SpectraPure®
INNOVATORS IN WATER TECHNOLOGY

The CSPDI™ RO/DI System

Reverse Osmosis/Ion Exchange Water Purification System

INSTALLATION AND OPERATING MANUAL

WARNING

Please read carefully before proceeding with installation. Failure to follow any attached instructions or operating parameter may lead to the product's failure and possible damage to property.

2019-10-22

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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 or refer to our online troubleshooting at www.spectrapure.com.

Warning: SpectraPure does not recommend drinking deionized water.

SYSTEM SPECIFICATIONS:

Sediment Prefilter	0.5 micron MicroTec™ sediment prefilter (SF-MT-0.5-10)
Carbon Filter	0.5 micron carbon block prefilter (CF-0.5-10)
RO Membrane Type	SpectraPure Standard Thin-Film Composite (TFC)
DI Cartridge	Non Color-Indicating SilicaBuster™ Mixed-Bed
Rejection Rate	98% average
Input Water Pressure	60 psi (4.15 bar) line pressure*
Input Water Temp	77°F (25°C)
Recovery Rate	20% (i.e. 20% of the water will be collected as pure water)

Dimensions:

CSPDI-180	15" W x 18" H x 7" D (Two Membranes)
CSPDI-90	15" W x 16" H x 7" D (One Membrane)

Nominal Membrane Flow Rates @ 60 psi, 77° F, & 250 ppm TDS :

GPD	Product Water Flow Rate	Concentrate Flow Rate (2:1)
90	235 ml/min	940 ml/min
180	470 ml/min	1880 ml/min

Reverse Osmosis Membrane Feed Water Requirements:

For the 1 year SpectraPure TFC membrane prorated warranty to be honored, the following conditions must be met:

Operating Pressure*	40 – 80 psi (2.75 – 5.5 bar)
pH Range	3 – 11
Maximum Temperature	113° F (45° 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
Maximum TDS	2000 ppm
Maximum Hardness	10 grains (170 ppm as CaCO3)
Maximum Iron	less than 0.1 ppm
Maximum Manganese	less than 0.1 ppm
Maximum Hydrogen Sulfide	0 ppm
Langelier Saturation Index	LSI must be negative

*Operating pressure less than 40 psi may require a booster pump:
Operating pressure greater than 80 psi may require a pressure regulator.

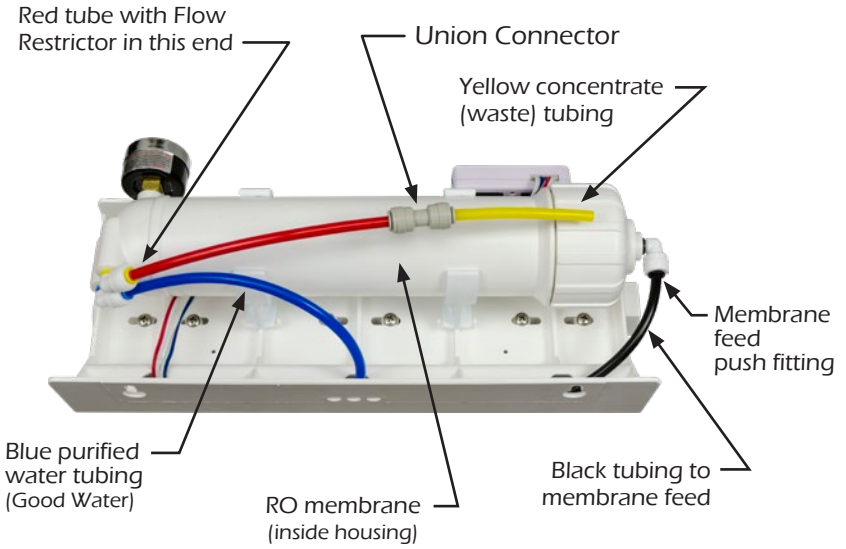
SYSTEM DESCRIPTION:

The SpectraPure® CSPDI™ system is a four-stage reverse osmosis deionization system.

