

# GROWONIX

TUNED FOR GROWING



## ALK-150/300 DRINKING WATER SYSTEM

## OWNERS MANUAL

[WWW.GROWONIX.COM](http://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.

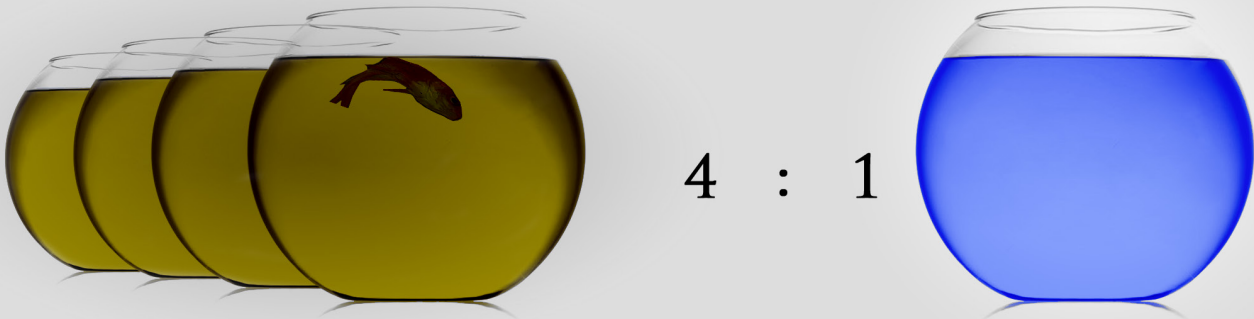
## TUNED FOR GROWING - IN TUNE WITH OUR CUSTOMERS

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 200-400 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.

### THE TRADITIONAL WAY











takes 4 gallons of waste water to produce 1 gallon of pure water



### THE GROWONIX WAY



# FEATURES

-  150-300 Gallons Per Day
-  High Rejection Cold Water membrane elements.
-  2:1 Waste Ratio
-  Carbon filter rated for 7500 total gals, or 2500 gals of Purified water
-  Patented Metal Housing
-  Auto Shutoff Valve
-  EZ Hookup Kit
-  Uses 50% less water than traditional RO systems
-  Bladder Tank & Remineralizing Cartridge Included!
-  Leak detecting Shut-off tray



**NO ADDITIONAL PRE-FILTERS NEEDED**

**CHLORAMINE REMOVAL REQUIRES KDF CARBON OPTION**

## WHY USE A GROWONIX ALK-150/300?

Invest in purity and convenience with our advanced drinking water system. Combining cutting-edge reverse osmosis technology with our remineralizing media cartridge, The ALK-150/300 ensures your water is free from impurities and enriched with essential minerals, delivering a refreshing taste experience every time. Say goodbye to unpleasant odors and tastes, as our system eliminates chlorine and sediment, providing you with clean, great-tasting water straight from your tap. With convenience and health in mind, our system offers unlimited purified water at your fingertips, promoting hydration and well-being for you and your family. Prioritize your health and make the smart choice for your home or business by choosing our reliable drinking water system today.

PART #	FLOW RATE	CARBON CAPACITY TOTAL GALLONS	TEMPERATURE RANGE	PRESSURE RANGE	pH RANGE	MAXIMUM FEED FLOW RATE
ALK-150	150 GPD	8,000	40°F-100°F	40psi - 80psi	2-11	2 gpm
ALK-300	300 GPD	8,000	40°F-100°F	40psi - 80psi	2-11	4 gpm

\*Stated Performance is based on data taken with the following conditions: 77°F @ 60psi, 250ppm, filtered and dechlorinated municipal tap water, minimum salt rejection is 96%. Permeate flow may vary +/- 20%



