

INSTALLATION AND USER MANUAL

Advanced Whole House Water Filtration System

Model: SG22B



(A) INTRODUCTION

This professional grade residential water filter is an advanced system designed for whole house water filtration for homes with up to 3.5 bathrooms. It reduces coarse and fine sediment, dirt, rust, sand and other fine particulates and can be used on either municipally treated water supply, or private well, lake, river water systems.

(B) TECHNICAL SPECIFICATIONS

MODEL	→	SG22B
Mounting bracket		Powder-coated steel
Sediment pre-filter cartridge (PD20B25) rating		25μ
Sediment post-filter cartridge (PD20B01) rating		1μ
Includes sump removal wrench		√
Includes outlet pressure gauge		√
Dimensions (W x H x D) Inch (cm)		23¾" (61) x 20" (75.7) x 7.5" (28.4)
Inlet/Outlet Connections		1" Female NPT
Max Service Flow* @ 60 psi & 15 psi ΔP		40 GPM (151 LPM)
Maximum working pressure**		90 psi (620 kPa)
Operating temperature		4°C to 38°C (4°F to 100°F)

* Flow rate is based on optimum filtration. Unit may flow at higher flow rates but contaminant reduction performance may be reduced

** Install a pressure regulator and water hammer arrestor if pressure exceeds maximum rating at any time. **Note:** If daytime pressure is over 80 psi, night time pressure may exceed maximum pressure rating.

