



Monitored MTBE Filtration System Installation and Operating Instructions Model SY-2650

Specifications

SY-2650

Temperature Range:	40–100°F (4.4–37.8°C)
Pressure Range:	30–125 psi (2.1–8.6 bar)
Service Flow Rate @60 psi (4.1 bar):	0.6 gpm (2.3 Lpm)
Rated Service Life:	500 gallons (1,893 L)
Dimensions:	9.18 in. x 4.70 in. x 12.72 in. (233 mm x 119 mm x 323 mm)
Weight (filled with water):	6 lbs. (2.7 kg)

Parts Included

- Filter system with electronic monitor
- D-250A cartridge set installed in system
- 1/4-inch tubing
- Installation hardware (mounting screws, water supply adapter, quick connect elbows)
- Housing wrench
- 9-volt battery
- Faucet
- Icemaker installation kit

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 water 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 cartridges used with this system have a limited service life. Changes in taste, odor, and/or flow of the water being filtered indicate that the cartridge should be replaced.



About Your CULLIGAN® Monitored MTBE Filtration System

Thank you for purchasing a Culligan Monitored MTBE Filtration System. With only minimal maintenance, your new system will provide you with safer, better-tasting water for years to come. The filter cartridges should be changed after every 500 gallons of use or once every six months, whichever comes first. Filter life will vary depending on usage and water conditions, and changes in taste, odor, and/or flow of the water being filtered indicate that the filter cartridges should be replaced. The SY-2650 incorporates an electronic monitor that measures the number of gallons flowing through the system and alerts you when the filter cartridges need to be replaced.

SY-2650 Monitored MTBE Filtration System

The SY-2650 Monitored MTBE Filtration System uses two carbon filter cartridges specially formulated to provide safer, cleaner, and better-tasting water. In addition to the MTBE, chlorine, asbestos reduction and cyst removal, the SY-2650 filtration system is NSF-certified to reduce lead, mercury, pesticides, herbicides, and various Chemicals (VOC's) in drinking water (see performance data on pg. 6 for specific claims).

Lead is tasteless and colorless, and may enter your water supply through lead pipes, lead solder, and brass fittings and faucets. High levels of lead in your drinking water may lead to serious long-term health problems, especially in children. The SY-2650 system has been Tested and Certified by NSF International to reduce lead well below the USEPA Action Level.

A variety of pesticides, herbicides, and other chemicals (sometimes referred to as Volatile Organic Chemicals or VOC's) may be present in your water supply. Common contaminants include Lindane, Atrazine, benzene, and trihalomethanes. Trihalomethanes (THM) are a class of potentially harmful chemicals formed as a byproduct of chlorination. The SY-2650 is NSF-Certified to reduce these and over 30 other chemicals to well below EPA drinking water standards. For a complete listing of chemical reduction test results, see the Performance Data in this manual.

Tools and Materials Required

- Tape Measure
- Safety glasses
- Phillips head screwdriver
- Adjustable wrench
- Utility knife
- Pencil

- If sink does not have hole for separate faucet:
- Center punch
 - Hand or electric drill (cordless recommended)
 - 1/4-inch and 1/2-inch drill bit



The Model SY-2650 is Tested and Certified by NSF International against NSF/ANSI Standard 42 for the aesthetic reduction of Taste and Odor, Chlorine, and Particulate Class I. Standard 53 for the reduction of MTBE, Lead, Mercury, VOC, Cyst, Asbestos, and Turbidity.

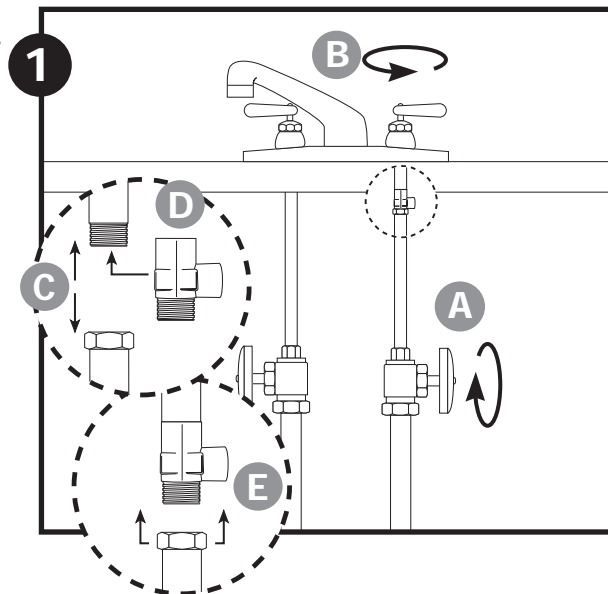
Installation

- For standard under-sink installation on 1/2-inch 14 NPS threads (most common thread on kitchen faucets) cold water line.
- Please read all instructions and precautions before installing and using your Monitored MTBE Filtration System.
- Numbered diagrams correspond with numbered steps.

1. Installing the Water Supply Adapter

NOTE: The supply adapter fits 1/2-inch-14 NPS supply threads. If local codes permit, it may be used to connect the SY-2650 to the cold water supply line. If local codes do not permit the use of the supply adapter, alternate connectors can be obtained from your local plumbing supplier.

- (A) Turn off the cold water supply. If cold water line does not have a shut-off valve under the sink, you should install one.
- (B) Turn on the cold water faucet and allow all water to drain from line.
- (C) Disconnect cold water line from 1/2-inch-14 NPS threaded stub on bottom of main faucet.
- (D) Apply Teflon® tape onto threads of faucet stub and supply adapter. Screw the water supply adapter to the threaded faucet stub as shown.
- (E) Using the nut that previously connected the cold water line to the faucet, screw the cold water line to the male supply adapter threads. (See diagram).



2. Selecting the Faucet Location

NOTE: The drinking water faucet should be positioned with function, convenience, and appearance in mind. An adequate flat area is required to allow faucet base to rest securely. The faucet fits through a 7/16-inch hole. Most sinks have pre-drilled 1 3/8-inch or 1 1/2-inch diameter holes that may be used for faucet installation. If these pre-drilled holes cannot be used or are in an inconvenient location, it will be necessary to drill a 1/2-inch hole in the sink for the faucet.

CAUTION: This procedure may generate dusts which can cause severe irritation if inhaled or come in contact with the eyes. The use of safety glasses and respirator for this procedure is recommended.

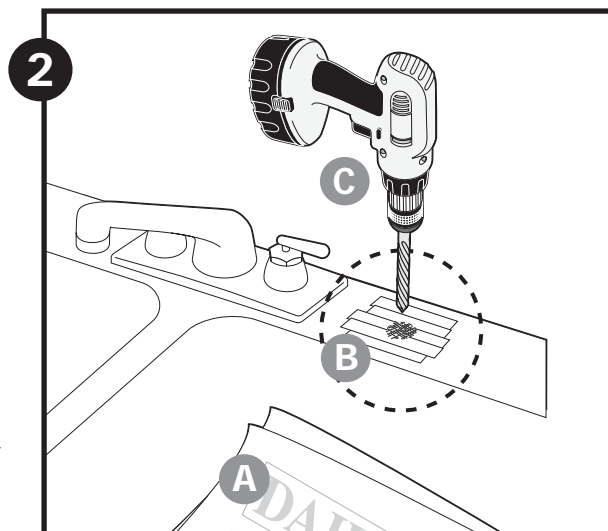
CAUTION: DO NOT ATTEMPT TO DRILL THROUGH AN ALL-PORCELAIN OR PORCELAIN-COATED SINK. For applications on these types of sinks we recommend using the sprayer hole or mounting the faucet through the countertop.

CAUTION: When drilling through a countertop make sure the area below the drilled area is free of wiring and piping. Make certain that you have ample room to make the proper connections to the bottom of the faucet.

CAUTION: Do not drill through a countertop that is more than 1-inch thick.

CAUTION: Do not attempt to drill through a tiled, marble, granite or similar countertop. Consult a plumber or the countertop manufacturer for advice or assistance.

- (A) Line bottom of sink with newspaper to prevent metal shavings, parts, or tools from falling down drain.
- (B) Place masking tape over the area to be drilled to prevent scratches if drill bit slips.
- (C) Mark hole with center punch. Use a 1/4-inch drill bit for a pilot hole, then, using a 1/2-inch drill bit, drill a hole completely through the sink. Smooth rough edges with a file.



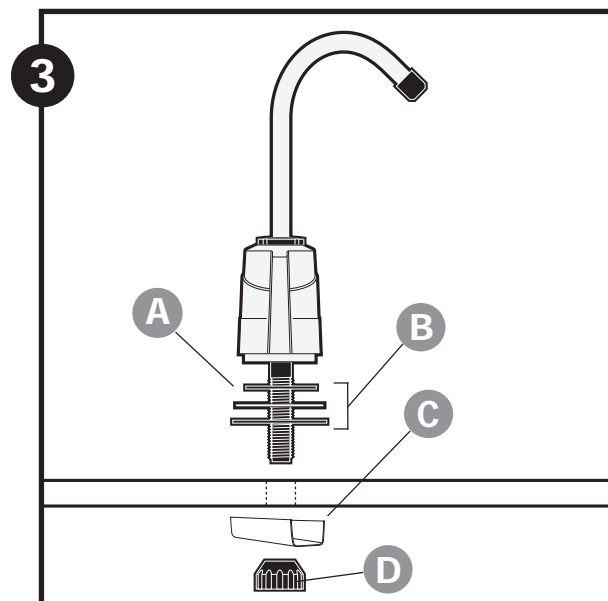
3. Mounting the Faucet

- (A) Slide small black rubber gasket OR
- (B) gasket, aluminum escutcheon plate (first remove protective plastic), and large gasket onto threaded faucet stem. Lower faucet stem through hole in the sink.