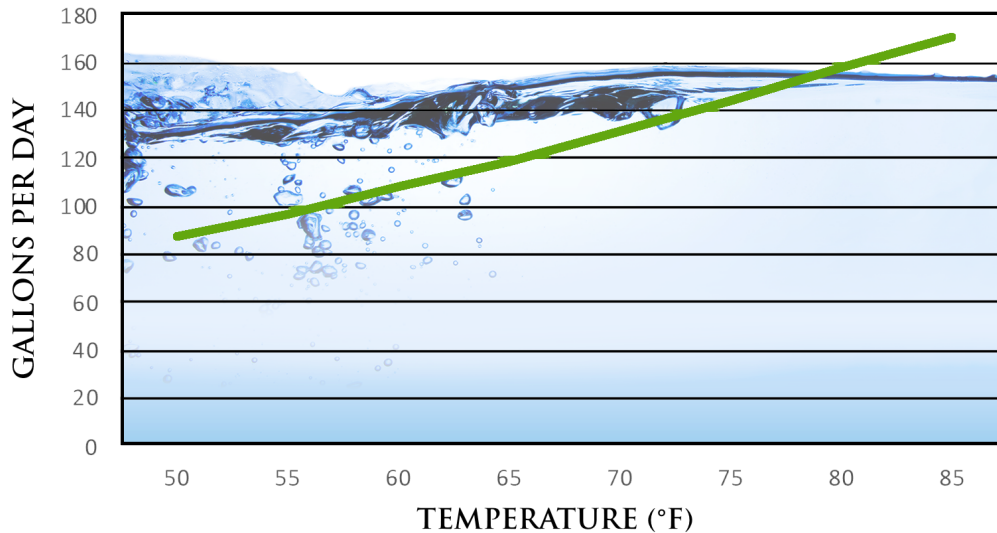
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# DWS SPEC. SHEET

System Specifications	ALK-150	ALK-300
Recovery (System Ratio)	33% (2:1)	33% (2:1)
Nominal Salt Rejection %	97%	97%
Permeate Flow GPD	150	300
Permeate Flow GPH	6.25	12.5
Min Feed Flow GPM	0.10	0.20
Max Feed Water TDS	<2000	<2000
Max Feed Temp °F (°C)	113°F	113°F
Min Feed Temp °F (°C)	40°F	40°F
Max Ambient Temp °F (°C)	113°F	113°F
Min Ambient Temp °F (°C)	40°F	40°F
Max Feed Pressure psi	80 psi	80 psi
Min Feed Pressure psi	40 psi	40 psi
Max SDI Rating SDI	<3	<3
Max TDS ppm	2000	2000
Max Hardness gpg	0	0
Max pH (Continuous)	11	11
Min pH (Continuous)	2	2
Max Turbidity NTU	1	1
Feed inch	3/8" Tube	3/8" Tube
Permeate inch	1/4" Tube	1/4" Tube
Concentrate inch	1/4" Tube	1/4" Tube
Dimensions L x W x H inch	14" x 7" x 17"	14" x 7" x 20"
Weight lbs	13	15

\*Stated Performance is based on data taken with the following conditions: 77°F @ 60psi, 250ppm, filtered and dechlorinated municipal tap water, minimum salt rejection is 96%. Permeate flow may vary +/- 20%

GXM-150-HR FLOW RATE



\*Flow Rate Chart is based on 60 psi, 250ppm, filtered and dechlorinated municipal tap water.

# ACCESSORIES

## BP-1530 *Booster Pump.*



- DOUBLES pure water production for all systems 600 GPD and under.
- Can siphon from a rain barrel or tank and produce full pump pressure.
- ZERO psi of incoming water pressure to produce the full flow rate.
- High pressure cutoff, automatically shuts off when used with a solenoid valve, ball valve, float valve, or watering wand etc...
- Adjustable output pressure.
- 1 GPM flow rate.

## UV-1530 *Ultraviolet Filtration*



- Stainless Steel Ultraviolet Filter
- Destroys 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.

## 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.

## 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.

## VA-FLV-1438 *Float Valve*



- 1 GPM flow rate max.
- Adjustable positioning via thumb screw.
- Can be mounted vertically or horizontally.
- 1/4" or 3/8" tubing port sizes.
- Bulkhead mounting style with sealing washer.

# REPLACEMENT FILTERS

Product	Sediment	Carbon	Membrane	Ultraviolet
ALK-150	SF-2510-PL	CF-2510-CC	GXM-150-HR	UV-1530
	SF-2510-SP	CF-2510-GB	GXM-200-HF	
		CF-2510-KDF		
Product	Sediment	Carbon	Membrane	Ultraviolet
ALK-300	SF-2520-PL	CF-2520-CC	(2) GXM-150-HR	UV-1530
	SF-2520-SP	CF-2520-GB	(2) GXM-200-HF	
		CF-2520-KDF		

*\*Blue color indicates filters installed in unit.*

*\*Green color indicates optional filters.*

*\*Chloramine removal requires the KDF85 carbon filter.*

\*ALK-150/300 CARBON FILTER RATED AT 7,500 GALS TOTAL CAPACITY, OR 2,500 GALS OF FILTERED WATER AT 2:1 RATIO.

