



### **STOP - WARNING!**

UltraHome systems must be installed and maintained by a licensed, bonded contractor. Installation and maintenance must comply with all applicable ordinances and plumbing codes.

## **Installation / Operation / Maintenance Instructions**

These instructions are meant to serve as a guide to basic installation. Individual installation needs, including placement, local building codes, adapters, and materials may vary and will need to be determined by a licensed, bonded contractor. These basic instructions will help them to understand the system requirements and needs.

- Read these instructions carefully and determine the location of all system components before beginning installation.
- Check all applicable plumbing and building codes for installation compliance.
- Install the system on the main water supply.
- Use only Teflon tape when connecting to any of the ports on the whole home filter components.

**WARNING:** Many metal (conductive) plumbing systems, e.g. copper or galvanized, are used as electrical grounding in homes. A whole home system installed on a metal plumbing system will interrupt the electrical continuity of the plumbing system. Install a "jumper wire" consisting of the same material as the existing plumbing, to reestablish conductivity.

**CAUTION:** If you have a well water system, the system should be installed after the pressure tank. If using a booster pump, this system should be installed after the booster pump. DO NOT USE this system for pneumatic or hydro pneumatic applications.

**NOTE:** UltraHome Systems by AlkaViva will have different start up and flushing instructions. The Premium and Basic Filtration Systems require pre-conditioning flushing of the media tanks, while the Salt-Free System only requires the post installation flushing. However, the Salt-Free Systems can be flushed with either of the filtration systems.

The Salt-Free Softener has additional water condition requirements listed on Page 6 of this document, in "*Water Conditions for Operation of Salt-Free Softening System*".

All UltraHome Systems should be used only on potable water, water that is known to be safe for drinking.

**NOTE:** Additional fittings will be needed to adapt to your plumbing.

**NOTE TO HOMEOWNER:** It is important to have your professional installer teach you how to use your shut off valves properly. This is necessary to change the Sediment Pre-Filter, any time that service is required, and in the event of an emergency.

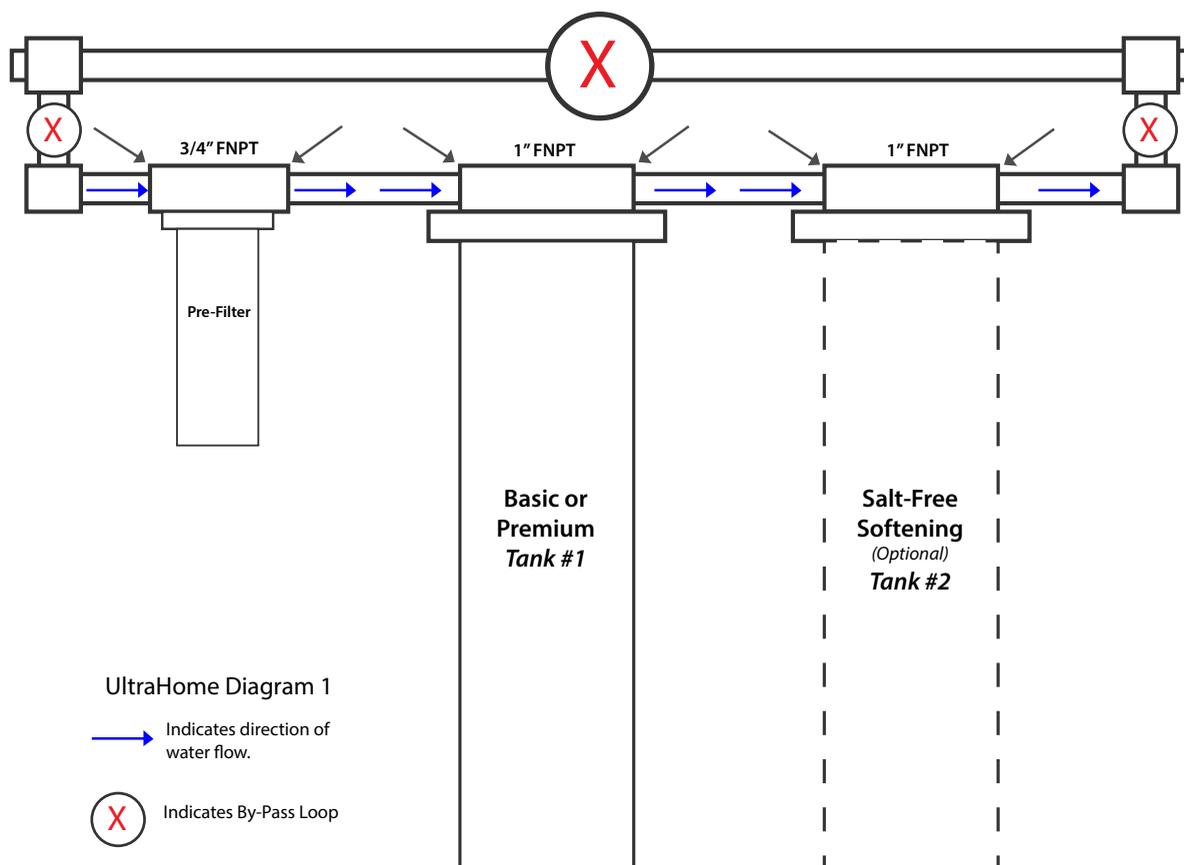
**NOTICE:** Head may come loose in transit. Please check head by tightening clock-wise. Hand tighten only, no more than 1/4 turn. Head may not move at all or less than 1/4 turn.

