



Under-Sink Water Filter Installation and Operating Instructions Model US-600A

Before proceeding with installation, choose the appropriate filter cartridge and install in housing according to the cartridge replacement instructions (p. 2). See Filter Cartridge Selection Guide on p. 3 to determine the best cartridge for your filtration needs.

Specifications

Pressure Range: 30–125 psi (2.1–8.6 bar)

Temperature Range: 40–100°F (4.4–37.7°C)

Parts Included

- filter housing assembly with built-in mounting bracket and quick-connect fittings
- 3/8 inch (10 mm) tubing
- (2) quick-connect elbows
- SW-5A housing wrench
- D-20A cartridge

Tools Required

- screwdriver
- file
- pencil
- pipe cutter or hacksaw

Optional Materials

- faucet (FCT-1) for use with D-40A filter cartridge

Precautions

⚠ WARNING: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.

⚠ CAUTION: Filter must be protected against freezing, which can cause cracking of the filter and water leakage.

⚠ CAUTION: The rubber O-ring provides the water-tight seal between the cap and the bottom of the housing. It is important that the O-ring be properly seated in the groove below the threads of the housing or a water leak could occur.

⚠ CAUTION: Because of the product's limited service life and to prevent costly repairs or possible water damage, we strongly recommend that the bottom of all plastic housings be replaced every ten years. If the bottom of your housing has been in use for longer than this period, it should be replaced immediately. Date the bottom of any new or replacement housing to indicate the next recommended replacement date.

NOTE:

- For cold water use only.
- Make certain that installation complies with all state and local laws and regulations.
- The contaminants or other substances removed or reduced by the selected cartridge are not necessarily in your water. Ask your local water municipality for a copy of their water analysis, or have your private well tested by a reputable water testing lab.
- After prolonged periods of non-use (such as during a vacation) it is recommended that the system be flushed thoroughly. Let water run for 5–6 minutes before using.
- The filter cartridge used with this system has a limited service life. Changes in taste, odor, color, and/or flow of the water being filtered indicate that the cartridge should be replaced.

- Some harmless bacteria may attack cellulose media cartridges (such as the D-10). If your cartridge seems to disintegrate or develops a musty or moldy odor, switch to a synthetic media cartridge.



The US-600A with D-20A has been tested and certified by NSF International against NSF/ANSI Standard 42 for the reduction of Aesthetic Chlorine Taste and Odor.

Systems tested and certified by NSF International with cartridges D-10A, D-20A, D-30A, and D-40A. See Performance Data Sheet, in manual, for specific claims.

Installation

NOTE:

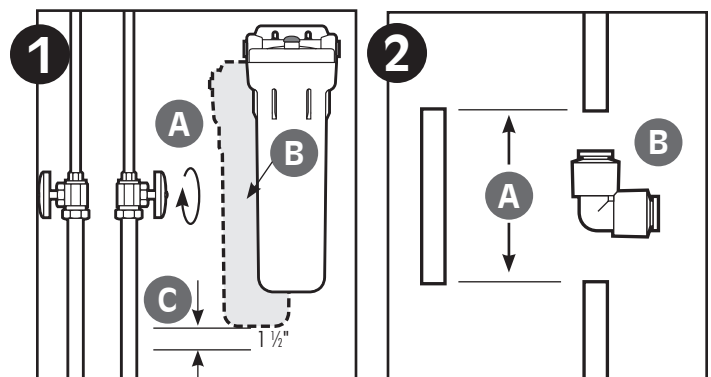
- For standard under-sink installation on 3/8 inch (10 mm) cold water line (copper or PVC pipe).
- Please read all instructions and precautions before installing and using your US-600A under-sink filter.
- Install filter cartridge in filter housing before proceeding with installation (see Filter Cartridge Replacement on p. 2).
- Numbered diagrams correspond with numbered steps.

1. (A) Turn off cold water supply and open nearest faucet to release pressure in pipes before starting installation. Place a tray or towels under the cold water line to catch excess water. (B) Select location under sink where filter is to be mounted. Use mounting bracket as a template to mark screw locations. Mount filter in marked location using mounting bracket.

NOTE: (C) Allow 1½ inches (33 mm) clearance below housing to enable filter cartridge changes.