## FILTER INDEX



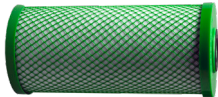
### GXM HIGH REJECTION COLD WATER MEMBRANES

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.



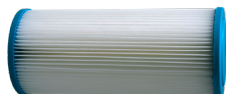
### COCONUT CARBON FILTER—“GREEN BLOCK”

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](http://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.

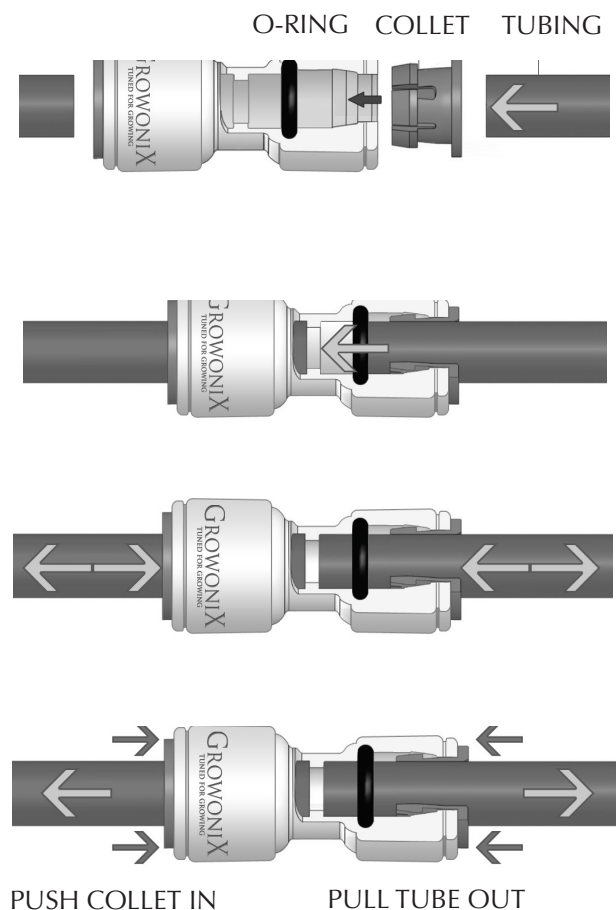
### TEST AND INSPECT

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

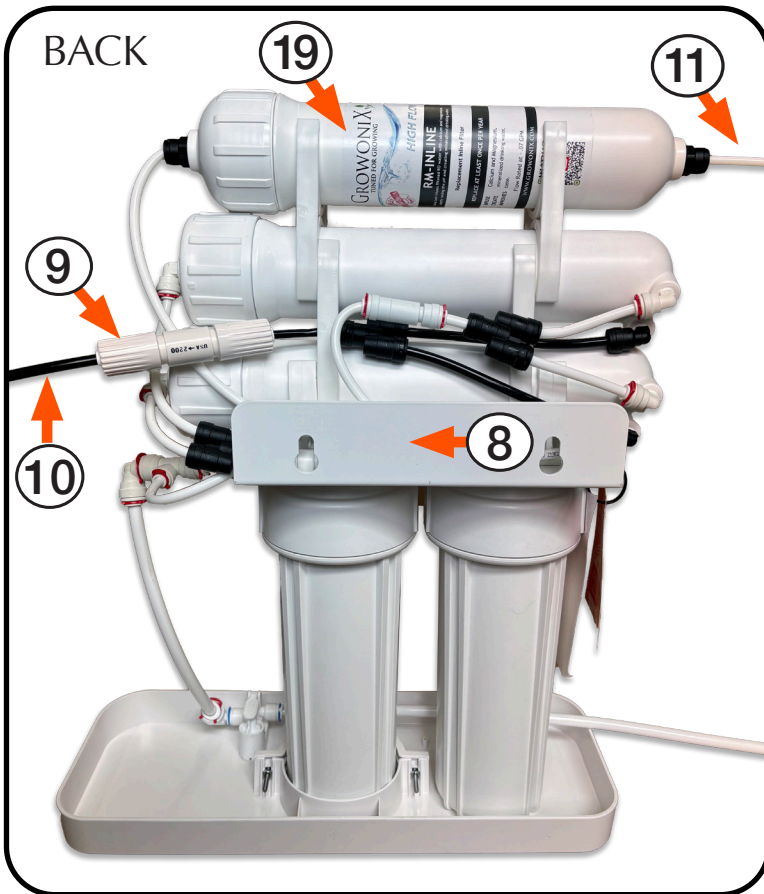
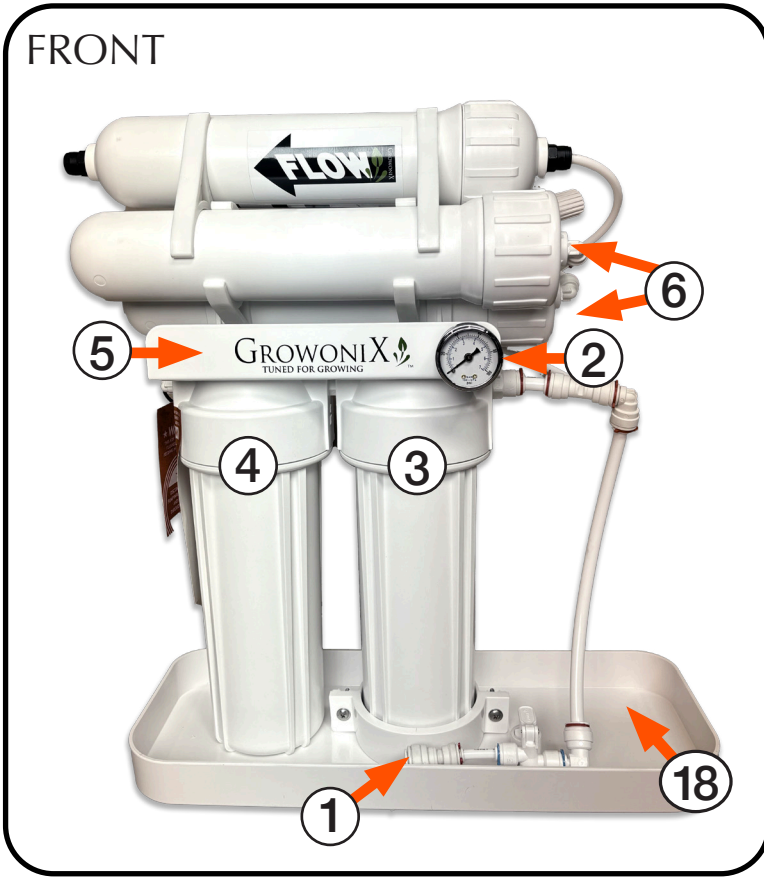
Test and inspect the installation for any leaks.

### 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.



# COMPONENT DIAGRAM



1. Supply water in
2. Pressure gauge
3. Sediment filter
4. Carbon filter
5. Patented GX mounting bracket
6. Membrane housing
7. RO membrane
8. Auto shutoff valve
9. Flow restrictor
10. Waste/drain tubing
11. Permeate line OUT/RO water out
12. Drain Clamp
13. Filter wrench
