



Installation Guide MR5 Whole House Water Filter

Check with local zoning and other regulations for other requirements
Read all instructions before installation
Professional plumber installation recommended
Licensed Plumbers who wish to sell and install the MR5
contact 612 232 6651 - also for installation questions



RECEIVING THE MR5 SHIPMENT: Parts list

A: Five 20" filter elements **inside the MR5 housing** (remove plastic wrapping before using) with top and bottom plastic caps (SOLID CAP ON TOP and OPEN CAP with black washer ON BOTTOM); the filter itself can have either end on top or bottom BUT the plastic caps must be placed as just stated.

B: Stainless Steel MR5 cover

C: Stainless Steel inside plate with 5 holes for the top of the filter elements (goes inside top of MR5) with nut (hand tighten).

D: one silicone O-Ring and one extra (**keep dry and free of dust**).

E: Stainless steel band to seal top to bottom of MR5 with bolt and large wing nut (**follow directions to lubricate before tightening**).

F: Small parts for top of MR5: a pressure gauge (1/4" threaded shaft) and 3-way steel connector valve (small tube) and 1/4" air vent valve (**the MR5 must be completely purged of air prior to use**). Small parts for **bottom of MR5:** orange plastic plug 1/4" thread for drain hole at bottom of main MR5 housing. Older units may have stainless steel wall mounting strap(s) (available on request if you have a wall mount situation).

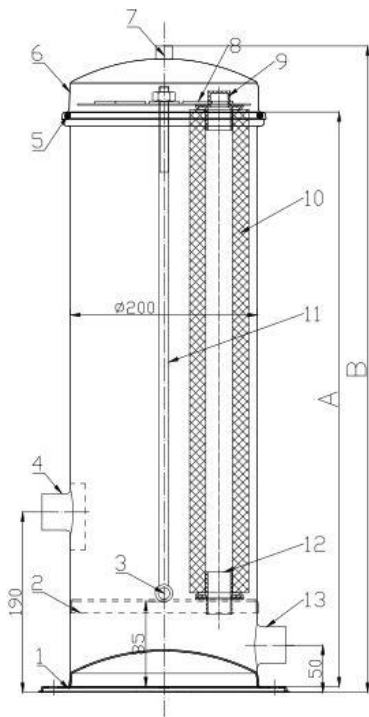
SHIPING DAMAGE: If you detect any problems due to shipping you have to immediately notify the shipper and us using the tracking number. Follow the instructions on the return policy notice included in the package. **If you ordered a UV filter or additional MR5 filter packs they will all arrive in a separate shipment with separate tracking numbers.** We have all replacement parts in stock.

PLUMBER INSTALLATION: If you are not familiar with standard plumbing practices and local zoning regulations then you must have a professional licensed plumber install the MR5 unit. These instructions are a summary and are not meant to be a complete step by step instruction list. Refer to a local licensed plumber for installation. Typical installation should take about 3 to 6 hours. Give this manual to your plumber so they can bring everything they need on the first visit. If they have any issues call the number above for assistance and READ DIRECTIONS.

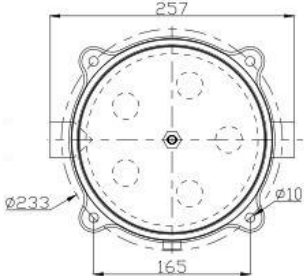
All screw on fittings for the unit must use liquid plumber thread seal (Loctite 567 Thread Seal Grainger Part # 49CR85 and allow to dry for a minimum of 12 hours before working with joint – manufacturer stated cure time 24 hours) to prevent leaks - DO NOT USE TEFLON TAPE TO SEAL JOINTS. If your unit comes with NH straight thread inlet and outlets, use NPT fittings with the recommended liquid plumbers' thread seal. If local codes require NPT thread, then order from GRAINGER.com the following adapter parts (MR5 2 each of 6ANY5 and for UV filter 2 each of 6ANY3). **Use Loctite 567 Thread Seal for all fittings (required).** **The MR5 and optional UV filter must be installed with isolation valves and an upstream pressure relief control valve set to no more than 60 PSI (0.40 MPa on the gauge) to control pressure AND SURGES that can occur with both well and city water.**

ITEMS needed for installation (besides normal plumbing equipment):

