

ECOWATER
S Y S T E M S®

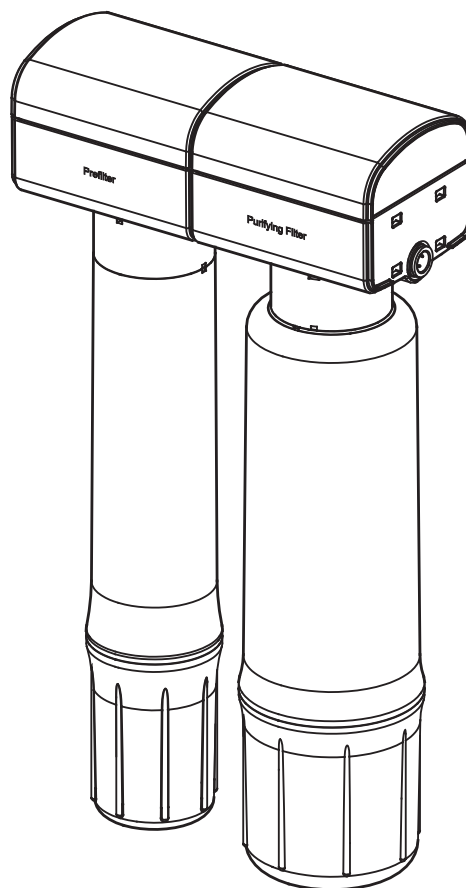


Your Water. Perfected.

EcoWater Purification System

EPS 1000

- ◆ Safety Guides
 - ◆ Installation
 - ◆ Operation
 - ◆ Maintenance
 - ◆ Repair Parts



System tested and certified by NSF International against NSF/ANSI Standards 42 and 53.

See performance data sheet for details.

The EPS 1000 system is certified by NSF International against NSF Protocol P231 for Microbiological Water Purifiers, based on the recommendations set forth in the U.S. EPA Guide Standard and Protocol for Testing Microbiological Water Purifiers (OPP Task Force Report, 1987).



System tested and certified by WQA against NSF/ANSI Standards 42, 53 and U.S. EPA Microbiological Guide for the reduction of the claims specified in the performance data on pages 3 and 4.



C US



Designed, Engineered &
Assembled in the U.S.A.

EcoWater Systems LLC
1890 Woodlane Drive
Woodbury, MN 55125
www.ecowater.com

7307445 (Rev. R 4/15/21)

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Warranty

LIMITED 5 YEAR WARRANTY

EcoWater Systems LLC, guarantees to the original owner that, for a period of five (5) years from from the date of purchase, the drinking water system will be free from defects in material and workmanship. The prefilter and purifying filter cartridges, which are expendable, are not covered under this warranty. This warranty does not include normal shipping, installation or service charges.

Any defective part, as described above, which fails within the five year period from date of purchase will be repaired or replaced, F.O.B. our plant, St. Paul, MN.

The sole obligation of EcoWater Systems LLC, under these guarantees, is to replace or repair the component or part which proves to be defective, within the specified time period, and EcoWater is not liable for consequential or incidental damages due to misuse, alteration, neglect, freezing or a force of nature. All implied warranties, including any implied warranty of merchantability or of fitness for a particular purpose, are disclaimed to the extent they extend beyond the above periods. No dealer, agent, representative, or other person is authorized to extend or expand these guarantees.

Some states do not allow limitations on how long an implied warranty lasts or exclusions or limitations of incidental or consequential damage, so the limitations and exclusions in this warranty may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Specifications & Performance Claims

SPECIFICATIONS	
Supply Water Pressure Min. - Max.	40 - 100 psi (276 - 689 kPa)
Supply Water Temperature Min. - Max.	40 - 100 °F (4 - 38 °C)
Rated Service Flow	0.74 gallons per minute (2.8 liters per minute)
Filter Service Life	350 gallons (1,325 liters)
Inlet - Outlet	3/8" quick connect fittings
Maximum Supply Water Iron, Manganese & Hydrogen Sulfide	0

This system conforms to NSF/ANSI 42 and 53 for the specific performance claims as verified and substantiated by test data. This system conforms to NSF Protocol P231 for Microbiological Water Purifiers.

This filter improves the taste and odor and reduces many chemical contaminants in drinking water. The faucet indicator monitors the length of time the filter has been installed and will flash amber continuously, indicating that the battery and the filters need to be replaced.

This system has been tested according to NSF/ANSI 42 and 53 for the reduction of the substances listed below. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 42 and 53. The testing was performed using spiked tap water at a flow rate of 0.74 GPM (2.8 L/min.), pH of 7.5 ±0.5, pressure of 60 PSIG, and temperature of 68 ±5°F.

