GrowoniX

TUNED FOR GROWING

EX100, EX200, EX400 & EX400T

Owners Manual

WWW.GROWONIX.COM

1:1

GrowoniX
TUNED FOR GROWING

EX100 / EX200 / EX400

2:1 WASTE RATIO

FEATURES:

- 100 / 200 / 400 GALLON PER DAY SYSTEMS
- 4 / 8 /17 GALLONS PER HOUR
- 2:1 WASTE RATIO
- SPUN SEDIMENT FILTER FOR EXTREME DIRT FILTERING CAPACITY
- COCONUT CARBON BLOCK
- PATENTED METAL HOUSING
- AUTO SHUTOFF VALVE
- EZ HOOKUP KIT
- WALL MOUNTABLE
- USES 50% LESS WATER THAN TRADITIONAL RO SYSTEMS

FREE WARRANTY
1 YEAR PARTS & LABOR
SEE WEBSITE FOR DETAILS

w/ HIGH FLOW

COLD WATER MEMBRANE

NO ADDITIONAL PRE-FILTERS NEEDED

MEMBRANE FLUSH KIT OPTIONAL

Built in the U.S.A.

No Assembly Required

THE EX SERIES

The EX Series is designed to flow between 4 and 17 GPH, (Gallons Per Hour) at almost 0 ppm RO water, with a 2:1 waste ratio. It's affordable and durable, packed with features you would expect from a higher priced unit. It outflows all other RO's in its class, with all the quality you would expect from a GrowoniX product.

GROWONIX EX SERIES ACCESORIES

GXM INDUSTRIAL MEMBRANES

GrowoniX brought these to our industry first. A single High Flow Membrane able to produce 200 GPD at a 2:1 ratio. Get that water flowing and the ppm down with the GrowoniX GXM line of High Flow Membranes!

Flow Rate: 150 gpd high flow membrane
DOW Membrane replacement for EX100/200/400, GX150/200/300/400, and most other brands of RO filters. Ultra high rejection for the purest water. Great for drinking water.

Flow Rate: 200 gpd high flow membrane
Membrane replacement for EX100/200/400, GX150/200/300/400, and most other brands of RO filters.

UV STERILIZATION

Stainless steel ultraviolet filtration to remove 99.9% of micro- organisms in your water supply. A must for well water treatment, whole house filter systems, or anytime water will be stored.

FLOAT VALVE

Simple and easy to install. Each valve comes with 1/4" and 3/8" QC fittings. Valves are adjustable to allow for installation in a multitude of tank styles.

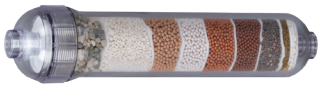
BP-1530

This little pump will raise the input water pressure to 78psi on every reverse osmosis filter from the EX100 though the GX600—amazing little pump. Adjustable output pressure, designed for continuous duty, and armed with overheat protection,. Built in high pressure cutoff allows for easy use with float valves or faucets. 12000 hours of brush life makes this little pump an industry standard workhorse.

RM - INLINE

Calcor bed infuses filtered RO water with calcium and magnesium, slightly raising the pH and creating mineralized drinking water.

ALKALINE CARTRIDGE

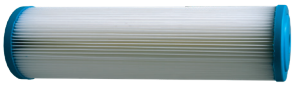


Nine stage filter includes Calcor, negative ion emitting ceramics, and kdf 85. Infuses filtered RO water with minerals and ions, raising the pH to approximately 9.5-10.5—creating mineralized alkaline drinking water.

SEDIMENT SPUN

Spun polypropylene: A true multi-staged depth filter utilizing separate layers of micron filtration. Constructed spun polypropylene, these filters offer superior dirt holding capacity at an extremely economic price. Great filter for changing frequently, especially in well water applications, or with use in GrowoniX scrubbers.

SEDIMENT PLEATED



High flow pleated Sediment filter: This is a washable, reusable, and durable sediment filter with very low pressure drop. Bacteria and chemical resistant. Great for high flow applications and extended time between fitler changes. Comes standard in most GrowoniX water filters.

KDF85/CATALYTYIC CARBON FILTER

KDF/CAT. Bacteriostatic media controls growth of microorganisms. Good for water soluble metals removal, chlorine, chloramine, and scale. Highly reactive catalytic carbon, extremely porous and long lasting, layered with a bed of KDF85. – Our best carbon filter –

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 the EX100 through GX400 and an astounding 1:1 ratio with the GX600 and GX1000.