NOTE: Black rubber gasket is designed for smaller holes in sink. Aluminum escutcheon plate with gaskets is designed for larger, pre-drilled holes.

- (C) Slide aluminum channel washer up faucet stem, followed by
- (D) black plastic stem nut. Tighten nut with fingers.

NOTE: Do not use pliers to tighten stem-nut. Pliers may strip threads of faucet stem.



4. Mounting the System

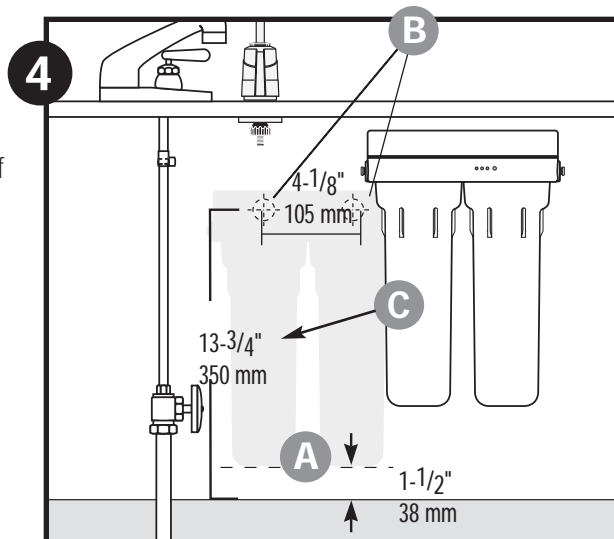
(A) Center system between water supply adapter and drinking water faucet.

NOTE: Allow 1 1/2-inches (38 mm) clearance below system for changing filter cartridges.

(B) Install mounting screws at least 13 3/4-inches (350 mm) from cabinet floor and 4 1/8-inches (124 mm) apart. Leave enough space (approximately 1/2-inch [13 mm]) between the head of the screw and the wall to slip system onto screws.

(C) Place system over screws on wall and slide downwards to lock into place.

CAUTION: Make certain system is firmly attached to wall to prevent it from falling and possibly being damaged.



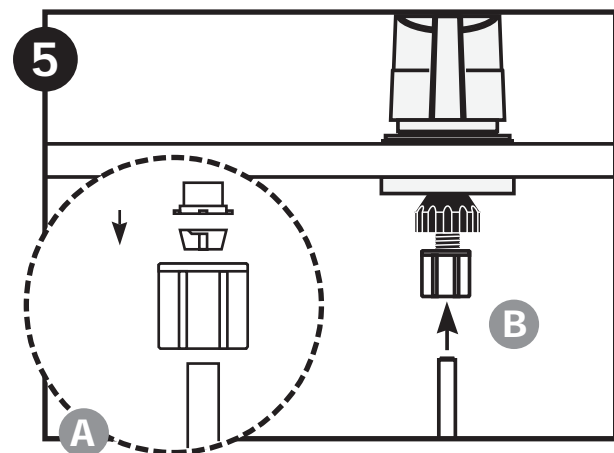
5. Connecting the Faucet

CAUTION: Do not over-tighten compression nut. Use caution not to bend or crimp tubes when securing.

(A) Determine the length of plastic tubing needed to connect the outlet (right) side of the filter with the faucet. Measure tubing short enough to prevent kinking and cut the tubing squarely. Screw nut of faucet stem hand tight, then unscrew two turns.

NOTE: Compression nut should come preassembled with ferrules inside. If nut should come apart, see figure 5A for proper assembly.

(B) Push the tubing firmly into the end of the faucet stem. Hand-tighten compression nut onto threads until secure. Then tighten 1 1/2 to 2 turns with wrench.

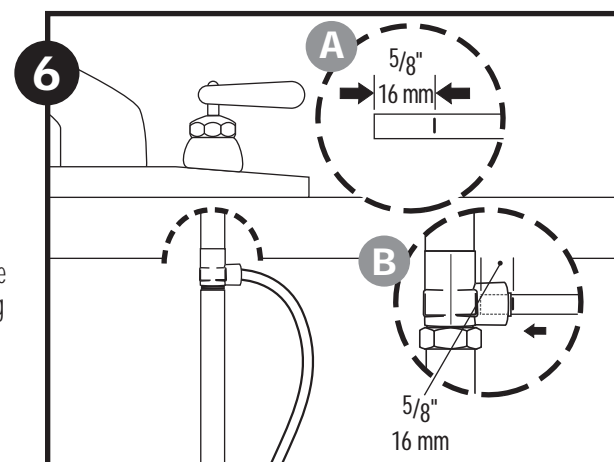


6. Connecting the Supply Adapter

(A) Determine the length of plastic tubing needed to connect the inlet (left) side of the filter with the supply adapter. Be sure to allow enough tubing to prevent kinking and cut the tubing squarely. Place a mark 5/8-inch from the end of the tubing.

(B) Wet tubing with water and insert into supply adapter 5/8-inch until mark is flush with fitting.

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 system; however, tubing may be quickly and easily removed from the fittings if necessary. First, turn off the water supply to the filter. Open faucet, then press in the gray collar around the fitting while pulling the tubing with your other hand.

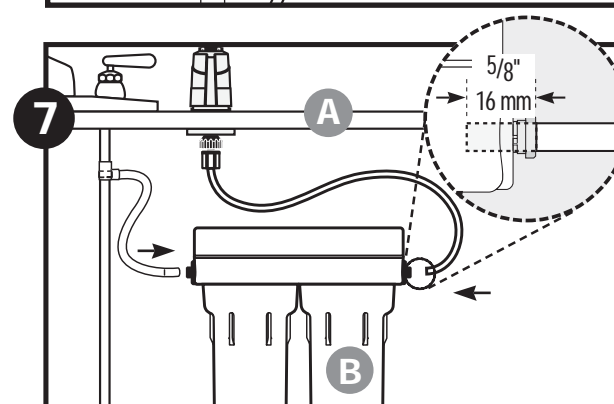


7. Connecting the System

(A) Assemble tubing with system as shown in Fig. 7A, inserting tubing into appropriate inlet or outlet quick-connect fitting until it stops.

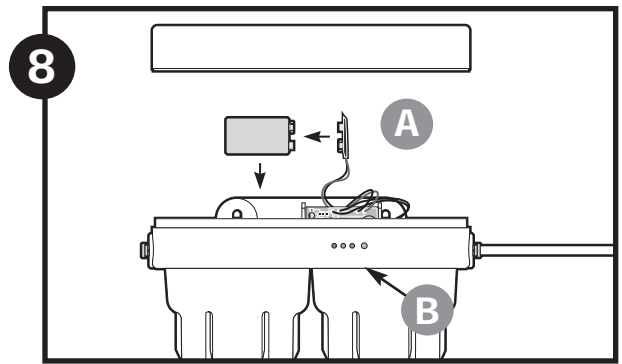
NOTE: In some installations, connecting the system to the supply adapter and/or drinking water faucet causes the tubing to enter the quick-connect fitting at a sharp angle. This may exert pressure on the quick-connect fitting and cause it to leak. In these situations, you may wish to use one or both of the quick-connect elbows included with the installation kit. Simply push the quick-connect elbow directly into the quick-connect fitting on the system, then insert the tubing into the quick-connect elbow.

(B) 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 5/8 inch [16 mm]).



8. Installing the Battery

- (A) Remove cover on top of system. Attach 9-volt battery (included) to connector, then place battery in holder located to the left of the monitor panel as shown (Fig. 8A).
- (B) Replace cover on top of system. Using a pen or pencil, press and release the blue reset button on the front of the system (Fig. 8B). The electronic monitor should beep twice. If the monitor has been reset properly, the two beeps will be followed by a sequence of two green, two yellow, and two red lights. The monitor should be reset whenever a new set of filter cartridges is installed.

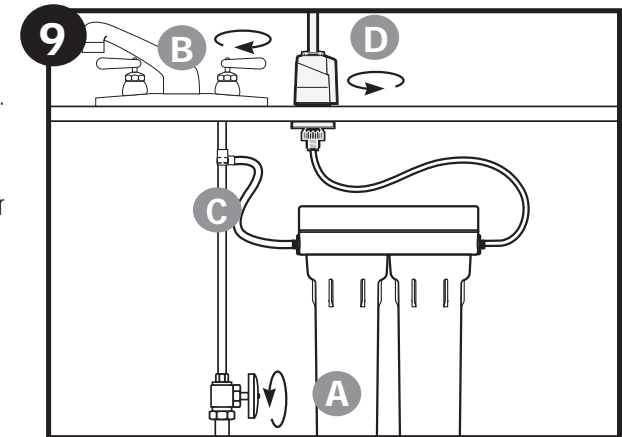


9. Putting the System into Operation

- (A) Slowly turn on cold water supply.
- (B) Shut off cold water faucet opened before starting installation.
- (C) Rotate base of drinking water faucet counter-clockwise to "ON" position. Allow water to run for 5 minutes to flush air and carbon fines from filter cartridges. Turn off drinking water faucet. Check system for leaks before leaving installation.

