



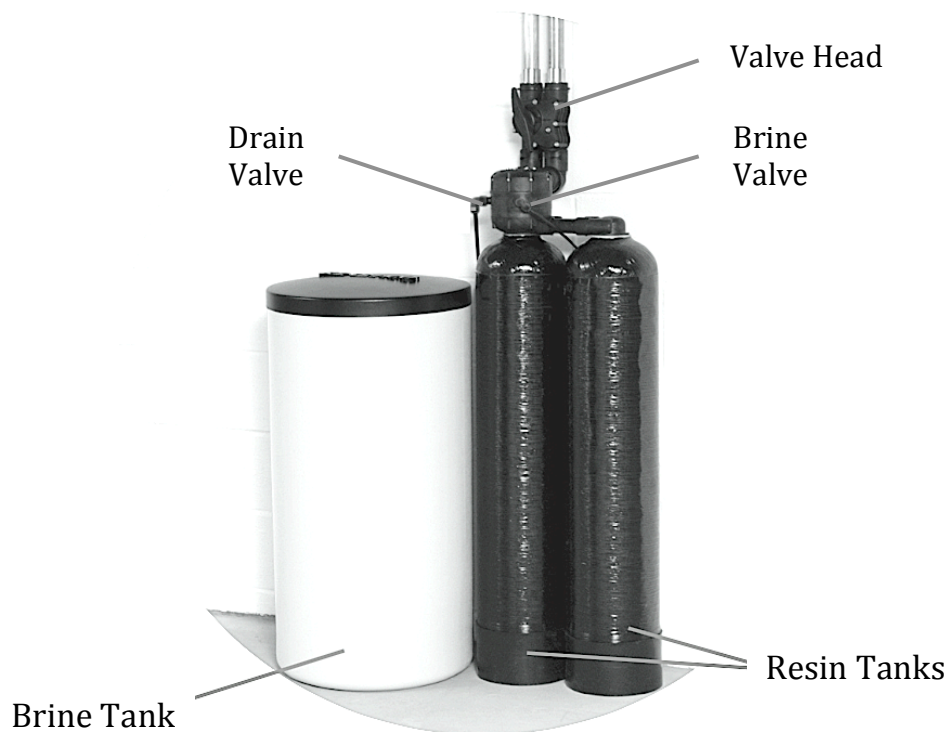
Kinetico Softening System Instruction Manual

for

Samuel Jackson Humidaires

This instruction manual is intended to guide the user in installing the Kinetico Water Softener to any Samuel Jackson Humidaire.

Softening System Diagram



Step 1

Determine the location to install your Kinetico softening equipment. Make sure your Kinetico softening equipment is on a flat surface, protected from weather and damage, and is easily accessible for adding salt. We recommend storing a pallet of salt near your Kinetico softening equipment for easy access.

Open the enclosed kit containing:

- Four O-rings
- Two pipes with O-rings on the exterior
- A silicone packet

Apply a liberal amount of silicone to the four O-rings and the O-rings on the two pipes. Install 2 O-rings in the inlet adapter, and 2 O-rings in the outlet adapter.

Use the adapter bracket and clevis pins to connect adapters to 1" control valves. Connect the main resin tank to the remote resin tank using connector pipes, connector links and connector pins. Always use both links.

