



# Owner's Manual

## MB Series

### EB Style



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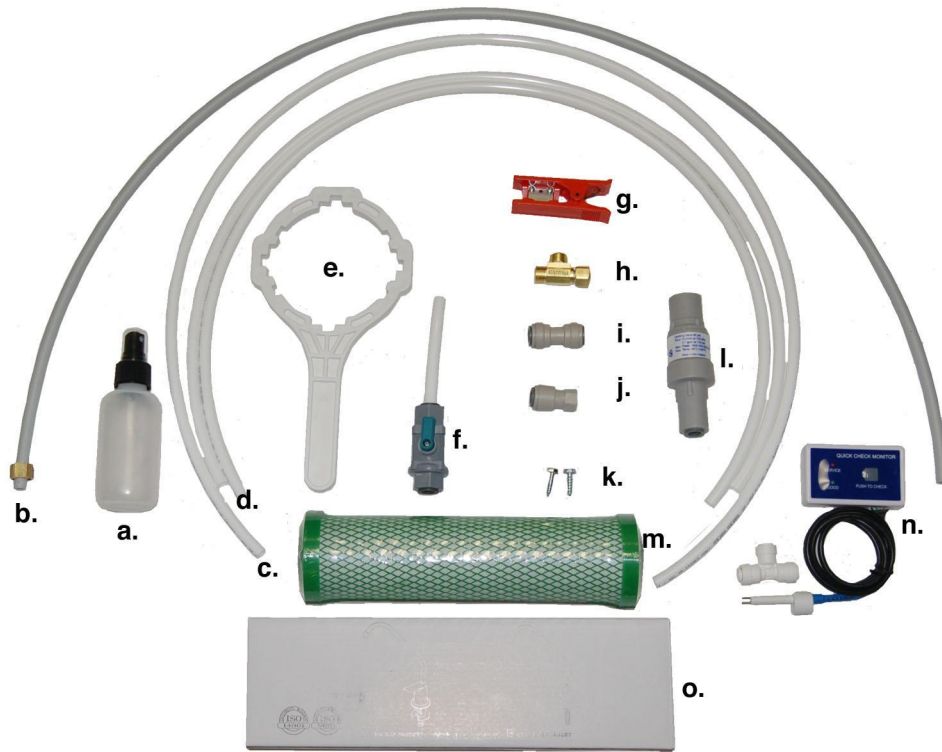
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#### Referral Credit Program

##### Save \$35 on Your Next Purchase

Simply tell your friends and neighbors about how they can get terrific tasting water with a Custom Pure water filtration system and you will receive a **\$35 Referral Credit** after they purchase a drinking water filter.

Updated: 3/11/21



- a. bottle for peroxide (for sanitizing system)
- b. PEX Tubing with compression fitting
- c. one 4 ft. piece of tubing
- d. two 3 ft. pieces of tubing
- e. spanner wrench
- f. ball valve
- g. tube cutter
- h. brass supply divider
- i. tank bypass union
- j. faucet adapter
- k. mounting screws
- l. pressure regulator
- m. extra pre-filter cartridge (for use in mid-year change)
- n. TDS tester
- o. standard faucet (alternative may be substituted)

## Installing Your New Filtration System

**Before you begin...** If installing the filter faucet involves going through granite, concrete or stone countertops, you need to have the hole for the faucet drilled by someone who knows how to work with these surfaces. Without their expertise you run a high risk of damaging the counter top.

**Please note**, having these tools on hand may make your installation go smoother:

- **Small adjustable wrench (8-10")**
- **Flashlight or headlamp**
- **Absorbent Towels**
- **Philips head screwdriver/hand drill (for if you wish to mount the filter bracket)**

### **Faucet Installation**

1. If possible, use an existing hole for the faucet (soap dispenser, spray hose, cover plate). If these are not viable options, a hole will need to be drilled.

