

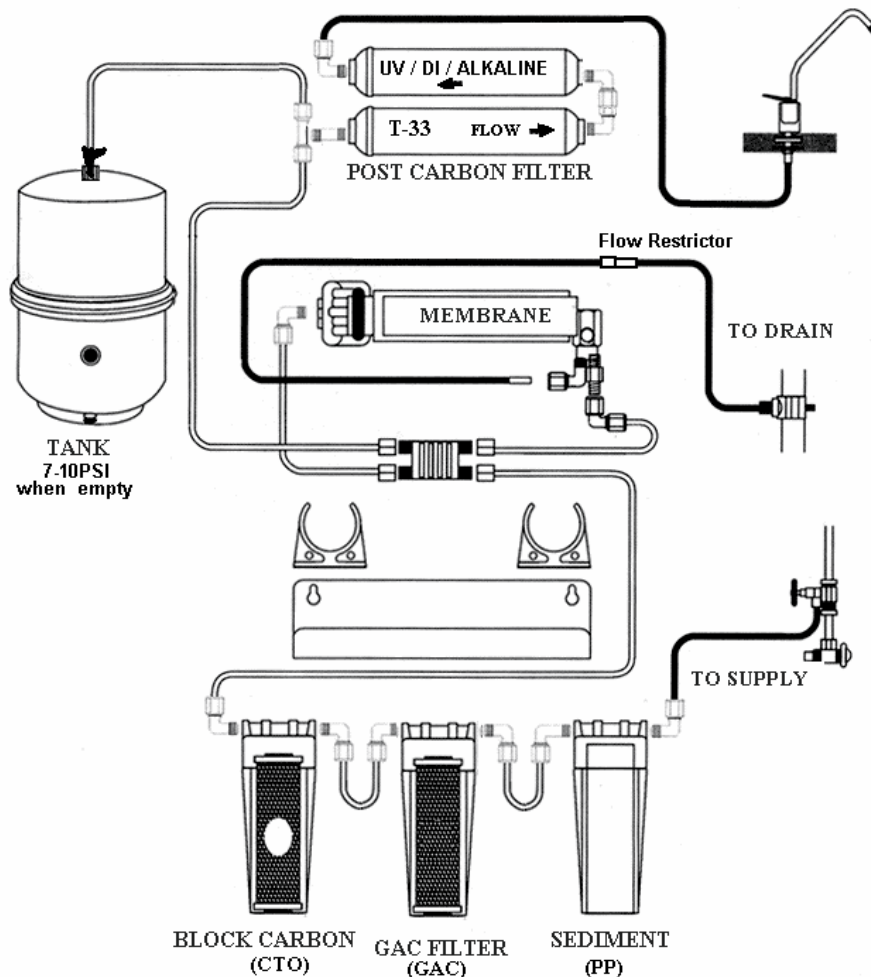
# USER'S MANUAL

Version 2013-1

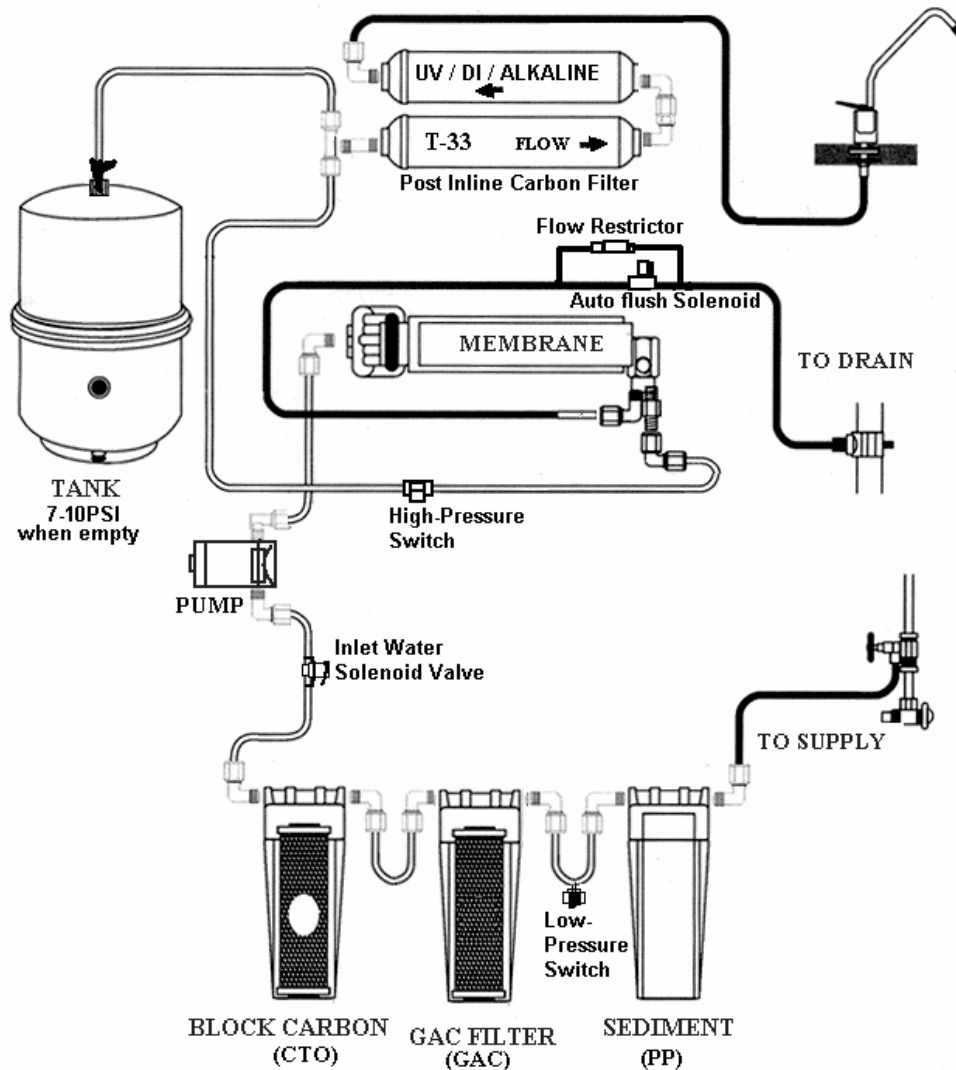
**For use with the following systems:**

Residential Units (no pump)	RCC7, RCC7D, RCC7U, RCC7AK, RCC7AKUV RCW7, RCW5, RCW7D
Residential Units with Booster Pump	RCC7P, RCC7PAK, RCC1UP, RCC1UPAK, RCC7PD
Commercial Units (with Booster Pump)	RCB2P, RCB2P-S, RCB3P

