

Owner's Manual



Waterboy™
Whole House Systems 

Water the way it was meant to be!



www.SuperiorWater.com
858-679-2200
1-800-WATERBOY

Superior Water

WATERBOY™ Whole House System

Waterboy 948 SXT, 2000 SXT, 3000 SXT,
4000 SXT, 5000 SXT, Valvehead Series WS1



11305 Rancho Bernardo Rd, Suite #116/117
San Diego, CA 92127
858-679-2200
1-800-WATERBOY

CONGRATULATIONS ON YOUR NEW **WATERBOY™**!

1. After the **WATERBOY™** system is installed, the water will taste and smell fresh and clean throughout all the taps in your home. Since the **WATERBOY™** conditions the water without salt or potassium, you will notice a squeaky clean rinse after a shower as opposed to a slimy, slippery, salt based feel. You will have increased lather from soaps and shampoos and a decreased need in quantity of soap and detergent for laundry and dishes. You will also have the reversing of scale and corrosion in your pipes, appliances and fixtures, as well as decreasing it from happening in the future.
2. The system has been preset at the factory to automatically backwash itself once a week usually around 12:00AM. This process takes about 15 minutes and will sound like rushing water. There is a backwash cycle and forward rinse cycle within that time. It will disperse about a shower of water during the flush cycle, depending on the size of the unit you have. This water can be flushed to a lawn, garden or drain.
3. There is a 10 years warranty (original owner) on the tank and 5 years on the control valve. It needs no regular service unless you see a change in your water or notice the system not flushing. The warranty covers parts up to 80 psi, however there is a charge for labor. If your pressure on the house is over 80 psi the warranty is voided and there will be a charge for necessary replacement parts.

No Maintenance Required

No maintenance is required because the system automatically flushes. In most cases no service is required for approximately 10-12 years. You don't have to do anything except enjoy the benefits of fresh, filtered, conditioned water always tasting terrific.

How the *Waterboy* System Works

Whole House Systems

Superior Water prides itself on quality products, offering a vast selection of water systems built with the highest-grade components. All components in the *Waterboy* are NSF certified for potable water. The *Waterboy* is the best saltless water alternative that requires no salt, and no maintenance and gives you the silkiest feeling on your skin and hair. The plumber will route the PVC line to lawn, garden or drain, thus no waste of water.

Your Superior Water Specialist will recommend the best size *Waterboy* for Your Home, based on:

- The number of taps and showers
- The number of people living there
- Water usage needs and patterns

Electronic control valve and timer

Stage I
Granular Activated Carbon

Stage II
Catalytic Carbon

Stage III
KDF

Stage IV
Silica Sand Filter

The KDF™ 55 filter media is NSF certified.

Stage V
Multi-Reversing Fields Module



When your household water is treated with the *Waterboy* whole house system, it goes through:

- 4 Stages of Filtration
- 1 Stage of Conditioning

Superior modules meets requirements for controlling limescale and corrosion.

Waterboy™

Whole House Systems

HOW ITWORKS

The WATERBOY™ Upflow

STAGE I

A Pelletized Activated Carbon specifically formulated for taste and odor improvement, while eliminating the harmful effects of chlorine, and disinfectant.

STAGE II

An internal sediment filter of fine silica quartz filtration media which reduces dirt and sediment in the water.