2. Stainless steel sinks are the most common and the easiest to drill. The porcelain coated steel sinks require a special drill. Thick cast iron sinks can be drilled but are very difficult and should be avoided. If drilling into the sink is not an option, the faucet may also be installed on the counter top alongside the sink.

**CAUTION:** Drilling into sinks that are 100% porcelain requires special skills and tools. Drilling into granite, cement or other stone materials should only be done by professionals who routinely install these materials. Do not proceed with this installation without professional help.

3. Mark the desired location of the hole. Using an awl, mark the center of the hole by making a small dent. Then drill a 7/16" or 1/2" hole in the sink or counter top.

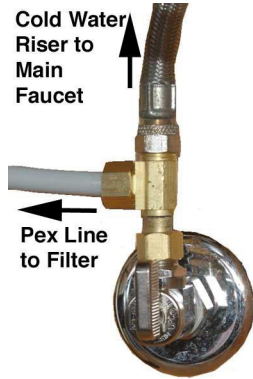
4. Assemble the faucet according to the diagram shown on the right. Position the faucet, then tighten the nut. **If you purchased a different faucet model, follow the instructions that came with your faucet.**

5. Attach the threaded portion of the faucet adapter to the faucet shank, being careful not to strip the threads. If the faucet has a tube coming out of the shank, use the push in union provided to connect with other tubing.

**Note:** Some faucets come with an additional brass compression nut for connecting tubing to the faucet. We recommend to not use this piece and instead use the push in faucet adapter or push in union provided.



## Connection to Water Supply:



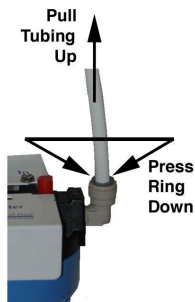
1. **Shut off cold water supply to the sink** and open the main faucet to confirm that the water has been shut off; then close faucet to limit the amount of water spilled in step 2.
2. Disconnect the cold water riser from the shut off valve.
3. Attach brass supply divider to the shut off valve.
4. Attach cold water riser to the brass supply divider.  
NOTE: If the gasket in your cold water riser is old and deformed, it may not seal well when connected to the supply divider. You should replace the riser if you find this connection has a leak.

5. Take PEX line with compression fitting on one end and attach to the brass supply divider.

## Using Push in Fittings and Tubing:

All of the remaining tubing is connected to the filter and plumbing using “push in “ fittings. For a leak free connection, tubing must be cut straight – not at an angle. Tubing should enter the fitting with as little angle as possible. The end of the tube must be pushed all the way into the fitting, approximately ½” depth.

Disconnecting Tubing



### Disconnecting Tubing from Push Fittings:

To disconnect the tubing from the fitting is a little trickier. Note the small ring where the tubing enters the fitting. Depress the ring against the fitting body being sure to apply pressure on both sides of the ring. While the ring is depressed, use your other hand to pull the tubing out of the fitting. If the tubing does not come out, it is because the ring is not sufficiently depressed, OR you have forgotten to depressurize the filter.

Tip: If you are having difficulty working your fingers around the ring, use a crescent wrench as an aid. Adjust its size so it slides easily along the tubing. Place the side of the wrench against the fitting’s ring. Now the wrench provides a broader platform on which to provide more pressure.

## Tubing Connections:

### 1. Tank Placement:

Place the resin tank toward the rear of the sink cabinet. Nothing will be connected to the tank until after the cartridges have been pre-rinsed.

### 2. Center Tube Connections:

Insert tubing into the center push in fittings under the cartridge housing bracket. A 3 ft. tube goes into the pre-filter outlet (bracket center-left). A 4 ft. tube goes into the post-filter outlet (bracket center-right).

3. Attach the **Ball Valve** to Pre-filter (bracket left side) using the short piece of tubing that is already attached to Ball Valve.



