

Scan here to view the complete installation video or go to: http://versatile.metpure.com/ mv4-mv2-installation Register within 90 days of purchase to receive an additional 12 months

# **INSTALLATION MANUAL** (Ver. 2)

2-stage (MV2) and 4-stage (MV4) water filtration systems

product warranty. See page 29.

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#### SAFETY INSTRUCTIONS



WARNING! For your safety, the information in this manual must be followed to minimize the risk of property damage or personal injury.

- Check with your state and local public works department for plumbing and sanitation codes. You must follow these guidelines as you install the Metpure Versatile Water Filtration System.
- If house water pressure is over the maximum 80 PSI (pounds per square inch), install a pressure regulator (Metpure Item: PT-PR60QC2) BEFORE the water supply line to the filtration system.
- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the unit. If the water supply conditions are unknown, contact your municipal water company or your local health department for a list of contaminants in your area and a list of laboratories certified by your state to analyze drinking water.
- Filter cartridges should be replaced in accordance with the cartridge replacement schedule indicated on the cartridge label to ensure system performance.
- · Keep these instructions for future reference.
- Product failure or water leak due to improper installation is not covered under the Warranty.
- Install or store the system where it will not be exposed to temperatures below freezing or exposed to any extreme hot weather; otherwise, the system may crack and leak and warranty voided.
- · Install in cold water supply ONLY.

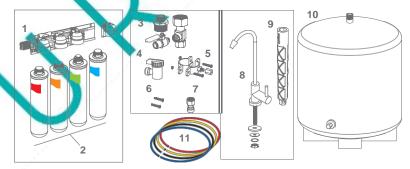
#### **PRODUCT SPECIFICATIONS**

- · Product dimensions:
- 4-Stage Reverse Osmosis (RO) System: 12.75" height x 11" bracket width x 4" deep
- 2-Stage Filtration System: 12.75" height x 5.5" bracket width x 4" deep
- Storage tank1: 15" height x 11" diameter
- · Feed water pressure limits—pounds per square inch (PSI): 15-802PSI
- · Feed water temperature limits (minimum/maximum degrees F): 39 100°F
- Maximum Total Dissolved Solids (TDS) in parts per million (ppin) for RO membrane: 2000ppm
- Maximum water hardness in grains per gallon (gpg): 10gpg
- · Chlorine in water supply: <2.0ppm3 maximum allowed with carbon block pre-filter
- 1. Storage tank height does not include base. Base is 1-1/4" in height
- 2 If less than 40psi, add a pump, if more than 80 psi, add a pressure regulator (Metpure Item: PT-PR60QC2)
- 3. Excessive chlorine level will destroy RO membrane

#### INTRODUCTION

Metpure Versatile Water Filtration System is the most versatile and adaptable water filtration system in the market today. The design incorporates a flexible system - individual Cartridge Attachment Manifold (CAM) and its filter cartridges – so in the future, you can easily add/modify filters to the existing filtration system as needed, without repurchasing a new entirely different system You will be satisfied by the quality and the versatility of this 4 stage/2 stage water filtration product. We guarantee it!