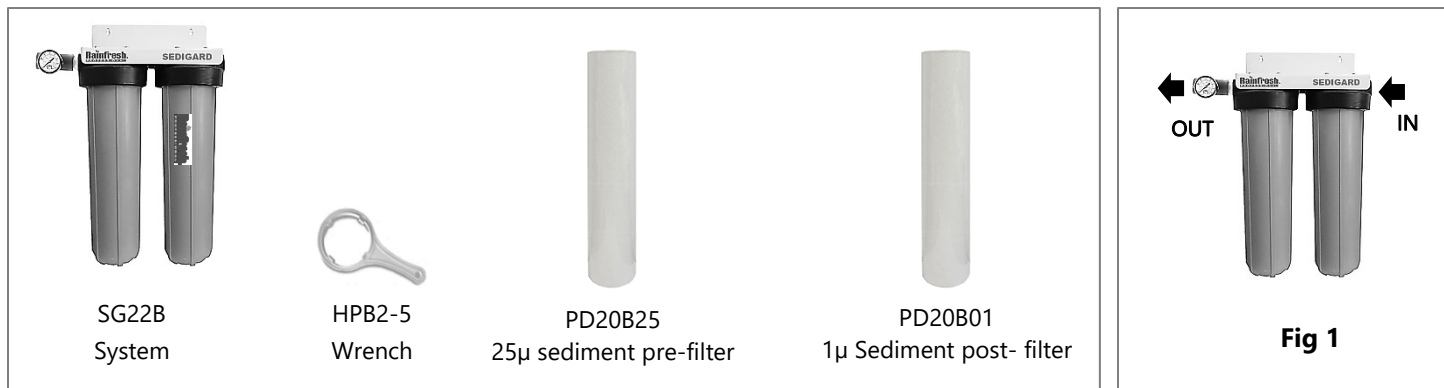
(C) INSTALLATION

Installation Cautions

- **For use on main cold water line only.**
- **For municipally treated water, always install after the water meter and main shut off valve. For well or lake water, install after pump and pressure tank. NEVER INSTALL FILTER SYSTEM BETWEEN WELL PUMP & PRESSURE TANK as that can cause damage to the unit and/or well pump.**
- **Caution:** The rubber O-rings provide a water tight seal between the head and sump. It is important that they are properly seated in the grooves of the sump or a water leak could occur.
- **Do not** use on water that is microbiologically unsafe without adequate disinfection before or after the filter. For effective disinfection install a Rainfresh PROFESSIONAL UV Water Disinfection System
- **Do not** over tighten metal fittings into plastic filter head or it may crack.
- **Do not** use torch/heat near plastic housing. If necessary, wrap a wet cloth around the pipe and head to absorb heat. All solder joints should be made before joining pipe to the filter head.
- **Do not** use thread sealing compounds. Use thread seal tape for connections into unit.
- **Do not** use petroleum based lubricants on the unit as that can damage the unit and cause leaks. Use only food grade silicone lubricant available at most retail stores.
- Allow at least four (4) inches below filter sump for clearance to allow room for removal during filter changes
- **Prevent unit from freezing. Do not** install in direct sunlight.
- **ELECTRICAL GROUNDING:** If water pipes are used to ground your electrical system, install jumper wire (not included) across the filter unit. Consult a certified electrician to verify electrical grounding.
- **If water pressure** will at any time exceed the 90 psi maximum, a pressure regulator and water hammer arrestor must be installed before the filter to prevent **potentially damaging shocks caused by high pressure.** Recommended regulator setting is 75 psi / 5.1 bar/ 517 kPa or less.
- **Do not install in multi-storeyed buildings over 4 storeys high or in non-residential applications.**
- Installation shall comply with province/state and local regulations.

Water Quality Requirements: The unit should only be operated with water that meets the following minimum criteria: Turbidity < 10 NTU ; Iron < 0.3 PPM, Manganese < 0.05 PPM, Tannins – Nil
Water quality that does not meet these parameters can cause more frequent replacement of filter cartridges and/or malfunction.

What is Included



Install location: The unit is designed for whole house installation AFTER the water meter or AFTER the pressure tank, depending upon your water supply. It should never be installed between pump and pressure tank. For municipally treated water, the unit should be installed BEFORE a water softener (if installed).

The filter can be installed on copper, PEX or CPVC pipe using appropriate fittings.

Allow at least four (4) inches below filter for clearance. Some water spillage may occur during filter cartridge changes. Therefore installing near a floor drain is preferable.

1. Using the wrench (HPB2-5), unscrew the filter bottom sumps from the heads and remove filter cartridges. Set these aside until later.
2. Identify INLET & OUTLET: The inlet of the system is to the right and the outlet is on the side of the pressure gauge (see fig 1).
3. Plumb in the INLET and OUTLET of the filter. It is recommended that you install bypass piping so that unfiltered water can be directed to the house in case of emergency. The bypass valve remains closed during normal service.

Install the cartridges:

- Remove plastic wrap from pre-filter cartridge and place it in inlet sump, making sure it is centered. Repeat for the post-filter which goes into the outlet sump. **Caution: Do not reverse the cartridge order as that can cause premature plugging of the filter cartridge.**
- Screw on the sump onto the head by turning counter-clockwise to tighten.
- Hand-tighten sump. **Caution: Do not use wrench to tighten the sump.** The wrench is to open the sump only
- Open valves before and after the filter unit, slowly turn on water supply and check for leaks. Flush water for 10 minutes prior to use. **THE FILTER SYSTEM IS NOW IN OPERATION**

