
SpectraPure[®]
INNOVATORS IN WATER TECHNOLOGY

Eliminator RO-1000™
Reverse Osmosis Water Purification System



Eliminator RO-1000™

INSTALLATION AND OPERATING MANUAL

REV 2012-04-19

SpectraPure®

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Thank You for your purchase of a *SpectraPure® System*. *With proper installation and maintenance, this system will provide you with high quality water for years to come. All SpectraPure® products are rigorously tested by us for safety and reliability. If you have any questions or concerns, please contact our customer service department at 1.800.685.2783.*

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The Eliminator RO™ -1000 System is a low-waste RO system that has been specifically designed for hydroponic, vegetable and flower gardens. Purified water grows healthier, more beautiful and longer-lasting plants than ordinary tap water. The Eliminator RO™ Systems maximize nutrient uptake and stabilize pH for faster growth and greater yields while eliminating up to 98% of contaminants harmful to plant growth. Your plants will flourish with our “better than rain” quality water.
Dimensions: 16” H x 15” W x 7” D

The Eliminator RO™ Systems come complete with:

- 1000 gallon per day, high-rejection Spectrapure advanced thin-film membrane in the Eliminator RO™-1000
- 1:1 waste ratio produces 70% less waste water
- Long-life high-efficiency 10 micron sediment filter
- Highest-capacity 1 micron carbon block pre-filter eliminates chlorine, herbicides and other organic pollutants
- Automatic Flush Control for longer membrane life
- Automatic Shut-Off Valve saves water
- In-line ball valve for manual system shut off
- Float valve for unattended operation
- “Big Grey” filter housings
- Pressure gauge indicates when to change prefilters
- Durable, no rust mounting bracket
- 10-foot feed tubing, 10-foot product and 5-foot waste tubing included
- Housing wrench for easy filter removal
- Garden hose adapter for tap water hookup
- 3-year warranty

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SYSTEM SPECIFICATIONS:

Sediment Pre-Filter	10 micron "Big Grey" sediment pre-filter
Carbon Filter	1 micron "Big Grey" carbon block pre-filter
RO Membrane Type	Thin-Film Composite (TFC)
Rejection Rate	greater than 94%, 98% typical
Input Water Pressure	80 psi (4.15 bar) line pressure*
Input Water Temp	77°F (25°C)
Recovery Rate	50% (i.e. 50% of the water will be collected as pure water)

Nominal Membrane Flow Rates @ 60 psi, 77° F, & 500 ppm TDS :

GPD	Product Water Flow Rate	Concentrate Flow Rate
1000	2630 ml/min	2630 ml/min

Reverse Osmosis Feed Water Requirements

For the 1 year TFC membrane pro-rated warranty to be honored, the following conditions must be met:

Operating Pressure*	At least 40 psi.
pH Range	3 – 11
Maximum Temperature	100° F (38° C)
Maximum Turbidity	1.0 NTU
Maximum Silt Density Index	5.0 (based on 15 min. test time)
Maximum Chlorine	less than 0.1 ppm at the membrane
Maximum TDS	1000 ppm
Maximum Iron	less than 0.1 ppm
Maximum Manganese	less than 0.1 ppm
Maximum Hydrogen Sulfide	0 ppm
Langlier Saturation Index	LSI must be negative

*Operating pressure less than 40 psi may require a booster pump:

SpectraPure®Inc. Assumes no responsibility for water damage due to leaks. It is the user's responsibility to determine that the system is leak-free.

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SYSTEM DESCRIPTION:

The ELIMINATOR™ System gives you a continuous supply of sparkling clear water for hydroponics, etc. The reliability with the ELIMINATOR™ Water Treatment System puts high quality water at your fingertips.

It is greatly improved over other systems and costly maintenance can be greatly reduced. The incoming feed water from a cold water source is directed through a Garden Hose and is first passed through a 10 micron sediment pre-filter. This filter is used to remove excessive turbidity, sand, dust, silt, etc., that would otherwise cause the carbon filter to plug up. The next stage of filtration is the 1 micron carbon block pre-filter. This filter is used to remove organics and chlorine from the feed water that can damage the membrane. The final stage of the system is the RO membrane.

Household water pressure (at least 40 psi) is used to force the filtered tap water through the semipermeable RO membrane. The membrane only allows the purest of water molecules to pass through it while over 98% of most inorganic salts, all microorganisms and almost all high molecular weight organics in the water are rejected and automatically rinsed from the membrane and sent down the drain. There is a short, thin capillary tube (called a Flow Restrictor) located between the ASO Valve and the Pressure Switch that restricts and regulates the amount of water that goes to drain. This water is necessary to help keep the membrane flushed free of pollutants.