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

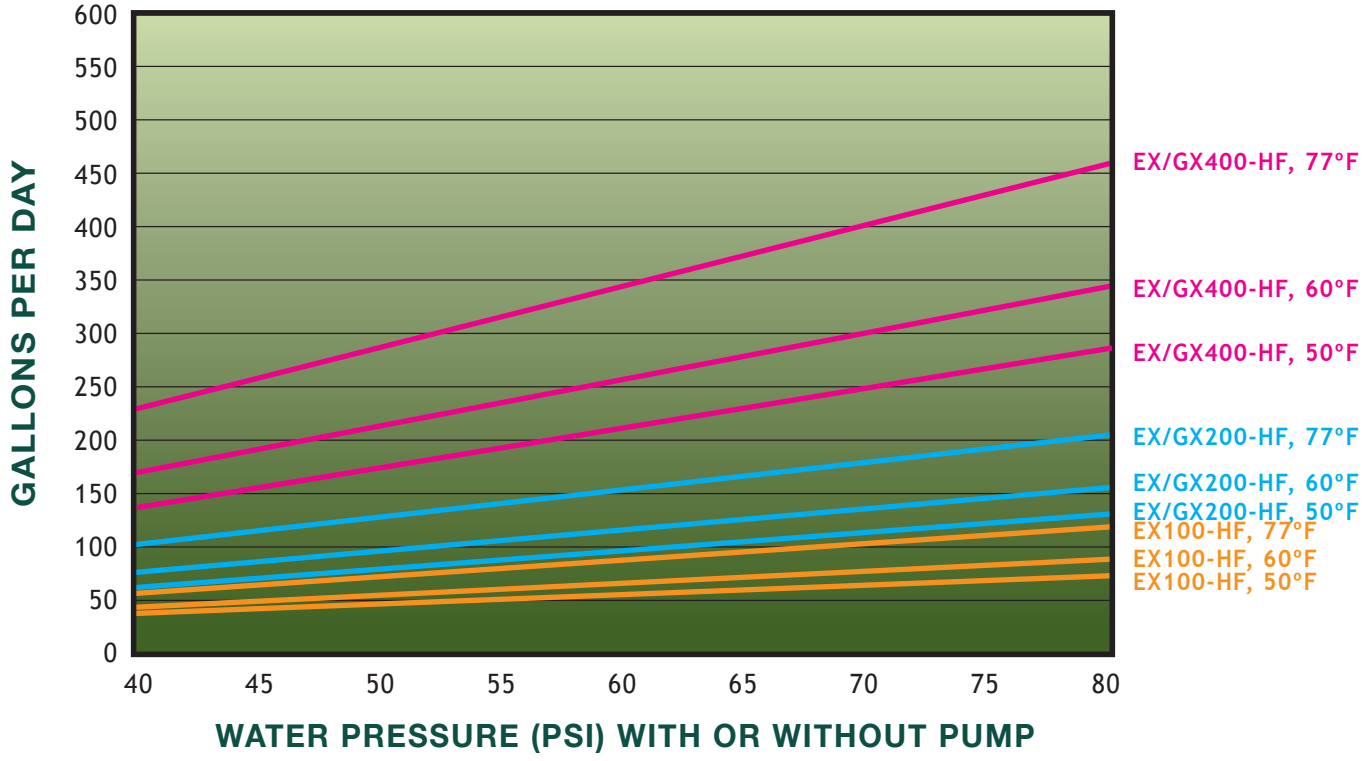
PRECAUTIONS

- 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. Regulators and pressure limiters are available at www.Growonix.com or your local plumbing supply.
- 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.