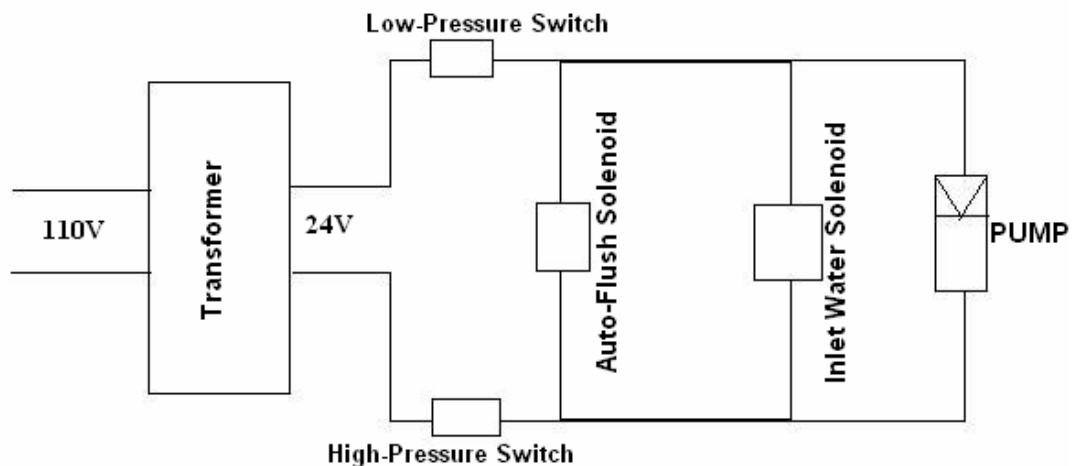
**Flow Diagram for 5, 6 or 7-Stage Reverse Osmosis Water Systems (no pump)**



### Flow Diagram for 5, 6 or 7-Stage Reverse Osmosis Water Systems with Booster Pump



### Electrical Diagram for 5, 6 or 7-Stage Reverse Osmosis Water Systems with Booster Pump



## **PRODUCT SPECIFICATION**

### **iSpring Reverse Osmosis System with Storage Tank**

**Capacity:** Generates 45 to 300 gallons per day depends on system specification, water temperature, pressure, and chemistry variations.

#### **System includes**

- RO unit: 5-stage, 6-stage or 7-stage unit, all filters included.
- Storage Tank: Pressurized tank with pre-charge pressure of 7~10 psi., powder coated steel construction with Food Grade butyl water bladder. NSF listed
- Water Dispensing Faucet: lead-free, 360 degree free swivel, long reach goose neck type, chrome steel, locking lever for continuous dispensing.
- Hardware: feed water adapter, feed water valve, drain saddle valve, tank valve, tubing, wrenches, and screws.
- Installation & Service manual

#### **System Requirements**

- Working pressure: 45 to 80 psi feed water pressure required, if below 45 psi, a booster pump is needed. We have RO systems with booster pump assembly. If the input pressure is above 80 psi, you MUST put a pressure regulator to reduce the pressure below 80 psi.
- Working temperature: 100 ~ 40 deg. F ( 37 ~ 4 deg. C )
- pH range: 3-11
- If feed water has hardness level above 500 ppm, we recommend putting a water softener prior to the RO system.
- If feed water has severe iron, rust problem, we recommend putting an iron filter prior to the RO system.
- If feed water has bacteria problem, we recommend adding an ultra violet sterilizing filter to the RO system (our model # RCC7U, RCC7AKUV, RCC1UP, RCC1UPAK).

#### **Filter Service Life**

Filtration Stage	Filter	Recommended Changing Frequency	Replacement Filter Part No.
1 <sup>st</sup> Stage	Sediment filter	Every 3~6 months	Residential: FP15 Commercial: FP25
2 <sup>nd</sup> Stage	GAC carbon filter	Every 6 months	Residential: FG15 Commercial: FG25
3 <sup>rd</sup> Stage	Carbon block filter	Every 6 months	Residential: FC15 Commercial: FC25
4 <sup>th</sup> Stage	TFC/TFM membrane	Every 24 months	Residential: MC7 (75GPD), MC1 (100GPD) Commercial: MC1 (100GPD)
5 <sup>th</sup> Stage	Inline carbon filter	Every 12 months	FT15
6 <sup>th</sup> Stage (Optional)	DI (De-ionization) filter	Every 6 months	FD15
6 <sup>th</sup> Stage (Optional)	Alkaline Filter	Every 6 months	FA15
6 <sup>th</sup> or 7 <sup>th</sup> Stage (Optional)	UV Filter	Every 12 months	UVB11 (11W UV lamp)

*The filters & membrane used are all standard sizes. For detailed description of each filter, go to [www.123filter.com](http://www.123filter.com).*

#### **Dimension**

- RO unit: Length 15 inch, Width 5 ½ inch, Height 16 inch (5-stage residential units)
- Storage tank: Diameter 10 ¾ inch, Height 14 ¼ inch
- Faucet: 9 ½ inch above counter top

#### **Warranty**

- 1 year Limited Warranty on parts, components. Filters are not under warranty.