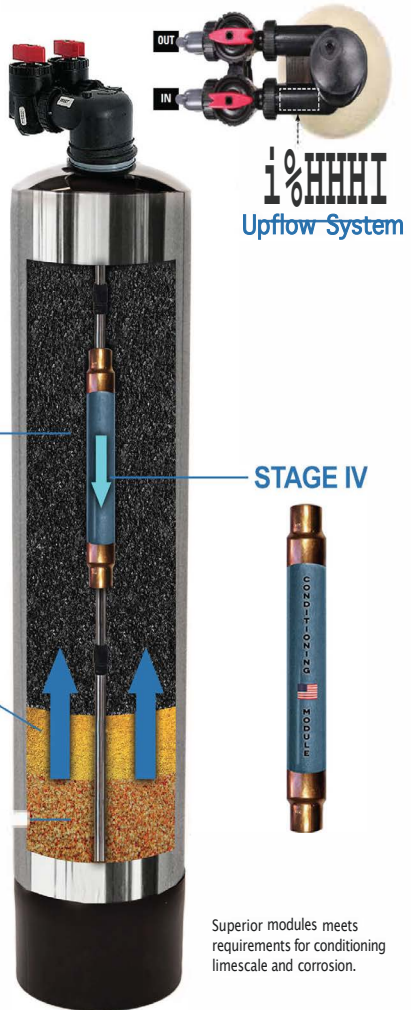
STAGE III

Patented K.D.F. 55™ redox media consisting of high-purity copper-zinc granules, which improves performance of the carbon to last longer.

The K.D.F. 55 filter media is NSF certified.

STAGE IV

The Multi-field water conditioning unit is a critical component in every WATERBOY™ System. The Multi-reversing polarity module stands head and shoulders over any presently used conditioning system in the world today. The Multi-field unit conditions the water non-chemically by restructuring and realigning the polarity of the mineral molecules, without removing the minerals from the water



Superior modules meets requirements for conditioning limescale and corrosion.

* Media must be changed every 5 years with Upflow Systems

General Residential Customer Information

LOCATION: The **WATERBOY™** usually gets installed at the main line after the pressure regulator. Sometimes there is an existing loop in the garage where a Water Softener has been, that is also where we would install the system.

If the main shut off is on the front yard or side yard we have a few options to install the system there. We can run the copper around to the side of the yard and then back to the main or we can bury the unit ½ way down in the ground. The plumber will assess the most convenient location and together you can decide which is best.

PRESSURE REGULATOR: The **WATERBOY™** needs to run under 80 psi to stay within the warranty requirements. When the plumber installs the unit, he will check the current pressure of the house and then adjust accordingly. If there is an old PRV or it is not working, the plumber will recommend installing a new one. **CAUTION:** Water pressure is not to exceed 80 PSI or it voids the warranty. Water temperature is not to exceed 110F. The unit can not be subjected to freezing conditions, otherwise needs to be blanketed and insulated from weather.

WATER PRESSURE: A minimum of 40 pounds of pressure is required for backwash valve to operate effectively .

ELECTRICAL FACILITIES: An uninterrupted alternating current (A/C), 110 outlet supply is required. **Note:** Other voltages are available. Please make sure your voltage supply is compatible with your unit before installation.

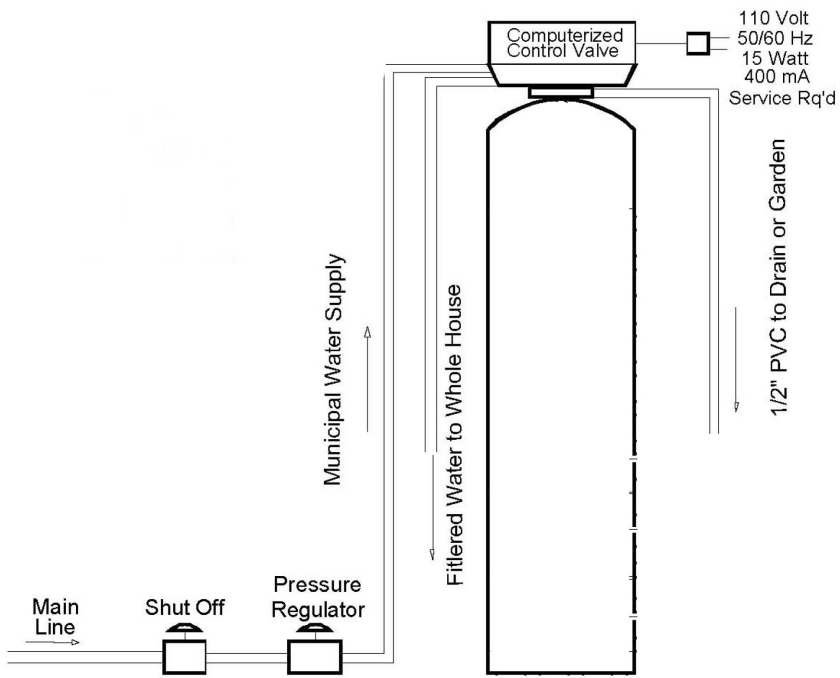
BACKFLUSH LINE: A ½" PVC backflush line will be installed at the top of the system to allow flushing of the media beds once a week. This happens at a preset time and will take approximately 15 minutes for the entire process to be completed.