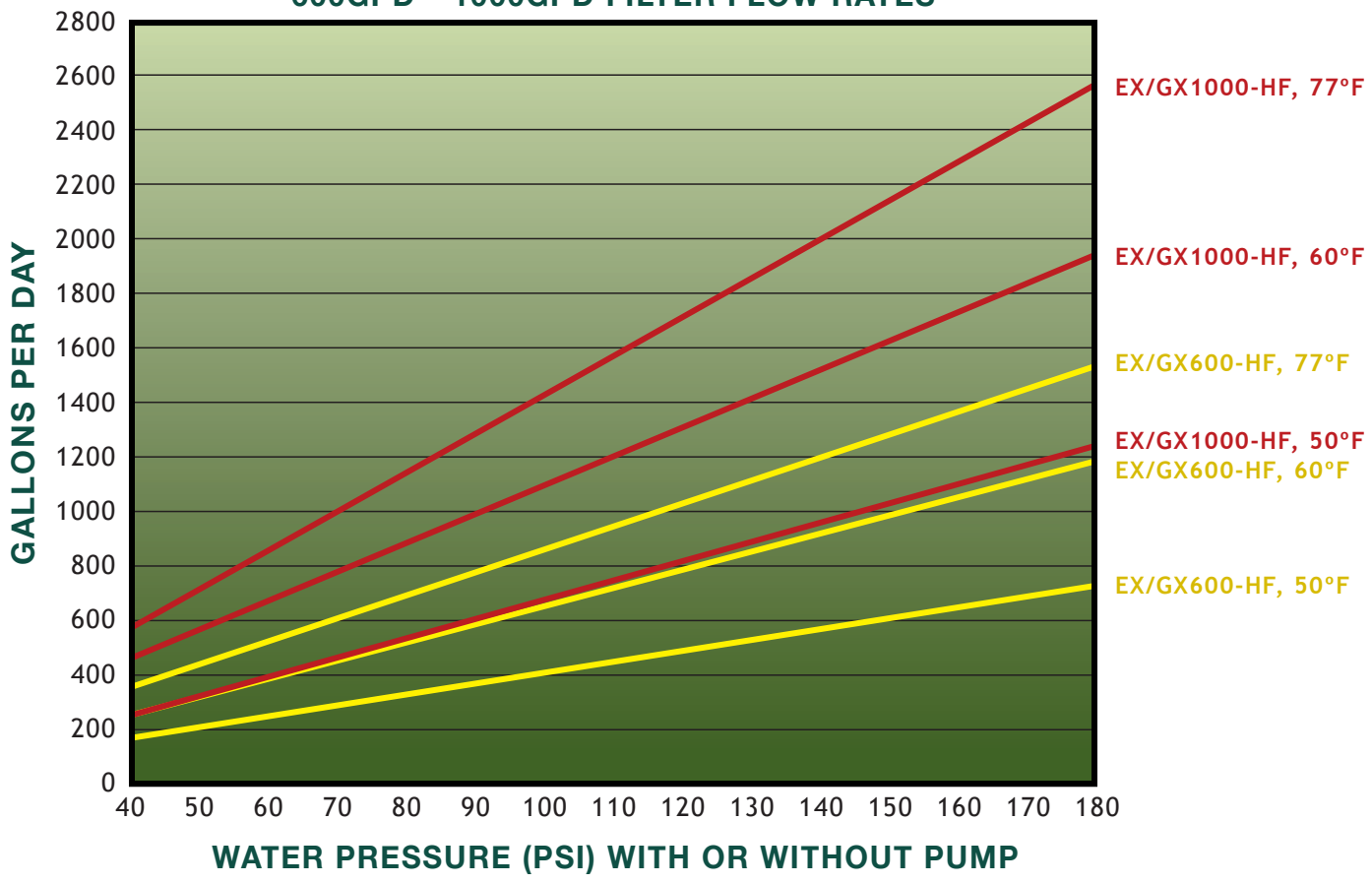
- GrowoniX EX Series RO water filters are rated using supply water that is 77°F, 475ppm, at 70psi. Slower performance may be noted in areas with colder temperatures, higher water salinity, or lower inlet water pressure.
- A minimum of 40psi is recommended to operate GrowoniX water filters. If your inlet water pressure is too low, booster pumps can be used to increase pressure.
  Pumps are available at www.Growonix.com.
- Do not use a flow restrictor other than the one included with your unit.
- Flow restrictors help tune the unit for proper waste ratio.
- Using bigger flow restrictors, or using the unit in areas with exceptionally dirty water,

FLOW RATES

100GPD — 400GPD FILTER FLOW RATES



600GPD — 1000GPD FILTER FLOW RATES



REPLACEMENT PARTS

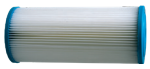
MEMBRANE INDEX

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.

KDF85/CATALYTYIC ACTIVATED CARBON FILTER
PREMIUM CARBON FILTER USING THE BEST ACTIVATED CARBON WITH A BED OF KDF85 MEDIA. THERE'S NO BETTER CARBON AVAILABLE.

SEDIMENT SPUN
SPUN POLY SEDIMENT FILTERS WITH HUGE DIRT HOLDING CAPACITY.



SEDIMENT PLEATED
HIGH FLOW SEDIMENT FILTERS WITH ULTRA LOW PRESSURE DROP.

GXM INDUSTRIAL MEMBRANES
HIGHEST FLOWING DOW SHEET MEMBRANES ON THE PLANET, WITH THE LOWEST WASTE RATIO.

GXM HIGH FLOW COLD WATER MEMBRANES
HIGHEST FLOWING RESIDENTIAL SIZED MEMBRANES.
ALWAYS 2:1 RATIO.

ALKALINE INLINE
INLINE FILTER ADDS CALCIUM & MAGNESIUM TO FILTERED WATER, RAISES THE PH.

ALKALINE CARTRIDGE
CARTRIDGE ADDS CALCIUM & MAGNESIUM TO FILTERED WATER, RAISES THE PH.

REMINERALIZING INLINE
INLINE FILTER ADDS CALCIUM & MAGNESIUM TO FILTERED WATER,

REMINERALIZING CARTRIDGE
CARTRIDGE ADDS CALCIUM & MAGNESIUM TO FILTERED WATER,

UV STERILIZATION
KILLS 99.9% BACTERIA AND VIRUSES.

DI INLINE
DE-IONIZATION FILTER REMOVES LAST BIT OF PPM.

