

# GROWONIX

TUNED FOR GROWING



## BP-1000 BOOSTER PUMP OWNERS MANUAL

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



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.

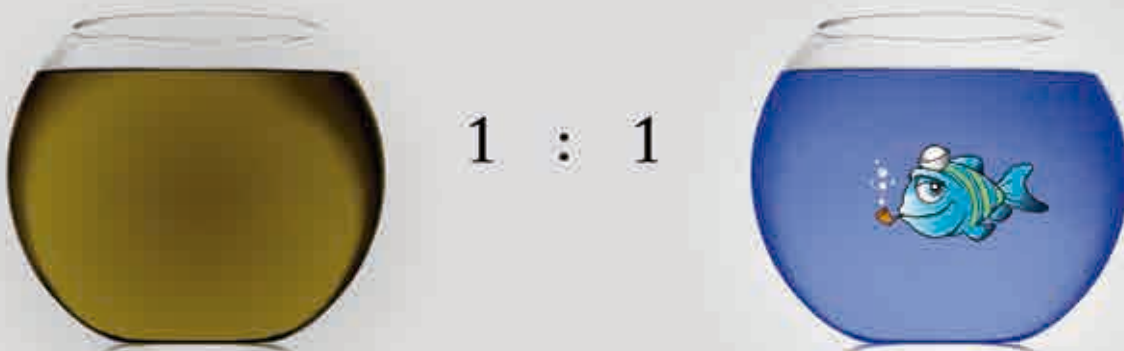
GrowoniX has created a complete product line that will address the needs of hydroponic operations of all sizes. Our filters will significantly reduce your water use while dramatically increasing your yields.

### THE TRADITIONAL WAY

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



### THE GROWONIX WAY



- Increases pure water production for all 600-1000 GPD RO systems.
- Raises the input pressure to 80psi.
- Can siphon from a rain barrel or tank and produce the full pump pressure.
- Needs zero psi of incoming water pressure to produce the full flow rate.
- High pressure cutoff—automatically shuts the pump off when used with a solenoid valve, ball valve, float valve, or watering wand etc...



## WHY USE A GROWONIX BP-1000 ?

- To raise the water pressure on any 600-1000 GPD water filter.
- To supply a misting system.
- To raise the pressure on any water appliance that flows up to 1.4 GPM @ 80psi.
- To bilge out water from a tank or reservoir.
- To supply a faucet, shower, or hose bib (MAX 1.4 GPM).

**CONNECT MULTIPLE IN PARALLEL AND DOUBLE THE FLOW RATE!**



# BASIC INFORMATION

**READ ENTIRE MANUAL THOROUGHLY  
BEFORE INSTALLING THIS HIGH PRESSURE-BOOSTING PUMP.**

## ABOUT

- The BP-1000 Booster Pump is designed for use with all GrowoniX water filters 600-1000 GPD.
- The pump is designed to boost low water pressure to optimal pressure.
- Do not exceed 80 psi output pressure.

## CAUTIONS

- The pump is equipped with an adjustable bypass valve which controls the maximum operating pressure. In addition, never subject the pump to pressures above 80 PSI.
- Never operate the pump in a harsh environment or hazardous atmosphere, since motor brush and switch may cause electrical arcing.
- Pumphead materials are designed for use with water only. Do not use with petroleum products.
- Always consider electrical shock hazard when working with and handling electrical equipment. If uncertain, consult an Electrician. Electrical wiring should only be done by a qualified Electrician per Local and State Electrical Codes.

## MOUNTING

- The pump should be mounted in a dry place and away from any source of heat. If an enclosure is used, special provisions for cooling the motor may be necessary. Consult the Factory.
- Do not subject the pump to extreme high or low (freezing) temperatures while in operation. (Operating ambient temperature range is 32°F to 115°F).
- The pump may be mounted in any position. If “ceiling mounted”, however, with the pumphead upside down, air entrapment may reduce the operational performance by up to 15%.