NOTE:

- It is recommended that you run the tap at least 20 seconds prior to using water for drinking or cooking purposes.
- Initially, filtered water may appear cloudy. If you set a glass of water on a level surface, you should be able to watch the cloudiness disappear from the bottom of the glass upwards. This harmless cloudiness results from the release of trapped air within the cartridge and will disappear within a few weeks after installation.



INSTALLATION IS NOW COMPLETE.

Electronic Monitor Operations

The SY-2650 system includes an electronic monitor that alerts you when it is time to change your filter cartridges. Both filter cartridges should be changed at the same time to ensure that the monitor works properly. The monitor measures actual water usage and is powered by a single 9-volt battery.

How the Electronic Monitor Works

The filter cartridges in the SY-2650 should be replaced every 500 gallons. The electronic monitor uses a combination of lights and alarms to alert you at different stages during the life of the filter cartridges. The lights are visible on the front panel of the filter system, to the left of the blue reset button:

0-475 gallons	No alarm. Green light flashes when water is turned on.
475-500 gallons	Alarm BEEPS ONCE when water is turned on. Yellow light flashes when water is on.
500+ gallons	Alarm BEEPS TWICE when water is turned on. Red light flashes when water is on.

Low or Dead battery No alarm. No lights. Replace battery.

NOTE: Gallons used while battery is dead will register on meter when battery is replaced

NOTE: To extend battery life, any sequence that includes any beeps will not be repeated if water is turned on again in less than 15 minutes.

Reset Button

The blue reset button is located on the front panel of the system. This button should only be pressed during initial installation or when new filter cartridges are installed. After pressing and releasing the button, you will hear two beeps followed by a sequence of two green, two yellow, and two red lights. This combination of beeps and lights indicates that the system has properly reset the internal gallon counter.

Replacing the Battery

The battery should be replaced every time new filter cartridges are installed or after 12 months of operation, whichever comes first.

Replacing Battery and Filters at the Same Time: Install new 9-volt battery as described in Step Eight: Installing the Battery on p. 4. Make sure to press blue reset button on front panel of system when finished.

Replacing Battery Only: Remove the old battery and install the new battery. DO NOT press the reset button on the front panel of the system when finished.

Filter Cartridge Replacement

- Filter cartridges for the SY-2650 will last about 500 gallons or six months before they need to be replaced. Filter cartridge life varies depending on usage, and/or water conditions. Changes in taste, color, and flow of the water being filtered indicate that the cartridge should be replaced.
- Read all instructions before replacing filter cartridges.

⚠ WARNING: Use safety glasses and gloves when handling household bleach to prevent bodily injury. Follow bleach manufacturer's instructions when handling bleach.

1. Close water supply valve and open drinking water faucet to release pressure from system.
2. Using the housing wrench, unscrew and remove bottom of filter housing. Locate and remove large O-ring, wipe clean of lubricant, and set aside. Repeat for second housing.
3. Discard used filter cartridges. Using a non-abrasive sponge or cloth, scrub the bottom of filter housings, O-ring grooves, and caps with dish soap and warm water. Rinse thoroughly. Fill bottom of each housing $\frac{1}{3}$ full with water. Add 1 teaspoon of household bleach and scrub to disinfect.
4. Lubricate O-rings with silicone grease. Insert each O-ring in groove and press into place.

NOTE: This step is important to ensure a proper housing seal. Make certain each O-ring is seated level in its groove or a leak may occur.

5. Screw bottom of housings with bleach water onto caps without filter and hand-tighten. DO NOT OVER-TIGHTEN.
6. Turn on water supply. Let faucet run for about 10 seconds, then turn off faucet and let stand for 20-30 minutes.
7. Turn on faucet and allow bleach water to run out (about 3-5 minutes).
8. Turn off water supply to system and open faucet to release pressure. Remove bottom of housings and empty of water.
9. Insert each filter cartridge into appropriate filter housing:
SY-2650: D-250A Cartridge Set: White with green end caps in left housing.
Grey plastic cartridge in right housing
10. Screw bottom of housings onto caps and hand-tighten. DO NOT OVER-TIGHTEN. Make certain cap standpipe slips into cartridge.
11. Open water supply valve and turn on drinking water faucet to release pressure in system. Let faucet run for 5 minutes to remove trapped air and carbon fines. Check system for leaks before leaving installation.
12. Press blue reset button.

NOTE:

- It is recommended that you run the tap at least 20 seconds prior to using water for drinking or cooking purposes.
- Initially, filtered water may appear cloudy. If you set a glass of water on a level surface, you should be able to watch the cloudiness disappear from the bottom of the glass upwards. This harmless cloudiness results from the release of trapped air within the cartridge and will disappear within a few weeks after installation.

Troubleshooting

Leaks:

...between cap and bottom of filter housing

Turn off water supply valve and turn on drinking water faucet to release pressure in system. Remove bottom of housing. 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. Turn on water supply valve and check for leaks.

...on system inlet/outlet connections

Turn off water supply valve and turn on drinking water faucet to release pressure in system. Remove tubing from fitting (see NOTE under Step Six: Connecting the Supply Adapter on p.3) and make sure end of tubing is cut squarely and free of scratches or burrs. Reinsert tubing into quick-connect fittings, making sure to push securely until tubing hits a hard stop. Turn on water supply valve and check for leaks.

...on supply adapter connection

Turn off water supply valve and turn on drinking water faucet to release pressure in system. Loosen leaking threaded fitting on supply adapter or pull out leaking tubing from fitting. Inspect to see if plastic tubing is scratched or supply adapter was properly attached. If tubing is scratched, cut off $\frac{1}{2}$ -inch to $\frac{5}{8}$ -inch and reinstall per Step Six: Connecting the Supply Adapter. Reconnect tubing or tighten compression nut with fingers, then tighten nut snugly $\frac{1}{2}$ -turn with wrench. Turn on water supply valve and check for leaks.

...on faucet/tubing connection

Turn off water supply valve and turn on drinking water faucet to release pressure in system. Loosen and remove compression nut fitting on faucet stem. Make sure tubing is inserted firmly into end of faucet stem, then retighten compression nut with fingers until secure then tighten 1 turn with a wrench. Turn on water supply valve, then turn off faucet to check for leaks.

NOTE: If leaks persist, or if there are other leaks on system, turn off water supply. Call our technical support department at 1-800-645-5426.

Low Water Flow

1. Check flow at faucet. The SY-2650 system should fill a gallon jug in approximately 2 minutes. Flow rates will vary with individual household water pressure.
2. Check filter cartridge installation. Make certain both filter cartridges are properly oriented in filter housings (See Filter Cartridge Replacement on p. 5).
3. Check to be certain that the water supply valve is completely open (turn handle on valve counter-clockwise as far as it will go).
4. Check flow through empty system. To do this, turn off water supply valve and turn on drinking water faucet to release pressure in system. Then remove filter cartridges from housings and screw housings back onto caps. Turn on faucet to check flow through empty system. Flow should be about one to two gallons per minute. If flow is less than 0.4 gallons per minute, call Technical Support at 1-800-645-5426.
5. If flow through empty system is adequate, place one filter cartridge in system at a time and check flow to make sure cartridge is not clogged. Replace clogged cartridge if necessary.

Performance Data

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 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.

SY-2650

Substance	Influent Challenge Concentration	Max. Permissible Product Water Concentration	Reduction Requirements	Minimum Reduction	Average Reduction
Standard 42 Aesthetic Effects					
Chlorine	2.0 mg/L \pm 10%		\geq 50%		97%
Particulates (0.5 to < 1 μ m) Class I	at least 10,000 particles/mL		\geq 85%		96%
Standard 53 Health Effects					
MTBE	0.015 \pm 20%	0.005 mg/L	69%		90%
Cysts ^a	Minimum 50,000/L		99.95%	99.99%	99.99%
Turbidity	11 mg/L \pm 1 NTU	0.5 NTU		99.1%	99.4%
Asbestos	10 ⁷ to 10 ⁸ fibers/L > 10 Micrometers in length		99%	99.9%	99.9%
Lead 6.5 pH	0.15 mg/L \pm 10%	0.010 mg/L		99.3%	99.3%
Lead 8.5 pH	0.15 mg/L \pm 10%	0.010 mg/L		94.1%	97.6%
Mercury 6.5 pH	0.006 mg/L \pm 10%	0.002 mg/L		85%	90.8%
Mercury 8.5 pH	0.006 mg/L \pm 10%	0.002 mg/L		80.6%	90%
Chloroform (VOC surrogate chemical)	0.304 mg/L	0.015 mg/L		99.7%	99.8%

Flow Rate = 0.6 gpm (2.27 Lpm) Capacity = 500 gallons (1893 L) or 6 months

^aBased on the use of microspheres or *Cryptosporidium parvum* oocysts

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

Organic Chemicals Included by Surrogate Testing:

