing cap.

Double O-ring Clear Housing



Step 5: Install Reverse Osmosis Membrane



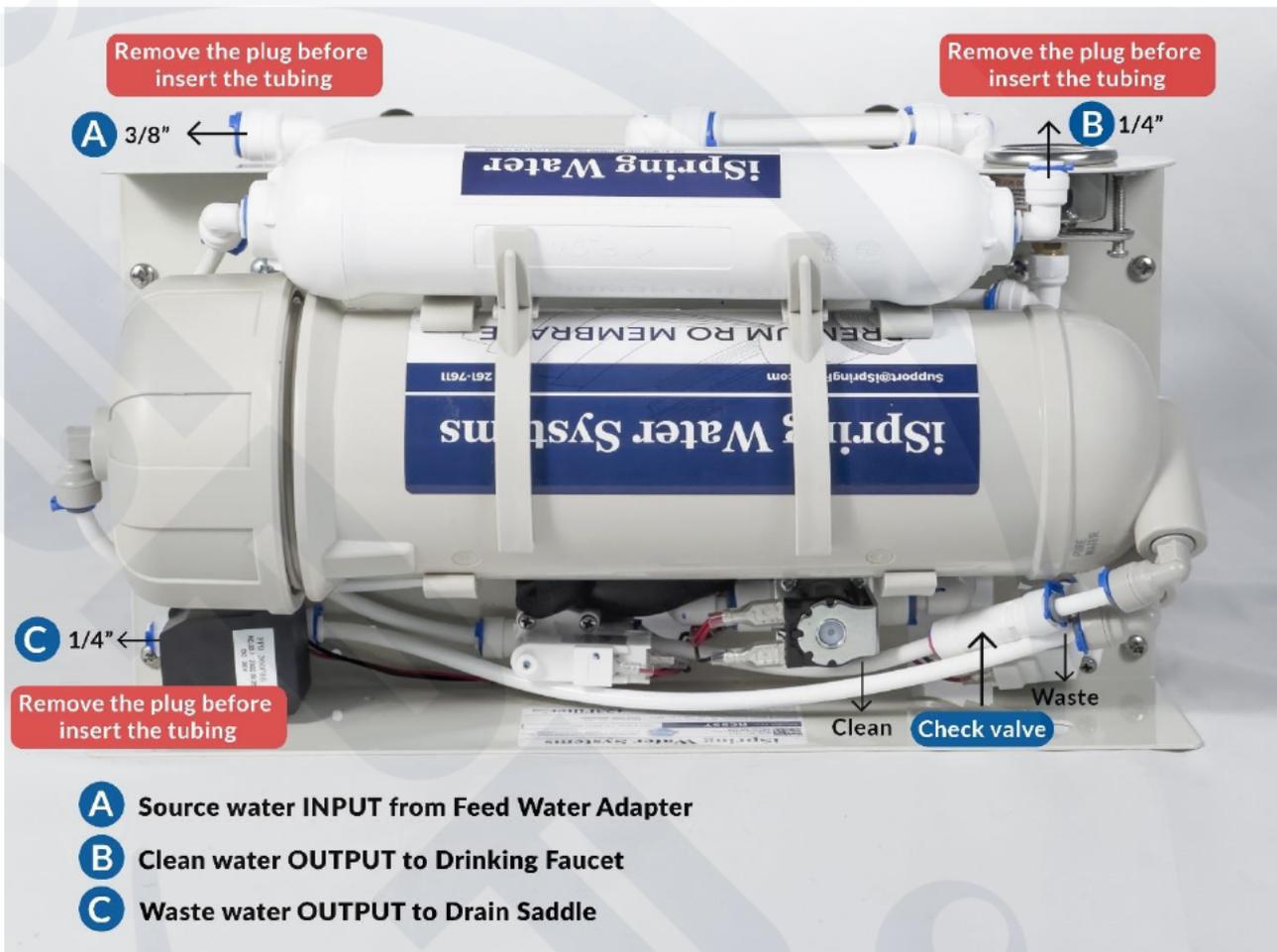
Step 5. a. Disconnect the tubing from the quick-fitting connection on the membrane cap.

Step 5. b. Open the membrane housing cap. A thick rubber band can be slipped on the housing body for better grip.

Step 5. c. Find the **inner end with 2 O-rings**, cut open the end of the sealed bag, use it to hold the RO membrane to avoid contamination, and firmly insert the membrane into the housing until the outer end without O-ring is completely inside the housing. See Figure above.

Step 5. d. Before twisting the housing cap back on, check that the **O-ring is evenly snagged on the membrane housing**. Hang tight and tighten up for about 1/4 – 1/2 turns using a small plastic housing wrench, but do not overtighten. **DO NOT** reconnect the tubing to the inlet on the cap at this point (will do it in system startup).

Step 6: Tubing Hook Up (optional sub-steps are marked with *)



- Step 6. a.** Facing the iSpring logo upfront, locate the pre-filter 1st stage on the right-hand side. Connect the 3/8" tubing between Feed Water Adapter (AFW) and point A.
- Step 6. b.** Connect the Auto Flush Solenoid Valve (point C), to the black Drain Saddle with 1/4" tubing.
- Step 6. c.** Connect the Post Carbon Filter FT15 5th stage (point B) to the RO faucet with 1/4" tubing.