### 4. Sample Port:

Using the tube cutter, cut about 6" off the end of a 3 ft. tube. Then join the short and long pieces of this tube back together with the tee supplied with the TDS tester. Insert the other end of the short piece of tube into the post-filter inlet (bracket right side). Using the screws provided, mount the cartridge bracket to the cabinet so the bottom of the cartridge housing is at least 2" off the floor. Insert the monitor's probe into 1/4" tee and attach the monitor's display box to the cartridge housing bracket or other accessible and visible location.

### 5. Water Source Connection to Pressure Regulator and Pre-filter:

Locate the PEX tubing that you attached earlier to the brass supply divider. Using the tube cutter, cut the PEX line about 4" to 6" from the compression fitting. Insert the short piece of PEX tube into the pressure regulator. Insert the long piece of PEX tube into the other end of the regulator and the opposite end into the ball valve push in fitting. The ball valve should already be attached to the Pre filter - marked IN (left side of bracket).

### 6. Post-filter Connection to Filter Faucet:

Take the 4 ft tube exiting the post filter (bracket center-right) and route it behind the cartridge housing (and possibly the resin tank) and insert its opposite end into the filter faucet's push in fitting (under sink). Routing the tube behind the cartridge housing and tank, will make the filter more accessible for future servicing.

7. **Do not make connections to the resin tank, yet. See next page for instructions to pre-rinse the cartridges.**

## Pre Rinse cartridges while bypassing resin tank:



- Take the tube coming from the exit of the pre-filter (bracket center-left) and insert the opposite end into the bypass union.
- Take the tube coming from the TDS tester and insert its opposite end into the by-pass union. You have now by-passed the resin tank.
- Turn on the water supply to the filter and let the water run for 2-3 minutes. You will need to open both the main cold water valve and the valve supplied with your filter. Close the faucet for 1 minute, then open the faucet again and let the water run for 2 more minutes. The on and off pattern of rinsing is the fastest way of getting the carbon fines out of the cartridges.
- From under the sink, shut off the water to the filter by closing the ball valve and depressurize the system by opening the filter faucet (at the sink). Then close the faucet.



**Why we rinse cartridges...** Any new carbon cartridge will initially produce lots of air bubbles and release alkalinity (primarily includes carbonates, bicarbonates and chlorides) as well as some trace amounts of potassium and magnesium. The alkalinity serves to balance pH and is harmless and non-toxic. In fact, many water bottlers add these minerals to their water for the purpose of improving taste. If a filter is used without rinsing the cartridges, or if the cartridges are rinsed without bypassing the tank, some of the capacity of the tank will be used up by filtering out the alkalinity coming from the pre-filter cartridge.

### 8. Connect Resin tank:

- Disconnect the tubes from the bypass union. Place the union on top of the bracket for safekeeping. You will use this again when you change and rinse cartridges in the future.
- Take the tube already exiting the Pre-filter (bracket center-left), route it behind the cartridge housing, inserting the opposite end into the inlet of the Resin Tank (labeled "In").
- Take the tube already inserted in the sample port's tee (near Post-filter inlet - bracket right side) and insert the opposite end into the resin tank's exit.
- Push firmly on all connections to be sure the tubing has been inserted as far as it will go.
- Turn the water back on and let the filter rinse another 4-5 minutes — 2 minutes on, followed by 2 minutes off, followed by 2 minutes on. Repeat until the water runs clear.



(This picture does not show the sample port)

## Initial Start Up

### Check for Leaks

When you have completed the final five minute filter rinse, turn off the water at the filter's faucet. This will pressurize the filter. Inspect all connections for any leaks. Check again within 24 hours to make sure there are no slow leaks. *Early detection of a small, slow leak can prevent serious water damage to your home.*

### Air Bubbles

Initially, your water may appear "cloudy". What you are seeing are air bubbles coming from the carbon pre and post filters. The carbon cartridge's immense pore structure consists of macro-pores, which remove chlorine and large organics; and smaller micro-pores, which remove the small organic chemicals. The first five minute rinse will push air and carbon dioxide and most of the alkalinity from the macro-pores. But since water will take the path of least resistance, the micro-pores remain fairly dry. It is when you turn off the water and expose the carbon to the static pressure, the water starts to work its way into the micro-pores. Over time the bubbles will dissipate. Your initial ten minute rinse will have removed about 90% of the alkalinity and air bubbles produced by the carbon. The remaining 10% may linger for quite a while.