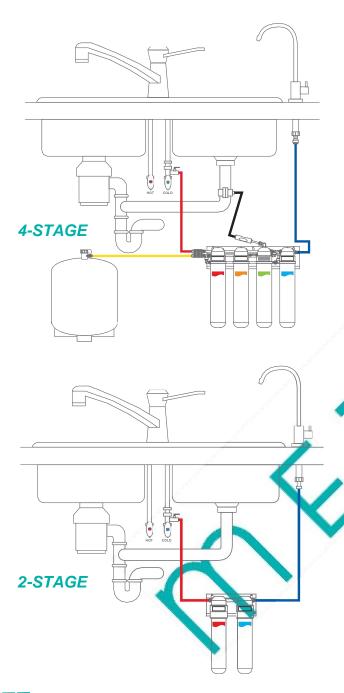
#### INCLUDED PARTS



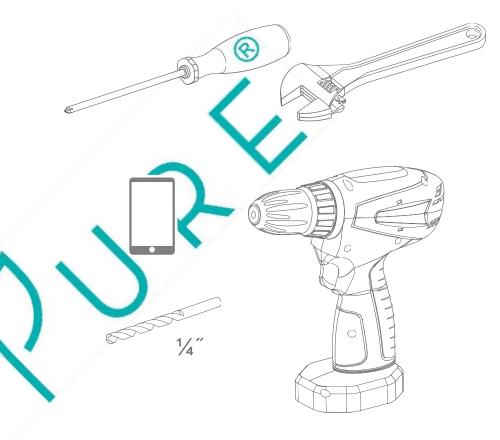
System		Part Number
1	4-Stage RO system assembly (2-stage not shown)	Per package
2	4 filter cartridges (2 for 2-Stage)	Per package
Accessor	ries (MV2-ACCESS or MV4-ACCESS)	
3	EZ RO Adapter	EZROADP14
4	1/4" Quick Connect tank ball valve*	PT-TBV2QC2
5	1/4" JACO drain saddle*	PT-JDS2
6	2 mounting screws	PT-PHS1034
7	1/4" Quick Connect faucet adapter	FT-QCFA7162
Faucet		
8	Modern style RO faucet w/ hardware	Per package
9	RO faucet wrench	RO-FW148
Tank		
10	RO storage tank w/ base*	Per package
<b>Tubing</b>		
11	4 color coded tubing (2 for 2-Stage)	T-2-MV4, T-2-MV2

<sup>\*</sup> Not included with 2-Stage system

### SYSTEM DIAGRAM



## **TOOLS NEEDED**

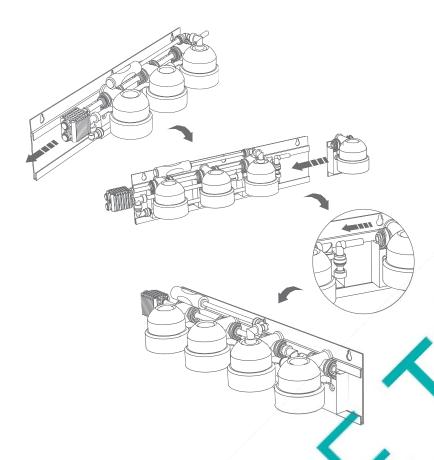


# PREP WORK AREA

Prepare the installation area by removing everything that may be in the way before beginning installation. This will ease the installation process and will also provide you a good idea how the system will fit in the space provided.

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### 4TH STAGE CAM ASSEMBLY (4-STAGE ONLY)

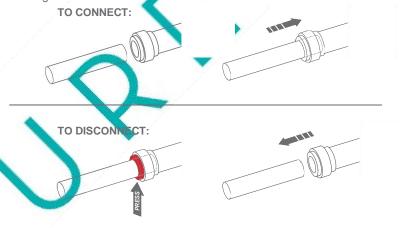


Scan here to watch Installation video of 4th stage cam assembly or go to: http://versatile.metpure.com/4th-stage-assembly



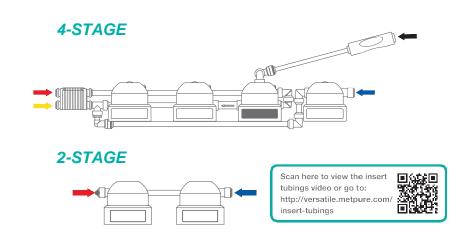
#### **INSERT TUBINGS PROPERLY**

For secure, leak-free connection, push the tubing ALL THE WAY inside the quick connect fitting. You should teel the tubing sliding in until it stops. If unsure the tubing is secured, disconnect then reconnect. To disconnect, press in on the collet of the quick connect fitting and pull out the tubing at the same time. If a locking clip is present, remove it first before disconnecting the tubing.



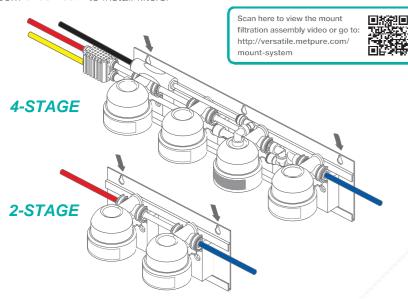
## **INSERT TUBINGS**

Insert the color-coded tubings in accordance with the color coding on the system.



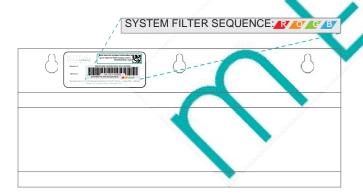
#### **MOUNT FILTRATION ASSEMBLY**

Level and secure the rail mount with the provided screws. Be sure to allow room underneath to install filters.