NEW GXM-600 & 1000 MEMBRANES!
30% INCREASED FLOW RATE
98.5% REJECTION

GXM-1000HF 1000 GPD @ 60 PSI · 2400 GPD @ 180 PSI
GXM-600HF 600 GPD @ 60 PSI · 1400 GPD @ 180 PSI

FLOW RATED AT 65°F WATER TEMPERATURE

PRODUCT	TYPE	MSRP	SYSTEM	NOTES
SPECIALTY FILTRATION, ACCESORIES & REPLACEMENTS				
ALK-Inline	Alkaline	99.00	All RO systems	Raises ph, adds cal/mag mineral.
ALK-Cart	Alkaline	99.00	All RO systems	Raises ph, adds cal/mag mineral.
RM-Inline	Re-Mineralize	67.00	All RO systems	Adds cal/mag minerals.
RM-CART	Re-Mineralize	67.00	All RO systems	Adds cal/mag minerals.
DI-Inline	De-Ionization	31.00	All RO systems	Removes remaining TDS after RO (aquarium, lab)
DI-Cart	De-Ionization	34.00	All RO systems	Removes remaining TDS after RO (aquarium, lab)
UV-1530	Ultraviolet	149.00	All RO, Scrubber systems, tank storage	Kills 99.9% bacteria
UV-6010	Ultraviolet	215.00	All RO, Scrubber systems, tank storage	Kills 99.9% bacteria / viruses
UV-LB	Ultraviolet	443.00	All RO, Scrubber systems, tank storage	Kills 99.9% bacteria / viruses
UV-XL	Ultraviolet	538.00	All RO, Scrubber systems, tank storage	Kills 99.9% bacteria / viruses

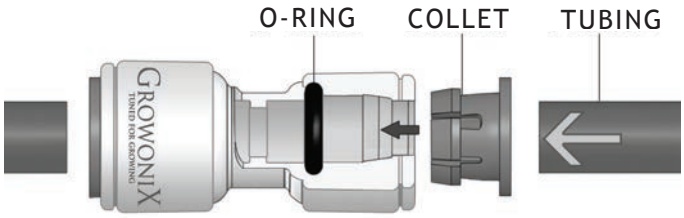
PRODUCT	TYPE	APPLICATION / SYSTEM	MSRP	CAPACITY	NOTES
REPLACEMENTS FOR ALL WATER FILTERS 400 GPD AND UNDER					
SF-2510-PL	Sediment Pleated	EX100/200/400/400-Tall, GX200/300/400, Mini Scrub	14.50	Depends on feed water piping/supply	Stock on GX Series
SF-2510-SP	Sediment Spun	EX100/200/400/400-Tall, GX200/300/400, Mini Scrub	10.75	Depends on feed water piping/supply	Stock on EX Series
CF-2510-CC	Economy Coco Carbon	EX100/200/400/400-Tall, GX200/300/400, Mini Scrub	12.00	7,500 Gallons Total 2,500 Gallons RO Water	Stock on EX Series
CF-2510-GB	Green Carbon	EX100/200/400/400-Tall, GX200/300/400, Mini Scrub	16.50	7,500 Gallons Total 2,500 Gallons RO Water,	Stock on GX Series
CF-2510-KDF	Premium Carbon	EX100/200/400/400-Tall, GX200/300/400, Mini Scrub	39.00	8,000 Gallons Total 2,700 Gallons RO Water	Must for well water and chloramine removal
GXM-100	Standard Membrane	100+ GPD membrane for EX100	83.00	Depends on feed water quality	Fits most other RO systems
GXM-200-HF	High Flow Cold Water Membrane	200+ GPD High Flow Cold Water Membrane for EX100/200/400/400-Tall, GX200/300/400	99.00	Depends on feed water quality	Fits most other RO systems
BP-1530	Booster Pump	Booster pump for all RO systems 600 GPD and under.	227.00	12,000 Hrs brush life	Booster pump for all RO systems 600 GPD and under
REPLACEMENTS FOR EX400HF-TALL AND SLIMSCRUB					
SF-2520-SP	Sediment Spun	EX400-tall, Slim Scrub	10.75	Depends on feed water piping/supply	
CF-2520-CC	Economy Coco Carbon	EX400-tall, Slim Scrub	24.00	16,000 Gallons Total 5,300 Gallons RO Water	
CF-2520-KDF	Premium Carbon	EX400-tall, Slim Scrub	71.00	17,000 Gallons Total 5,700 Gallons RO Water	Must for well water and chloramine removal
CF-4520-KDF	Premium Carbon	EX600/1000-Tall, XL Scrub	127.00	34,000 Gallons Total 17,000 Gallons RO	Must for well water and chloramine removal

INFORMATION ON QUICK CONNECT FITTINGS

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

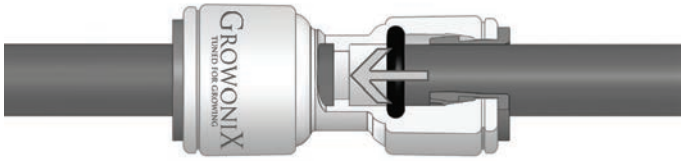
MAKE A CLEAN TUBE CUT

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.