IMPORTANT NOTICE: Read this performance data and compare the capabilities of this unit with your actual water treatment needs. It is recommended that, before purchasing a water treatment unit, you have your water supply tested to determine your actual water treatment needs. This filter system is designed to be used for the reduction of the performance claims listed below. Do not use for the treatment of water that is visually contaminated (cloudy) or has an obvious contamination source, such as contamination by raw sewage. This system is not intended to convert waste water or raw sewage into drinking water. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts. While testing was performed under standard laboratory conditions, actual performance of the system may vary based on local water conditions. Some or all of the contaminants reduced by this unit may not be in your water supply. **See elsewhere in this manual for instructions on filter cartridge replacement, system installation, operating procedures, and warranty. The maintenance instructions must be followed for the product to perform as indicated below.**

NOTE: See labels on the water treatment system for additional information.

PERFORMANCE CLAIMS						
Contaminant	Required Influent Level (µg/L) ^②	NSF Max. Permissible Effl. Level (µg/L) ^②	Average Influent Level (µg/L) ^②	Avg. / Max. Effluent Level (µg/L) ^②	Avg. / Min. Percent Removal	EPA ^① Max. Contaminant Level (µg/L) ^②
Lead @ pH 6.5	150 ±10%	10	150	1.1	99.3 / 99.3	15
Lead @ pH 8.5	150 ±10%	10	140	1.2	99.3 / 99.3	15
Substance						
Chlorine Taste & Odor	2000 ±10%	50% ^③	1,900	50 / 50	97.4 / 97.2	None ^④
Particulate, Class I ^⑤ (0.5 to <1 micron)	10,000 ^⑤	85% ^③	6,000,000 ^⑤	5,567 / 28,000 ^⑤	99.9 / 99.6	None ^④
VOC Reduction^⑥						
Chloroform	300 ±10%	95% ^③	300	0.5 / 0.5	99.8 / 99.7	15

^① Environmental Protection Agency maximum contaminant level as required under the Safe Drinking Water Act.

^② Micrograms per liter, which is equivalent to parts per billion (PPB).

^③ NSF minimum percent reduction requirement. The acceptance level for this substance is based on percent reduction, rather than maximum effluent concentration.

^④ The EPA has not determined a maximum contaminant level for this chemical.

^⑤ Particulate Class I, reported in particles per milliliter.

^⑥ Chloroform was used as a surrogate for the reduction of chemicals specified in the Organic Chemicals Reduced by Chloroform Surrogate Testing table (on the following page).

Performance Claims (continued)

ORGANIC CHEMICALS REDUCED BY CHLOROFORM SURROGATE TESTING

Contaminant	Average ^① Influent (µg/L) ^②	Maximum Effluent (µg/L) ^②	Percent Removal	EPA MCL ^⑦ (µg/L) ^②	Contaminant	Average ^① Influent (µg/L) ^②	Maximum Effluent (µg/L) ^②	Percent Removal	EPA MCL ^⑦ (µg/L) ^②
Alachlor	50	1.0 ^③	>98	2.0	Haloketones (HK):				
Atrazine	100	3.0 ^③	>97	3.0	1,1-Dichloro-2-propanone	7.2	0.1 ^④	99	NA
Benzene	81	1.0 ^③	99	5.0	1,1,1-Trichloro-2-propanone	8.2 ^⑥	0.3 ^④	96	NA
Carbofuran	190	1.0 ^③	>99	40	Heptachlor	25	0.01 ^③	>99	0.4
Carbon Tetrachloride	78	1.8 ^④	98	5.0	Heptachlor Epoxide	10.7 ^⑥	0.2 ^⑥	98	0.2
Chlorobenzene	77	1.0 ^③	99	100	Hexachlorobutadiene	44	1.0 ^③	98	NA
Chloropicrin	15	0.2 ^④	99	NA	Hexachlorocyclopentadiene	60	0.002 ^③	>99	50
2,4-D	110	1.7 ^④	98	70	Lindane	55	0.01 ^③	>99	0.2
Dibromochloropropane (DBCP)	52	0.02 ^③	>99	0.2	Methoxychlor	50	0.1 ^③	>99	40
o-Dichlorobenzene	80	1.0 ^③	99	600	Pentachlorophenol	96	1.0 ^③	99	1.0
p-Dichlorobenzene	40	1.0 ^③	98	75	Simazine	120	4.0 ^③	97	4.0
1,2-Dichloroethane	88	4.8 ^⑤	95 ^⑤	5.0	Styrene	150	0.5 ^③	>99	100
1,1-Dichloroethylene	83	1.0 ^③	99	7.0	1,1,2,2-Tetrachloroethane	81	1.0 ^③	99	NA
cis-1,2-Dichloroethylene	170	0.5 ^③	>99	70	Tetrachloroethylene	81	1.0 ^③	99	5.0
trans-1,2-Dichloroethylene	86	1.0 ^③	99	100	Toluene	78	1.0 ^③	99	1,000
1,2-Dichloropropane	80	1.0 ^③	99	5.0	2,4,5-TP (Silvex)	270	1.6 ^③	99	50
cis-1,3-Dichloropropylene	79	1.0 ^③	99	NA	Tribromoacetic Acid	42	1.0 ^③	98	NA
Dinoseb	170	0.2 ^④	99	7.0	1,2,4-Trichlorobenzene	160	0.5 ^③	>99	70
Endrin	53	0.59 ^④	99	2.0	1,1,1-Trichloroethane	84	4.6 ^④	95	200
Ethylbenzene	88	1.0 ^③	99	700	1,1,2-Trichloroethane	150	0.5 ^③	>99	5.0
Ethylene Dibromide (EDB)	44	0.02 ^③	>99	0.05	Trichloroethylene	180	1.0 ^③	>99	5.0
Haloacetonitriles (HAN):					Trihalomethanes (incl.):				
Bromochloroacetonitrile	22	0.5 ^④	98	NA	Chloroform (surrogate chemical)	300	15	95	80
Dibromoacetonitrile	24	0.6 ^④	98	NA	Bromoform				
Dichloroacetonitrile	9.6	0.2 ^④	98	NA	Bromodichloromethane				
Trichloroacetonitrile	15	0.3 ^④	98	NA	Chlorodibromomethane				
					Xylenes (total)	70	1.0 ^③	99	10,000

