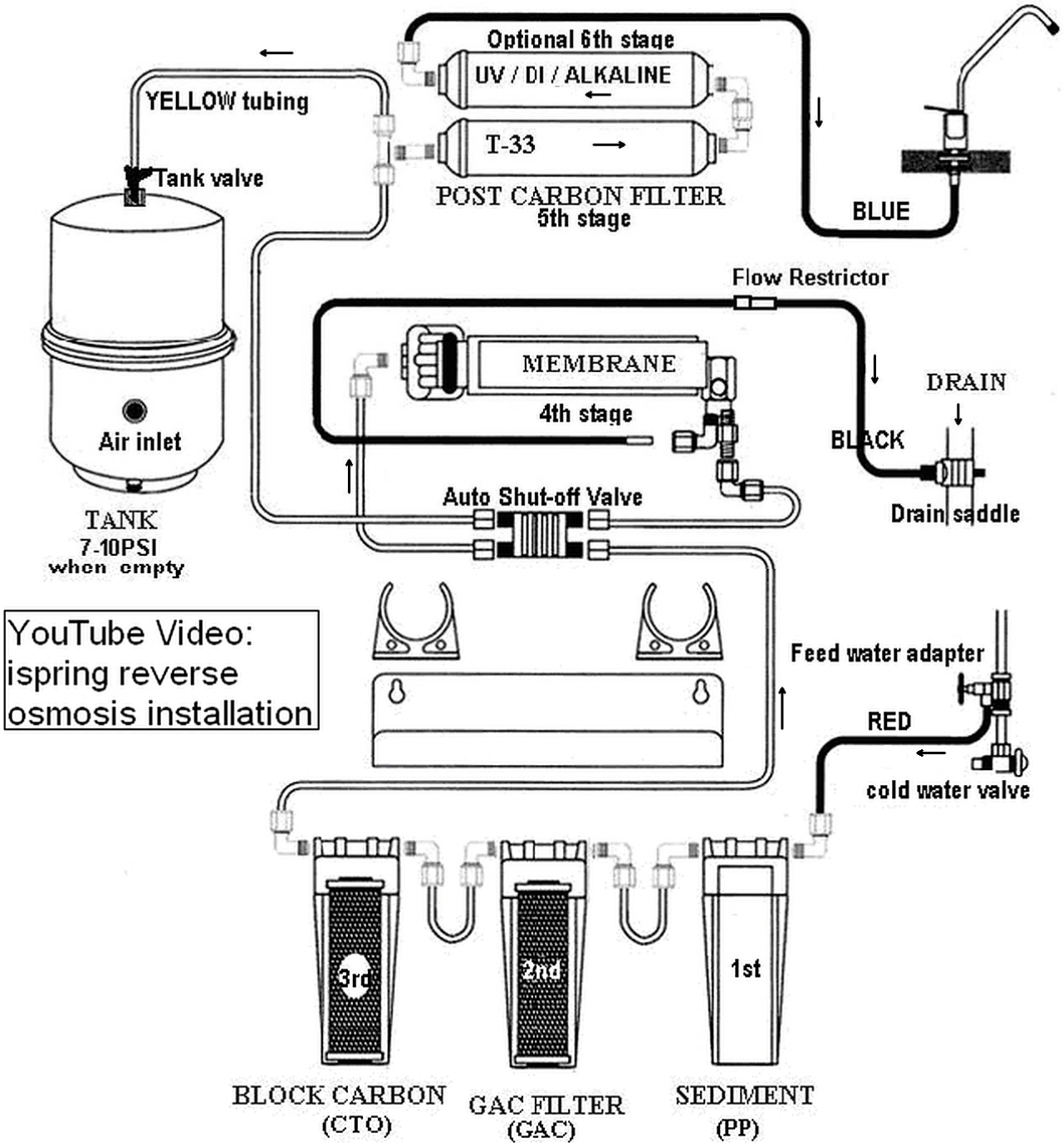
Installation Guide

iSpring 5-Stage Reverse Osmosis System #RCC7

Model Number	RCC7	Production Rate	283.88 L/d (75 gpd)
Recovery	26.76%	Efficiency	15.82%
Temperature	40°F - 100°F	Pressure	40-80 psi

Before you begin, it is highly recommended to watch the video "ispring reverse osmosis installation" on YouTube.

