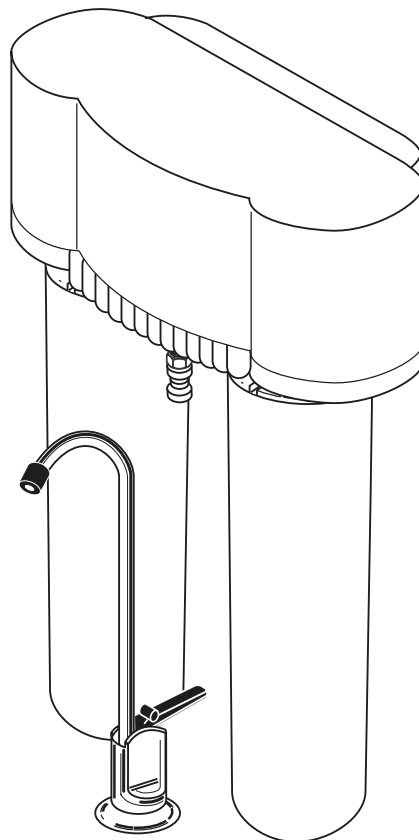




**Installation and Operating Instructions For
Aqua-Pure® AP-DWS1000 & AP-DWS1000 LF
Drinking Water Filtration Systems**



6888931 0609

**Installer: Please leave manual with homeowner.
Homeowner: Please retain for operation and
future maintenance instructions.**



SAFETY INFORMATION

Read, understand, and follow all safety information contained in these instructions prior to installation and use of the AP-DWS1000 & AP-DWS1000 LF Drinking Water Filtration Systems. Retain these instructions for future reference.

Intended use:

The Aqua-Pure® AP-DWS1000 & AP-DWS1000 LF Drinking Water Filtration Systems are intended for use in filtering drinking water in residential locations and have not been evaluated for other uses. These systems are typically installed beneath or near a kitchen sink, and it is recommended that the installation be performed by a qualified installation specialist or a licensed plumber.

EXPLANATION OF SIGNAL WORD CONSEQUENCES	
 WARNING	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.
CAUTION	Indicates a potentially hazardous situation, which, if not avoided, may result in property damage.

 WARNING
To reduce the risk associated with choking: • Do not allow children under 3 years of age to have access to small parts during the installation of this product.
To reduce the risk associated with ingestion of contaminants: • Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
To reduce the risk associated with a hazardous voltage due to an installer drilling through existing electric wiring or water pipes in the area of installation: • Do not install near electric wiring or piping which may be in the path of a drilling tool when selecting the position to mount the filter bracket.

CAUTION

To reduce the risk associated with property damage due to water leakage:

- **Read and follow** the Instructions in this manual before installation and use of this system.
- Installation and Operation of this system **MUST** comply with all state and local plumbing codes.
- **Protect from freezing.** Drain filter when temperatures drop below 40°F (4.4°C).
- **Do not** install if water pressure exceeds 125 psi (862 kPa). If your water pressure exceeds 125 psi, you **must** install a pressure limiting valve. Contact a plumbing professional if you are uncertain how to check your water pressure.
- **Do not** install where water hammer conditions may occur. If water hammer conditions exist you must install a water hammer arrester. Contact a plumbing professional if you are uncertain how to check for this condition.
- Install on **COLD** water lines only, maximum temperature is 100°F (37.8°C).
- The disposable filter cartridge **must** be replaced every six months or at the specified service cycle.
- **Do not** use a torch or other high temperature sources near filter or plastic fittings.
- **Do not** install in direct sunlight.
- **Do not** install near water pipes which will be in path of a drilling tool when selecting the position to mount the bracket.
- Mount filter in such a position as to prevent it from being struck by other items used in the area of installation (waste baskets, etc).
- On plastic fittings, never use pipe sealant or pipe dope. Use thread sealing tape **only**.
- **Ensure** all tubing and fittings are secure and free of leaks.
- **Do not** install unit if collet is missing. Contact CUNO if collets are missing from any fittings.
- **SHUT OFF FUEL SUPPLY TO WATER HEATER** after water is shut off.
- Shut off cold water valve under the sink before installing feedwater valve.
- Shut off inlet water supply and depressurize system as shown in manual when changing cartridges or servicing.
- Install with the inlet and outlet ports as labeled. Make sure not to reverse connections.