14. Pressurized Bladder Tank
15. Faucet
16. Pressure Clips
17. Feed valve
18. Leak Detecting Shut-off Tray
19. Inline Remineralization Cartridge
20. Quick-Connect Tee Fitting

# SETUP INSTRUCTIONS

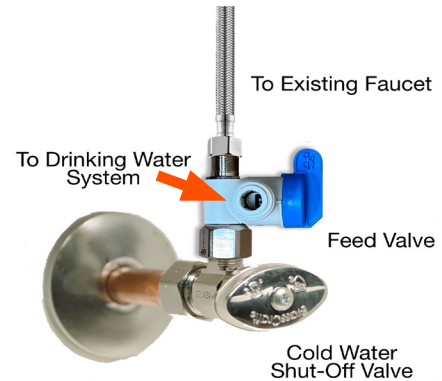
- Always turn incoming water pressure off before servicing the unit.
- Always turn incoming water pressure on slowly, allowing all air to be discharged from the system before full water pressure is restored.
- GrowoniX ALK-150/300 water filters are designed to be used with between 40-80 psi of incoming water pressure. Do not exceed 80 psi of incoming water pressure.
- If incoming water pressure is too high, install pressure regulator before unit.
- It is recommended to flush the carbon filter and membrane upon initial startup. (see following instructions)

1



Inspect the contents of the box to ensure all parts are present. Verify that tubing and fittings are securely inserted and tightened, as shipping may have caused some connections to loosen.