System Diagram



Parts Index

0. O-ring seated on top of housing
1. 1st stage transparent housing
2. 2nd stage housing
3. 3rd stage housing
4. 1st stage sediment cartridge
5. 2nd stage GAC cartridge
6. 3rd stage CTO cartridge
7. 4th stage RO membrane housing cap
8. 5th stage Post carbon T33
9. 6th stage Alkaline (optional)
10. RED tubing inlet
11. YELLOW tubing inlet
12. BLUE tubing or ice maker T-fitting inlet
13. To Cold Water Supply Flex Tube
14. To Cold Water Supply Valve
15. Drain saddle
16. Drain saddle sticky pad
17. RO faucet front plate
18. RO faucet back washer
19. Big housing wrench
19a. Membrane housing wrench
20. Tank seat
21. Tank fitting
21a. Tank Shut-off Valve (open)
22. Housing cap with center knob
23. Rubber washer
24. Ice maker kit (optional)

How to Use Quick-Fitting

a.1.1 Viewed from the open end, a quick-fitting starts with the lock sleeve, Lock clip (often in blue color), and Fitting body.
a.1.2 To connect, cut tubing evenly, remove Lock clip, push tubing into quick-fitting all the way, and reinstall lock clip. Pull tubing to check if it is locked in.
a.1.3 To disconnect, remove Lock clip, push in and hold Lock sleeve compressed onto the Fitting body essentially eliminating any gap where the locking clip was occupied, and simultaneously pulling the tubing out. *note* watch our YouTube video 'iSpring RO Quick Fitting'

To connect, insert tubing all the way into Lock sleeve until it is locked. To pull out, remove Lock clip, push Lock sleeve towards Fitting body to eliminate Gap behind sleeve until tubing is unlocked.

Tips for Drilling a Hole on Sink or Counter-top

a.2.1 It's recommended to watch YouTube video "how to drill a hole in granite countertop"
a.2.2 Choose half inch Diamond hole saw for granite, and titanium drill bit for steel
a.2.3 Use coolant to disperse heat. Choose water for granite, oil for steel
a.2.4 Use 1-1/2" Suction Base Drilling Ring to hold coolant and prevent drill bit slipping on counter
a.2.5 Start slowly. Be cautious with slipped power drill that damages counter surface
a.2.6 Set variable speed power drill at 100 – 200 RPM. Do NOT use hammer drill on nature stone, glass and ceramic.
a.2.7 Hold drill bit vertically and swirl a little to apply pressure in circle evenly
a.2.8 Be patient and deliberate. It can take 20 – 40 minutes to drill through one inch.

Tips for Changing Filter Cartridges

a.3.1 To ensure system performance and water purity, filter cartridges must be replaced on schedule. Use TDS meter periodically to check water purity
a.3.2 Shut off water supply valve and tank valve, open the spigot to depressurize
a.3.3 Place a basket or towel under the unit for water spills.
a.3.4 Use housing wrench (part no. AWR2) to twist filter housing off in counterclockwise direction looking from the top
a.3.5 Clean the housing using hot water and optional scent-free dish soap
a.3.6 Check condition of the O-ring. They should be replaced every 3 years to prevent leak
a.3.7 Refer to Step 1.1 to install new vertical filter cartridges

a.3.8 Due to suction, RO membrane might be hard to pull out from housing, try using a tool to apply leverage (photo)
a.3.9 The 5th stage has direction. To replace it, remove the tubing and unscrew the fittings, unwrap the new cartridge, replace Teflon tape if necessary, follow the → sign on label, screw the fittings back on, and reconnect the tubing.

