Beach House
Water Filter Systems

Installation & Service Guide

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Introduction

Please read this entire service guide prior to beginning installation.

Our reverse osmosis drinking water system has been designed for quick and simple installation and maintenance. By carefully reading this instruction manual and following the operational guidelines you will insure a successful installation and reliable operation. Routine maintenance is essential to the longevity and performance of the system. Filters should be changed every six to twelve months depending on the quality of the feed water supply. Please note the maintenance instructions at the end of this manual.

CONDITIONS FOR OPERATION

TFC – Thin Film Composite

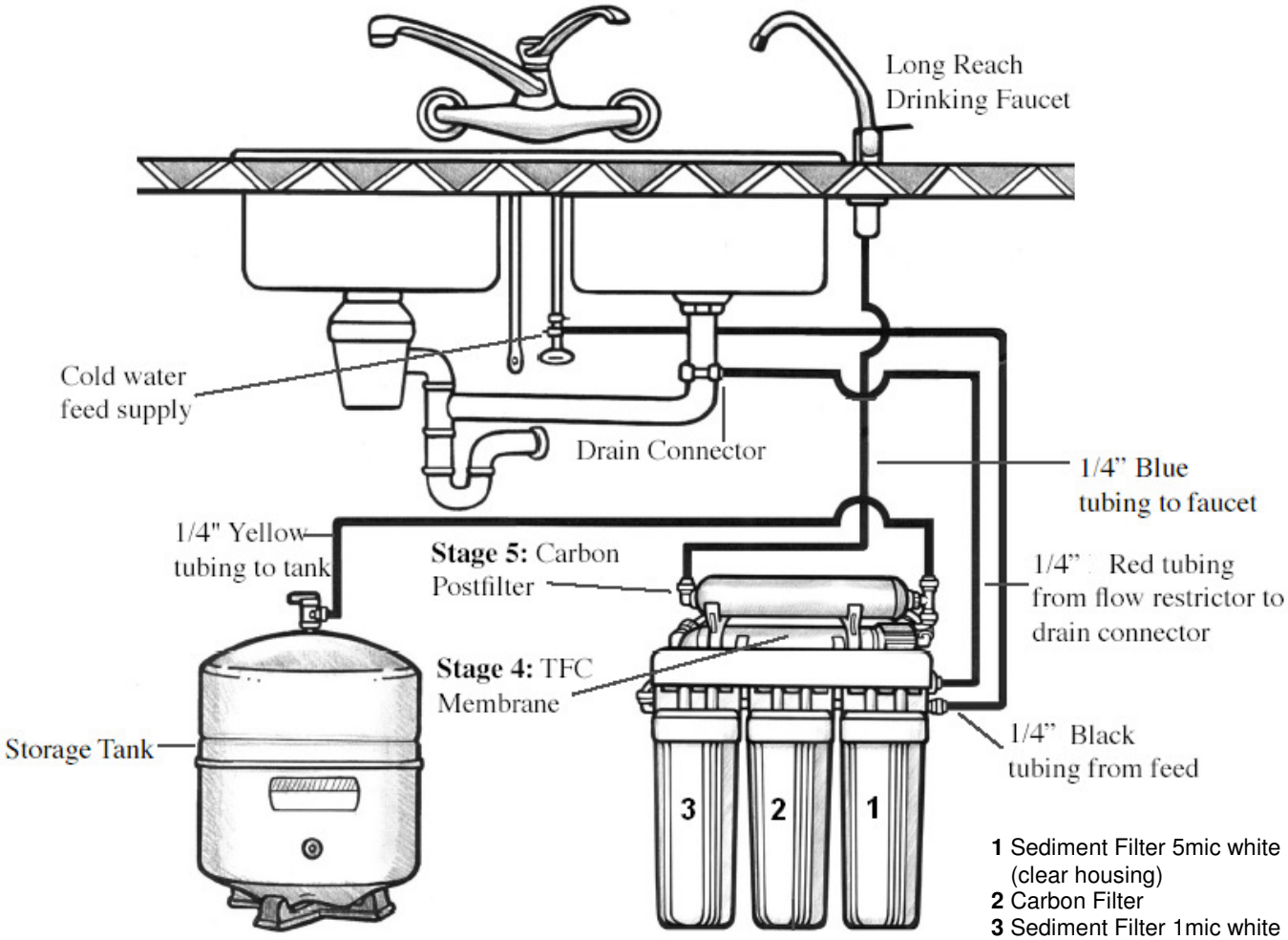
Source Water Supply - TFC	
Community / Private	Non-Chlorinated
System Pressure	30-100 psi
Temperature	4°-38° C (40°-100° F)
pH Range	3.0-11.0
Maximum Supply TDS Level	2000 mg/L
Turbidity	<1.0 Net Turbidity (NTU)

Chemical Parameters - TFC	
Hardness ($CaCO_3$)	< 350 mg/L (< 20 gpg)
Iron (Fe)	< 0.1 mg/L
Manganese (Mn)	< 0.05 mg/L
Hydrogen Sulfide (H_2S)	0.00 mg/L
Chlorine (C_2)	0.00 mg/L

CAUTION

Do not use this system where the water is microbiologically unsafe or of unknown quality. This system is for use on potable water only. Source water exceeding chemical parameters requires pre-treatment.

