



OLYMPIA
Water Systems™

INSTALLATION INSTRUCTION & OWNER'S MANUAL



System Tested and Certified by NSF International against NSF/ANSI 42 for the reduction of Chlorine, Taste and Odor and 58 for the reduction of Total Dissolved Solids. Please refer to the Performance Data Sheet for complete reduction data.

Please retain this Owner's Manual for future reference.

It includes information for operation and maintenance of your Olympia Water Systems
Reverse Osmosis water filter system.

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Introduction

About Your Reverse Osmosis System

Thank you for your purchase of the Olympia Water Systems Reverse Osmosis System.

This 5-Stage Reverse Osmosis System was designed and tested to provide high quality drinking water. The following are brief descriptions of each of the 5 stages in this system.

Filter Stages

Cartridge Filters	Model	Filter Description	Service Life
Stage 1 5 Micron Sediment Filter 	OROS-PRESF	Polypropylene filter for removal of sand, silt, dirt and rust particles.	6 Months
Stage 2 5 Micron Carbon Filter 	OROS-PRECB	Coconut shell carbon block for removing volatile organic carbon compounds, insecticides/pesticides and chemicals.*	6 Months
Stage 3 5 Micron Carbon Filter 	OROS-PRECB	Coconut shell carbon block for removing volatile organic carbon compounds, insecticides/pesticides and chemicals.*	6 Months
Stage 4 RO Membrane 	OROS-ROM50 (50 GPD Membrane) OROS-ROM80 (80 GPD Membrane)	For removing the following contaminants in your water: Arsenic, Barium, Cadmium, Chromium (Hexavalent), Chromium (Trivalent), Copper, Turbidity, Fluoride, Lead, Radium 226/228, Selenium* and TDS.	2-3 Years
Stage 5 Post Carbon Filter 	OROS-POST	Coconut shell post carbon filter for chlorine, taste and odor reduction.	2,500 Gallons (9,463 Liters)

*These claims are based on manufacturer testing. These claims are not certified by NSF.

Replacement Filters

Olympia Water Systems offers replacement filters for both the OROS-50 and OROS-80 Reverse Osmosis water filtration systems. For purchasing information for replacement filters, please visit our website at www.olympiafiltration.com.

Caution

Do not use this system with water that is microbiologically unsafe or of unknown quality without adequate pretreatment. This system is for use on potable water only.

Before Installation

Inspect the System

Remove the system and all the included components from the box. Inspect the system and the connection fittings to ensure nothing has been damaged during shipment. If any part of the system has been cracked or broken, do NOT proceed with installation. Contact Olympia Water Systems for an exchange or further information.

Recommended Tools List

- Variable speed drill
- Carbide drill bits: 1/4" (for waste line), 1/2" (for faucet hole) and 1/8" (for pilot holes, not mandatory)
- 5/8", 9/16" open-end wrench or adjustable wrench (for faucet installation)
- Phillips screwdriver (for saddle valve installation)
- Measuring tape

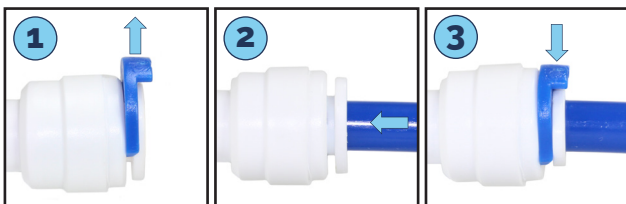
Operating Parameter

- Operating pressure: 50 PSI - 100 PSI
- Feed water temperature: 40° - 100°F (5° - 38°C)

General Installation Requirements

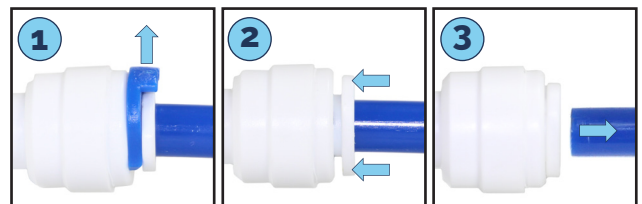
- System must be connected to COLD water source only.
- System must be installed in an indoor location; avoiding extreme temperatures and direct sunlight.
- Ensure installation location can support the weight of the system when it is full of water.

