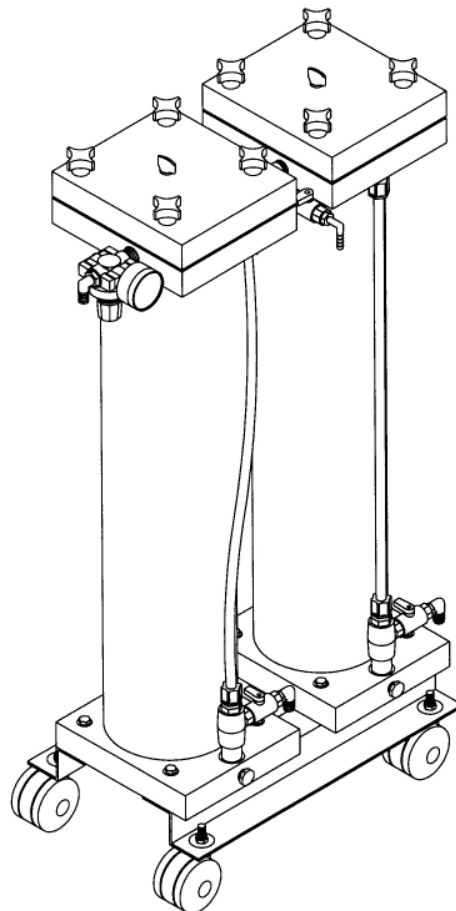




# SILEX

## OPERATION & MAINTENANCE MANUAL

### SERIES 00M



**Manufactured With Pride  
In The USA**

[www.ameriwater.com](http://www.ameriwater.com) • 800-535-5585

AmeriWater • 3345 Stop 8 Rd. • Dayton, OH 45414

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# **YOUR SILEX SYSTEM**

## **HOW DOES THE SILEX DEIONIZER WORK?**

Silex is a simple, maintenance-free system. When the monitor light signals that the product water quality has dropped below the desired quality setpoint, simply exchange the resin packs and send them to AmeriWater for regeneration.