## 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.

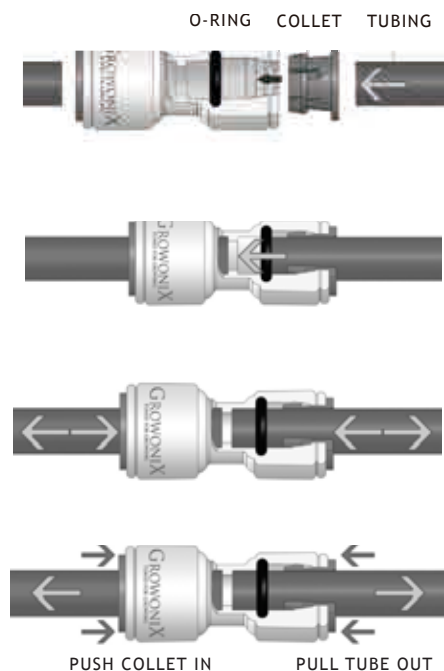
### TEST AND INSPECT

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.



# PLUMBING AND ELECTRICAL

## PLUMBING

- The input is 3/8" & 1/2" OD" quick connect tubing.
- The output is 3/8" & 1/2" OD quick connect tubing.

### CAUTION

Any restrictions or blockage in the drain line of the RO system can cause back pressure, which will increase the systems operating pressure. this can result in damage to the system's membranes and components and a potentially DANGEROUS OVERPRESSURIZATION CONDITION. We recommend use of flexible tubing with proper pressure rating.

Pump will prime only if all pressure is relieved from the outlet port.

It is recommended that an in-line sediment filter (150 micron or 100 mesh) be installed at the inlet side to keep foreign debris out of the system.

Avoid any sharp bends which may crimp tubing and restrict flow. Use 90° elbow fittings if necessary.

Carbon filters should be flushed prior to connectivity to prevent carbon particles from entering the pump chambers, and possibly causing clogging.

## ELECTRICAL

The motor is available in 110 and 50/60 hertz 1 phase 3A. Please ensure that the electrical circuit supplying the system is compatible with the requirements of the BP-1000 pump. Each BP-1000 pump is equipped with an 5" electrical cord.

### NOTE

WE RECOMMEND THAT A LICENSED ELECTRICIAN WIRE YOUR SYSTEM IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES (NEC).

### WARNING

TO REDUCE THE RISK OF ELECTRICAL SHOCK, THE INCOMING POWER SUPPLY MUST INCLUDE A PROTECTIVE EARTH GROUND.

Part #	PLUMBING In / Out	Voltage	Amps	Flow Rate	High Pressure Cutoff	Duty Cycle
BP-1000	3/8" & 1/2" OD tube	120 VAC	3A	1.4 GPM	Yes	Intermittent



# COMPONENT DIAGRAM



1. MOTOR
2. PUMP INLET
3. PUMP OUTLET
4. ADJUSTABLE INTERNAL BYPASS
5. HEAT SINK
6. PRESSURE SWITCH
7. POWER TRANSFORMER

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# ADDING THE HEAT SINK



Snap the Heat Sink into place.