IMPORTANT NOTES

- Failure to follow instructions may void warranty.
- Allow a minimum of 2" (5 cm) clear space under filter to facilitate cartridge change.
- Do not crimp copper tubing.
- Porcelain, enamel and ceramic sinks require special procedures for drilling holes. Refer to the special section on porcelain, enamel and ceramic sinks for detailed instructions.
- Some state and local plumbing codes may prohibit the use of saddle-type valves and/or drain connections. The use of saddle-type valves are prohibited in: Alaska, Delaware, Idaho, Kentucky, Massachusetts, Michigan, Minnesota, New Hampshire, North Dakota, Ohio, Oregon and South Dakota. Check your local plumbing codes for any restrictions that apply.

Introduction:

This manual explains installation and operation of the Aqua-Pure® AP-DWS1000 & AP-DWS1000 LF Drinking Water Filtration Systems. Please read each section of this manual carefully.

The Aqua-Pure AP-DWS1000 & AP-DWS1000 LF Drinking Water Filtration Systems are designed to connect permanently to a home plumbing system. To ensure that the installation conforms to your state and local plumbing codes, it is recommended that the installation be performed by a qualified installation specialist for drinking water filtration systems or a licensed plumber.

IMPORTANT NOTES
• Failure to follow instructions may void warranty.

Specifications:

Inlet/Outlet Size: 1/4" Tube with Quick Connect Fittings

Flow Rate: 0.6 gpm (2.3 lpm)

Temperature Range: 40-100°F (4.4-37.8°C)

Pressure Range: 25-125 psi (172-862 kPa)

Capacity: 625 gallons (2,366 liters)

Weight: 7 lbs. (3.2 kg)

Dimensions: 15-3/4" H x 10-7/8" W x 3-1/4" D (40 cm x 28 cm x 8 cm)

Parts Included: Model AP-DWS1000 Drinking Water System

- Drinking Water System Bracket Assembly (includes heads, connections & shut-off meter)
- Filter Cartridge #1 (AP-DW80)
- Filter Cartridge #2 (AP-DW90)
- Saddle Valve Assembly
- Faucet Assembly (with blue tubing)
- Tubing (yellow)
- Mounting Hardware
- Installation, Operation & Maintenance Manual

Model AP-DWS1000 LF (Less Faucet) does not include tubing to connect filter system to a drinking water faucet. The filter system's outlet connection will accept 1/4" plastic or copper tubing.

Tools Required (not included):

- Drill (cordless recommended)
- Phillips Head Screwdriver
- Adjustable Wrench
- Razor Knife or Tube Cutter
- #8 Gauge Fastening Screws (appropriate for mounting surface)

If a Faucet Hole needs to be Drilled for Faucet:

- Center Punch
- File or Grinding Wheel
- 9/16" Drill Bit (suitable for counter top materials or cast iron/stainless steel)

IMPORTANT NOTES
• Some state and local plumbing codes may prohibit the use of saddle-type valves and/or drain connections. See page 3 for list of states.

1) Install Drinking Water System Faucet (Refer to Figure 4, Page 11):

IMPORTANT NOTES

- Porcelain, enamel and ceramic sinks require special procedures for drilling holes. Refer to the special section on porcelain, enamel and ceramic sinks for detailed instructions.
- The drinking water system faucet should be located on a flat surface, conveniently located near the sink, so that it empties into the sink. Most sinks have pre-drilled holes designated for spray-ers, soap dispensers and other accessories. If your sink does not have an extra hole, then a 9/16" diameter hole must be drilled.

Instructions for drilling 9/16" diameter hole through counter top or stainless steel sink

- A. Locate area to be drilled. Mark center of the hole with center punch.
- B. Drill hole with 9/16" drill bit suitable to counter top materials or cast iron/stainless steel.
- C. With grinding wheel or file, smooth out any rough edges.

Installing the Faucet

- A. Slide the following parts in the order specified up blue tubing and threaded brass stem:
 1. Stainless steel bezel
 2. Large rubber washer
- B. Next, feed blue tubing and faucet stem down through faucet mounting hole.
- C. From underneath sink, assemble the black spacer, star washer and hex nuts as shown (see Figure 4, Page 11) onto the threaded brass stem and tighten by hand.
- D. With a padded adjustable wrench, turn the faucet base (above the counter) to the right (clockwise) to securely fasten. Remove piece of plastic tubing from base.
- E. Insert faucet neck onto base until seated and align over sink.

2) Mount System

Determine undersink mounting location

WARNING

To reduce the risk associated with a hazardous voltage due to an installer drilling through

existing electric wiring or water pipes in the area of installation:

- Do not install near electric wiring or piping which may be in the path of a drilling tool when selecting the position to mount the filter bracket.