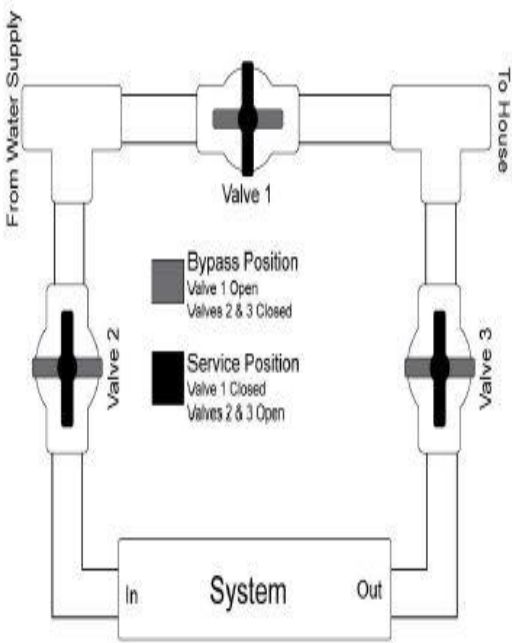
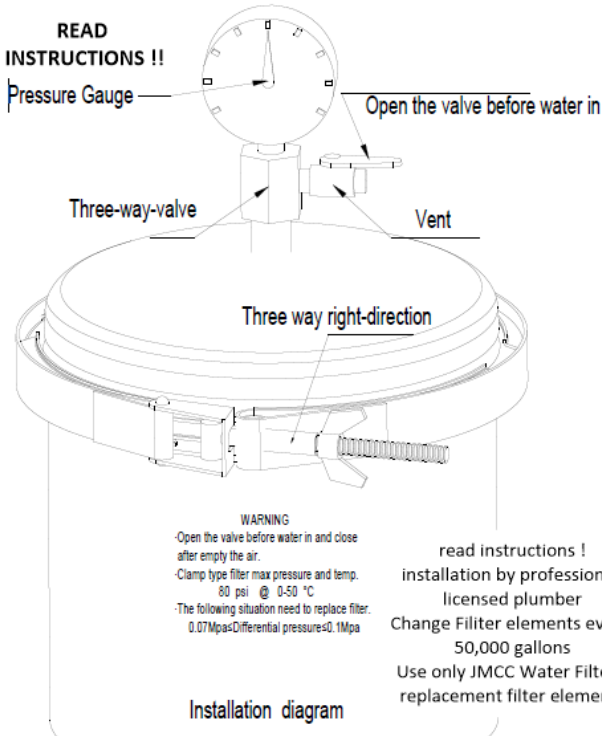
- Loctite 567 Thread sealer (available Grainger part number 49CR85 – 2 tubes)
- Optional Grainger NH to NPT fittings (2 each for MR5 6ANY5 and for optional UV filter 2 each 6ANY3)
- food grade cooking oil (to lubricate stainless steel band and MR5 housing and cap before tightening)
- large crescent wrench to tighten steel band (O Ring Clamp)
- wooden or rubber mallet to hit stainless steel band during tightening process

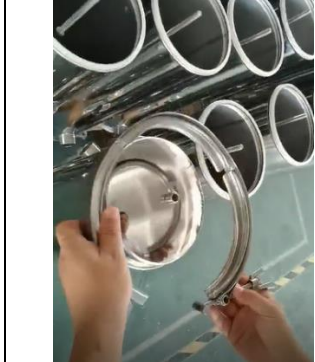
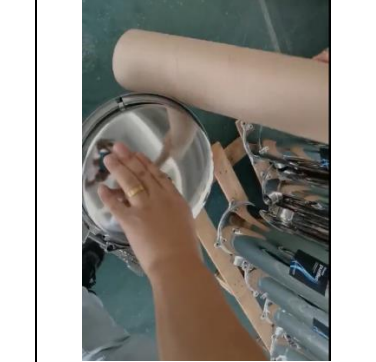


measurements
in mm



	MR5 Main Housing – allow 25" above to change filter elements – Vertical Installation Only
	READ INSTRUCTIONS BEFORE INSTALLATION
1	Base plate – fasten to floor with 4 bolts (bolts not incl)
2	Inner bottom plate with 5 holes
3	Drain plug 0.25" female threaded for plug or valve
4	INPUT PORT 1.5" female NH or NPT threaded
5	ORING – keep dry
6	Stainless Steel Cover
7	Port for 3 way valve (for ¼" Air Vent & Pressure Gauge)
8	Internal Top plate with 5 holes & wing nut
9	Upper Plastic filter cap (SOLID)
10	20" Filter Element
11	Center Bolt (threaded top)
12	Bottom Plastic filter cap (OPEN)
13	OUTPUT PORT 1.5" female NH or NPT threaded
A	610 mm (24.00")
B	680 mm (26.75")



			
Final Installation MR5 & UV NOTE pressure relief valve	Remove everything from the MR5 – note solid plastic caps on TOP	MR5 20" Filter element with OPEN plastic bottom end cap and black washer	Top of MR5 Pressure Gauge and air release valve and 3 way fitting
			
MR5 parts See additional items required	Replace SS cap Screw wing nut snugly	1.5 inch DN40 connectors See instruction details	Final – Tightening Cap Ring MUST BE LUBRICATED
			
Loctite 567 Thread Seal REQUIRED on all fittings Certified for use with water DO NOT USE TEFLON TAPE	Putting ORing on MR5 Maintain dry Maintain clean	Putting Top and Stainless Steel Band on MR5 Lubricate MR5 cover and bottom outer lips / inside of steel band & threaded BOLT	You can tap the Stainless Steel Band with a wooden mallet to help seat as you tighten the band – use a large crescent wrench