How to Use Quick Connect Fittings



To Attach Tubing

Remove BLUE tubing lock clip. Insert tubing until it hits the backstop. Pull on inserted tubing to ensure it is secured and re-attach BLUE tubing lock clip.



To Release Tubing

Remove BLUE tubing lock clip. Use two fingers to push in collet to release tubing. While collet is being held, pull tubing straight out.

Included Components

Please ensure you have all of these parts before starting installation.



RO System Head



3 Filters and Housings



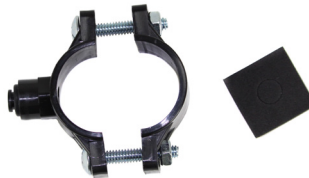
Storage Tank



Faucet Kit



3/8" Feed Water Angle Valve



Drain Saddle Valve



Tank Ball Valve



4 Colors of 1/4" Tubing

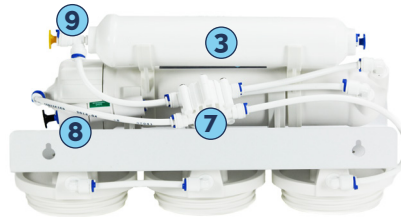


Housing Wrenches



Teflon Tape

System Itemization



1. Bracket
2. Membrane Housing
3. Post Carbon Filter
4. Sediment Filter Housing (1st Stage)
5. Carbon Filter Housing (2nd Stage)
6. Carbon Filter Housing (3rd Stage)
7. Automatic Shut-Off Valve
8. Flow Restrictor
9. T-Fitting
10. Feed Water Inlet
11. Filter Water Outlet
12. Storage Tank

Installation

Filter Housing Assembly

Remove main system bracket, 3 filters and housings from packaging and assemble the filter housings onto the main system bracket as follows:

- I. **Install Filters into Housings:** See **Fig. 1**. Stand 3 housings upright. Check each housing to ensure the black O-ring is properly seated in its groove.

Remove the plastic from the Polypropylene Sediment Filter and place into the 1st Stage housing.

Remove the plastic from both Carbon Block Filters and place into the middle (2nd Stage) and left (3rd Stage) housings.

- II. **Install Housings onto System:** See **Fig. 2**. Starting with the 1st Stage housing on the right, hand twist the housing onto the main bracket turning clockwise under the 1st Stage label. Using the provided large wrench, completely tighten the 1st Stage housing onto the main system bracket. One at a time, hand twist and then tighten with the provided large wrench, the 2nd Stage and 3rd Stage housings under their corresponding labels on the main system bracket. See **Fig. 3**. Once all three housings are installed, stand system upright.



Fig. 1



Fig. 2



Fig. 3

RO Membrane Installation

Remove the provided RO membrane from the plastic packaging and install into the RO housing on the main system bracket as follows:

- I. **Open RO Housing:** See **Fig. 4**. Remove BLUE tubing lock clip and remove the tubing from the cap of the RO housing on the main system bracket. Using the provided small wrench, remove the RO housing cap by turning counter-clockwise.
- II. **Install RO Membrane in Housing:** See **Fig. 5**. Insert the double banded end of the RO membrane into the RO housing first.
- III. **Close RO Housing:** Hand twist the RO housing cap back onto the RO housing by turning clockwise. Using the provided small wrench, completely tighten the cap onto the RO housing. See **Fig. 6**. Re-insert tubing into RO housing cap and re-attach BLUE tubing lock clip to secure tubing.