1. Wait for 24 hours to drink the water after install.
2. Backflush is default time, and fully customizable to customer's needs. It flushes once a week for @ 16 minutes.

3. No maintenance for 10 years. 10 year Warranty. Valve for 5 years.

BYPASS VALVES: Always provide for the installation of a by-pass valve if unit is not equipped with one.

PLUMBING SCHEMATIC



Waterboy install instructions Clack WS1

1. Open Box being careful not to drop included bypass and adapters.
2. These parts sit on top of system inside box.
3. Connect bypass to control valve on Waterboy
4. Set bypass to bypass position
5. Add Teflon tape to $\frac{3}{4}$ " male thread on the black 90 held in with red clip for the backwash line connection
6. Install PVC fitting $\frac{3}{4}$ " female to $\frac{1}{2}$ " slip reducer to black 90 with the Teflon tape. This is where the $\frac{1}{2}$ " schedule 40 PVC pipe backwash line will be connected
7. Assess size of main line piping
8. Decide where to set unit for installation
9. Locate suitable drain and electrical outlet
10. Prep brass sweat adapters for installation (sweat copper ends to adapters, minimum 3 inches of pipe)



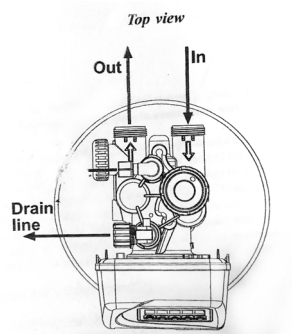
11. Install adapters to bypass



12. Shut main water off and drain main line
13. Run line from above house main shut off valve and pressure regulator to system inlet. There are flow direction arrows on the control valve body.

14. Run from valve outlet to house main
15. Turn water on and check for leaks
16. Run ½" PVC backwash line to suitable garden area, rain gutter, or sewer. If the drain line is going to sewer an air gap must be provided.
17. Run electrical and plug in control valve
18. Set computer to backwash by holding the up and down buttons for 5 seconds until the motor spins. C1 10 will appear on the screen.
19. Crack open the inlet bypass valve to Waterboy. When you hear a hissing sound stop and leave it alone. When you hear water out drain wait two minutes then open the inlet bypass open all the way. Let system go through complete 16 minute cycle until screen shows time of day (complete cycle is C1- 10 minutes C4- 6 minutes) 16 minute total time for flush cycle.
20. Open outlet bypass
21. Set time to correct time of day, instructions in manual.
22. Ask customer if every 7 days at 12 AM is ok for backwash cycle to occur. If not, change the time of backwash but not the every 7 days flush cycle.
23. Press and release both up/ down buttons at the same time for one second to que a flush cycle tonight at midnight. A black blinking arrow will appear in the upper left part of the screen.
The system will go through a flush cycle that night at 12 AM and every week after that at 12 AM.
24. Remove blue wrapper on tank jacket and place Waterboy sticker on jacket.
25. Call Superior Water with any questions 800-300-5551

INSTALLATION





MANUAL REGENERATION

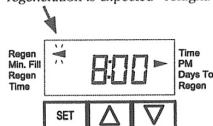
NOTE: For softeners, if brine tank does not contain salt, fill with salt and wait at least 2 hours before regeneration.

If you need to initiate a manual regeneration, either immediately, or tonight at the preprogrammed time (typically 2 a.m.), complete the following steps.

For Immediate Regeneration:

Press and hold ▲ and ▼ simultaneously until valve motor starts (typically 3 seconds).

