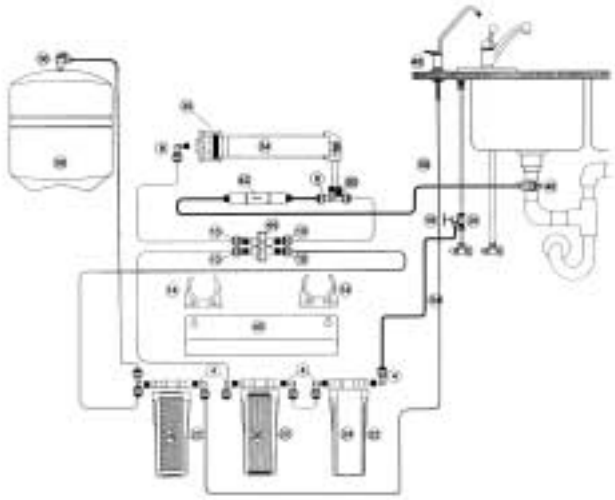
Filter Replacement Dates

Filter Type	Model #	Date Changed

Installation and Maintenance Manual

QC Reverse Osmosis Filtration System

Warning:
do not use where water is microbiologically unsafe or with water of unknown quality. Ask your local water department about the quality of your water supply before using this product. This product is only intended for use with safe water supplies.



Caution:
read all instructions carefully before beginning installation. If installation seems difficult, please contact your local plumber to assist with installation or to completely install. Save this manual for future reference.

INSTALLATION REQUIREMENTS

The requirements below are necessary for correct installation, proper operation and to validate the warranty:

- A pressure of 40 psi* (2776 Kpa^) minimum and 100 psi (689 Kpa) maximum.
- A temperature of 40-100 °F (5-35 °C).
- Maximum total dissolved solids (TDS) 1500 ppm.***
- Installation must comply with existing state and local plumbing codes.
- PH level 3-11

* pounds per square inch ^Kilo-Pascal *** parts per million

Introduction
Congratulations. You have purchased most economical system for reducing many contaminants that can cause unwanted tastes and odors from water.

Safety Precautions Notice
Before attempting to unpack or install, please read this entire manual. Pay particular attention to all warnings, cautions, and notes. Failure to do so could result in personal injury to the operator or damage to the equipment or other property.

Incorrect installation will VOID the warranty. Check with your local public works department for the plumbing and sanitation codes. This system must be installed according the their guidelines. Protect the cartridge filters, lines, and pipe from freezing temperatures. Installation where freezing could occur can severely damage the system.

How it works

Inlet Saddle:	This is the mechanism that connects the system to your cold water line under your sink. This device will self pierce copper and plastic plumbing.
Sediment Filter:	As water passes through this filter, rust, sand, scale, and other large particles are reduced.
Carbon Filter: Model QC 4, 5	After the sediment Filter, the water passes through a carbon filter where chlorine, taste, and odor are reduced.
Shut-Off Valve:	When the storage tank is full and no product water is being drawn from the faucet, this valve closes and stops all flow of water through the system.
Reverse Osmosis Membrane:	After the water has been pre-filtered, it flows through the semipermeable spiral. Here, dissolved solids are flushed to the drain, while the water that is able to pass through the membrane flows to the storage tank
Flow Restrictor:	This device allows the correct amount of reject water to flow over the membrane to help prolong its life and to aid in high quality water production.
Outlet Saddle:	This connects to your drain plumbing and allows reject water flow to enter the drain system.
Storage Tank:	The storage tank holds 2.7 gallons of product water at 40 psi. A diaphragm inside the tank keeps the water under pressure. The tank has an air pre-charge of 5-7 psi from the factory.

Faucet:	This sink-top or counter-top faucet dispenses the product water. It is hand operated and has two positions. Pushing down delivers flow as needed, and lifting the lever delivers constant flow.

NOTE: You may hear a gurgling noise from the faucet or from the sink. This is normal, it is the water going to the drain. The noise will stop once your storage tank is full.