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

1.1 Make sure O-ring is seated on top of filter housings. Food-grade lubricant such as Vaseline or silicon jelly will help O-ring stay in place and seal better.
1.2 Filter cartridges are preserved in plastic wrap. Remove the wrapping and logo sticker.
1.3 When placing the filter cartridge into its housing, make sure the knob protruding from the bottom of the housing is inserted into the hole of the filter.
1.4 Screw the housing, with filters attached, onto the housing caps (caps are pre-attached onto the system). The cap also has a center knob which should be inserted into the hole of filter cartridge. Twist the housing on in clockwise direction by hand, and then use housing wrench to tighten it up for about 1/4 – 1/2 turn. **Do not over tighten. This can cause leaks and make it difficult to unscrew the housing when replacing filters.**
1.5 Follow the steps 1.1 – 1.4 to install the GAC and CTO filters. *note* the second stage GAC is the only filter that must go in a certain way. Make sure the rubber washer on the end of the GAC filter faces toward the top (open end of housing) thereby attaching to the housing cap.

- Step 2: Install Reverse Osmosis Membrane

2.1 RO membrane is sealed and preserved in moisture. Remove it from plastic bag.
2.2 Remove the membrane housing screw cap. First, you will need to disconnect the white 1 / 4" tubing from elbow quick-fitting on membrane housing, and then unscrew (counterclockwise) cap from housing (*refer to How to Use Quick-Fitting section*).
2.3 Firmly insert membrane into housing with the smaller end that has two black O-rings first.
2.4 Screw cap and insert white tubing back on. Tighten up using small plastic housing wrench but do not over tighten.

-Step 3: Install 3/8" Feed Water Adapter (AFW)

3.1 Turn off the Cold Water Line at your sink via the Cold Water Supply Valve (CWSV). Turn on kitchen faucet to release any pressure and make sure water has stopped before proceeding to the next step.
3.2 Get a towel or basket to catch any water drips. Unscrew Cold Water Supply Flex Pipe (CWSFP) from CWSV. Wrap CWSV with Teflon tape and screw on the AFW at the female end with O-ring. Tighten using wrench or pliers. Note, the AFW in iSpring tool kit is 3/8", which fits most common

flex pipe in US. However, if yours happen to be in different size, this is usually a size of 9/16", please call us get an adapter from us or Home Depot.

3.3 Reinstall CWSFP on the male end of AFW. Turn the handle of AFW to cross (OFF) position. Turn on CWSV slowly, check and fix any leaks.

3.4 *note* The fitting end of the ASV is a compression fitting. Unscrew the nut and slip it onto 1/4" **RED** tubing. Insert the tubing into the ASV (the T), push in firmly and then screw and tighten the nut with your hand. Use wrench for final turns.

