

# GROWONIX

TUNED FOR GROWING



## ESOK ELECTRONIC SHUT-OFF KIT OWNERS MANUAL

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



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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

1 : 1



- 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.
- Solenoid valve with manual override for failsafe water-making.



ESOK-1034-HF



ESOK-1034

## WHY USE A GROWONIX ESOK?

An essential add-on to almost any water filter! Shuts down feed water before the water filter. Controls on/off cycling of high pressure booster pumps. The electric shutoff kit consists of a float switch and solenoid valve. Mount the float switch in your water tank or nutrient storage tank. Install the solenoid valve on the front end of your water filter. When the tank level decreases to the desired amount, the float switch opens the solenoid valve, the booster pump (if installed) powers on, and the water system begins refilling the storage tank.

## WHAT'S THE DIFFERENCE BETWEEN ESOK AND ESOK-HF?

An ESOK-1034-HF is the high-flow version of our standard ESOK kit. All this means is the solenoid valve itself is NOT piloted, and thus when it opens, the orifice is such that you can see right through the valve. This design lends toward less pressure drop, and an overall higher flow rate—for applications that need to maximize GPD throughput.



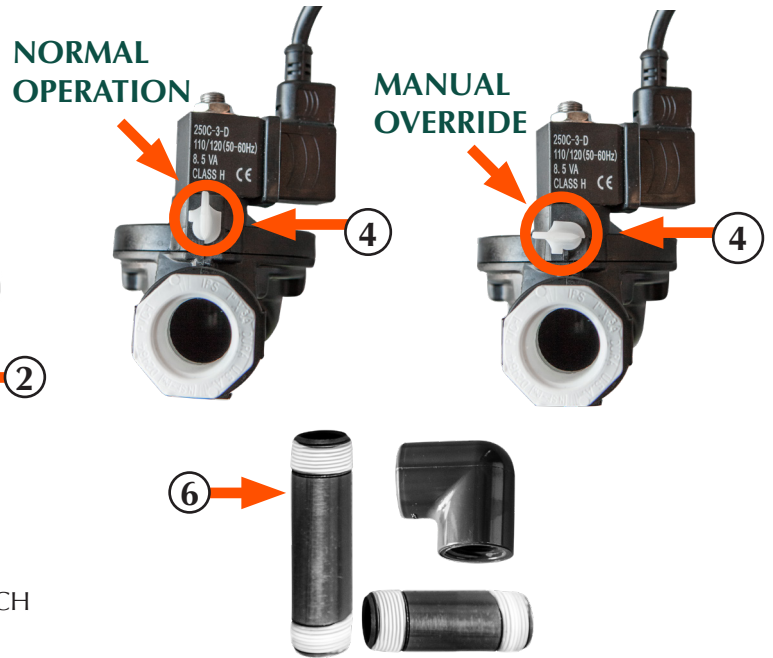
No Assembly Required

# ESOK COMPONENT DIAGRAM

## ESOK-1034



## SOLENOID MANUAL OVERRIDE SWITCH

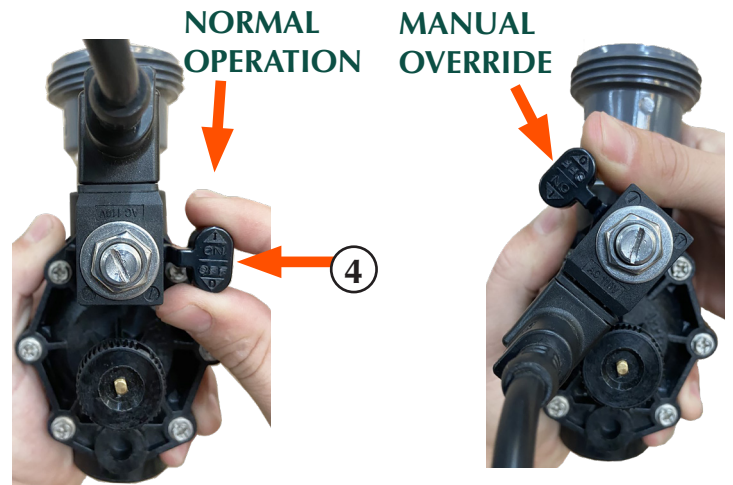


1. SOLENOID VALVE
2. FLOAT BALL SWITCH
3. FLOAT BALL PIGGYBACK CORD
4. SOLENOID VALVE MANUAL OVERRIDE SWITCH
5. SOLENOID VALVE (DIRECTION OF FLOW)
6. PVC COMPONENTS