2. Using a pipe cutter or hacksaw, remove a 3-inch (76 mm) section of pipe (A) from the 3/8 inch (10 mm) cold water line. Deburr ends of remaining pipe with a file. (B) Push a quick-connect elbow onto each end of remaining cold water line. Be sure to push elbow onto pipe until you hit a hard stop.
3. Determine the lengths of tubing needed to connect the inlet and outlet sides of filter to the quick-connect fittings on the cold water line. Measure tubing short enough to prevent kinking. Cut the tubing squarely between the closest set of black guide arrows. Assemble as shown in Figure 3 on page 2, inserting tubing into appropriate inlet or outlet quick-connect fitting until it stops (inlet and outlet are marked "IN" and "OUT" on cap).

NOTE: When cut between a set of black guide arrows, the tubing should be pushed



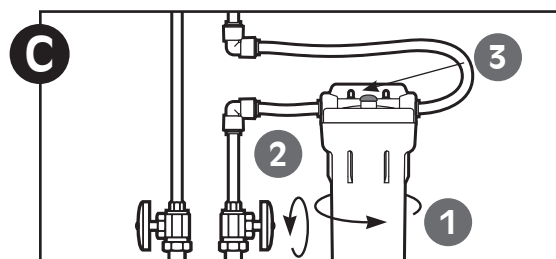
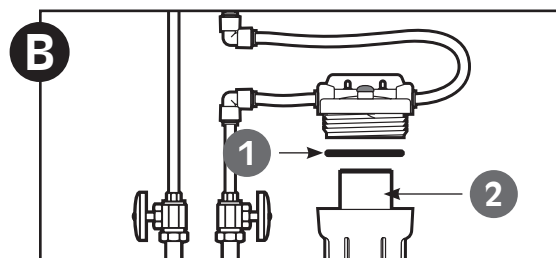
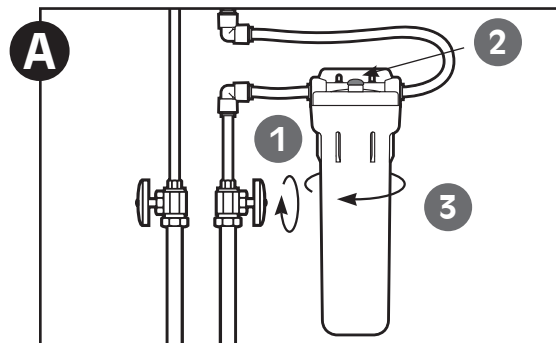
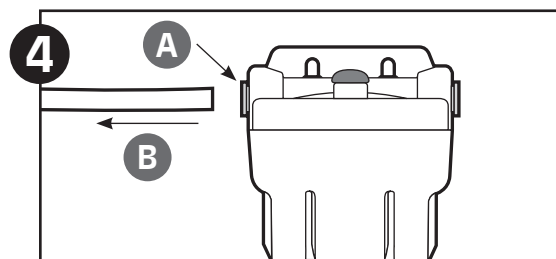
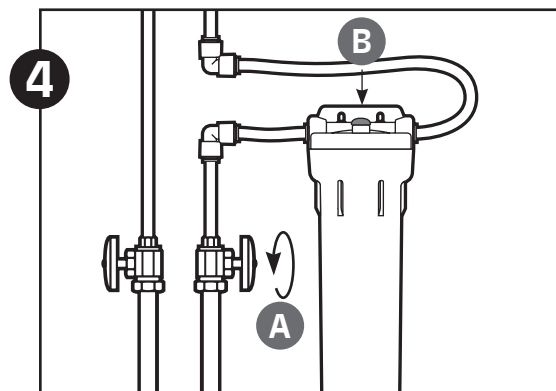
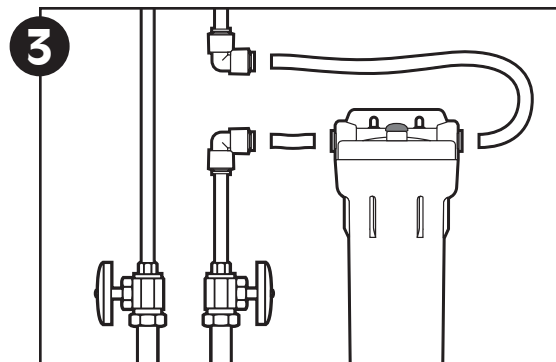
into the fitting so that the entrance of the fitting falls between the next set of guide arrows (approximately $\frac{3}{8}$ inch [16 mm]).

4. Slowly turn on the water supply (A) to allow filter to fill with water, then press the red pressure-relief button (B) on top of filter to release trapped air. Check for leaks before leaving installation.