#### **Performance**

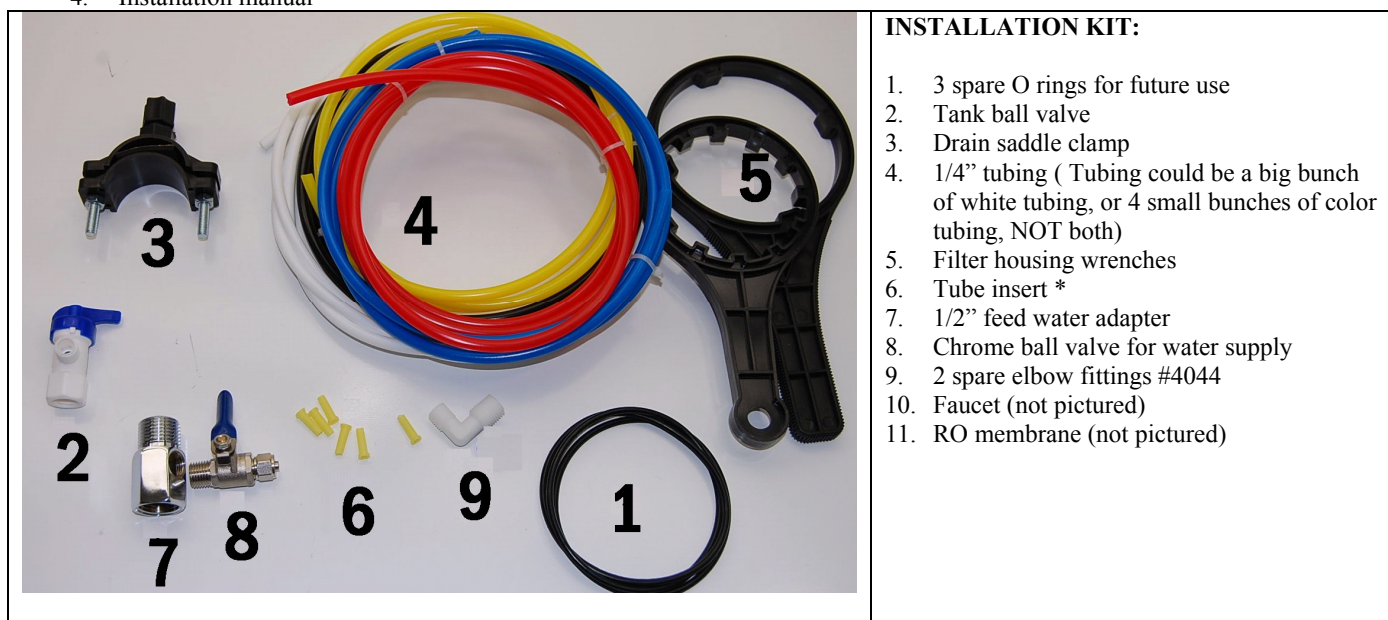
- Rejection rate: 85 to 95% of dissolved solids after RO depending on source water quality, pressure, temperature, and etc.

Thank you for choosing iSpring Reverse Osmosis Water Systems. You now own a superb Reverse Osmosis (RO) System that effectively reducing most contaminants, organic and inorganic compound, unwanted taste and odor from tap water. It is designed to transform your tap water into crispy clean drinking water.

Read carefully and follow the instruction in this manual before proceeding with actual installation. Failure to do so could result in personal injury or damage to the equipment or other properties. Be sure to follow any special plumbing codes in your area.

#### CHECK LIST:

1. Reverse Osmosis Unit
2. Water storage tank
3. Installation kit includes membrane, tank ball valve, drain saddle valve, feed water adapter, feed water needle valve, faucet assembly, tubing, tube inserts, wrenches
4. Installation manual



#### INSTALLATION KIT:

1. 3 spare O rings for future use
2. Tank ball valve
3. Drain saddle clamp
4. 1/4" tubing ( Tubing could be a big bunch of white tubing, or 4 small bunches of color tubing, NOT both)
5. Filter housing wrenches
6. Tube insert \*
7. 1/2" feed water adapter
8. Chrome ball valve for water supply
9. 2 spare elbow fittings #4044
10. Faucet (not pictured)
11. RO membrane (not pictured)

\* NOTE: Item #6 tube inserts are not required in the installation, but you can put them in three places; (1) tubing connection at 1<sup>st</sup> stage filter, (2) tubing connection at tank ball valve, (3) tubing connection at dispensing faucet.

#### RECOMMENDED TOOLS LIST

Variable speed drill	1/8", 1/4", 7/16", and 1/2" drill bit
5/8, 9/16 open-end wrench, or adjustable wrench, pliers	Phillips screwdriver
Utility knife, or scissor	Teflon tape

#### OPERATING PARAMETER

- Working pressure: 45 to 80 psi feed water pressure required. If input pressure is below 45 psi, use the systems with booster pumps. If the input water pressure is above 80 psi (**you must use a pressure regulator** to step down the pressure).
- Working temperature: 100 ~ 40 deg. F ( 37 ~ 4 deg. C )
- If feed water has hardness level above 500 ppm, we recommend putting a water softener prior to the RO system.
- If feed water has severe iron, rust problem, we recommend putting an iron filter prior to the RO system.
- If feed water has bacteria problem, we recommend our RO systems with ultra violet sterilizing filter.

**WARNING:** Do not use this RO+DI system alone to treat water with bacteria problem or water source with unknown quality.

**WARNING:** Do not connect HOT water source to this unit.

**WARNING:** Incorrect installation will VOID the warranty.

**WARNING:** Input pressure must not exceed 80 psi. Pressure regulator must be installed to reduce pressure.

**WARNING:** Using other brand of replacement filters and parts will void the warranty.

## ABOUT THE SYSTEM

**Reverse Osmosis process** is a separation process. Tap water enters the system, and it is separated at the 4<sup>th</sup> stage membrane filter. One side would go to the storage tank (purified water); the other side carrying all the minerals is purged to the drain. The ratio of purified water to drain water is 1:2. That means for every gallon of water you use, it will drain 2 gallons. The drain is required for the RO process to work. If the drain is intentionally shut off, all the minerals will be accumulated inside the membrane, and it would permanently damaged the membrane filter.

All Reverse Osmosis units require purging of water when it's producing water.

**Production rate:** For a 75GPD system, the system uses a 75 GPD (gallons per day) RO membrane. The actual production rate will depend on water input pressure, temperature, and water chemistry. At optimal condition the membrane will make 75 GPD, but on average, it would make about 45 to 60 gallons per day, or about 2 to 3 gallons per hour.

**Drain rate:** The drain rate of the system is set at 300 mL/min. using a flow restrictor. This drain rate is constant, independent of input pressure. The drain will shut off automatically when the tank is full and the system is not making water. For average household, the daily drain water is about 3-4 flushes of toilet water, so there should not be a significant increase on your water bill.

