

GROWONIX

TUNED FOR GROWING



EX800-T OWNERS MANUAL

WWW.GROWONIX.COM



GROWONIX
TUNED FOR GROWING



Built in the U.S.A.

INTRODUCTION

OUR MISSION

Durability, Reliability, Efficiency, Purity, and Conservation form the foundation on which we design and build all of our products. Consistent and superior quality sets us apart from other manufacturers and increases our value to you - our customer. Whether you are a hydroponics hobbyist, serious enthusiast, or large-scale gardener, GrowoniX is committed to bringing you the best solution for water purification systems.

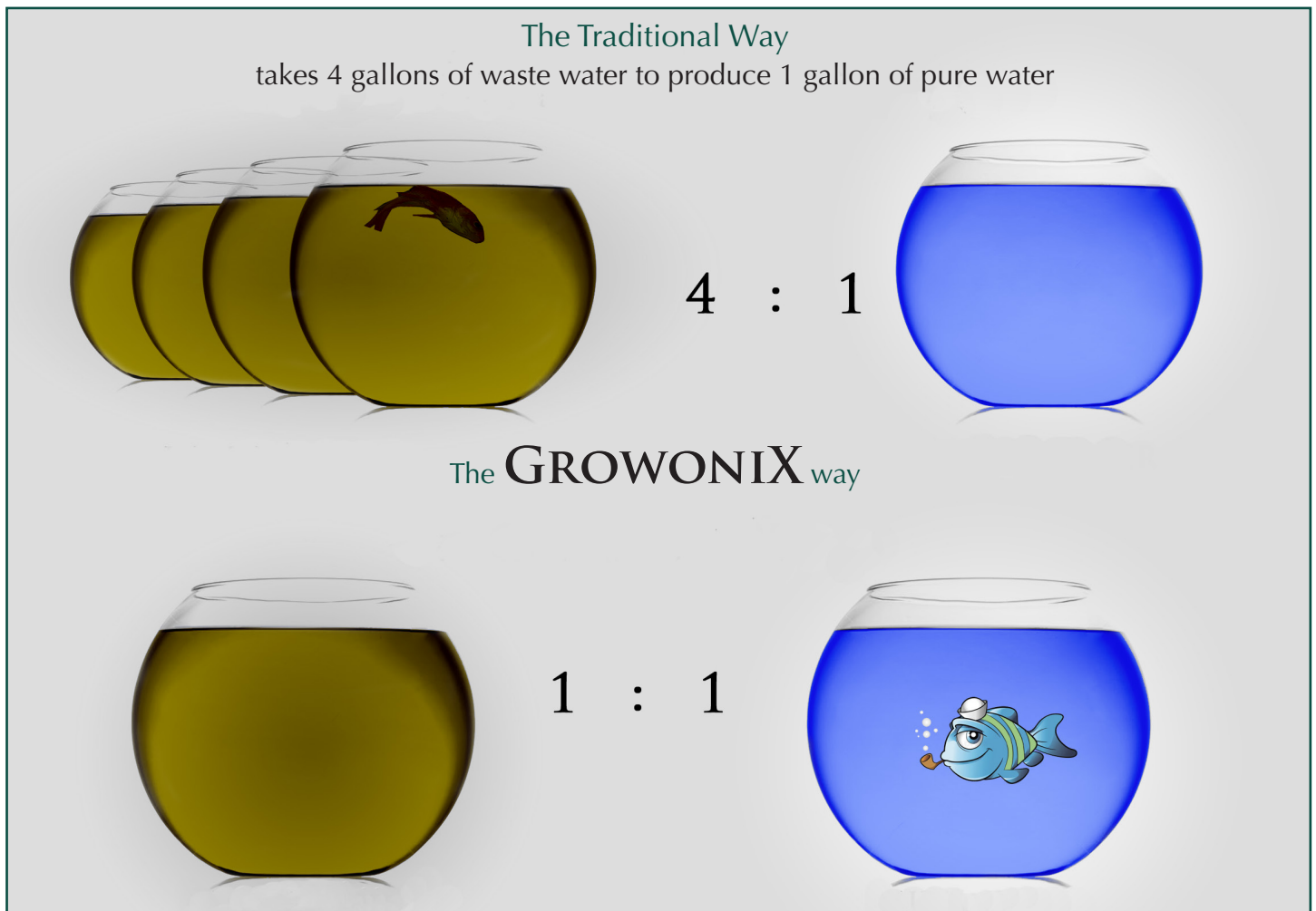
WHAT IS REVERSE OSMOSIS?

Reverse osmosis (RO) is a filtration method that removes many types of large molecules and ions from solutions by applying pressure to the solution when it is on one side of a selective membrane. This filtering process ensures that the solute (waste water) is contained within the pressurized chamber while the pure solvent (RO water) is allowed to pass freely through the membrane.