NOTE: A drinking water cartridge may contain carbon fines (very fine black powder). After installation, flush the cartridge for 15 minutes to remove the fines before using the water. It is recommended that you run the tap at least 20 seconds prior to using water for drinking or cooking purposes.

5. **NOTE:** Disconnecting the Tubing from the Quick-Connect Fittings.

Routine maintenance and cartridge replacement will not require that you disconnect the tubing from the filter cap; however, tubing may be quickly and easily removed from the fittings if necessary. First, turn off the water supply to the filter and open faucet to drain the pipes. Then simply depress the gray collar (A) around the inlet fitting of the housing while pulling the tubing (B) with your other hand. Repeat for the outlet fitting.



Filter Cartridge Replacement

- (1) Turn off water supply to filter and place a tray or towel under the system to catch any water that spills during removal of the filter cartridge.

(2) Depress red pressure-relief button, then

(3) unscrew and remove bottom of filter housing (See Fig. A.)

NOTE: If turning off water supply to filter will also turn off water supply to the rest of the home, be sure to fill a bucket of water first to allow you to clean housing after it has been removed.

- Locate and remove large O-ring (1), wipe clean of lubricant, and set aside. Discard used filter cartridge (2). Rinse out bottom of filter housing and fill $\frac{1}{2}$ full with water. Add 2 tablespoons of bleach and scrub bottom of housing with nonabrasive sponge or cloth. Rinse thoroughly. Lubricate O-ring with clean silicone grease. Insert O-ring in groove and press into place.

NOTE: This step is important to ensure a proper housing seal. Make certain the O-ring is seated level in the groove.

Insert new filter cartridge in bottom of housing. Cartridges with one gasket should be inserted with the gasketed end toward the threads of the housing (gasketed end would point upwards if housing is mounted as shown in Fig. B).

- (1) Screw bottom of housing onto the cap and hand-tighten. DO NOT OVER-TIGHTEN.

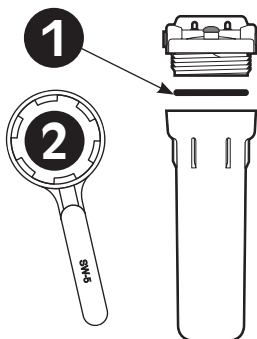
(2) Slowly turn on the water supply to allow filter to fill with water, then

(3) press the red pressure-relief button on top of filter to release trapped air. Check for leaks before leaving installation.

NOTE: A drinking water cartridge may contain carbon fines (very fine black powder). After installation, flush the cartridge for 15 minutes to remove the fines before using the water. It is recommended that you run the tap at least 20 seconds prior to using water for drinking or cooking purposes.

Replacement Parts

- | | | |
|---|----------|--------------------------------|
| 1 | 01020827 | OR-233 O-ring |
| 2 | 01020823 | SW-5A housing wrench not shown |



Maintenance

Contact your area retailer or local water treatment professional for replacement cartridge pricing.

Filter Cartridge Selection Guide

Select the right cartridge for your water needs	D-10A	D-20A	D-30A	D-40A†
sediment			•	•
bad taste & odor	•	•	•	•
aesthetic chlorine: taste & odor	•	•	•	•
Giardia			•	•
Cryptosporidium			•	•
Lead/Mercury				•
Lindane/Atrazine				•
Particulate Class III	•			
Particulate Class I			•	•
filter life in gallons (months)*	250 (3)	1000 (12)	1000 (12)	600 (6)
service flow rate gpm (Lpm)**	1.0 (3.8)	1.0 (3.8)	0.9 (3.4)	0.6 (2.3)

* Filter cartridge life varies depending on filter type, usage and water conditions.

** Flow rates measured at 60 psi (4.1 bar).

† If not plumbed into separate tap, flow rate may be less than 0.5 gpm for direct connect systems.

NOTE: Substances reduced are not necessarily in your water. Filter must be maintained according to manufacturer's instructions, including replacement of filter cartridges.

Troubleshooting

Leaks between cap and bottom of filter housing

1. Turn off water supply and press the red pressure-relief button. Remove bottom of housing.
2. Clean O-ring and O-ring groove (located directly beneath threads of housing). Lubricate O-ring with silicone grease and replace securely into groove. Screw bottom of housing onto cap and hand-tighten. **DO NOT OVER-TIGHTEN.**

Leaks on inlet/outlet connections

1. Turn off water supply and turn on faucet to release pressure in pipes. Remove tubing from fitting (see #3 under Installation) and make sure end of tubing is cut squarely and free of burrs. Reinsert tubing into quick-connect fittings, making sure to push securely until tubing hits a hard stop.
2. Turn on water supply. If leaks persist, or if there are other leaks on system, turn off water supply.