(D) MAINTENANCE

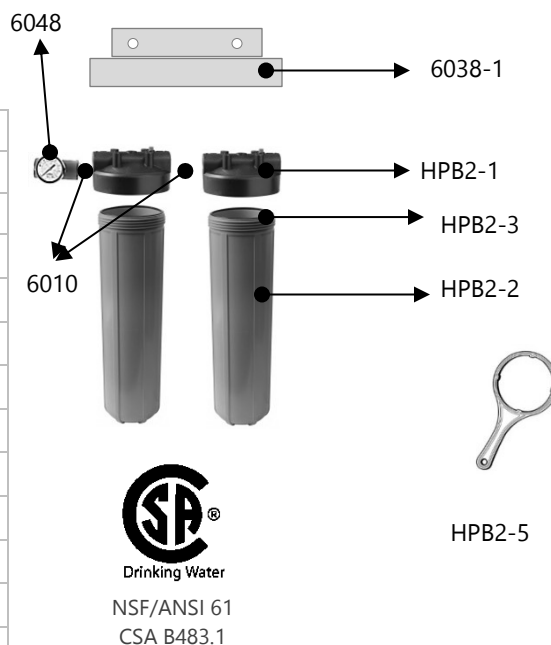
1. **O-ring Seals (HPB2-3):**
 - a. Replace O-ring annually.
 - b. Lubricate O-ring on the top of the sump after every cartridge change to prolong its life. Use food grade silicone lubricant or other non-petroleum based lubricants only.
2. **Sump (HPB2-2): Caution:** It is highly recommended to **replace sumps at least once every 5 years** to prevent costly repairs or possible water damage. Record date of installation of new sump at the bottom.
3. **Cartridge Replacement:**
 - a. Replace both filter cartridges when either flow drops or every 6 months, whichever is earlier. Wash the filter sump (HPB2-2) with mild soap and water. **DO NOT** use harsh cleaners or hot water. If the unit is not used in winter, or will be subject to freezing temperatures, drain unit and remove cartridge.

To replace cartridges:

1. Shut off the inlet valve and open a faucet close by until pressure in the unit is relieved. Alternatively you can press the red vent button on top of the unit until pressure is released. Now shut off outlet valve to prevent water in the plumbing lines to continuously drain through the housing.
2. Place an empty bucket under the sumps to catch any water spilling out of the housings
3. Using the supplied wrench (HPB2-5), unscrew the sump. Discard old cartridges and rinse sumps.
4. Remove O-ring and replace if it has been in use for a year. Otherwise wipe it with a soft cloth or paper towel and clean the groove on which the O-ring is seated.
5. Apply food-grade silicone lube on the O-ring and replace. All lubricate the sump threads. **Warning: Do not use petroleum-based lubricants on the seals as that can cause leaks**
6. Clean inside of the head as well to make sure the sealing surface is free of debris and stains.
7. Insert new cartridge into the sump and screw sump back on to filter. Hand-tighten only. **DO NOT USE WRENCH TO TIGHTEN SUMP.** Slowly open the water and flush for a few minutes before use.

(F) PARTS LIST

Part #	Qty	Description
HPB2-1	2	HPB2 Head with PRV 1" FNPT
HPB2-2	2	HPB2 Sump , no O-ring
HPB2-3	2	HPB2 Sump O-ring
HPB2-5	1	Wrench for HPB2 housing
6038-1	1	Mounting bracket, powder-coated steel
3412	8	Steel self-tapping screws for head
PD20B25	1	5 micron PP sediment pre filter cartridge
PD20B01	1	1 micron PP sediment post-filter cartridge
6010	2	1" PVC nipple
6014	1	1" PVC threaded tee
6019	1	1"x 1/4" PVC bushing
6048	1	Pressure gauge back mount, 1/4"



(G) LIMITED WARRANTY

Envirogard system housings are warranted, to the original Consumer purchaser/owner, for a period of one (1) year, from the date of purchase, against defects in materials or workmanship. The Company's obligation under this warranty shall consist of repair, replacement or credit, at its option, of any part found by Company inspection to be defective, provided that the product has not been misused, abused, altered or damaged as determined by the Company and provided that only approved Rainfresh Professional replacement cartridges and seals have been used in the housing. This warranty does NOT apply to the replacement cartridge which by nature will diminish in performance through normal use and requires regular replacement. This warranty does NOT cover, and is intended to exclude, any liability on the part of Company for any incidental damages, consequential damages, labour charges or any other costs incurred in connection with the purchase, installation, use, maintenance or repair of the water filter whether under this warranty or any other warranty implied by law. Some provinces/states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from province to province/state to state. This warranty applies only to equipment purchased and installed in domestic residential applications in Canada or the U.S.A. This warranty does NOT apply to commercial/industrial installations.

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