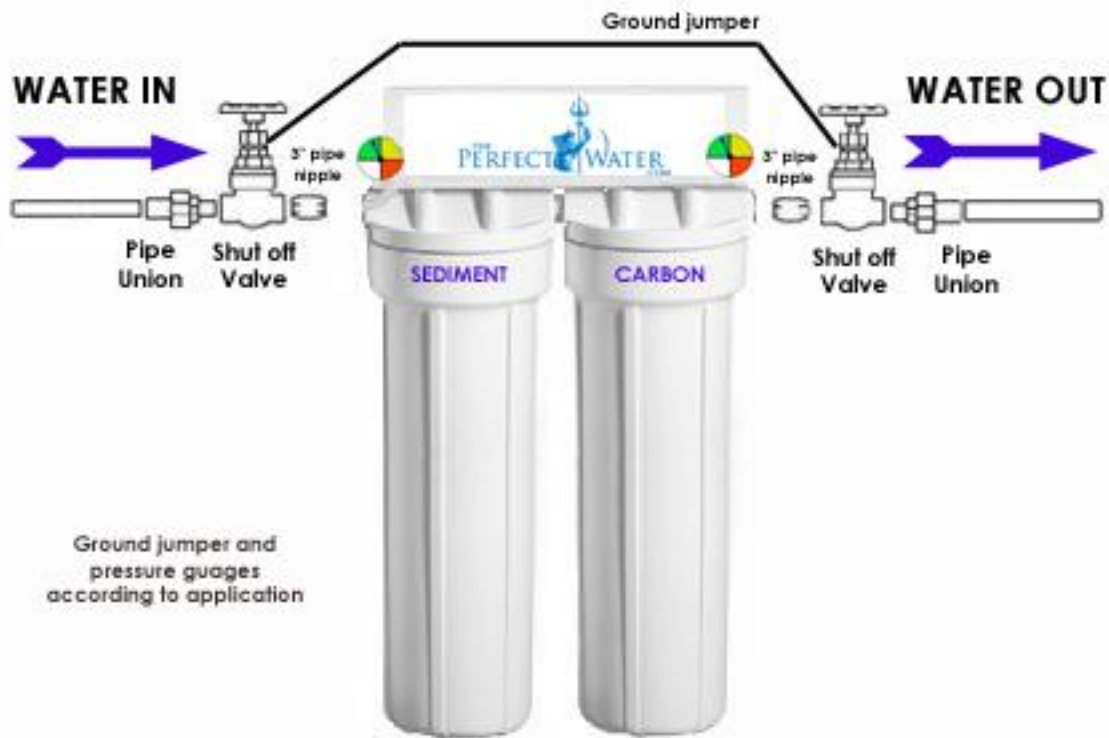


Perfect Water Technologies

Home Master® Water Filter Installation & Service Manual

HMF1C
HMF2SdgC
HMF2SmgCC
HMF3SdgFeC
HMF3SmgNCC
HMF-CYO





Contents:

Instruction book: detailed descriptions, photos and troubleshooting guide
Mounting bracket & screws assembled with housing cap(s)
Housing sump(s) with filter(s), o-ring, and silicone grease
Filter housing wrench

Maintenance Schedule

SEE PAGE 8

General System Specifications (See page 8 for additional details)

- Feed water: PSI 20 - 90 PSI ; for pressure greater than 75 PSI install a pressure regulator set to 75 PSI
- Feed water Temperature: 40° - 100°(F)
- **IRON BACTERIA: NONE**
- Your results may vary depending on regular maintenance, general condition of unit, and initial water supply. Filter not designed to treat microbially unsafe or non-potable water without adequate disinfection before and after unit.



Installing The Whole House Filtration System

Tools Required

Safety glasses
Towels
Flat head screwdriver
Medium Crescent wrench
Monkey wrench

hacksaw
Soldering iron or torch
Power drill
Teflon tape

Parts required (not included)

(2) shut off valves
(2) hex nipples or pipe nipples
(2) pipe unions
(1) ground jumper cable
(2) pipe hangers

bypass valve (s) (optional)
pressure gauge (s) (optional)
pressure regulator (as needed)

Preliminary Notes

- **This installation guide provides a step by step, start to finish procedure for installing your Home Master® water filter.**
- **All steps provided herein are for typical installations only. Your application may be different.**