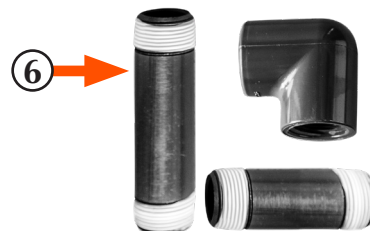
## ESOK-1034-HF



## SOLENOID MANUAL OVERRIDE SWITCH



1. SOLENOID VALVE
2. FLOAT BALL SWITCH
3. FLOAT BALL PIGGYBACK CORD
4. SOLENOID VALVE MANUAL OVERRIDE SWITCH
5. SOLENOID VALVE (DIRECTION OF FLOW)
6. PVC COMPONENTS





**DISCONNECT PUMP AND ALL COMPONENTS FROM ELECTRICAL SUPPLY, AND TURN OFF FEED WATER SUPPLY BEFORE CONNECTING THE ESOK.**



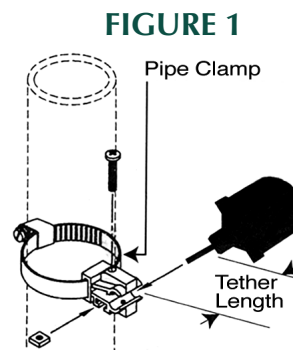
## INSTALLING THE SOLENOID VALVE

1. Remove the garden hose fitting from the water filter input and attach the supplied SCH80 PVC as shown above.
2. Install the solenoid valve on the input of the EX/GX1000, making sure valve is installed in the correct direction of flow. (see arrow stamped on valve housing and reference pg. 4).
3. Make sure the override switch is in the “Normal Operation” position (see: page 4).
4. Turn on feed water supply and check for leaks in the solenoid valve water connections.

## INSTALLING THE FLOAT BALL SWITCH

Normally closed float switches are closed while hanging “down”, and will open on a rising liquid level—typically used for “tank filling” applications.

1. Determine the desired cord tether length . See Figure 2.
2. Attach the Pipe Clamp at the desired location. See Figure 1.
3. Adjust the tether length to achieve the desired pumping range. Use Figure 2 as a guide and test the system by filling tank and cycling the system to achieve the actual desired pumping range. Tighten the clamp.



**FIGURE 2**

Tether Length	Pumping Range
4"	8"
5"	9"
6"	10"
7"	11"
8"	12"
9"	13"
10"	14"
11"	15"
12"	16"
13"	17"
14"	18"
15"	19"
16"	20"
17"	21"
18"	22"