① Influent challenge levels are average influent concentrations determined in surrogate qualification testing.

② Micrograms per liter, which is equivalent to parts per billion (PPB).

③ Maximum product water level was not observed but set at the detection limit of the analysis.

④ Maximum product water level set at a value determined in surrogate qualification testing.

⑤ Chemical reduction percent and maximum product water level calculated at chloroform 95% breakthrough point, as determined in surrogate qualification testing.

⑥ The surrogate test results for Heptachlor Epoxide demonstrated a 98% reduction. These data were used to calculate an upper occurrence concentration, which would produce a maximum product water level at the MCL.

⑦ Environmental Protection Agency maximum contaminant level as required under the Safe Drinking Water Act.

Cyst, virus and bacteria reduction tested by BioVir Labs, in accordance with the U.S. EPA test protocol.

Substance	Log Reduction	%Reduction
Cyst	3.5	99.95
Virus	4	99.99
Bacteria	6	99.9999

What the Drinking Water System will Do

The EPS 1000 is a water purification treatment system. This system uses a dual filter configuration to remove undesirable elements in your water. These elements may include chlorine taste and odor, particulates, lead, virus, bacteria, cysts, and many organic compounds. At the same time, the system allows the minerals found in water to remain, for great tasting water.

NOTE: A performance data sheet is included listing what the system will reduce from the water supply. See the performance data sheet for individual contaminants and microbial reduction performance.

The drinking water system fits under the kitchen or bathroom sink. However, you can install it where it is most convenient. You need a COLD water supply pipe within a few feet (6 feet of tubing is included). You can purchase longer lengths of tubing if needed to reach more distant points. Be sure tubing is acceptable for use on potable water supplies.

Safety Guides

▼ Read all steps and guides carefully before installing and using your undersink drinking water filter system. Follow all steps exactly to correctly install. Reading this manual will also help you to get all the benefits from the undersink drinking water filter system.

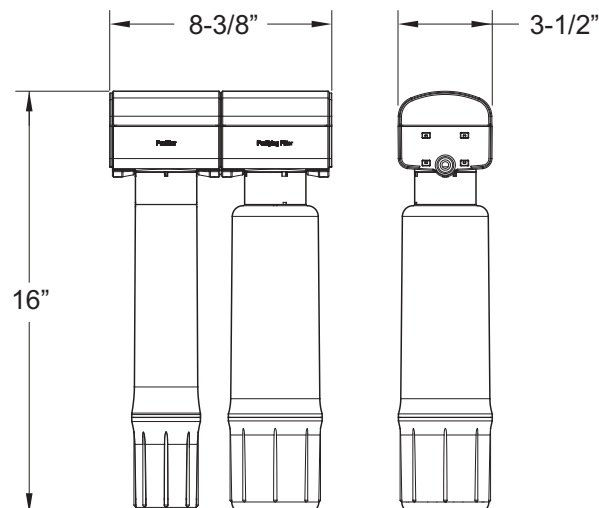
▼ Do not use for the treatment of water that is visually contaminated (cloudy) or has an obvious contamination source, such as contamination by raw sewage.

▼ All plumbing should be done in accordance with local codes and requirements. In Massachusetts, plumbing code 248 CMR 3.00 and 10.00 shall be adhered to. Consult with your licensed plumber.

▼ The undersink drinking water filter system works on water pressures of 40 psi (minimum) to 100 psi (maximum). If your house water pressure is over the maximum, install a pressure reducing valve in the water supply pipe to the filter system.

▼ Do not install the undersink drinking water filter system outside, or in extreme hot or cold temperatures. Temperature of the water supply to the undersink drinking water filter system must be between 40°F and 100°F. Do not install on hot water.

Dimensions



Components of the System

- Filter system assembly
- Color coded 3/8" OD tubing to make all needed connections
- Parts bag containing mounting washers and screws
- Filtered water faucet assembly, packaged separately

Installer Provides

- Fitting(s) to tap the cold water pipe for a feed water source to the filter assembly . . . must adapt to 3/8" OD tubing

Materials and Tools Needed

NOTE: Gather the required tools before starting installation. Read and follow the instructions provided with any tools listed here.