Pre-Installation



- **WARNING: DO NOT** install system in locations where damage from a leak or failure could occur.
- **For well water - SHOCK CHLORINATE** your well and pipes immediately prior to installation and every filter change.
- **Filter should be protected from freezing, direct sunlight, extreme temperatures, kept dry and level.**
- **RECCOMENDED:** Use a by-pass valve and loop the entire system to make servicing easier.
- **Turn the water off to your house while installing the system.**
- **Turn off the electricity to your electric water heater during installation. After the system is installed and pressurized, turn on a few hot and cold-water faucets, and let them run until there is no more air in your lines, then turn the electricity back on to your water heater.**



- **Use Teflon tape on threaded fittings.**
- **Use tapered threads (NPT). Straight threads will leak.**
- **NOTE flow direction arrows on caps. Water flow must follow arrows or damage to filters or house may occur. You may unbolt housings from bracket and reorient if necessary.**



- **Be sure to note inlet and outlet markings. The sediment filter is the first stage of the water filter.**
- **Hard copper pipe generally comes in two types. Use the thicker "L" type copper pipe rather than thinner "M" type copper pipe.**
- **Follow all local plumbing and building codes.**

Installation

1. Turn off the main line water shutoff valve to the house.
2. Next, open all plumbing fixtures in the house in order to drain the lines of as much water as possible.
3. The filter should be installed on the main water supply line near where it enters the house, at any point past the main shut-off valve for the whole house, but before pipes branch off into multiple directions. However you may choose to locate the filter after the line branches to the inside and outside plumbing depending on your desire for filtered water in your outdoor plumbing. **WARNING: DO NOT** install the system where damage from a leak could cause water damage.
4. Measure, cut and remove a section of the main incoming water line near where the system is to be installed. When determining the length of pipe to cut, account for filter width, shut off valves, union fittings, nipple fittings, pressure gauges (if used) and by-pass valve (if used). Allow this line to drain thoroughly. Smooth the newly cut ends down to avoid jagged points or edges. Your filter should be located in a dry, level area and protected from freezing, precipitation, and direct sunlight.
5. Place a shutoff valve, by-pass loop (RECOMMENDED), and/or a pressure gauge(s) (optional) for future ease of service. **NOTE flow direction arrows on caps. Water flow must follow arrows** or damage to filters or house may occur. *You may unbolt housings from bracket and reorient if necessary.*
6. Securely mount the whole house filter using supplied mounting bracket and bolts. Ensure system is level.
7. You may now need to adjust pipe length or distance. Fit a pipe union onto the cut section of the main Water Line IN. (see diagram).
8. Fit together pipe union and shut off valve. Use Teflon tape on threaded fittings.
9. Simultaneously fit together shut off valve and whole house filter using pipe nipple or hex nipple to draw then together on the IN side of the filter.
10. Fit pipe hanger on water IN side for additional support.
11. Simultaneously fit together filter and the shut off valve on the OUT side of the filter. Fit pipe union to shut off valve on OUT side.



12. Check pipe length and pipe union length to see if additional pipe length or union required. Join pipe union and pipe.

13. Fit pipe hanger on water OUT side for additional support. Connect ground jumper cable (if necessary)

14. A) Remove each filter from its packaging, B) replace it in the sump taking care that it slots over the standpipe at the bottom of the sump,

15. APPLY GREASE TO ORING AND HOUSING THREADS - TO ENSURE SMOOTH OPERATION, OPENING , CLOSING, AND A PROPER SEAL.

FAILURE TO DO SO WILL LEAD TO INCOMPLETE CLOSURE & LEAKS, OR MAKE IT NEARLY IMPOSSIBLE TO LATER OPEN THE UNIT

SOME GREASE IS ADDED AT THE FACTORY. PLEASE ADD MORE.

16. NOTE FILTER ORDER: The SEDIMENT filter treats the water first. The CARBON filter treats the water last. In 3 housing units the IRON or Nanofiber filter will be in the center position.

17. Fit sump with filter to housing cap hand-tighten, then fit snug with housing wrench.

Turing the water back on

Open a nearby cold water faucet. (DO NOT USE HOT WATER) Then open your main water supply slowly to flush the unit. The water will be blackish in color for some time - this is normal carbon dust. Continue to run water until it runs clear and all air has been purged. Shut the water off and let the unit sit for a while, and then flush it again. It is not unusual for the water to appear "cloudy" for a day or so following installation - this cloudiness is actually tiny air bubbles being purged from the carbon. This is normal, harmless, and will clear up in a day or two.

- Even though there is filtered water in the cold water lines, the hot water heater is still full of raw water. Through normal use, this water will be replaced with filtered water in about 2 or 3 days. If you wish to accelerate the process, or if you have not done so recently, please **drain your hot water heater**.