TUNED FOR GROWING - IN TUNE WITH OUR CUSTOMERS

Traditional RO systems have waste ratios of approximately 4:1, which means there are 4 gallons of waste water produced for every 1 gallon of purified water. GrowoniX line of water filters achieve waste ratios of 2:1 with all 200-800 GPD systems, and an astounding 1:1 ratio with the 600-1000 GPD systems.

GrowoniX has created a complete product line that will address the needs of hydroponic operations of all sizes. Our filters will significantly reduce your water use while dramatically increasing your yields.



FEATURES

- 800 Gallons Per Day / 34 Gallons Per Hour System
- Down to 1:1 System Ratio
- High Flow Cold Water Membrane
- Spun Sediment Filter for Extreme Dirt Filtering Capacity
- Eco Coconut Carbon Filter or Optional KDF85 Catalytic Carbon Filter
- Patented Metal Housing
- Stainless Steel Liquid-filled Pressure Gauges
- Auto Shutoff Valve
- EZ Hookup Kit
- Wall Mountable
- Uses 50% Less Water than Traditional RO Systems



NO ADDITIONAL PRE-FILTERS NEEDED

CHLORAMINE REMOVAL REQUIRES KDF CARBON OPTION

1:1 OR 2:1
RATIO

WHY USE A GROWONIX 800-T?

The EX800-T is designed to flow 33 GPH, (Gallons Per Hour) at almost 0 ppm RO water, with a 1:1 system ratio (with feed water under 300 ppm), and a 2:1 ratio (with feed water over 300 ppm). It's affordable, durable, and reliable. It outflows all other RO's in its class, with all the quality you would expect from a GrowoniX product.

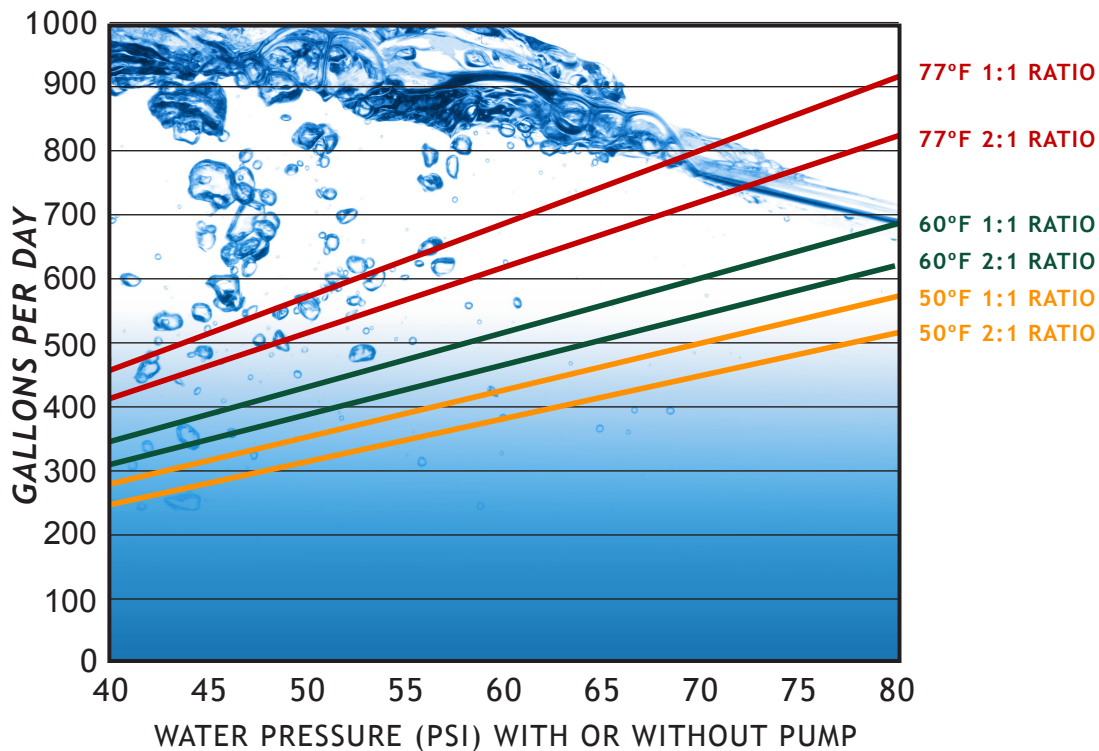


No Assembly Required



PART #	FLOW RATE	CARBON CAPACITY TOTAL GALLONS	BOOSTER PUMP
EX800-T	800 GPD	17,000	BP-1000

EX800-T FLOW RATES



SYSTEM SPECIFICATIONS:

RECOVERY (SYSTEM RATIO)	50% (1:1)
NOMINAL SALT REJECTION %	97%
PERMEATE FLOW GPD	1000
PERMEATE FLOW GPH	42
MIN FEED FLOW GPM	1.39
MAX FEED WATER TDS	<2000
MAX FEED TEMP °F (°C)	100 (37.77)
MIN FEED TEMP °F (°C)	40 (4.44)
MAX AMBIENT TEMP °F (°C)	115 (46.11)
MIN AMBIENT TEMP °F (°C)	40 (4.44)
MAX FEED PRESSURE PSI	80
MIN FEED PRESSURE PSI	40
MAX SDI RATING SDI	<3
MAX TDS PPM	2000
MAX HARDNESS GPG	0
MAX pH (CONTINUOUS)	10
MIN pH (CONTINUOUS)	3
MAX TURBIDITY NTU	1
FEED INCH	3/4 FGH (#/4 FNPT)
PERMEATE INCH	3/8 TUBE
CONCENTRATE INCH	3/8 TUBE
DIMENSIONS L x W x H INCH	21 x 9 x 28
WEIGHT (LBS)	50

Test Conditions: Permeate flow and salt rejection based on 550 ppm, 80 psi, 77°F (25°C), pH 7, and 50% recovery.

EX800-T ACCESORIES

BP-1000 BOOST PUMP THAT CONNECTS DIRECTLY TO THE EX800-T



- Intermittent duty cycle.
- Adjustable output pressure.
- Controllable via integrated high-pressure cutoff switch.
- Aluminum thermal cooling jacket.
- Works with virtually every 1000 GPD RO system.

ESOK-34 ELECTRIC SHUT OFF KIT



- An essential add-on to any water filter.
- Shuts down feed water BEFORE the water filter.
- Controls on/off cycling of high pressure booster pumps.
- 120VAC piggyback cable, 20ft.
- Solenoid valve with manual override for failsafe water-making.

UV-1530 ULTRAVIOLET STERILIZATION



- Stainless steel ultraviolet filtration designed to remove 99.9% of micro-organisms in your water supply.
- A must for well water treatment, whole house filter systems, or any time water will be stored.
- 1GPM flow rate.

EP-2 DELIVERY PUMP



- 7 GPM delivery pump.
- High pressure cutoff, automatically shuts off when used with a solenoid valve, ball valve, float valve, or watering wand etc...
- Transfer water from storage tanks to batch tanks.
- Siphons water up to 12' in elevation.
- Able to run dry intermittently and slurp.
- Thermal shutdown to protect against overheating.

REPLACEMENT FILTERS

PRODUCT	SEDIMENT	CARBON	MEMBRANE	ULTRAVIOLET
EX800-T	SF-2520-SP	CF-4510-KDF	GXM-800-HF	UV-6010
	SF-2520-PL	CF-4510-GB	GXM-800-HR	
		CF-4510-CC		

**Blue color indicates filters installed in unit.*

**Green color indicates optional filters.*

**Chloramine removal requires the KDF85 carbon filter.*

*EX800-T Carbon filter rated at 17,000 gals total capacity, or 8,500 gals of filtered water at 1:1 ratio.

*EX800-T Carbon filter rated at 34,000 gals total capacity, or 17,000 gals of filtered water at 2:1 ratio.

FILTER INDEX



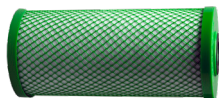
GXM HIGH FLOW COLD WATER MEMBRANES

Highest flowing ultra-low-energy membranes on the planet— with the lowest waste ratio.



KDF85/CATALYTIC ACTIVATED CARBON FILTER

Premium carbon filter using the best catalytic activated carbon with a bed of KDF85 media. There's no better carbon filter available.



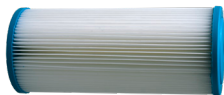
COCONUT CARBON FILTER— “GREEN BLOCK”

Premium coco carbon, produced using eco-friendly low emissions processes



COCONUT CARBON FILTER—“WHITE BLOCK”

Economy coco carbon, same performance as Green Block, for a little less money.



PLEATED SEDIMENT FILTER

High flow washable sediment filters with ultra low pressure drop.



SPUN SEDIMENT FILTER

Spun poly sediment filters with huge dirt holding capacity and a little more pressure drop.



UV STERILIZATION

Kills 99.9% bacteria and viruses.



ALKALINE INLINE

Inline filter adds calcium & magnesium to filtered water, and raises the Ph.



REMINERALIZING INLINE

Inline filter adds calcium & magnesium to filtered water.



DI INLINE

De-Ionization filter removes last bit of PPM.

PRECAUTIONS

* Do not use unit with inlet water pressure exceeding 80 psi. If inlet water pressure is too high, install water pressure regulator before the unit. Pressure regulators are available at GrowoniX.com or your local plumbing supply. *

A minimum of 40psi is recommended to operate GrowoniX water filters. If your inlet water pressure is too low, a booster pump can be used to increase pressure.

