

## INSTALLATION AND OPERATING INSTRUCTIONS

## High Flow Water Filter Models BH010 & BH020 *(Please read thoroughly BEFORE proceeding. Please save for future reference.)*

# INTRODUCTION

These units are for use in situations requiring flow rates up to 20gpm/75L/min (Model BH010 -13 3/4" Height) and 40gpm/151L/min (Model BH020 -23 5/8" Height) These High Flow Water Filter Housings help protect plumbing fixtures, water heaters and appliances.

**Unique double o-ring design provides an extra water tight seal.**

**Cartridge not included.**

For dirt, rust, algae filtration use Rainfresh cartridges BC101, BC1 or BC3 in the BH010 and BC201, BC205 or BC225 in the BH020.

For taste/odour, chlorine and sediment reduction use BC2 in the BH010 and BC202 in the BH020 (Note: Rated flow for BC2 and BC202 is 3 US GPM and 6 US GPM only)

These units have 1" Female NPT Inlet and Outlet Threads.

Wrench included and Mounting Bracket sold separately

## INSTALLATION PRECAUTIONS & OPERATING SPECIFICATIONS & GUIDELINES

***For use on main cold water line only.***

**Always install after your pump and pressure tank or on city water after your meter and your main shut off valve.**

**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.

Use only with municipally treated or microbiologically safe water. The cartridges above **Do Not** remove harmful bacteria. For effective disinfection install a Rainfresh DS3, UCSSM, UCS2, DS2, SST, FC000/1M or CT1M Drinking Water System or a R519, R830 or R1245 UV Water Disinfection system.

**Do Not** over tighten metal fittings into plastic filter head or it may crack.

**Do Not** use torch 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** install in direct sunlight

**Do Not** use wrench to tighten sump to head.

**Do Not** use sealer. Use thread seal tape for connections into unit. Allow at least three (3) inches above and below filter for clearance. Protect your filter unit from freezing. Drain the unit if subject to freezing.

**Max Operating Temperature: 100<sup>0</sup> F / 38<sup>0</sup> C. Prevent unit from freezing**

**Maximum operating pressure:** 100 psi / 6.9 bar. If you suspect that your water pressure will at any time exceed the rated pressure, a pressure regulator **must be installed** before the filter housing. This will guard against the water pressure exceeding the maximum pressure rating. It is recommended that the pressure regulator be set at 75 psi / 5.2 bar or less.

**ELECTRICAL GROUNDING:** If water pipes are used to ground your electrical system, install jumper wire across the filter unit.

## INSTRUCTIONS FOR INSTALLATION

Instructions are for installing the BH010 housing on to 3/4" copper pipe using copper or brass solder fittings. If the unit is to be installed on any other type of pipe (plastic, PVC, Pex or Iron pipe) different hardware must be purchased. Consult a qualified plumber or call Rainfresh for help.

## Tools Required

Adjustable wrench, pipe cutter, file or sand cloth, thread seal tape, soldering torch, flux & lead-free solder, pencil or marker

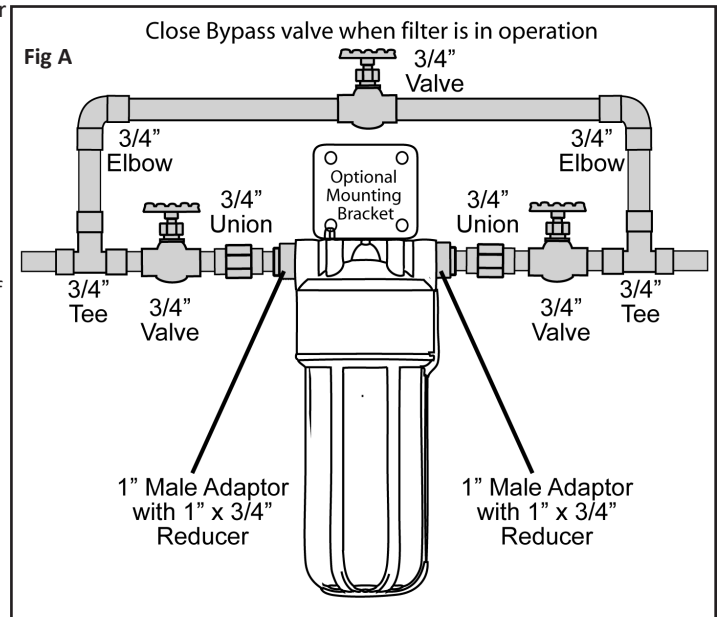
### Fittings Required

- 1"NPT male adapters (2) and 1"x3/4" reducers (2), 3/4" unions (2). It is recommended that you build a by-pass around the unit so that in case filter needs to be removed for service, unfiltered water can still be used in the house. To build the by-pass, you will need 3/4" copper tees (2), 3/4" elbows (2) and 3/4" ball valves (3).
- The filter should only be installed vertically as shown. The inlet/outlet ports can be on either side.
- Optional mounting bracket is sold separately (necessary for installation on PVC, plastic or PEX pipe).

## Recommended Installation Procedure

Locate the best position for the water filter where there is easy access for filter cartridge changes. This housing should be installed on the main water line right after the water meter or pressure tank. Allow at least three (3) inches above and below filter for clearance. Some water spillage may occur during filter cartridge changes. Therefore installing near a floor drain is preferable.