Substance	Influent Challenge Concentration mg/L	Maximum permissible product water concentration mg/L
alachlor	0.050	0.001
atrazine	0.100	0.003
benzene	0.081	0.001
carbofuran	0.190	0.001
carbon tetrachloride	0.078	0.0018
chlorobenzene	0.077	0.001
chloropicrin	0.015	0.0002
2,4-D	0.110	0.0017
dibromochloropropane (DBCP)	0.052	0.00002
o-dichlorobenzene	0.080	0.001
p-dichlorobenzene	0.040	0.001
1,2-dichloroethane	0.088	0.0048
1,1-dichloroethylene	0.083	0.001
cis-1,2-dichloroethylene	0.170	0.0005
trans-1,2-dichloroethylene	0.086	0.001
1,2-dichloropropane	0.080	0.001
cis-1,3-dichloropropylene	0.079	0.001
dinoseb	0.170	0.0002
endrin	0.053	0.00059
ethylbenzene	0.088	0.001
ethylene dibromide (EDB)	0.044	0.00002
haloacetonitriles (HAN):		
bromochloroacetonitrile	0.0022	0.0005
dibromoacetonitrile	0.024	0.0006
dichloroacetonitrile	0.0096	0.0002
trichloroacetonitrile	0.0015	0.0003
haloketones (HK):		
1,1-dichloro-2-propanone	0.0072	0.0001
1,1,1-trichloro-2-propanone	0.0082	0.0003
heptachlor	0.08	0.0004
heptachlor epoxide	0.0107	0.0002
hexachlorobutadiene	0.044	0.001
hexachlorocyclopentadiene	0.060	0.000002
lindane	0.055	0.00001
methoxychlor	0.050	0.0001
pentachlorophenol	0.096	0.001
simazine	0.120	0.004
styrene	0.150	0.0005
1,1,2,2-tetrachloroethane	0.081	0.001
tetrachloroethylene	0.081	0.001
toluene	0.078	0.001
2,4,5-TP (silvex)	0.270	0.0016
tribromoacetic acid	0.042	0.001
1,2,4-trichlorobenzene	0.160	0.0005
1,1,1-trichloroethane	0.084	0.0046
1,1,2-trichloroethane	0.150	0.0005
trichloroethylene	0.180	0.0010
trihalomethanes (includes):		
chloroform (surrogate chemical)		
bromoform	0.304	0.015
bromodichloromethane		
chlorodibromomethane		
xlenes (total)	0.070	0.001

State of California Department of Health Services Water Treatment Device Certificate Number 00 - 1437 Date Issued: May 17, 2000 Date Revised: March 9, 2001		
Trademark/Model Designation Culligan SY-2300 Culligan SY-2300S Culligan SY-2650 Manufacturer: Culligan	Replacement Element(s) D-250A D-250A D-250A	
The water treatment device(s) listed on this certificate have met the testing requirements pursuant to Section 116830 of the Health and Safety Code for the following health related contaminants:		
Microbiological Contaminants and Turbidity Cysts (protozoan) Turbidity	Inorganic/Radiological Contaminants Asbestos Lead Mercury	
Organic Contaminants MTBE VOCs Alachlor Bromodichloromethane ¹ Carbon Tetrachloride 2,4-D o-Dichlorobenzene 1,2-Dichloroethane cis-1,2-Dichloroethylene Dinoseb Ethylbenzene Hexachlorocyclopentadiene Methoxychlor Styrene 1,1,2,2-Tetrachloroethane 1,1,1-Trichloroethane m-Xylene ¹ Trihalomethanes	Atrazine Bromofom ¹ Chlorobenzene DBCP p-Dichlorobenzene trans-1,2-Dichloroethylene 1,2-Dichloropropane EDB Heptachlor Hexachlorobutadiene Pentachlorophenol 2,4,5-TP (Silvex) Toluene 1,1,2-Trichloroethane o-Xylene	
Benzene Carbofuran Chloroform ¹ Chlorodibromomethane ¹ 1,1-Dichloroethylene cis-1,3-Dichloropropylene Heptachlor Epoxide Lindane Simazine Tetrachloroethylene 1,2,4-Trichlorobenzene Trichloroethylene p-Xylene		
Rated Service Capacity: 500 gallons	Rated Service Flow: 0.6 gpm	
Do not use where water is microbiologically unsafe or with water of unknown quality, except that systems claiming cyst reduction may be used on water containing cysts.		

Performance Data

⚠ 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.

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

Test Conditions

Flow Rate	= as noted for filter system
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 (4.4–37.8°C)
Turbidity	= 5 NTU Max.

Suggested Retail Price for Replacement Filter Cartridges:

SY-2650: D-250A = \$50.39

NOTE: Price subject to change. Contact your local retailer or call: 1-888-777-7962 for current replacement cartridge pricing.

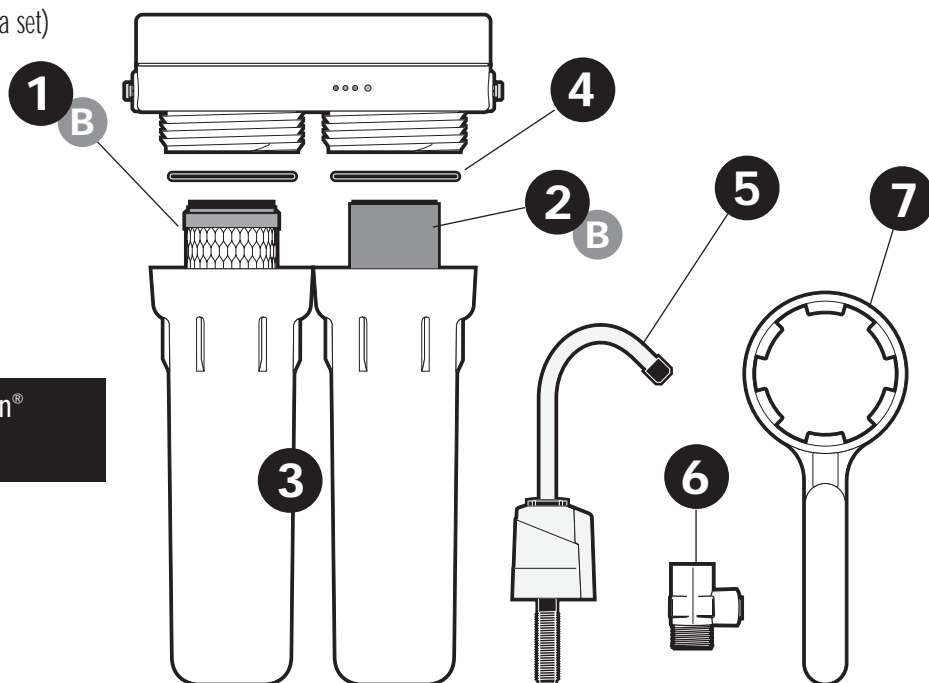
Replacement Parts

Replacement Filter Cartridges

SY-2650

- | | | |
|-------|--------|--|
| 1B/2B | 155832 | D-250A (Cartridges sold only as a set) |
| | | 1B = White netting pre-filter |
| | | 2B = Grey post filter |
| 3. | 153126 | White housing bottom |
| 4. | 151231 | O-ring (OR-233) |
| 5. | 151242 | Faucet |
| 6. | 143431 | Water Supply Valve |
| 7. | 150424 | Housing Wrench (SW-5) |
| | | Circuit and Probe (not shown) |

For replacement parts, contact your nearest Culligan® water filter retailer or call 1-888-777-7962.



WARRANTY

This warranty applies to the Filter Housings only. It does NOT apply to any disposable filter cartridge, which has a life expectancy that varies with the water being filtered. This warranty covers defects in materials and workmanship only for one full year from original date of delivery. Culligan will replace any part which in Culligan's opinion is defective, unless: (1) any part of the system has been subjected to any type of tampering, alteration, or improper use after delivery, or (2) any part of the system has been repaired by anyone not approved by Culligan. Our obligation does not include the cost of shipment of materials. Culligan is not responsible for damage in transit, and claims for such damage should be presented to the carrier by the customer.

This product has been designed solely for use as a housing for a disposable filter cartridge. It is NOT warranted against freezing, and neither this product nor its parts is warranted against defects or deterioration caused by uses for which this product was not expressly intended.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, WHETHER ORAL OR ARISING BY USAGE OF TRADE OR COURSE OF DEALING, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF FITNESS OR MERCHANTABILITY. THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY. IN NO EVENT SHALL CULLIGAN BE LIABLE FOR ANY ANTICIPATED OR LOST PROFITS, INCIDENTAL DAMAGES, CONSEQUENTIAL CHARGES OR OTHER LOSSES, WHETHER BASED ON BREACH OF CONTRACT, TORTIOUS CONDUCT OR ANY OTHER THEORY, INCURRED IN CONNECTION WITH THE PURCHASE, INSTALLATION, REPAIR OR OPERATION OF THE OPAQUE FILTER HOUSING. CULLIGAN DOES NOT AUTHORIZE ANYONE TO ASSUME FOR IT ANY LIABILITY OR MAKE ON ITS BEHALF ANY ADDITIONAL WARRANTIES IN CONNECTION WITH THE OPAQUE FILTER HOUSING OR ANY PART THEREOF.

For servicing under this warranty, return any defective part to YOUR RETAILER within the one-year period referred to above.