IMPORTANT NOTES

- Allow a minimum of 2" (5 cm) clear space under filter to facilitate cartridge change.

- A. Mark holes on mounting surface using holes on bracket as guides.
- B. Drill starter holes into mounting surface.
- C. Hang unit onto mounting surface by fastening wood screws through backplate of bracket.

3) Install Feedwater Valve (Refer to Figure 5, Page 11)

CAUTION

To reduce the risk associated with property damage due to water leakage:

- Shut off cold water valve under the sink before installing feedwater valve.
- Installation and Use **MUST** comply with all state and local plumbing codes.

- A. Most sinks use 3/8" copper tubing. Connect the saddle valve as shown in Figure 5, Page 11. The back saddle bracket can be reversed for smaller pipe sizes (7/16" to 1/2"). Tighten screws evenly and firmly, brackets should be parallel.

- B. To pierce soft copper tubing, turn handle to the right (clockwise) several times until it stops. The valve is now closed. Turning the handle to the left (counterclockwise) will open the valve.
- C. Assemble insert, plastic sleeve and compression nut as shown onto yellow tubing and fasten securely to saddle valve.

4) Making Connections (Refer to Figure 6, Page 12)

- A. Connect yellow 1/4" tubing from saddle valve to the "Push-In" fitting on the left side of the bracket assembly. THE YELLOW TUBE MUST GO UP AND THROUGH THE BASE OF THE BRACKET.

IMPORTANT NOTES	
• Be sure to install tubing so there are no sharp bends and install enough tubing for ease of service. Refer to the enclosed diagram (Figure 1, Page 8) on the use of "Push-In" plastic fittings. • Failure to route the yellow tubing through the bracket will not allow protective shroud to be fastened securely to the bracket.	

- B. Connect the blue 1/4" tubing from the base of the faucet to the "Push-In" fitting attached to the base of the shut-off meter.

Installing Filter Cartridge & Replacing Filter Cartridges

- C. In order to ensure proper performance, it is essential that "Filter 1" be installed on the left and "Filter 2" on the right side of the bracket assembly. Use the color/number coded labels to match "Filter 1" cartridge with "Filter 1" head.
- D. Meter should be set at "Start".

CAUTION	
To reduce the risk associated with property damage due to water leakage: • Installation and Use MUST comply with all state and local plumbing codes.	

5) Test System

- A. Open cold water valve under the sink.
- B. The system will pressurize. Check for leaks. If any leaks are present, immediately turn off water and refer to the Troubleshooting Section.

6) Flush Filter

- A. Pressing down on the faucet lever will dispense water until you let go. Lifting up on the lever will lock the faucet open.
- B. Flush 5 gallons through system (approximately 10 minutes). At this point, the water will run clear. In rare cases, it may take a week or more for the residual air bubbles to be completely eliminated.
- C. The system installation is now complete and ready to serve filtered water.

Enjoy!

7) Procedure for Drilling Hole Through Porcelain/Enamel/Ceramic Sinks with Sheet Metal or Cast Iron Base

Recommended Tools:

- Variable Speed Drill
- Porcelain Cutter Tool Set (9/16" size)
- Plumber's Putty

NOTE: It is important to understand this procedure before beginning.

1. The glassy layer of porcelain/enamel/ceramic must be scored through to the metal base creating a disc.
2. This disc must be removed while protecting the surrounding decorative coating against chipping or fracturing.
3. The base metal must be drilled through to complete the hole.

Procedure:

- A. Mark center for 9/16" hole.
- B. Form a dam of shallow putty around hole location and fill with enough water to lubricate carbide drill bit.
- C. Carefully drill pilot hole through porcelain/enamel/ceramic and base metal using a carbide pilot drill. Always operate drill with light pressure at slow speed (300-400 rpm).
- D. Drill porcelain/enamel/ceramic using special 9/16" cutting tool, making certain a complete ring has been cut through to the sink's metal base.
- E. Change to metal cutting drill bit and drill out the center of the ring, making sure not to contact outer rim of decorative coating. Cut through metal sink base.

8) Troubleshooting

Water leaks from threaded connection:

Tighten fittings or hex nut until leak stops. If leaks persist, shut off water at the cold water valve, remove threaded fittings, reapply PTFE tape around the fitting to the left (counter-clockwise), and screw back into head assembly or saddle valve.

Water leaks at quick connect fittings:

Push tubing in as far as it will go. If leaking continues, shut off water at the cold water valve and remove water line by pushing in on the connector collet while pulling the tubing away. Inspect tubing for cracks. If tubing is cracked, simply cut that portion away and re-insert tubing into quick connect fitting (see Figure 1, Page 8).

