

## Introduction

Congratulations on your purchase of the iSpring 4-stage Ultrafiltration water filter system. Featuring a fourstage filtration process, the CU-A4 incorporates a 0.1 micron UF membrane, a polypropylene sediment filter (PP), Active Carbon (AC), and Kinetic Degradation Fluxion (KDF) to provide crisp-tasting mineral water straight from your tap.



## **Specifications**

Feed water Pressure	20~80 PSI*
Feed water Temperature	40 -100ºF
Maximum Inlet Water TDS Value	≤1000 PPM
Clean water flow	0.56 GPM @ 45 Psi
Filter capacity	1,100 Gallons @ average city water
Filter set life span	6~9 months @ 4 Gallons per day

## Parts list

**1. Pre-assembled machine head:** Four filter housing caps on the bottom and two quick-fitting elbow fittings on both sides.

#### 2. First stage: Disposable PP filter (1st one on the right when facing the front panel)

PP filter with the pore size in 5 microns, made with NSF certified polypropylene material. It can effectively filter rust, sand, other larger particles and solid impurities in water.

#### 3. Second stage: Disposable UF membrane filter in hollow fiber

With a pore size of 0.1 micron, it effectively removes infectious microbes such as bacteria, protozoa and algae, while reserving the mineral substances that are good for your health.

#### 4. Third stage: Disposable 85C granular activated carbon filter + KDF filter

Double stage filtration - with the help of activated carbon, the food grade highly purified KDF copper zinc alloy removes pesticides and heavy metals such as chromium, lead, mercury and cadmium that may exist in the water, and releases zinc ion that suppresses bacterial growth through a process called electrochemical reaction.

#### 5. Fourth stage: Disposable post-activated carbon filter (1st one on the left)

This delicate coconut shell activated carbon with ultra-micro pore size specializes in absorbing all kinds of organics, humus, odor, and fouls from the water and improving the water taste.

#### 6. Drinking faucet and installation kit

No-pressure non air gap noise free drinking faucet with 3-color tubing. It needs a 1-inch hole in the countertop. (If you plan on also connecting the system to the fridge using our ice maker kit, please contact us as you will need a different type of faucet.)

#### 7. Feed Water Adapter (AFW43)

Taps into the cold water supply angle stop valve with  $\frac{1}{2}$  and  $\frac{3}{8}$  adapter.

#### 8. 1/4 inch Tubing

Connects feed water adapter, filter unit and drinking faucet.

9. Optional parts that may or may not be included in this package: Water Alarm (part# WD01), extra mineral stage, Ice Maker Kit (part# ICEK), replacement filter set (part# F4-CUA4).

# **Quick Tips**

### Inlet Water Valve in different sizes

Some homes may have either a 1 / 2 or 3 / 8 inch inlet water valve. The Feed Water Adapter (AFW43) includes a reversible adapter to match either size. For any other size please get an adapter from your local plumbing store or contact us. If drilling is necessary, make sure that no power or water lines are in the way.

#### **Use of Quick-Fitting**

- a.1.1 Viewing from the open end, a quick-fitting starts with the Collet, Lock Clip (often in blue color), and Fitting Body.
- a.1.2 To connect, cut tubing evenly, remove the Lock Clip, push the tubing ½ inch into the quick-fitting, and reinstall the Lock Clip. Pull on the tubing gently to make sure it is locked in.
- a.1.3 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, and simultaneously pull the tubing out.
   \*NOTE\* Watch our YouTube video 'iSpring RO Quick Fitting'



\*To connect, insert the tubing 1/2 inch deep until it's sealed by o-ring and locked by spider teeth.

\*To disconnect, pull the tubing while pushing down the collet to release the spider teeth.

## Drill a Hole on Sink or Countertop

- a.2.1 Watch YouTube video "how to drill a hole in granite countertop"
- a.2.2 Choose one inch Diamond hole saw for granite, and titanium drill bit for steel
- a.2.3 Use a coolant to disperse heat. Choose water for granite, and oil for steel
- a.2.4 Use a 1-1/2" Suction Base Drilling Ring to hold coolant and prevent drill bit from slipping on the counter
- a.2.5 Start slowly. Be cautious with the power drill that might slip and damage the counter surface.
- a.2.6 Set variable speed power drill at 100 200 RPM. Do NOT use hammer drill on natural stone, glass and ceramic.
- a.2.7 Hold drill bit vertically and swirl a little to apply pressure evenly in a circular motion.

Be patient and deliberate. It can take 20 - 40 minutes to drill through one inch.



Note: Use the bushing (adapter) that goes with the AFW to fit the ½" NPT or ¾" COMP threads on your sink's Cold Water Pipe.

## Installation

**CAUTION**: Improperly installed systems could result in water damage due to leaks or flooding. Proper installation of this system requires familiarity with standard sink plumbing and proper use of common hand and power tools. If you are not familiar with standard sink plumbing and proper use of common hand and power tools or have any difficulty with the installation of this system, please consult a licensed professional, such as a contractor or plumber.

## 1. Preparation

① Location: This water filter can be installed anywhere with proper cold water supply, such as under the

kitchen sink, behind the refrigerator, next to your aquarium, inside the RV, etc.