Slower performance may be noted in areas with colder temperatures, higher water salinity, or lower inlet water pressure.

Keep unit away from direct light. Direct light can cause algae and other biologicals to grow inside of the filter housings.

Do not install unit near electrical outlets or electrical devices.

Do not install in places where a leak can cause damage.

Do not use a flow restrictor other than the one included with your unit.

INFORMATION ON QUICK CONNECT FITTINGS

GROWONIX WATER FILTERS USE QUICK CONNECT FITTINGS THAT ALLOW FOR EASY MAINTENANCE.

MAKE A CLEAN TUBE CUT

Cut the tube squarely and if using plastic tubing, ensure that the cut has not made the tube out of round.

Also ensure that the tube has a smooth outside diameter without any burrs or score marks prior to inserting it into the fitting.

INSERT TUBE INTO FITTING

Push the tubing through the collet and dual o-rings until it bottoms out against the tube stop. The collet holds the tube in place and the dual o-rings provide a leak resistant seal.

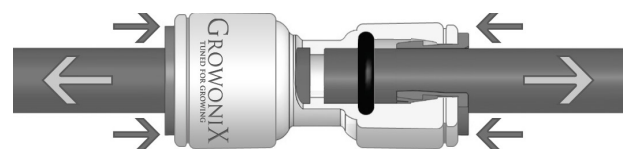
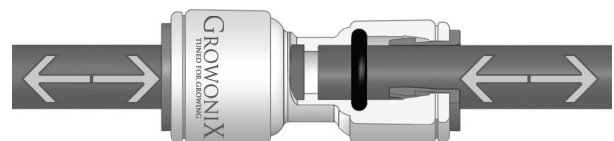
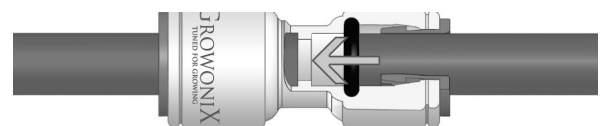
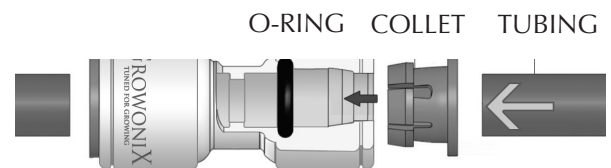
TEST AND INSPECT

Push and pull the tubing toward and away from the fitting to ensure that it has been installed properly.

Test and inspect the installation for any leaks.

TUBE REMOVAL

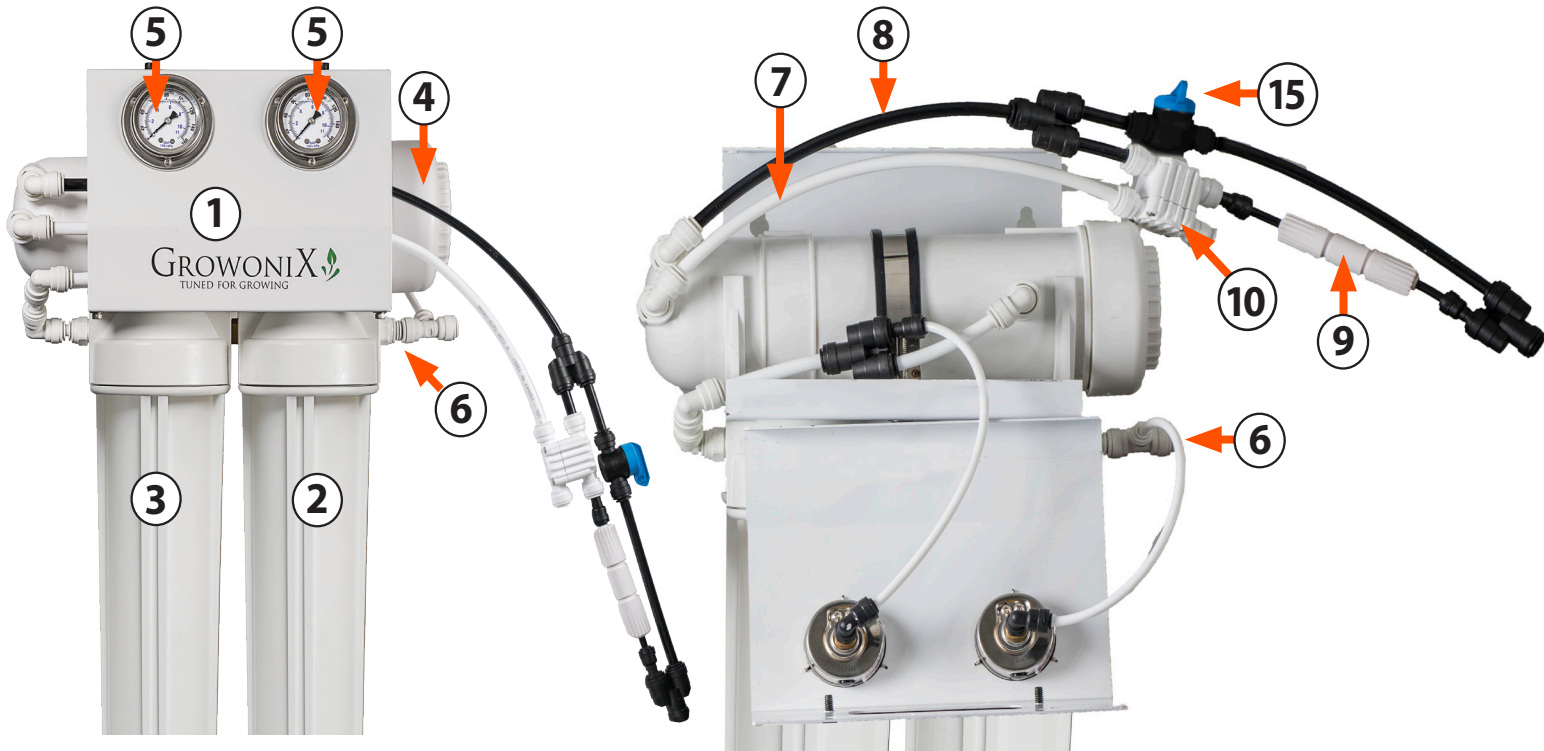
Relieve pressure from the tubing and fitting. Push uniformly around the collet flange against the fitting body while pulling the tubing away from the fitting to release it.