- **This filter system should not be used with water that is microbiologically unsafe or of unknown quality without adequate disinfection before and/or after the system.**

1. Water filter systems should never be exposed to freezing temperatures - severe damage to the filter and housings could result. Such damage is not warrantied. DO NOT install the system where damage from a leak could cause water damage.

- After prolonged periods of non-use (such as a vacation), it is recommended that the system be flushed thoroughly for at least 5-10 minutes before using the water.



Filter Change Instructions

1. For well water—shock chlorinate your well and pipes prior to removing filters.
2. Turn off the water supply to the system. Depress the red pressure release button on the top of the filter housing cap to relieve system pressure. If your system was not equipped with a pressure relief valve, leave open a nearby faucet. This will make removing the filter housing possible.
3. Unscrew the housing (sump) from the cap using the filter wrench included with your system, or a commercially available “strap” type wrench. Remove and discard old filter cartridge.
4. Scrub the sump and cap with warm water mixed with about 2 tablespoons of household bleach using a sponge or soft rag. Wear rubber gloves.
5. A) Pour 2 cups of unscented concentrated bleach in each empty sump and close the system to hand tight and fit snug tight with the wrench. DO NOT over tighten. B) Drain your hot water heater. C) Open the main water supply to the system. D) Open a faucet at the furthest point from the system and run water until you smell the chlorine. Flush the toilet. Repeat at each point of use moving towards the filter system. E) Close the main water supply to the system. F) Open each housing.
6. Lubricate the o-ring with clean silicon grease . Be sure to use liberal amounts of grease on the lower oring so that the entire surface is covered. Failure to do so will cause binding, oring damage, leaks, and difficulties reopening the housing. DO NOT USE PETROLIUM JELLY. Insert o-ring in grove and press into place taping the o-ring all the way around. Make sure the o-ring is seated level. Replace o-ring if damaged or stretched.
7. Remove filter packaging and insert new filter cartridge into the sump, making sure that it slips over the standpipe in the bottom of the sump.
8. Fit the bottom of the housing (sump) into the cap and hand tighten, then use the filter wrench to fit snug. DO NOT OVERTIGHTEN.
9. Turn on the water supply slowly to allow the system to fill with water. Close any open valves downstream of the system once water flows and air is



purged. Inspect system carefully for leaks. If a leak is found, first follow the shut off de-pressurization procedure and then remove the housing to inspect the o-ring to ensure that it is seated properly. Then retighten.

10. Flush the system by turning on a few cold-water faucets. Allow the water to run until the air and carbon has been purged. Water may be cloudy initially. New activated carbon filter cartridges may contain loose carbon and air bubbles after installation.



Maintenance Guide	MODEL				
	HMF1C	HMF2SdgC	HMF2SmgCC	HMF3SdgFeC	HMF3SmgNCC
ORing122*	x	x	x	x	x
CFdgd2501-20BB		x	x	x	x
CFrfgac20-20BB	x	x		x	
Cfrffe-20BB				x	
CfKDF85GCC-20BB			x		x
CFpltn-20BB					x
Inspect system for leaks, wear, & signs of stress	Annually	Annually	Annually	Annually	Annually
Inspect oring for damage & deformation*	At filter change	At filter change	At filter change	At filter change	At filter change
Sanitize System	At filter change	At filter change	At filter change	At filter change	At filter change
<i>*It is a good idea to keep a set of spare orings - 1 per housing. You may need to change them each time you open the housing.</i>					
<i>Replace Housing cap and sump upon signs of stress or every 5 years whichever comes first. Inspect more frequently if your water pressure exceeds 75psi. Use a pressure regulator if your pressure exceeds 75psi.</i>					
<i>Note: Filter life will vary based upon contaminant level and usage.</i>					
<i>Note: protect system against freezing, direct sunlight and the elements</i>					
<i>This information subject to change without notification</i>					

MODEL# HMF3SdgFeC - Recommended Operating conditions:

pH: >7.0

Silica: <100 ppm

Manganese: <1 ppm (this filter removes Manganese, but it reduces the effective life of the filter cartridge)

Iron: < 3ppm

Iron Bacteria: NONE

Hydrogen Sulfide: NONE (this filter removes Hydrogen Sulfide, but it reduces the effective life of the filter cartridge)

Feed water: PSI 20 - 90 PSI

Feed water Temperature: 40° - 100°(F)

Max. Total Dissolved Solids (TDS): 2000 ppm

Annual Water Consumption

1 person	25,000 gallons
2 people	55,000 gallons
4 people	100,000 gallons

