



INSTALLATION AND OPERATING INSTRUCTIONS MODEL UCS3

(Please save for future reference.)

INTRODUCTION

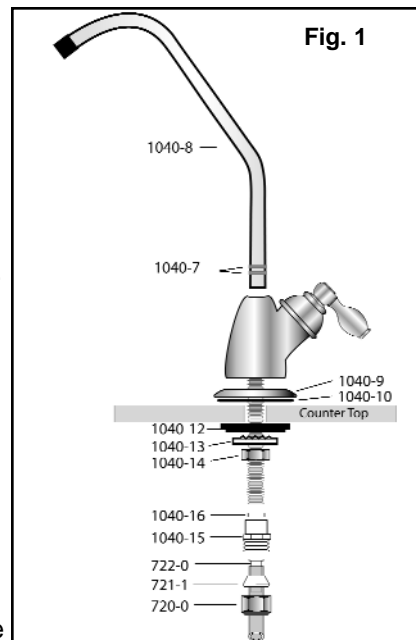
Your Drinking Water System 3 uses a unique 3 stage filtering process to provide safer, better tasting water in your home. It can be used on any water supply and is not limited to municipally treated sources. The water first passes through an Activated Carbon Cartridge (CF2) which reduces objectionable tastes, odours, colours and chlorine. This cartridge should be replaced every 4 months*.

Next the water passes through a (LR1) Carbon Cartridge that reduces Lead, Volatile Organic Compounds (VOC's) >95%, THM's (Trihalomethanes) >95%, chlorine and unpleasant taste/odour 99%. It also filters sediment as fine as 1.0 micron (nominal). The LR1 is a disposable cartridge, which should be replaced every 6 months*.

Finally the water passes through a self-disinfecting, silver impregnated Ceramic Cartridge (1M) which traps and kills harmful bacteria >99.99999%, traps cysts & protozoa >99.9% and filters particulates as small as 0.3 micron (absolute). This cartridge is cleanable and reusable. The flow rate will gradually slow during use as contaminants build up on the ceramic surface. The flow is restored by scrubbing the surface of the cartridge as required using the abrasive cleaning pad (811-0) enclosed. The 1M cartridge should be replaced after 1 year or if the cartridge gauge (703-4) can be passed over the width of the ceramic*.

***Note:** Cartridge life is directly dependant on water conditions and volume of water filtered. Excessive sediment may cause more frequent replacement.

Warning: Individuals requiring water of specific microbiological purity should follow the advice of their doctor or local health unit.



OPERATING SPECIFICATIONS

Maximum Pressure - 100 psi / 6.9 Bar. If water pressure surges, or will at any time exceed the 100 psi maximum, a pressure regulator and/or water hammer arrestor must be installed before the filter to prevent damage to the unit due to pressures exceeding maximum rating of the unit. Recommended regulator setting is 75 psi or less.

Maximum Temperature - 100°F / 38°C.

Cartridge Life - CF2 and LR1 - 375 gal / 1491 L or 4 months
- 1M - 1000 US gal (3785L) or 1 year

Rated Service Flow - 0.75 gpm / 2.8 Lpm

INSTALLATION (Read carefully before proceeding and keep instructions for future use.)

This unit comes with cartridges, faucet assembly and fittings to install the unit below the counter to copper or CPVC rigid plastic pipe.

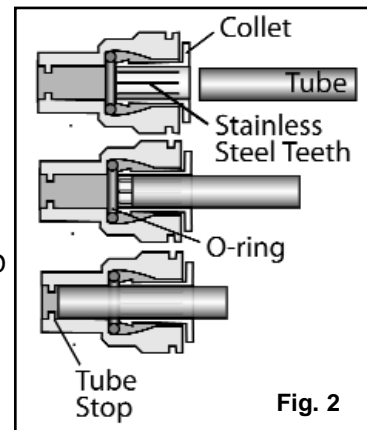
Unpacking the Unit

Remove each sump (520) by turning it 1/8 turn to left, then pulling away from head assembly (2526-0). Remove CF2 and LR1 cartridge by twisting and gently pulling away from head boss. Place CF2, LR1 and 1M Ceramic cartridge (packed separately) aside in a safe place until final assembly. CAUTION: YOUR CERAMIC CARTRIDGE IS FRAGILE AND SHOULD BE TREATED LIKE CHINAWARE.