PUSH COLLET IN

PULL TUBE OUT

COMPONENT DIAGRAM



1. PATENTED EX MOUNTING BRACKET
2. SEDIMENT FILTER
3. CARBON FILTER
4. RO MEMBRANE
5. PRESSURE GAUGE
6. SUPPLY WATER IN
7. RO WATER OUT
8. WASTE/DRAIN TUBING
9. FLOW RESTRICTOR
10. AUTO SHUTOFF VALVE
11. DRAIN SADDLE CLAMP
12. FILTER WRENCH
13. SUPPLY, RO, AND DRAIN TUBING
14. GARDEN HOSE ADAPTER
15. MEMBRANE FLUSH VALVE

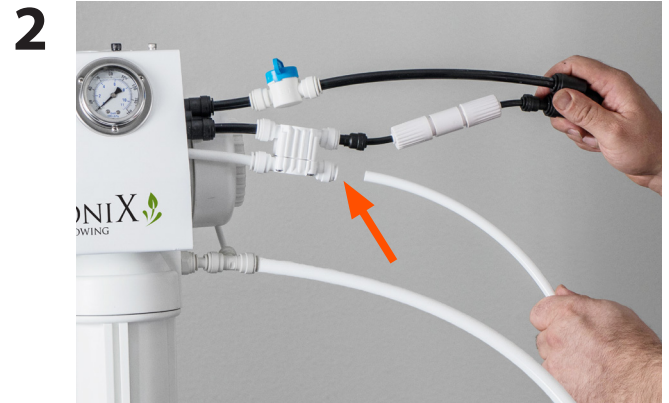


SETUP INSTRUCTIONS

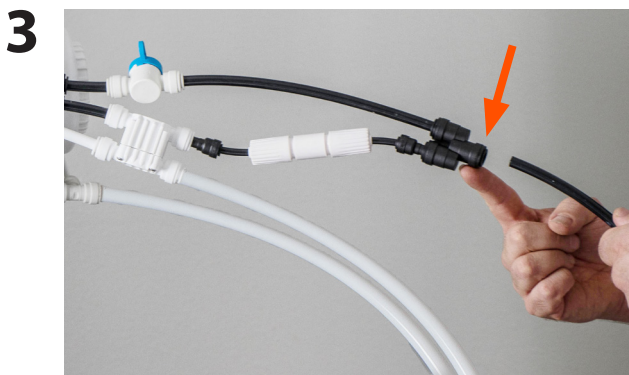
- 🌿 The EX800 water filters are designed to be used with between 40-80 psi of incoming water pressure
- 🌿 Do not exceed 80 psi of incoming water pressure. If incoming water pressure is too high, install pressure regulator before unit. Pressure regulators are available at www.GrowoniX.com
- 🌿 Always turn incoming water pressure on slowly, allowing all air to be discharged before full water pressure is restored.