- Slotted and Phillips screwdrivers
- Pliers and adjustable jaw wrench
- Tubing cutter
- Electric drill and 1-1/4" drill bit if mounting hole is needed for the faucet

IMPORTANT: To avoid damaging the sink, consult a qualified plumber or installer for drilling procedures in porcelain or stainless steel.

Typical Undersink Installation

Locate the water filter housing on the cold water supply pipe, under the kitchen and/or bathroom sink, to filter the cold drinking water. Refer to the following drawing.

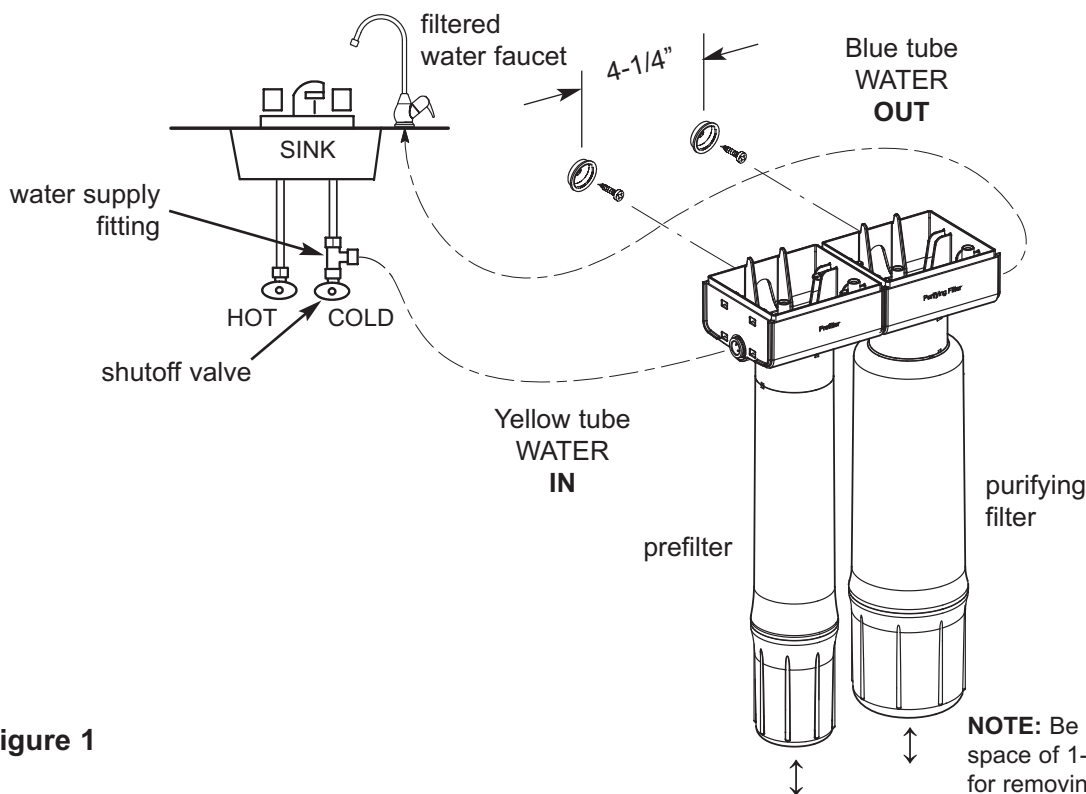


Figure 1

Installation Steps

Step A - Feed Water Supply Fitting

1. **Close the hot and cold water shutoff valves** that are immediately upstream of where you will install the feed water supply fitting. Open faucet(s) to drain water from the sink cold water pipe.

2. **Check and comply with local plumbing codes** as you plan, then install a feed water supply fitting to the sink's cold water pipe. The fitting must provide a leak-tight connection to the water filter's 3/8" OD tubing. See Figure 2, below, for two typical installations (water supply fitting/parts not included). You can use solder or threaded fittings. If threaded fittings are used, be sure to use pipe joint compound or Teflon tape on outside threads.

NOTE: Commonwealth of Massachusetts plumbing codes do not permit the use of saddle valves and require installation by a licensed plumber. Comply with plumbing code 248-CMR for installations in the state of Massachusetts. Please consult your local plumber.

