# SeaWaterPro Watermaker Instructions







## <u>Thank you for purchasing the</u> <u>Sea Water Pro water maker.</u>

#### If you purchased the pressure washer pump, please make sure the soap line of your pressure washer is kinked and held with a zip tie or any other means, to prevent air from entering the water stream. It is bad for the membrane to introduce air at high pressures, it will harm the membrane. The high pressure line that comes with your pressure washer is not as heavy duty the ones that we include with the upgraded pumps and may form a kink during operation, therefore, restricting flow and reducing or interrupting water production. If you experience such symptoms please check the hose.

#### Installation.

All ports and fittings are numbered before shipment. Apply **10 rounds** of Teflon tape on all nylon or plastic threads and <u>tighten keeping in</u> <u>mind they are plastic.</u> You may add longer fittings and lines available at your local hardware store to your hearts content. The plastic tubes can be as long as you want them to be. Extra tubing is included in your kit. If you disassemble any of the stainless fittings use **10 rounds** of Teflon tape on the threads or "3M Scotch-Weld 62721 Hydraulic/Pneumatic Sealant HP45 purple" high pressure thread sealer 10,000 PSI.



Remove fitting from tube by pulling on the inner plastic ring.



If the water develops a smell it is time to clean or replace the filters.





Connecting the stainless 110/220 Motor.

- 1. Remove the rubber factory grommet
- 2. Install the strain relief connector
- Use wire nuts or screw terminals to secure the wires. (not included for liability purposes)
- 4. 115 volts (1+3+8 =L1 and 2+4+5 =L2)\*
- 5. 220 volts (1=L1, 2+3+8=tape, 4+5=L2)
- 6. Hot and neutral are interchangeable.

![](_page_5_Picture_8.jpeg)

### Self Priming dual stage Residential Boost Pump 115/220 VAC

![](_page_6_Picture_1.jpeg)

Position Tabs for 110 Volts

**Position Tabs for 220 Volts** 

### **Dual Membrane Layout**

![](_page_7_Picture_1.jpeg)

![](_page_7_Figure_2.jpeg)

If you purchased or just adding a second membrane, all the caps are prelabeled as seen in the pictures, follow the schematic above.

![](_page_7_Picture_4.jpeg)

![](_page_8_Figure_0.jpeg)

#### JIC 37° Flare (SAE J514)

Both the JIC male and JIC female have a 37° flare seat and straight threads. The male and female flare seats seal when the straight threads are engaged. The connection is held mechanically by the straight threads of the male and female halves. This connection requires no O-rings or Teflon tape, it is totally maintenance free and it has to be tight to work. **If this connection is leaking then it needs to be tightened more.** 

![](_page_8_Picture_3.jpeg)

#### **Connecting the new style priming pump**

![](_page_9_Picture_1.jpeg)

The yellow connector is included only with Karcher pumps.

The latest pump is not the same as the one on the video. It is a super quiet diaphragm pump designed to operate continuously.

The barb fitting connector is where you supply seawater. The other end of the priming pump goes to check valve labeled #5.

![](_page_9_Picture_5.jpeg)

#### **Startup procedure**

Check pre-filter condition, if they look contaminated replace them. You will need a 20 micron and 5 micron 10 inch filter available on-line or you local hardware store. The 10 inch filters are the most common size in the market and easy to find.

Turn on primer pump, run primer pump for 2 minutes. We don't want any air entering the membrane later when we operate at 800 psi. Observe water flowing in the overboard line.

2. Make sure high pressure needle valve is OPEN, counter clockwise. Never start the high pressure pump with the valve closed, the sudden pressure change will shock the membrane.

![](_page_10_Picture_4.jpeg)

3. Start the high pressure pump and let it run for about 15 seconds.

4. Over the course of 1 to 2 minutes, increase the operating pressure by closing the needle pressure valve. Observe pressure rising, at about **600** psi the membrane will start flowing fresh water.

#### Clockwise

![](_page_11_Picture_3.jpeg)

5. Keep increasing the pressure unit you reach **21** gallons /

![](_page_11_Picture_5.jpeg)

hour on the water flow gauge <u>OR</u> **900** psi of pressure. If you keep increasing the pressure the unit will produce more and more water ! However you will be exceeding manufacturer's normal operating limits.

![](_page_11_Picture_7.jpeg)

6. Observe the analyzer not to exceed 600 PPM, if you need to replace the membrane search for SW30-2540 on Amazon.

7. Avoid shutting off the high pressure pump under high pressure, the sudden pressure change will shock the membrane

8. Do not drink the fresh water from a new membrane during the first hour of operation in order to flush out any factory preservatives.

9. Never exceed 900 psi.

![](_page_12_Picture_4.jpeg)

10. Do not operate membrane above 120 degrees Fahrenheit or 45 Celsius, you will damage the membrane,,, i.e. engine compartment.

11. Never run chlorinated water, laundry detergent, fabric softener, lubricants like used motor oil, WD40, extra virgin olive oil, CLR, balsamic vinegar through the membrane, you guessed it, you will damage the membrane.

12. Operating your watercraft at high speeds may introduce air bubbles to the membrane, not good for your membrane.

That applies to all watermakers in the market.

![](_page_12_Picture_9.jpeg)

![](_page_12_Picture_10.jpeg)

#### Normal shut down procedure.

1. Turn pressure valve counter clockwise all the way.

 Turn off the high pressure pump by rotating switch to the left.

3. Turn off primer pump.

![](_page_13_Picture_4.jpeg)

KARCHER

![](_page_14_Picture_0.jpeg)

#### Rinsing.

Your unit comes with a rinse timer, some times known as back wash. In reality you never reverse the flow during rinse. You simply introduce fresh water to flush bacteria that are generated when not using the water maker. If your unit is not used for more than 5 days it is recommended that you rinse it with fresh water. Set the frequency to 3 days (72 hours) and the run time to 10 minutes.

Please make sure the needle valve is all the way <u>open</u> to allow the water to flow overboard. The carbon filter is there to remove chlorine that is harmful to the membrane. Replace carbon filter every 6 months.

#### **DC Boost Pump—Connecting the Control Panel**

![](_page_15_Picture_1.jpeg)

Not actual wiring, for visualization purposes only, consult with your electrician.

#### <u>Connecting the AC Motor—Control Panel</u>

![](_page_16_Picture_1.jpeg)

Not actual wiring, for visualization purposes only, consult with your electrician.

Black is HOT , White is neutral, MUST Ground the Motor !!

#### <u>Connecting the AC Motor—Control Panel</u>

![](_page_17_Picture_1.jpeg)

Not actual wiring, for visualization purposes only, consult with your electrician.

Black is HOT , White is neutral, MUST Ground the Motor !!

#### **Dimensions**

![](_page_18_Picture_1.jpeg)

![](_page_18_Picture_2.jpeg)

#### **Optional Remote Panel Dimensions**

![](_page_19_Picture_1.jpeg)

![](_page_19_Picture_2.jpeg)