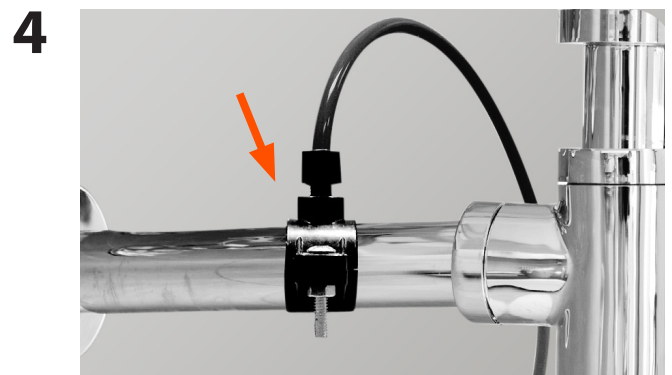
Connect 3/8" white supply tubing to the inlet fitting, making sure inlet seats all the way in quick-connect fitting. This is the supply water line.



Connect 3/8" white RO tubing to the auto shut-off valve, making sure RO tubing seats all the way in quick-connect fitting. This is the filtered RO water out line.



Connect the 3/8" black drain tubing to the flow restrictor.



Mount drain clamp to available drain pipe. Connect other end of drain tubing to included drain clamp.

FLUSHING THE KDF85 CARBON FILTER

Growonix water filters can be upgraded with a KDF85 Catalytic Carbon Pre-Filter. The "KDF" carbon filter is a superior blend of highly reactive catalytic carbon and KDF85 process media used to remove/reduce iron, hydrogen sulfide, chlorine, chloramine, bacteria, scale, and algae.

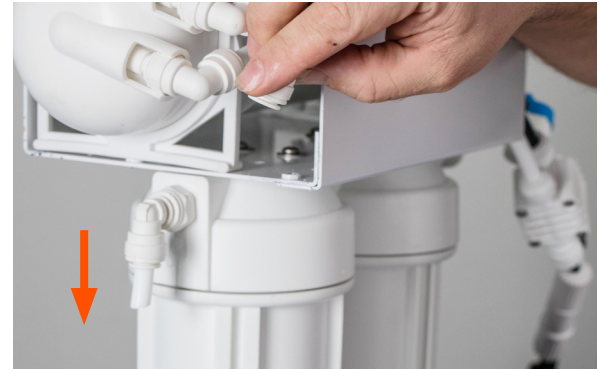
The catalytic carbon in these filters is in a loose form, and thus will discharge a small amount of carbon dust upon initial startup. It is recommended to unhook the membrane input side and flush ten gallons of water through the carbon filter before re-connecting to the RO membrane. This will ensure no dust gets into the membrane causing premature fouling.

1



Make sure incoming feed water is shut off, ensuring the RO filter is depressurized.
Disconnect the 3/8" white tubing that feeds the membrane input from the carbon filter.

2



Hold tubing over sink or bucket.
Slowly turn on incoming water pressure, allowing 20-30 gallons of water to flush through the carbon filter.
Once flushed, turn off incoming feed water.

3



Reconnect tubing to membrane input and resume normal filter operation.



MAKE SURE WATER IS FREE FROM CARBON FINES & DEBRIS BEFORE RECONNECTION TO MEMBRANE INPUT



EX800-T carbon filter is rated at 17,000 gals total capacity, or 8,500 gals of filtered water at 1:1 ratio or 5,600 gals of filtered water at 2:1 ratio.



FLUSHING THE MEMBRANE ELEMENT

- Pre-filters should be changed when either brown discoloration occurs, or system flow rates have significantly declined.
- Always turn incoming water pressure off before servicing the unit.
- Always turn incoming water pressure on slowly, allowing all air to be discharged before full water pressure is restored.



Unscrew sediment and carbon filter housings using supplied filter wrench. Remove and discard filters. Wash inside of filter housings to remove debris.



Install new sediment and carbon filter, making sure they go into the correct filter housings.



When replacing filter housings, make sure housing O-rings are seated properly. O-rings function best when lubricated with food grade silicone lubricant.

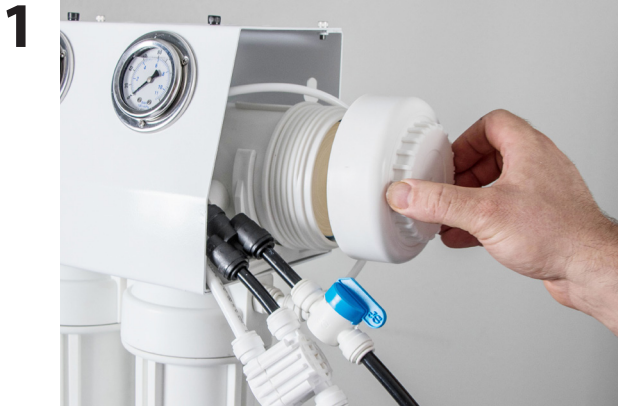


Tighten filter housings by hand, then finish with a 1/8 turn via the supplied filter wrench. Do not over tighten.

