

The Kineticco Water Softener Owner's Manual¹

Congratulations for choosing Kineticco to improve the quality of your water. You will immediately begin to notice the numerous benefits of having quality water throughout your home and the benefits of having a Kineticco Quality Water System.

Since 1970, Kineticco Incorporated has designed and manufactured products to improve the quality of your water. Kineticco offers a complete line of quality water systems to solve your water problems. Pioneers in non-electric, demand operated water treatment, Kineticco continually sets the direction for the entire water quality industry.

Now that your Kineticco Water Softener is installed, you can enjoy all the benefits of having soft water. If you are not accustomed to soft water, here are some tips to follow to get the most benefit from your new system:

How to use soft water

1. Use pure soap products.

Most leading brands of laundry soaps, household cleaners and shampoos contain large amounts of detergents. The harsh chemicals in these detergents are necessary when using hard water, but you can reduce your use or eliminate them altogether with soft water. We recommend you use pure soap products; clear liquid soaps without dyes and perfumes. If you continue to use your normal detergents, you should significantly reduce the amount used. Your local, authorized Kineticco dealer can provide you with more information and recommended detergent amounts.



2. Use less soap and household cleaners.

When using soap or cleaners with soft water, start by cutting the amount of soap you normally use in half. You may even find you can use as little as one-quarter the amount you were using before. Hardness minerals in water interfere with soap's cleaning ability. Once removed, soap can do its job better. Even though you'll use less soap, you'll get more suds and cleaner results. It's especially important to reduce the amount of laundry soap you use. Washing clothes in soft water not only means you'll need less soap to get your clothes clean, but also that the soap you do use will rinse out completely. Washing in soft water makes your clothes look whiter and brighter, and they'll last longer too. It is very important not to let your clothes sit in the washer after the cycle is complete. Detergent build up can stain your clothing. Again, Kineticco recommends that you use clear, liquid soaps, without dyes or perfumes.

¹ Kineticco is a registered trademark of the Kineticco Corporation. This is not an original Kineticco document. The content has been taken from Kineticco's "Owner's Manual" for residential water softeners. This was produced to aid *Air & Water Quality's* customers that may have lost their original manual.

After bathing in soft water, your skin should feel "slippery." It's not soap left on your skin. What you're feeling is your own smooth skin without any leftover soap curd or residue. When you bathed in hard water, you were never able to rinse this residue off completely. The soap curd that left a ring in your bathtub was also left on your skin. But now that you have soft water, you'll feel soft, smooth and clean. The same holds true for rinsing shampoo out of your hair.

3. Reduce or eliminate the use of fabric softeners.

Fabrics washed in hard water retain soap curd or residue making them "crackle" when removed from the dryer or stiff if air-dried. Fabric softeners are necessary with hard water to keep your clothing soft, but with soft water, you can reduce your use of fabric softeners or eliminate them altogether.

4. Take special precautions with automatic dishwashers.

Soft water, when combined with caustic phosphates in some dishwasher detergents and very high temperatures in the dry cycle, can etch dishes and glassware. To prevent this possibility:

- use the "no heat" dry cycle on your dishwasher
- use the minimum amount of a good quality, low phosphate dishwasher detergent needed to clean your dishes. This maybe as little as 20 percent of the amount recommended by the appliance manufacturer or on the dishwasher soap box
- wash good china and crystal by hand.



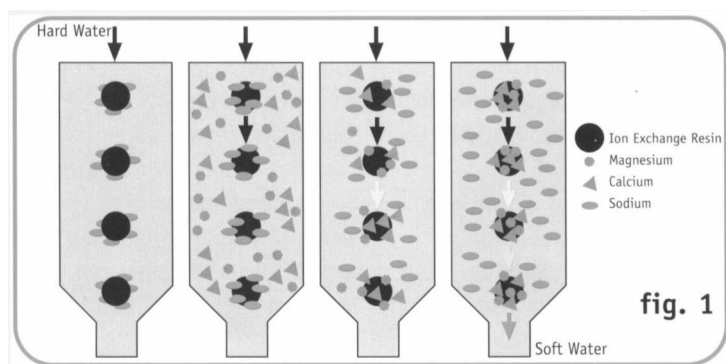
5. Special care for plants and fish.