Performance Data

Model US-600A

Important Notice: Read this performance data and compare the capabilities of this system with your actual water treatment needs. It is recommended that, before installing a water treatment system, you have your water supply tested to determine your actual water treatment needs.

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.

D-10A Cartridge

Substance	Influent Challenge Concentration	Max. Permissible Product Water Concentration	Reduction Requirements	Minimum Reduction	Average Concentration
Standard 42 Aesthetic Effects					
Chlorine	2.0 mg/L±10%		≥50%		95%
Particulates (5-15µm) Class III	at least 10,000 particles/mL		≥85%		99.5%

Flow Rate=1 gpm (3.78 Lpm) Capacity=250 gallons (946 L) or 3 months

D-20A Cartridge

Substance	Influent Challenge Concentration	Max. Permissible Product Water Concentration	Reduction Requirements	Minimum Reduction	Average Concentration
Standard 42 Aesthetic Effects					
Chlorine	2.0 mg/L±10%		≥50%		95.7%

Flow Rate=1 gpm (3.78 Lpm) Capacity=1000 gallons (3785 L) or 12 months

D-30A Cartridge

Substance	Influent Challenge Concentration	Max Permissible Product Water Concentration	Reduction Requirements	Minimum Reduction	Average Concentration
Standard 42 Aesthetic Effects					
Chlorine	2.0 mg/L±10%		≥50%		97.4%
Particulates (0.5- <µm) Class I	at least 10,000 particles/mL		≥85%		99.9%
Standard 53 Health Effects					
Cysts†	Minimum 50,000/L		99.95%	99.99%	99.99%
Turbidity	11 ± 1 NTU	0.5 NTU		95.5%	98.2%
Asbestos	10 ⁷ to 10 ⁸ fibers/L >10 micrometers in length		99%	>99.9%	>99%

Flow Rate = 0.9 gpm (3.4 Lpm) Capacity=1000 gallons (3785 L) or 12 months

D-40A Cartridge

Substance	Influent Challenge Concentration	Max Permissible Product Water Concentration	Reduction Requirements	Minimum Reduction	Average Concentration
Standard 42 Aesthetic Effects					
Chlorine	2.0 mg/L±10%		≥50%		99.1%
Particulates (0.5- <µm) Class I	at least 10,000 particles/mL		≥85%		99.9%
Standard 53 Health Effects					
Cysts†	Minimum 50,000/L		99.95%	99.99%	99.99%
Turbidity	11 ± 1 NTU	0.5 NTU		95.5%	98.2%
Asbestos	10 ⁷ to 10 ⁸ fibers/L >10 micrometers in length		99%	>99%	>99%
Lead 6.5 pH	0.15 mg/L ±10%	0.010 mg/L		99.3%	99.3%
Lead 8.5 pH	0.15 mg/L±10%	0.010 mg/L		99.3%	99.3%
Mercury 6.5 pH	0.006 mg/L±10%	0.002 mg/L		96.6%	95.0%
Mercury 8.5 pH	0.006 mg/L±10%	0.002 mg/L		94.1%	88.5%
Atrazine	0.009 mg/L±10%	0.003 mg/L		94.3%	94.3%
Lindane	0.002 mg/L±10%	0.0002 mg/L		97.6%	97.6%

Flow Rate = 0.6 gpm (2.27 Lpm) Capacity=600 gallons (2271 L) or 6 months

If not plumbed into separate tap, flow rate may be less than 0.5 gpm for direct connect systems.

† Based on the use of microspheres or *Cryptosporidium parvum* oocysts.

Testing was performed under standard laboratory conditions, actual performance may vary.

Performance Data continued

Test Conditions

Flow Rate = As noted for each individual filter cartridge
 Inlet Pressure = 60 psi (4.1 bar)
 pH = 7.5 ± 1
 Temperature = 68°F ± 5°F (20°C ± 2.5°C)

Operating Requirements

Pressure: = 30–125 psi (2.1–8.6 bar)
 Temperature = 40–100°F (4.4–37.7°C)
 Turbidity = 5 NTU Max.