An Automatic Shut-Off Valve (ASO) and Float Valve are provided for convenient filling of a storage reservoir. In the reservoir, the increasing water level raises the Float Valve and eventually stops the flow of water. Pressure builds up in the product line and ASO Valve until the ASO Valve shuts off the flow of waste water to

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drain. This “OFF” condition will be maintained until the reservoir needs more water and the Float Valve drops, allowing both product and waste water to flow again.

NOTE: This configuration maintains house pressure in the pre-filters, membrane, and pressure gauge when in the “OFF” condition. Also, this system WILL NOT WORK with any kind of “bladder tank” attached to the product line.

An optional float kit can be used for filling an additional sump or reservoir. Our Float Kit (ELIM-SPFK-6) includes a Float Valve and 3/8” Union Tee.

An Automatic Flush Control system (AFC) is used to periodically rinse the accumulated impurities and concentrated waste water from the surface of the RO membrane to help increase the life of the membrane. The AFC will flush the membrane for a short period at start-up, every hour during operation, and at shut-down.

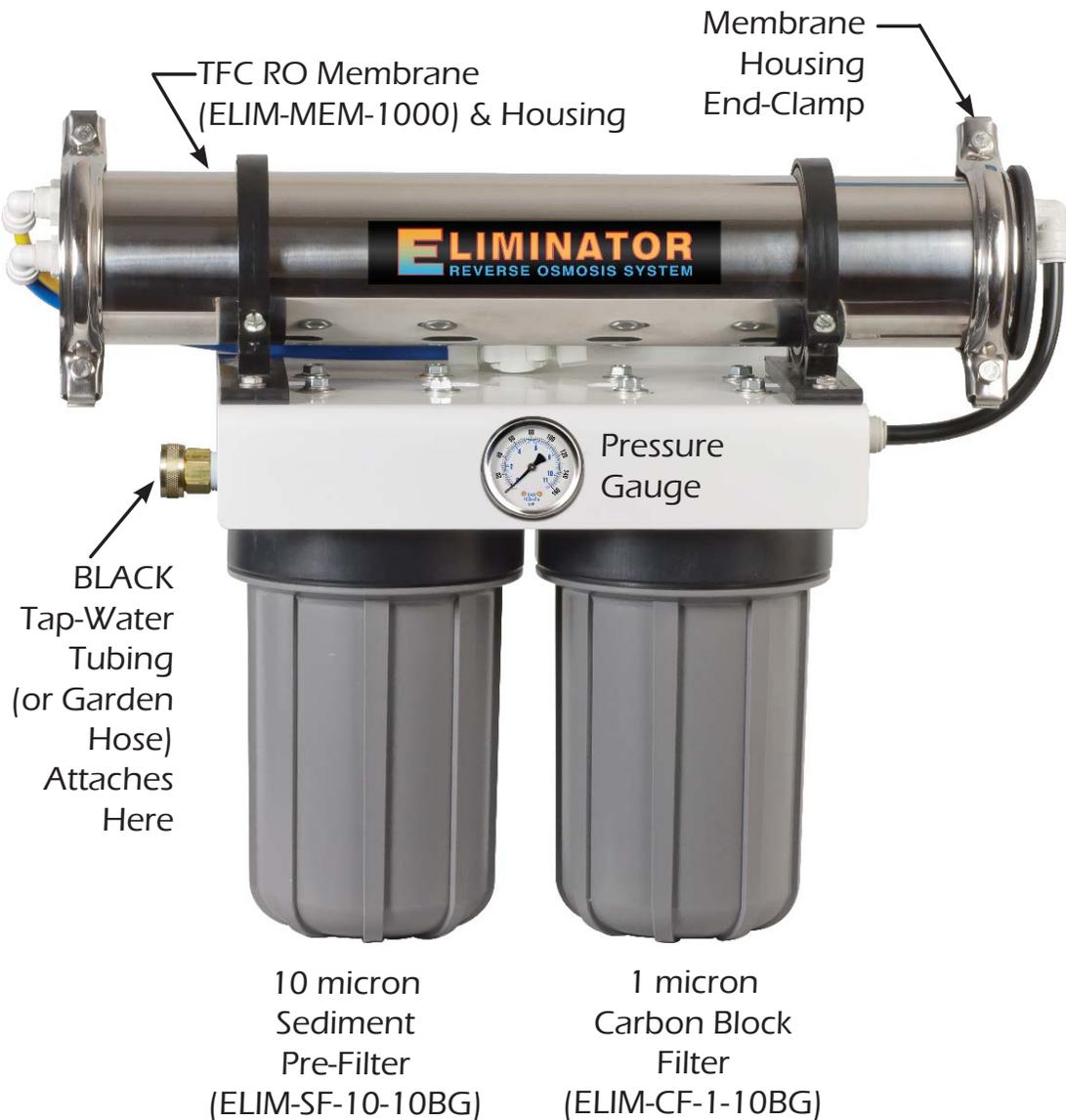
An optional Booster Pump can be added for tap-water pressures below 40psi. With some extra 3/8” black tubing, install the pump AFTER the carbon filter and BEFORE the input to the membrane. Replace the small, original power supply with the power supply that comes with the pump. Connect the pump power to the red/black connector on the AFC.