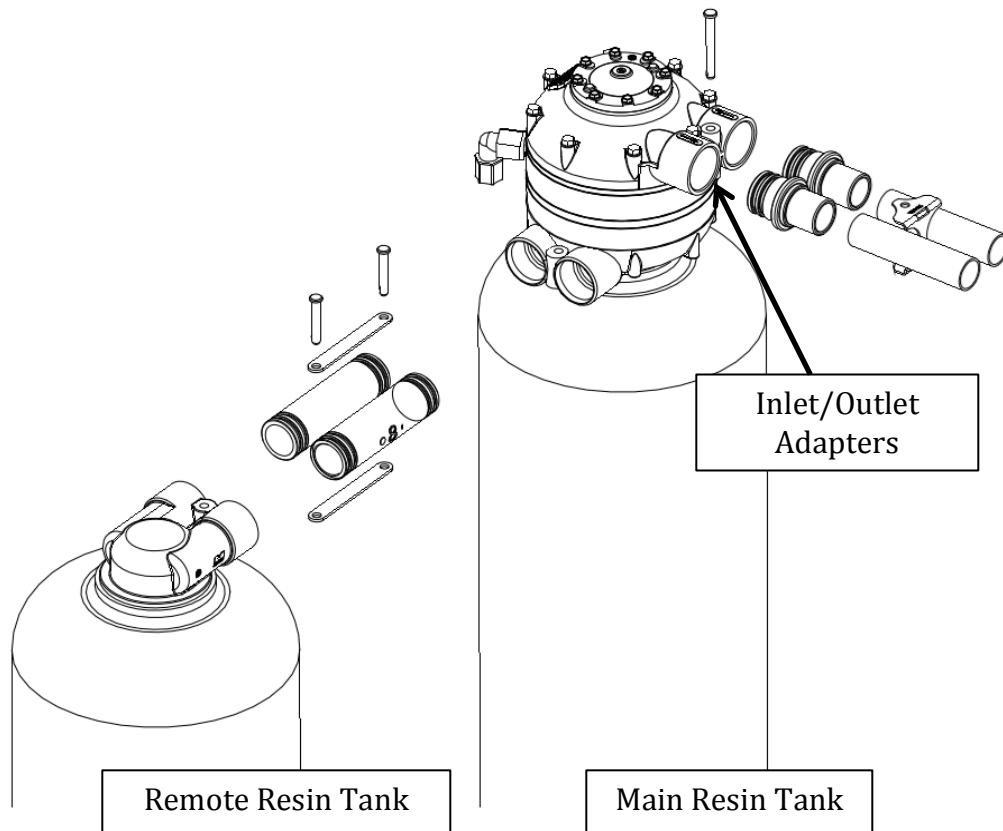


Figure 1: Remote and Main Resin Tank Connection

Step 2

Apply thread sealant tape to the pipe threads of the drain valve and brine valve.

Install the two fittings supplied onto the drain and brine valves (as seen in Figure 2 below).

Install the drain line from the drain valve to a discharge point.

1. Remove the nut from the drain fitting.
2. Slide the nut over the drain line.
3. Slide the hat sleeve (with the larger diameter side toward the nut) into the drain line until the end of the drain line extends about $\frac{1}{2}$ " from the end of hat sleeve.
4. Slide the drain line into elbow as far as it will go, and hand-tighten nut the firmly. Wrench tighten $1\frac{1}{2}$ to 2 turns.
5. Attach the drain line to your discharge point.

Install the $\frac{3}{8}$ " brine line to the brine valve by following steps 1 through 4, listed above. Attach brine line from the brine valve to the brine tank.

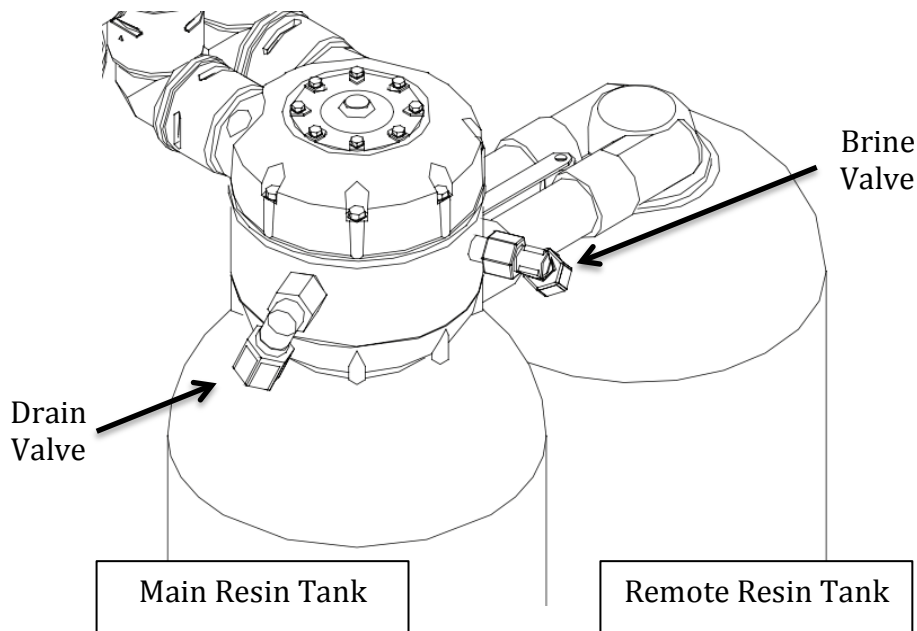


Figure 2: Drain and Brine Valves

Step 3

Install with by-pass valving, as shown in Figure 3. **Arrows at the inlet/outlet adapters indicate the direction of water flow, as shown in Figure 4.** Connect the inlet/outlet adapters leading to your Kinetico softening equipment using $\frac{3}{4}$ " plumbing. Solder adapters to pipe (if applicable). Glue if P.V.C. Connect end of pipe to the Humidaire unit, and seal to prevent leaks.