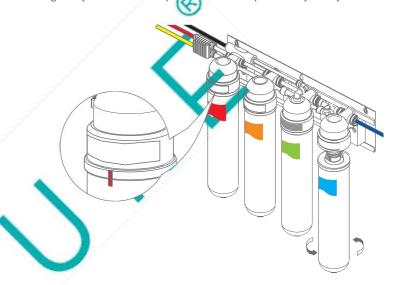
### FILTER CARTRIDGE INSERT SEQUENCE

Not all systems will have the same filter combination and sequence. So can always refer to the model/serial number decal found on the Filtration Assembly Rail Mount that provides the indicated Sysem Filter Sequence. A sample is provided below:



#### INSTALL FILTER CARTRIDGES

Line up the cartridge tab to the tab on the CAM for a secure fit. Insert the filters according to System Filter Sequence that corresponds to your system model.

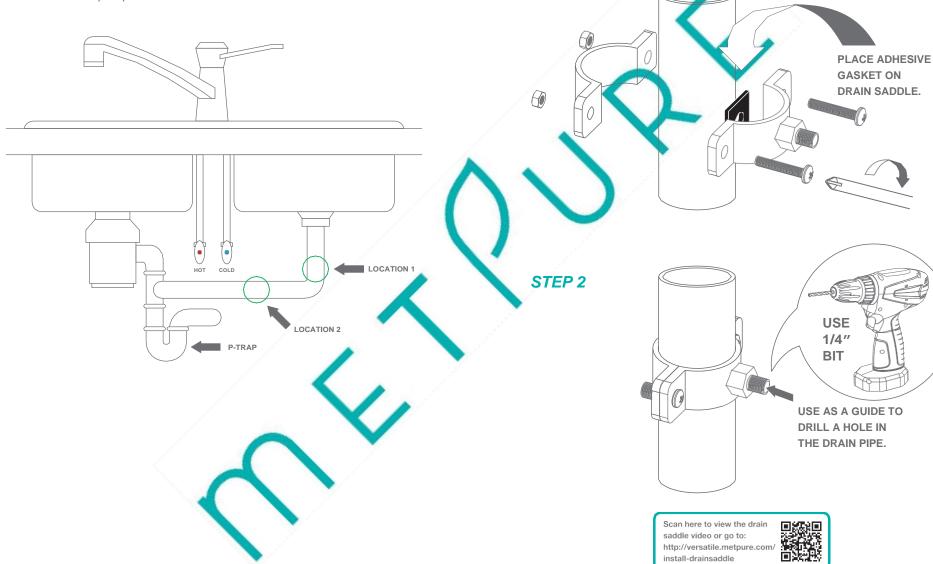


# **INSTALL TANK VALVE (4-STAGE ONLY)**



## **INSTALL DRAIN SADDLE (4-STAGEONLY)**

Mount drain saddle in either locations indicated. To reduce drainage noise and to prevent clogged drain tubing, mount the saddle as low as possible on the vertical tail piece (Location 1) OR away from the disposal on the horizontal tail piece (Location 2). If neither locations are available, at least install before the p-trap.

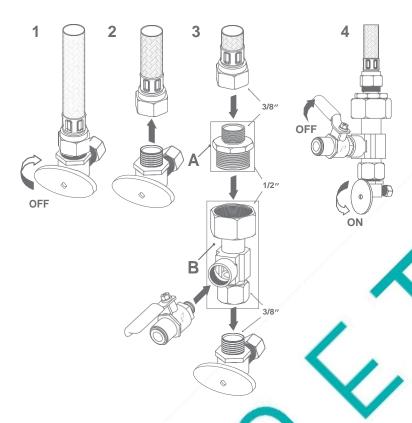


STEP 1

#### INSTALL EZ RO ADAPTER TO COLD WATER LINE ONLY

No sealant or Teflon tape is needed to secure the EZ RO Adapter. When installing the 1/4" ball valve into the adapter tee, do not over-tighten; otherwise, the o-ring seal may rip resulting in a leak.

ILLUSTRATION SHOWN IS FOR 3/8" SHUT-OFF VALVE. FOR 1/2" SHUT-OFF VALVE, ROTATE PART A AND PART B.