Mounting the Faucet

Faucet may be installed in hole in sink if available or in counter top. Note: The faucet may also be installed in the sink sprayer hole if available.

1. Position faucet on counter top beside sink in desired position. Ensure that swivel spout will extend over sink and that there is room under the counter for faucet shank and to tighten nuts.
2. Mark the location and drill a 1/2" hole. Protect your counter top by applying a layer of masking tape and use a sharp drill.
3. (See Fig. 1). Insert faucet shank through escutcheon plate (1040-9) and escutcheon washer (1040-10), and then through counter top. Install plastic locating washer(1040-12), lock washer (1040-13) and locking nut (1040-14). Tighten locking nut securely while someone holds the faucet body so it does not turn. Place adaptor washer (1040-16) inside 3/8" adaptor (1040-15) and tighten adaptor securely on to the faucet shank with a wrench. Caution: Do not use any thread sealant or tape on the faucet shank.



Mounting the Unit

1. Locate best position for mounting unit undersink near faucet. Mark mounting bracket screw locations using mounting bracket (2568) as a template. NOTE: LEAVE MINIMUM OF 5 INCHES CLEARANCE BELOW SUMPS FOR REMOVAL OF CARTRIDGES FOR CLEANING AND REPLACEMENT. THE HIGHER AND CLOSER TO THE FRONT YOU MOUNT THE UNIT THE BETTER FOR REGULAR MAINTENANCE.

- Partially screw the 3 mounting bracket screws into screw locations. Install mounting bracket and head assembly over screw heads and tighten screws. **Note:** If wall is too thin to accept screws then use round head nuts and bolts (not supplied) to mount bracket.

Connecting the Faucet

Measure and cut a length from plastic tubing (1009-0) to connect faucet to the OUTLET fitting (2554). Make sure to leave enough tube for step 6. Slide compression nut (720-0) and sleeve (721-1) onto tube and put tube insert (722-0) into tube as shown in **Fig. 3**. Push tube into end of faucet adaptor (1040-15) and hold firmly in place. Now tighten nut securely with a wrench. Connect the other end of tubing to OUTLET fitting (2554) as shown in **Fig. 2**.

Acculink™ Fittings and Tubes (See Fig. 2)

To ensure an optimal seal tubing should be cut straight. An angled cut or distortion of the tubing will not provide an efficient seal and may cause leaks. To install the 3/8" tube (1009-0), mark it 3/4" from the end then push it firmly 3/4" through the collet, past the o-ring until it seats on the tube stop. To remove the tube, push in the collet with two fingers on each side of the tube and pull out the tube.

Installing the Self-Piercing Saddle Valve

The self-piercing saddle valve (1008-0) can be installed on copper or rigid plastic pipe of 3/8" to 3/4" diameter. (Not recommended for flexible plastic pipe). **Note:** If your cold water line is other than described, use fittings that adapt the pipe size to 3/8" compression (not included).

IMPORTANT: Orient saddle valve with outlet pointing towards INLET fitting (2553) so that remaining length of tube will reach and will not have any kinks.

- Back off handle on saddle valve to retract piercing tip. With rubber gasket in a fixed position clamp entire assembly to pipe using bolts provided. Tighten bolts, keeping brackets parallel until rubber gasket is firmly compressed. **CAUTION: DO NOT OVERTIGHTEN.**
- Measure and cut remaining length of plastic tubing to connect cold water line to INLET fitting (2553). Slide compression nut (720-0) and sleeve (721-1) onto tube and put brass tube insert (722-0) into tube as shown in **Fig. 3**. Push tube into end of saddle clamp fitting (1008-0) and hold firmly in place. Securely tighten the compression nut while holding other end of fitting with a wrench. Connect other end of tubing to INLET fitting (2553) as shown in Fig.2.