An optional dual-probe TDS meter can be added to monitor tap-water and RO water purity. Special 3/8” x 3/8” x 1/4” tees are required for installation.

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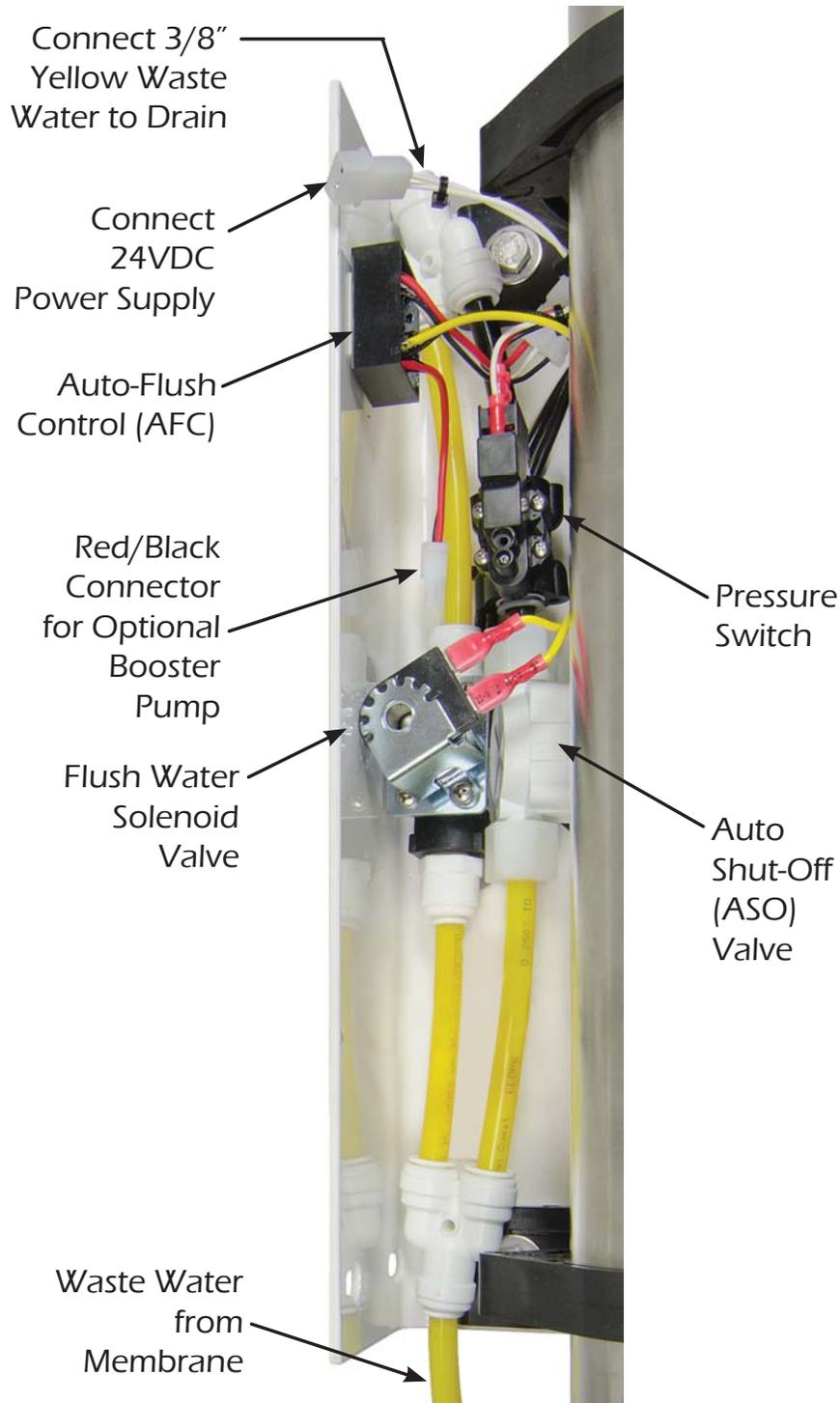
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FRONT VIEW - 1000 GPD:



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REAR VIEW - 1000 GPD:



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WORKING WITH PUSH-FITTINGS:

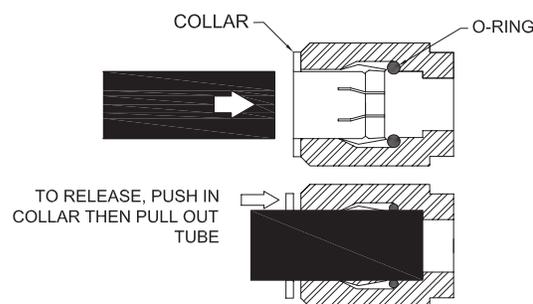
Push-fittings are very reliable and convenient tubing connectors.

To remove the tubing from its push-fitting:

1. Firmly depress and hold the push-fitting collar down with your thumbnail.
2. While the push-fitting collar is depressed, pull the tubing straight out of the push-fitting. Once the tubing is removed, release the collar.

To re-insert the tubing into its push-fitting:

1. Moisten the O-ring seal inside the push-fitting by dripping a few drops of clean water into the fitting.
2. Grasp the tubing near the end, and insert the tubing into the push-fitting.
3. Push the tubing into the fitting until resistance is felt, approximately 1/2 inch (12.7 mm). The tubing is now resting on the O-ring seal inside the fitting.
4. Firmly push the tubing approximately an additional 1/4 inch (6.35 mm) further into the fitting to completely seat the line into the fitting and past the O-ring seal.
5. Turn on the system water supply and check for leaks prior to further use or testing. If a leak is observed, you may not have pushed the tubing into the push-fitting far enough to seal the tubing against the O-ring. Turn off the system water supply and re-seat the tubing as described above.



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SYSTEM INSTALLATION & INITIALIZATION:

1. Most of the components of this system are plastic and are subject to damage by ultraviolet light from the sun and other sources such as metal halide lighting.
2. Avoid installing this unit in an area where it may be subjected to bright light or direct sunlight, as algae is more likely to thrive inside the filter housings when exposed to bright light.
3. The unit must be kept out of areas that are subject to freezing temperatures.
4. High temperatures greater than 100° F (38° C) must be avoided. If the unit is used outside, avoid putting the system in direct sunlight or connecting it to a garden hose that may be exposed to sunlight.
5. Attach the black tubing (or Garden Hose) to the left side of the Sediment Filter Housing (See page 7). Never run hot water (greater than 100° F (38° C)) through the system.
6. Insert the right-angle push fittings (connected to the blue and yellow tubings) into the proper ports on the membrane housing (see page 7).
7. Attach the yellow drain line to the "Y"-connector at the right rear of the system.
8. Attach the blue product line to the open port of the ASO Valve (see page 8).
9. Place the **yellow concentrate (waste) tubing** and the **blue purified (product) water tubing** temporarily into a drain. Do not restrict flow from these lines.
10. Open the cold water supply valve. Note the pressure and write it down for future reference. The pressure should be at least 40 psi.
11. **Check the system to ensure that all fittings are tight and leak-free before leaving the system unattended. (If anything is leaking, contact SpectraPure for assistance.)**
12. Note: It is recommended that at least 2 gallons (7.57 liters) of purified water be discarded now before collecting purified water for use. If the unit is not used for several days, run the system for at least 10 minutes

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before collecting any water. This will flush out any stale water in the system.

13. Finish the installation by directing the yellow line to a drain.
14. Install the included Float Valve onto a collection reservoir.
15. Attach the blue product line to the Float Valve.

INSTALL THE FLOAT VALVE:

1. Drill a 1/2" hole near the top of your reservoir:
2. NOTE: If you are installing the Float Valve onto an acrylic tank we recommend using a new Fostner Bit to reduce the chance of cracking the acrylic.
3. (Refer to Diagram on next page) Remove the white adaptor from the float body.
4. Unscrew and remove the remaining nut from the float body.
5. Insert the float body and washer into the 1/2" hole and tighten the nut, which securely tightens the float to the tank wall.
6. Re-install the white adaptor onto the protruding threads of the float body.
7. Connect the blue 3/8" tubing to the white adaptor push-fitting.