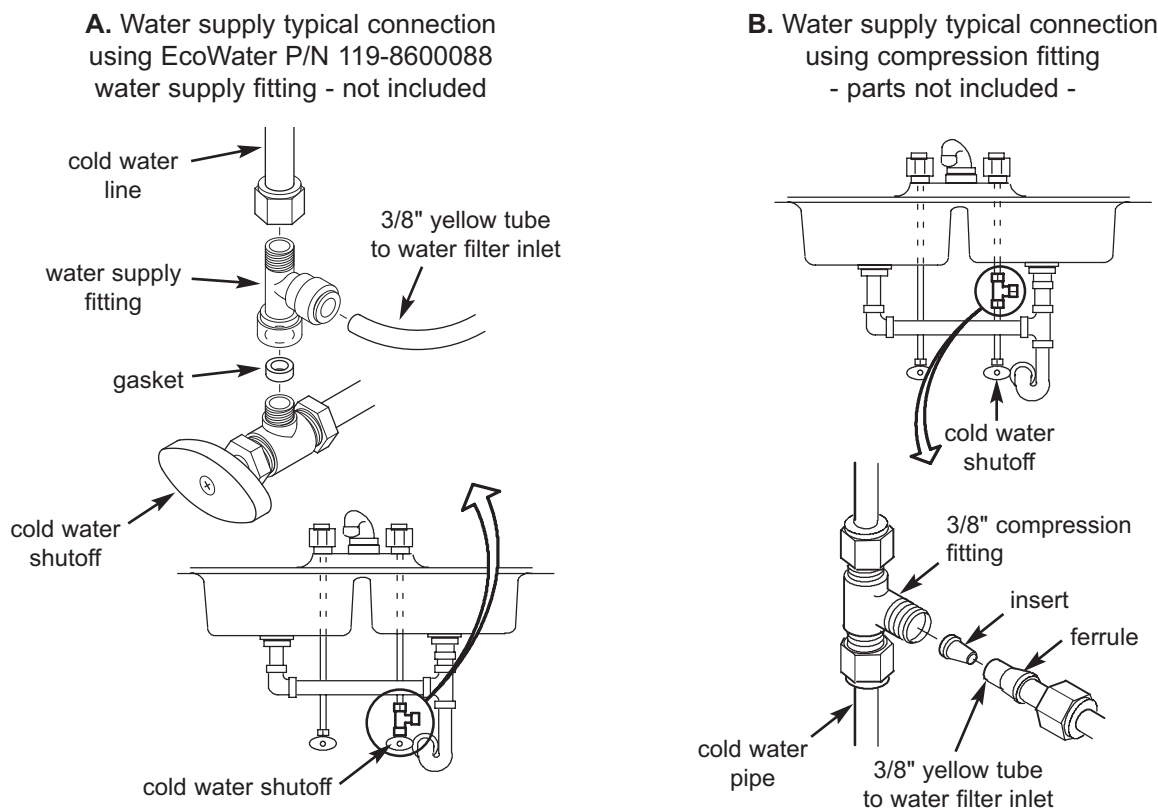


Figure 2

Step B - Make Hole For Filtered Water Faucet

IMPORTANT: To avoid damaging the sink, consult a qualified plumber or installer for drilling procedures in porcelain, stainless steel or granite. Special drill bits are made for this.

1. Select one of the following places to install the faucet. Be sure there is room underneath so you can make the needed connections.

- In an existing sink spray attachment hole.
- Drill a hole in the sink top.
- Drill a hole in the countertop next to the sink.

2. If drilling is needed make a 1-1/4" dia. (minimum) hole for the faucet.

Installation Steps

Step C - Install Faucet (packaged separately)

1. Slide the chrome base over the faucet stud so that it will sit below the faucet body (See Fig. 3).
2. Remove the hex nut from the end of the stud. Slide the spacer and lock washer onto the stud. Place the hex nut back onto the stud.
3. Move faucet stud down into the mounting hole until the faucet base rests on the sink or countertop.
4. On the underside of the sink or countertop, slide the slotted washer between the countertop and spacer. Tighten the hex nut securely.
5. Thread the 3/8" quick connect adaptor onto the end of the stud and tighten securely.
6. Connect the 3/8" blue tube by pushing the end into the 3/8" quick connect adaptor (See Page 9).