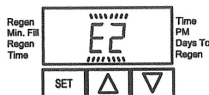
Arrow will point to Regen if a regeneration is expected "Tonight."



For Regeneration Tonight:

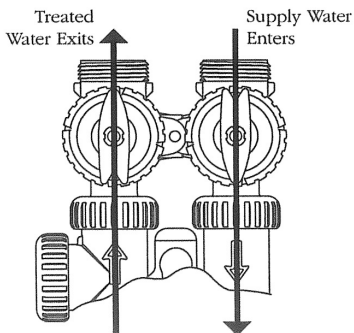
Press and release ▲ and ▼ simultaneously (notice that arrow points to Regen).

If the display shows "E1," "E2," "E3," or "E4" (for error), call a service technician.

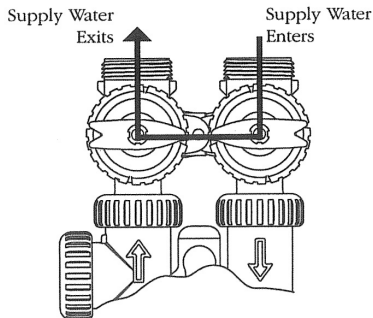


To shut off water to the system, please position arrow handles as shown in the bypass operation diagram below. If your valve doesn't look like the diagram below, contact your service technician for instructions on how to shut off water.

NORMAL OPERATION



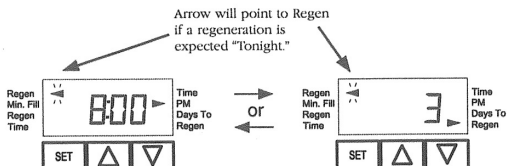
BYPASS OPERATION



GENERAL

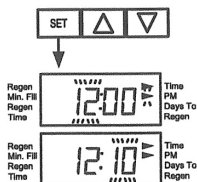
OPERATION

When the system is operating one of two displays will be shown: time of day or days until the next regeneration. Pressing ▲ or ▼ button will toggle between the two choices.



TO SET TIME OF DAY

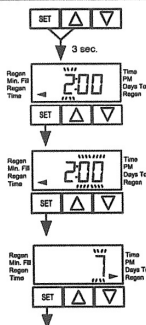
In the event of a prolonged power outage, time of day flashes, indicating that it needs to be reset. All other information will be stored in memory no matter how long the power outage. Please complete the steps as shown to the right. To access this mode, press "SET."



1. Accessed by pressing SET for approximately 3 seconds.
2. Adjust hour with ▲ or ▼. With 60 Hz line frequency detection on power-up, timekeeping is 12 hour with PM indicator. With 50 Hz line frequency detection on power-up, timekeeping is 24 hour without the PM indicator. Press SET to go to the next step.
3. Adjust minutes with ▲ or ▼.
4. Press SET to complete and return to normal operation.

TO SET TIME OF REGENERATION AND DAYS BETWEEN REGENERATION

For initial set-up or to make adjustments, please complete the steps as shown. Access this mode by pressing SET and ▲ for approximately 3 seconds. The number of days between regenerations may need to be varied based on usage and water conditions. (This step will not appear if the 7-day clock option is selected.)



1. Accessed by pressing SET and ▲ simultaneously for about 3 seconds.
2. Set Regeneration Time Hour. Set the time for regeneration to start. Press SET to go to the next step.
3. Set Regeneration Time Minutes. Press SET to go to the next step.
4. Set number of Days between regeneration cycles.
5. Press SET to complete and return to normal operation.

GENERAL INSTALLATION & SERVICE WARNINGS

The control valve, fittings and/or bypass are designed to accommodate minor plumbing misalignment but are not designed to support the weight of a system or the plumbing.