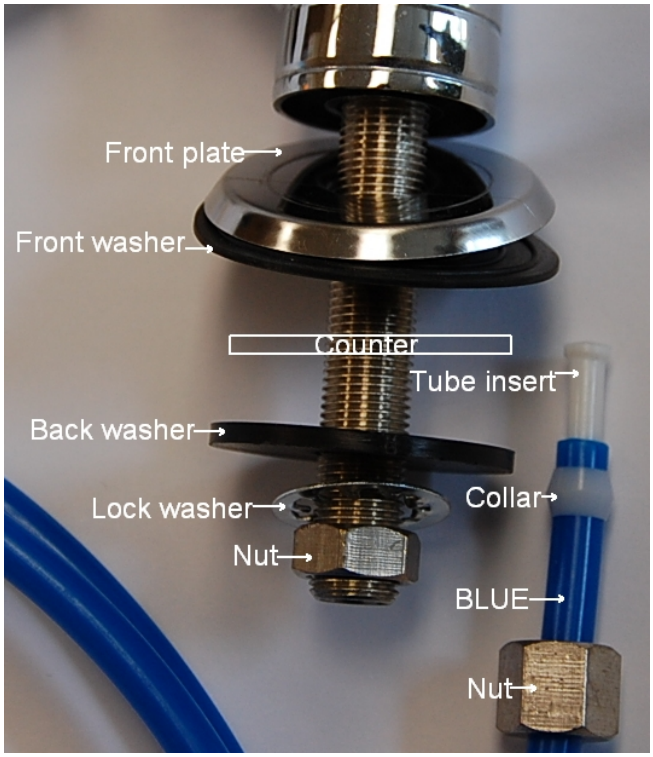
-Step 4: Install RO Drinking Faucet

4.1 If your kitchen sink does not have a spare ½" hole, you will need to drill one. (Refer to accessory: *The Tips for Drilling a Hole on Sink or Counter-top*). Wipe clean and dry the area.

4.2 Remove blue protection film from front plate, slip it on faucet thread, and slip on black rubber washer that has 3 circles. Insert the faucet thread portion into the hole. Optional plumber glue or sealer could be used.

4.3 Under the sink, tighten back rubber washer, small lock washer, and nut.

4.4 Slip the compression fitting nut and collar on BLUE tubing, push the insert into the tubing, insert it into faucet end, and tighten up the nut. Pull the tubing to check if it is secure.



-Step 5: Install Tank Shut-off Valve (TSV)

5.1 Wrap six turns of Teflon tape clockwise onto the valve thread at the top of the tank.

5.2 Screw Tank Shut-off Valve on and tighten up by hand. Do not over tighten.

5.3 Install the **YELLOW** tubing onto Quick-Fitting of TSV.

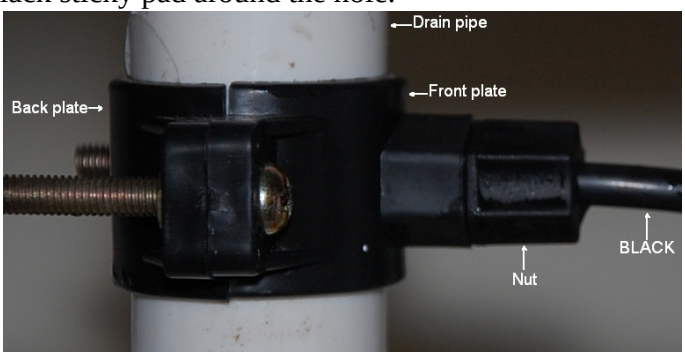
-Step 6: Install Drain Saddle

6.1 Choose a spot on drain pipe that is convenient for installing drain saddle and tubing. Horizontal pipe is recommended to limit sound of drainage water running out from system.

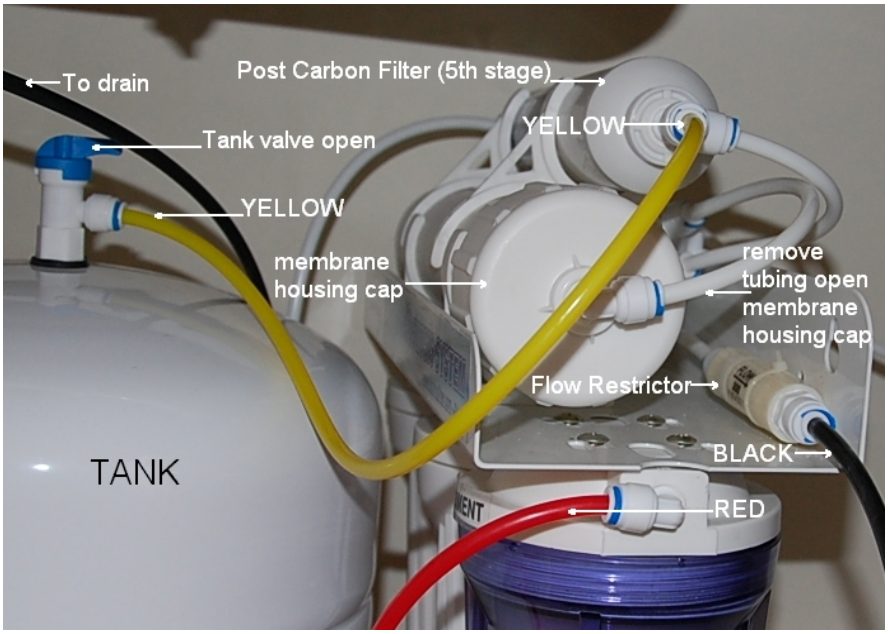
6.2 Drill a 1 /4" hole on drain pipe; paste the black sticky pad around the hole.