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HOW IT WORKS:

The increasing water level raises the Float Valve in the reservoir and stops the flow of water. Pressure builds up in the product line and ASO Valve until the ASO Valve shuts off the flow of waste water to drain. This "OFF" condition will be maintained until the reservoir needs more water and the Float Valve drops, allowing both product and waste water to flow again.

NOTE: This configuration maintains house pressure in the pre-filters, membrane, and pressure gauge when in the "OFF" condition. Also, this system **WILL NOT WORK** with any kind of "bladder tank" attached to the product line.

An optional float kit can be used for filling an additional sump or reservoir. Our Float Kit (ELIM-SPFK-6) includes a Float Valve and 3/8" Union Tee.

AUTOMATIC FLUSH CONTROL:

The AFC controls an electric flush water solenoid valve that is located in parallel with the flow restrictor and, when actuated, provides a high flow by-pass of waste water used to purge concentrated brine from the membrane housing. This is especially critical in hard-water conditions. At the beginning and end of a production cycle, as well as every hour, a short flush occurs, rapidly flushing any particulates and hardness from the membrane surface.

An optional Booster Pump can be added for tap-water pressures below 40psi. With some extra 3/8" black tubing, install the pump **AFTER** the carbon filter and **BEFORE** the input to the membrane. Replace the small, original power supply with the power supply that comes with the pump. Connect the pump power to the red/black connector on the AFC.

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SEDIMENT PRE-FILTER REPLACEMENT:

A Sediment Filter will usually last approx. 4-6 months, depending on the quality of the tap water and quantity of water being produced. (The life span of the filter is determined by the turbidity, iron content, organics, and total particulate volume in your water source). The best way to determine when your Sediment Pre-Filter needs replacement is to monitor the Pressure Gauge. When you have a drop in pressure of 15-20% below your normal gauge pressure, replace the filter. To verify this, run water through the system without the filter in its housing. If the pressure returns to your normal house pressure without the filter, you will know the filter you just took out was plugged up and causing the pressure drop.

****NOTE:** A drop in the system's production is, in most cases, an indication that the sediment filter has become saturated with contaminants and will need to be replaced. If you remove the sediment and the pressure does not return to normal, the carbon filter may be plugged. If your water contains a great deal of sediment or chlorine, the pre-filters may require more frequent changes to maintain adequate production rate and extended membrane life.

Sediment Pre-Filter Replacement

Materials Required: 10-micron Sediment Filter (ELIM-SF-10-10BG),
Filter Wrench

Procedure:

1. Turn off water supply to the system.
2. Using the provided filter housing wrench, remove the first housing on the left. Unscrew it clockwise as viewed from the top.
3. Remove the old filter and discard.
4. Thoroughly wash the housing with a mixture of hot soapy water and a few teaspoons of household bleach. Rinse well with clean hot water.
5. Insert the new pre-filter into the housing, Screw the housing back onto the assembly and hand-tighten **only**.
6. **NOTE: Do not use filter wrench to tighten housings. Over-tightening will damage housings and void your warranty.**
7. Proceed with carbon block filter replacement.

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CARBON BLOCK FILTER REPLACEMENT:

A Carbon Filter will usually last 4-6 months, depending on the chlorine (or chloramine) content of your tap water and quantity of water being produced. The best way to determine when your Carbon Block Pre-Filter needs replacement is to use a chlorine test kit.

Any chlorine level above 0.1 ppm will cause damage to the membrane and indicates that the carbon block filter must be changed. To test for chlorine breakthrough, collect a 10 ml sample of the concentrate from the yellow tubing and test the chlorine concentration using test kit TK-CL-5-KIT. If the chlorine concentration is above 0.1 ppm, replace the carbon pre-filter.

****NOTE:** A drop in the system's production is, in most cases, an indication that the sediment filter has become saturated with contaminants, but a carbon filter can also decrease production if it's covered with extremely fine sediment. If the carbon becomes plugged with sediment, it will no longer be able to remove chlorine.

Carbon Block Filter Replacement

Materials Required: 1 micron Carbon Block Filter (ELIM-CF-1-10BG), Filter Wrench, Chlorine Test Kit (TK-CL-5-KIT)

Procedure:

1. Turn off water supply to the system.
2. Using the provided filter housing wrench, remove the second housing from the left. Unscrew it clockwise as viewed from the top.
3. Remove the old filter and discard.
4. Thoroughly wash the housing with a mixture of hot soapy water and a few teaspoons of household bleach. Rinse well with clean hot water.
5. Insert the new carbon block filter into the housing, Screw the housing back onto the assembly and hand-tighten **only**.
6. **NOTE: Do not use filter wrench to tighten housings. Over-tightening will damage housings and void your warranty.**
7. Turn on system water supply and check for leaks.