1. First, the incoming feed water is passed through a 0.5 micron MicroTec™ sediment prefilter. This filter is required to remove excess turbidity (particulate matter) that may cause the membrane to plug.
2. The second stage of filtration is a 0.5 micron carbon block prefilter. This filter removes organics and chlorine from the feed water that can damage the membrane. (9,000 gal of water with 1 ppm Chlorine removal)
3. The third filtration stage of the system is a high rejection, thin film composite (TFC) reverse osmosis membrane. It removes, on average, 98% of most inorganic salts, all microorganisms and almost all high molecular weight organics in the water.
4. The fourth stage moves water through a SilicaBuster Mixed-Bed Multi-Layer Deionization Cartridge. Mixed-Bed Multi-Layer Deionization Cartridges are fabricated with semiconductor grade resins for highest possible purity water. They are capable of producing 18 megohm-cm resistivity water. They are the first DI cartridges designed to reduce silica, nitrates and phosphate levels in the low ppb range. These newly formulated cartridges far exceed the performance of previous cartridges, offering enhanced contaminant removal, longer life and higher purity.

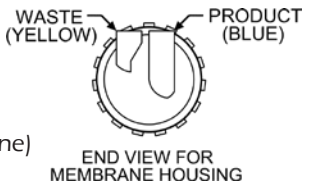
Caution: The deionization cartridge life is greatly reduced when operated on low pH waters or water with high CO_2 (carbon dioxide) levels. The exact cartridge life will vary greatly with pH, carbon dioxide levels, TDS, etc., in your RO water or the feed water supplying the RO system. Aeration or degasification of RO product water is recommended for such waters for removal of carbon dioxide.

Fig. A: Single-Membrane Assembly
Top/Rear View



1/4" BLACK LINE: Tap Water
1/4" BLUE LINE: Product Water
1/4" YELLOW LINE: Waste Water

(Flow Restrictor is inside the Waste line)



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.

WORKING WITH PUSH FITTINGS:

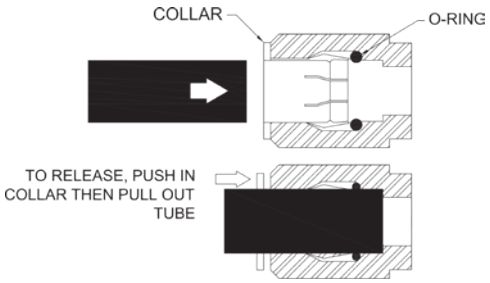
Push fittings are very reliable and convenient tubing connectors.

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 reinsert 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 reseat the tubing as described above.



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 clear filter housings when exposed to bright light. The unit must be kept out of areas that are subject to freezing temperatures.
3. High temperatures greater than 113° F (45° 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.
4. Attach the black tap water tubing to the left side of the Sediment Filter Housing (See page 4).
5. Attach the yellow drain line to the union connector at the rear of the system. This connector already has a red tube attached to it.
6. Attach the blue product line to the front port (after the "tee") of the right-hand DI housing.
7. Attach the black tubing and elbow(s) to the membrane housing cap(s).
8. Attach the garden hose adapter **(connected to the black tubing)** to your cold water source. Never run hot water (greater than 113° F/45° C) through the system.
9. Remove the DI filter cartridge from the right-hand filter housing. Reconnect the housing to its threaded cap. Hand tighten.
10. An optional ball valve can be located at a convenient place on the black tap water line. Cut the black tubing in two and reconnect the two cut ends with the ball valve, if desired.
11. Place the **yellow concentrate (waste) tubing** and the **blue purified (product) water tubing** temporarily into a drain. Do not restrict flow from these lines.
12. Let both tubings run water down the drain for one hour.
13. Reinstall the DI cartridge into the DI housing. Hand tighten.

(continued on next page)

SYSTEM INSTALLATION & INITIALIZATION: (cont.)