Depending on your water hardness level, amount of rainfall and how often you water, you could use soft water for outside watering, but why waste your soft water? Water your lawn, shrubs and outside plants from an outside hard water faucet or put our Kinetico Water Softener in by-pass before watering. See "By-pass" for instructions on by-passing your system.

Many houseplants can be watered with soft water although some houseplants can be highly sensitive to the elevated level of sodium ions in soft water. You may prefer to water houseplants with hard water or water from a Kinetico Drinking Water System Plus.

Fish accustomed to hard water may have trouble with an abrupt change to soft water. Make the change gradually over a period of seven to 14 days by blending hard and soft water until the tank contains 100 percent soft water. Once you begin using soft water, you should notice that your fish tank stays cleaner longer.

How Your Water Softener Works



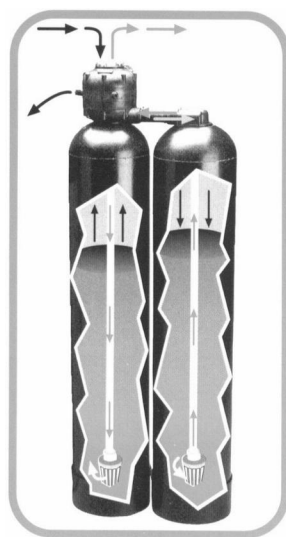
Hard water contains calcium and magnesium. Your Kinetico Water softener contains resin beads, which hold sodium ions. When hard water passes through the resin beads inside a Kinetico Water softener, the beads attract and hold the calcium and magnesium ions in exchange for sodium. After this ion exchange process, the water leaving your Kinetico Water Softener is soft (fig. 1).

Once the resin bed is loaded with calcium and magnesium ions, it must be cleansed (or regenerated) so that it can continue to soften water. The salt in your salt storage tank mixes with water to wash the resin beads. The brine solution loosens the hardness minerals which have built up on the resin beads; then the system backwashes and flushes the hardness minerals away.

Once this is complete, the resin beads hold sodium ions. The system is again ready to exchange the sodium ions for more calcium and magnesium ions.

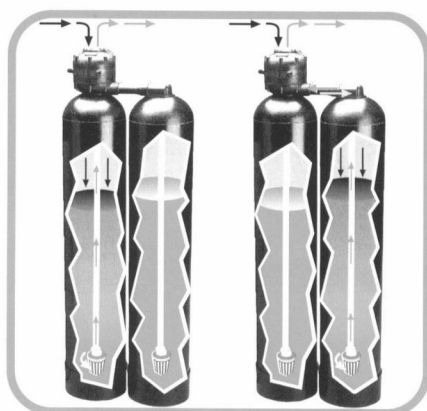
Unlike most other systems, the Kinetico Water Softener's "cleaning" or regeneration process is done with soft water. Since you already know what a difference cleaning with soft water can make throughout your home, it only makes sense that the Kinetico Water Softener cleans itself with soft water too. And only clean, soft water is used to make the salt solution in the salt storage tank.

What Makes Your Kinetico Water Softener Different Is What Makes It Better



Highly Efficient Regeneration
Kinetico systems clean themselves with soft water using counter-current regeneration. This process reduces salt and water usage and regenerates the resin beads more effectively.

fig. 2



Twin Tank Design
Twin Tanks provide an uninterrupted supply of soft water, 24 hours a day.

fig. 3

Kinetico Water Softeners are powered by the energy of moving water, not electricity. So there's nothing to plug in, no buttons to push, timers to set and reset, or adjustments to make. You really don't need to do anything special to operate your Kinetico Water softener - it runs itself, not you. Your Kinetico Water Softener has built-in water meter which means it operates "on demand" based on your actual water usage. With demand operation, your Kinetico Water Softener can regenerate at any time of the day or night and you'll still have plenty of soft water available. It regenerates when necessary, so a simple flush of the toilet or run of the faucet can send your Kinetico Water Softener into regeneration. depending on your water usage, your Kinetico Water Softener could regenerate more frequently (if you have a house full of guests, for instance) or not at all for several days (if you're on vacation). demand operation ensures maximum

efficiency while providing you with a continuous supply of soft water - even as your water usage changes.

The actual regeneration process of a Kinetico Water Softener is different from other systems. Kinetico Water Softeners use a process called counter-current regeneration (instead of an old fashioned, 4- or 5-cycle regeneration) which has long been recognized as the optimum process for regenerating a resin bed (*fig.2*). Kinetico is able to effectively use this process since our water softeners regenerate with soft water. If soft water isn't used, counter-current regeneration is less effective.