REPLACING THE MEMBRANE ELEMENT

*** Membranes should be replaced when system output significantly declines. ***

Note: system output may decline due to other factors as well.



Unscrew membrane housing end cap. Caps can be difficult to remove. Be sure to have a firm grip on opposite side of housing. Do not lose O-ring on inside of cap. Each cap has two O-rings.



Pull out membrane using needle nose pliers or other similar tool.



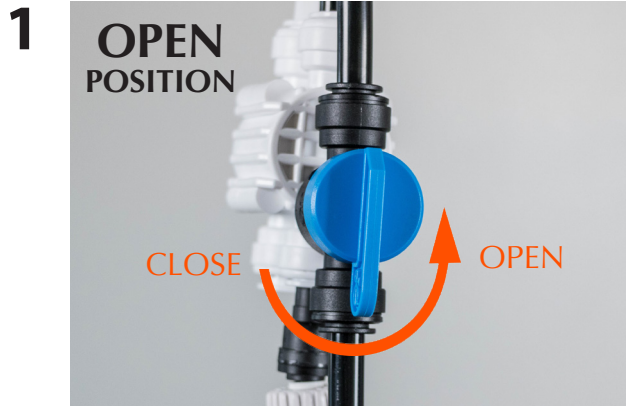
Lubricate the brine seal and orings. Insert new membrane into housing, making sure the membrane-end with the brine seal goes in last. Make sure the membrane is completely seated in the housing.



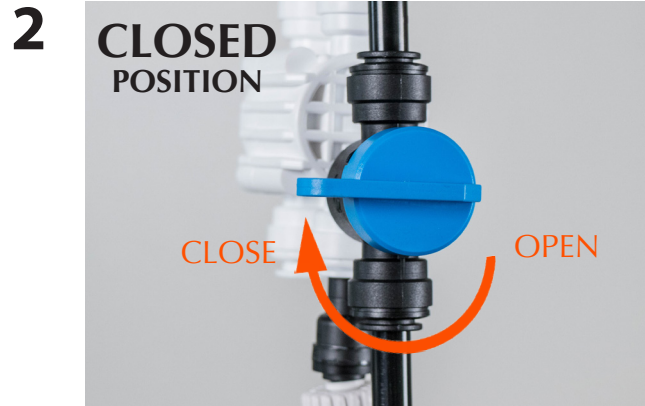
Replace the end cap and tighten by hand. If O-rings are dry, lubricate with food grade silicone lubricant. Allow system to run for ½ hour before using RO water.

FLUSHING THE MEMBRANE

GrowoniX water filters come with a manual flush valve. Flushing the membrane element after each use for approximately 3-5 minutes will remove standing salts from the membrane, significantly extending membrane life. Even weekly flushes will improve membrane life and system performance.



Turn flush valve to the open position and let system run for 3-5 minutes.



Turn flush valve to the closed position for normal water production.

CHANGING THE SYSTEM RATIO

The EX800-T can be used with a system ratio of 1:1 with tap water that is lower than 300 ppm. To change the system ratio, replace the 2:1 flow restrictor (labeled USA 2800) with the 1:1 flow restrictor (labeled USA 1500). It's not recommended to run the EX800 on well water with the 1:1 flow restrictor, as most well water has iron and/or manganese, which can prematurely damage the membrane. Furthermore, the EX800-T should not be run on any feed water which has iron or manganese present.



REPLACE THE FLOW RESTRICTOR TO CHANGE THE SYSTEM RATIO

SPECIFICATIONS CHARTS

PLEATED SEDIMENT FILTER 2.5 " DIAMETER

MATERIALS OF CONSTRUCTION:

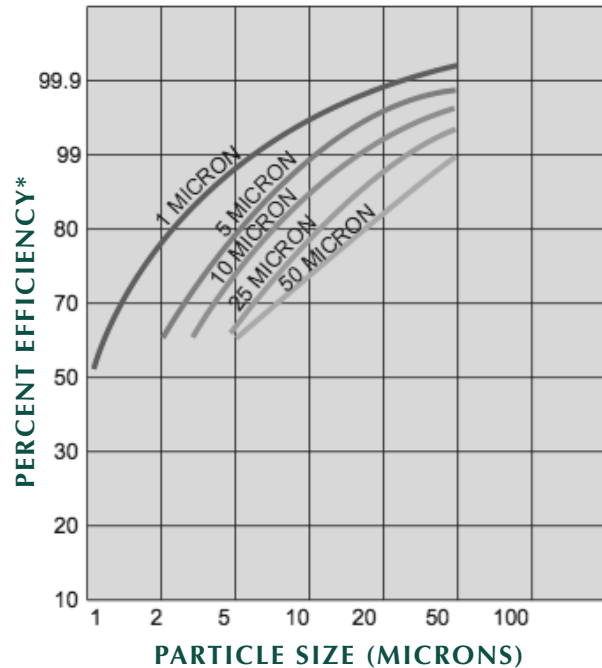
- Filter Media
- End Caps
- Core
- Temperature Rating
- Non-woven Polyester
- Vinyl Plastisol
- Polypropylene
- 40°F to 125°F (4.4°C to 51.7°C)