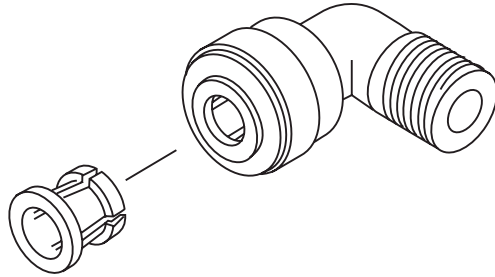
Water does not flow from the drinking water system faucet:

Check to see if the main water line valve is open, allowing water to flow to the filter. If water still does not flow from the drinking water system faucet, make sure the filter's shut-off valve is reset to "Start". Also, check for crimps or sharp bends in the blue and yellow tubing.

NOTE: In rare cases, it may take a week or more for the residual air bubbles to be completely eliminated.

Quick Connect Guide (Figure 1)

'Push-In' Tubing Connector (Quick Connect Fittings)

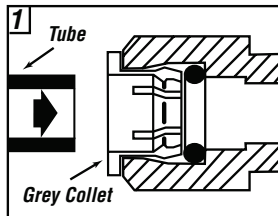


This product is outfitted with user friendly 'Push-In' connectors. Proper use of the connectors is shown in the diagrams. It is most important that the tubing selected for use with these connectors be of high quality, exact size and roundness and with no surface nicks or scratches. If it is necessary to cut the tubing, use a plastic tubing cutter or sharp razor knife. Make a clean square cut. Should a leak occur at a 'Push-In' connector, the cause is usually defective tubing.

To Fix:

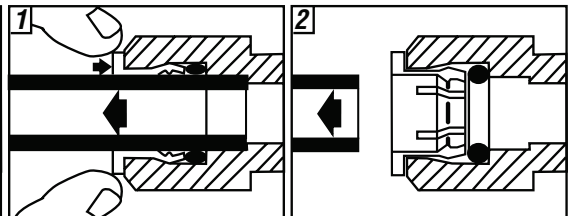
- Relieve pressure
- Release tubing
- Cut off at least 1/4" from end
- Reattach tubing
- Confirm connection is leak free

To Attach Tubing



Push tubing straight in as far as it will go. Tubing must be inserted past o-ring and hit backstop. Pull tube to ensure it is secured.

To Release Tubing



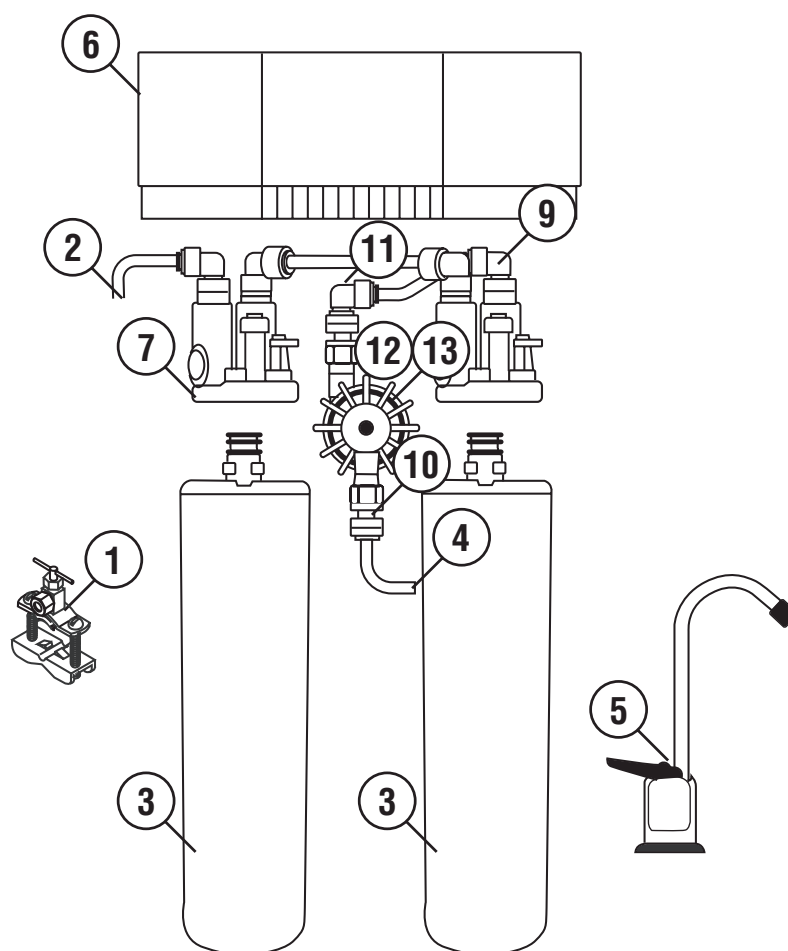
Push in grey collet to release tubing. With collet held, pull tubing straight out.