14. There is a group of red, white, and blue sensor wires. At the end of the wires, you will find a white connector. Just insert the connector into the receptacle on the top of the TDS monitor. You can then use the Velcro on the back to mount the meter wherever it's convenient. For example, even on a wall for easier viewing.
15. Open the cold water supply valve. The pressure should not exceed 80 psi.
16. Upon startup, air may be trapped in the DI cartridge (housing may not appear full), this is a normal condition and it will not affect the operation of the DI system. However, if you later install an ASO Valve/ Check Valve/Float Valve for automatic operation, all air must be kept purged from the housings by slightly unscrewing the housing and letting the running water displace the air until the housing is full of water. When full, hand tighten the housing.
17. Set the meter to "OUT" and run the system until that meter reads zero. The water is now ready to use. **You can set the meter to read either probe at any time**. The "IN" position displays the TDS coming out of the RO membrane.
18. Close the cold water supply valve.
19. Finish the installation by directing or connecting the yellow line to a permanent drain.
20. 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.)

    NOTE: It may take several days of normal operation for the membrane to reach its full production rate.

CHECK:

» **Ensure that all fittings are tight and leak-free before leaving the system unattended.**

» **The red concentrate (waste) line includes a smaller capillary tube (flow restrictor) that is located "inside" of the tubing. Do not remove or discard this restrictor - the system will not produce permeate (product)water without the flow restrictor.**

METERING AND DIAGNOSTICS:

This SpectraPure purification system has been fully equipped with sufficient instrumentation to make monitoring and troubleshooting an easy process. The provided pressure gauge is used to determine the tap water pressure and to evaluate the condition of the sediment and carbon prefilters.

USING THE PRESSURE GAUGE

The pressure gauge is used to monitor the condition of the Sediment and Carbon Prefilters **(not the RO Membrane)**. When the filters are new, the gauge will indicate the actual available house water pressure. As the filters collect particulates, the pressure will begin to drop. A 15-20% (or more) drop in pressure would indicate that the prefilters are in need of replacement.

USING THE DUAL PROBE TDS METER (DM1 METER)

The digital TDS meter (dual probe) will provide a reliable means of evaluating the performance of the RO membrane and the Deionization Cartridge. The numbers from the two probe readings can be used to calculate the percentage of rejection of the RO membrane and the exhaustion point of the DI Cartridge.

Procedure for testing the RO Membrane:

1. Follow the instructions on page 10.

Procedure for testing the Deionization Cartridge:

1. When the reading on the probe (set to "OUT") displays "001", it is time to replace the DI cartridge.

Warning!!:

The DM1 TDS Meter does not detect the presence of CO_2, silica, organic contaminants or microorganisms, nor should it be used as a medical or scientific instrument. It should be used as an indicator or guide only, and does not imply water safe for human consumption. No application other than monitoring the electrical conductivity of water is expressed or implied.

RO MEMBRANE REJECTION DIAGNOSTIC:

In order to accurately determine the condition of the RO Membrane, reconfiguring the DM1 TDS Meter, provided with this unit, is required.

Procedure:

1. Disconnect the BLACK line from the first stage housing (Sediment Filter)
2. Next, disconnect the "IN" Probe Tee of the DM1 meter and connect it to the end of the black line. (This step will allow you to determine the TDS of your tap water) *See page 6 for removal of tubing from push fittings.*
3. Slowly turn the tap water on. Be careful where you point the open fitting of the tee. Once you get a good flow coming out of the end of the tee you can test the water:

   - TAP WATER TDS READING (X):_____

4. Once you obtain the tap water TDS reading, reconnect the "IN" Probe Tee back to its original location.
5. Reconnect the BLACK line to the first stage housing (sediment filter) and run water through the system for 15 min.
6. Note the reading on the meter with the setting still in the "IN" position:

   - RO WATER TDS READING (Y):_____

7. Subtract RO water TDS from tap water TDS. (X - Y)
8. Divide this quantity by tap water TDS. (X - Y) ÷ X
9. Rejection = [(X - Y) ÷ X] ×100

Rejection of the RO Membrane Calculation Example

1. Tap water TDS = 150 ppm (X)
2. RO water TDS = 7 ppm (Y)
3. X - Y = 143 ppm
4. (X - Y) ÷ X = 143 ÷ 150 = 0.953
5. Rejection = [(X - Y) ÷ X] ×100 = 0.953 ×100 = 95.3

Membrane TDS Rejection = 95.3 %: Rejection rates less than 95% indicate that the membrane should be replaced.