Starting Up

- Remove wrapping from carbon cartridge (CF2), Lead cartridge (LR1) and ceramic cartridge (1M). Push open end (blue end cap) of CF2 over boss of white head (inlet side), then push open end (green end cap) of LR1 cartridge over middle head boss. To replace sump, align the sump grooves with inlet head (2501) and middle head lugs and push straight up onto the head. Turn the sump 1/8 turn to right to fully to stop (lock position). Insert 1M cartridge with adaptor (2560) into the third (outlet) head by pushing upwards into head boss and twisting gently at the same time. Push sump straight up gently onto head and turn 1/8 turn to right fully to stop (lock position). Note: Bottom of sump has 4 guides to contain 1M cartridge. Sump will not lock unless bottom of cartridge is between guides.
- Tilt faucet handle up to constant on position.
- Turn on water flow from cold water pipe to filter.
- Turn saddle valve clockwise until handle is seated. **YOU HAVE NOW PIERCED THE PIPE AND CLOSED THE VALVE.** Now turn valve counter clockwise back to open which starts water flow. For maximum flow, turn handle out all the way.
- Allow water to run for few minutes to flush carbon fines from the ceramic cartridge. Adjust saddle valve so flow rate is 3/4 gallon/minute with faucet fully on.
- Close faucet and check all connections for leaks. Carefully retighten any leaking fittings. It is a good idea to check the unit a few times for slow leaks shortly after installation.
- Flushing and conditioning: Allow water to flow for 10 minutes to flush unit then close faucet and allow unit to sit overnight to condition. In the morning flush unit briefly before beginning service.

YOUR UNIT IS NOW IN OPERATION.

Note: In some cases with low water pressure, the OUTLET sump may only partially fill due to an air block. If this happens, turn off faucet and press top vent button until water level rises past the sealing point on sump.

Note: Some carbon fines may persist for several days. These are harmless and frequent running of the unit will clear them more quickly. Running the unit for extended periods of time will NOT help.

Cartridge Cleaning/Replacement Schedule

For most satisfactory operation, replace Carbon Cartridge (CF2), Lead Cartridge (LR1) and **clean** Ceramic Cartridge (1M) every 6 months. Replace ceramic cartridge every 12 months or when cartridge gauge (703-4) can be passed over the width of the ceramic. Note: Cartridges may require more frequent replacement if water contains excessive sediment. Clean ceramic whenever flow rate slows to an unacceptable level.

Cleaning 1M Ceramic Cartridge

- Close saddle valve all the way and open faucet to relieve pressure in filter. Press vent buttons on top of all heads.
- Turn sump 1/8th turn to left and lower to remove and at same time remove ceramic cartridge by twisting and gently pulling downwards. **Do not** remove cartridge by unscrewing from adaptor (2560). Transfer cartridge and sump to sink and dump water.

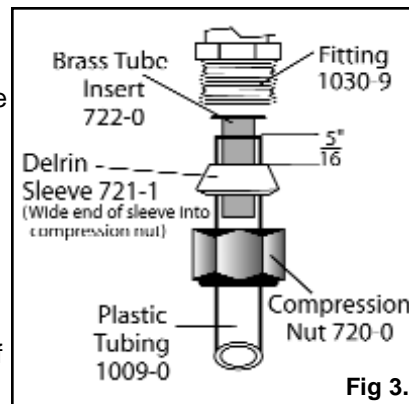


Fig 3.



3. To clean ceramic, (**Note:** Please wear rubber gloves) hold cartridge in palm of hand with nozzle up and gently scrub entire surface with abrasive screen cleaner (811-0) provided under running water until light colour of ceramic returns. Do not allow water to enter nozzle opening. **DO NOT USE SOAP OR DETERGENTS.** Scrubbing removes trapped particulates along with part of the ceramic.
4. Insert ceramic cartridge with adaptor (2560) back into head boss. Replace sump and turn 1/8 turn to right fully to stop (lock position). **Note:** Bottom of sump has 4 guides to contain 1M cartridge. Sump will not lock unless bottom of cartridge is between guides.
5. Open water flow then open faucet until all trapped air has escaped. If air remains in ceramic housing, turn off faucet and press top vent button until water level rises past sealing point on sump.

Replacing CF2, LR1 Cartridge - Every 6 months or 375 US Gallon (1419 Liters)

1. Close saddle valve off and open faucet to relieve pressure in filter. Press vent buttons on top of both heads.
2. Remove right sump and lower and at same time remove carbon cartridge by twisting and gently pulling downwards. Transfer cartridge and sump to sink and dump water. Do the same for the middle housing and the LR1 cartridge.
3. Insert new CF2 & LR1 cartridges onto head boss's and replace and lock sumps. Start water flow.
4. Turn on faucet until trapped air has escaped. If air remains in housing, turn off faucet and press top vent button until water level rises past sealing point on sump. **Note:** Some fines from carbon cartridge may be flushed onto ceramic cartridge. These are harmless and are removed with next cleaning.