The home's specific plumbing needs and local building and installation code requirements will need to be determined and followed by your professional installer. All tanks and sediment pre-filters come with standard sized fittings to easily adapt to your home's individual needs.

- All tanks are equipped with **1" FNPT** fittings.

# Installation Instructions

**The order in which the main tanks are installed is VERY important.**



All AlkaViva non-backwashing filtration systems come with sediment pre-filtration to extend the life of the filter(s). The sediment pre-filter will always be the first stage that water flows through.

The tanks will be labeled to indicate the order they should be installed. For example: If you have a two tank system, the water would flow through the Sediment Pre-Filter, into TANK #1, then into TANK #2, and through the system to supply the home.

The Salt-Free Softening tank will always be the last tank stage that water flows through. The Salt-Free tank is an up-flow system. Follow the white label on top of the head that indicates INLET when connecting.

**Important: You must flush UltraHome Systems prior to installation.** Prior to connecting the outlet(s) of the tank(s), flush the water filter tank(s) into a 5-gallon bucket until the water runs clear, 5 – 10 minutes. With the initial flushing on the Premium System, the Fast Flush setting on the head can be used. Flushing the Salt Free tank is not required, but can be flushed inline if needed.

If flushing the tanks prior to installing is not possible, once the system has been installed locate the nearest faucet in the home. Remove the aerator and turn on the cold-water line until the water runs clear.

1. The AlkaViva UltraHome Systems need to be installed on a level surface, and the tanks level so they are standing upright. Notice: If needed, level the tank by lifting the tank straight up 6 inches and tap it on the ground until the tank stands vertical. The bottom of the tank is round, and the boot allows the tank to stand upright.
2. Turn off main source water supply prior to installation.
3. The system will be installed on the main water supply line. Do not over tighten fittings, as this may cause leakage and broken fittings.

## Installation Instructions (Cont'd)

4. Plumb in a by-pass loop with shut off valves so that the filtration system can be taken offline for maintenance or servicing without shutting off the water supply to the whole home (See Diagram 1). Use only Teflon tape when connecting to any of the ports on the whole home filter components.
5. Use Unions, Flexible Stainless-Steel Hose or Quick Connect/Push Fittings when connecting all parts of the filtration system to the water line.
6. When putting the system into service for the first time turn on the main valve slowly filling the tank(s) up with water and bring them to a standing pressure as slowly as possible. Check the system for leaks and inform the home owner on how to operate the by-pass loop valves and how to change the sediment filter(s).
7. Once the unit is installed, brought to standing pressure and checked for leaks, locate the water faucet closest to the installed unit, remove the aerator and turn on the water and allow water to run for 5-10 minutes to flush the newly installed system.