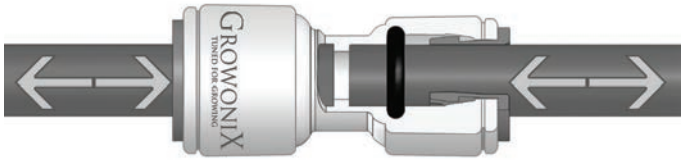
INSERT TUBE INTO FITTING

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

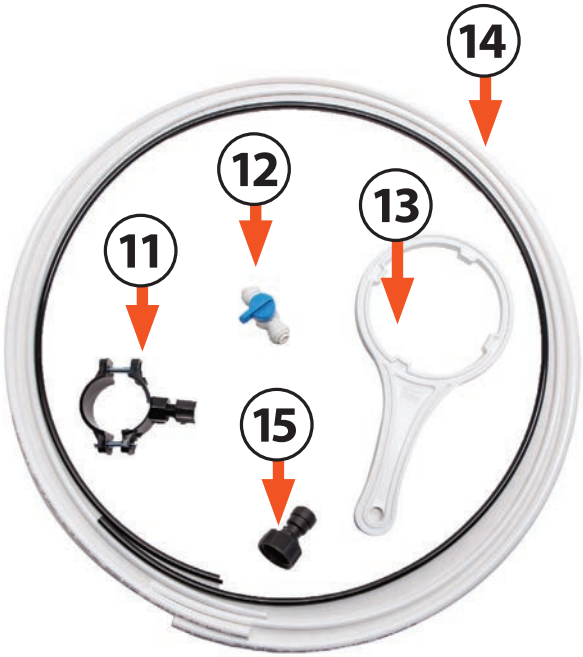
Push and pull the tubing toward and away from the fitting to ensure that it has been installed properly. Test and inspect the installation for any leaks.

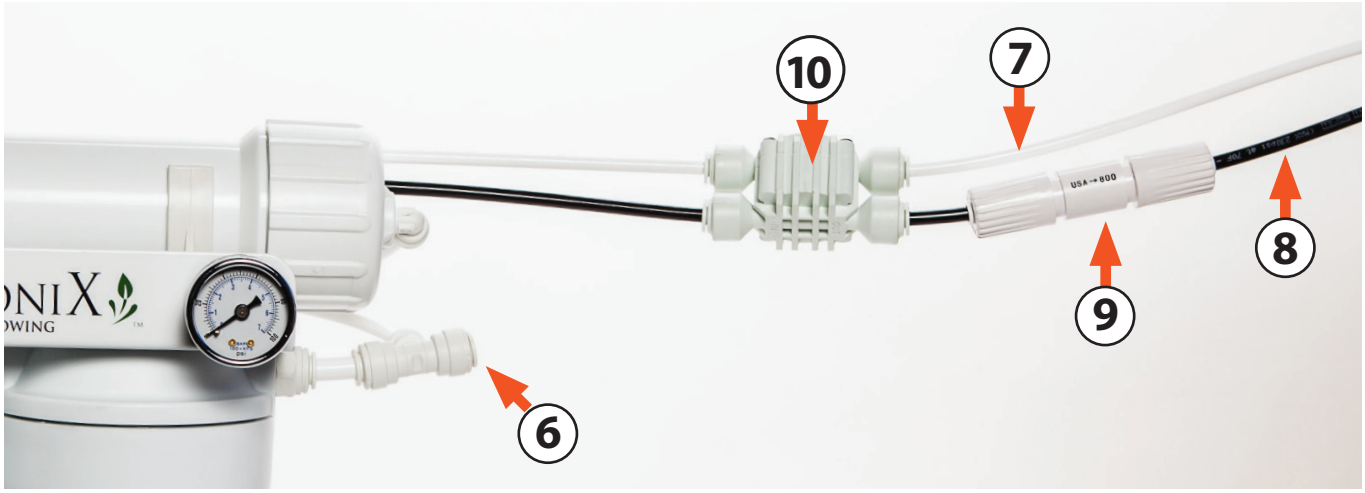


TUBE REMOVAL

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.