# INSTALLING THE PRESSURE SWITCH



**GX1000**



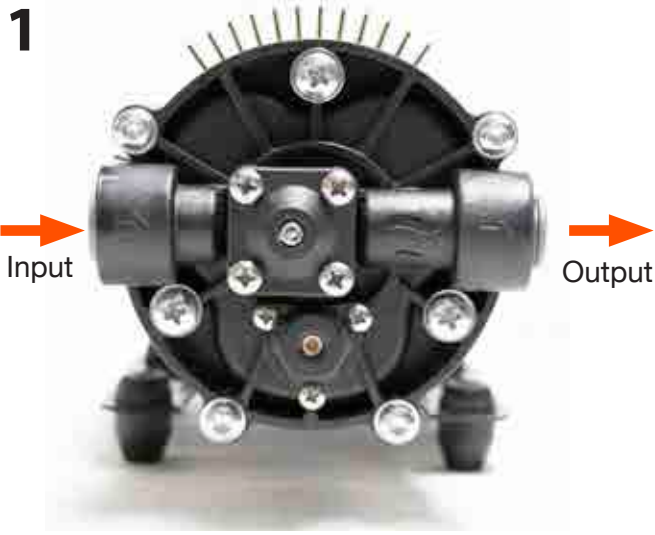
**EX800**



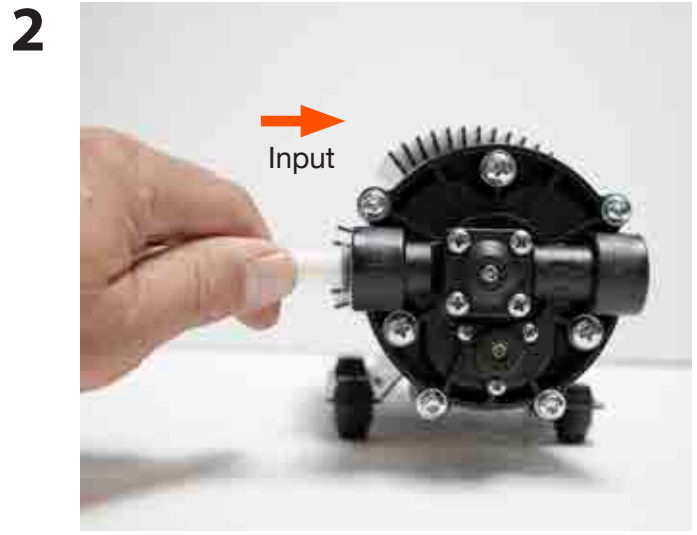
**EX1000**

Install the pressure switch on the product water line (RO out tubing) after the auto-shutoff valve. The switch can be installed in any direction.

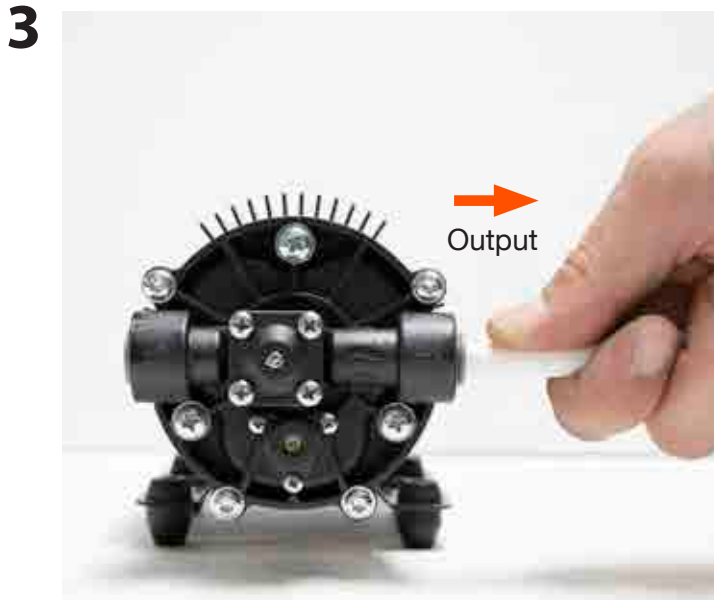
# PLUMBING INSTRUCTIONS



Make note of direction of flow prior to installation.



Connect feed water tubing to pump input.



Insert output tubing into pump output.