2



Turn off the cold water supply using the angle stop shut-off beneath your sink and open the faucet handle to release pressure. Attach the Feed Valve by hand to the cold water shut-off valve, then connect the riser tube and 1/4" tubing to complete the connection to the RO unit.

3



Mount the drain clamp to an available drain pipe. Only insert the tubing halfway into the drain pipe—do not bottom out. Connect other end of drain tubing to the included drain clamp.

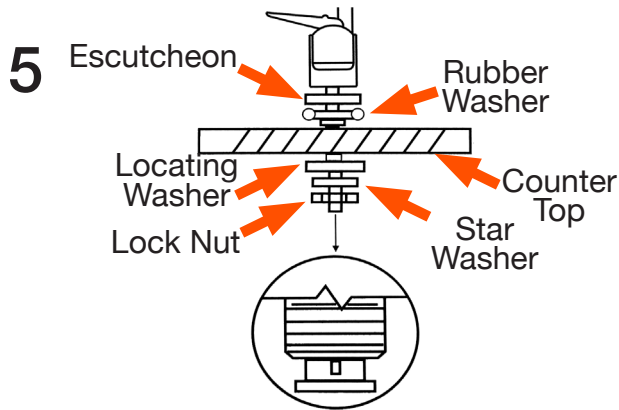
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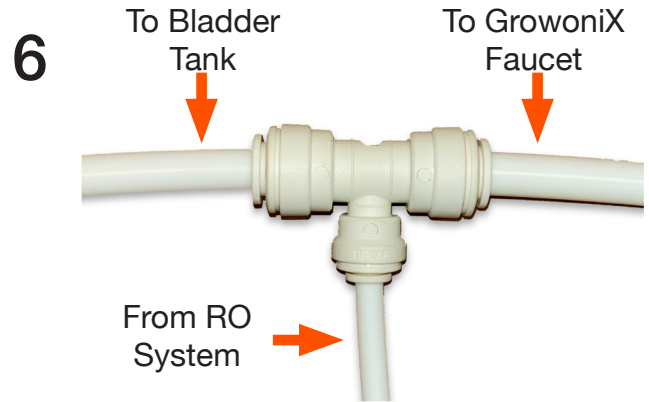
Connect RO Tubing from the Feed Valve to the Input on the Leak Detecting Shut-Off Tray.

**BEFORE TURNING INCOMING WATER SUPPLY ON, REFER TO NEXT STEP "FLUSHING THE KDF85 CARBON FILTER" ON THE NEXT PAGE.**

# SETUP INSTRUCTIONS



5 Mount GrowoniX supplied faucet. Follow installation steps on faucet's box for more options.



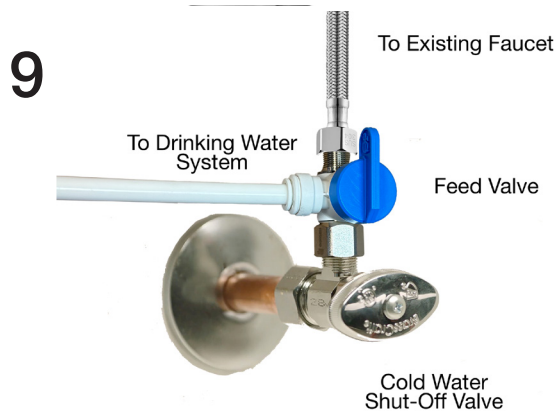
6 Connect Permeate Line Out (11), Tubing to Bladder Tank, and Tubing to GrowoniX supplied faucet to Quick Connect Tee Fitting (20) as shown.



7 Connect Waste/Drain Line (10) to Drain Clamp.



8 Verify and Inspect that all fittings and tubing are tight and fully inserted. Be sure to insert Pressure Clips (16) to fully secure tubing in fittings.