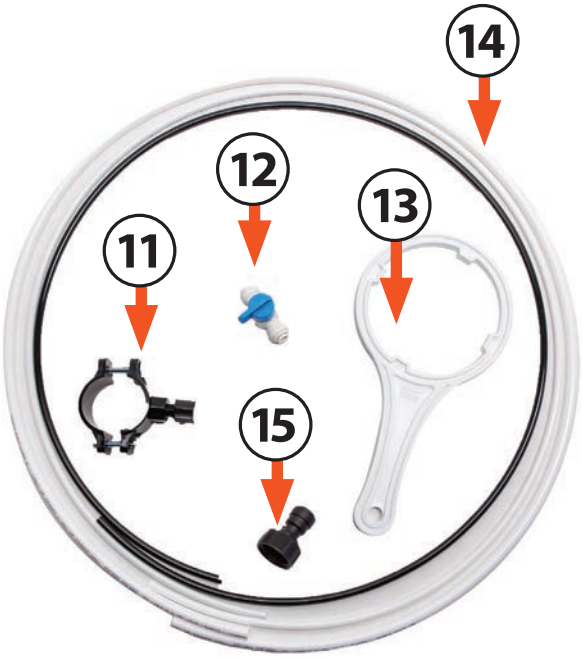
EX100, EX200 COMPONENT DIAGRAM



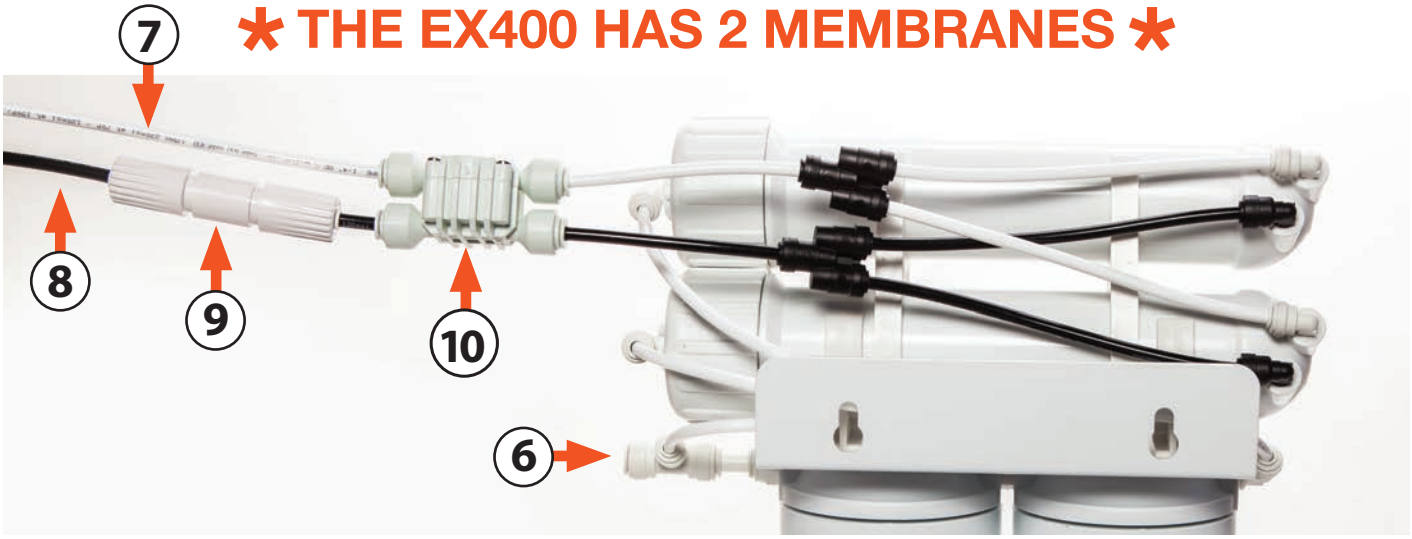


1. Patented EX mounting bracket
2. Sediment filter
3. Carbon filter
4. RO membrane
5. Pressure gauge
6. Supply water in
7. RO water out
8. Waste/drain tubing
9. Flow restrictor
10. Auto shutoff valve
11. Drain saddle clamp
12. In line shutoff valve
13. Filter wrench
14. Supply, RO, and drain tubing
15. Garden hose adapter

EX400 COMPONENT DIAGRAM



★ THE EX400 HAS 2 MEMBRANES ★



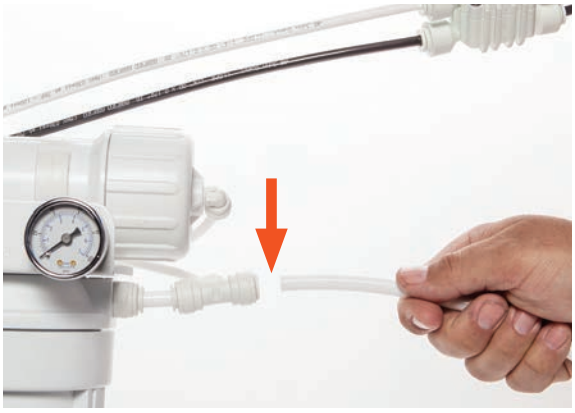
1. Patented EX mounting bracket
2. Sediment filter
3. Carbon filter
4. RO membranes*
5. Pressure gauge
6. Supply water in
7. RO water out
8. Waste/drain tubing
9. Flow restrictor
10. Auto shutoff valve
11. Drain saddle clamp
12. In line shutoff valve
13. Filter wrench
14. Supply, RO, and drain tubing
15. Garden hose adapter

SETUP INSTRUCTIONS

IMPORTANT TIPS:

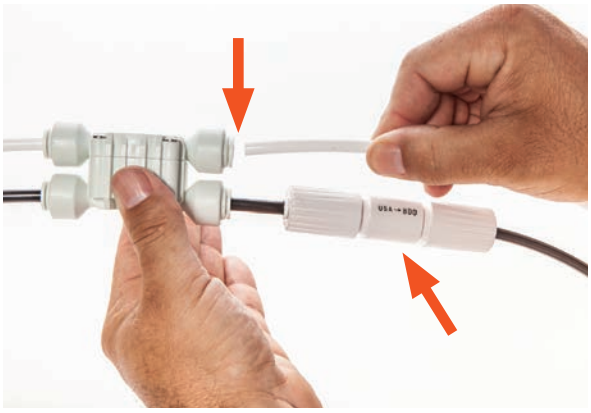
- The EX100, EX200, & EX400 water filters are designed to be used with between 40-80 psi of incoming water pressure.
- High Flow Membranes can work with as low as 20 psi of incoming water pressure.
- Do not exceed 80 psi of incoming water pressure. If incoming water pressure is too high, install pressure 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.

1



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.