SIZE DESCRIPTION:

- 2.5" X 9.875"

INITIAL AP(PSI) @ FLOW RATE (GPM):

- 1 psi @ 10 gpm(.01 bar @ 38 L/min)



ECO COCONUT CARBON BLOCK FILTER 2.5" DIAMETER

MATERIALS OF CONSTRUCTION:

- Carbon: NSF listed 61, Coconut Shell PAC
- End Caps: Polypropylene
- Inner/Outer Wraps: Polypropylene
- Nettings: Polypropylene
- Gaskets: NBR
- Temperature Ring: 40°F to 180°F

OD X LENGTH:

- 2.5" X 20"

NOMINAL UM RATING:

- 10

INITIAL AP(PSI) @ FLOW RATE (GPM):

- 1 PSI @ 30 GPM

CHLORINE, TASTE, ODOR REDUCTION CAPACITY FLOW

- >17,000 gallons @ 1 GPM

RO MEMBRANE ELEMENT

OPERATING LIMITS:

- Membrane Type: Thin film composite
- Maximum Operating Temperature: 110°F (45°C)
- Maximum Operating Pressure: 125 PSI
- Maximum Feed Flow Rate: 1 GPM
- Maximum Concentrate Flow Rate: 4 x Permeate
- pH Range, Continuous Operation: 3-11
- Maximum Feed Water Turbidity: 1 NTU
- Maximum Feed Silt Density Index (SDI): 5 SDI
- Chlorine Tolerance: 0 PPM
- Applied Pressure PSI (BAR): 65 (4.48)
- Permeate Flow Rate GPD: 150
- NOMINAL SALT REJECTION(%): 98%

GROWONIX SYSTEM WARRANTY

For a period of one year from the date of original purchase, we will replace or repair any part of the GrowoniX reverse osmosis water system that we find to be defective in operation due to faulty materials or workmanship with the exception of the replaceable filters and membranes.

GENERAL CONDITIONS

Damage to any part of this reverse osmosis system because of misuse; misapplication; negligence; alteration; accident; installation; or operation contrary to our instructions, incompatibility with accessories not installed by GrowoniX, or damage caused by freezing, flood, fire, or Act of God, is not covered by this warranty. In all such cases, regular charges will apply. This limited warranty does not include service to diagnose a claimed malfunction in this unit. This warranty is void if the claimer is not the original purchaser of the unit or if the unit is not operated under normal municipal water or well water conditions.

GrowoniX assumes no liability in connection with this reverse osmosis system. GrowoniX assumes no liability for any damages incurred through the use of this product. It is the responsibility of the end user to gauge the safe use of this product in the environment where it is applied. We do not authorize any person or representative to assume for us any other obligations on the sale of this reverse osmosis system. The information given out in the manual we believe to be true, but are offered to you in good faith without guarantee because each application of this product is different and beyond our control.

THE FOLLOWING STANDARD OPERATING CONDITIONS FOR RESIDENTIAL/COMMERCIAL REVERSE OSMOSIS SYSTEMS MUST BE MET FOR WARRANTY TO BE VALID.

	Water Pressure	pH Range	Maximum TDS	Water Temp
Standard System	40-80 psi	3-10	2000 ppm	40-110 F

MERCHANDISE RETURN DETAILS AND PROCEDURE:

If any merchandise was defective —we will refund the full purchase price upon receiving and reviewing the merchandise returned in undamaged condition.

RMA NUMBER:

You must first obtain a Return Merchandise Authorization (RMA) number from GrowoniX.com. Any products sent to GrowoniX without an RMA number will not receive a refund and may be returned to the sender at their expense.

All refund amounts will be based on the manufacturer's warranty and GrowoniX return policy. Refunds will be issued back using the payment method you used when you placed your order. Refunds take up to 3-5 business days to process once we receive the return.

PACKAGING:

Please kindly re-pack the product in its original box, or a box of equivalent strength. The unit should be packed in the same manner as it came to prevent damage in shipping. Please return everything that was in the original box, including any free items if applicable. Be sure to drain out all water from wet systems and parts and wrap them in plastic bags before packing.

RETURN TO:

We will provide you with an GrowoniX warehouse address for return merchandise when we issue the RMA number.

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