The twin tank design of a Kinetico Water Softener provides you with a continuous supply of soft water anytime of day, even through the regeneration process. When one tank needs to regenerate, service automatically switches to the other tank (fig.3). So go ahead and do a week's worth of laundry in one day. Your Kinetico Water Softener can handle it.

Your Kinetico Water Softener is engineered to provide you with quality water without requiring extensive maintenance. However, some routine maintenance is necessary to keep your softener working property. Should you have any questions or need any assistance, contact your local, authorized Kinetico dealer.

Note: *Leaky faucets, toilets or pipes should be repaired to ensure proper product performance.*

Kinetico Combination Systems

Your Kinetico combination system is two systems in one. It provides additional filtration capabilities above and beyond the softening performed by a standard Kinetico Water Softener. Kinetico combination systems have the many great features that make our water softeners so unique (see *What Makes Your Kinetico Water Softener Different* section of is manual) as well as additional . Technology designed to provide) you with the best water possible.

Kinetico Combination System Models

Kinetico offers the following combination systems:

Kinetico Quad-50/5 1 Carbon/Softener

High efficiency water softener with two tanks of activated carbon for whole-house dechlorination. Removing chlorine from your water allows you to enjoy odor-free showers, eliminate the skin-drying effects of chlorine, and prevent premature fading/bleaching of your favorite clothing and Linens.

Kinetico Quadra-Flo Carbon/Softener

Standard water softener with two tanks of activated carbon for whole-house dechlorination.

Kinetico Quadra-Flo Filter/Softener

Standard water softener with two tanks of Macrolite® media for whole-house filtration of ferric (oxidized) iron and particles and the removal of cloudiness. Filtering unwanted particles and elements from your water helps minimize staining, and prolong the life of your appliances and plumbing system



**Kinetico Quad-51
Carbon/Softener**

Quadra-Flo Technology

Kinetico Quadra-Flo Carbon/Softeners and Filter/Softeners incorporate proven filtration technology to ensure optimum water quality. Kinetico's unique Quadra-Flo design passes water through all four tanks simultaneously, dramatically improving the filtration performance of the systems. With Quadra-Flo on the job, you can rest assured you're getting the best water possible. Care and Maintenance

To ensure your Kinetico combination system continues to operate at peak performance, follow the procedures outlined in the "Maintaining Your Water Softener" section of this owner's manual.

The concentration of chlorine in water supply will determine the life of the carbon in Quad-50/51 Carbon/Softeners and Quadra-Flo Carbon/Softeners. You will have to replace the carbon in your system when you begin to notice the return of a chlorine odor in your water. Expect to replace the carbon every few years as a general rule of thumb, although it may last longer if your water supply does not contain high levels of chlorine.

Because Kinetico's Macrolite filtration media is automatically cleaned when the Quadra-Flo Filter/Softener goes into regeneration, it requires no additional maintenance or replacement.

If you have additional questions about the operation and maintenance of your Kinetico combination system, please contact your local, authorized Kinetico dealer

Maintaining Your Water Softener

Changing the Prefilter

For certain types of water Supplies, Kinetico recommends that an in-line pre-filter be installed before the water softener. Periodically, you will need to change the prefilter; how often will depend on your water supply. Ask your local, authorized Kinetico dealer for more information.

Procedure for Changing the Prefilter:

Shut off the water supply to the pre-filter and close the valve following the pre-filter to avoid draining the lines in your home. Then place a bucket or container underneath the pre-filter's housing to catch any spills. Before removing the housing, repressurize the system by pressing the red button on top of the filter housing. Water may leak round the button. Unscrew the Filter housing by taking hold of it and turning it clockwise (as viewed from above). Care should be taken since the housing will be full of water. Remove the old pre-filter. Place a new pre-filter into the housing. Before you reinstall the housing, make sure the black O-Ring near the top of the housing is still securely in place. Tightly screw the housing back in place by turning it counterclockwise. Turn on the water supply.

NOTE: *Pre-filter styles vary, and yours may not be exactly as described above.*

Adding Regenerant(water softener salt or potassium chloride)

Make sure your salt storage tank never runs out of regenerant. Use Kinetico Water Softener Salt, available from most Kinetico dealers, or another quality brand. Some salts contain foreign particles which can cause problems with your system so be sure to use a quality grade of salt, processed especially for use in water softeners. If you choose to use potassium chloride, contact our local authorized Kinetico dealer to find out about the recommended

adjustments to your system. Your Kinetico dealer can also recommend or perform a schedule of periodic maintenance.