## ASSEMBLY QUICK VIEW

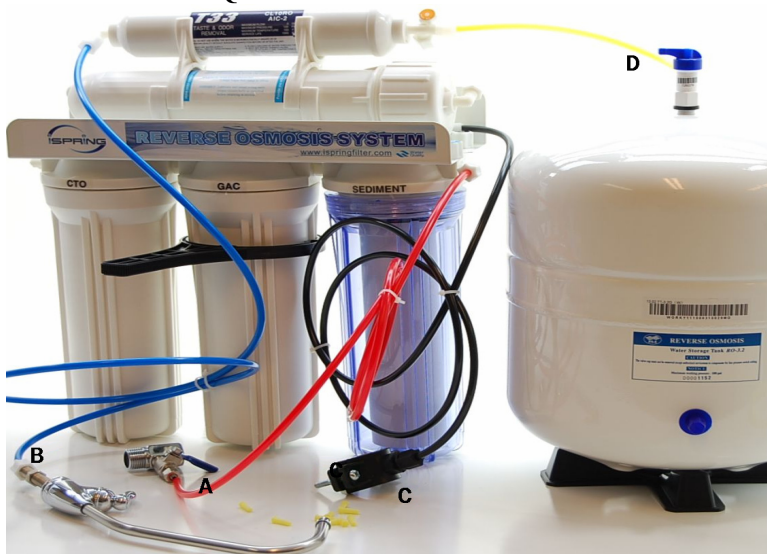


(picture for demo only. samples still have plastic wrap on)

1. Remove plastic wrap on the filters
2. Insert the filters as shown above.

1. Put upper portion of the unit on top of the filter housing
2. Screw on filter housing **vertically** to the filter housing cap by hand
3. Then use filter housing wrench to tighten the each housing

## INSTALLATION QUICK VIEW



	Connections	Color of tubing
A	Feed water valve	Red or Orange
B	Dispensing Faucet	Blue
C	Drain saddle valve	Black
D	Tank ball valve	Yellow

**Tip:** Go to [youtube.com](http://youtube.com) and search for “iSpring RO installation” video.



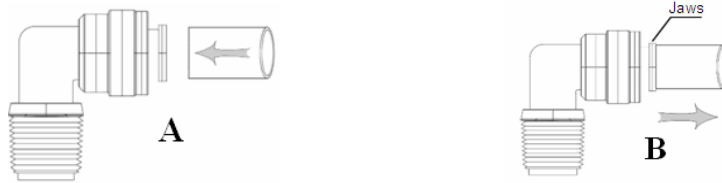
## INSTALLATION (FOR UNDER-THE-SINK INSTALLATION)

### PRE-INSTALLATION: Install filters and membrane in housings.

**Pre Filters:** Remove the filters' wrap, and from right to left, put in Sediment, GAC and CTO cartridge respectively. Make sure the O-ring is fully seated in the groove.

**RO Membrane:** *To ensure freshness, the membrane is not pre-assembled.* Remove the membrane from the plastic bag, remove the black caps on both ends, and install the membrane by carefully pushing the spigot end into the socket at the far end of the housing until completely in. **Make sure the end of 2 black rings goes in first.**

### Installation Tips for Quick-Connect Fittings



**A. Connect tubing to quick fitting:** Check the tubing end to make sure it is evenly cut and circular (not oval) shaped. Insert the tube all the way into the fitting till it stops completely. Make sure the blue C-shape saddle piece is on the fitting. This piece locks the tubing and prevents it from slipping off.

**B. Disconnect tubing from the fitting:** Remove the blue C-shape saddle piece that has a raised edge, push in the jaw to release the spider lock, then remove the tube *at the same time*.

### STEP 1: TAPPING INTO COLD WATER SUPPLY

**CAUTION:** The water supply to your RO unit **MUST** come from **COLD water line**. Hot water will damage your RO system.

1. Locate cold water shut off valve under the sink and turn it off. Open cold-water faucet to release the pressure, and make sure there is no water.
2. Put 3 turns of Teflon tape on threaded ends of the angle needle valve, or the ball valve.
3. Determine the best location for putting the feed water adapter. Do you have a flexible line or a solid copper tube? Is the flexible line with smooth surface or spiral line? Is there enough space for installing feed water adapter? More radius or more space is required if you first joint the feed water adapter with the needle valve. Is the size of fitting thread the same as the feed water adapter?
4. You can either joint the angle needle valve to the feed water adapter first, or install adapter to cold water supply line first. It depends on how much space is available under the sink.
5. For FLEX line: Loosen nut and separate cold water riser tube from faucet shank. Gently bend riser tube so that feed water adapter fits onto faucet shank. Use the Existing cone washer (if the existing cone water is badly damaged, use the new cone water provided in the kit). **NOTE:** If you have a spiral type flex tube riser, you **NEED** to use the existing cone water, since the cone washer we provided is straight, not spiral). Use Teflon tape on threaded parts to prevent leaks. Then tighten the connection.
6. For Solid Copper riser: Same procedure as flex tubing except you must cut a piece of the riser tube about 3/4" to 1" so the adapter can fit between faucet and riser tube. Use Teflon tape to prevent leaks.
7. Install the angle needle valve to adapter if you have not done so in procedure #4.
8. For connecting red tubing to angle needle valve, refer to the photo below. Then push tubing through the brass nut, then the sleeve, then put plastic insert inside the tubing, then push sleeve against the insert, then screw on the brass nut. Don't over tighten it. But it has to be tight.