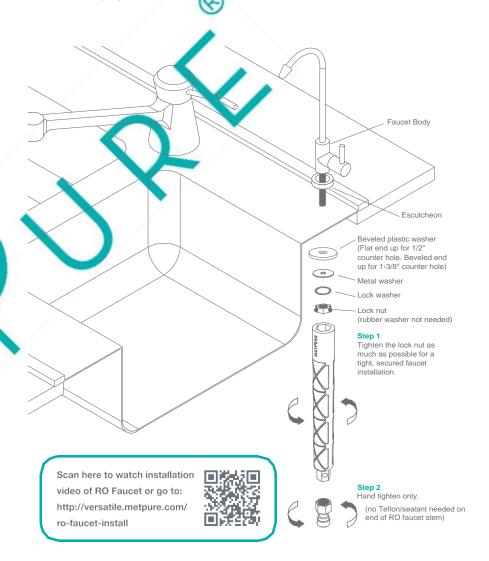


Scan here to watch installation video of EZ RO Adapter or go to http://versatile.metpure.com/ez-ro-adapter



#### **INSTALL RO FAUCET**

Drill counter surface with a minimum of 1/2" drill bit or a maximum of 1-3/8" bore bit. Use proper drill bit for different counter surfaces.



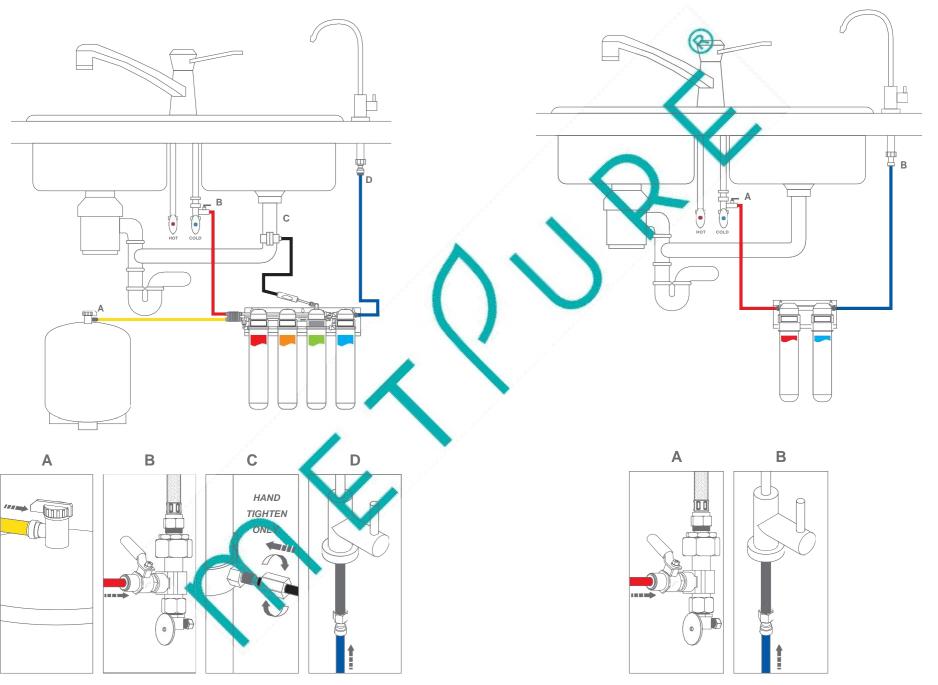


WARNING! If the faucet adapter (Item FT-QCFA7162) is not inserted in alignment with the RO faucet stem, the plastic thread of the faucet adapter may strip and result in a leak.

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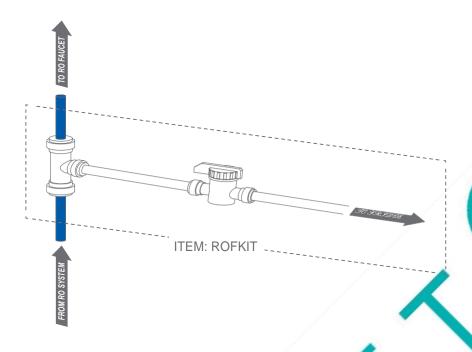
## PLUGINSYSTEM-4STAGE

## **PLUGINSYSTEM-2STAGE**



#### **OPTIONAL FRIDGE CONNECTION**

Cut the blue tubing to the faucet and use a fridge kit (Metpure Item: ROFKIT - not included) to connect filtered water to the refrigerator.