Do not use Vaseline, oils, other hydrocarbon lubricants or spray silicone anywhere. A silicon lubricant may be used on black o-rings but is not necessary. **Avoid any type of lubricants, including silicone, on red or clear lip seats.**

Do not use pipe dope or other sealants on threads. Teflon tape must be used on the threads of the 3/4" NPT backwash line elbow. Teflon tape is not necessary on the nut connections or caps because o-ring seals are used. The nuts and caps are designed to be unscrewed or tightened by hand or with special plastic Service Wrench, #V3193. If necessary pliers can be used to unscrew the nut or cap. **Do not use a pipe wrench** to tighten or loosen nuts or caps. **Do not place screwdriver in slots on caps and/or tap with a hammer.**

SITE REQUIREMENTS:

- Water pressure 80PSI max
- Water temperature should be less than 90 degrees
- The tanks should be on a firm, level surface
- Electrical: Use a 115/120v, 60Hz uninterrupted outlet
- Current draw is 0.25 amperes (24V)
- A 15-foot power cord is furnished
- The plug-in transformer is for dry locations only

1. The distance between the drain and Waterboy filter should be short as possible. All plumbing should be done in accordance with local plumbing codes.

2. Do not install any water filter with less than 10 feet of piping between its outlet and the inlet of a water heater.

3. Do not locate unit where it or its connections (including the drain and overflow lines) will ever be subjected to room temperatures under 34 degrees F. Otherwise, use an insulator blanket, or enclosure.

4. **INLET/OUTLET PLUMBING:** Install an inlet shutoff valve and plumb to the unit's bypass valve inlet located at the right rear as you face the unit. There are a variety of installation fittings available. When assembling the installation fitting package (inlet and outlet),

connect the fitting to the plumbing system first and then attach the nut, split ring and o-ring. Heat from soldering or solvent cements may damage the nut, split ring or o-ring. Solder joints should be cool and solvent cements should be set before installing the nut, split ring and o-ring. Avoid getting solder flux, primer, and solvent cement on any part of the o-rings, bypass valve or control valve. If the building's electrical system is grounded to the plumbing, install a copper grounding strap from the inlet to the outlet pipe. **Plumbing must be done in accordance with all applicable local codes.**

5. DRAIN LINE: First, be sure that the drain can handle the backwash rate of the system. Solder joints near the drain, (if copper is used) must be done prior to connecting the drain line flow control fitting. Leave at least 6" between the drain flow control fitting and solder joints. Failure to do this could cause interior damage to the flow control. Install a ½" PVC pipe to the drain line, lawn or garden. Be sure you use ¾" female adapter, then ½ " PVC.

Assembly or discard the tubing nut and use ½" pvc. Where the drain line is elevated but empties into a drain below the level of the control valve, form a 7" loop at the discharge end of the line so that the bottom of the loop is level with the drain connection on the control valve. This will provide an adequate anti-siphon trap. Where the drain empties into an overhead sewer line, a sink-type trap must be used. Run drain tube to its discharge point in accordance with plumbing codes.

Pay special attention to codes for air gaps and anti-siphon devices.

****Must be backflushed prior to system being put "in service".**

Bypass Valve

The bypass valve is typically used to isolate the control valve from the plumbing system's water pressure in order to perform control valve repairs or maintenance. The WSI bypass valve is particularly unique in the water treatment industry due to its versatility and state of the art design features. The 1" full flow bypass valve incorporates four positions including a diagnostic position that allows service personnel to work on a pressurized system while still providing untreated bypass water to the residence. It's completely all plastic, non-metallic design allows for easy access and serviceability without the need for tools.

The bypass body and rotors are glass filled Noryl and the nuts and caps are glass filled polypropylene. All seals are self-lubricating EPDM to help prevent valve seizing after long periods of non-use. Internal o-rings can

easily be replaced if service is required.

The bypass consists of two interchangeable plug valves that are operated independently by red arrow shaped handles. The handles identify the flow direction of the water. The plug valves enable the bypass valve to operate in four positions.

1. Normal Operation Position: The inlet and outlet handles point in the direction of flow indicated by the engraved arrows on the control valve. Water flow through the control valve during normal operation and this position also allows the control valve to isolate the media bed during the regeneration cycle.

2. Bypass Position: The inlet and outlet handles point to the center of the bypass, the control valve is isolated from the water pressure contained in the plumbing system. Untreated water is supplied to the plumbing system.