Replacing 1M Ceramic Cartridge - Every 12 months or 1000 US gallon (3785 Liters)

1. Follow steps 1 & 2 above to remove sump and ceramic cartridge only.
2. **REMOVE CARTRIDGE ADAPTOR (2560) FROM OLD CARTRIDGE.** Thread adaptor onto new cartridge. Take care not to cross thread. Wipe any accumulated dirt from head boss before inserting new cartridge.
3. Replace cartridge by twisting and pushing adaptor up gently on head boss. Replace and lock sump. Open saddle valve to start water flow.
4. Turn on faucet until trapped air and carbon fines are flushed. If air remains in ceramic housing, turn off faucet and press top vent button until water level rises past sealing point on sump.

MAINTENANCE / CAUTIONS

Caution: If your unit is not used in winter, or will be subject to freezing temperatures, drain unit and remove cartridges from sumps. Place cartridges in sink or on a paper towel to dry, which will occur in several days.

Note: Lubricate Head O-rings (2502) at least once a year and when draining for winter. Use food grade silicone grease (i.e. Dow 111 compound) or any other non petroleum lubricant. Water conditions can be hard on rubber seals. Head O-rings (2502) should be replaced at least every two years. This is recommended to minimize wear and tear and prevent leakage.

Caution: Due to a limited product service life and to prevent costly repairs or possible water damage, we strongly recommend that sumps (#520) be replaced every 5 years. If sumps of your filter unit have been used for more than this period, replace immediately. Date the bottom of any new sump to indicate next replacement date.

Do Not clean housing with organic solvents such as those found in sprays for cleaning products or insecticides as these may cause cracking or crazing and lead to failure and leakage.

Protect filter from direct sunlight. Not intended for outdoor use.

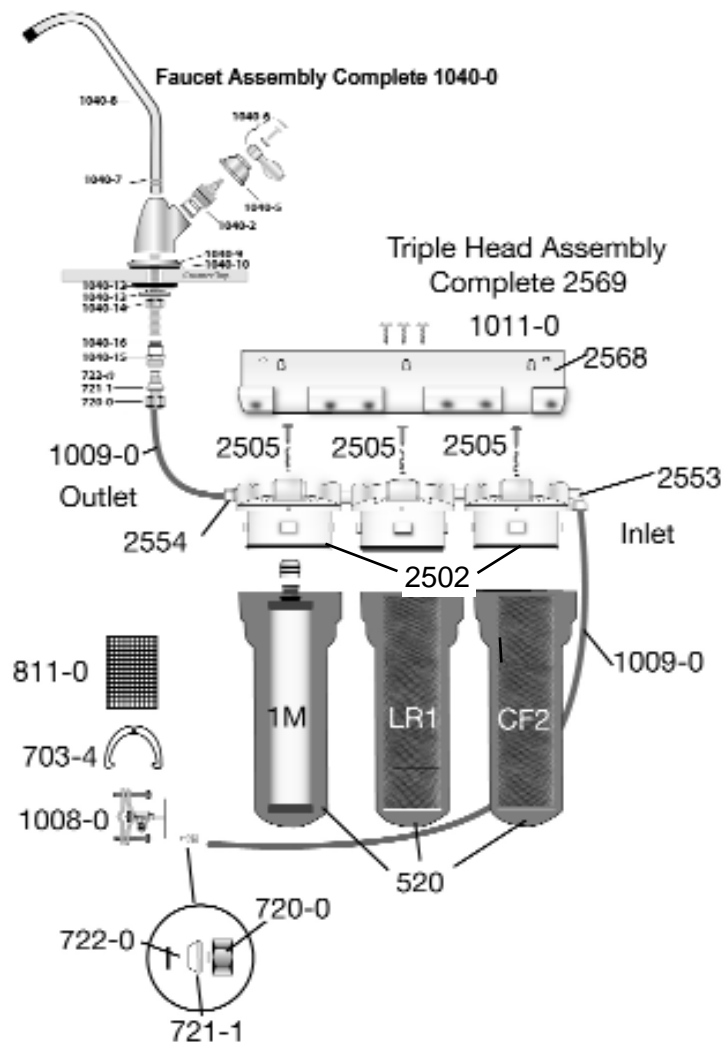
Note: For cold water use only.