INSTALLATION DETAILS: Secure the MR5 to the floor with four bolts (are particular to a given installation so are not included). Pipes should also be installed with brackets so they cannot move. Place the MR5 unit near a floor drain since water may flow out of the unit when installing or changing filter elements. You can use a drain valve with plastic hose (not included) to route water to a floor drain from the lower drain outlet. The MR5 (and optional UV filter) must have isolation valves on both the input and output sides as well as a pressure relief valve (not included) on the up stream side of the MR5 set to no more than 60 PSI (0.40 MPa on the gauge). Follow local plumbing codes. Place all seals, water drain plug and valves in the MR5 unit prior to re-installing the filter elements. Install the filter elements making sure the original plastic caps are inserted in the top (closed plastic plug) and bottom (open plastic plug with black washer). Replace the stainless steel plate with 5 holes over the 5 filter elements, tighten the nut. Place the silicone sealing O-Ring between the Top and Bottom of the MR5 (O-Ring and MR5 surface at O-Ring must be clean and DRY). **BEFORE PLACING THE STAINLESS STEEL SEALING BAND, LUBRICATE ALL SURFACES WITH FOOD GRADE LUBRICANT (COOKING OIL). LUBRICATE ALL OF THE SURFACES WHERE THE STEEL BAND WILL TOUCH – THE LIPS OF BOTH THE MR5 BOTTOM AND TOP WHERE THEY MEET**

AND THE STAINLESS STEEL BAND INSIDE AND THE BOLT WITH LARGE WING NUT. Do not get lubricant on the O-Ring or MR5 surfaces where the O-RING sets. Fasten stainless steel sealing band with large wing nut. **The gap in the steel band should close almost completely to get a leak free fit. You can tap the sealing band around the edge with a wooden mallet to help force into locking position during the tightening process. You can use a wrench to further tighten the large wing nut to get a good seal. ALL MR5 units are pressure tested before shipment so any leaks are due to insufficient pressure from the sealing band.**

The input port on the MR5 is the one higher on the side of the filter housing. Both input and output ports are standard DN40 or 1.5" fittings. Do not reverse the flow of water. **You must install the input using the higher port and the output on the lower port of the unit.** You may wish to install an inline water meter to measure the water passing through the water filter so you know when the filter elements should be changed (or use your municipal water meter to measure water usage).

The MR5 is not a water softener. Many companies try to sell water softeners and call them whole house filters. If it has a tank with resin it is a water softener which only removes a very limited set of chemicals. A water softener is not a water filter. Minerals are not toxins nor pollutants. The targeted filtration of the MR5 is not designed to remove minerals. If you have hard water or excessive minerals in your water you should place a water softener upstream from the MR5 filter. Excessive mineral build up will shorten the life of the MR5 filter elements.

Follow the instructions below when turning on the water to the MR5. When placing the final seal on the MR5 (sealing the top to the unit) make sure that the sealing O-Ring is in place and that the top and bottom are matched and the stainless seal completely covers the lip on both top and bottom (use food grade lubricant like cooking oil on the band and threads of the wing nut bolt before tightening so metal band moves freely on the metal casings to allow a good seal).

Never remove the seal band when the unit is under pressure. Always remove pressure from the unit prior to doing any maintenance. You can replace the lower drain plug with a 1/4" valve.

TO CHANGE FILTER ELEMENTS: Turn off and by pass all water flow to the MR5 unit. Release the pressure in the unit using the top relief valve at the pressure gauge and only then remove the drain plug in the lower front of the MR5 unit. Completely isolate and reduce pressure and only then remove the top sealing band. Replace the plastic caps in the top/bottom of the new filter elements before re-sealing the unit. We stock all parts.

When filling the system with water for the first time or after a filter element change, use the following order of opening valves.

- 1) Close valve # 1 (diagram above).
- 2) Verify that valve # 2 and # 3 are both closed.
- 3) Open slowly and completely valve # 3 with the top air relief valve OPEN.
- 4) Allow air to vacate the MR5 housing while filling with water SLOWLY open valve # 2 slightly (just enough for a small amount of water to flow) to allow the system to vacate air and fill with water before opening completely. When water starts to come out of the top release valve close the release valve and allow pressure to build in the MR5. Check for any leaks and if there are leaks turn off the valves, drain any pressure and then drain water from the system. Fix leaks. Then follow procedure to slowly open valve # 2 to fill the system with low water flow before opening valve # 2 completely. If water flow slows over time then examine the filters for surface clogging. If you have excessive grit or other material that clogs the system (common with well water or high mineral content water) then it is recommended you place a sediment pre-filter in the line before the filter. If you have hard water, you should put a water softener upstream from the MR5 to prevent clogging the MR5 filter elements and shortening their life time.