## Operation & Maintenance

### Shut-Off Valve Operation

A by-pass loop is designed to allow water to be turned on and off independently between the water main and the filtration system. It does this using a series of shut off valves. A properly installed service loop will allow you to maintain your whole home system and make maintenance easy to do.

**NOTE:** It is important to have your professional installer teach you how to use shut off valves properly. They will need to be used to change the Sediment Pre-Filters, any time that service is required, and in the event of accidental damages. You will need to understand the sequence to operate them effectively.

**Maintenance:** The only regularly required maintenance is replacing the sediment pre-filters periodically. It is recommended that the Sediment Filter be replaced every 6-9 months depending on the amount of sediment present in your source water. If the system has been working properly and the pressure is slowing, it may be time to change the Sediment Filter. Check the Sediment Filter and replace if necessary.

### Replacing the Sediment Filter

It is recommended that the Sediment Filter be replaced every 6-9 months depending on the amount of sediment present in your source water. If the system has been working properly and the pressure is slowing, it may be time to change the Sediment Filter. Check the Sediment Filter and replace if necessary.

1. Turn off the main water supply to the Sediment Filter System using the shut off valves and bypass all tanks.
2. Run a faucet (cold water) inside the house to relieve the pressure. (Leave faucet open)
3. Unscrew the Sediment Pre-Filter Housing clockwise using the supplied Filter Wrench.
4. Remove the existing Sediment Filter and discard.
5. Remove the O-Ring and wipe the groove clean. Lubricate a new O-Ring with a coating of clean silicone grease. Replace O-Ring and press the O-Ring down into the groove with two fingers. Note: This step is important to ensure the proper filter seal. Make sure the O-Ring is seated level in the groove. If the O-Ring appears damaged, stretched, or crimped it should be replaced.

## Operation & Maintenance (Cont'd)

6. Place a new Sediment Filter onto the Stand Pipe located in the bottom of in the Pre-Filter Housing.
7. Screw the Pre-Filter Housing onto the Filter Cover hand tighten. Lightly snug the housing with the Pre-Filter Housing Wrench. Make sure not to over-tighten.
8. Turn on main water supply slowly to allow the Sediment Filter System to fill with water and expel air from lines. Put tanks back in service, out of by-pass.
9. Check for leaks.

### How to perform a manual back flush on the Premium or Combo System (if needed)

The Premium and Combo Systems do NOT require back flushing. However if you experience a drop in water pressure and changing the sediment filter hasn't help, they can be manually back flushed.

1. Turn off the main water supply to the home.
2. Run a faucet (cold water) inside the house to relieve the pressure. (leave the faucet open)
3. Turn off the water supply service loop using the shut off valves and bypass all filtration equipment.
4. Turn the actuator arm on the Premium Tanks control valve to the "Back Wash" position.
5. Attach the drain line (e.g. Garden hose) using 1" MNPT adapters to fit the head.
6. Drain back flush water into a sink, or use it to water the grass! It's cleaner than tap water.
7. Turn the water service loop shut off valve on again.
8. SLOWLY turn the water back on. It is IMPORTANT to turn the water back on slowly, making sure to bring it to back to full flow while back flushing.
9. Run water to "back flush" for 5 minutes.
10. Shut the water off again.
11. Turn the actuator arm back to back to the "Filter" position.
12. Turn the water back on SLOWLY and bring it slowly back to full flow.

# Salt-Free Softener: What to expect.

## Benefits you'll see and feel.

Once you start using the UltraHome Salt-Free Water Softener, you should begin to notice differences:

- You'll have softer, smoother hair and skin.
- Soap and detergents will work differently (better) and you'll use less too!
- Your clothes will feel softer without hard minerals trapped in the fabric. Fabrics last longer and whites stay whiter without the dingy gray caused by hard water.
- All your hot water appliances will operate more efficiently and be less susceptible to damage.
- You will be cleaning your plumbing system as old scale gets washed away.