### Flow Rate

Initially, your filter should produce water at about 1 gallon per minute. This will vary depending on your own water pressure. Eventually the flow rate will decrease, due to the filter cartridge getting loaded with sediment. This will vary from neighborhood to neighborhood and year to year. *You are still getting excellent quality water when this occurs;* the water simply takes a longer time getting through the filter when it is loaded with sediment. If you notice a drop in flow rate before six months, go ahead and change your pre-filter earlier.

### Monitoring Your Filter

Your filter is supplied with an in-line TDS tester. This monitor checks the level of Total Dissolved Solids (TDS) coming from the resin tank. This stage of your filter is removing the bulk of the contaminants. Therefore, it is critical to exchange the resin tank before it reaches its full capacity. If allowed to go beyond its capacity, it will begin to dump contaminants back into the water. Use the monitor to insure that the resin tank continues to produce pure water.

While water is running through the filter, briefly press the grey button on the TDS monitor's display box. The green light indicates that the tank is producing pure water. The red light indicates that the filter may need servicing. Check the water quality on a monthly basis. Be sure to exchange the resin tank annually or earlier, if the TDS tester indicates need for service. We will send you a service reminder on an annual basis. ***It is vitally important that the filters get serviced as recommended, otherwise the quality of the water produced will greatly deteriorate.*** Service your filter when the monitor registers red (or before other monitors registers 5 ppm).

### Service Options:

Bring your resin tank to our store. We will provide you with replacement cartridges and resin tank with no additional labor charge.

Make a service appointment. If you are in our service area, we can come to your home or office and do all the service work for you for an additional labor charge.

Request a shipment of filter replacements. We will ship you the replacement tank and new cartridges. We want your spent tank because we can regenerate the resin and use it again. Our pricing structure is based on the understanding that we are exchanging resin tanks – not just providing you with a new one. The shipment will include return packaging and label with UPS.



# Servicing EB Style MB Series Filter

## Preparation:

Get some towels.

Shut off water to the filter by closing the shut-off valve as shown. ->

Depressurize the system by opening the filter faucet; then close the faucet.

If accessible, leave the cartridge bracket attached to the cabinet wall while servicing.

See troubleshooting guide if you can't open housings.



## Cartridge Change:

### Frequency:

Change the pre-filter every 6 months, or more often if flow rate drops substantially. Change the post-filter every 12 months.

1. Open the housing using the spanner wrench. (Left – loose; Right – tight)
2. Pour water out of housing and dispose of old cartridge.
3. Rinse the housing and wipe the inside with a clean paper towel. Remember to clean the inside of the housing cap (attached to the bracket).
4. Spray the inside of the cartridge housing with hydrogen peroxide to sanitize the surfaces.
5. If the o-ring falls out, clean it and re-lubricate it with some o-ring lubricant. (single use tubes available)
6. The pre-filter goes in the left housing (also marked pre-filter). The post-filter goes in the right housing (also marked post-filter).
7. Remove the wrapping from the new cartridge. Try not to touch the cartridge, like peeling a banana.
8. Place the cartridge in the housing and screw the housing back onto the cap (under bracket).
9. In order to preserve the capacity of the resin tank, follow instructions below for rinsing cartridges

## Resin Tank Change:

Frequency: every 12 months or more often if TDS tester indicates need for service.

1. Disconnect tubing at inlet and outlet of tank head.
2. Remove tank and place upside down in sink to let water drain out (inlet fitting at lowest point for best drainage).
3. Put new resin tank in place.
4. In order to preserve the capacity of the new tank, follow instructions below for rinsing cartridges.