Fig. 4

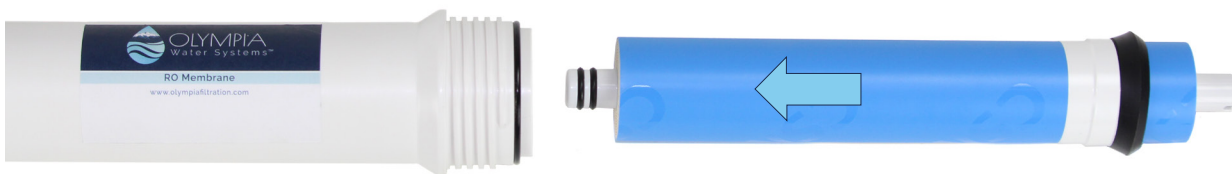


Fig. 5



Fig. 6

Positioning the System

Note

Mounting screws for the RO system are NOT included.

Space: Ensure there is sufficient space for installation (approximately **16" L x 7" W x 20" H** for the system, **12" D x 18" H** for the tank).

The RO system is best installed under a kitchen sink. If there is not enough space under the kitchen sink, the RO system can be installed where there is a COLD water supply with sufficient water pressure and an outlet to drain waste water from the system.

Mounting: It is not necessary to mount the RO system to the wall or inside of cabinet. The RO system can stand upright on the housings in the sink cabinet without being mounted. If you prefer to mount the system to the wall or inside of cabinet, ensure that the system can be easily removed for future maintenance.

Feed Water Connection

Important!

The system must be connected to the COLD water supply only. If the cold water supply valve cannot turn off the water at installation location, the main water supply to the house must be shut-off before installation.

Locate the COLD water supply valve and turn it to the OFF position.

- I. **Feed Water Angle Valve:** See **Fig. 7**. Attach 3/8" angle valve to COLD water supply line.

Insert one end of the provided WHITE tubing to white quick connection on angle valve. See **Fig. 8**. Turning clockwise, tighten tubing connection until RED line on angle valve is no longer visible. Attach a provided BLUE tubing lock clip to secure tubing connection.

- II. **Feed Water Connection to System:** Locate the WHITE cap insert at the front of the 1st Stage housing on the main system bracket. Remove BLUE tubing lock clip and WHITE cap insert from the main system bracket. See **Fig. 9**. Insert the remaining end of the WHITE tubing and re-attach the BLUE tubing lock clip to secure tubing connection.



Fig. 7



Fig. 8



Fig. 9

Drain Saddle Connection

Important!

To avoid possible system drainage noise, install drain saddle on the top of horizontal tailpiece or as low as possible on the vertical tailpiece. Do not install drain saddle close to a garbage disposal outlet as this may cause a blockage in the RO system drain line.

- I. **Drain Saddle Location:** See **Fig. 10**. The drain saddle should be installed above the drain trap on the horizontal or vertical drain tailpiece. If you are installing on the horizontal tailpiece, position the hole on the top side of the tailpiece to prevent waste water from flowing back into the RO system.
- II. **Prepare the Drain Saddle:** Remove nuts and screws from drain saddle to separate the plastic drain saddle pieces. Remove backing and pre-cut hole from the provided self-adhesive foam seal. Attach foam seal to drain saddle by lining up the hole on the foam with the tubing connection hole on the inside of the drain saddle piece.
- III. **Drill Drain Hole into Pipe:** Mark the position of the hole on the drain tailpiece. Drill a 1/4" hole through one side of the drain tailpiece at the marked location.
- IV. **Align Drain Saddle:** See **Fig. 11**. Position both halves of the drain saddle on the drain tailpiece so that the tubing connection is lined up with the hole in the drain tailpiece. Use the screws and nuts to clamp the two halves of the drain saddle onto the drain tailpiece. Ensure that there is equal spacing between each of the drain saddle halves. Do not overtighten.
- V. **Connect Drain Line to the System:** Locate the BLACK cap insert attached to the flow restrictor on the back of the main system bracket. Remove BLUE tubing lock clip and BLACK cap insert on the flow restrictor. Insert one end of the BLACK tubing and re-attach the BLUE tubing lock clip to secure tubing connection.
- VI. **Connect Drain Line to Saddle Valve:** Measure and mark 1 1/2" from the free end of the BLACK tubing. Insert remaining end of the BLACK tubing through the opening in the drain saddle until the marked location on the tubing is flush with the opening. Attach a provided BLUE tubing lock clip to secure tubing connection.