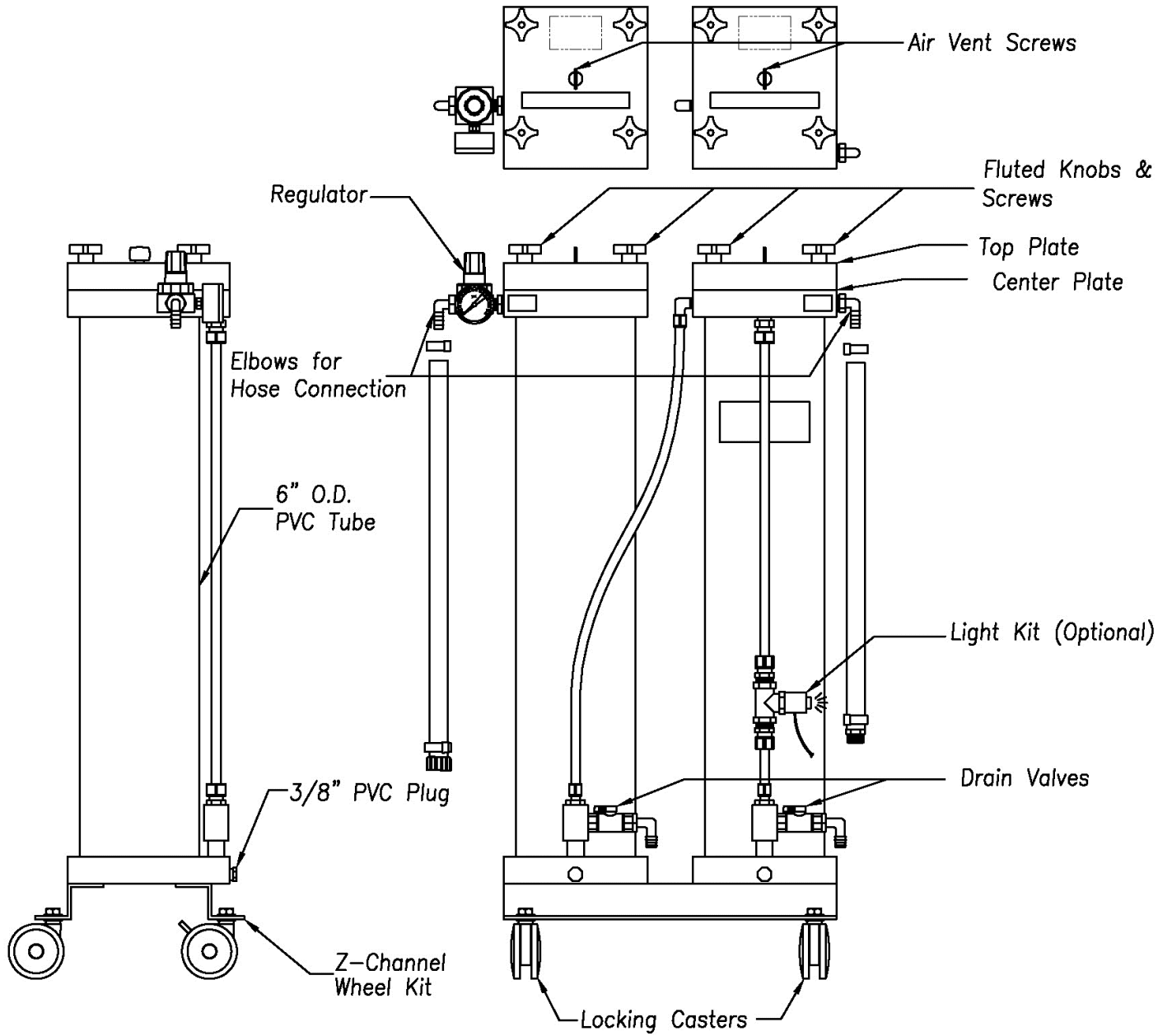
## **HOW DOES THE REGENERATION WORK?**

The AmeriWater regeneration center maintains the resin used in the Silex Deionizer. When resin packs are exhausted, replace the packs in the Silex system with “stand-by” resin packs and return the exhausted pack to AmeriWater for regeneration. The resin will be regenerated and returned the next business day after receipt. It’s as simple as that!

## **ABOUT THE RESIN PACK**

The resin has a shelf life of approximately one year. The resin pack consists of resin contained in a polypropylene bag that never has to be opened. Resin packs are shipped in plastic sleeves to prevent the exchangers from drying out.