INSTALLATION

For installation, you'll need:*

• Drill and drill bits •Teflon tape • Straight & Phillips screwdriver • Adjustable wrench • Work gloves • Pliers • Safety glasses • Knife or scissors

* Additional tools will be required for installation on sinks without a predrilled alternate faucet location.

NOTE: Drilling of holes may be needed for the faucet and cold water saddle valve.

Installation
1. Components: Referring to figure "A" verify that all components are included with the unit and were not damaged in shipping.

CAUTION: DO NOT ATTEMPT TO lNSTALL THIS SYSTEM USING DEFECTIVE OR DAMAGED COMPONENTS.

2. Faucet Installation
Select a location to mount faucet. It is recommended that the faucet be placed in the extra hole provided on most sinks (many times used for a sprayer or a soap dispenser). If this is not possible, an alternative location will be required such as:

A. On the counter top next to the sink, positioned to allow the faucet spout to drain into the sink This requires a 2" clearance around the faucet - both above and under the counter top.

B. Another option is to drill a new hole into the sink rim itself, if space allows.

Caution: Extreme care must be taken in drilling the hole for the faucet. The surface material of most sinks is extremely hard and brittle and can easily chip or crack. The manufacturer assumes no responsibility for sink damage resulting from this installation.

Mounting faucet (see figure "B")

1. From parts bag, locate faucet kit.
2. Disassemble the bottom portion of the faucet
3. Place faucet into hole of sink and reassemble faucet through underneath sink (see figure B)
4. Proceed to storage tank preparation.

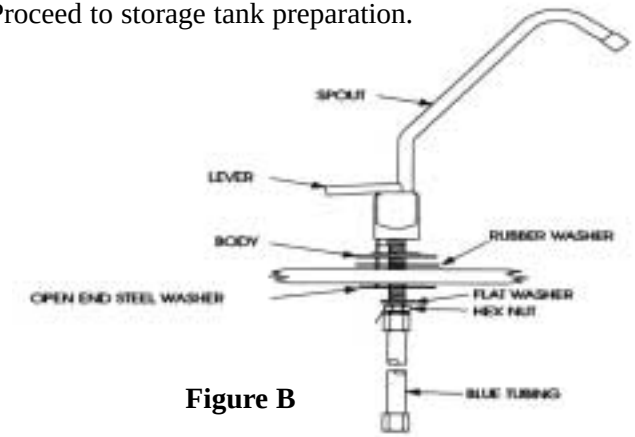


Figure B

Storage Tank Preparation (see figure "C")

1. Remove storage tank from its box, discard packing material.
2. From parts bag locate: tank shut-off valve.
3. Using Teflon tape (not included), wrap 1/4" male treads on storage tank using clockwise motion.
4. Install tank shut-off valve on storage tank as seen in figure "C". Do this by hand tightening valve clockwise onto male threads of storage tank.
5. Slide tubing into tank shut-off valve.
6. Set aside until needed and proceed to drain connector installation.

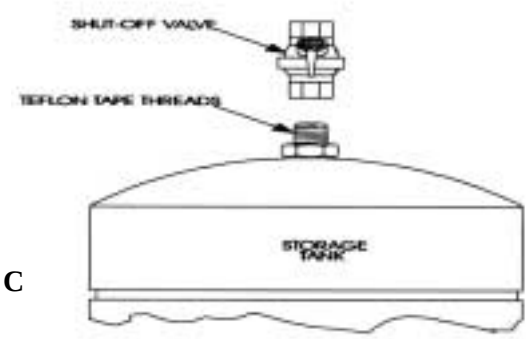


Figure C

Warning:
If drilling metal pipe, to protect yourself from serious injury or fatal shock, use a hand drill or cordless drill to make the hole. If you use an electric drill, outlet must be grounded. Always use safety glasses or other eye protection when drilling to prevent possible eye injury from flying particles.