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RO MEMBRANE REPLACEMENT:

1. Turn off the water supply to the RO system. Place the system where the membrane housing can be easily accessed.
2. Remove the black tubing from the membrane feed push-fitting by depressing the collar on the fitting with your thumb and pulling the tubing from the push-fitting. You should not have to remove the blue and yellow tubes.
3. Remove the nuts that bolt the membrane housing end-clamps together. This will allow you to remove the black end plug.
4. Use a pair of pliers to grasp the membrane stem and pull the membrane from the housing.
5. Remove the black housing O-ring. Wash the empty housing with soapy water. Rinse thoroughly with hot, clean water.
6. Insert the new membrane into the housing, with the black "brine-seal" to the outside. When the membrane is aligned with the plug at the far end, firmly push the membrane in until it bottoms out.
7. Place the black housing O-ring on the housing rim and carefully re-install the end-plug. Re-install the membrane housing end-clamps.
8. Reconnect the black tubing to the membrane feed push-fitting.
9. Open the Flush Valve and turn on the water supply. Allow the system to flush for several minutes to remove any loose particles.
10. Close the Flush Valve and check for leaks.

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RO MEMBRANE DIAGNOSTICS:

In order to accurately determine the condition and performance of the RO Membrane, a conductivity tester capable of reading the tap water conductivity (or TDS) and the product water conductivity (or TDS) would typically be required.

You may also use an alkalinity test kit (on softened water sources) or a hardness test kit (on non-softened water sources).

Note: All water sources are different and are subject to changes in conductivity from season to season which could affect the TDS reading depending on the time of the year. For this reason, we recommend the use of a conductivity (TDS) tester in order to determine the most accurate measurement for determining the condition of the RO membrane.

TESTING THE QUALITY OF THE MEMBRANE:

The performance of a RO membrane is measured by its ability to reject salts or TDS (Total Dissolved Solids). This procedure will require a TDS Meter. SpectraPure offers several models:

ELIM-MTR-TDS-EZ	HM Digital Hand-held TDS Meter
ELIM-MTR-TDS-DM2	HM Digital In-Line Dual Probe TDS Meter

Procedure:

1. Measure tap water TDS. (Call it X)
2. Run the system for 15-20 minutes.
3. Rinse test instrument cell 2-3 times with RO water.
4. Measure RO water TDS directly from the blue product water line. (Call it Y).
5. Subtract RO water TDS from tap water TDS. (X - Y)
6. Divide this quantity by tap water TDS. $(X - Y) \div X$
7. Rejection = $[(X - Y) \div X] \times 100$

TDS in the above procedure is measured in ppm or mg/l.

Important: Test the quality of the membrane once every 6 months.

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Rejection of the RO Membrane Calculation Example

1. Tap water TDS = 800 ppm (X)
2. RO water TDS = 40 ppm (Y)
3. $X - Y = 760$ ppm
4. $(X - Y) \div X = 760 \div 800 = 0.95$
5. Rejection = $[(X - Y) \div X] \times 100 = 0.95 \times 100 = 95\%$

Rejection rates less than 95% may indicate that the membrane should be replaced.

MEMBRANE PRODUCTION CALCULATION:

Membranes produce the rated gallons per day (GPD) at 80 psi operating pressure, 77°F (25°C) operating temperature and with no more than 500 ppm total dissolved solids.

Membrane output gallons per day (GPD) depends on operating pressure, water temperature and the TDS in the feed water.

Expected GPD = Rated GPD × PCF × TCF

PCF is the pressure correction factor

TCF is the temperature correction factor

Calculation of Pressure Correction Factor (PCF): The output (GPD) from the membrane is directly proportional to the applied pressure.

Note: The membrane is rated to produce the rated GPD at 80 psi. For any pressure other than 80 psi the output GPD is multiplied by the PCF.

$PCF = \text{Line Pressure (in psi)} \div 80$

Calculation of Temperature Correction Factor (TCF): The output (GPD) decreases with a decrease in temperature. This is due to water viscosity increasing with a decrease in water temperature.