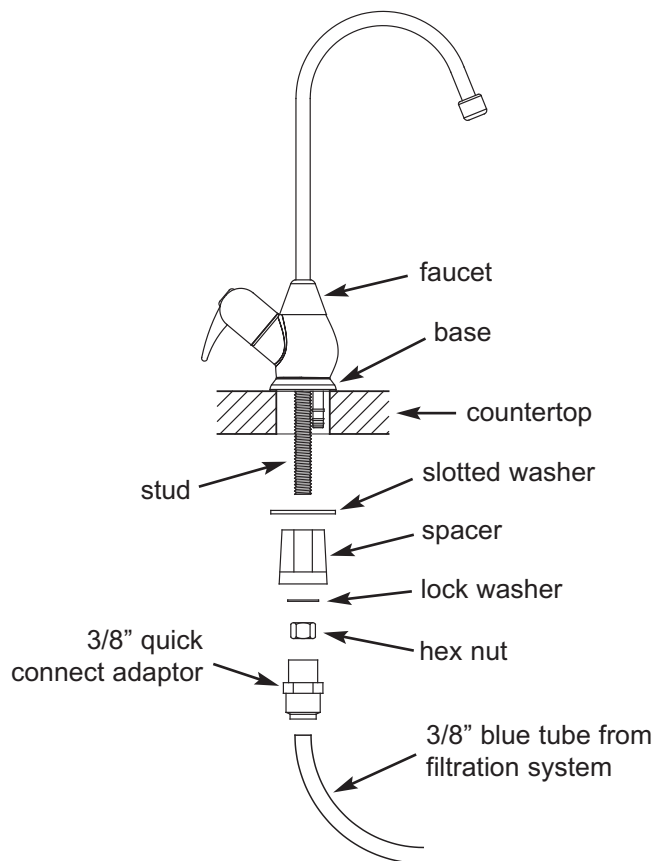


Figure 3

Step D - Make Tubing Connections

NOTE: Remove protective foam plugs before connecting tubes (See Fig. 4). Discard foam plugs.

1. Allowing some slack, measure and cut a length of yellow 3/8" tubing to connect between the supply fitting and the filter system inlet, Figure 1. Cut the ends of the tubing square.
2. Insert yellow tubing all the way into the supply fitting and inlet fitting. Pull on the tubing to be sure that it's held firmly in the fittings.
3. Repeat steps 1 and 2 to connect blue tubing from the faucet to the filter system outlet, Figure 1.

Tubing Connection (all push-in fitting locations):

This system includes push-in fittings for quick tubing connections. If working with the fittings, do the following.

Installation Steps

continued from the previous page

Connect Tubing:

1. Use a sharp cutter or knife to cut the end of tubing square.
 2. Inspect the end (about 1") of the tubing to be sure there are no nicks, scratches or other rough spots. If needed cut the tubing again.
 3. Push tubing through the collet and all the way into fitting. Full engagement is 3/4" length of tube into the fitting.
- If tubing other than supplied with the system is used, be sure it is of high quality, exact size and roundness with a smooth surface.

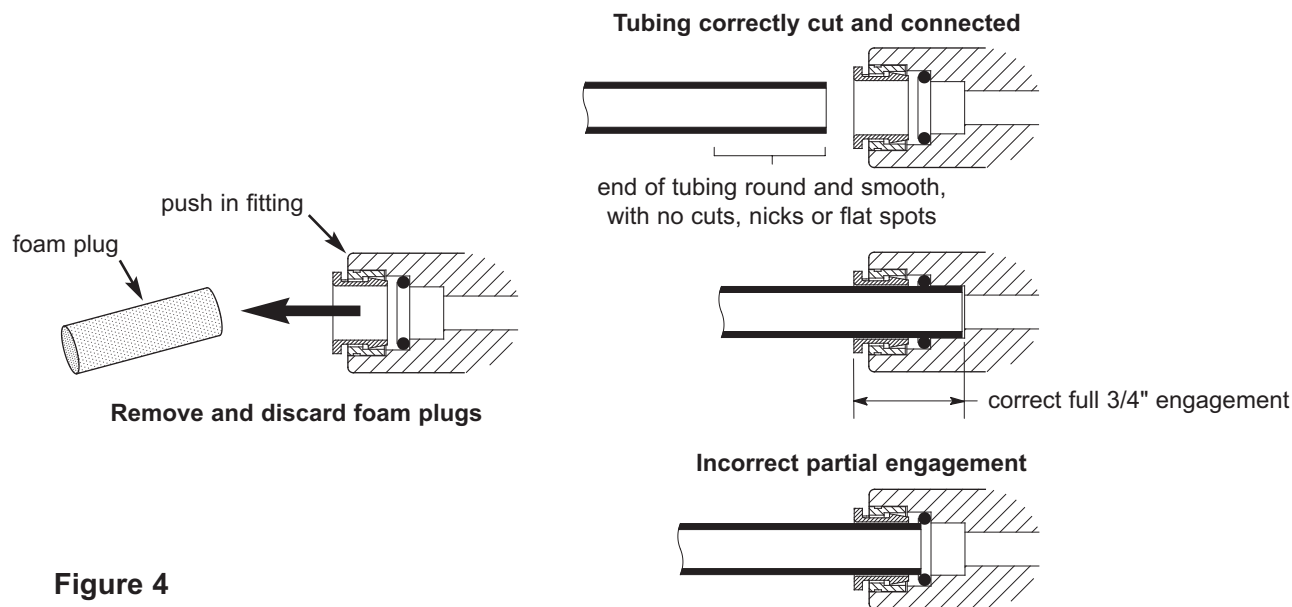


Figure 4

To Disconnect Tubing:

1. Push the collet inward and hold with a finger while pulling the tubing out.

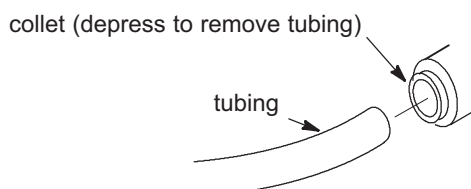


Figure 5

Step E - Install the Filter Cartridges

1. Remove the plastic wrap from the prefilter and purifying filter cartridges.
2. Install the cartridges onto the water filter head assembly, where shown in Figure 1. Turn cartridges to the right to tighten.