TROUBLESHOOTING GUIDE

Problem	Possible Cause/Solution
1. Sump is difficult to remove	<ul style="list-style-type: none"> - Unit may still be under pressure. Close saddle valve and open faucet to relieve pressure. Then try again. - Head O-ring may be stuck. To break the seal, push up on the sump before turning to unlock.
2. Leak at Head O-ring	<ul style="list-style-type: none"> - O-ring may be dry or cracked due to age. Remove sump, cartridge and O-ring. Lubricate O-ring with food grade Silicone (i.e. Dow 111 Compound) or non petroleum lubricant and reinstall. If seal still leaks, replace it.
3. Leak at Vent Button	<ul style="list-style-type: none"> - Vent O-ring is not seating properly or is dry or cracked. Press vent button several times to re-seat vent o-ring. If O-ring still leaking, contact Envirogard for vent O-ring replacement kit.
4. Flow rate is very slow after installation of unit	<ul style="list-style-type: none"> - Call Envirogard to review installation procedure.

Parts Lists

Part Name	Part No.	Qty
Activated Carbon Cartridge	CF2	1
Lead Carbon Cartridge	LR1	1
Ceramic Cartridge	1M	1
Cartridge O-ring	517	1
Sump	520	3
Ceramic Cartridge Gauge	703-4	1
3/8" Compression Nut	720-0	2
3/8" Compression Sleeve	721-1	2
3/8" Brass Tube Insert	722-0	2
Cleaning Pad	811-0	1
3/8" x 48" plastic tube	1009-0	1
Bracket Mounting Screws	1011-0	3
Faucet Assembly Complete	1040-0	1
Ceramic Disk Assembly	1040-2	1
Handle	1040-6	1
Spout O-ring	1040-7	2
Spout	1040-8	1
Escutcheon Plate	1040-9	1
Escutcheon Washer	1040-10	1
Locating Washer	1040-12	1
Lock Washer	1040-13	1
Lock nut	1040-14	1
3/8" Adapter	1040-15	1
3/8" Adapter washer	1040-16	1
Head O-Ring	2502	3
Vent Pin Assembly	2505	3
3/8" MPT Nipple	2550	2
3/8"x3/8" Acculink™ Fitting 90°	2553	1
3/8"x3/8" Acculink™ Fitting Straight	2554	1
Ceramic Cartridge Adaptor	2560	1
Bracket c/w mounting Screws	2568	1
UCS3 Triple Head Assembly Complete	2569	1



System tested and certified by CSA International to CSA B483.1, to NSF/ANSI Standard 53 for reduction of Lead, Volatile Organic Compounds (VOC), Cysts (e.g. Cryptosporidium & Giardia), Lindane and to NSF/ANSI Standard 42 for reduction of chlorine, taste & odour

The standards referenced above evaluate products for use with disinfected waters.

Additional testing and verification for reduction of bacteria, cyst and particulates performed by independent laboratory. See Performance Data Sheet for details

Limited 5 Year Warranty

Envirogard system housings are warranted, to the original Consumer purchaser/owner, for a period of five (5) years, from the date of purchase, against defects in materials or workmanship. O-rings, faucet and installation fittings are warranted for a period of one (1) year from the original date of consumer purchase. The Companies obligation under this warranty shall consist of repair, replacement or credit, at its option, of any part found by the 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 have been used in the housings. This warranty does NOT apply to the replacement cartridge(s), which by nature will diminish in performance through normal use and require(s) 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 or 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 water filters/systems purchased in Canada or the U.S.A.

Thank you for purchasing one of our 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 !

Help Line: 1-800-667-8072 Toronto & Area: (905) 884-9388

Web Site: www.rainfresh.ca



ENVIROGARD PRODUCTS LIMITED
446 MAJOR MACKENZIE DR. E., UNIT 6, RICHMOND HILL, ON L4C 1J2 CANADA
P.O. BOX 64, RICHMOND HILL, ON L4C 4X9 CANADA

© COPYRIGHT • ENVIROGARD PRODUCTS LIMITED 2009 • ALL RIGHTS RESERVED