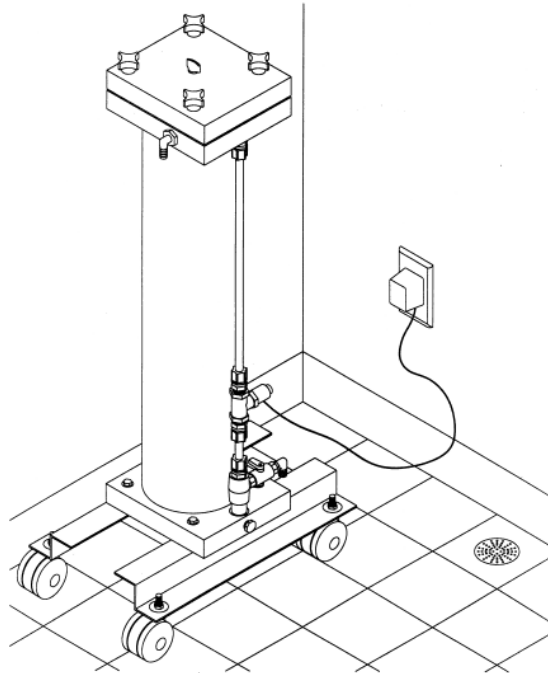
# SILEX FEATURES



# INSTALLATION IN 10 EASY STEPS

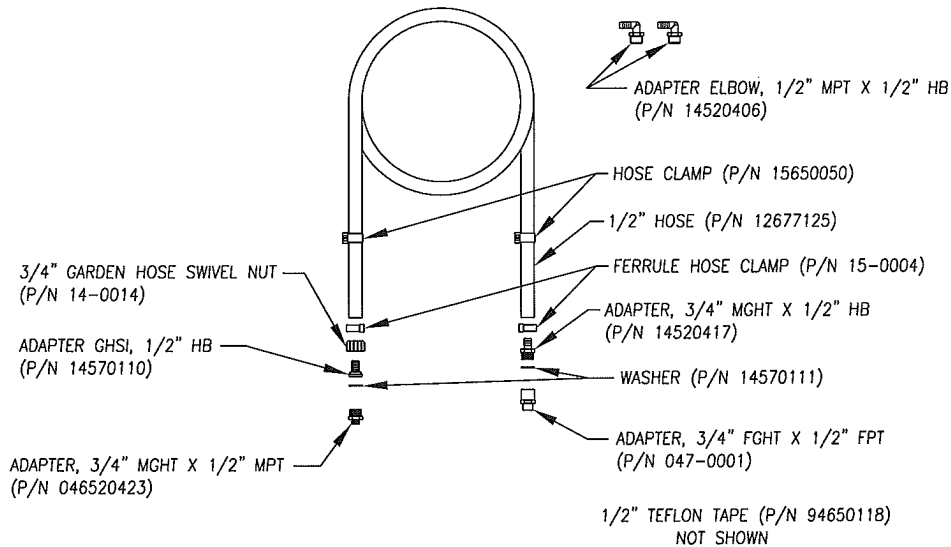
1. Locate the Silex system on a firm, level foundation.
2. It is recommended, but not required, to locate the system near a standard floor drain or sump and a 115 Volt receptacle.

**CAUTION:** Vent all plumbed drain lines in accordance with local plumbing codes and / or local regulations. If a drain is not feasible, mount the system on a raised platform so that it can be drained into a container.



3. It is recommended to install cut-off valves on the inlet and outlet sides of each unit to facilitate changing of resin packs.
4. Connect the inlet supply hose to the hose barb fitting on the left side of the system (while facing the label). Use the hose clamps provided with the system to secure the hose to the hose barb fitting.

## SILEX HOSE KIT



NOTE: CUSTOMER TO CUT HOSE AND INSTALL HOSE CLAMPS AS REQUIRED.

**NOTE:** 16 feet of hose has been provided with the Silex system. Cut the hose to the desired lengths for the inlet hose and outlet hose and install the provided fittings as needed (See drawing below).

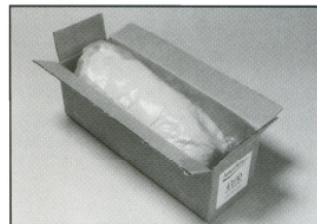
5. Connect the outlet hose to the hose barb fitting on the right side of the system (while facing the label). Use the hose clamps provided with the system to secure the hose to the hose barb fitting.
6. The Silex Deionizer is designed to operate at pressures up to 50 PSI (**P**ounds per **S**quare **I**nch). A regulator has been installed on the inlet of the Silex system to adjust incoming pressure. The maximum flow for each deionizer is 3 GPM (**G**allons **P**er **M**inute).
7. Install the optional pre-filter, post-filter, and/or monitors (if applicable) per the instructions provided with the optional equipment.

8. Install the resin pack(s):

- a. Remove the cover plates by unscrewing the four black knobs on each plate. To break the seal between the cover plates and the upper plates, use a slotted screw driver in the pry notch located in the top of each upper plate. Open the drain valve at the bottom of each column.



- b. Remove the resin pack from the shipping box and open the tied end of the plastic sleeve. **DO NOT** remove the resin pack from the plastic sleeve at this time.



- c. Stretch the resin pack over your arm to elongate the pack, and feed it into the Silex column allowing the pack to slide out of the plastic sleeve.



- d. Replace the cover plate and tighten the black knobs. Be sure to tighten the knobs evenly by screwing in the knobs in opposite corners simultaneously. Repeat for the other two corners.



- e. Close the drain valve at the bottom of the column.

- f. Repeat steps a. through e. for each of the columns.

9. Open the air vents located on the top of the cover plates and turn on the water supply. Tighten the air vents closed when water begins to escape through the vents.

10. Allow several gallons of water to run through the Silex system. Continue running water through the system until the water quality light changes from red to green. The green light indicates that the Silex is producing deionized water.