CAUTION

To reduce the risk associated with property damage due to water leakage:

- Ensure all tubing and fittings are secure and free of leaks.
- Do not install unit if collet is missing. Contact CUNO if collets are missing from any fittings.

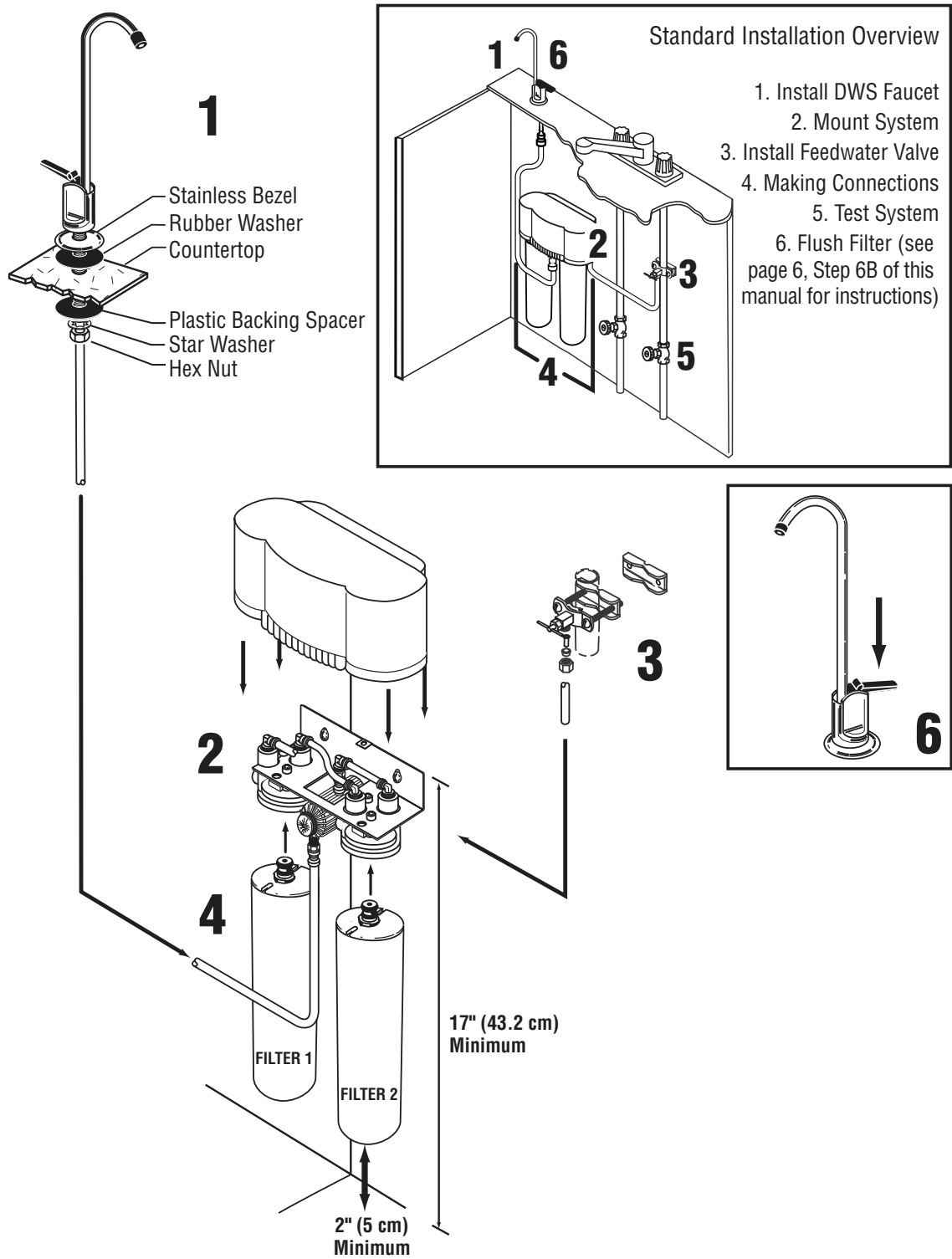
AP-DWS1000 Parts List (Figure 2)