Step F - Turn On Water, Check for Leaks & Rinse Carbon Fines

1. Open the shutoff valve(s) that you closed at the beginning of this installation.
2. Open the sink faucet and filtered water faucet to purge air from the system. When the water runs smooth, with no bubbles or spurting, close faucets and check your installation for leaks.
3. Open the filtered water faucet and let the water run for 10 minutes to rinse out the carbon fines.

Filter Cartridges

Filter Cartridge Life

Lead, Chlorine Taste and Odor, and Purifying Filter Cartridges: Lead, chlorine taste and odor, and purifying filter cartridges contain activated carbon. When new, open the filtered water faucet and allow fine, carbon particles to purge from the cartridges. Flush for 10 minutes. It is recommended to **replace filter cartridges every six months or 550 gallons** of use. There are several variables that determine how long a cartridge will last. These include:

1. How much water you use, and
2. How much sediment, taste and/or odor, or other unwanted substance, is in the water.

Use the following information as a guide. However, no matter which type of cartridge you are using, you will know it is time to replace them when you first notice the return of the unwanted sediment, taste and/or odor in your water, or when the flow diminishes or stops.

EcoWater Undersink Drinking Water Filter system model EPS 1000 with replacement elements 7320697 and 7308069 conforms to NSF/ANSI 42 and 53 for the specific performance claims as verified and substantiated by test data. The rated capacity for this system is 550 gallons (2,082 liters) at a rated service flow of 0.74 gallons per minute.

State of Wisconsin Required Statement: Do not use in Wisconsin with water that is microbiologically unsafe, or of unknown quality, without adequate point of entry (i.e. whole house) disinfection before this device.

Filter Cartridge Replacement (Replace filter cartridges every six months)

1. Turn filter cartridge to the left to remove cartridges from the filter heads.
2. Dispose of the cartridges in a proper manner.
3. Install new cartridges. Turn cartridges to the right to re-attach to the filter heads.

Lead, Chlorine Taste and Odor, and Purifying Filter Cartridges: Lead, chlorine taste and odor, and purifying filter cartridges contain activated carbon, a black powder. When new, open the filtered water faucet and allow fine, carbon particles to purge from the cartridges. Flush for 10 minutes.

