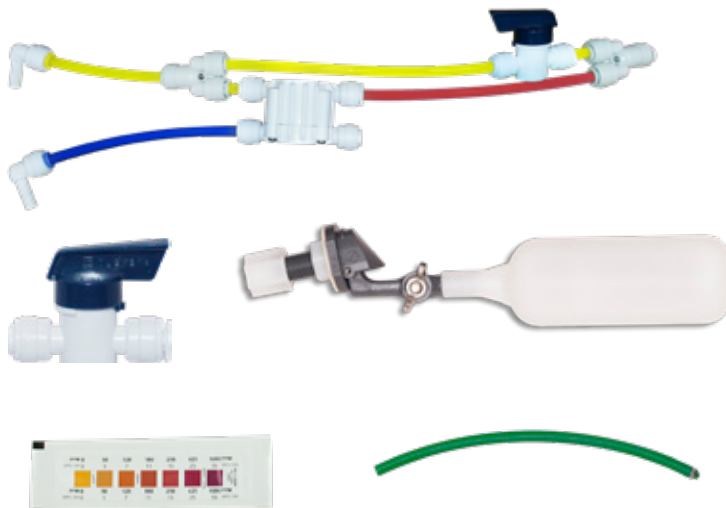




VA-UMFK

(For Single (-90) or Dual (-180) Membrane Models)

Flush Valve Kit



INSTALLATION AND OPERATING MANUAL

WARNING

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

TABLE OF CONTENTS:

Contents 3

Manual Flush Valve 3

Working With Push Fittings 4

Typical Rear Views for -MF Systems 5

System Installation and Initialization 6

Install the Float Valve 7

How It Works 8

Flow Restrictors and Test Strips 9

One Year Limited Warranty 10

Terms and Conditions 10

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This Flush Valve Kit comes complete with:

- Manual Flush Valve for longer membrane life
- Automatic ShutOff (ASO) Valve saves water
- 2 Flow Restrictors
- 2 Test Strips
- Inline feedwater Ball Valve for manual system shutoff
- Float Valve for filling a reservoir

THE MANUAL FLUSH VALVE :

The Manual Flush Valve is located in parallel with the flow restrictor (see page 5) and, when opened, provides a high flow bypass of waste water used to purge concentrated brine from the membrane housing and rapidly flush any particulates from the membrane surface. This is especially useful in hard water conditions. The valve can be turned ON for 30 seconds at the start of a fill cycle and/or at the end of a fill cycle. BE SURE to turn the Flush Valve OFF before making product water.

An optional Booster Pump Kit with Pressure Switch (BPLF-MF-115 or BPHF-MF-115) can be added for installations with less than 40 psi tap water pressure.

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. However, 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. If you have any questions or concerns, please contact our customer service department at 1.800.685.2783.

WORKING WITH PUSH FITTINGS:

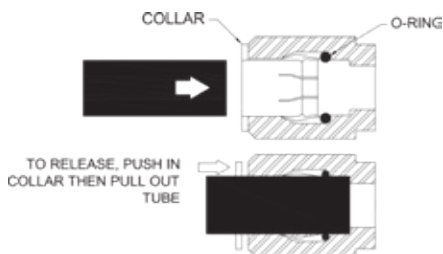
Push fittings are very reliable and convenient tubing connectors.

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:

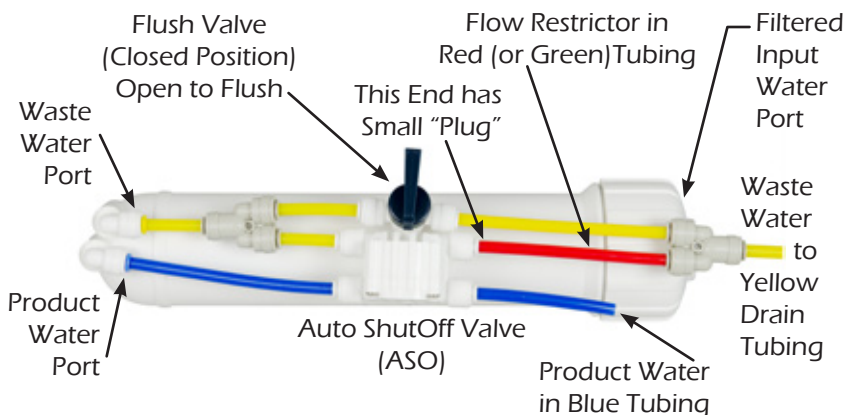
1. Moisten the O-ring seal inside the push fitting by dripping a few drops of clean water into the fitting.
2. Grasp the tubing near the end, and insert the tubing into the push fitting.
3. Push the tubing into the fitting until resistance is felt, approximately 1/2 inch (12.7 mm). The tubing is now 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.