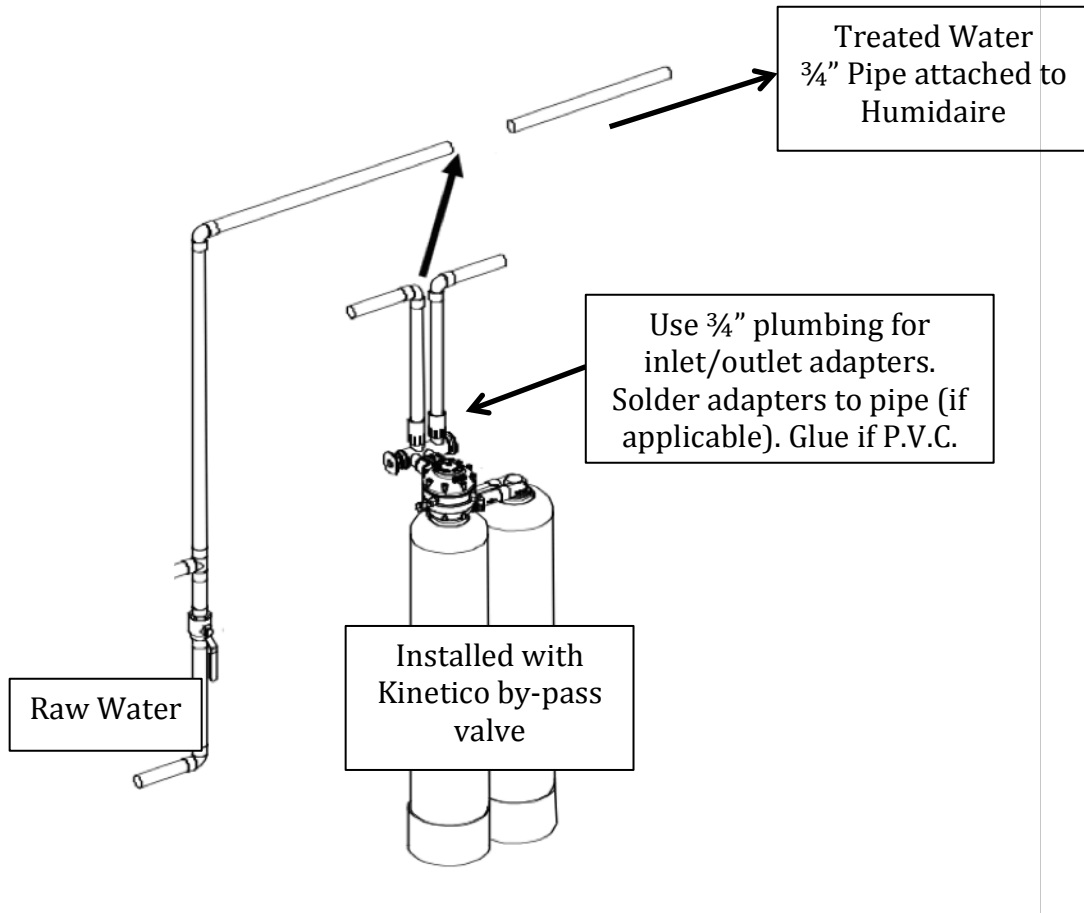


Figure 3: Overview of Kinetico Water System

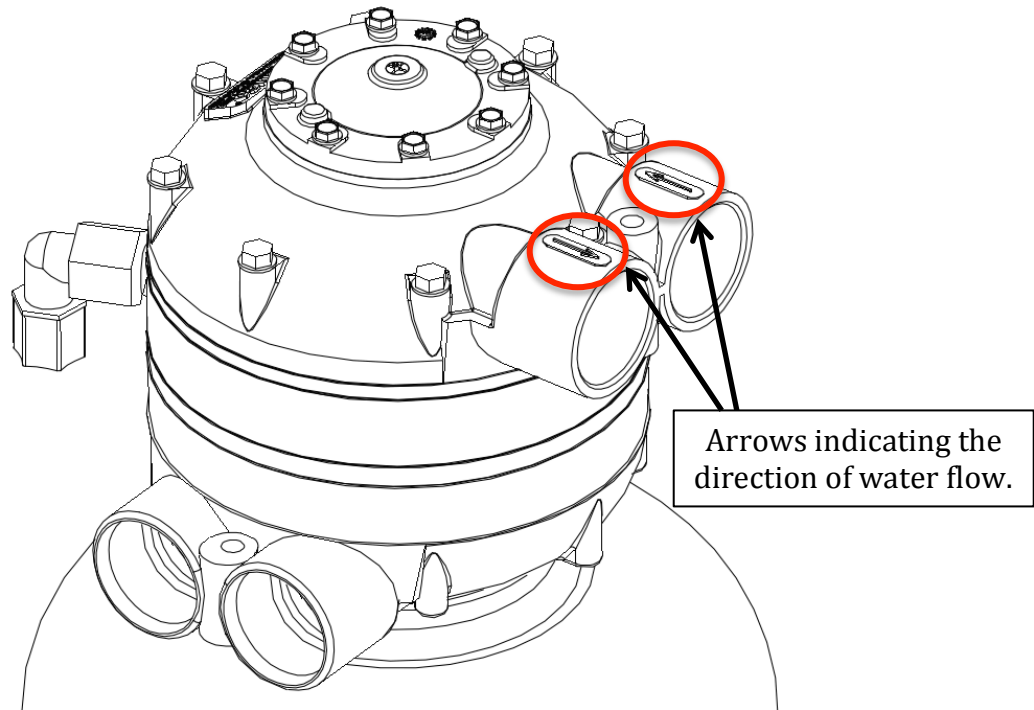


Figure 4: Inlet and Outlet Adapter Arrows

Step 4

Flush both the inlet and outlet lines by opening the by-pass valve and allowing water to rinse out any debris in the lines.

Add a clean grade of salt at this time. **Do not use rock salt.**

Slowly open the by-pass valve, and allow tanks to fill slowly with water. Water will run at the drain until unit is full and pressurized.

With the unit in service and under pressure, allow the brine drum to fill with water until the brine valve shuts off. (The water level in the brine tank will vary with softener capacity, brine tank diameter, and water quality.)

After the unit is fully pressurized, turn on your Samuel Jackson Humidaire to purge air from the lines.

Recommendations

Maintaining and Adding Salt:

Make sure your brine tank never runs out of salt. Refill anytime before water is visible in the brine tank. For most Samuel Jackson Humidaira units, the salt level should be checked daily.

To make this easier, we recommend using a wooden dowel rod as a salt level indicator.

- Purchase a wooden dowel rod (approximately 6-8 feet in length, and $\frac{1}{2}$ " – 1 $\frac{1}{2}$ " in diameter). Attach a circular piece of wood to the end (approximately 2-4 inches in diameter), as seen in Figure 5 below.
- Drill a hole through the top of the brine tank cover big enough to insert the wooden dowel.
- When the salt level is low enough that the water is visible in the brine tank:
 - Mark this salt level on the outside of the brine tank.