Drain Connector Installation

1. From parts bag locate drain connector assembly.
2. The drain clamp should be drilled, installed above the trap and on the vertical or horizontal tailpiece.
3. The hole position on the pipe should be marked and drilled with a 1/4" bit through only one side of the pipe.
4. Align the drain clamp over drilled hole and attach it to the drainpipe and tighten the two screws evenly.

NOTE: All filter cartridges for the system are pre-installed. If the unit is installed in a permanent hanging position, a minimum clearance of 2" will be required to allow filter replacement.

A. Standard Installation:

1. Mark pilot holes for mounting unit 16" from base and 7" apart.

WARNING: ALTERNATIVE FASTENING METHODS MAY BE REQUIRED FOR PLASTERBOARD' PARTICLE BOARD OR SIMILAR MATER1AL INSTALLATION.

WARNING: ALWAYS USE SAFETY GLASSES OR OTHER EYE PROTECTION WHEN DRILLING TO PREVENT POSSIBLE EYE INJURY FROM FLYING PARTICLES.

2. Drill pilot holes using a 1/8" drill bit, approximately 1 1/2" deep.
3. Set mounting screws (provided) with screwdriver, leaving a l/4 gap between screw head and mounting surface to allow bracket to slide on easily.

System Interconnection

1. Connect tubing from faucet to in-line filter outlet (models QC RO4 &QC RO5).
2. Connect tubing from flow restrictor outlet to the drain connector (all models)

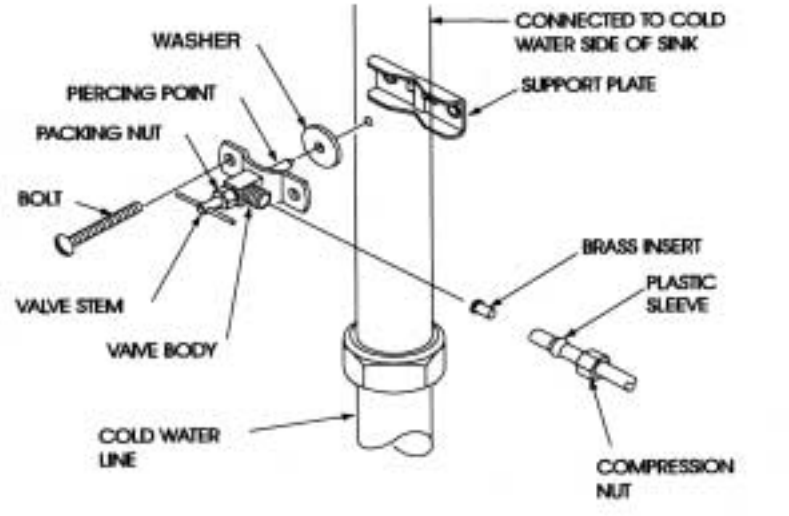
Inlet Water Supply (see figure "G")

CAUTION: ONLY USE COLD WATER L1NE. IF YOU CANNOT TELL WHICH L1NE IS THE COLD, TURN ON WARM WATER AND FEEL FOR WARMTH.

1. Locate the cold water line and shut-off valve for faucet. Shut off water supply. Turn cold water on at sink to relieve pressure.
2. From parts bag, locate: self-piercing saddle valve.
3. If space permits, locate self-piercing saddle valve between the supply shut-off valve, normally located under the sink, and the faucet. If not, proceed by locating saddle valve in the most convenient location on cold water line.
4. Turn needle valve counterclockwise until it stops.

NOTE: The above installation step is for copper and plastic plumbing installation only. To install in iron pipe, you will need to drill a hole for the piercing point.

Figure G



Drilling Hole For Piercing Point In Iron Pipes.

Warning: If drilling metal pipe, protect yourself from serious injury or fatal shock. Use a hand drill or a cordless drill to make the hole. If you use an electric drill, the outlet must be grounded. Always use safety glasses or other eye protection when drilling to prevent possible eye injury from flying particles.