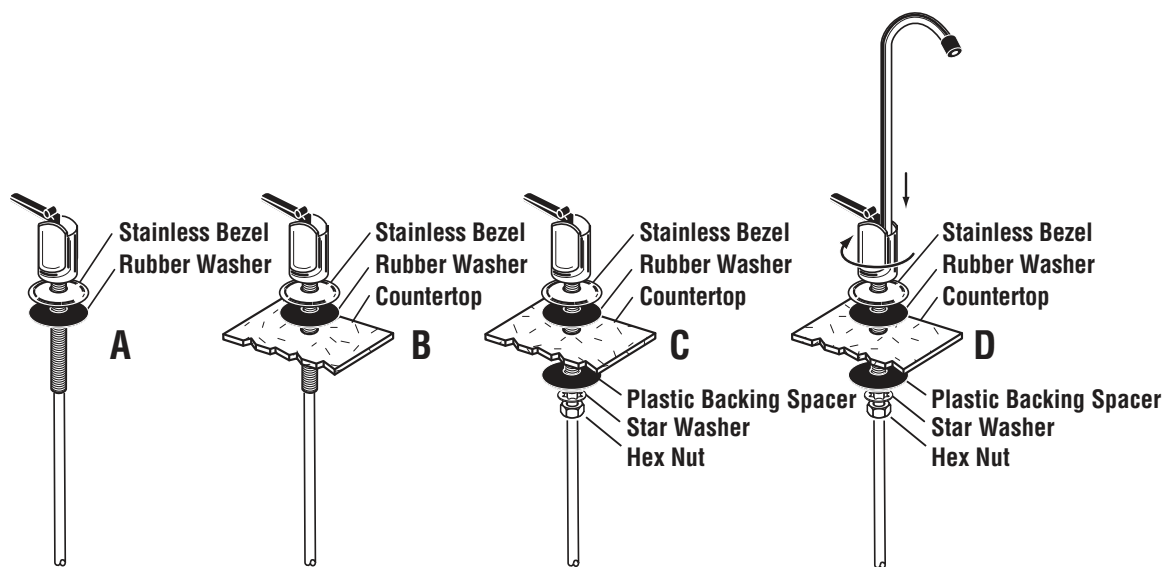
Reference #	Part #	Description
1	69968-31	Self-Piercing Water Valve
2	36897-82*	1/4" Inlet Yellow Tubing (price per ft.)
3	55851-02	AP-DW80 & AP-DW90 Cartridge Set
4	36897-62*	1/4" Outlet Blue Tubing (price per ft.)
5	69888-42	Faucet
6	68841-21	Shroud
7	68871-01	Head
8	85-400201	UTC Shroud Mounting Pin (not shown)
9	68845-31	3/8" NPT x 1/4" Tube (Qty. 4)
10	68873-31	1/4" NPT Adaptor x 1/4" Tube (Qty. 2)
11	74-3230404	1/4" Plug-In Elbow
12	68870-33	Metering Valve
13	69804-34	Metering Valve Screw (Qty. 4)

* Must order minimum of 10 ft (3 m)

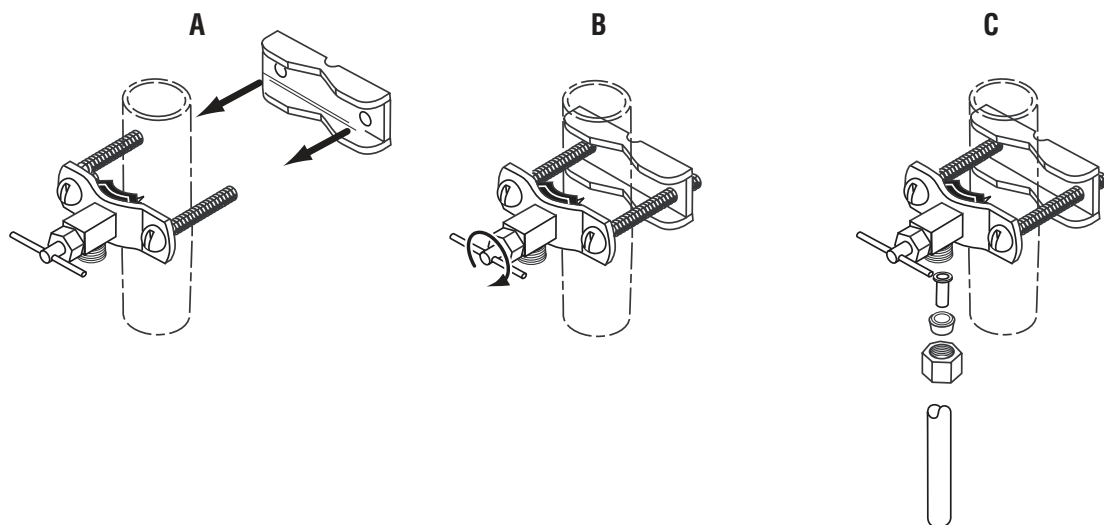
Installation Overview (Figure 3)