3. Diagnostic position: The inlet handle points in the direction of flow and the outlet handle points to the center of the bypass valve, system water pressure is allowed to the control valve and the plumbing system while not allowing water to exit from the control valve to the plumbing.

4. Shut off position: The inlet handle points to the center of the bypass valve and the outlet handle points in the direction flow, the water is shut off to the plumbing system. If water is available on the outlet side of the water, it is an indication of water bypass around the system. (ie a plumbing connection somewhere in the building or house bypasses the system).

VACATION SHUT DOWN INSTRUCTIONS CLACK WS1

Before you leave:

Put Waterboy system in bypass by turning both red bypass handles 90 degrees so they are perpendicular to the plumbing.

When you return:

- Turn both red bypass knobs a 1/4 turn so that knobs are in-line with plumbing and the system is back in service.
- Press and hold both up and down buttons at the same time for 5 seconds until you hear the motor spin. Let system run a backflush cycle for 16 minutes
- Complete

Dishwasher Tips & Instructions

1. Superior Water recommends using Cascade Complete bubble pack or Cascade Powder and also Lemishine for the rinse cycle. This combination will leave dishes and glasses spotless and sparkling.
2. Hot water must be no more than 120 degrees. Set the hot water on the medium setting (older hot water heaters may have to be turned up to the high setting to achieve this temperature until the scale build-up inside clears).
3. Run the Hot Water at the kitchen tap until it is hot. This ensures the water is hot enough when you turn on your dishwasher. It is best to run your dishwasher when you know your hot water still has an adequate amount of hot water to do a complete cycle of dishes.
4. Turning off the dishwasher's heating element and letting your dishes cool dry can make a significant difference. Opening the door a crack to let steam escape as soon as the wash cycle is completed is helpful.

The above guidelines are based upon years of experience. Superior water has less surface tension, so less of anything is needed when added to the water. Water varies from area to area – so work with your water.

Hot water heaters having scale build-up should be flushed annually to avoid the scale going out into your dishwasher.

The tankless water heater should be flushed once a year.

To remove film from dishes, pour two cups of vinegar in the dishwasher with no soap and run the dishwasher. Some glasses can become permanently etched if too much soap is used.

**** Dishwashers are designed to wash dishes. Detergents are designed to bind with food particles to break down and need hot water to dissolve. Save Water – Save Time by not pre-washing all your dishes.**

TIPS on Soap, Cleaning Materials, etc.

1. LIQUID OR BAR SOAPS work well in the shower, but any is best. Our water doesn't require detergent conditioning agents. A more natural soap works well!

2. Chlorine Disc in Toilet BOWL: We recommend chlorine tablets (that fasten underneath bowl rather than inside the tank) in the toilets to keep the bowl fresh smelling and clean.

3. GLASS SHOWER DOORS:

- a) We recommend using a squeegee on clear glass doors to prevent spotting from soap scum. Wiping the doors down is very effective.
- b) Use a cleaner for glass/tile to remove soap scum routinely. Products such as Shower Clean, X-14's products for soap scum, and Dow bathroom cleaner works well if done routinely (usually once a month). Vinegar and hot water also work effectively and are environmentally friendly.
- c) Mildew in Showers: Mildew build-up rarely occurs in areas with proper ventilation. If mildew develops, use a product such as X-14 Mildew Remover to remove the mildew. Advise leaving shower doors open for drying purposes to prevent further build-up.
- d) Rain - X, Turtle Wax or a good liquid car wax on clear glass doors, chrome, brass, and/or dark tiles help promote sheeting and discourage soap scum build-up.
- e) Use mineral oil at the ends of faucets or shower heads to create a barrier with dried minerals. This helps cleaning the ends of faucets and shower heads much easier.

For additional moisturizing and silky skin, try Rainbath or Soft soap in your shower.

The above guidelines are based on years of experience. Superior Conditioned Water has less surface tension – so less of anything is needed when added to the water. Water varies from area to area, so work with your water. Cascade, for instance, might work better with the water in your area.



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