2

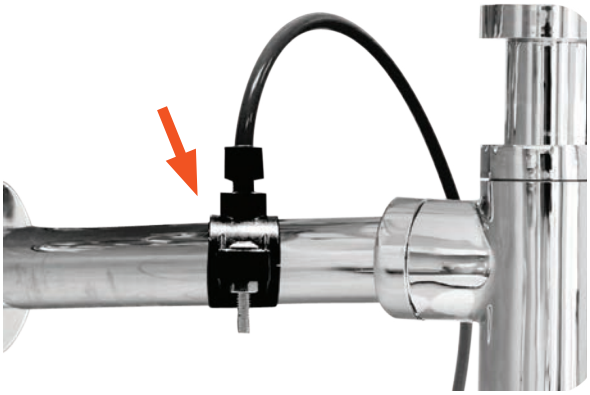


Connect 1/4” white RO tubing to the auto shut-off valve, making sure RO tubing seats all the way in quick-connect fitting.
This is the filtered RO water out line.

3

Connect the 1/4” black drain tubing to the flow restrictor.

4



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

FLUSHING THE EX100 KDF85 CARBON FILTER

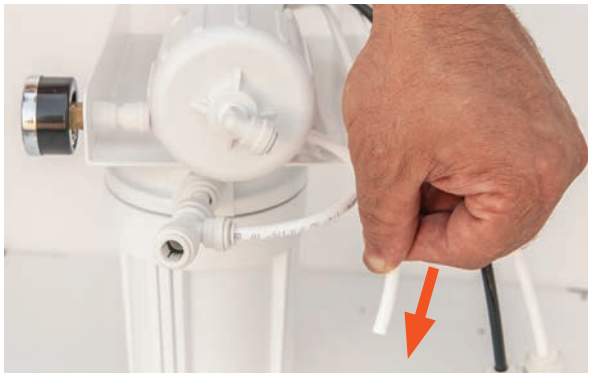
Growonix water filters can be upgraded with a KDF85 Catalytic Carbon Pre-Filter. The "KDF" carbon filter is a superior blend of highly reactive catalytic carbon and KDF85 process media used to remove/reduce iron, hydrogen sulfide, chlorine, chloramine, bacteria, scale, and algae.

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 1/4" 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 5 gallons of water to flush through the carbon filter.
Once flushed, turn off incoming feed water.

3

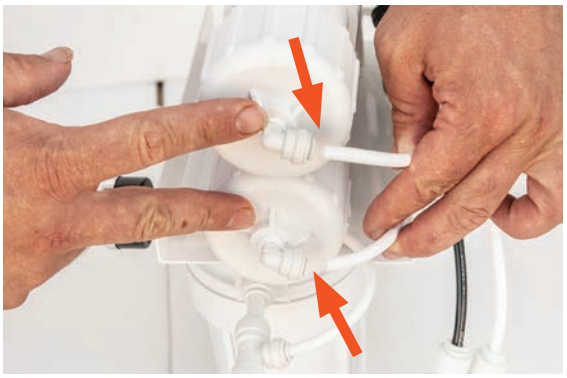
Reconnect tubing to membrane input and resume normal filter operation.

FLUSHING THE EX400/400-T KDF85 CARBON FILTER

* THE EX400 AND EX400-TALL HAVE TWO RO MEMBRANES *

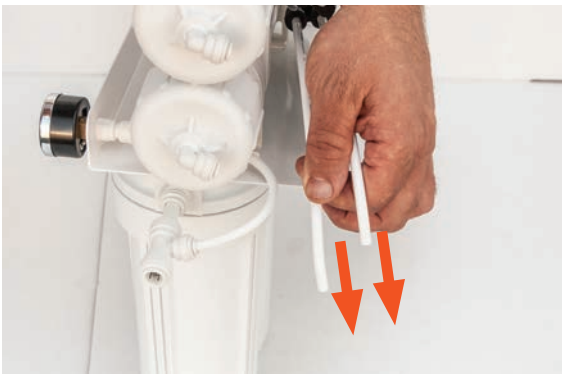
IT IS NECESSARY TO DISCONNECT BOTH MEMBRANE FEED LINES TO PROPERLY FLUSH THE CARBON FILTER.

1



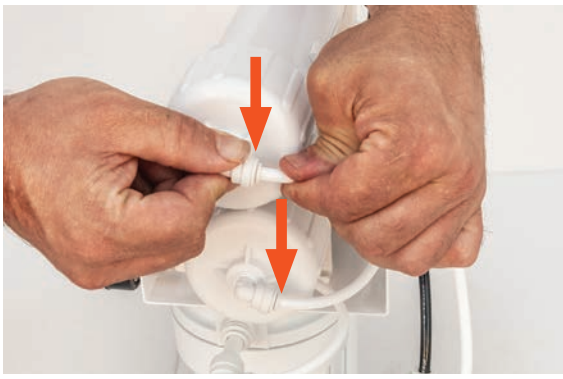
Make sure incoming feed water is shut off, ensuring the RO filter is depressurized.
Disconnect both 1/4” white lines that feed both membranes’ input from the carbon filter.

2



Hold tubing over sink or bucket.
Slowly turn on incoming water pressure, allowing 5 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.