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

6.4 Tighten the nut on Drain Saddle by hand. Pull the tubing to check if it is secure.



-Step 7: Tubing Hook up



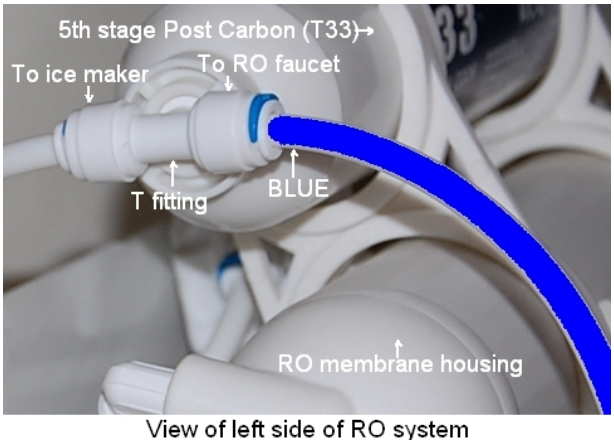
7.1 When facing the Water System with the iSpring logo on the front plate, look for the elbow fitting connecting to the vertical sediment filter located on the right hand side (clear housing). Connect the **RED** tubing to this elbow fitting and the other end will connect to the Feed Water Adapter (AFW) on your cold water line.

7.2 Insert the **BLACK** tubing into the flow restrictor, which lays beside the membrane housing and further connects to the drain saddle to flush out the waste water.

7.3 On the right side of the Post Carbon Filter (labeled T33 or FT15), insert the **YELLOW** tubing into the t-fitting. The other end of the YELLOW tube will connect to the ball valve of the Tank.

7.4 Insert the **BLUE** tubing (links to RO faucet) into the elbow fitting at left end of Post Carbon Filter. For the optional Ice Maker Kit, elbow fitting with the T-fitting as shown in photo.

7.5 You may organize the tubings, but make sure to leave enough length so the filter system can be moved around the cabinet easily when replacing filters.



View of left side of RO system

7.6 You may hang the system on the cabinet wall using two 1.5” screws. Furthermore, a basket can be put under the system in case of any leaks, and a Flood Alarm can be used together for greater home and cabinet protection.

-Step 8: System Start Up

8.1 Turn Tank Shut-off Valve to OFF (cross) position.

8.2 Turn on Cold Water Supply Valve and Feed Water Adapter, and check system for leaks.

8.3 Turn on RO Drinking Faucet. Within 5 minutes, RO water should start dripping. Let it run for 5 - 10 minutes. This flushes the system except the tank.

8.4 Shut off RO Drinking Faucet, turn on Tank Shut-off Valve and allow the tank to fill for two hours.

8.5 After two hours, turn on RO Drinking Faucet to flush out all the water in the tank. The water out of the faucet should be much stronger stream since the water is coming from the pressurized tank. The tank has flushed when the water flow has changed back to a real weak flow.
8.6 Repeat the steps 8.3 – 8.5 one to three times until RO water is clear.
8.7 An optional step would be to compare the TDS level between original tap water and RO water. If the tap water is 100, the RO water should be less than 10. Visit 123filter.com to purchase a TDS Meter.

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