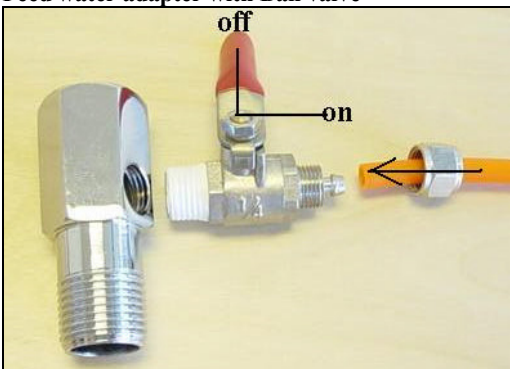



1. Feed water adapter 1/2" connect to base of kitchen faucet



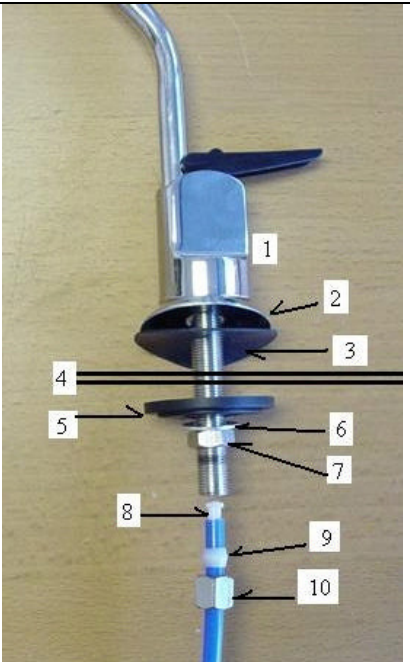
1. Buy a 1/2 pipe to 1/2" pipe hose  
2. 1/2 to 1/2" nipple fitting.  
3. Adapter  
4. Your existing faucet pipe

- Many times, it is easier to use the existing cone washer than using the new one
- If there is not enough space on the sink base, or it's difficult to get to, you can disconnect the riser from the cold-water valve side. If the fitting size does not match, buy size-changing fittings, or buy a new flex riser with matching sizes
- Many times, it is easier to buy an additional stainless steel braided flex riser and a 1/2" nipple to put in between the bottom of the faucet male thread and the feed water adapter (Don't buy the spiral type) so you can easily put the feed water adapter between two risers. This is the **EASIEST** way. Spend additional \$5 on the riser may save you a lot of time.

<p><b>Feed water adapter with Ball valve</b></p> 	<ol style="list-style-type: none"> <li>1. Put Teflon tape on the thread, put only 3 turns</li> <li>2. Push tubing through the nut,</li> <li>3. Push tubing all the way into the connection,</li> <li>4. Screw on the nut tight using a wrench</li> </ol>
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	<p><b>NOTE:</b></p> <p><b>For systems using compression fitting connections:</b> When connecting tubing to the system, first, you must unscrew the compression nut off the fitting, then pass the tubing through the compression nut about 1", then screw on to the fitting, then use a 5/8" wrench to tighten the nut until the thread is not visible. Don't over-tighten it.</p> <p><b>For systems using quick-connect fitting connections:</b> Insert the tubing into the fitting until it stops. Make sure the blue C-shape saddle piece is on the fitting. This piece locks the tubing and prevents it from slipping off.</p> <p>To remove the tubing off the quick fitting, remove the blue C-shape saddle first, push in the fitting to release the spider lock, then remove the tubing at the same time.</p>
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## STEP 2: INSTALLING THE DISPENSING FAUCET

	<ol style="list-style-type: none"> <li>1. faucet base</li> <li>2. small washer + chrome plate</li> <li>3. large washer</li> <li>4. kitchen sink</li> <li>5. bottom plate</li> <li>6. lock washer *</li> <li>7. lock nut</li> <li>8. tube insert</li> <li>9. sleeve</li> <li>10. faucet nut</li> </ol> <p><b>Drill 1/2" hole on the sink</b></p> <p>*The faucet washers may be different for the upgraded chrome faucets.</p>	<p>The faucet should be positioned with aesthetics, function and convenience in mind. An ample flat surface is required for the faucet base so that it can be drawn down tight. Also check the under sink area of the desired location to see if there is ample space to complete the faucet installation.</p> <p>If the space is not available on the upper sink area, the faucet could be positioned on the counter top at the edge of the sink. Be sure to watch for obstructions below, i.e., drawers, cabinet walls, support braces, etc. If the counter top is ceramic tile, the method for drilling the hole should be the same as for porcelain sink.</p> <p><b>NOTE:</b> The sink drilling process, although not complicated, requires a certain amount of caution and forethought. Porcelain sink can chip if care is not exercised.</p>
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## PORCELAIN ENAMEL SINK/ STAINLESS STEEL SINK/ ALUMIUM SINK


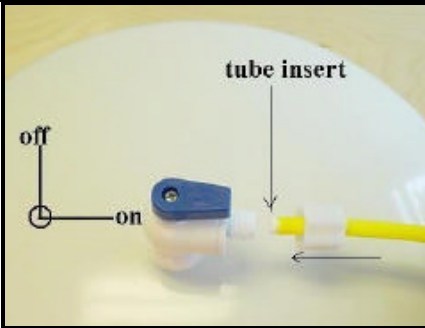
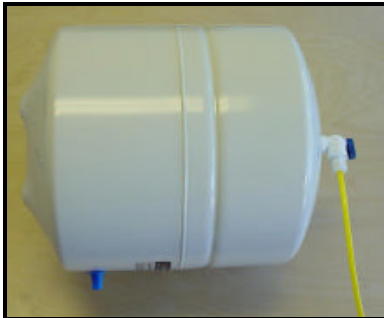
A 1/2" hole is required for the faucet. It is recommended that you get special drill bit for porcelain and tile counter.

1. Place a piece of masking tape or duct tape on the determined location where the hole is to be drilled.
2. Use a variable speed drill at slow speed with 1/8" drill bit, and drill a centering hole in the center of the desired faucet location.
3. Enlarge the hole using a 1/4" drill bit.

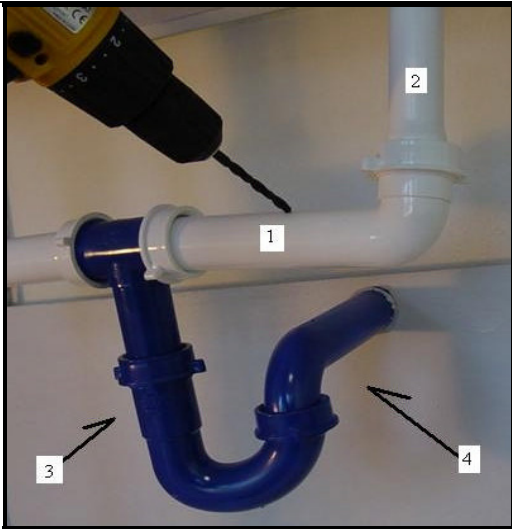

4. Enlarge the hole using 7/16" and 1/2" drill bit. Pause occasionally to cool drill bits.
5. File or clean the surrounding area and remove the masking or duct tape. (NOTE: the metal chips on porcelain will stain very fast)
6. DON'T put Teflon tape at the tip of the threaded mounting base of the faucet since it's a compression fitting.
7. Put the small rubber washer, the chrome base plate, large rubber washer according to the diagram through the threaded mounting tube at the base of the faucet.
8. From under the sink, install the bottom plate, lock washer, and nut. Then screw on tightly.
9. According to the diagram, put the brass nut through the BLUE tubing first, then plastic sleeve (preferred), or brass sleeve, then the plastic insert. Push the white plastic sleeve against the insert.
10. Screw on the Blue tubing with brass nut to the faucet base. Uses wrench to tighten the nut but don't over tighten it. Too tight would cause leak.
11. The spout can swivel 360-degrees.