Scan here to view the fridge connection video or go to: http://versatile.metpure.com/ fridge-connect

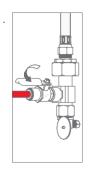


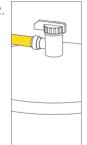
#### SYSTEM START UP

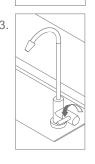
- 1. Turn on water supply valve feeding the system.
- 2. Make sure the tank valve is ON valve lever parallel to tube (4-Stage System Only).
- 3. Turn on RO faucet may take several minutes for water to come out for 4-Stage System unit. See Troubleshooting Guide Number 9 to details. Once water comes out, turn the RO faucet OFF. Check for leaks. If leak occurs, see Troubleshooting Guide for details.
- 4. 4-Stage System. Wa r for storage tank to fill in about 3 hours (fill time depending on RO membrane production rate and water pressure). The drain will also run until the storage tank fills up.
- 5. DO NOT DE NK the first tank or the first 3 gallons of water. Stage System, drain the first tank by turning on the RO faucet (takes about 10-15 minutes until water becomes a trickle). This will make sure your system is flushed and cleansed.
- 6. Check for leaks again on all fittings, valves, filter cartridges, tubings, and connection points. Refer to Troubleshooting Guide if needed.

Scan here to view the system start up video or go to: http://versatile.metpure.com/ system-startup









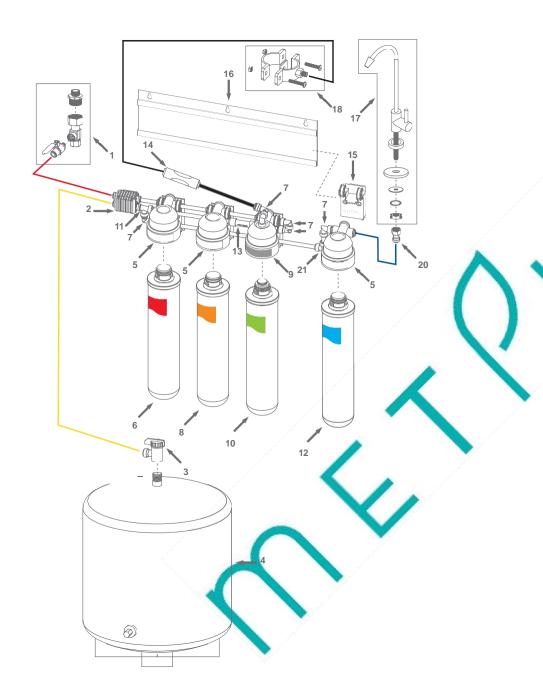
**Congratulations!** 

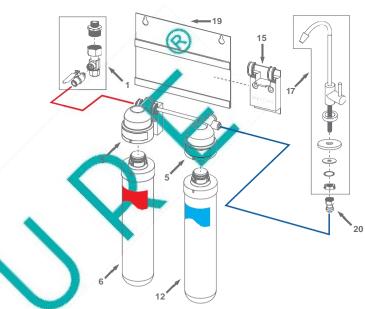
You have successfully installed your Metpure Versatile Water Filtration System.

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#### **DETAILED SYSTEM DIAGRAM - 4-STAGE**

#### **DETAILED SYSTEM DIAGRAM - 2-STAGE**





#### Item # Item Name

- EZ RO Adapter
- 1/4" Quick Connect Auto Shut-Off Valve
- 1/4" Quick Connect Tank Ball Valve
- RO Storage Tank w/ Base
- Filter CAM
- Sediment Filter Cartridge
- 1/4" Quick Connect Stem Elbow
- Carbon Filter Cartridge
- RO Membrane Filter CAM
- 10 **RO** Membrane Filter
- 11 1/4" Quick Connect Stem Run Tee
- 12 Post-Carbon Filter Cartridge
- 13 1/4" Quick Connect Check Valve
- 14 Flow Restrictor (Match RO Flowrate)
- 15 Filter Clip Mount
- Filtration Assembly Rail Mount (4-Stage)
- 17 **RO Filter Faucet**
- 18 1/4" Jaco Drain Saddle
- Filtration Assembly Rail Mount (2-Stage)
- 1/4" Faucet Adapter w/ Quick Connect
- 1/4" Quick Connect Elbow