A. Drill a 3/18" hole pipe.
B. Turn handle to expose piercing point out of bushing no more than 3/16"
C. Place valve over hole so piercing point fits in hole.
D. Tighten clamp evenly so brackets are parallel.
E. Turn valve clockwise to close.

Note:

Be sure valve packing nut is tight.

5. Locate plastic sleeve, brass insert, and brass nut from self-piercing valve bag and green tubing (use end without insert).
6. Slide brass nut and plastic sleeve (as seen in figure "G") on tubing. Place brass insert in end of tubing.
7. Press insert and tubing into valve and tighten nut (an adjustable wrench should be used).
8. Connect other end of tubing to inlet of system.
9. Proceed to system start-up.

System Start-up
(after system is completely installed)

NOTE:

Verify that storage tank plug valve is closed by turning counterclockwise

NOTE:

Turn on main water supply which was shut off earlier.

NOTE:

First-time installation will require self-piercing valve to be turned completely clockwise to pierce supply line.

1. Open inlet water supply by turning self-piercing valve counterclockwise.

NOTE:

It may take 15-40 minutes for water to drip from faucet.

2. Open faucet until water flows steadily.
3. Leave faucet open overnight (12 hours). This will rinse away the membrane preservatives.

NOTE: During first 30 minutes of operation, check for leaks from time to time at a11 connections. Tighten nuts or fittings if leaks occur.

4. Open storage tank plug valve all the way by turning clockwise.

5. Allow system to fill twice and drain both tanks of water produced before actual use. This will wash all carbon fines from the system. This process may take 8-15 hours.

6. Allow to fill and use as normal.

Recommended Filter Replacement

It is recommended that the sediment and granulated activated (GAC) filters be changed at least every twelve months (more frequently for heavy use), or when flow rate is greatly reduced. The quantity and quality of water processed affect the life of the filters.

Operation And Care Of Your ONlY QC series R/O System Sediment And Granulated Activated Carbon Filter Replacement

NOTE:

You MUST use part number WR00-0026 for sediment filter replacement and WR00-0028 for GAC filter replacement for warranty and system performance to remain in effect.

List Parts ????

1. Close inlet water saddle valve by turning clockwise.
2. Close storage tank valve by turning counterclockwise.
3. Turn faucet on (flip lever up for constant on). Water flow should stop in a short time.

CAUTION: WATER WILL BE PRESENT WHEN PRE-FILTERS ARE CHANGED AND SOME WATER OVERFLOW WILL OCCUR. (A large pan should be placed under the housing to catch the overflow water.)

4. Turn housing base clockwise to loosen. Remove base.
5. Remove filter from base and dispose.
6. Insert new filter, replace and tighten housing base by turning counterclockwise.
7. Open inlet water valve by turning counterclockwise. Allow water to drip from faucet for 15-30 minutes.
8. Turn faucet off.
9. Open storage tank valve.
10. If replacing GAC filter, run water through system until water runs clear. Carbon fines will be washed away during this operation. This may require 2-3 tanks of water.

NOTE:

Record date of filter change in the back of this manual.

Recommended Membrane Replacement Under normal use, the reverse osmosis membrane should be replaced every 5-7 years.

Replacement Of Membrane Filter (see figure “I”) NOTE: You MUST use part number WR00-0092 for warranty and system performance to remain in effect. # parts

1. Close inlet water valve by turning clockwise.
2. Turn faucet on (flip lever up for constant on). Drain all water from the system.

CAUTION: WATER WILL BE PRESENT WHEN THE MEMBRANE IS CHANGED AND SOME OVERFLOW WILL OCCUR. (Place a large pan under the membrane inlet to catch overflow water.)

3. Loosen nut at membrane inlet (figure “I”).

NOTE: You may need to lift membrane housing out of clips to loosen membrane head.

4. Loosen and remove membrane head (figure “I”). Water will flow out when cap is removed (about one cup).
5. Using pliers, remove membrane by grasping and pulling out the tube. More water will be present when black seal is moved past the end of the housing (about two cups).