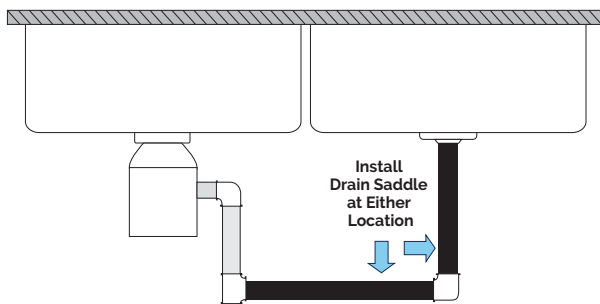


Fig. 10



Fig. 11

Mounting the Faucet

Note

If an existing hole in the sink is available, there is no need to drill a hole for the system faucet. If drilling a hole is necessary, be sure to clean up all debris from drilling before installing the faucet.

If drilling a hole in the sink or countertop is required to install the faucet, professional installation by a plumber is highly recommended. Olympia Water Systems is not responsible for any damage resulting from faucet installation.

- I. **Faucet Location:** If drilling a hole is required to install the faucet, be sure to choose a location in the sink or countertop that is convenient for dispensing water and has a sufficient flat surface for the faucet to be installed properly. Ensure that the threaded shank of the faucet can be easily accessed from below.
- II. **For Stainless Steel Sinks:** Wear safety glasses to protect your eyes. Ensure location for hole is clean and dry. A pilot hole or indent with a center punch is recommended before using the 1/2" drill bit on a stainless steel sink.

For Porcelain Sinks: Wear safety glasses to protect your eyes. Before starting the drill, apply firm downward pressure on the drill bit until it breaks through the slick surface. Proceed with caution as porcelain sinks and tile countertops are easily chipped without applying proper pressure before starting the drill or if the drill bit gets hot.

- III. **Mount Faucet:** See Fig. 12. Using the provided washers, nuts, insert and sleeve; mount the faucet in the sink or countertop.

- IV. **Connect Faucet to System:** Locate the BLUE cap insert on the left side of the Stage 5 post carbon filter on the main system bracket. Remove BLUE tubing lock clip and BLUE cap insert from the post carbon filter. Insert the free end of the BLUE tubing and re-attach the BLUE tubing lock clip to secure tubing connection.