#### **Part Number**

EZROADP14

PT-QCASV2

PT-TBV2QC2

Per package

MVFCAM14 or per package

MVSED11 or per package

FT-QC2SE2

MVECBC11 or per package

MVROCAM14 or per package

MVRO50 or per package

FT-QCSRT2

MVPOGAC11 or per package

PT-QCUCV22

PT-QCFR550 or per package

**MVFCM** 

MVRM4

Per package

PT-JDS2

MVRM2

FT-QCFA7162

FT-QCUE22

## TROUBLESHOOTING GUIDE

Number	Problem	Possible Cause	How to Resolve
1	No water from RO faucet.	Water is not turned on.	Check if the water supply valve is turned on. Check if the cold water valve is turned on. Check if the main house water valve is turned on. See Page 16.
		Depending on incoming water pressure, during initial startup, the water may take some time to run through the system before dispensing at RO faucet.	Wait about 5 to 10 minutes.
		Pre-filters may be clogged.	Replace pre-filters every 6-12 months per recommended schedule. If pre-filters become clogged less than 6 months, your water may contain higher than average conceptration of sediment.
2	Purified water is black.	This is normal during initial startup. The black color is caused by the carbon residual in the new filters.	Flush and drain the water until clear. If it's an RO system drain the first tank of water. Do not drink
3	There is a leak at the connection.	Although all systems have been tested for leaks at the factory, sometimes during shipping the factory pre-installed tubes may become lose.	Shut off the RO water supply valve and turn on the RO faucet to depressurize the system. Then reinsert the leaking tube/fitting per installation manual. See page 6.

# TROUBLESHOOTING GUIDE (CONTINUED)

Number	Problem	Possible Cause	How to Resolve
3	There is a leak at the connection.	The user installed tubes are not inserted all the way	Shut off the RO water supply valve and turn on the RO faucet to depressurize the system. Then reinsert the tube per installation manual. See page 6.
4	There is a leak between the tank ball valve and the tank.	The built-in tank ball valve gasket does not seal properly.	Tighten the tank ball valve with a 1/4 more turn. Repeat until no leak. If gasket is worn/torn, replace tank ball valve. See page 8.
5	There is a leak at the filter cartridge.	The filter cartridge is not aligned with the CAM.	Dismount and mount the cartridge again into the CAM. Make sure the filter tab is lined up with the CAM tab. See page 8.
		The o-ring on the cartridge/CAM may have been damaged.	Replace the cartridge and/ or the CAM.
6	Water appears cloudy/milky.	It is typical to have air in the RO water system after installation/ filter change and the cloudiness is caused by air in the system.	The air bubbles will disappear after the system runs for a while, sometimes up to a week of initial usage or filter change.

# TROUBLESHOOTING GUIDE (CONTINUED)

Number	Problem	Possible Cause	How to Resolve
7	The water has chlorine odor.	The ppm of chlorine in your water supply may have exceeded the maximum limit and has destroyed the RO membrane.	If the water supply chlorine level is more than 2.0ppm, additional carbon pre-filters are needed before replacing the damaged RO membrane.
8	Other taste or odor.	The crisp, purified, high quality water that is being produced by the RO system may have a taste that you are not used to.	Check the TDS. If it shows 1% to 10% of the TDS of your tap water, then the water is purified and the system is functioning normally.
		The pre and post filters and/or the RO membrane may need to be changed.	Check the TDS and change new filters and/or membrane according to the service life of the filter.
		Purified water may have little usage or sat idle for a while.	Drain out the storage tank and allow to refill, or just turn on the RD faucet for non-RO system.
		The water connections may have been inserted in wrong.	Check your connections.  Make sure they are connected per installation manual.

# TROUBLESHOOTING GUIDE (CONTINUED)

	Number	Problem	Possible Cause	How to Resolve
	8	Other taste or odor.	rhe filter cartridges may not have been installed correctly	Check to see if the filters have been installed in the correct sequence on the system per installation manual.
	9	The water from RO fauce is flowing slowly.	This is normal.	On initial startup, the storage tank is empty, so the water will flow slowly.
•			The storage tank valve is in the OFF position (valve lever perpendicular to tube).	Turn the tank valve to the ON position (valve lever parallel to tube).
	gg garden de de la companya de la co		Your pre-filters may be clogged.	Replace pre-filters every 6-12 months per recommended schedule. If pre-filters become clogged less than 6 months, your water may contain higher than average concentration of sediment.
	10	The water production rate is not at what it should be.	Factors such as water pressure, temperature, salt concentration, and pH could affect water production rate. The stated GPD on the RO membrane is under lab test conditions.	The most important factor in water production rate is water pressure. If your water pressure is less than 40psi, a booster pump is recommended.