MEMBRANE OUTPUT CALCULATION:

Membrane Output Calculation

Membranes produce the rated gallons per day (GPD) at 60 psi (4.1 bars) operating pressure, 77˚F (25˚C) operating temperature and 250 ppm total dissolved solids.

Membrane output gallons per day (GPD) depends on operating pressure, water temperature and the ppm 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 60 psi. For any pressure other than 60 psi the output GPD is multipled by the PCF.

PCF = Line Pressure (in psi) ÷ 60

Calculation of Temperature Correction Factor (TCF): The output (GPD) also decreases with decrease in temperature. This is because water viscosity increases with 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 90 GPD System at 40 psi pressure and 60˚F water temperature?

PCF = 40 ÷ 60 = 0.666

TCF = 0.754 (from Table on previous page)

Expected GPD = 90 × 0.666 × 0.754 = 45.2 GPD ± 15%

45.2 GPD would be the Actual Production Rate

SEDIMENT PREFILTER REPLACEMENT:

For maximum contaminant removal and long membrane life, the sediment and carbon prefilters must be changed when a 15-20% drop in pressure is observed OR at least 6 month intervals. If your water contains a great deal of sediment or chlorine, the prefilters may require more frequent changes to maintain adequate production rate and extended membrane life.

SEDIMENT PREFILTER REPLACEMENT

Materials Required: 0.5 micron MicroTec™ Sediment Filter (SF-MT-0.5-10), Filter Wrench

Procedure:

1. Turn off water supply to the system.
2. Using the provided filter wrench, remove the first housing on the left. Unscrew it by rotating it to the left.
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. Install the new prefilter onto the round port in the head of the housing. Screw the housing back onto the assembly, and hand tighten **only**.

   NOTE: Do not use filter wrench to tighten housings. Over-tightening will damage housings and void your warranty.
6. Proceed with carbon block filter replacement.

CARBON PREFILTER REPLACEMENT:

For maximum contaminant removal and long membrane life, the sediment and carbon prefilters must be changed when a 15-20% drop in pressure is observed OR at least 6-month intervals. When chlorine breakthrough greater than 0.1 ppm occurs in the yellow concentrate line, test for chlorine breakthrough by collecting a 10 ml sample of the concentrate from the yellow tubing and test the chlorine concentration using test kit TK-CL-10-KIT. If the chlorine concentration is above 0.1ppm, replace the carbon prefilter.

CARBON BLOCK FILTER REPLACEMENT

Materials Required: 0.5 micron Carbon Block Filter (CF-0.5-10), Filter Wrench, Chlorine Test Kit (TK-CL-10-KIT)

Procedure:

1. Perform steps 1-5 listed above.
2. Turn on system water supply and check for leaks.

DEIONIZATION CARTRIDGE REPLACEMENT:

(located in rightmost housing)

The DI stage is the SilicaBuster™ Mixed-Bed Multi-Layer Deionization Cartridge, DI-SB-10. The condition of this cartridge should be judged by observing the "OUT" probe on the TDS monitor.

Turn on the system and allow water to flow past the monitor probe for at least 20 minutes before attempting to use the monitor. When the reading on the TDS monitor (set to "OUT") displays "001", it is time to replace the DI cartridge.

Materials Required: One DI-SB-10 Deionization cartridge, filter wrench.

