



Installation Instructions Model RO-4 Reverse Osmosis System

Reverse Osmosis Drinking Water System Installation Instructions

Notice:

Residential reverse osmosis systems require 40 psi water pressure to function properly. Furthermore, RO storage tanks have only 7 psi pressure to send filtered water from the storage tank to the faucet. Therefore, place the storage tank near the faucet or icemaker connection. (Keep within five feet if possible.) Otherwise, a delivery or booster pump may be required between the storage tank and faucet. Use RO-4-PUMP if pressure is below 40 psi.

Components

- RO manifold
- Pre-filter for sediment
- Pre-filter, carbon
- RO membrane
- Post filter, Granular Activated Carbon
- Tubing
- Saddle valve for waste water
- Flow restrictor (goes on drain line)
- Storage tank shut-off valve
- Angle stop valve for feed water (1/4")
- Quick connect faucet adapter (connects tubing to the faucet)



Typical Under Sink Installation

Optional

Faucet (chrome or brushed nickel). Use Teflon tape.

Installation overview

Step Requirements

First: Shut off flow to cold water line

- 1 Install manifold in your cabinet below the kitchen sink
- 2 Install dedicated faucet by kitchen sink. (9/16" hole for non-air gap faucet.)
- 3 Install angle stop valve on the cold water line for feed water. (Use Teflon tape.)
- 4 Install saddle valve for waste water on the sink's drain pipe.
Note: Place saddle valve on horizontal pipe if garbage disposal is used.
- 5 Install cartridges in proper order
- 6 Install tank shut off valve on storage tank (be sure to use Teflon tape).

IMPORTANT

Use a tube cutter to cut tubing at right angles. This is essential, using "quick connect" fittings!

Tube connections

Color	Connect from	Connect to
Orange	Angle stop valve	Manifold to "feed water" fitting
Black	Saddle valve under sink	Manifold to "drain" for waste water
Yellow	Storage tank	Manifold to "to storage tank" fitting
Blue	Faucet	Manifold to "to faucet" fitting

To faucet (blue)

Drain (black) with flow restrictor



Feed water (orange)

To tank (yellow)

Note: The flow restrictor must be installed in the black “waste water” line. This is an essential component to direct water through the membrane.

Reverse Osmosis Drinking Water System Start-Up Procedures

Start up procedures

Check system to verify all components are correctly installed.

Slowly open inlet valve on the angle stop valve.

Slowly open tank shut-off valve on the storage tank.

Check system thoroughly for leaks. If any leaks are found, shut off both inlet and tank valves and correct the issue.

You will hear the water running to drain while the unit is running. Once the water stops running the tank is full.

Note: Water literally trickles through the membrane, so do not open the faucet until tank is full.

It may take two hours or longer to fill the tank. (The tank is full when no water is running to drain.)

Once the tank is full, open the faucet to flush the system. (If you see black carbon fines in the water, this is normal.) Let the tank empty.

When the tank is empty, shut off the faucet and allow the tank to refill one more time.

When the tank is full, open faucet to empty the tank a second time.

When the tank is empty, shut off faucet and allow tank to refill.

After two flushings, the system is fully operational and the water is safe to drink.

For questions, contact your authorized dealer.

Dedicated faucet

Mount the dedicated faucet next to the sink. Two types are available: Non-Air Gap and Air Gap. Both faucets are available in chrome and brushed nickel. Be sure to select the faucet needed for your installation.



Specifications

Safety Zone RO-4 Reverse Osmosis Systems

General

Daily production rate	50 GPM
Typical flow sequence	Sediment cartridge Pre-Carbon block cartridge RO membrane cartridge Storage tank Post GAC carbon cartridge Dedicated faucet

Cartridge specifications

Sediment	Five micron spun polypropylene
Pre-carbon	Five micron carbon block
Reverse osmosis membrane	Thin film composite
Post-carbon	Granular activated carbon
Storage tank (included)	Metal – Capacity 3.2 gals.
Faucet options (additional)	Chrome, non-air gap Brushed nickel, non-air gap Chrome, air gap Brushed nickel, air gap

Replacement cartridges

Cartridge	Use (Removal)	Capacity (Gals.) TDS Reduction	Flow Rate (GPM)	Rated Life (Average Use)	Rated Life (Heavy Use)
Sediment	Sediment, particulate	2,500	0.5	12 mos.	6 mos.
Pre-carbon	Chlorine, chemicals	2,500	0.5	12 mos.	6 mos.
Membrane	Total dissolved solids	90%-95% reduction	n/a	3 yrs.	2 yrs.
Post-carbon	Taste & odors	2,500	0.5	12 mos.	6 mos.

Note: Capacities are based on local water conditions, degree of pre-filtration and use.

Other Specifications

Working pressure	40-125 psi
Temperature	39°F-100°F
pH	5-10
Turbidity	<1.0 NTU
Hardness	<300 ppm
Chlorine	0-3 ppm

Removes / Reduces

- Harmful chemicals
- VOCs, PFOS, PFOA
- Trihalomethanes
- Bacteria
- Cysts
- Viruses
- Chlorine
- Taste & odors
- Lead
- Mercury
- Fluoride
- Sodium
- Pharmaceuticals
- Arsenic
- Nitrates
- And more!

Dimensions (L x W x D): 13" x 11.5" x 5".

Limited Warranty

Systems come with a one (1) year limited warranty. Filter elements and membranes come with a quality guarantee only. See warranty card for full details. For technical assistance call 352-492-9516.