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# TROUBLESHOOTING GUIDE (CONTINUED)

Number	Problem	Possible Cause	How to Resolve
11	System is making a vibration/ humming noise.	It is typical to have air in the system after installation and the noise is caused by air vibration inside the system.	Tilt the system back and forth may eliminate the noise but may come back if the air inside the system is not entirely purged.
		The check valve may be defective.	Replace check valve.
		Your water pressure may be too high.	Install a pressure regulator before the system. Metpure Item:PT-PR60QC2
12	After filling a small amount of water, the water flow rate diminishes at the RO faucet.	The bladder inside the storage tank may have ruptured.	Replace with a new storage tank.
		The storage tank may need to be inflated.	Pressurize the storage tank to its proper working pressure.
	<	The storage tank may be empty.	Wait until more purified water is being produced and stored in the storage tank.

# TROUBLESHOOTING GUIDE (CONTINUED)

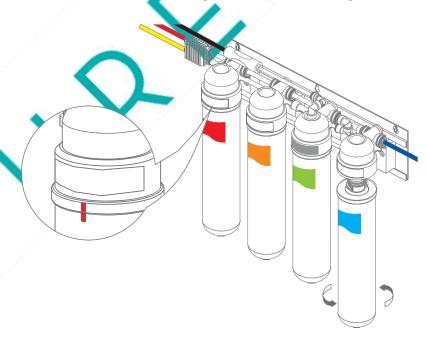
Number	Problem	Possible Cause	How to Resolve
13	The measured TDS from the RO system is still the same as the tap water.	Initial startup of the system may register higher to equal TDS value as the tap water.	Wait for the system to fill the storage tank in 2-3 hours, then deplete the stored water in the tank for the first time. Check TDS again.
		The RO membrane is fouled.	Replace the RO membrane.
		The RO membrane is not installed correctly.	Check if the RO membrane is installed per installation manual.
14	System is making a gurgling sound at the drain pipe.	RO system will reject waste water during purified water production. This is the sound of waste water running inside the drain.	Make sure the drain saddle is installed either on the horizontal drain pipe or the lower portion of the vertical drain pipe. Or try to reinsert the drain line at the drain saddle.
15	The RO membrane life seems relatively short.	Defective auto shut-off (ASO) valve.	Replace the ASO valve.

### TROUBLESHOOTING GUIDE (CONTINUED)

Number	Problem	Possible Cause	How to Resolve
15	The RO membrane life seems relatively short.	Defective/wrong flow restrictor.	Replace flow restrictor/ make sure the flow restrictor rating matches RO membrane GPD rating.
		High chlorine level.	Add additional carbon filter stages.
		Pre-filters are not changed regularly.	Depending on usage, the pre-filters shall be changed according to the service life indicated on the filter; if more usage is required, change them more often.
16	The drain is running constantly.	The auto shut-off (ASO) valve is defective or installed incorrectly.	Make sure the ASO valve is installed correctly; if it is, then ASO valve is defective and needs replacement
		It is normal when system first starts up.	Naturally, all RO systems will reject drain to produce purified water. Drain will run until storage tank fills, typically in about 2-3 hours.
17	There seems to be a lot of drain water when the system is running.	The RO membrare GPD rating is not matched up with the flow restrictor size.	Make sure the RO membrane GPD is matched up with the flow restrictor size.

#### **CHANGING FILTER CARTRIDGES**

Metpure Versatile system is equipped with individual Cartridge Attachment Manifold (CAM) that is equipped with auto-compression shut-off valve. So, to change the filter catridges, there is no need to shut-off any valves. Simply just twist off the filter catridge, detail it from the CAM and insert a new one. Be sure to flush the filters with at least 3 gallons of water before usage.





WARNING! Due to built-up pressure in the system, you may experience a sudden relief of pressure when you twist off the old filter catridge.