Procedure:

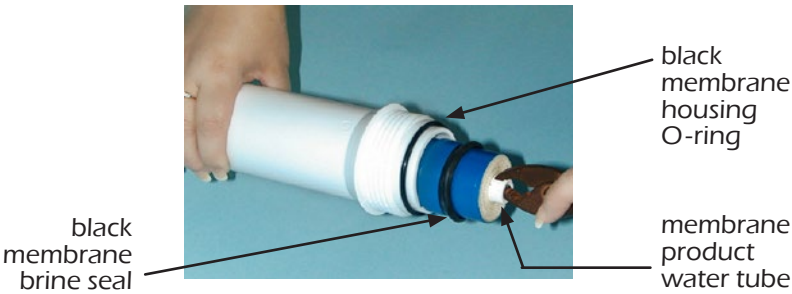
1. Remove the filter housing from its cap by rotating it to the left.
2. Remove and discard the old cartridge from the housing.
3. Thoroughly wash out the housings with hot soapy water to which a few teaspoons of household bleach have been added. Rinse well with clean hot water.
4. Install the new deionization cartridge. Make sure the cartridge is installed in the correct direction as marked on the filter housing and that the top seal is securely attached to the top of the cartridge.
5. Reinstall the bottom housing onto the cap by rotating it to the right and hand tighten only.

   NOTE: Do not use filter wrench to tighten housings. Over-tightening will damage housings and void your warranty.

RO MEMBRANE REPLACEMENT:

1. Turn off the water supply to the RO system. Place the system where the membrane housing is easily accessible.
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.
3. Lift the membrane housing from the retention clips.
4. Unscrew the membrane housing lid. This may require two people.
5. Use a pair of pliers to grasp the membrane stem and pull the membrane from the housing (Fig. B).

Fig. B: Removing the Membrane Element

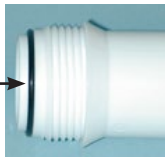


6. Remove the black housing O-ring (Fig. B). Wash the empty housing with soapy water. Rinse thoroughly with hot, clean water.
7. Insert new membrane into the housing, with the double O-ring end first (Fig. C). The tube must fit into the recess at the bottom of the membrane housing. When the membrane is aligned with the hole, firmly push the membrane into the hole until it bottoms out.

Fig. C: Inserting the New Membrane Element

1. Place the black housing O-ring on the housing rim and carefully screw the lid back on to the base.

Housing O-Ring →



2. Reconnect the black tubing to the membrane feed push fitting.

   NOTE: If you have a dual-membrane system, perform steps 2 thru 9 on the second membrane now.

* *If the replacement membrane is rated identical in gallons per day to the original membrane:*

1. Disconnect the yellow concentrate tubing (page 5) from the membrane housing. Remove flow restrictor and set aside.
2. Reconnect yellow concentrate tubing back to membrane housing and run water through system for at least 2 gallons. (This step will flush out membrane preservatives.)
3. Reinsert flow restrictor and check for leaks. Allow at least 2 gallons of water to run through the system before using water.

TIPS FOR LONG MEMBRANE LIFE:

1. Replace the 0.5 micron sediment filter once every 6 months. This will prevent membrane fouling due to silt or sediment depositing on the membrane.
2. Replace the 0.5 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. Operating reverse osmosis systems on softened feed water greatly reduces the chances of membrane fouling.
4. Use the optional flush valve kit after each use of the system to extend membrane life.

STORAGE:

1. It is recommended that you store your RO System in a cool place when not being used.
2. If your system is exposed to sunlight you will grow algae in the housing and it may damage your system.
3. Your RO System must be protected from freezing or temperatures above 113° F (45°C).
4. Replacement membranes should be kept in the sealed non-permeable shipping bag and in a refrigerator until use. The membrane may be kept there for up to 1 year. **(DO NOT FREEZE)**

TROUBLESHOOTING GUIDE FOR RO/DI SYSTEMS:

1. Low production rate:

a. plugged prefilters.	i. Replace prefilters.
b. low water temperature	ii. Warm feed water OR use higher GPD membrane.
c. low line pressure.	iii. Use booster pump OR use higher GPD membrane.
d. high TDS content.	iv. Use booster pump OR use higher GPD membrane.
e. fouled membrane.	v. Replace membrane to restore flux.
f. plugged flow restrictor.	vi. Replace flow restrictor & membrane.