NOTE:

Place a light coat of food-grade silicone grease or petroleum jelly on O-ring and black seal before replacement.

6. Install replacement membrane. Be sure that membrane is completely inserted (tube inside housing approximately 1/4”).

CAUTION: MEMBRANE MUST BE IN THE PROPER POSITION FOR THE SYSTEM TO OPERATE PROPERLY.

7. Replace and tighten membrane housing head until it cannot be turned and more by hand

8. Replace and finger tighten nut removed in step 3.

9. Open inlet water valve by turning counterclockwise.

NOTE:
It may take 15-30 minutes for water to drip from faucet.

10. Turn faucet off.

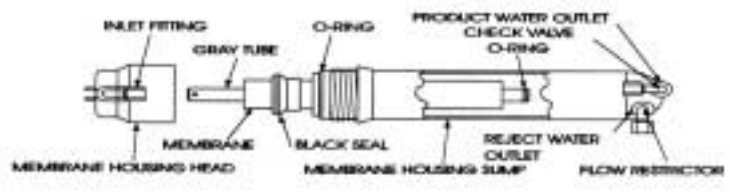
11. Check for leaks.

12. Allow system to completely fill and drain first two tanks of water.

Warning:
The replacement membrane may be shipped in preservatives. These preservatives will be rinsed off during filtering of the initial tank of water. Do Not use the initial tank off water. This initial tank could cause illness if used.

13. Allow tank to refill and use as normal.

NOTE:
Record date of membrane change in the back of this manual. The quality and quantity of water processed affect the life of the membrane.



Optional Refrigerator Connection.
This system also may be connected to your refrigerator ice maker or water dispenser. To make connection, simply connect the water line that currently feeds the ice maker or water dispenser to the line that goes to the faucet using a compression “T” fitting. The distance between your system and your refrigerator will dictate the length of tubing required to facilitate the installation.

Caution: If the water usage is heavy, ice tray may not completely fill, or water dispenser may not function when storage tank is law. The manufacturer assumes no responsibility fro problems associated with this type of installation.

Rosmosis Limited Warranty

The Rosmosis RO system is warranted to be free from defects in materials and workmanship under normal use within the operating parameters listed below. For a period of, twelve months from the date of purchase Rosmosis will repair or replace any part of the reverse osmosis system with the exception of the filters and battery.

Conditions of Warranty
The above warranty does not apply to any part of the Rosmosis RO system that is damaged because of neglect, misuse, alteration, accident, misapplication, physical damage, fouling, and/or scaling of the membrane by minerals, bacterial attack, sediment or damage caused by fire, freezing, hot water, or an act of God.

Rosmosis assumes no warranty liability in connection with this reverse osmosis system other than as specified herein. Rosmosis shall not be liable for consequential damages of any kind or nature due to the use of Rosmosis products.

Warranty Service Warranty service will be provided by Rosmosis under the following conditions:

I) Contact your local dealer who will obtain return authorization instructions.

2) Ship the unit or part freight prepaid for warranty evaluation or service. Unit must be returned in the original carton or packaged to prevent possible damage. Systems or parts covered under the warranty shall be repaired (or, at our option replaced) and returned without charge.

CONDITIONS FOR OPERATION

Source Water Supply-TFC	
Community/Private	Non Chlorinated
System Pressure	30-100 psi
Temperature	4°-38° C (40°-100°F)
pH Range	3.0-11.0
Maximum Supply TDS	2000 mg/L
Turbidity	<1.0 Net Turbidity (NTU)

Chemical Parameters - TFC	
Hardness ($CaCO_3$)	<350 mg/L (<20 gpg)
Iron (Fe)	<0.1 mg/L
Manganese (Mn)	<0.O5 mg/L
Hydrogen Sulfide (H_2S)	0.00 mg/L
Chlorine ($Cl_{2)}$	0.1 - 10.0 mg/L