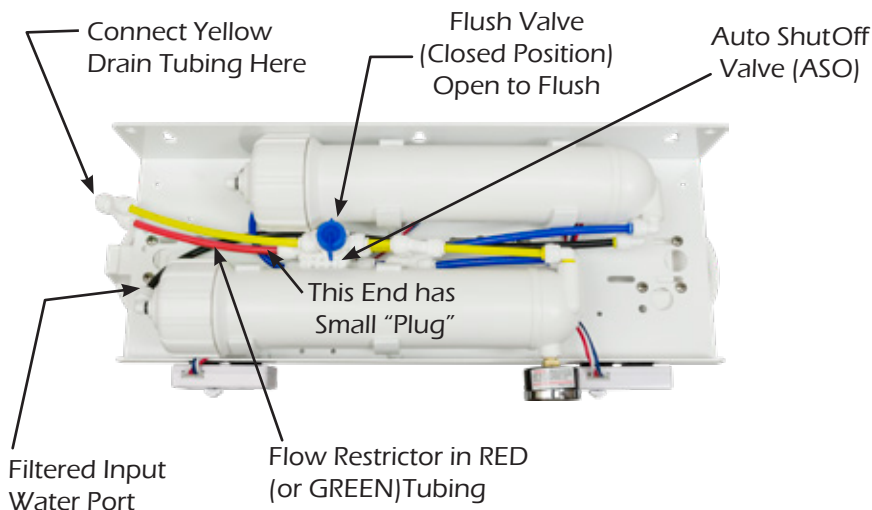
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REAR VIEWS of TYPICAL SYSTEMS:

(pictures may vary slightly)



SINGLE MEMBRANE SYSTEM



DUAL MEMBRANE SYSTEM

SYSTEM INSTALLATION AND INITIALIZATION:

1. Close the cold water supply valve.
2. Disconnect the YELLOW and BLUE tubings from the existing RO Membrane Housing.
3. Reconnect the short YELLOW piece of tubing (with or without the "Stem Elbow") provided on the Flush Valve Kit (UMFK) assembly to the original yellow tubing fitting.
4. Attach the original YELLOW drain line to the "Y" connector at the other end of the UMFK assembly. This "Y" connector already has yellow and green tubes attached to it.
5. Reconnect the short BLUE piece of tubing (with or without the "Stem Elbow") provided on the Flush Valve Kit (UMFK) assembly to the original blue tubing fitting. (See page 5).
6. Attach the original BLUE tubing to the remaining open port on the ASO Valve.
7. A separately provided 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.
8. Place the yellow concentrate (waste) tubing and the blue purified (product) water tubing temporarily into a drain. Do not restrict flow from these lines.
9. Open the cold water supply valve. The pressure should not exceed 80 psi.
10. 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.)

(continued on next page)

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11. Upon startup, for DI systems, air may be trapped in the DI cartridges (housings may not appear full). This is a normal condition and it will not affect the operation of the DI system. However, when you later install the Float Valve for automatic operation, all air must be kept purged from the housings by slightly unscrewing the housing(s) and letting the running water displace the air until the housings are full of water.
12. Close the cold water supply valve.
13. Finish the installation by directing or connecting the yellow line to a permanent drain.
14. Install the included Float Valve onto a collection reservoir. See below.
15. Attach the blue line to the Float Valve.

INSTALL THE FLOAT VALVE:

1. Drill a 7/16" to 1/2" hole near the top of your reservoir.
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.
2. Remove the Compression Nut and Retaining Nut from the float valve threaded stem.
3. Insert the 1/4" Blue Tubing from the water system into the Compression Nut and beyond 1/2".
4. Insert the threaded stem and rubber washer into the hole and tighten the Retaining Nut, which securely tightens the float to the tank wall.
5. Push the tubing and Compression Nut into the end of the threaded stem and hand-tighten the Compression Nut.

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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 prefilters, 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 (SPFK) includes a Float Valve and 1/4" Union Tee.

NOTE for BOOSTER PUMP KIT:

If a Booster Pump Kit is used, the Pressure Switch should be installed on the BLUE tubing **DOWNSTREAM** of the ASO Valve.

FLOW RESTRICTORS AND TEST STRIPS:

This kit is supplied with TWO Flow Restrictors (FR) - GREEN and RED. See Page 5. The RED FR (pre-installed) produces a preset waste-to-product ratio of 3:1 and the optional GREEN FR has a 2:1 ratio.

Two Test Strips are provided to determine the Total Hardness (this is NOT TDS) of your tap water. To test: Dip the colored end into a small tap water sample for 3 seconds. Remove and do not shake. Wait for 20 seconds and then match with the closest color block on the back of the package. Color is stable for 1 minute.

If the Total Hardness is 180 or greater, you should keep the RED FR installed. If the Total Hardness is less than 180, you may replace the RED FR with the GREEN FR (see "Working with Push Fittings"). Be sure to note the orientation of the small "plug" in the end of the removed FR and install the new FR with the same orientation.

The RED FR has a waste-to-product ratio of 3:1, which will increase the amount of water used, but will also increase the lifetime of the RO membrane. In hard water conditions, you may use the GREEN FR to save water, but the RO membrane will not last as long, as it will plug up with hardness much more quickly.

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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 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 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).

SpectraPure® Inc. 480.894.5437 Call us toll-free 1.800.685.2783

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