Temperature Correction Factor Table (TCF)

°F / °C	TCF	°F \ °C	TCF	°F \ °C	TCF
41.0 / 5	0.521	59.0 / 15	0.730	77.0 / 25	1.000
42.8 / 6	0.540	60.8 / 16	0.754	78.8 / 26	1.031
44.6 / 7	0.560	62.6 / 17	0.779	80.6 / 27	1.063
46.4 / 8	0.578	64.4 / 18	0.804	82.4 / 28	1.094
48.2 / 9	0.598	66.2 / 19	0.830	84.2 / 29	1.127
50.0 / 10	0.620	68.0 / 20	0.857	86.0 / 30	1.161
51.8 / 11	0.640	69.8 / 21	0.884	87.8 / 31	1.196
53.6 / 12	0.661	71.6 / 22	0.912	89.6 / 32	1.232
55.4 / 13	0.684	73.4 / 23	0.941	91.4 / 33	1.267
57.2 / 14	0.707	75.2 / 24	0.970	93.2 / 34	1.304

Membrane Output Calculation Example

What is the expected GPD from a 1000 GPD System at 50 psi pressure and 60°F water temperature?

$$PCF = 50 \div 80 = 0.625$$

$$TCF = 0.754 \text{ (from Table above)}$$

$$\text{Expected GPD} = 1000 \times 0.625 \times 0.754 = 471 \text{ GPD } (\pm 15\%)$$

471 GPD (± 15%) would be the Actual Production Rate

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TIPS FOR LONG MEMBRANE LIFE:

1. Replacement of 10 micron sediment filter at least once every 6 months. This will prevent membrane fouling due to silt or sediment depositing on the membrane.
2. Replacement of 1 micron carbon block filter at least once every 6 months or when chlorine breakthrough occurs. This will ensure good membrane life and protect the membrane from chlorine damage.
3. Membrane should not be operated at lower than the minimum 1:1 concentrate to purified water ratio.
4. Operating reverse osmosis systems on softened feed water greatly reduces the chances of membrane fouling.

STORAGE

1. It is recommended that you store your RO System in a cool and dark place when not being used.
2. Your RO System must always be protected from freezing or temperatures above 100° F (38°C).

TROUBLESHOOTING GUIDE:

Product Water - Low Production Rate

Cause	Corrective Action
Plugged pre-filters	Replace pre-filters
Low water temperature	Warm-up feed water or use higher GPD membrane
Low water pressure	Use booster pump
Fouled membrane	Replace membrane

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TERMS AND CONDITIONS:

1. Shipping charges on units or parts submitted to our facility for repair or replacement must be borne by the registered purchaser. After repair or replacement, the factory will return the unit or part freight prepaid to the customer.
2. We assume no warranty liability in connection with our equipment other than as herein specified.
3. This warranty is in lieu of all other warranties expressed or implied, including warranties of fitness for a particular purpose.
4. We do not authorize any person or representative to assume for us any other obligation on the sale of our equipment. This is the exclusive remedy and liability for consequential damages under any and all warranties which are excluded to the extent exclusion is permitted by law.
5. Proof of original purchase date must accompany all warranty claims.
6. SpectraPure, Inc. reserves the right to change prices without notice when necessary. All prices in the catalog are quoted in US dollars.
7. Claims for error in quantity or condition must be made within 10 days of receipt of material. SpectraPure, Inc. will not be responsible for any claimed shortages not reported within 10 days. Returns other than warranty claims may be subject to 20% restocking fee.
8. SpectraPure, Inc. cannot be held liable for damage or loss to a shipment by a freight carrier. Check shipment for damage before acceptance or note on freight bill subject to inspection for concealed damage. Consignee must file claim. SpectraPure, Inc. will offer as much assistance as possible.
9. A complete credit check is required prior to shipping on a Net 30 or "C.O.D. - CUSTOMER CHECK ACCEPTABLE" basis. In the interim period during which credit references are being evaluated, all orders must be shipped "C.O.D. - CERTIFIED FUNDS" (cash, cashiers check or money order).
10. All returned checks (due to insufficient funds or closed accounts) will be subjected to a **\$25 penalty charge**.
11. Invoices on Net 30 accounts not paid within 30 days of shipment will be considered delinquent and will accrue Finance charges at the rate of 1.5% per month (18% per annum).

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THREE YEAR LIMITED WARRANTY:

Effective on products purchased after March 10, 2005.

SpectraPure, Inc.® warrants the product to the original owner only to be free of defects in material and workmanship for a period of three years from the date of receipt. SpectraPure's liability under this warranty shall be limited to repairing or replacing at SpectraPure's option, without charge, F.O.B. SpectraPure's factory, any product of SpectraPure's manufacture. SpectraPure will not be liable for any cost of removal, installation, transportation or any other charges which may arise in connection with a warranty claim. Products which are sold but not manufactured by SpectraPure are subject to the warranty provided by the manufacturer of said products and not by SpectraPure's warranty. SpectraPure will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair or, if the product was not installed in accordance with SpectraPure's or other manufacturer's printed installation and operating conditions, or damage caused by hot water, freezing, flood, fire or acts of God.