# RESIN PACK & FILTER EXCHANGE

## RESIN PACK EXCHANGE

1. Turn off the water supply to the Silex system.
2. Open the air vents located in the center of the cover plates.
3. Place a container under the Drain Valves located on the bottom plates of the system. Open the valves and allow the water to drain into the container. The container may be emptied at a drain.
4. Remove the cover plates by unscrewing the black knobs located at each corner of the cover plates.
5. Pull the exhausted resin pack part of the way out of the column and lay it over the top of the system.

**NOTE:** If the Drain Valve located on the bottom plate is not open, a vacuum will be created making it difficult to remove the resin pack.

6. Slowly pull the exhausted pack over the side of the column while sliding it out of the column and into the plastic sleeve that it was shipped in.
7. Remove the new resin pack from the shipping box and open the tied end of the plastic sleeve. Stretch the resin pack over your arm to elongate the pack. Feed the pack into the column allowing it to slide out of the plastic sleeve. Save the plastic sleeve for the return shipment of the resin pack at the next exchange.
8. Carefully wipe the O-rings and the grooves on the top plate and cover plate to remove any debris from the surfaces that must seal together.
9. Replace the cover plates and tighten the knobs. To ensure proper tightening and a good seal, tighten the knobs in opposite corners simultaneously. Repeat for the other two corners.
10. Turn on the water supply to the Silex system and remove trapped air by loosening the air vents located in the center of the cover plates. Tighten the air vents when water begins to escape through the vent. This ensures that all of the air has been removed from the system and maximizes the life and efficiency of the resin packs.
11. Allow water to run through the system for 1 to 2 minutes prior to placing the Silex system in service.



## **FILTER CARTRIDGE REPLACEMENT**

Carbon prefilter cartridges should be replaced each time the resin pack(s) are exchanged.

1. Turn off the water supply to the system.
2. Place a container under the filter housing sumps and open the filter drain ports on the bottom of the sumps to drain the water out of the filter housing. Close the filter drains when water ceases to flow out of them.
3. Use the filter wrench supplied in the installation kit to turn the filter housing counterclockwise.
4. Remove and discard the old filter cartridge(s).
5. Partially unwrap the plastic from the new filter cartridge. Holding the end covered in plastic, place the new filter cartridge in the housing. Discard the plastic wrapper after installation.
6. Screw the filter housing back on making sure the O-ring is in the groove and is not pinched.

# RESIN PACK REGENERATION

Regeneration certificates are used to simplify the exchange of your exhausted Silex system packs. The certificate has been purchased and will be used as payment for the resin pack regeneration service. Simply follow these steps:

1. Fill out a regeneration certificate by printing your name, phone number, company and address.
2. When you send each pack to AmeriWater, enclose the regeneration certificate in the box. AmeriWater will ship you a freshly regenerated resin pack.
3. To order more certificates, contact the company that originally sold you the deionizer. Be sure to keep regeneration certificates on hand to ensure uninterrupted service.
4. It is recommended to send the exhausted resin to AmeriWater immediately after exchange. This will allow time for shipment and will maintain your uninterrupted supply of deionized water.

## Certificates Make Exchanging Packs a Breeze!



The image shows a 'Resin Regeneration Certificate' form from AmeriWater. The form is enclosed in a decorative border. On the left side, there is a photograph of a woman in a business suit standing next to a deionizer unit. The text on the form includes the AmeriWater logo, the title 'Resin Regeneration Certificate', and a statement that the certificate is purchased for payment for resin pack regeneration. It provides instructions on how to use the certificate and a section for filling out return shipment information, including fields for Name, Phone, Company, Address, City, and State/Zip. At the bottom, it specifies the website www.amerewater.com, the phone number 415865, and the product '45101C Ultra Pure Resin Pack'. Shipping instructions are provided at the bottom right, directing the user to ship the exhausted pack and certificate to AmeriWater Inc. at 1257 Stanley Ave., Dayton, Ohio 45404.