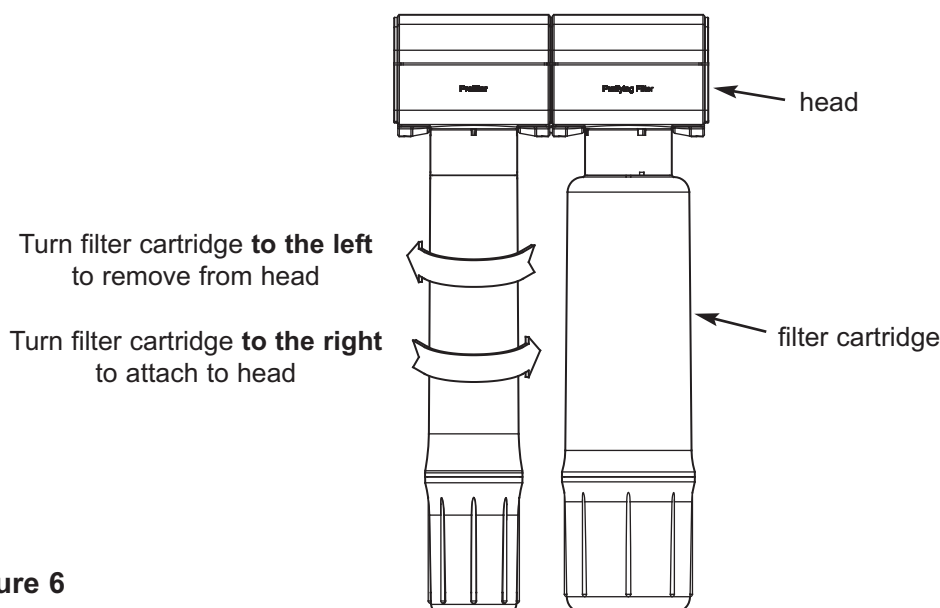


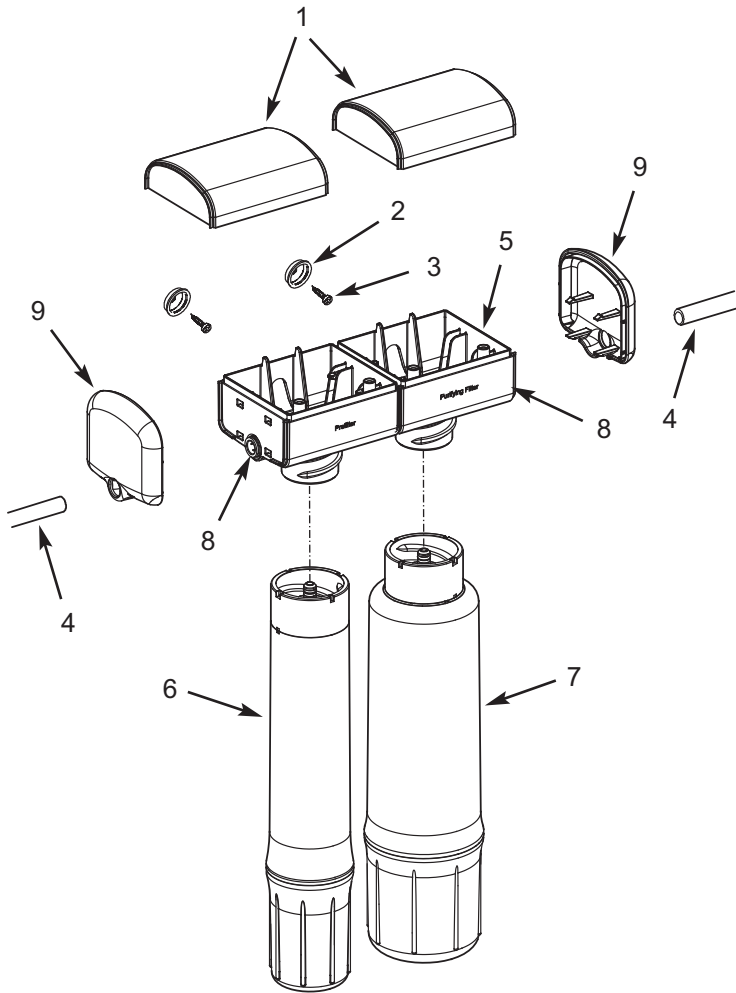
Figure 6

Troubleshooting the System

Problem: No water flow or decreased water flow.	
Cause: Prefilter is clogged.	Correction: Replace the prefilter cartridge.
Cause: Flow through the purifying filter will decrease and eventually clog when exposed to an excess of microbiological loading materials in the water. This failsafe feature reduces the chance of product use beyond its intended life, and will shut down the filter when it is exposed to contaminated water.	Correction: Replace all filter cartridges.
Problem: Taste and/or Odor.	
Cause: Prefilter is expended.	Correction: Replace all filter cartridges.
Cause: System is contaminated.	Correction: Sanitize system. Call 1-800-86 WATER for instructions.
Problem: Water leaks at push connect fittings.	
Cause: Tubing is not pushed in all the way.	Correction: Push tubing in all the way into fittings.
Cause: Tubing is not cut square.	Correction: Cut tubing square.
Cause: Tubing is nicked.	Correction: Remove nicked portion, then reinsert tubing into fitting.
Cause: Outer tubing surface is not smooth.	Correction: Remove rough portion, then reinsert tubing into fitting.

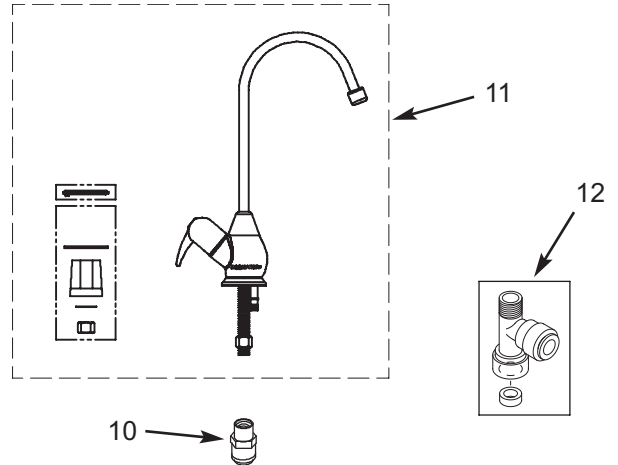
Need help troubleshooting? Call Toll Free 1-800-86 WATER

Repair Parts



Key No.	Part No.	Description
1	7268382	Cover (2 req.)
—	7333129	Mounting Hardware Kit (includes 2 ea. of Key Nos. 2 & 3)
2	↑	Hanger Washer (2 req.)
3	↑	Screw (2 req.)
4	7168435	Tubing, 3/8" OD x 72" long, White
5	6002900	Head Assembly
6	7320697	Repl. Filter Cartridge, LTO (Lead, Chlorine Taste & Odor)
7	7308069	Repl. Filter Cartridge, Purifying
8	7281013	Push-In Fitting Kit, 3/8"
9	7273379	End Cap (2 req.)
10	7207920	Connector, 7/16-24 x 3/8" Q.C. Tube

Faucet Options & Accessories not included		
11	7272959	Faucet, Chrome
	7277187	Faucet, Brushed Nickel
12	119-8600088	Water Supply Fitting, 3/8" Q.C.



FOR IOWA USE ONLY

All sales in Iowa require the following signature before consummation of sale. These signatures must be retained by seller/renter for 2 years minimum.

Buyer/Renter _____ Date _____

Seller _____ Date _____

Seller's Address _____

Seller's Phone No. _____