System & Faucet Diagrams



Starting Your Installation

Preparation

Check the following list of components to ensure that all parts are packed with your system.

1 – Storage Tank
1 – RO System
1 – Faucet
1 – Installation Kit

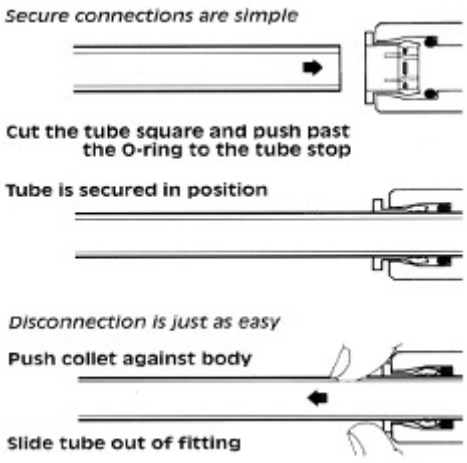
Determine the location for the installation of the RO system. Avoid locations where the system might come in contact with hot water pipes or other hazards.

Determine the location for the faucet. Check to see that drilling the faucet hole will not damage pipes or wires running underneath the sink.

Determine the location for the storage tank. A maximum distance from tank to faucet of 15 feet is possible. The system will produce a faster flow at the faucet with the shortest tubing run from tank to faucet.

Fittings and Tubing

To install a tube, push it in the collet until it seats firmly. To remove a tube, push in the collet and pull out the tube.



Source & Drain Saddle Valve

Shut Off the Water

Locate the water shut-off valve for the cold water feed line you choose to use for the supply. Accidentally hooking up the system to the hot supply line will permanently damage the membrane (See conditions for operation). To assure you are using the cold water line, turn on both the hot and cold faucet. After the water is warm to the touch, fell the pipes under the sink. It will be easy to identify the hot and cold pipes.

Close the cold water valve. Turn on the cold water faucet only to assure that the line is completely shut off and the line is drained. If no shut off valve is located under the sink, turn off the main supply at the entry to the house.

Installing Supply Feed

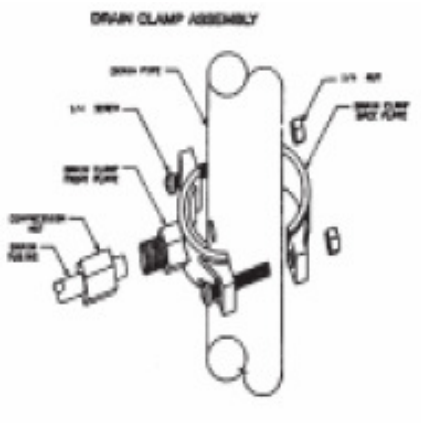
½'' Copper pipe installation with saddle valve (self-piercing)
Please see attached sheet.

Note: If your piping is any other than described here (acorn, alkathine etc.) then you must first buy the appropriate connections at your local Hardware store..

Installing the Drain Clamp

Select a location for the drain hole based on the design of the plumbing. Position the drain outlet saddle on the drain pipe. Allow adequate space for drilling. Tighten the bolts evenly on both sides. Avoid over tightening.

Using the opening in the drain outlet saddle as a guide, drill a ¼'' hole in the drain pipe. Clean debris from the saddle and threads.



Installation of the membrane

(Stage 4, blue filter, plastic wrapping)

Insert the new membrane directly from its bag into the housing. Avoid touching the membrane. If necessary use sterile latex gloves.
The end with the two o-rings goes in first. If you'll twist it slightly as you push, it will go in easily. You must feel it slip into the groove at the end of the housing. You'll feel it "hit bottom."
It will insert easier into the housing if you wet it with tap water to provide lubrication. Just hold it under a running tap for a moment.
When the membrane is securely in place, replace the cap.

Faucet & Storage Tank

Installing the Faucet

The product water faucet may be installed on any flat surface at least 2'' in diameter. Check the underside of the location for interference.

Stainless Steel Sink

Make a small indent to mark the desired drilling location using a centre punch. Drill a pilot hole with a 1/8'' metal drill bit. Enlarge the hole using a 1/2'' metal drill bit.

Faucet installation

Once the hole has been drilled in the sink, the faucet may be located in the hole. Be sure the faucet body, faucet base, and the rubber faucet base washer are in place above the sink.