Fill out and enclose in box for return shipment

- NO Paperwork
- NO Phone Calls
- NO Purchase Orders

# SERVICING YOUR SILEX SYSTEM

## DISINFECTION

It is recommended that the Silex system be disinfected periodically to assure continuous high-quality product water. To efficiently and quickly disinfect the system, follow these easy steps:

1. Turn off the water supply to the Silex system.
2. Remove all filters and resin packs from the system. Reference the instructions for resin pack and filter exchange on pages 6 & 7.
3. Pour one tablespoon of household chlorine bleach (5% solution) into each filter sump as well as each Silex column.
4. Close all drain valves, sample ports, and filter drains and open the air vents located in the center of the top plates.
5. Turn on the water supply to the Silex system and allow the system to fill with water until the presence of chlorine can be detected at the outlet of the system.
6. Turn off the water supply to the Silex system and allow the system to soak for 15 minutes.
7. After the 15-minute soak time, turn on the water supply to the system. Allow the system to flush until chlorine is no longer detected.
8. Drain the water out of the system by placing a container under the drain valves and opening the valves. Place the container under the filter drains and open the valves to drain the water out of the filter sumps. Close all valves when water is no longer flowing out of them.
9. Install new filter cartridges in the filter sumps, and new resin packs in the Silex columns. Reference the resin pack and filter exchange instructions on pages 6 & 7.

Apart from regular resin pack exchange and periodic disinfection, the Silex system requires no maintenance. In the event that the system is damaged, all parts can be ordered from AmeriWater by calling 1-800-535-5585.

## STANDARD REPLACEMENT PARTS

Part #	Name
0119-0006	Hose Kit
0119-0007	Drain Port Assembly
0119-0008	Drain Tee Assembly
0119-0010	Column, Silex Assembly
0119-0021	Regulator Kit
0119-0034	Pump Kit
0119-0037	Recirculation Pump Kit
041001	3/8" MXF Sample Port (Drain Port)
14570111	Washer
19300001-00	Silex O-Ring
19530901	Air Vent
19560310	Knob Assembly
20-3021	Post Filter Bacteria Removal (.2 micron, 2.5" X 10")
20-3050	Post Filter Bacteria and Endotoxin Removal (.05 micron, 2.5" X 10")
20-5054	Post Filter TOC Removal (.5 micron carbon block, 2.5" X 10")
20-5101	Pre-filter Carbon (10 micron block, 2.5" X 10")
21-0004	Filter Housing
21530235	Filter Housing O-Ring
43530701	Gauge
43530703	0-60 psi Gauge
75679105	Resistivity 10K Light
75679106	Resistivity 20K Light
75679114	Resistivity 1Meg Light
75679115	Resistivity 50K Light
75679117	Hydro-Check, 1Meg Light with Alarm
75679118	Resistivity High Trans with Patch
75679119	Hydro-Check Patch
75679121	Hydro-Check 50K Light
75679122	Hydro-Check, 200K Light with Alarm
75679133	Hydro-Check, 200K Light
94560410	Caster, Twin Wheel with Brake
94560411	Caster, Twin Wheel no Brake



## WARRANTY POLICY

The buyer has a lifetime warranty on the PVC housing and a one year warranty on all other equipment and parts, excluding non-durable components (e.g., resin packs, carbon packs, filter cartridges, and water quality monitors); provided that the system is not subject to abuse, misuse, alteration, neglect, freezing, accident or negligence; and provided further that the system is not damaged as the result of any unusual force of nature such as, but not limited to, flood, hurricane, tornado or earthquake.

The warranty covers the replacement of equipment and/or parts only. The warranty does not cover labor charges or travel expenses resulting from the service of equipment. The manufacturer is excused if failure to perform its warranty obligations is the result of strikes, government regulation, materials shortages, or other circumstances beyond its control.

To obtain warranty service, notice must be given to the manufacturer within 30 days of the discovery of the defect.

There are no warranties on the SILEX system beyond those specifically described above. All implied warranties, including any implied warranty of merchantability or of fitness for a particular purpose are disclaimed to the extent they might extend beyond the above periods. The sole obligation of the manufacturer under these warranties is to replace or repair the component or part which proves to be defective within the specified time period, and the manufacturer is not liable for consequential or incidental damages. No dealer, agent, representative, or other person is authorized to extend or expand the warranties expressly described above.

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