Step 7: System Start-up (optional sub-steps are marked with *)

- Step 7. a.** Make sure that none of the tubings are kinked. Prepare a bath towel and bucket to catch water drips.
- Step 7. b.** To avoid the residual carbon dust in the first three stages from getting into the RO membrane, remove the tubing to the inlet of the RO membrane housing cap. Flush the first three stages into a bucket until the water turns clear, and reconnect the tubing to the RO membrane. You may do this whenever you change the first three stages. (Optional: disconnect the storage tank if you have one)
- Step 7. c.** Plug in booster pump power. Turn on the Feed Water Adapter valve (AFW) and slowly turn on the cold Water Supply Valve (WSV). Finish flushing the first 3 stages, and then reconnect the tubing to the membrane housing cap.
- Step 7. d. Check for leaks.** The top 3 causes for leaks are:
- 1) The tubing was not fully inserted into the quick-connect fitting.
 - 2) The O-ring was not in place or kinked.
 - 3) The Housing/Cap was not tightened up or off threads.

Step 7. e. Turn on the RO faucet. Within 5 minutes, RO water should start dripping. Let it run for at least 10 minutes. This flushes the system. Water could be black due to fine carbon dust from new carbon filters (step 8.2 could be taken to expedite the flush). Following this step will turn clear with some air bubbles. Shut off the RO Faucet. (Optional: turn on the Tank Shut-off Valve and wait for the tank to be filled up.)

Step 7. f. If you have installed an iSpring UV stage, plug in the UV power and observe if the RO faucet turns the UV on/off through the Flow Sensor Switch.

Step 7. g. The reverse osmosis membrane is the key part for the effective reduction of total dissolved solids (TDS), and the produced water should be tested periodically to verify the system is performing correctly. If the TDS of the source water is 100 ppm, the RO water should be less than 10 ppm (Rejection rate >90%).

Step 7. h. Check for leaks daily for the first two weeks after installation. Furthermore, a tray can be put under the system if any leaks occur, and a Flood Alarm can be used together for better protection.

**Congratulations! You have successfully installed the
iSpring Reverse Osmosis Water Filtration System!
Start enjoying the cleanest water right from your tap!**

Extra Installation

UV Lamp (Model# UVF11A)

Smart flow sensor switch turns the UV unit on and off automatically with water flow, can be added as a final stage to the system.

Ice Maker Connection Kit (Model# ICEK)

The iSpring ICEK can be purchased separately to feed RO water to your refrigerator for crystal clear ice cubes and great tasting water. It can be easily installed to connect the RO system to the ice maker or water dispenser of your fridge.

TDS Test Meter (Model# TDS2 or TDS3)

The TDS test meter can be used to check your tap water quality regularly and help determine the time for filter replacement.

Tubing (Model# T14B or T14W)

1/4" food-grade tubing in a 50' roll, which is good to use for tubing replacement and extension as needed.

Tubing (Model# T38W)

3/8" food-grade tubing in a 10' roll, which is good to use for tubing replacement and extension as needed.

Top Mount Faucet Installation Kit (Model# AIG1)

A US patent pending tool-free product for Countertop RO faucet installation. It works great for countertops with 1" - 1 1/2" (D) holes and also fits standard 7/16" drinking faucet stem.

iSpring Tanks

This RO system can be used with a 20 – 200 gallons storage tank. A tank helps meet the impulsive high volume demand and build a commercial or whole house Reverse Osmosis solution.

System Maintenance

FILTER CARTRIDGE REPLACEMENT SCHEDULE



For replacement filter cartridges, visit 123Filter.com or Google "Model replacement filter" online, in which "Model" is the model number of the system, e.g., RCS5T.

When to change the filter?

The filters are highly suggested to be replaced when they reached their recommended replacement cycle. However, the actual lifespan of filters may vary depending on the source water quality and daily usage. If you notice a great decrease in the tap water flow, or detect a unpleasant smell, taste, and odor, it would be a good time to get your filters changed.

How to change the filters?

Carefully follow the instructions that comes in with the filter package.

O-rings: Replace every 3 years or sooner if leak happens at O-ring.

The package comes with 3 spare O-rings for the pre-filter housing, and 1 spare O-ring for the membrane housing. Please save them with this manual.

iSpring Standard Limited Warranty (End-Users Only)

In order to be eligible for this warranty, the end-user must register at www.123filter.com.

For all water filtration systems, and upon registration by the end-user, iSpring Water Systems, LLC (iSpring) warrants for a one year from the date of purchase that the product is free of defects in materials and workmanship and that it will function for the duration of the warranty according to its specifications (the "Limited Warranty"). EXCEPT FOR THIS LIMITED WARRANTY, ISPRING EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ANY WARRANTIES OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. iSpring has no liability for any defect or deterioration which results from the improper installation, service, repair or use of the product. End-user's sole and exclusive remedy for any breach of the Limited Warranty shall be repair or replacement, at iSpring's option and expense. This warranty is only provided to end-users and only applies to products purchased directly from an authorized iSpring dealer or reseller.

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 that 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!

Warranty Registration Form

Name _____

Order# _____

Email _____

Phone _____

Address _____

City _____

State _____

Zip Code _____

Model #/ Serial Number

Purchased at (e.g. Amazon, Home Depot)

iSpring Water Systems, LLC
2480 Industrial Park Blvd, Cumming, GA 30041
678-261-7611

Plumber's information (Optional)

To best serve our customers, we'd like to recommend good plumbers throughout the USA. If you are happy with your installer, please provide their information so that we can pass it on as a courtesy.

Thank you!

Name of the plumbing company used to install your system:

Phone #: (_____) - _____ or email : _____
of the technician.



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Thank you!

iSpringFilter.com



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

✉ support@123filter.com

☎ +1 (678) 261-7611

💬 +1 (470) 560-0012

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