SpectraPure will not be responsible for any consequential damages arising from installation or use of the product, including any water or mold damage due to flooding which may occur due to malfunction or faulty installation, including, but not limited to failure by installer to over- or under-tighten fittings, housings, and/or push-style fittings, or improper installation of push-style fittings. Consumable items such as pre filters and membranes are not covered under the 3 year warranty.

SpectraPure warrants (pro-rated) the performance of tested SpectraSelect™ RO membrane elements only, for one year from date of receipt by the buyer, providing that the loss of performance was not caused by fouling, neglect or water conditions exceeding the feed water parameters listed in the applicable product manual (refer to detailed membrane warranty information). SpectraPure will, on confirmation of loss of performance during the warranty period, credit the pro-rated amount of the current catalog price of the element. The disposable filters and cartridges are not covered under the warranty.

To obtain service under this warranty, the defective system or components must be returned to SpectraPure with proof of purchase, installation date, failure date and supporting installation data. Any defective product to be returned to the factory must be sent freight prepaid; documentation supporting the warranty claim and a Return Goods Authorization (RGA) number must be included. SpectraPure will not be liable for shipping damages due to the improper packaging of the returned equipment and all returned goods must also have adequate insurance coverage and a tracking number.

SpectraPure will not pay for loss or damage caused directly or indirectly by the presence, growth, proliferation, spread or any activity of "fungus", wet or dry rot or bacteria. Such loss or damage is excluded regardless of any other cause or event that contributes concurrently or in any sequence to the loss. We will not pay for loss or damage caused by or resulting from continuous or repeated seepage or leakage of water, or the presence or condensation of humidity, moisture or vapor, that occurs over a period of 14 days or more. "Fungus" and "fungi" mean any type or form of fungus or Mycota or any by-product or type of infestation produced by such fungus or Mycota, including but not limited to, mold, mildew, mycotoxins, spores, scents or any biogenic aerosols.

SpectraPure will not be liable for any incidental or consequential damages, losses or expenses arising from installation, use, or any other causes. There are no expressed or implied warranties, including merchantability or fitness for a particular purpose, which extend beyond those warranties described or referred to above.

*** The three year limited warranty does not apply to consumable items, including but not limited to, filters and cartridges unless specifically stated above**

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OPTIONAL ACCESSORIES:

CLONE MASTER DI (ELIM-DI-CMCI-KIT)- Delicate plant cloning requires some of the purest water on the planet, even beyond that produced by traditional RO systems. By adding the SpectraPure CloneMaster DI™ stage to your existing Eliminator™ RO system you can produce the ultra-purified water necessary for these delicate growth challenges.

BOOSTER PUMP KITS (ELIM-BPK-1000)- SpectraPure® Booster Pump Kits are ideal for use on water sources with pressures below 40 psi such as private wells, gravity feed water systems and high-rise apartments. A pressure gauge is necessary to monitor the booster pump pressure.

ADDITIONAL FLOAT VALVE KIT (ELIM-SPFK-6) - Add a second or multiple float valves to existing system.

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REPLACEMENT PARTS:

Part Number	Description
ELIM-SF-10-10BG	10 micron Big Grey Sediment Filter
ELIM-CF-1-10BG	1 micron Big Grey Carbon Block Pre-Filter
ELIM-MEM-1000	1000 gpd TFC Membrane
ELIM-FR-1000	Flow Restrictor for 1000 gpd System
ELIM-GHA-6	3/8" Garden Hose Adapter for 400 gpd
ELIM-BV-4JG	1/4" Ball Valve
ELIM-BV-6JG	3/8" Ball Valve
WR-SW-4	Filter Wrench for "Big Grey" Housings

OTHER ACCESSORIES:

Part Number	Description
ELIM-MTR-TDS-EZ	Hand-held TDS Meter
ELIM-MTR-TDS-DM2	In-Line Dual-Probe TDS Meter
ELIM-MTR-PH80	Hand-held pH Meter
ELIM-SPFK-6	3/8" Float Valve and Tee
TK-CL-5-KIT	Total Chlorine Test Kit w/ 5 tabs
TK-CL-10TABS	Refill Kit w/ 10 Tabs

UPGRADE FILTERS:

Part Number	Description
ELIM-SF-0.5-10BG	Hi-Performance 0.5 micron Sediment Filter
ELIM-CF-0.5-10BG	Hi-Performance 0.5 micron Carbon Filter