IOWA RESIDENTS ONLY:

Store or seller's name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Seller's signature: _____

Customer's signature: _____ Date: _____



Culligan International Company
One Culligan Parkway
Northbrook, Illinois 60062
www.culligan.com

Customer Service M-F 7:30 a.m. – 5:00 p.m. CST
Phone: 1-800-634-1455 Fax: 1-888-749-8826
International: Phone (920) 457-9435 • Fax (920) 457-2417
e-mail: customerservice@culligan.com

Sales & Marketing Correspondence
P.O. Box 1086 • Sheboygan, WI 53082-1086
Fax (847) 291-7632
e-mail: sales-marketing@culligan.com



Monitored MTBE Filtration System Installation and Operating Instructions Model SY-2650

Specifications

SY-2650

Temperature Range:	40–100°F (4.4–37.8°C)
Pressure Range:	30–125 psi (2.1–8.6 bar)
Service Flow Rate @60 psi (4.1 bar):	0.6 gpm (2.3 Lpm)
Rated Service Life:	500 gallons (1,893 L)
Dimensions:	9.18 in. x 4.70 in. x 12.72 in. (233 mm x 119 mm x 323 mm)
Weight (filled with water):	6 lbs. (2.7 kg)

Parts Included

- Filter system with electronic monitor
- D-250A cartridge set installed in system
- 1/4-inch tubing
- Installation hardware (mounting screws, water supply adapter, quick connect elbows)
- Housing wrench
- 9-volt battery
- Faucet
- Icemaker installation kit

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 water 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 cartridges used with this system have a limited service life. Changes in taste, odor, and/or flow of the water being filtered indicate that the cartridge should be replaced.



About Your CULLIGAN® Monitored MTBE Filtration System

Thank you for purchasing a Culligan Monitored MTBE Filtration System. With only minimal maintenance, your new system will provide you with safer, better-tasting water for years to come. The filter cartridges should be changed after every 500 gallons of use or once every six months, whichever comes first. Filter life will vary depending on usage and water conditions, and changes in taste, odor, and/or flow of the water being filtered indicate that the filter cartridges should be replaced. The SY-2650 incorporates an electronic monitor that measures the number of gallons flowing through the system and alerts you when the filter cartridges need to be replaced.

SY-2650 Monitored MTBE Filtration System

The SY-2650 Monitored MTBE Filtration System uses two carbon filter cartridges specially formulated to provide safer, cleaner, and better-tasting water. In addition to the MTBE, chlorine, asbestos reduction and cyst removal, the SY-2650 filtration system is NSF-certified to reduce lead, mercury, pesticides, herbicides, and various Chemicals (VOC's) in drinking water (see performance data on pg. 6 for specific claims).

Lead is tasteless and colorless, and may enter your water supply through lead pipes, lead solder, and brass fittings and faucets. High levels of lead in your drinking water may lead to serious long-term health problems, especially in children. The SY-2650 system has been Tested and Certified by NSF International to reduce lead well below the USEPA Action Level.

A variety of pesticides, herbicides, and other chemicals (sometimes referred to as Volatile Organic Chemicals or VOC's) may be present in your water supply. Common contaminants include Lindane, Atrazine, benzene, and trihalomethanes. Trihalomethanes (THM) are a class of potentially harmful chemicals formed as a byproduct of chlorination. The SY-2650 is NSF-Certified to reduce these and over 30 other chemicals to well below EPA drinking water standards. For a complete listing of chemical reduction test results, see the Performance Data in this manual.

Tools and Materials Required

- Tape Measure
- Safety glasses
- Phillips head screwdriver
- Adjustable wrench
- Utility knife
- Pencil

- If sink does not have hole for separate faucet:
- Center punch
 - Hand or electric drill (cordless recommended)
 - 1/4-inch and 1/2-inch drill bit



The Model SY-2650 is Tested and Certified by NSF International against NSF/ANSI Standard 42 for the aesthetic reduction of Taste and Odor, Chlorine, and Particulate Class I. Standard 53 for the reduction of MTBE, Lead, Mercury, VOC, Cyst, Asbestos, and Turbidity.

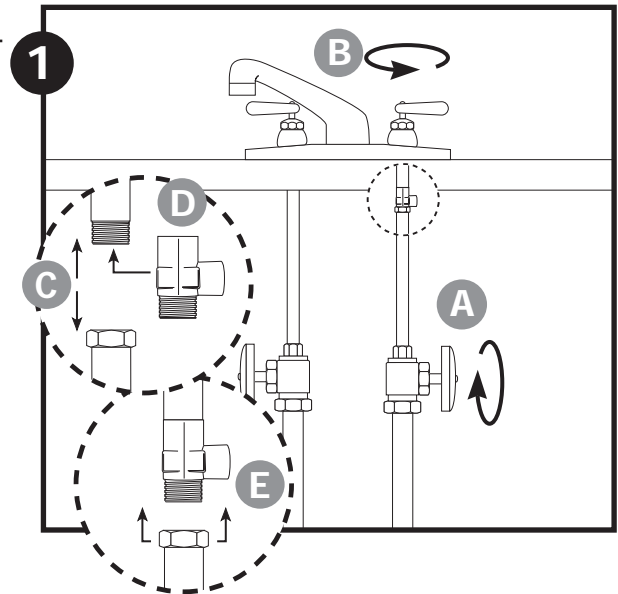
Installation

- For standard under-sink installation on 1/2-inch 14 NPS threads (most common thread on kitchen faucets) cold water line.
- Please read all instructions and precautions before installing and using your Monitored MTBE Filtration System.
- Numbered diagrams correspond with numbered steps.

1. Installing the Water Supply Adapter

NOTE: The supply adapter fits 1/2-inch-14 NPS supply threads. If local codes permit, it may be used to connect the SY-2650 to the cold water supply line. If local codes do not permit the use of the supply adapter, alternate connectors can be obtained from your local plumbing supplier.

- (A) Turn off the cold water supply. If cold water line does not have a shut-off valve under the sink, you should install one.
- (B) Turn on the cold water faucet and allow all water to drain from line.
- (C) Disconnect cold water line from 1/2-inch-14 NPS threaded stub on bottom of main faucet.
- (D) Apply Teflon® tape onto threads of faucet stub and supply adapter. Screw the water supply adapter to the threaded faucet stub as shown.
- (E) Using the nut that previously connected the cold water line to the faucet, screw the cold water line to the male supply adapter threads. (See diagram).



2. Selecting the Faucet Location

NOTE: The drinking water faucet should be positioned with function, convenience, and appearance in mind. An adequate flat area is required to allow faucet base to rest securely. The faucet fits through a 7/16-inch hole. Most sinks have pre-drilled 1 3/8-inch or 1 1/2-inch diameter holes that may be used for faucet installation. If these pre-drilled holes cannot be used or are in an inconvenient location, it will be necessary to drill a 1/2-inch hole in the sink for the faucet.

CAUTION: This procedure may generate dusts which can cause severe irritation if inhaled or come in contact with the eyes. The use of safety glasses and respirator for this procedure is recommended.

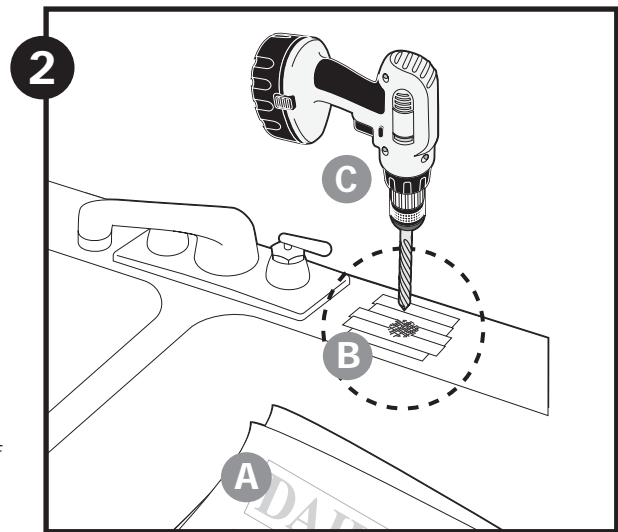
CAUTION: DO NOT ATTEMPT TO DRILL THROUGH AN ALL-PORCELAIN OR PORCELAIN-COATED SINK. For applications on these types of sinks we recommend using the sprayer hole or mounting the faucet through the countertop.

CAUTION: When drilling through a countertop make sure the area below the drilled area is free of wiring and piping. Make certain that you have ample room to make the proper connections to the bottom of the faucet.

CAUTION: Do not drill through a countertop that is more than 1-inch thick.

CAUTION: Do not attempt to drill through a tiled, marble, granite or similar countertop. Consult a plumber or the countertop manufacturer for advice or assistance.

- (A) Line bottom of sink with newspaper to prevent metal shavings, parts, or tools from falling down drain.
- (B) Place masking tape over the area to be drilled to prevent scratches if drill bit slips.
- (C) Mark hole with center punch. Use a 1/4-inch drill bit for a pilot hole, then, using a 1/2-inch drill bit, drill a hole completely through the sink. Smooth rough edges with a file.