### WARNING:

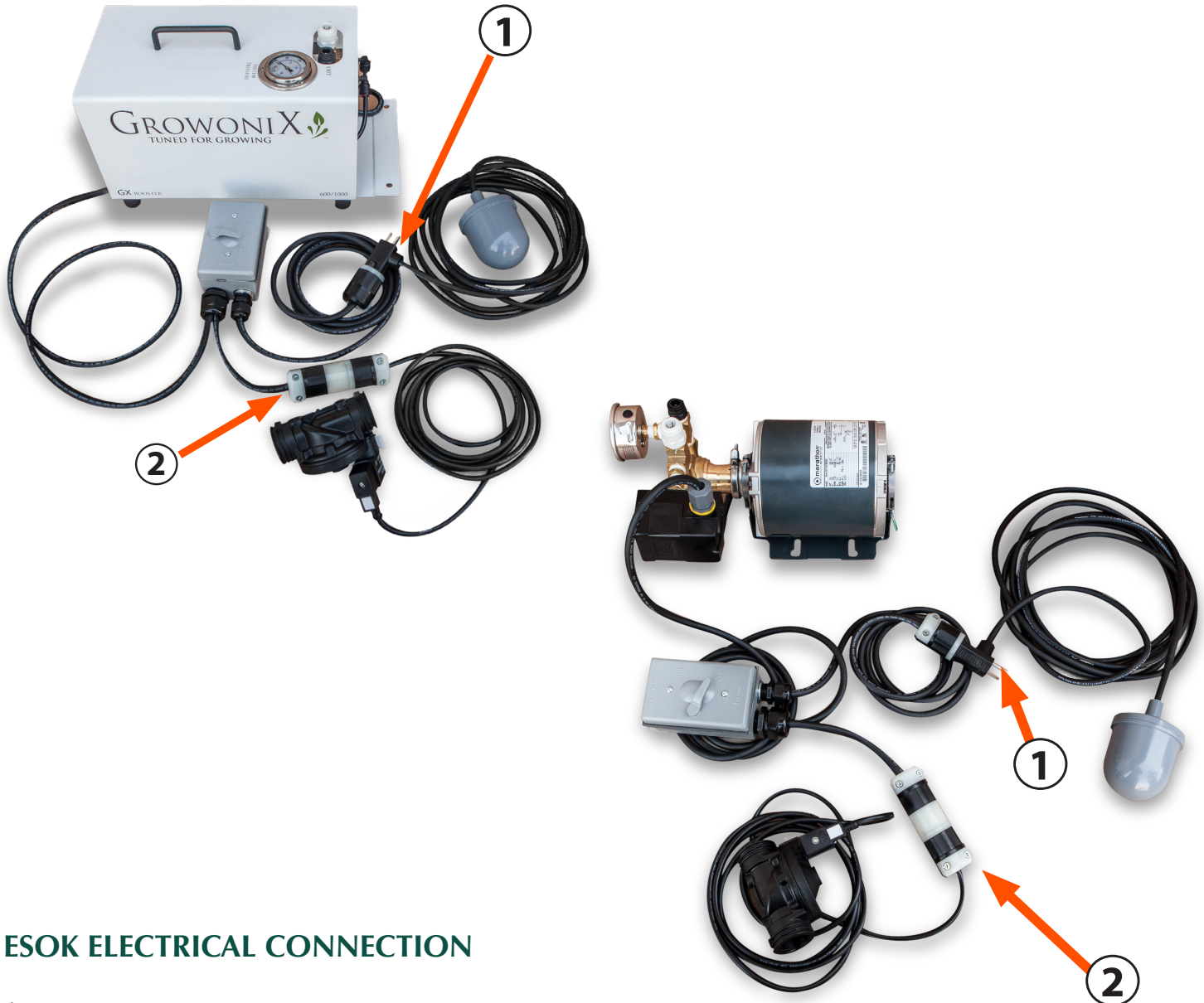
Read instructions thoroughly. Check local codes and install to meet requirements.

Turn off all power when installing or adjusting unit.

Failure to turn off all power could result in serious injury or death!

End user to provide overcurrent protection rated at 120VAC minimum, 13 Amps maximum.

# ESOK WIRING WITH 6010 SERIES PUMP



## ESOK ELECTRICAL CONNECTION

1. Attach the float ball piggyback cord to the male plug end from the pump control box.(1)  
The float switch will now govern whether current will flow to the pump control box or not.
2. Plug the solenoid valve into the female plug end extending from the pump control box (2).

- Float ball facing “UP” = current does not flow (pump off).
- Float ball facing “DOWN” = current flows (pump on).
- When pump control switch is “ON” **and** float ball is facing “DOWN” = current will flow to the solenoid valve and the valve will open.
- When pump control switch is “OFF” **or** the float ball is facing “UP” = no current will flow to the solenoid valve, and the pump will not run.

# 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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