WARNING

DISCONNECT TUBING FROM PUMP INPUT OR MEMBRANE INPUT AND FLUSH 10 GALLONS THROUGH KDF CARBON FILTER

REPLACING SEDIMENT AND CARBON PRE-FILTERS

IMPORTANT TIPS:

- 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.

1

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

2

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

3

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

4

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

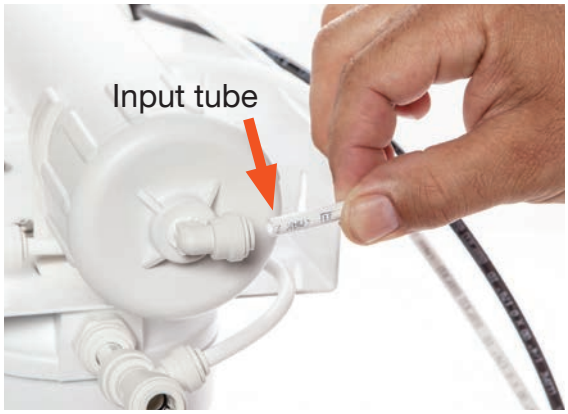
REPLACING MEMBRANE ELEMENT

IMPORTANT TIPS:

- The EX400 has 2 membranes; repeat the following steps for each membrane.
- Membranes should be replaced when system output significantly declines. Note: system output may decline due to other factors as well

(SEE: TROUBLESHOOTING)

1

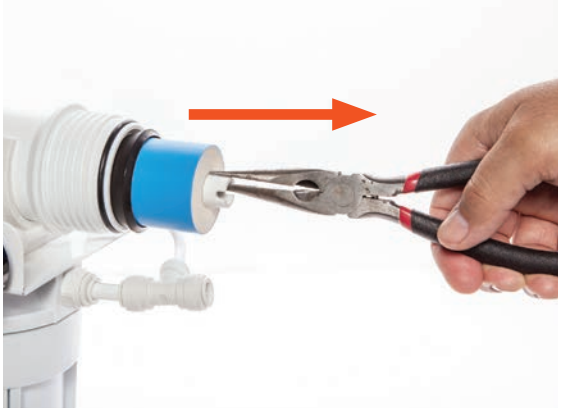


Disconnect input tube(s) from RO membrane housing.

2

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.

3



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

4

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

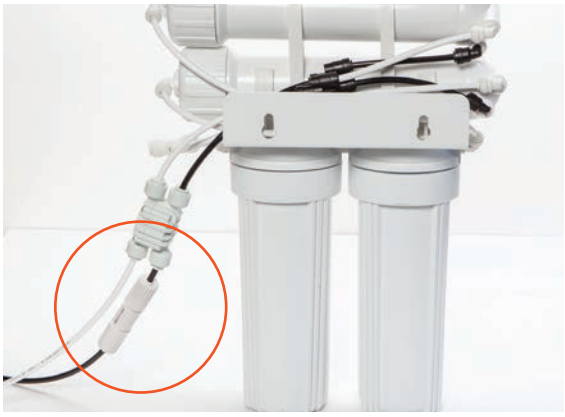
5

Replace 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 ELEMENT

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.

1



Locate the Flow Restrictor

2

Remove the Flow Restrictor

3

Let system run for 3-5 minutes.
Replace the Flow Restrictor

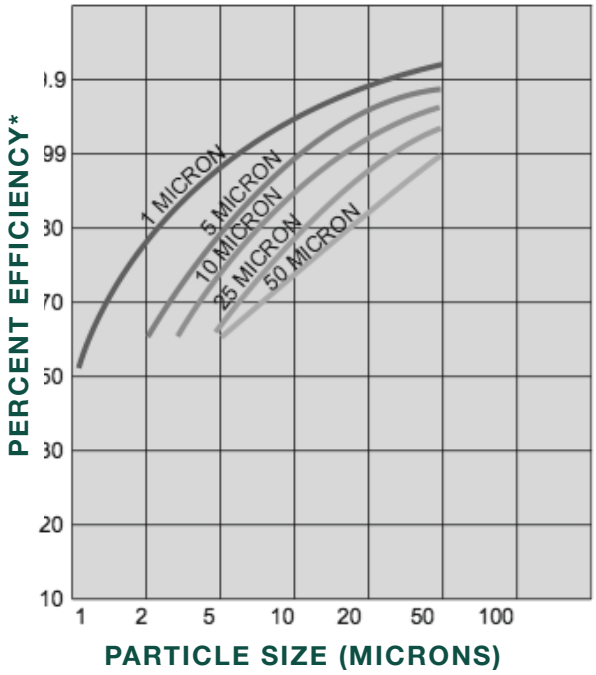
SPECIFICATIONS CHARTS

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 7/8"

Initial AP(psi) @ flow rate (gpm):
- 1 psi @ 10 gpm(.01 bar @ 38 L/min)



ECO COCONUT CARBON BLOCK FILTER

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:
- 2-3/4" X 9-3/4"

Nominal UM Rating
- 10

Initial AP(psi) @ flow rate (gpm):
- 1 PSI @ 30 GPM

Chlorine, Taste, Odor Reduction Capacity Flow
- >8,000 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 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 du e 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	2-11	2000 ppm	40-100 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.