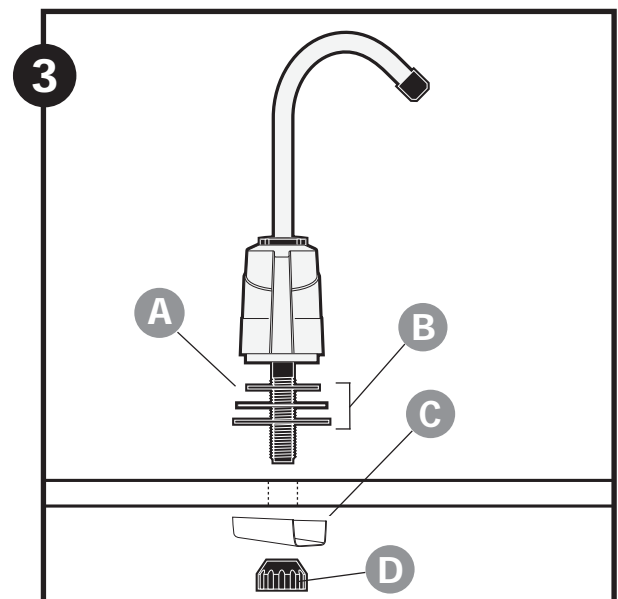
3. Mounting the Faucet

- (A) Slide small black rubber gasket OR
- (B) gasket, aluminum escutcheon plate (first remove protective plastic), and large gasket onto threaded faucet stem. Lower faucet stem through hole in the sink.

NOTE: Black rubber gasket is designed for smaller holes in sink. Aluminum escutcheon plate with gaskets is designed for larger, pre-drilled holes.

- (C) Slide aluminum channel washer up faucet stem, followed by
- (D) black plastic stem nut. Tighten nut with fingers.

NOTE: Do not use pliers to tighten stem-nut. Pliers may strip threads of faucet stem.



4. Mounting the System

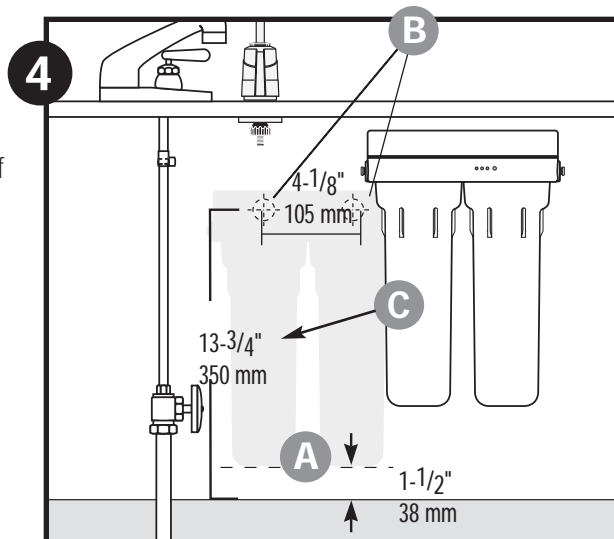
(A) Center system between water supply adapter and drinking water faucet.

NOTE: Allow 1 1/2-inches (38 mm) clearance below system for changing filter cartridges.

(B) Install mounting screws at least 13 3/4-inches (350 mm) from cabinet floor and 4 1/8-inches (124 mm) apart. Leave enough space (approximately 1/2-inch [13 mm]) between the head of the screw and the wall to slip system onto screws.

(C) Place system over screws on wall and slide downwards to lock into place.

CAUTION: Make certain system is firmly attached to wall to prevent it from falling and possibly being damaged.



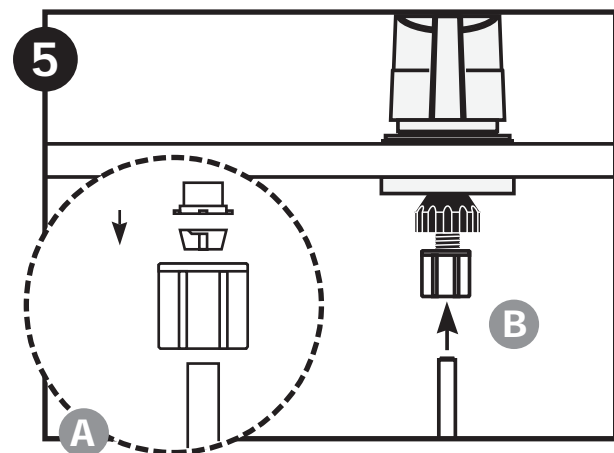
5. Connecting the Faucet

CAUTION: Do not over-tighten compression nut. Use caution not to bend or crimp tubes when securing.

(A) Determine the length of plastic tubing needed to connect the outlet (right) side of the filter with the faucet. Measure tubing short enough to prevent kinking and cut the tubing squarely. Screw nut of faucet stem hand tight, then unscrew two turns.

NOTE: Compression nut should come preassembled with ferrules inside. If nut should come apart, see figure 5A for proper assembly.

(B) Push the tubing firmly into the end of the faucet stem. Hand-tighten compression nut onto threads until secure. Then tighten 1 1/2 to 2 turns with wrench.

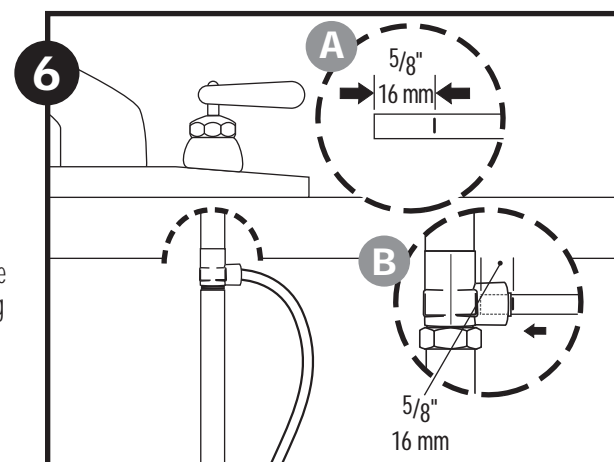


6. Connecting the Supply Adapter

(A) Determine the length of plastic tubing needed to connect the inlet (left) side of the filter with the supply adapter. Be sure to allow enough tubing to prevent kinking and cut the tubing squarely. Place a mark 5/8-inch from the end of the tubing.

(B) Wet tubing with water and insert into supply adapter 5/8-inch until mark is flush with fitting.

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 system; however, tubing may be quickly and easily removed from the fittings if necessary. First, turn off the water supply to the filter. Open faucet, then press in the gray collar around the fitting while pulling the tubing with your other hand.

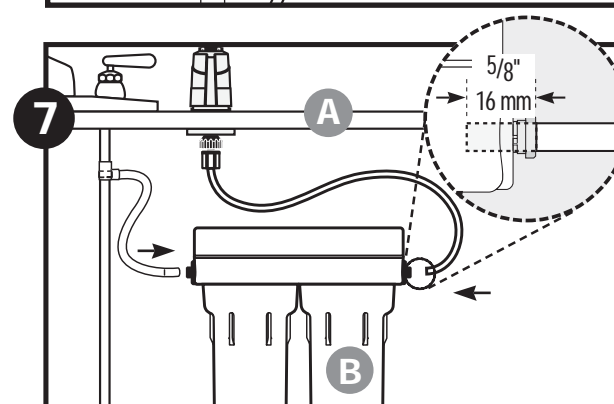


7. Connecting the System

(A) Assemble tubing with system as shown in Fig. 7A, inserting tubing into appropriate inlet or outlet quick-connect fitting until it stops.

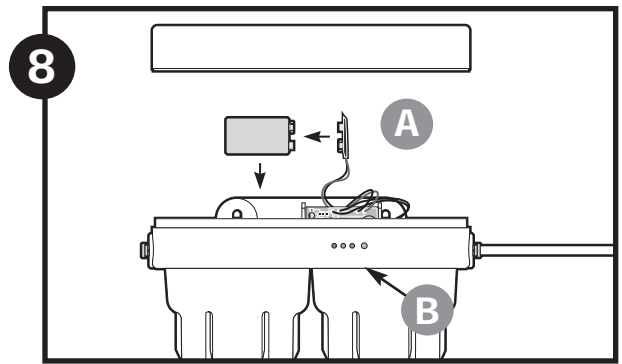
NOTE: In some installations, connecting the system to the supply adapter and/or drinking water faucet causes the tubing to enter the quick-connect fitting at a sharp angle. This may exert pressure on the quick-connect fitting and cause it to leak. In these situations, you may wish to use one or both of the quick-connect elbows included with the installation kit. Simply push the quick-connect elbow directly into the quick-connect fitting on the system, then insert the tubing into the quick-connect elbow.

(B) 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 5/8 inch [16 mm]).



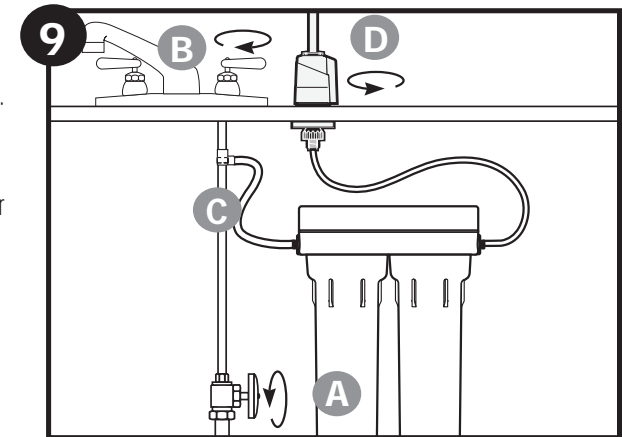
8. Installing the Battery

- (A) Remove cover on top of system. Attach 9-volt battery (included) to connector, then place battery in holder located to the left of the monitor panel as shown (Fig. 8A).
- (B) Replace cover on top of system. Using a pen or pencil, press and release the blue reset button on the front of the system (Fig. 8B). The electronic monitor should beep twice. If the monitor has been reset properly, the two beeps will be followed by a sequence of two green, two yellow, and two red lights. The monitor should be reset whenever a new set of filter cartridges is installed.