#### ② Tools needed:

- 1. 3 / 8 inch and 1 / 4 inch wrenches or adjustable wrench
- 2. Phillips and flathead screwdrivers
- 3. Scissors or utility knife
- 4. Bucket and towel to catch water drips
- 5. Variable speed power drill with 1 inch steel or marble hole saw bit if a hole on counter is to be drilled

## 2. Steps for installing under the kitchen sink (other locations may vary)

### ① Installing the Feed Water Adapter

- 1.1 Turn off your Inlet Water Valve (COLD), and open the kitchen faucet to release water pressure.
- 1.2 With a towel or bucket underneath, disconnect the Faucet water hose from Inlet Water Valve using the 3 / 8 inch wrench, and install the Feed Water Adapter (AFW) between them. Make sure the rubber washers are still in place. It is usually not necessary to use Teflon tape here. Hand tighten the hex nut and use the wrench for the final ¼ ½ turn. Do not over tighten.
- 1.3 Install the 1 / 4 inch WHITE tubing on the Feed Water Adapter using the 1 / 4 inch wrench. Hand tighten it then tighten up half to one turn using the wrench. If you received the feed water adapter with quick fitting, simply insert the tubing ½ inch deep into the fitting. It will lock automatically.

## ② Installing the drinking faucet

- 2.1 If your kitchen sink does not have a spare 1" hole, you will need to drill one. (Refer to Quick Tips for Drilling a Hole in Sink or Counter-top). Wipe clean and dry the area.
- 2.2 If there is a blue protection film on the Front Plate, remove it. Slip the front plate with black rubber washer onto the faucet stem. Insert the faucet stem into the hole on the counter. Optionally, plumber glue or sealer could be used.
- 2.3 Under the sink, slip on the Back Plate, and tighten the Hex Nut.
- **NOTE:** Please contact us if you plan to "tee off" the pure water line and connect it to your fridge, as you would need a regular RO faucet along with a pressure regulator.

## ③ Installing the unit and filter cartridges

- 3.1 Match the stage labels and twist filter cartridges clockwise into the machine head in order.
- 3.2 On the cabinet wall, mark the two holes of bracket, and install two #8 x 1" round head screws to hang the unit.

## Installing the tubing (check Quick Tips for using Quick-fitting)

4.1 Connect the blue tubing with AFW, red tubing with 1st stage, white tubing with 4th stage.

4.2 Check water route: cold water valve -> blue tubing -> drinking faucet valve -> red tubing -> 1,2,3,4 stages -> white tubing -> drinking faucet.

#### **5** System startup

- 5.1 With a towel or bucket underneath, slowly turn on the Cold Water Valve, feel the vibration and noise of the water flow. If your water pressure is high, DO NOT turn the Inlet Water Valve all the way up, but sparingly to a level position.
- 5.2 If it leaks, check if the tubing is fully inserted into quick-fittings, and that the nuts and cartridges are properly tightened.
- 5.3 Turn on the Drinking Faucet. Water should start flowing. Let it run for 5 15 minutes or until carbon particles are flushed out and water turns clear. The water filter is now ready for use. Write down the current date on cartridge for future reference. The cartridge set has a capacity of 1,100 gallons or a life span of about 6 9 months depending on water quality and usage.

#### 6 Filter Replacement

- 6.1 Turn off the inlet water ball valve (COLD), and open the kitchen and drinking faucets to release pressure.
- 6.2 With a towel or bucket underneath, twist the filter cartridge wrench counterclockwise to remove, and immediately put the replacement back on. Work in the order from the 1<sup>st</sup> stage to the 4<sup>th</sup> stage, which is from right to left when facing the front label of the machine head.

Symptom	Reason	Resolution
No clean water from the faucet	<ol> <li>No water or water pressure &lt; 20 psi</li> <li>Incorrect tubing connections</li> <li>Drinking faucet is off</li> </ol>	<ol> <li>Check water source</li> <li>Check the tubing connections</li> <li>Check the faucet</li> </ol>
Slow water flow	<ol> <li>Water pressure lower than 20 psi</li> <li>Filter cartridges are due for replacement</li> <li>1st stage is clogged by sediments</li> </ol>	<ol> <li>Open kitchen faucet to check cold water pressure</li> <li>Check the installation date and replacement schedule</li> <li>A whole-house sediment filter is needed to protect water appliances</li> </ol>
No water from the fridge	Using the included faucet with an ice maker kit to connect to the fridge	Contact iSpring to exchange the faucet for a regular RO faucet

# Troubleshooting

# 🚺 Notes

★ Before you leave home or stop using the water filter for a period of time, turn off the cold water valve, AFW valve (cross position) and turn on drinking faucet to make sure no there's no remaining pressure.

★ Should any leak and damage to the parts occur, immediately turn off the AFW valve and contact us for assistance. (678-261-7611, support@123filter.com)

# **Limited Warranty**

This Limited Warranty extends to the original purchaser of the system only. This warranty covers all Manufacturersupplied 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 from a municipal water system.

- 2. Feed water pressure to the unit is no less than 20 PSI and no greater than 50 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 in feed water must be less than 1,000 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.

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

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. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this exclusion may not apply to you. Owner's Warranty Responsibilities: As a condition of this Limited Warranty, the owner must ensure 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: some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Other Rights: This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

## **Warranty Registration**

We provide **30-day money back guarantee**, **1 year Manufacture Warranty** and **lifetime tech support** for all products. However, we do not have the order information from the vendors other than 123Filter.com. The easiest way to activate the warranty, is to forward the order confirmation email to support@123filter.com, along with your comment; or if you prefer, please fill out and mail the form below. Please remember that 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. Your satisfaction is our business!

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

Your Name:	
Your E-Mail:	
Your Phone:	
Order#:	
Model#:	
Order Date:	
Address:	
Reviewer ID:	
Notes:	

## How to reach us

Local / International: 678-261-7611

Fax: 678-530-1070

Email: support@123filter.com

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

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