### The "de-scaling" effect.

**Showers and aerators.** If you live in a hard water area, likely, you have existing mineral deposits and scale on the inside of your pipes and fixtures. Over the first few weeks, this scale will begin dissolve, detach, and come out of your faucets. This de-scaling process is temporary and perfectly normal and will steadily diminish depending how hard your water is and how much build up you have.

As descaling starts to occur in the first few weeks, you'll notice reduced softness - especially when using hot water. As mineral scale loosens and flushes out of your system, you may start to see mineral silt in the water. It will range in size from very fine silt, to pieces as large as a grain of sand. The largest pieces will build up in the aerator screens of your fixture or in your shower head. Clean aerators and shower heads weekly for as long as you notice the buildup.

**The bathtub.** The temporary silt may be more obvious in bathtubs where the water may take on a slightly milky tinge. At the extreme, it may contain sand-like grit. This is also temporary, and perfectly normal. If you had a traditional salt-based water softener, your bath water likely felt slick or even slimy. The water from your UltraHome system won't have that feel because we don't add bicarbonate. If you miss that, simply add a few tablespoons of baking soda to get the same effect.

**Spotting.** Depending on your water, you may see some water spots. With your UltraHome system you'll have reduced spotting compared to untreated water. Unlike the spots that are produced by traditional salt-based softening, your spots are not chemical in nature and are much easier to clean than spots from untreated water. The best of both worlds!

**Soaps and Detergents.** Oil-based soaps like Ivory react with calcium minerals and create a sticky film. Detergent-based cleaners like shampoos, shower gels, dish soaps, and laundry detergents will react very slightly or not at all. Detergents will work better with treated water. You may not notice improvement when using regular bar soap or oil-based products since the minerals are largely still able to react with the fats in the soap.

**Your dishwasher.** As the UltraHome system removes scale over the first few weeks, hardness inside the dishwasher may temporarily increase. Harsh chemicals, low pH detergents or rinse agents, can re-dissolve these crystals, reducing the desired effect. You may want to adjust the combination and amounts of detergents and rinse agents. Gel packs are a great alternative. They are formulated to contain just the right amounts of detergents and rinse agent. Lemi-Shine Rinse Agent is an excellent choice and is available online or in stores.

**Glass shower doors.** Scale can etch the surface of your glass. Etching allows soap scum and minerals to stick easily. We recommend cleaning the glass surface thoroughly with a de-scaling cleaner then apply a few coats of Rain-X. This will seal the pores in the glass and causes the water to bead and run off easily.

**HOT TIP!** Optional hot water sediment filter. Installing a hot water sediment filter after your hot water tank will help mitigate the above issues – especially the ones related to silt or sediment. These are available online at [alkaviva.com](http://alkaviva.com) or through your AlkaViva Dealer.

## Water Conditions for Operation of Salt-Free Softening System

Water quality can affect the performance of a Salt-Free Water Softening System. The catalytic surfaces of the medias used in a Salt-Free Water Softening System can be coated by certain contaminants and interfere with the process. Water should be free of, or lower than the maximum contaminant levels listed below. If found, they can be removed or reduced by adequate pre-treatment. Contact AlkaViva Technical Services with any concerns or for pre-treatment solutions at [techsupport@alkaviva.com](mailto:techsupport@alkaviva.com), or 775-324-2400.

Contaminant	MCL	Measurement
Hydrogen Sulfide (Rotten Egg Smell)	Zero	mg/L
Hydrocarbons, oils, & lubricants	Zero	mg/L
Phosphates	1.0	mg/L
Copper	1.3	mg/L
Iron	0.3	mg/L
Chlorine	2.0	mg/L
Manganese	0.05	mg/L