



Installation and Start-Up Procedures For Automatic Whole House Filters

Safety Zone Whole House Filters

Automatic models come with our Signature Series filter valve to backwash the carbon or filter bed routinely. Our budget-priced non-electric models eliminate the need for a drain and reduce installation costs.

*Catalytic Granular
Activated Carbon
Filter Media.*



Granular Activated Carbon

One spoon full has the surface area of a football field. Works through adsorption, so more surface area extends filter life.



KDF Filter Cubes

KDF filter media is added to “enhance” performance as a pre-filter to the carbon, remove or reduce heavy metals and prevent the carbon bed from fouling.

Filters remove and reduce Chlorine, Chloramines, chemicals, tastes, odors and heavy metals.

Congratulations!

You’ve selected our best-selling city water filter for top performance and economy.

Safety Zone Signature Series Whole House filters are designed to provide years of service with proper care and maintenance.

Hopefully, this manual will be beneficial and provide information you need to install, start-up and maintain your system.

Specifications

Valve type	Metered
Valve sizes	1", 1.25", 1.5" and 2"
Pipe fittings available	¾", 1", 1.25" and 1.5"
Riser tube size	1.05", 1.25", 1.5" and 2"
Drain line fitting	¾" male NPT
Supply voltage (auto model)	120 V AC
Power supply frequency	60 Hz
Output voltage	12 V AC
Filtration media	Catalytic activated carbon
Additional treatment	KDF-55 filter cubes
By-pass valve	Included

Whole House Filter Installation Overview

General: When installing a water softener and a filter together, always install the filter first. Be sure to test the water since you will need this information to properly program the control valve.



Installation procedures

1. Locate the main water line, and install the unit before the water heater and near a 110 volt power source (for automatic models).
2. Determine where the drain is to be located and install the drain using ¾" or 1" PVC or ½" drain line tubing. If ½" tubing is used do not extend the length past 15 feet, which may restrict the flow. (Automatic models only.)
No drain needed with non-electric models.
3. Close inlet and outlet on the valve.
4. Valves have been programmed. Check settings for your application.
5. Put the valve into a manual regeneration to make sure the cycles are functioning correctly. (Press arrow **UP** and **DOWN** together and hold for 3 to 5 seconds to go into an immediate manual regeneration.
6. This will start you up in **backwash**.
7. Open the inlet slowly. Once water runs to drain, open the inlet fully.
8. Continue backwash until the drain water runs clear.
(This may take some time.)
Press arrow **DOWN** to advance to service.
9. When the valve goes into service, open outlet on the valve to supply water to the house.



Valve Programming

Safety Zone Water® Signature Series filter valve

The Safety Zone Signature Series filter valve is designed to backwash carbon filters, Iron filters, sediment filters and acid neutralizers. Valves are available in 1", 1-1/4", 1-1/2" and 2" sizes. Residential tank sizes include 10x44 (1 cube), 10x54 (1.5 cube); 12x52 (2 cube) and 14x65 (3 cube). Standard system components include the valve, by-pass valve; upper basket; riser tube; bottom distributor; drain line flow control button, media and gravel under bedding for even flow distribution.

Automatic Valve Settings

System	Media (Cu. Ft.)	Tank Size	Backwash Duration (Minutes)	Backwash Frequency (Days)
WHF-100-A	1	10x44	8	3 to 5
WHF-150-A	1.5	10x54	10	3 to 5
HWF-200-A	2	12x52	15	3 to 5
WHF-300-A	3	14x65	20	3 to 5

Note: Settings may be adjusted depending in water source, water usage and other factors.

Automatic filter drain installation. (Carbon, Iron, sediment filters and acid neutralizers.)

A drain is needed with automatic backwashing filters. Use ¾" or 1" rigid PVC pipe or ½" drain line tubing. If ½" tubing is used, be sure to use the tube insert and drain line nut (provided) to secure the drain line tubing. (Note: Do not "tee" drain line with a softener unless larger drain line is used.)



Tube insert

¾" NPT drain line nut



Note:
No drain is needed with non-electric filters.

Follow these guidelines for backwash requirements based on filter media type:

Filter media	Backwash Requirement 10" tank (GPM)	Backwash Requirement 12" tank (GPM)
Granular activated carbon	5	7.5
Katalox Lite® Iron / Sulfur media	6	8
FilterAg® sediment media	5	7.5
Calcite neutralizing media	7.5	9

Water test

It is essential to complete a water test, prior to start-up and valve programming.

Check the following parameters:

- Hardness
- pH
- Chlorine
- TDS



System placement

1. Locate main water line and determine where to place the unit (near power outlet and where the drain can be located).
2. Install system on main water line before the water heater.




Be sure the by-pass is closed. If a filter is to be installed, install it before the softener.

To set clock




Press and hold SET button until hour blinks. Arrow up or down to set hour. Press SET to adjust minutes. Adjust minutes and press SET to exit. (Keep in mind the clock is a 12 hour clock. If arrow on the face plate points to time, this is AM. If arrow points to PM, this is PM.

Note: If arrow is blinking on REGEN, this means unit will regen tonight.

Valve programming

Step	Action	Selections	Next Action
1	Press SET & 	To Set "P" setting for filters (hold for 3-5 seconds)	
2	Press SET & 	Press again (hold for 3-5 seconds)	Press SET
3	Set "P" setting	Arrow up or down to the Program (P) setting desired:	
		P = 8 for carbon or sediment (10 mins. backwash; 6 mins. rinse)	Press SET
		P = 9 for Iron, Sulfur, Neutralizer (14 mins. backwash; 8 mins. rinse)	Press SET
4	99	Display shows "99" (does not apply)	Press SET
5	dP	Display shows dP (does not apply)	Press SET
6	12 Hr	Do nothing and . . .	Press SET
7	Back at time	Now, set regen time:	
8	Press set & 	Hour is blinking. Arrow up or down to hour desired. (12 AM typical.)	Press SET
9		Minutes blinking. Arrow up or down to minutes desired	Press SET
10		Now set regen days. (Filters typically regen every 3 to 5 days)	Press SET



Note

		Press and release to regen tonight	
		Press and hold to regen immediately. To advance cycles press 	Back to time.

Note: Clock for the filter valve is a 12 hour clock. Note arrows on the face plate. Arrow pointing to "time" is AM. Arrow pointing to "PM" is PM.

Start-Up

With the valve's inlet and outlet closed, initiate a manual regeneration and follow these directions:

1. Press   together and hold buttons for 3-5 seconds to go into an immediate regen.
2. Let the valve advance to BACKWASH.
3. Open valve's inlet slowly 1/3 to fill mineral tank.
4. Allow air to escape (listen until spurting stops).
5. When water flows from drain, open inlet valve fully.
6. Make sure drain line is not restricted. Continue backwash until water runs clear.
7. Press arrow **DOWN** to advance to service.

Finally . . .

1. Open the valve's outlet to supply water to the house.
2. Open a faucet to see if water runs clear.
3. Shut off faucet.

Customer orientation

It is important to provide customers with an initial orientation. This should include how to reset the clock and how the backwashing process works.

Caution

Do not fill swimming pools with water from an Iron / sulfur filter. This will exceed the capacity of the system.

Warranty

Signature Series Safety Zone Water Systems come with a limited warranty. Five years for valves, and ten years for tanks. Activated carbon and filter media come with a quality guarantee only. See warranty card or go to www.safetyzonewater.com for full details.