

WINTERIZE YOUR WATERMAKER



Winterizing Your Reverse Osmosis Watermaker in 5 Easy Steps

It's almost winter, and time to winterize your FCI Watermaker.

Below is the basic 5-step winterization process. You can also refer to your full FCI Watermakers User Manual as you follow along.

Step 1:

Determine how long your system will be shut down and if it will be exposed to subfreezing temperatures, i.e., below 32°F.

Step 2:

Regardless of how long your FCI Watermaker is going to be out of commission, we always recommend a good Fresh Water Flush first. Proceed as follows:

Step 3:

If your system will be shut down for six months or less, in non-freezing temperatures, this is referred to as a Short-Term Shutdown. Proceed as follows:

Short-Term Shutdown

Fresh water flushes are recommended for short-term shutdowns. Most FCI Watermakers systems are equipped with a standard Fresh Water Flush from the factory. In this case, you will want to set up your system for automatic fresh water flushes, a frequency of weekly will ensure your membranes stay fresh during the short-term shutdown. Refer to your user manual on how to setup your particular unit for automatic fresh water flushes.

In systems without the automatic flush mode installed, it is recommended to manually run fresh water through the system weekly at zero high pressure until the majority of the saltwater has been displaced by fresh water.

Warning: Fresh Water Flush

There must be sufficient fresh water in the potable water storage tank in order to provide the required flow of water to the system during the freshwater flush cycle. The boat or home's fresh water system must be capable of delivering a minimum of 1 U.S. Gallons (= 3.8 Liters) Per Minute (GPM) at a minimum pressure of 25 PSI and a maximum pressure of 50 PSI.

Note: Use Of Chemicals

Although chemicals are necessary in some instances, FCI recommends using them only as directed. Chemicals can attack the membrane polymers and weaken the integrity of the membrane.

Step 4:

If your system will be shut down for six months or longer, in non-freezing temperatures, this is referred to as a Long-Term Shutdown. Proceed as follows:

Long-Term Shutdown

For long-term shutdowns it is recommended to use the Membrane Storage Agent often referred to as "Pickling" or preserving the system. This will allow the system to be stored for a period of up to six months and removes the need to do weekly flushes. Refer to the Membrane Storage Procedure below.

Membrane Storage Procedure

(Blue Cap — Part# 14-0015)

1. Membranes should be cleaned prior to storage
2. Disconnect the system feed line, power on the system, and let drain for 30 seconds
3. Place the feed line and discharge line in a container filled with clean de-chlorinated fresh water
4. Mix one pound of chemical for every 10 gallons of water. For 2 1/2" membranes use 15 gallons of water

5. With regulator valves completely open, and a maximum of 50 PSI on the system, circulate the solution through the system for 10 minutes
6. After circulation, shut the system down and close the valves. Make sure the solution does not drain out
7. Upon start-up, after storage, open valves for operation. Start the system up and run for 15 minutes, with no applied pressure
8. When the R.O. unit is first restarted, product water should be diverted to the drain for 15 minutes

Warning: Fresh Water Flush

There must be sufficient fresh water in the potable water storage tank in order to provide the required flow of water to the system during the freshwater flush cycle. The boat or home's fresh water system must be capable of delivering a minimum of 1 U.S. Gallons (= 3.8 Liters) Per Minute (GPM) at a minimum pressure of 25 PSI and a maximum pressure of 50 PSI.

Note: Use Of Chemicals

Although chemicals are necessary for some instances, FCI Watermakers recommends using them only as directed. Chemicals can attack the membrane polymers and weaken the integrity of the membrane.

Step 5:

If your system will be shut down for any period of time, in subfreezing temperatures, this is referred to as a winterization procedure. Proceed as follows:

Winterization Procedure

Warning: Freezing Temperatures

The Watermaker System must be protected from freezing if it will be exposed to temperatures below 32° Fahrenheit (0° Celsius). Freezing temperatures will cause extensive damage to the System as the water expands during the freezing process. Any damage whatsoever to the System or its environment caused by freezing temperatures is the sole responsibility of the operator. **DO NOT** subject the System to temperatures below 32° Fahrenheit (0° Celsius) unless the System has been rinsed with a solution of product water with food-grade glycerin (propylene glycol) which can be found at your local marine store. It is recommended to follow the instructions on the food-grade glycerin for the proper mixture based on the temperatures your System will be exposed to.

It is recommended to remove the Pre-Filter and the Fresh Water Flush Filter during the winterizing process.

If the system is equipped with any of the following optional equipment, you will also need to perform these additional operations:

Charcoal Filter

1. Remove the Charcoal Filter bowl
2. Remove the water from the bowl
3. Replace the Charcoal Filter Element with a New Charcoal Filter Element
4. Replace the bowl back onto the lid

pH Neutralizing Filter (if equipped)

1. Remove the pH neutralizing bowl
2. Remove the water from the bowl
3. Replace the bowl and pH element back onto the lid

UV Sterilizer (if equipped)

1. Disconnect the product water line from the UV Sterilizer filter and drain the product water from it
2. Switch the Power to the System to the OFF position
3. Lock and tag the power breaker to ensure that no one will accidentally operate the system and displace the winterizing mixture with feed or fresh water
4. Discard the Storage Chemical in an environmentally safe manner

That's it!

We hope this procedure will help you safely store your Watermaker until next season.

Still have questions?

We're here to help. Our team has over 30 years of experience designing and building RO water purification systems. In a world that's constantly changing, you need a partner with the experience and knowledge to keep pace. That partner is FCI Watermakers.

Innovation, engineering excellence, and unsurpassed product quality are at the core of everything we do.

You can always call us at 800.850.0123 or [get in touch with our team online](#) today.