 - Place the wooden dowel (foot down) on top of the salt and place the brine tank cover over the dowel. (Insert the wooden dowel through the hole made in the brine tank cover.)
 - Mark where the wooden dowel meets the brine tank cover.
 - Remove the brine tank cover and wooden dowel.
- Fill the brine tank with salt and place the wooden dowel (foot down) on top of the salt. Place the brine tank cover over the wooden dowel.

As the level of salt lowers, the wooden dowel will lower. When the mark on the dowel rod is even with the brine tank cover, fill the brine tank with salt. Using the dowel rod gives the user the ability to easily see when salt should be added.

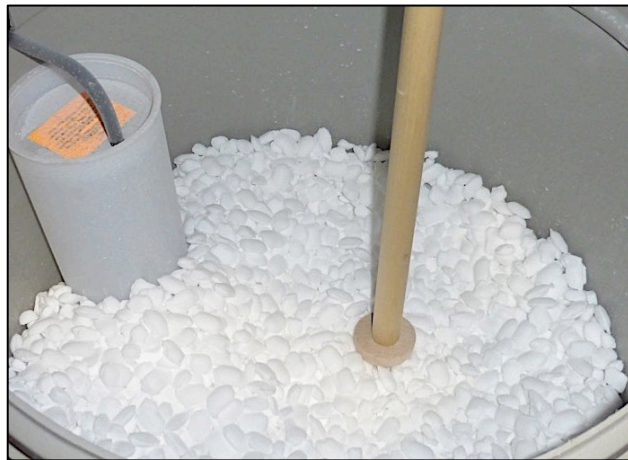


Figure 5: Wooden Dowel Rod with Foot Attachment

Salt Bridge:

The salt in the brine tank can, under certain conditions, solidify and form a “salt bridge” preventing the system from making brine for regeneration. Conditions known to contribute to salt bridging include high humidity, low water and salt consumption, or the use of potassium chloride (KCl). If a salt bridge occurs, you can attempt to break up the solidified salt by carefully poking the salt with a stick or broom handle. To minimize the potential for salt bridging, refill the brine tank with salt as it closely approaches the mark made on the outside of your brine tank (also indicated by the mark on the dowel rod).

Cold Weather Protection:

The main resin tank, remote resin tank and the valve assembly should be protected from cold weather. However, the brine tank can withstand cold temperatures (above 0° F), allowing it to be stored in a location that is easily accessible for adding salt.