### **STEP 3: MOUNTING THE TANK BALL VALVE**

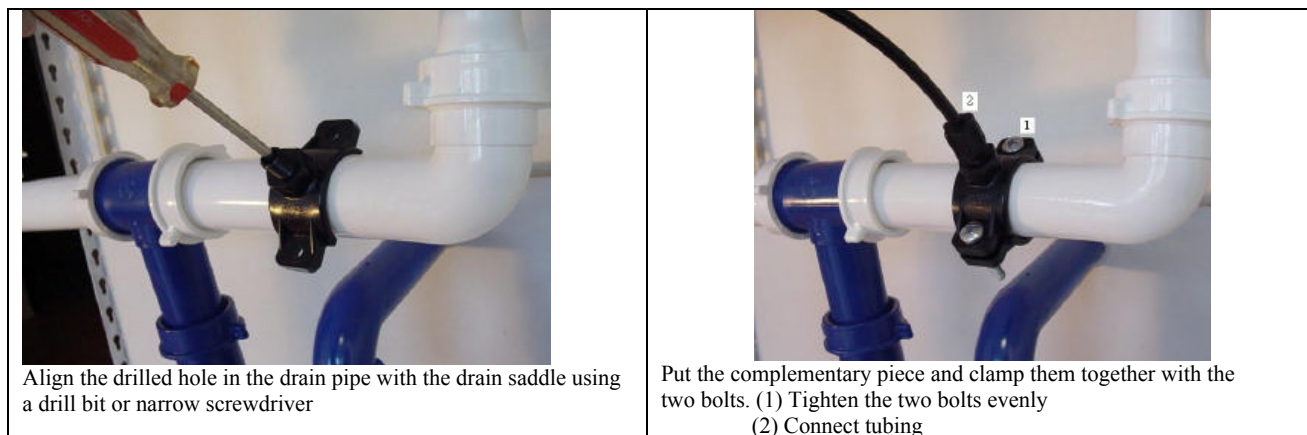
Do not release air from the air valve on the lower side of the storage tank. It is pre-charged at 7-10 psi at the factory.

 <p>Put Teflon tape, 6 – 8 turns</p>	 <p>tube insert</p> <p>Screw on ball valve hand tight, push tubing through the nut, put tube insert, screw on the nut</p>	 <p>The tank can be positioned laying down or standing upright</p>
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### **STEP 4: MOUNTING THE DRAIN SADDLE VALVE (don't put in blue area)**

 <p>The drain saddle valve should fit most standard drain pipe. It should be installed above the trap and on the horizontal pipe (1) or vertical pipe (2). <b>DON'T put on position (3), (4), or blue section</b></p>	 <p>Position the drain saddle in desired location, mark spot. You need to consider available space for drain tubing. Drill 1/4" hole into the drainpipe above the water line of the pipe. Clean the surface of the pipe. Peel off the sticky foam pad, then align the center hole around the drilled pipe hole. Then tape it.</p>
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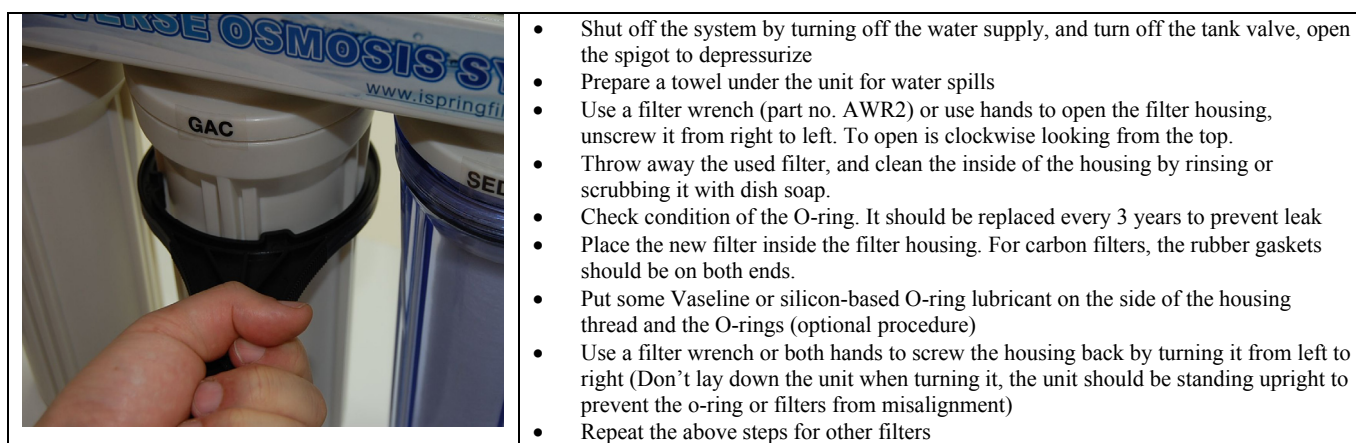