Scan here to watch filter change video or go to: http://versatile.metpure.com/filterchange-video



# **NOTES**

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# **WARRANTY & DISCLAIMER**

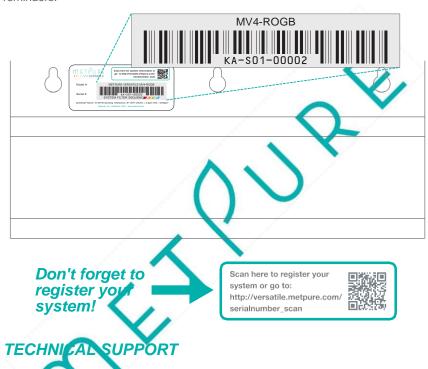
At Metpure Inc., every system is carefully tested, inspected, and approved by experienced technicians at our factory. By providing this varranty, we are demonstrating confidence in the quality of our systems. Metpure Inc. will provide Limited Warranty Period on this product for <u>TWELVE (12) MONTHS</u> from the date of the original purchase. During this limited <u>TWELVE (12) MONTHS</u> Limited Warranty Period, Metpure Inc. will replace any part of this product which fails due to a defect in materials or workmanship. This Limited Warranty Period is extended to the original purchaser and any succeeding owner for the products purchased for home use within the USA. The following conditions apply to the Limited Warranty Period:

- 1. Each purchased product comes with twelve (12) months warranty, unless you have purchased additional expended warranty offered by Metpure Inc.
- 2. Metpure Inc. agrees during the Warranty Period, provided it is promptly notified the discovery in any defects and further provided that all cost of returning the defective products to Metpure Inc. are pre-paid by you, to repair or replace. Replacement parts may be new or refurbished, at the election of Metpure Inc.
- 3. Shipment to you of repaired or replacement products shall be made in accordance with the provisions under shipping.
- 4. In no event shall Metpure Inc. have any obligation to make repairs, replacement or corrections required in whole or in part, as the result of (i) normal wear and tear, (ii) accident, disaster or event of force majeure, (iii) misuse, abuse cault or negligence of or by Burer, (iv) use of the products in a manner of which they were not designed or suggested by the manufacturer or inconsistent with the installation instructions and manual, (v) causes internal to the products such as but not limited to power failure or electrical power surges, (vi) improper storage of the products, or (vii) use of the products in combination which equipment or parts not supplied by Metpure Inc.
- 5. Metpure Inc. is entitled to retain any defective part replaced under the Limited Warranty.
- 6. Metpure Inc. reserves the right to make design and product modifications or changes to product specifications without any contingent obligations to prospective buyers or owners or products previously sold.
- 7. Under no circumstances the conditions stated hereon are negotiable and no employees of Metpure Inc. or its authorized third party resellers have the authority to supersede the terms stated hereon.
- 8. If Metpure Inc. determines that products for which you have requested varianty services are not covered by the warranty hereunder, you shall pay or reimburse Metpure Inc. for all costs of investigation and responding to such request at Metpure Inc.'s prevailing time and material rates.
- 9. If Metpure Inc. provides repair services or replacement parts that are not covered by the warranty provided in this section, you shall pay Metpure Inc. for the prevailing time and materials rate.
- 10. Any maintenance, repair, service, or alteration to one, or other tampering with, the products performed by any person or entity other than Metpure Inc. or without Metpure Inc.'s prior written approval, or any use of replacement parts not supplied or approved by Metpure Inc., shall immediately void and cancel all warranties with respect to the affected products.
- 11. Any incidental or consequential damages aused by possible defects with this appliance is not covered by this Limited Warranty Period.
- 12. Exclusion of implied warranties your sole and exclusive remedy is defective part replacement as provided in this limited warranty. Any implied warranties, including the implied warranties of merchantability or fitness of a particular purpose, are limited to twelve (12) months or the shortest period allowed by law.

#### PRODUCT REGISTRATION WITH SERIAL NUMBER

Every manufactured Metpure Versatile system has a unique 10 digit alpha-numeric serial number which can be found on the Filtration Assembly Rail Mount.

Register your system using the serial number by going to the site shown below. This serial number is used to keep track of all warranty information, general information of the system itself, product updates, and also filter replacement reminders.



For further assistance with installation please e-mail our technical support at support@metpure.com or call us at 714-202-0019 for assistance. Our hours are between Monday-Friday 9:30am to 5pm Pacific Standard Time.

#### **METPURE PRODUCTS**

For more information on genuine Metpure products, accessories, and filters, please go to www.metpure.com.



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