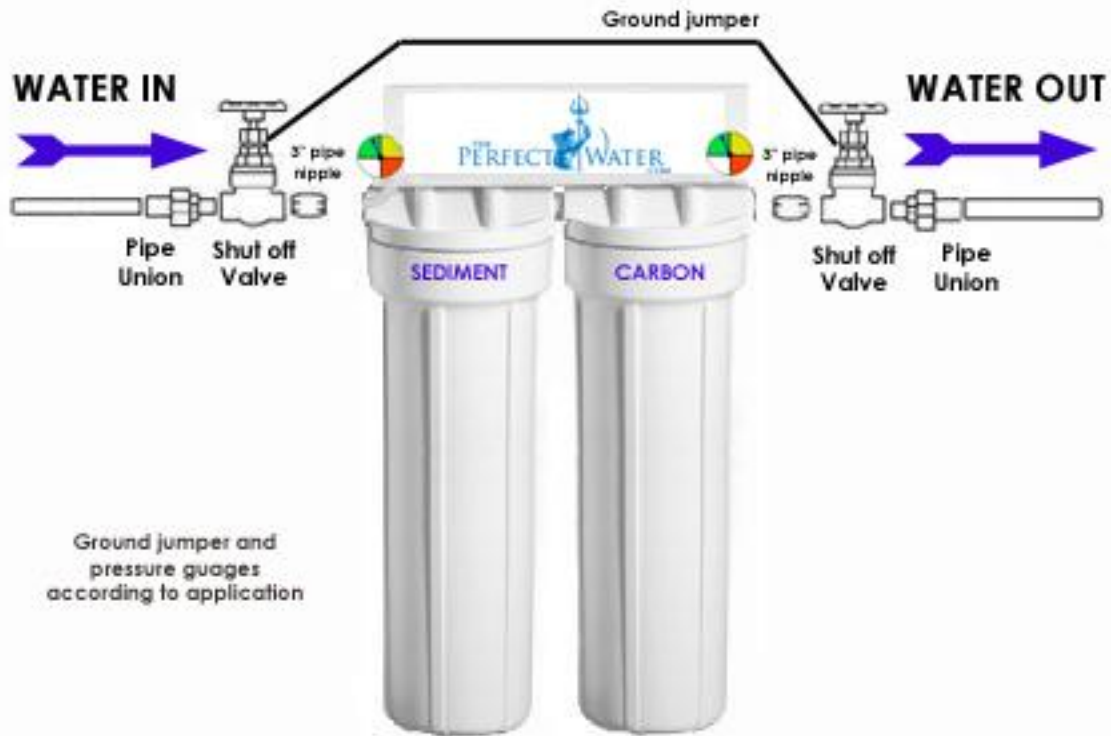


*Perfect Water Technologies*

# Home Master<sup>®</sup> 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 APPENDIX A**

### General System Specifications (See Appendix A for additional Information)

- Feed water: PSI 20 - 90 PSI ; for pressure greater than 90 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	hacksaw
Towels	Soldering iron or torch
Flat head screwdriver	Power drill
Medium Crescent wrench	Teflon tape
Monkey wrench	

### Parts required (not included)

(2) shut off valves	bypass valve (s) (optional)
(2) hex nipples or pipe nipples	pressure gauge (s) (optional)
(2) pipe unions	pressure regulator (as needed)
(1) ground jumper cable	
(2) pipe hangers	

### ***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**

- **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.**
- **Make a list of all the plumbing fittings and tools you will need to completely install the system according to your application.**
- **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.**
- **Be sure to note inlet and outlet markings. The sediment filter is the first stage of the water filter.**
- **A three-valve by-pass valve and loop may be installed to loop the entire**

**system which makes servicing easier.**

- **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.
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, and direct sunlight.**
5. Place a shutoff valve and/or a pressure gauge (optional) immediately on either side of the filter for future ease of service.
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. IMPORTANT:  
YOU MUST APPLY  
GREASE TO THE  
ENTIRE SURFACE  
OF BOTH ORINGS  
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  
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. Housing is closed when a 1/8" gap is observed between cap and lower lip.

### **Turing the water back on**

Turn your water on slowly. In a few minutes, the sound of water entering the system will stop. After the unit is installed, it is necessary to flush the unit thoroughly. Do this

at the nearest COLD water faucet. DO NOT USE A HOT WATER FAUCET TO PERFORM INITIAL SYSTEM FLUSH. 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.

### Notes

- 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 in the past 2 years, then **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.**
- **Water filter systems should never be exposed to freezing temperatures - severe damage to the filter and housings could result. Such damage is not warrantied.**
- 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 groove 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 over tighten.
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
<b><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></b>					
<b><i>Note: Filter life will vary based upon contaminant level and usage.</i></b>					
<b><i>Note: protect system against freezing, direct sunlight and the elements</i></b>					
<b><i>This information subject to change without notification</i></b>					

**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