9 After completing all connections, slowly turn on the cold water supply line, checking for leaks.



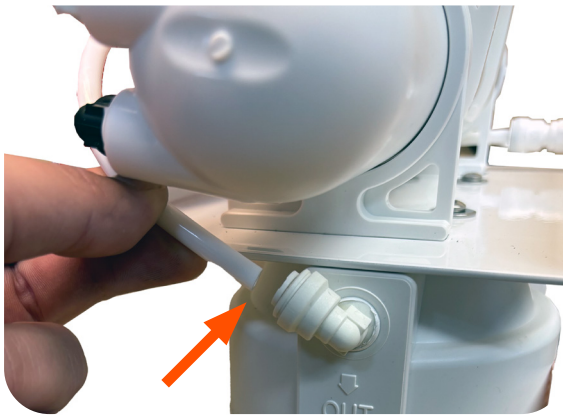
10 Fill Bladder Tank. Make sure Valve on Bladder Tank is in the open position. Once filled, Flip Faucet lever to enjoy Remineralized RO Water!

# FLUSHING THE KDF85 CARBON FILTER

Growonix ALK-150/300 Drinking Water System comes with our upgraded 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.

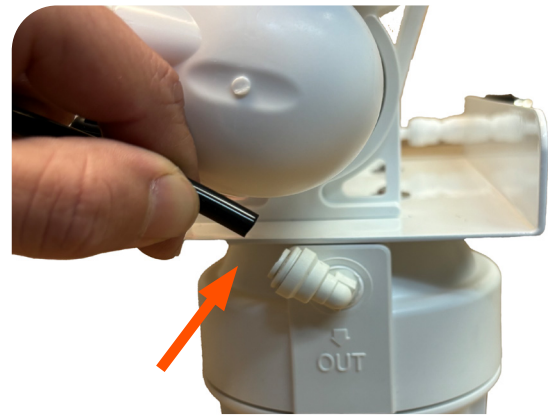
The catalytic carbon in these filters is in a loose form, and thus will discharge a small amount of carbon dust upon initial startup. It is recommended to unhook the membrane input side and flush ten gallons of water through the carbon filter before re-connecting to the RO membrane. This will ensure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

1



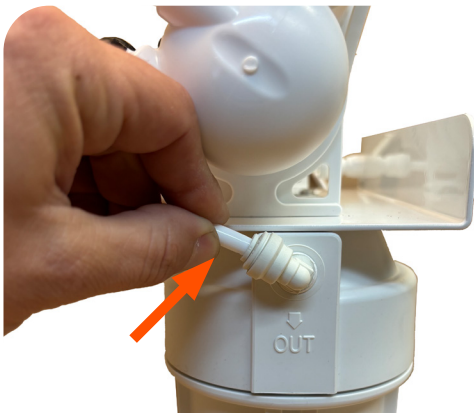
Make sure the incoming feed water is shut off, ensuring the RO filter is depressurized. Disconnect the 1/4" white tubing that feeds the membrane input from the carbon filter.

2



Connect the tubing from the Drain Clamp directly to the 1/4" Elbow Fitting exiting the Carbon Filter to enable direct flow of flushed carbon water to the drain. Allow ten gallons of water to flush through carbon before reconnecting white tubing to membrane input.

3



Reconnect the tubing to the membrane inputs and resume normal filter operation.

\*ALK-150/300 Carbon filter rated at 7,500 gals total capacity, or 2,500 gals of filtered water at 2:1 ratio.



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

# REPLACING THE PRE-FILTERS

- 🌿 Sediment filters should be changed when either brown discoloration occurs, or system flow rates have significantly declined.
- 🌿 Carbon filters have a gallon count: 7,500 gals total capacity, or 2,500 gals of filtered water at 2:1 ratio for the GX150 - GX200.
- 🌿 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 the sediment and carbon filter housings using the supplied filter wrench. Wash inside of the filter housings to remove debris.



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



When replacing the filter housings, make sure the housing O-rings are seated properly. Grease the O-rings with food grade silicone grease.



Tighten the filter housings by hand, do not use the filter wrench. Do not over tighten.

# REPLACING THE MEMBRANE ELEMENT

- Before servicing membrane element system must be de-pressurized. To de-pressurize the GX150 -GX200, turn incoming water supply completely OFF and open the flush valve.
- It is suggested that you replace sediment and carbon pre-filters as well when replacing membrane element.
- After replacing membrane turn incoming water pressure on slowly, allowing all air to be discharged before full water pressure is restored.
- End-caps can be difficult to re-install. To aid in installation, apply continuous pressure to end cap. Do not strike the end cap.



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



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



Insert the new membrane into the housing, making sure the 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 the O-rings are dry, lubricate them with food grade silicone lubricant.

# REVERSE OSMOSIS 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

## GROWONIX RETURN POLICY

### 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.