9. Putting the System into Operation

- (A) Slowly turn on cold water supply.
- (B) Shut off cold water faucet opened before starting installation.
- (C) Rotate base of drinking water faucet counter-clockwise to "ON" position. Allow water to run for 5 minutes to flush air and carbon fines from filter cartridges. Turn off drinking water faucet. Check system for leaks before leaving installation.



NOTE:

- It is recommended that you run the tap at least 20 seconds prior to using water for drinking or cooking purposes.
- Initially, filtered water may appear cloudy. If you set a glass of water on a level surface, you should be able to watch the cloudiness disappear from the bottom of the glass upwards. This harmless cloudiness results from the release of trapped air within the cartridge and will disappear within a few weeks after installation.

INSTALLATION IS NOW COMPLETE.

Electronic Monitor Operations

The SY-2650 system includes an electronic monitor that alerts you when it is time to change your filter cartridges. Both filter cartridges should be changed at the same time to ensure that the monitor works properly. The monitor measures actual water usage and is powered by a single 9-volt battery.

How the Electronic Monitor Works

The filter cartridges in the SY-2650 should be replaced every 500 gallons. The electronic monitor uses a combination of lights and alarms to alert you at different stages during the life of the filter cartridges. The lights are visible on the front panel of the filter system, to the left of the blue reset button:

0-475 gallons	No alarm. Green light flashes when water is turned on.
475-500 gallons	Alarm BEEPS ONCE when water is turned on. Yellow light flashes when water is on.
500+ gallons	Alarm BEEPS TWICE when water is turned on. Red light flashes when water is on.

Low or Dead battery No alarm. No lights. Replace battery.

NOTE: Gallons used while battery is dead will register on meter when battery is replaced

NOTE: To extend battery life, any sequence that includes any beeps will not be repeated if water is turned on again in less than 15 minutes.

Reset Button

The blue reset button is located on the front panel of the system. This button should only be pressed during initial installation or when new filter cartridges are installed. After pressing and releasing the button, you will hear two beeps followed by a sequence of two green, two yellow, and two red lights. This combination of beeps and lights indicates that the system has properly reset the internal gallon counter.

Replacing the Battery

The battery should be replaced every time new filter cartridges are installed or after 12 months of operation, whichever comes first.

Replacing Battery and Filters at the Same Time: Install new 9-volt battery as described in Step Eight: Installing the Battery on p. 4. Make sure to press blue reset button on front panel of system when finished.

Replacing Battery Only: Remove the old battery and install the new battery. DO NOT press the reset button on the front panel of the system when finished.

Filter Cartridge Replacement

- Filter cartridges for the SY-2650 will last about 500 gallons or six months before they need to be replaced. Filter cartridge life varies depending on usage, and/or water conditions. Changes in taste, color, and flow of the water being filtered indicate that the cartridge should be replaced.
- Read all instructions before replacing filter cartridges.

⚠ WARNING: Use safety glasses and gloves when handling household bleach to prevent bodily injury. Follow bleach manufacturer's instructions when handling bleach.

1. Close water supply valve and open drinking water faucet to release pressure from system.
2. Using the housing wrench, unscrew and remove bottom of filter housing. Locate and remove large O-ring, wipe clean of lubricant, and set aside. Repeat for second housing.
3. Discard used filter cartridges. Using a non-abrasive sponge or cloth, scrub the bottom of filter housings, O-ring grooves, and caps with dish soap and warm water. Rinse thoroughly. Fill bottom of each housing $\frac{1}{3}$ full with water. Add 1 teaspoon of household bleach and scrub to disinfect.
4. Lubricate O-rings with silicone grease. Insert each O-ring in groove and press into place.

NOTE: This step is important to ensure a proper housing seal. Make certain each O-ring is seated level in its groove or a leak may occur.

5. Screw bottom of housings with bleach water onto caps without filter and hand-tighten. DO NOT OVER-TIGHTEN.
6. Turn on water supply. Let faucet run for about 10 seconds, then turn off faucet and let stand for 20-30 minutes.
7. Turn on faucet and allow bleach water to run out (about 3-5 minutes).
8. Turn off water supply to system and open faucet to release pressure. Remove bottom of housings and empty of water.
9. Insert each filter cartridge into appropriate filter housing:
SY-2650: D-250A Cartridge Set: White with green end caps in left housing.
Grey plastic cartridge in right housing
10. Screw bottom of housings onto caps and hand-tighten. DO NOT OVER-TIGHTEN. Make certain cap standpipe slips into cartridge.
11. Open water supply valve and turn on drinking water faucet to release pressure in system. Let faucet run for 5 minutes to remove trapped air and carbon fines. Check system for leaks before leaving installation.
12. Press blue reset button.

NOTE:

- It is recommended that you run the tap at least 20 seconds prior to using water for drinking or cooking purposes.
- Initially, filtered water may appear cloudy. If you set a glass of water on a level surface, you should be able to watch the cloudiness disappear from the bottom of the glass upwards. This harmless cloudiness results from the release of trapped air within the cartridge and will disappear within a few weeks after installation.

Troubleshooting

Leaks:

...between cap and bottom of filter housing

Turn off water supply valve and turn on drinking water faucet to release pressure in system. Remove bottom of housing. 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. Turn on water supply valve and check for leaks.

...on system inlet/outlet connections

Turn off water supply valve and turn on drinking water faucet to release pressure in system. Remove tubing from fitting (see NOTE under Step Six: Connecting the Supply Adapter on p.3) and make sure end of tubing is cut squarely and free of scratches or burrs. Reinsert tubing into quick-connect fittings, making sure to push securely until tubing hits a hard stop. Turn on water supply valve and check for leaks.

...on supply adapter connection

Turn off water supply valve and turn on drinking water faucet to release pressure in system. Loosen leaking threaded fitting on supply adapter or pull out leaking tubing from fitting. Inspect to see if plastic tubing is scratched or supply adapter was properly attached. If tubing is scratched, cut off $\frac{1}{2}$ -inch to $\frac{5}{8}$ -inch and reinstall per Step Six: Connecting the Supply Adapter. Reconnect tubing or tighten compression nut with fingers, then tighten nut snugly $\frac{1}{2}$ -turn with wrench. Turn on water supply valve and check for leaks.

...on faucet/tubing connection

Turn off water supply valve and turn on drinking water faucet to release pressure in system. Loosen and remove compression nut fitting on faucet stem. Make sure tubing is inserted firmly into end of faucet stem, then retighten compression nut with fingers until secure then tighten 1 turn with a wrench. Turn on water supply valve, then turn off faucet to check for leaks.

NOTE: If leaks persist, or if there are other leaks on system, turn off water supply. Call our technical support department at 1-800-645-5426.

Low Water Flow

1. Check flow at faucet. The SY-2650 system should fill a gallon jug in approximately 2 minutes. Flow rates will vary with individual household water pressure.
2. Check filter cartridge installation. Make certain both filter cartridges are properly oriented in filter housings (See Filter Cartridge Replacement on p. 5).
3. Check to be certain that the water supply valve is completely open (turn handle on valve counter-clockwise as far as it will go).
4. Check flow through empty system. To do this, turn off water supply valve and turn on drinking water faucet to release pressure in system. Then remove filter cartridges from housings and screw housings back onto caps. Turn on faucet to check flow through empty system. Flow should be about one to two gallons per minute. If flow is less than 0.4 gallons per minute, call Technical Support at 1-800-645-5426.
5. If flow through empty system is adequate, place one filter cartridge in system at a time and check flow to make sure cartridge is not clogged. Replace clogged cartridge if necessary.

Performance Data

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 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.

SY-2650

Substance	Influent Challenge Concentration	Max. Permissible Product Water Concentration	Reduction Requirements	Minimum Reduction	Average Reduction
Standard 42 Aesthetic Effects					
Chlorine	2.0 mg/L \pm 10%		\geq 50%		97%
Particulates (0.5 to < 1 μ m) Class I	at least 10,000 particles/mL		\geq 85%		96%
Standard 53 Health Effects					
MTBE	0.015 \pm 20%	0.005 mg/L	69%		90%
Cysts ^a	Minimum 50,000/L		99.95%	99.99%	99.99%
Turbidity	11 mg/L \pm 1 NTU	0.5 NTU		99.1%	99.4%
Asbestos	10 ⁷ to 10 ⁸ fibers/L > 10 Micrometers in length		99%	99.9%	99.9%
Lead 6.5 pH	0.15 mg/L \pm 10%	0.010 mg/L		99.3%	99.3%
Lead 8.5 pH	0.15 mg/L \pm 10%	0.010 mg/L		94.1%	97.6%
Mercury 6.5 pH	0.006 mg/L \pm 10%	0.002 mg/L		85%	90.8%
Mercury 8.5 pH	0.006 mg/L \pm 10%	0.002 mg/L		80.6%	90%
Chloroform (VOC surrogate chemical)	0.304 mg/L	0.015 mg/L		99.7%	99.8%

Flow Rate = 0.6 gpm (2.27 Lpm) Capacity = 500 gallons (1893 L) or 6 months

^aBased on the use of microspheres or *Cryptosporidium parvum* oocysts

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

Organic Chemicals Included by Surrogate Testing:

Substance	Influent Challenge Concentration mg/L	Maximum permissible product water concentration mg/L
alachlor	0.050	0.001
atrazine	0.100	0.003
benzene	0.081	0.001
carbofuran	0.190	0.001
carbon tetrachloride	0.078	0.0018
chlorobenzene	0.077	0.001
chloropicrin	0.015	0.0002
2,4-D	0.110	0.0017
dibromochloropropane (DBCP)	0.052	0.00002
o-dichlorobenzene	0.080	0.001
p-dichlorobenzene	0.040	0.001
1,2-dichloroethane	0.088	0.0048
1,1-dichloroethylene	0.083	0.001
cis-1,2-dichloroethylene	0.170	0.0005
trans-1,2-dichloroethylene	0.086	0.001
1,2-dichloropropane	0.080	0.001
cis-1,3-dichloropropylene	0.079	0.001
dinoseb	0.170	0.0002
endrin	0.053	0.00059
ethylbenzene	0.088	0.001
ethylene dibromide (EDB)	0.044	0.00002
haloacetonitriles (HAN):		
bromochloroacetonitrile	0.0022	0.0005
dibromoacetonitrile	0.024	0.0006
dichloroacetonitrile	0.0096	0.0002
trichloroacetonitrile	0.0015	0.0003
haloketones (HK):		
1,1-dichloro-2-propanone	0.0072	0.0001
1,1,1-trichloro-2-propanone	0.0082	0.0003
heptachlor	0.08	0.0004
heptachlor epoxide	0.0107	0.0002
hexachlorobutadiene	0.044	0.001
hexachlorocyclopentadiene	0.060	0.000002
lindane	0.055	0.00001
methoxychlor	0.050	0.0001
pentachlorophenol	0.096	0.001
simazine	0.120	0.004
styrene	0.150	0.0005
1,1,2,2-tetrachloroethane	0.081	0.001
tetrachloroethylene	0.081	0.001
toluene	0.078	0.001
2,4,5-TP (silvex)	0.270	0.0016
tribromoacetic acid	0.042	0.001
1,2,4-trichlorobenzene	0.160	0.0005
1,1,1-trichloroethane	0.084	0.0046
1,1,2-trichloroethane	0.150	0.0005
trichloroethylene	0.180	0.0010
trihalomethanes (includes):		
chloroform (surrogate chemical)		
bromoform	0.304	0.015
bromodichloromethane		
chlorodibromomethane		
xlenes (total)	0.070	0.001

State of California Department of Health Services Water Treatment Device Certificate Number 00 - 1437 Date Issued: May 17, 2000 Date Revised: March 9, 2001		
Trademark/Model Designation Culligan SY-2300 Culligan SY-2300S Culligan SY-2650 Manufacturer: Culligan	Replacement Element(s) D-250A D-250A D-250A	
The water treatment device(s) listed on this certificate have met the testing requirements pursuant to Section 116830 of the Health and Safety Code for the following health related contaminants:		
Microbiological Contaminants and Turbidity Cysts (protozoan) Turbidity	Inorganic/Radiological Contaminants Asbestos Lead Mercury	
Organic Contaminants MTBE VOCs Alachlor Bromodichloromethane ¹ Carbon Tetrachloride 2,4-D o-Dichlorobenzene 1,2-Dichloroethane cis-1,2-Dichloroethylene Dinoseb Ethylbenzene Hexachlorocyclopentadiene Methoxychlor Styrene 1,1,2,2-Tetrachloroethane 1,1,1-Trichloroethane m-Xylene ¹ Trihalomethanes	Atrazine Bromoforn ¹ Chlorobenzene DBCP p-Dichlorobenzene trans-1,2-Dichloroethylene 1,2-Dichloropropane EDB Heptachlor Hexachlorobutadiene Pentachlorophenol 2,4,5-TP (Silvex) Toluene 1,1,2-Trichloroethane o-Xylene	
Benzene Carbofuran Chloroform ¹ Chlorodibromomethane ¹ 1,1-Dichloroethylene cis-1,3-Dichloropropylene Heptachlor Epoxide Lindane Simazine Tetrachloroethylene 1,2,4-Trichlorobenzene Trichloroethylene p-Xylene		
Rated Service Capacity: 500 gallons Rated Service Flow: 0.6 gpm		
Do not use where water is microbiologically unsafe or with water of unknown quality, except that systems claiming cyst reduction may be used on water containing cysts.		

Performance Data

⚠ 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.

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

Test Conditions

Flow Rate	= as noted for filter system
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 (4.4–37.8°C)
Turbidity	= 5 NTU Max.

Suggested Retail Price for Replacement Filter Cartridges:

SY-2650: D-250A = \$50.39

NOTE: Price subject to change. Contact your local retailer or call: 1-888-777-7962 for current replacement cartridge pricing.

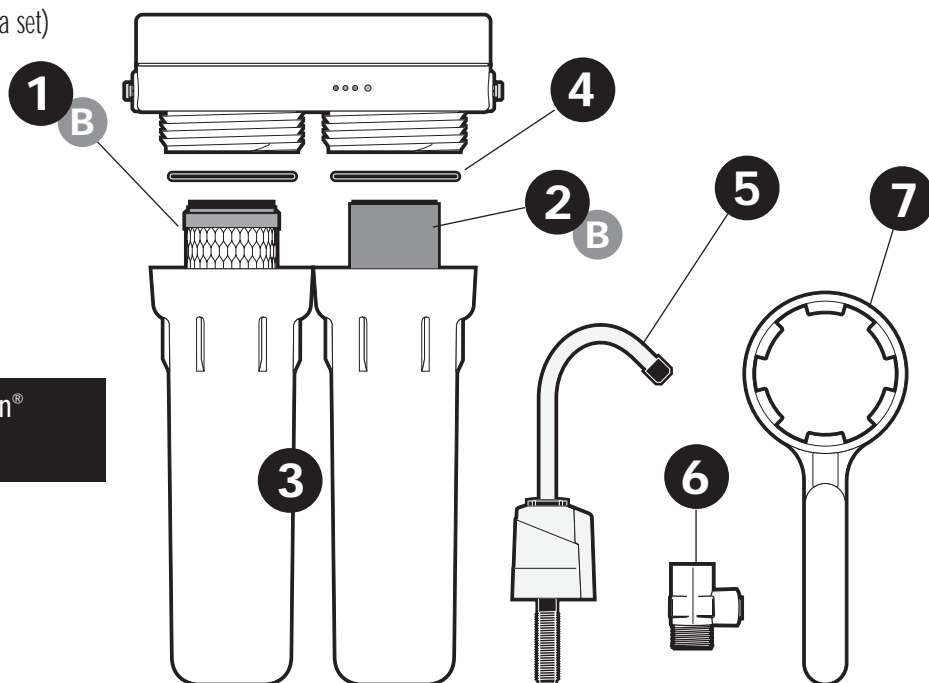
Replacement Parts

Replacement Filter Cartridges

SY-2650

- | | | |
|-------|--------|--|
| 1B/2B | 155832 | D-250A (Cartridges sold only as a set) |
| | | 1B = White netting pre-filter |
| | | 2B = Grey post filter |
| 3. | 153126 | White housing bottom |
| 4. | 151231 | O-ring (OR-233) |
| 5. | 151242 | Faucet |
| 6. | 143431 | Water Supply Valve |
| 7. | 150424 | Housing Wrench (SW-5) |
| | | Circuit and Probe (not shown) |

For replacement parts, contact your nearest Culligan® water filter retailer or call 1-888-777-7962.



WARRANTY

This warranty applies to the Filter Housings only. It does NOT apply to any disposable filter cartridge, which has a life expectancy that varies with the water being filtered. This warranty covers defects in materials and workmanship only for one full year from original date of delivery. Culligan will replace any part which in Culligan's opinion is defective, unless: (1) any part of the system has been subjected to any type of tampering, alteration, or improper use after delivery, or (2) any part of the system has been repaired by anyone not approved by Culligan. Our obligation does not include the cost of shipment of materials. Culligan is not responsible for damage in transit, and claims for such damage should be presented to the carrier by the customer.

This product has been designed solely for use as a housing for a disposable filter cartridge. It is NOT warranted against freezing, and neither this product nor its parts is warranted against defects or deterioration caused by uses for which this product was not expressly intended.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, WHETHER ORAL OR ARISING BY USAGE OF TRADE OR COURSE OF DEALING, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF FITNESS OR MERCHANTABILITY. THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY. IN NO EVENT SHALL CULLIGAN BE LIABLE FOR ANY ANTICIPATED OR LOST PROFITS, INCIDENTAL DAMAGES, CONSEQUENTIAL CHARGES OR OTHER LOSSES, WHETHER BASED ON BREACH OF CONTRACT, TORTIOUS CONDUCT OR ANY OTHER THEORY, INCURRED IN CONNECTION WITH THE PURCHASE, INSTALLATION, REPAIR OR OPERATION OF THE OPAQUE FILTER HOUSING. CULLIGAN DOES NOT AUTHORIZE ANYONE TO ASSUME FOR IT ANY LIABILITY OR MAKE ON ITS BEHALF ANY ADDITIONAL WARRANTIES IN CONNECTION WITH THE OPAQUE FILTER HOUSING OR ANY PART THEREOF.

For servicing under this warranty, return any defective part to YOUR RETAILER within the one-year period referred to above.

IOWA RESIDENTS ONLY:

Store or seller's name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Seller's signature: _____

Customer's signature: _____ Date: _____



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