## Rinse Cartridges with Tank on Bypass

1. Disconnect tubes attached to resin tank.
2. Take the tube coming from the exit of the pre-filter (bracket center-left) and insert the opposite end into the bypass union. *(If you don't have a bypass union, simply insert the opposite end into the inlet of the post-filter (bracket right side); then continue to step 4).*
3. Take the tube coming from the post filter inlet (bracket right side) and insert its opposite end into the bypass union. You have now bypassed the resin tank.
4. Turn on the water supply to the filter and let the water run for 5 minutes to rinse the cartridges. From under the sink, turn the water supply to the filter **off** and depressurize the system by opening the filter faucet (at the sink).



## Re-Connect the Resin tank

1. Disconnect the tubes from the bypass union. Place the union on top of the bracket for safekeeping. *(If you didn't use a bypass union, simply remove the tube from the connection at the post-filter inlet (bracket right side).*
2. Take the tube coming from the pre-filter (bracket center-left), route it **behind** the cartridge housing, inserting the opposite end into the inlet of the Resin Tank (labeled "In").
3. Take the tube coming from the post-filter inlet (bracket right side) and insert the opposite end into the resin tank's exit. Turn the water back on and let the filter rinse another 5 minutes.



## Multiple-Tank Systems (Working/Polishing)

### Setting Up Your Multi-Tank System

Follow all previous steps for start-up and installation, with a few more additional steps. Replace the instructions from **sub-steps b & c on Page 5, Step 8 of “Connect Resin Tank”** with these steps.

- Connect the tube exiting the pre-filter to the inlet of your “working tank”.
- Connect the tube in the inlet of the post-filter to the outlet of your “polishing tank”.
- Run an additional length of tubing from the outlet of the working tank to the inlet of the polishing tank.

### Working/Polishing Tank? What do you mean?

Working tank and polishing tank are terms we use to help describe the function and service pattern of our MB PLUS filter systems (PLUS meaning more than one/multiple resin tanks).

The “**Working Tank**” is the title given to the tank that is directly connected to the outlet of the pre-filter, so the source water will pass through it before the polishing tank. This means the outlet of the working tank will lead to the polishing tank.

The “**Polishing Tank**” is what we call the tank that is second in line, which further filters the water after it passes through the working tank. The outlet of the polishing tank will lead to the inlet of the post-filter.

### Multiple Tanks? Doesn't that just take up more space under my sink? What's the benefit?

#### Here's the short explanation:

The 2-tank working/polishing system lets you get better cost efficiency out of each tank replacement you purchase. This is a result of each tank in a 2-tank system individually lasting longer between services than in single tank systems, meaning long term savings on access to pure, delicious water!

#### And the longer version if you are looking for some light reading:

This 2-tank system utilizes two deionization filtration tanks in a working/polishing arrangement to facilitate greater water purification capacity per-tank than our single tank arrangements (up to a 50% increase in expected capacity per tank!).

This works by having a second tank acting as a “polishing” tank for the first “working” tank. As the working tank becomes more and more spent, it will begin to show some contaminant breakthrough. “Breakthrough” meaning any contaminants that make their way through a whole tank due to there being a lack of free chemical attachment points in the resin. Typically we would recommend swapping out a single tank system once we start seeing a breakthrough of 3-5ppm.

However, with a 2-tank system you have the polishing tank catching any breakthrough from the working tank. Since the amount of contaminant breakthrough will be much lower than the amount present in the source water, it will take an extended period of time before the polishing tank shows any breakthrough. Then, once service is due the former polishing tank is simply moved into the working position and a fresh tank is placed in the polishing position.

We hope that clears up any questions about the ins and outs of the working/polishing arrangement!