- a) Solder the 1"x 3/4" reducer on to the 1" male adapters and solder at least 2" pipe length to it. Solder one end of the union to the other end of the 2" pipe and allow to cool to room temp. Repeat for other side. Do not thread in adapters before soldering the reducers as soldering near the ports can cause damage to the unit and may cause a leak.
- b) Apply 4 to 5 wraps of thread seal tape, in a clockwise direction to the male threads of each adapter. **DO NOT** use pipe joint compound, wicking or sealer on any parts connecting to filter housing.



- c) Remove the sump from the filter heads and put aside until later. Using an appropriate sized adjustable wrench, screw in the adapters to the inlet and outlet ports of the housing, taking care not to cross-thread. **DO NOT OVERTIGHTEN** fittings into plastic filter head or it may crack, about one to two thread(s) should remain visible.
- d) Turn off water supply now and open a nearby faucet to drain water out of pipes and relieve pressure. Once all the water from the pipes is drained, measure and cut pipe as required and plumb in other fittings as shown in either fig A. **CAUTION:** To protect the housing from damage due to heat from soldering, wrap the ports in a wet cloth during soldering.
- f) Remove plastic wrap from filter cartridge (not included) and place it in sump, making sure it is centered. Screw on the sump onto the head by turning counterclockwise to tighten. Hand tighten only. **DO NOT USE WRENCH AND OVERTIGHTEN.**
- g) 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.

**YOUR UNIT IS NOW IN OPERATION**

### CHANGING YOUR CARTRIDGE

You should change your cartridge when the water flow is noticeably reduced or every 4-6 months, whichever is earlier. To replace cartridge, shut off the inlet valve and open a faucet close by until pressure in the unit is relieved.

Using the supplied wrench, unscrew the sump. Discard old cartridge and rinse sump. Insert new cartridge into the sump and screw sump back on to filter. Handtighten only. DO NOT USE WRENCH TO TIGHTEN SUMP. Slowly open the water and flush for a few minutes before use.

### MAINTENANCE

Lubricate both o-rings on the top of the sump periodically to prolong their life. Use food grade silicone lubricant or other non-petroleum based lubricants only. Wash the filter sump with mild soap and water. **DO NOT** use harsh cleaners or hot water. If your unit is not used in winter, or will be subject to freezing temperatures, drain unit and remove cartridges.

## PARTS LIST AND CARTRIDGE OPTIONS

### PARTS

BH010-1	BH010-020 Head
BH010-2	BH010 Sump (10")
BH020-2	BH020 Sump (20")
BH010-3	BH010/020 O-Rings
BH010-5	Wrench

### SEDIMENT CARTRIDGES AVAILABLE

BC101	10" 1 micron Sed. Cartridge for BH010
BC1	10" 5 micron Sed. Cartridge for BH010
BC3	10" 25 micron Sed. Cartridge for BH010
BP5	10" 5 micron Sed. Cartridge for BH010
BP25	10" 25 micron Sed. Cartridge for BH010
BC201	20" 1 micron Sed. Cartridge for BH020
BC205	20" 5 micron Sed. Cartridge for BH020
BC225	20" 25 micron Sed. Cartridge for BH020

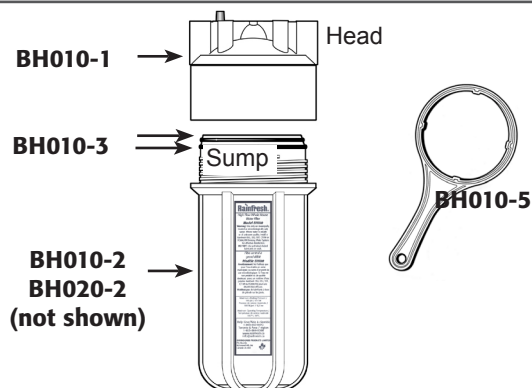
### CARBON CARTRIDGES AVAILABLE (Chlorine, Taste & Odour)

BC2	10" 5 micron Carbon Cartridge for BH010 rated flow 3 US gpm (not for whole-house use)
BC202	20" 5 micron Carbon Cartridge for BH020 rated flow 6 US gpm (not for whole-house use)

Note: A sediment filter must be installed before the carbon cartridges to prevent premature plugging up of the cartridges due to dirt, sediment etc.

### Optional Parts

BH010/020 Mounting Bracket and Bolts - BH010-6



Point of entry component tested and certified by CSA International to CSA Standard B483.1. and NSF/ANSI standard 61 for materials and structural integrity requirements only.

### 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. Envirogard'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 Envirogard/Rainfresh 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 Envirogard 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.

**Thank you** for purchasing one of our ENVIROGARD / Rainfresh Water Filters. We are committed to ensuring that you are **totally satisfied**. If you have any problems, don't go back to the store - **please contact us !**

Most issues can be resolved over the phone. (Monday to Friday - 8:00 a.m. to 5:00 p.m. EST)

**Help Line: 1-800-667-8072    Toronto & Area: 905-884-9388    Website: [www.rainfresh.ca](http://www.rainfresh.ca)**



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