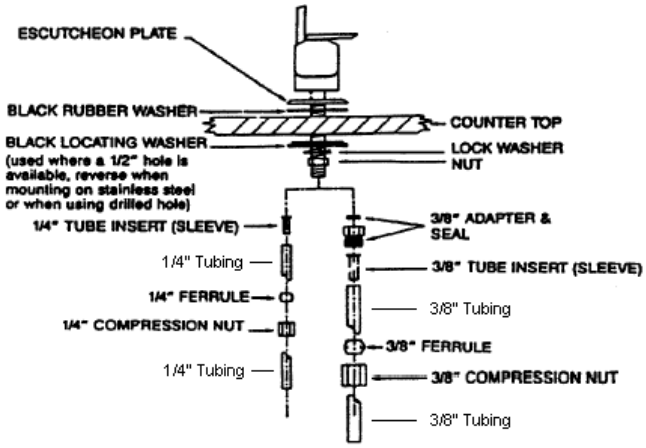
Install the star lock washer and nut, then tighten firmly while aligned faucet in the desired direction.

Additional Point of Use Connection

To connect an additional point of use (icemaker, extra faucet, etc.) place a T-connector in the ¼'' line between the faucet and the RO system.

NOTE: Icemakers typically use ¼'' tubing as the water feed line. Use a reducing union fitting to make this connection.

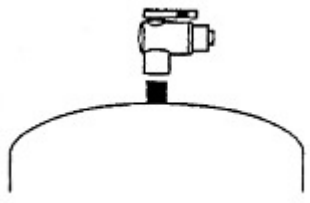
Assemble Hardware as shown:



Mounting the Tank Ball Valve

NOTE: Do not tamper with the air valve on the storage tank. It has been preset and screwed on with blue cap by the manufacturers.

1. Wrap the threads on the top of the water storage tank 3 times with plumbers (teflon) tape only. Make sure it is tight, but not over tight.
2. Connect the tank ball valve assembly to the top of the water storage tank.
3. Connect the tube from the RO module to the water storage tank.



Activation, Maintenance, Filter Change

Activating the System for the first time

Make sure all water supply/drain lines are secure and free from leakage.

Open the water supply. If you are using the self-piercing valve, slowly turn the saddle valve counter clockwise until fully open. Check stem seal for leakage. If necessary tighten stem nut lightly.

Turn storage tank valve one quarter turn counter clockwise to open the valve (the handle should be in line with the tubing as it enters the connection).

Open the product water faucet and let the water flow until all the air has been expelled from the system. This will take about an hour.

Close the product water faucet. In 30 minutes, check the connections for leaks and correct if necessary.

Do not use the first two Reservoirs of Water

Allow the reservoir to fill for 4-6 hours. Dispense this water to drain. This process removes the factory installed sanitizing solution from the entire system and sends it to the drain. Repeat this process one more time. Allow the tank to fill for 4-6 hours and dispense this water to the drain.

Maintenance

For the best quality water, it is essential to change the filters regularly. Changing the filters is easy (see description below).

Filter	Recommended exchange
Stage 1: 5 Micron Spun Sediment Filter	6 month to 1 year
Stage 2: Activated Carbon Filter	6 month to 1 year
Stage 3: 1 Micron Spun Sediment Filter	6 month to 1 year
Stage 4: Membrane	3-5 years (depending on TDS)
Stage 5: Post Carbon Filter	+/- 1 year
Stage 6: Bacteria & Virus Filter	+/- 2 years

When you go on holiday

If you go on holiday:

1. Switch off feed supply under the sink.
2. Empty tank and switch off tank.

If you go away for longer than 3 weeks it is advisable to remove the membrane for the duration of your absence. To do this, proceed as follows:

3. Detach tube to membrane housing cap.
4. Screw off cap and remove membrane. Take care not to touch membrane with your hands, latex gloves are recommended.
5. Place membrane in a Ziploc type freezer bag and place bag in the fridge.
6. DO NOT PLACE BAG IN THE FREEZER!

Troubleshooting

Troubleshooting		
Problem	**Reason**	**Solution**
Water has an offensive odour / taste	Carbon post filter is depleted	Drain storage tank & replace post filter
Water has an offensive odour / taste	Filters are depleted	Replace filters & sanitize system
Not enough product H_2O Pressure	Storage tank air pressure is low	Empty storage tank and set pressure to 8 psi (55kPa)
Not enough water	Low water pressure	If line pressure is below 30 psi install a booster pump
Not enough water	Water supply is blocked	Clear restriction, rotate valve on feed water
Not enough water	Storage tank is depleted	Consider an increase in tank or membrane capacity
Not enough water	Clogged pre-filter cartridge	Replace pre-filter, drain tank and sanitize system
No drain water	Clogged flow restrictor	Replace flow restrictor, check TDS level
No water	Water supply is turned off	Turn water on
High TDS level	High TDS in product water	Replace RO membrane, check flow restrictor

Lo call: 1890 20 30 20

www.beachhouse-waterfilters.com

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