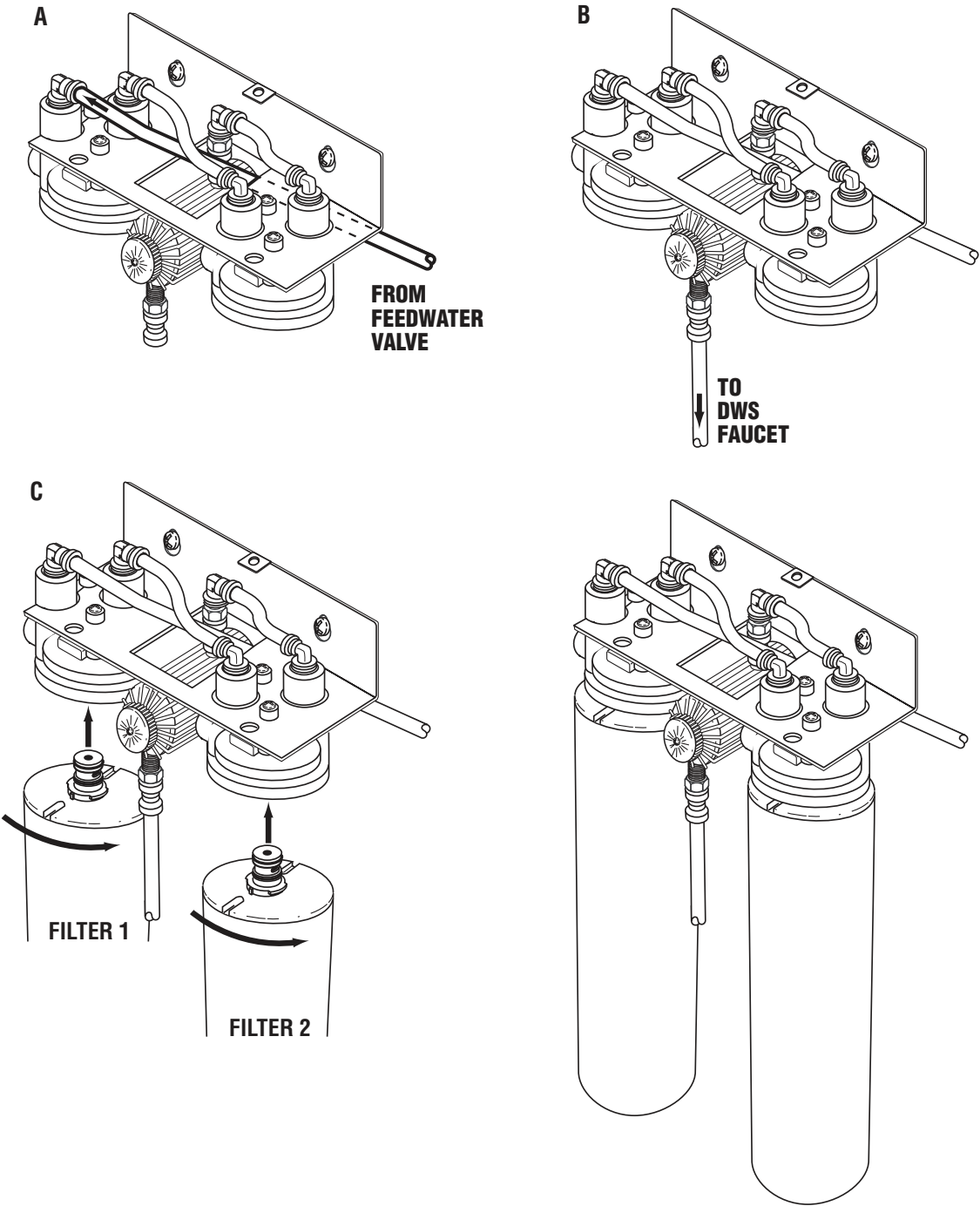
Install Drinking Water System Faucet (Figure 4)



Install Feedwater Valve (Figure 5)