2. Zero production rate:

a. Missing flow restrictor.	i. Install flow restrictor in the yellow line.
b. Dried RO membrane.	ii. Try to restore flux by soaking in rubbing alcohol OR replace the membrane.
c. Plugged flow restrictor.	iii. Replace flow restrictor and replace the membrane.

3. Extremely high production rate:

a. Opened membrane due to chlorine damage.	i. Replace membrane and carbon filter.
b. Very high line pressure (> 90 psi).	ii. Use a pressure reducing valve.

4. High or "Unreasonable" Readings on TDS Meter:

a. Exhausted deionization cartridge.	i. Replace cartridge.
b. Bad membrane & exhausted cartridge.	ii. Replace membrane and deionization cartridge.
c. Faulty monitor/probe.	iii. Replace monitor/probe.
d. Exhausted batteries.	iv. Replace with (2) 357A batteries.

5. Pressure gauge does not register anything:

a. Missing flow restrictor.	i. Put flow restrictor in yellow line.
b. Pressure gauge screwed in too far.	ii. Unscrew pressure gauge one turn and retest.
c. Plugged pressure gauge orifice.	iii. Clean orifice with a needle.
d. Defective pressure gauge.	iv. Replace it.

6. Low deionization cartridge life:

a. Defective membrane.	i. Replace it.
b. Low pressure (< 40 psi).	ii. Use booster pump.
c. High CO2 levels in water (> 5 ppm)	iii. Aerate RO product water or use a straight anion cartridge ahead of DI cartridge.
d. High TDS in feed water (> 1000 ppm).	iv. NO EASY SOLUTION.
e. High levels of silica, nitrates, phosphates, etc., in tap water.	v. Use a straight anion cartridge ahead of mixed-bed cartridge.
f. High pH tap water (>9.0).	vi. Acidify feed water to the RO membrane to improve its rejection.

ONE YEAR LIMITED WARRANTY:

SpectraPure, Inc.® warrants the product to the original owner only to be free of defects in material and workmanship for a period of one year 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 manufacture'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 prefilters and membranes are not covered under the one year 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 Merchandise Authorization (RMA) 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 byproduct 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 one year limited warranty does not apply to consumable items, including but not limited to, filters and cartridges unless specifically stated above.**

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 basis. In the interim period during which credit references are being evaluated, all orders must be prepaid until approved.
10. All returned checks (due to insufficient funds or closed accounts) will be subjected to a **$35 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).

REPLACEMENT PARTS:

Part Number	Description
SF-MT-0.5-10	0.5 micron MicroTec™ Sediment Filter
CF-0.5-10	0.5 micron Carbon Block Prefilter
DI-SB-10	SilicaBuster™ Mixed-Bed DI Cartridge
MEM-0090	90 gpd/340 lpd TFC Membrane (Use 2 for 180 gpd systems)
FR-90-RED	Flow Restrictors for 90gpd/340 lpd System*
FR-180-RED	Flow Restrictors for 180 gpd/681 lpd System*

UPGRADE PARTS:

Part Number	Description
DI-SB-CI-10HC	SilicaBuster™ Extended Life Super DI, Color-Indicating
MEM-SP-0090	90 gpd SpectraSelectPlus 99% Rejection TFC Membrane (Use 2 for 180 gpd systems)

ACCESSORIES:

Part Number	Description
MTR-TDS-EZ	Handheld TDS Meter
MTR-TDS-DM1	Inline Dual-Probe TDS Meter
MTR-PH80	Handheld pH Meter
MTR-EC/TDS-C100	Handheld EC/TDS Meter
FAU-SNP	Quick Connect Faucet Adapter
TK-CL-10-KIT	Total Chlorine Test Kit
TK-CL-10TABS	10 Replacement Tabs for Chlorine Test Kit
BPHF-MO-115	115V Booster Pump Kit for 90 and 180 gpd Systems
BPHF-MO-230	230V Booster Pump Kit for 90 and 180 gpd Systems

Visit our website at www.spectrapure.com for Liquid Level Controllers and other Optional Accessories

Warning: SpectraPure does not recommend drinking deionized water.