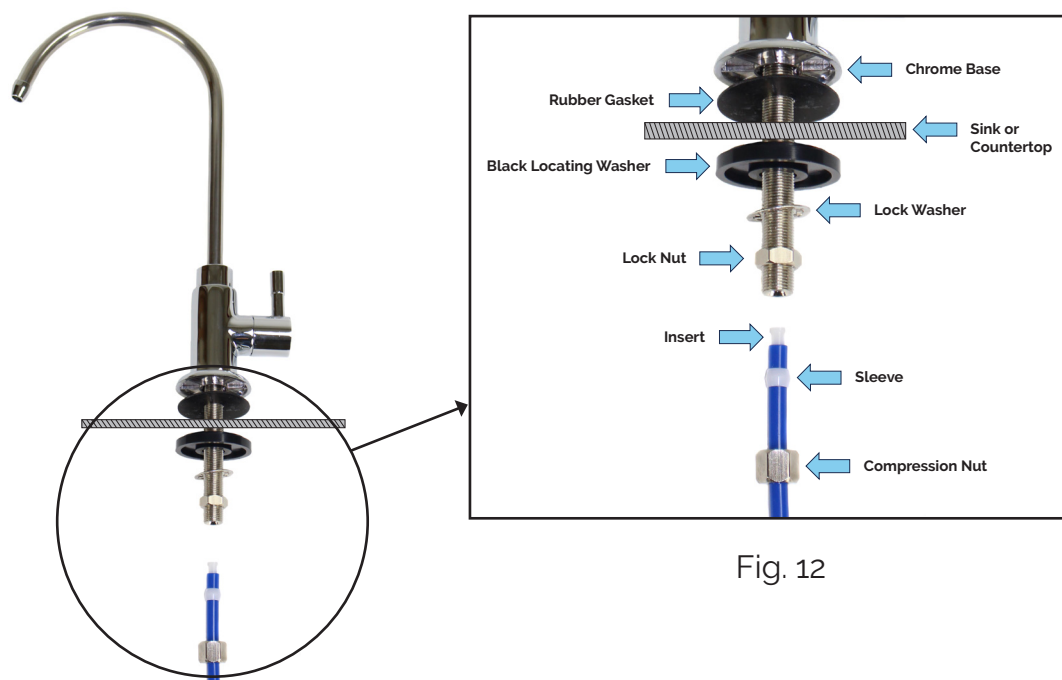


Fig. 12

Connecting the Tank

- I. **Attach Tank Ball Valve:** See **Fig. 13**. Apply 3-5 wraps of the provided Teflon tape to the threaded output stem on the top of the tank. Screw the provided tank ball valve onto the tank output stem.
- II. **Connect Tank Line to Tank:** See **Fig. 14**. Ensure that tank ball valve is in the OFF position. Insert one end of the YELLOW tubing into the tank ball valve and attach a provided BLUE tubing lock clip to secure tubing connection.
- III. **Connect Tank Line to System:** See **Fig. 15**. Locate the YELLOW cap insert attached to the right side of the Stage 5 post carbon filter on the main system bracket. Remove BLUE tubing lock clip and YELLOW cap insert on the post carbon filter. Insert one end of the YELLOW tubing and re-attach the BLUE tubing lock clip to secure tubing connection.



Fig. 13



Fig. 14



Fig. 15

Connecting the System

- I. **Check Tubing Connections:** See Fig. 16. Ensure that both ends of all tubing connections are installed and secured with provided BLUE tubing lock clips.
- II. **System Water Inlet Connection:** See Fig. 17. Check that the feed water angle valve is in the OFF position.
- III. **Tank Input & Output:** See Fig. 18. Ensure that tank ball valve is in the OFF position.

System Flow Diagram



Fig. 16

Tubing Connections

- A. Connect WHITE tubing to Water Supply
- B. Connect BLUE tubing to System Faucet
- C. Connect BLACK tubing to Drain Saddle
- D. Connect YELLOW tubing to Storage Tank



Fig. 17



Fig. 18

System Start-Up

- I. **Turn on Feed Water:** Turn cold water supply to ON position. See **Fig. 17** on page 11. Turn feed water angle valve to ON position to allow water to enter the RO system.
- II. **Open Tank Valve:** See **Fig. 18** on page 11. Turn tank ball valve to ON position.
- III. **Check for Leaks:** Check valves, fittings, tubing connections and housings to ensure there are no leaks.
- IV. **Wait for Tank to Fill:** Allow the RO system to run for approximately 3 hours to fill the tank. When the tank is filled, the RO system will automatically shut-off. The tank is full when you can no longer hear water running through the filters, or water flowing into the drain pipe.
- V. **Clean-Up:** While RO system is filling the tank for the first time, clean-up all of the used tools and work area. Be sure to keep all provided tools in a safe place so they can be used for future RO system maintenance.
- VI. **Flushing the Tank:** To flush the tank, turn the RO system faucet to the ON position and drain the water from the tank. The tank is empty when the pressure from the faucet drops from a steady stream to a slow trickle. Upon startup of the system, you may initially notice the water stream has a black tint. This is caused by the manufacturing of the carbon filters. You may also notice the smell of chlorine in the water from the sanitization of the rubber bladder in the water tank.

To flush out the carbon and chlorine, you may need to fill and empty the storage tank up to 5 times, where the water will be clear and you cannot taste the chlorine.

Congratulations, you have successfully completed the installation of your Olympia Water Systems Reverse Osmosis water filter system!