Making Connections (Figure 6)



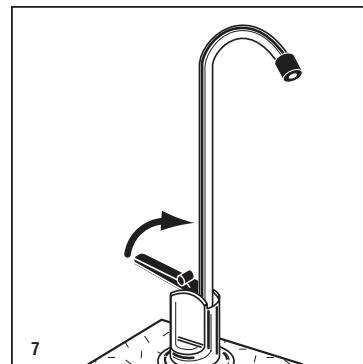
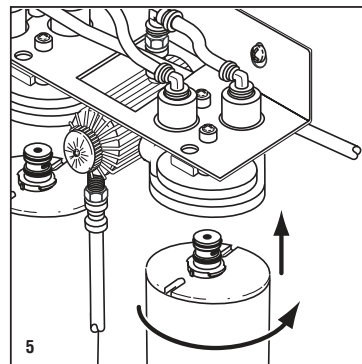
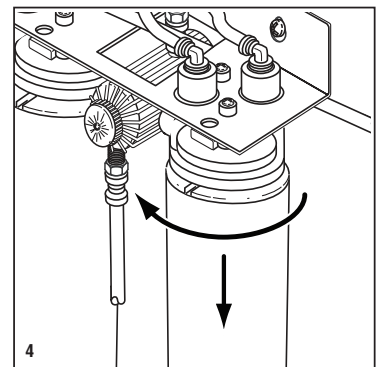
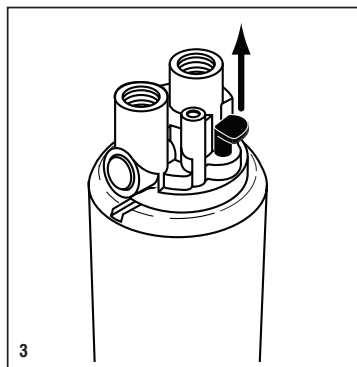
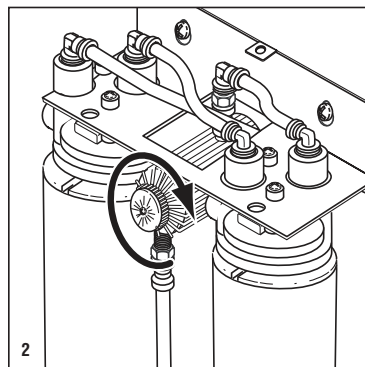
Cartridge Change Instructions (Refer to Corresponding Diagrams Below)

CAUTION

To reduce the risk associated with property damage due to water leakage:

- The disposable filter cartridge **must** be replaced every six months or at the specified service cycle.

1. Turn water supply off at saddle valve or at undersink cold water line, and remove protective shroud from bracket.
2. Reset shut-off meter by pushing in knob and turning to the right (clockwise) until the arrow on the top of the meter body is lined up to "Start". (It is recommended that the cartridges be replaced when the meter reads 625 gallons. The shut-off meter will shut water pressure to the faucet when 625 gallons are dispensed.) Open faucet to depressurize the system.
3. Lift red knob upward and hold.
4. Turn cartridge to the left (counterclockwise) and gently pull straight down. Discard spent cartridge. If system has not been properly depressurized, a small amount of water may discharge. Repeat for second cartridge.
5. Align tabs of the new cartridges with head and insert cartridge. Turn cartridge to the right (clockwise) until a clicking sound is heard. The cartridge is now properly installed. Use the number coded labels to match "FILTER 1" cartridge with "FILTER 1" head. Repeat with "FILTER 2".
6. Turn on water at saddle valve or water line and check system for leaks. If leaks occur, check connections or repeat cartridge installation.
7. Flush 5 gallons through system (approximately 10 minutes). Residual air may cause temporary cloudiness in water. Place protective shroud back on bracket.



NOTES:

Limited One Year Warranty

CUNO Incorporated warrants this Product to be free from defects in material and workmanship for one (1) year from the date of purchase. This warranty does not cover failures resulting from abuse, misuse, alteration or damage not caused by CUNO or failure to follow installation and use instructions. If the Product is defective CUNO will replace the Product or refund your Product purchase price. CUNO will not be liable for any indirect, special, incidental, or consequential damages arising from the use of this Product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. To obtain warranty service, mail your request to Warranty Claims, CUNO Incorporated, 400 Research Parkway, Meriden, CT 06450. Proof of purchase (original sales receipt) must accompany the warranty claim, along with a complete description of the Product, model number and alleged defect. This warranty gives you specific legal rights and you may have other rights which vary from state to state, or country to country.



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