### **STEP 5: SYSTEM START-UP**

1. Make sure all tubings are not kinked.
2. Turn Tank Valve to OFF position (lever is cross from the tubing).
3. **For Model RCW7, RCW5, RCW7D, RCW7AK only:** There is a manual flush valve located next to the drain line (close to FLOW restrictor). Turn the valve paralleled to the tubing (OPEN), to flush new system or new filters. **For all other systems, skip this step.**
4. Turn RO faucet lever to continuous flow position. Lever points up or turns counter clock-wise for upgraded faucets.
5. Turn cold water supply main valve on slowly. Also turn input ball valve ON. When the system is pressurized, check for leaks. If a leak is found, tighten the connection.
6. Plug in the electricity for Booster pump (for systems with electric booster pump only).
7. Wait 5 minutes, the water should start dripping out of the RO faucet, and then wait 10 more minutes to allow water to flow through the system, and air inside the system can be purged.
8. Turn Tank Valve to ON position, lever is parallel to the tubing.
9. **For Model RCW7, RCW5, RCW7DT, RCW7AK only:** Close the manual flush valve. This flush valve should remain closed under normal use. **For all other systems, skip this step.**
10. Turn the RO faucet lever to OFF. Now the purified water will start filling the storage tank.
11. Wait 2 hours for the storage tank to be filled up.
12. **DO NOT DRINK THE FIRST BATCH OF WATER PRODUCED BY THE SYSTEM.**
13. After storage tank is full, turn the RO faucet lever to continuous flow position, to discharge the first batch of water. It takes about 5 minutes to completely discharge the tank. When the tank is discharged, you will notice just a steady trickle of water coming out.
14. After discharging the tank or about 5 minutes, turn the RO faucet to OFF position. Now the RO system is refilling the tank.
15. After the tank is filled up again, you can start enjoy the purified water. **Job Well Done!**
16. **For systems with UV only:** Plug in the UV ONLY AFTER the system has been flushed for one tank. Flush a second tank with the UV on, then the system is ready to use.

**\*\*NOTE: Check for leaks daily for the first week after installation.\*\***

### **CHANGING FILTERS PROCEDURES**



### REPLACE INLINE CARBON FILTER / DI FILTER /ALKALINE FILTER



\* if you have compression fitting



\*unscrew fitting off to replace filter

For inline carbon filter (or Alkaline filter, or DI filter), remove fittings from both ends of the filter then replace new filter.

After all housings are tight, turn on the water supply and tank valve.

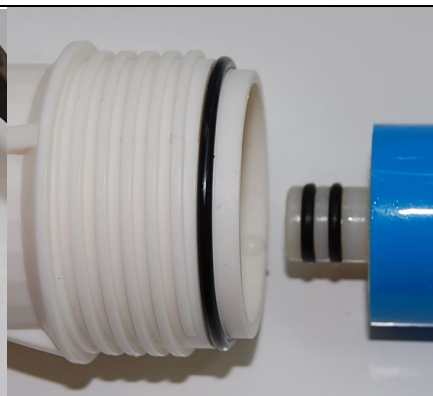
Check for leaks, if there is a leak; tighten the housing or applying more rounds of Teflon tape.

Open the spigot to drain all the water out of the storage tank.

**Drain the first tank of water after restart the system.**

Refer to the next page for recharging tank procedure (if necessary)

### CHANGING MEMBRANE PROCEDURE



- Lift the membrane housing from the U-clips, and remove the tubing from the membrane fitting (the inlet side of the membrane housing, or the side with the membrane housing cap). Unscrew the membrane housing cap off (counter-clockwise)
- Use pliers to pull the membrane out of the membrane housing, and discard the used membrane.
- Put some Vaseline or lubricant on the small black O-rings. Insert the new membrane into the membrane housing (THE SIDE WITH DOUBLE BLACK O-RINGS SHOULD GO IN FIRST) Push the membrane all the way in (some force is required to make sure the membrane is all the way in). Put some Vaseline or silicon based lubricant to the side of the housing threads.
- Screw the membrane-housing cap back (clockwise). Make sure O-ring is in place. Connect the tubing to its elbow fittings.
- Turn on the water supply and tank valve to restart the system. Check for leaks, if there is a leak, tighten the cap
- Wait 2 to 3 hours for the tank to be filled then you must drain the first tank of water by turning on the faucet to flush the system.

### CHANGING UV LAMP

Unplug the transformer of UV filter, turn counter-clockwise to remove the UV ballast, replace the UV lamp with the new one. For details, please refer to the UV booklet.

**Note on UV systems:** Water will be a little hot for the first few seconds (up to 117F). Once the water that is caught inside the UV filter housing runs out, the temperature will go back to normal. UV light may give water an ozone smell, which is normal. The smell will go away after water being exposed in the air for a few minutes.

### TROUBLE SHOOTING

**NOTE:** Turn off the system before servicing (for both source water and electricity).

INSTALLATION TROUBLESHOOTING		
PROBLEM	POSSIBLE CAUSE	SOLUTION
No or low water production	<ol style="list-style-type: none"> <li>1. Feed water valve in not turn on</li> <li>2. Tank valve is not turn on</li> <li>3. Tubing is kinked</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on feed water valve</li> <li>2. Turn on tank valve</li> <li>3. Straighten the tubing</li> </ol>
Leak at filter housing	<ol style="list-style-type: none"> <li>1. Housing is not tighten</li> <li>2. Damaged or misaligned O-ring</li> <li>3. Housing has cracks</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten housing</li> <li>2. Re-align O-ring or replace</li> <li>3. Replace housing</li> </ol>
Leak at fitting thread	<ol style="list-style-type: none"> <li>1. Not properly tighten</li> <li>2. Fitting has cracks</li> </ol>	<ol style="list-style-type: none"> <li>1. Use Teflon tape, re-tighten</li> <li>2. Replace it</li> </ol>

Bad-tasting water	1. Not yet flush the system 2. Tubing connection incorrect	1. Discharge water from tank 2. Check flow diagram
Milky/Cloudy water	1. Air in system/filters	1. This is normal, continue use it for 2 weeks
Noise from drain	1. Saddle valve mounted too high	1. Lower the saddle valve when system is making water, waste water to drain is normal, when storage tank is full, drain should stop
<b>TROUBLESHOOTING</b>		
PROBLEM	POSSIBLE CAUSE	SOLUTION
When turning on the RO faucet, only small amount of water come out.	1. Lifting the tank to see if there is still water inside. Heavy or light?	1. If it's heavy, you need to recharge tank, following recharge procedure 1b. If its light, the water either is not going in or the system is not making water.
Vibrating noise or very loud high pitch noise	1. From the auto shut-off valve	1. If the noise is too unbearable, shut-off, valve should be replaced.
Drain water never shut off	1. Auto shut-off valve is worn out 2. or becoming ineffective 3. Storage tank not enough pressure 4. Water supply pressure is near 45 psi or below 5. Cold water temperature Filters are clogged up	1. Replace auto shut-off valve 2. Follow recharging tank procedure 3. Increase feed water pressure 4. Can't do anything about it. 5. Replace filters
Low water production	1. Storage tank problem 2. Clogged filters 3. Kinked tubing 4. Clog flow restrictor	1. Follow recharging tank procedure 2. Replace filters 3. Straighten the tubing 4. Replace flow restrictor