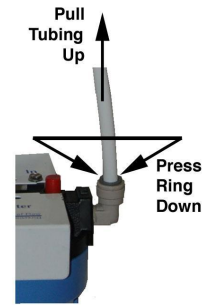


## Troubleshooting Guide

### Can't loosen cartridge housing?

- A. Confirm that you have depressurized the system. Check that water is turned off, and filter faucet is open.
- B. Disconnect tubing where it connects to the cartridge housings. Using two fingers, press the dark gray ring toward the lighter gray fitting while you briefly press the tubing toward the fitting then pull the tubing out. A small amount of water will drip from the tubing.
- C. Grasp the white bracket and lift filter off the mounting screws attached to the cabinet. Bring the filter up to the counter top.
- D. Slide spanner wrench up cartridge housing. Brace the filter with one arm and your torso and use the wrench handle to turn the housing clockwise. If it is still too tight, proceed to Step E.
- E. Lay the filter on it's back on the floor - the Custom Pure label should be facing up. Place your left foot on the back panel of the bracket (the part that is in contact with the floor). Slide the spanner wrench up the housing. Move the wrench handle in motion toward yourself and down to the floor. Use both hands if necessary to get better leverage.

Disconnecting Tubing



### Leak at Tubing Connection

- A. Remove tube from push in fitting. Using tube cutter, trim off ½” of tube producing a straight, clean cut.
- B. Insert tube into fitting being sure to push it as far as it can go.
- C. If the leak persists, you may need new o-rings for the fitting. Contact our office.

### Leak at Cartridge Housing

- A. Unscrew housing sump from the housing cap.
- B. Inspect cartridge while in the housing. See if some of the cartridge's outer webbing is bent away from the cartridge. If this is the case, the webbing has interfered with the o-ring.
- C. Using a clean paper towel, remove the cartridge from the housing and reinsert it “upside down”. Screw the sump back on the cap. Turn on the water and inspect for leaks.

**More Questions??? Contact us at (206) 363-0039 or [info@custompure.com](mailto:info@custompure.com)**

## **Point of Use Water Filtration Systems Warranty**

### **30 Day Free Service**

If a Custom Pure employee installs your system, for the first 30 days after installation, Custom Pure will provide all necessary fine tune adjustments of your system at no extra charge.

### **30 Day Refund on Cost of Equipment**

If within the first 30 days after installation, the equipment does not perform as described to you, you can request that the equipment be removed. You will receive your full purchase price for materials. Labor charges are not refundable, however there is no charge for removing the equipment within 30 days of the installation.

### **Equipment Warranty**

Custom Pure water filters are warranted for one year.

To maintain water quality, your filter must be serviced at intervals indicated by the inline water tester – or one year, whichever ever comes first.

Routine service requirements are the responsibility of the customer.

- Filtration media should be replaced at intervals indicated by the inline water tester – or annually, whichever ever comes first.

- Cartridge housings should be replaced every 10 years.

Due to potential changes in supply water quality and water usage, the expected service capacity of the filtration medium is not warranted.

If your filter is found to be undersized for your needs, you may upgrade to a larger filter with similar media, without losing your original investment in the filter.

Deionization systems (MB Series) are designed for use on supply water with a Total Dissolved Solids amount not exceeding approximately 67 ppm (conductivity of 100 micromhos). Should your water supply change, requiring a different type of point of use system, we can repurchase your filter and issue a credit for use towards alternative equipment

This warranty becomes null and void if the product shows evidence of damage, mishandling, tampering, chemical erosion, freezing, exposure to excessive water pressure, or use contrary to Owner's Manual. Routine cleaning and normal cosmetic and mechanical wear are not covered under the terms of the warranty.

All defective parts must be inspected by Custom Pure before repair or replacement is authorized. This warranty does not obligate Custom Pure to bear the cost of transportation in connection with the inspection/replacement of defective parts. Custom Pure will not be liable for any labor charges other than work performed in the Custom Pure shop. Incidental or consequential damages are not covered by this warranty.

This warranty gives you specific legal rights and you may also have other rights, which may vary from state to state. Some states do not allow limitations on duration or implied warranties or exclusion of incidental or consequential damages.

All claims must be submitted in writing to Custom Pure within 30 days from the discovery of the defect. Custom Pure thereafter will correct defective parts and/or workmanship within 30 days from the time of inspecting the defective equipment.