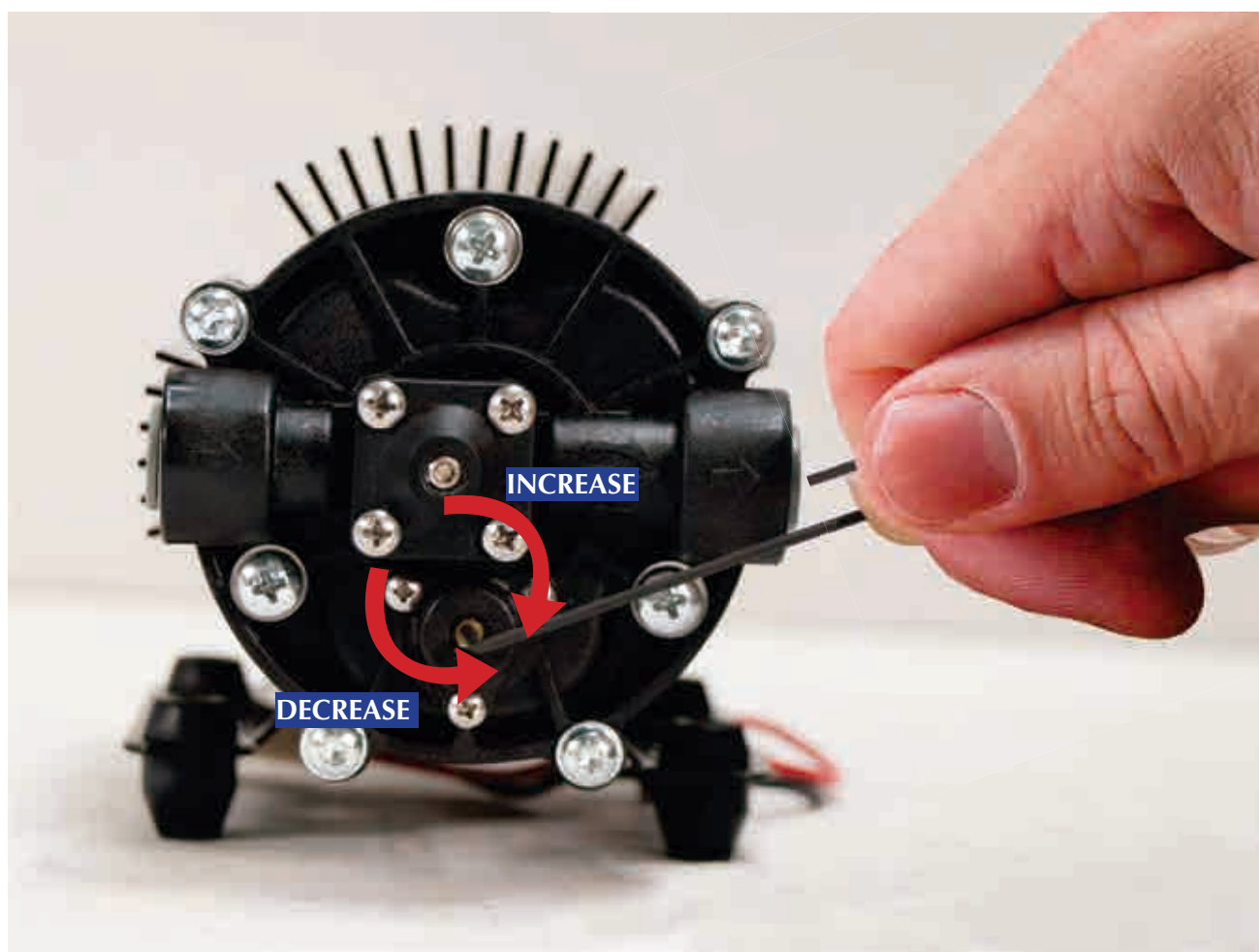


Insert output tubing into RO filter input.

# ADJUSTABLE INTERNAL BYPASS

The BP-1000 Booster Pump is equipped with an adjustable internal bypass valve, which controls the maximum operating pressure. The valve is located in the center of the triangular cap on the top of the pump head, between the input and output ports. To adjust, insert the included 1/16" Allen Wrench into the chrome adjustment screw. Turn clockwise to increase operating pressure. Turn counter-clockwise to decrease operating pressure. Do not exceed 80 psi operating pressure.

Reference the pressure gauge on the front of RO filter while adjusting the pump pressure.



Turn **CLOCKWISE** to increase operating pressure.  
Turn counter-clockwise to **DECREASE** operating pressure

# 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 product 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 product 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 product. 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.

## 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.

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