**Note:** Clogged filters: How do you know if the filters are clogged up? For the pre-filters, sediment filters and carbon filters; check the pressure difference before and after the filters. If there is significant difference in pressure that means the filter is clogged. Turn OFF tank valve and cold water main valve then open the RO faucet to depressurize the system, then disconnect the tubing after the bottom three pre-filters, then turn ON the cold water main valve. If you get very strong water pressure, (as strong as water going into the system) then the bottom 3 pre-filters are not clogged. If the water pressure is much smaller, unlike a burst of water pressure, then the bottom 3 pre-filters need to be replaced.

**Note:** Checking a clogged membrane uses different method. Use a water quality meter TDS meter to check the condition and performance of the RO membrane (4th stage filter)

**Note:** Clogged flow restrictor: When you disconnect the black tubing going into the saddle valve, and the RO system is in the processing of making water (by turning on the RO faucet), there should be a small steady flow of drain water. If you do not get any drain water, the flow restrictor may be clogged, then you need to replace a new flow restrictor ASAP, and discontinue using the system.

#### RECHARGING TANK PROCEDURE

##### PROBLEMS:

- When you turn on the spigot you get small water pressure and water flow.
- When you turn on the spigot, only a quick burst of water comes out of the system, then it dies down to trickles.
- When you turn on the spigot in the morning, you only can get less than a gallon of water.

If you have above problems, you should recharge the tank. The tank should have about 7 psi of air pressure when it is completely empty. The storage tank has a water bladder inside, and it is surrounded by compressed air, so when you turn on the spigot, the compressed air would squeeze or compress the water bladder to force the water out of the tank. When the tank is full the tank pressure can reach about 35 to 50 psi depending on your feed water pressure, but to accurately recharge the storage tank, you should empty the tank then set the air pressure to 7 psi.

**TOOLS NEEDED:** An air compressor or air pump (like a bicycle tire air pump) . An air pressure gauge that is able to read less than 10 psi. Adjustable wrench or 9/11" wrench

##### STEPS:

1. Shut off the water supply to the RO system. Turn on the spigot to allow water to run until it stops (you can collect the water if you want)
2. Check to see if there is still water in the storage tank by lifting the tank. If the tank feels heavy, that means you need to recharge to tank, then continue the following steps. If the tank feels light, that means you don't need to recharge your storage tank at this time.
3. Locate the air valve on the side or on the bottom of the tank. It looks like the air valve on tires.

4. Use an air compressor or air pump to pump air into the tank. Keep the spigot on while pumping air, so that all water inside the tank can be purged out. Don't over charge it, just keep around 20 psi.
5. After all water is been discharged, use an air pressure gauge to check the tank pressure.
6. The tank should have 7 psi of pressure when it's empty. Add or purge air if necessary.
7. Turn the feed water valve back on, and turn off the spigot to allow refilling of the tank. It may take couple hours to refill the storage tank.
8. Finished

**NOTE:** If after few days of running the system, the problem comes back, then you may need to replace a new tank.

## **LIMITED ONE-YEAR WARRANTY**

### **1. What your warranty covers:**

iSpring Reverse Osmosis Systems are warranted to the original owner to be free of defects in material and workmanship from the date of manufacture for one year as follows:

- a. Manufacturer will, within one year of purchase, replace the defected parts (excluding filters) at no charge.
- b. The replaceable filters are not warranted since the service life of replaceable filter varies with local water conditions and thus not warranted.

### **2. Conditions of Warranty:**

- a. System must be maintained and serviced with the manufacturer original replacement parts and filters. The performance of your drinking water system is directly related to the conditions of the water been treated and the particular application in which it is used. Therefore, manufacturer's liability is limited to the cost of repair of the RO systems. **The manufacturer is not liable for incidental or consequential damages of any kind.** Systems must be installed and operated in accordance with manufacture's recommended procedures and guidelines.

### **3. What iSpring Reverse Osmosis Systems will not do:**

- a. Warranty is void if product failure or damage results from freezing, neglect, misapplication, fouling with sediment or scale or failure to operate the system in accordance with the instructions contained in this manual.
- b. The following operating conditions must also be followed for this warranty to be valid
  - The hardness of the water cannot exceed 7 grains per gallon or 120 ppm.
  - The pH of the water must not be lower than 3 or higher than 11
  - Feed water Total Dissolved solids TDS should not exceed 1000 ppm
  - Feed water temperature between 90 F and 45 F or (32C and 5 C)

### **4. Obtaining Warranty Service:**

For Warranty service, obtain a Return Merchandise Authorization (RMA #) number from the manufacture or distributor. You can also contact our technical support department to obtain the RMA # or visit our web site at <http://www.123filter.com> or email your request to [sales@123filter.com](mailto:sales@123filter.com)

### **5. Limitations and exclusions:**

Manufacturer will not be responsible for any implied warranties, including those of merchantability and fitness for a particular purpose. Manufacturer assumes no liability whatsoever for any incidental and consequential damages, including loss of revenue, loss of time, travel expenses, inconvenience, and any damage caused by the equipment and its failure to function properly.



**Service Record**

Date of Purchase: \_\_\_\_\_ Purchase from: \_\_\_\_\_ Reference Order #: \_\_\_\_\_

Date of Installation: \_\_\_\_\_ Installed by: \_\_\_\_\_

Date	1st Stage Sediment (6 months)	2nd Stage GAC (6 months)	3rd Stage CTO (6 months)	4th Stage membrane (2 years)	5th Stage Inline Carbon (1 year)	6th Stage DI (6 months)	6th Stage Alkaline (6 months)	6th or 7 <sup>th</sup> Stage UV Lamp (1 year)

Please visit our online store at [www.123filter.com](http://www.123filter.com) for all of your future filter needs. Send us an email to [sales@123filter.com](mailto:sales@123filter.com) for any question you have. **Better water, better health!**