DO NOT USE ROCK SALT, as it often contains significant levels of dirt or foreign matter.

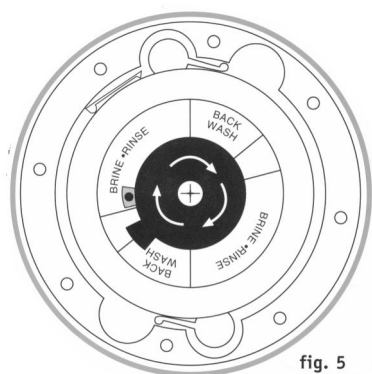
Manual Regeneration

If your salt storage tank does in out of salt, you will have to manually regenerate the unit after adding salt, or you can wait for it to go through regeneration automatically. Depressurize the system by turning the by-pass lever to the "OFF" position (see *By-pass section*) and opening a soft water faucet somewhere in your home until the pressure is cleared. This will make it easier to manually regenerate your water softener.

Using a Phillips screwdriver, push down firmly on the softener valve screw (fig.4) and slowly turn clockwise (ONLY) until the actuator has advanced the indicator dot to the Brine position (fig.5). You should hear at Least five "clicks" while



fig. 4



turning the screw before the indicator dot reaches the "BRINE" position. Return the by-pass valve to the service position. At this point you should hear water begin to run through the system. If you do not hear water running through the system, the indicator dot has not been advanced far enough and you must repeat the above procedure.

Repeat the procedure for manual regeneration after the water flow stops (11-90 minutes, depending on the model) to be sure both resin tanks are regenerated.

NOTE: If your hot water tank has refilled with hard water, it may take several days for it to empty and for your water to feel soft again.

NOTE: Never turn the softener valve screw counterclockwise

By-pass

There may be times when you need to shut off the water supply to your entire house. To do this, set the by-pass valve to the "OFF" position. No water will flow through the house. To restart the water (set the by-pass valve to the "SERVICE" position). You may put the softener into by-pass at any time, if necessary, by putting the by-pass valve into the "BY-PASS" position. You will still get water throughout the house; however, all of the water will be untreated. To return the softener to service, set the by-pass valve to the "SERVICE" position.

NOTE: By-pass styles vary and ours may not be as described. Contact your Kinetico dealer for further assistance.

Cold Weather Protection

If your Kinetico Water Softener is installed outside or in an area that is not heated, you may want to take precautionary measures to prevent damage to your unit from freezing. **NOTE:** Kinetico's warranty doesn't include damage to your system due to freezing. If you have questions about your Kinetico Water Softener or if you suspect that it isn't working properly contact your local, authorized Kinetico dealer

Maintenance Tips

Commonly asked questions:

There has been a drop in my home's water pressure. What can be the cause?

A reduction in your home's water pressure can indicate that it is time to change your pre-filter. pre-filters should be changed on time to avoid a drop in water pressure. See "Maintaining Your Softener" for instructions on changing the pre-filter. If you do not have a pre-filter with your system or changing the pre-filter has no effect, contact your local, authorized Kinetico dealer.

My system seems to be regenerating more frequently. Is this normal?

Remember, your Kinetico system demand-operated, adjusting automatically to your water usage. You do not think that your water usage has increased due to extra house guests, additional laundry or some other reason, check for any leaky plumbing, dripping faucets or running toilets; all of which can contribute to more frequent regenerations.

My water doesn't seem soft, can I be sure that my system is regenerating properly?

Be sure that the water the softener is not by-passed. Follow the instructions found in "Manual Regeneration" to manually regenerate the softener tanks. If the unit does not begin advancing to the next regeneration automatically, please contact your local, authorized Kinetico dealer for further assistance.

I can hear my Kinetico system running or regenerating during the day. My old softener only used to run at night. Is this normal?

Single tank, electric water softeners tend to be set to regenerate at night because of the unavailability of soft water during the regeneration process. Unlike traditional water softeners, Kinetico systems operate on demand based on your water usage, without timers or electronics so your system regenerates whenever necessary, at any time of day. And Kinetico's twin tank design allows one tank to