

THE CARE AND MAINTENANCE OF YOUR FILTRATION SYSTEM

General Guidelines for use:

1. Residential sized water filtration systems are designed for indoor water usage where iron staining and sulfur odor are most troublesome and disrupting.

The average filtration system is sized to treat 300-400 gallons of water per day*†. If more water is used, the filter may become overloaded with iron, manganese and hydrogen sulfide and the stains and odors will return until the filter bed is cleaned. Once the system is overloaded, it may take several days to several weeks to clean itself with normally scheduled backwashing.

*Actual capacity is based on several factors including, but not limited to, levels of iron, manganese, hardness and other relevant contaminants, size of system, type of media used and other application-dependent factors. These are general conservative estimates based on an average system with average water. † Average family of 4=75 gpd per person=300 gpd

The filter is NOT designed for the following types of water usage:

- Outdoor irrigation (watering lawns and shrubs)
- Washing cars
- Filling swimming pools
- Pressure washing
- Any other watering that uses more than 300-400 gallons per day

Obviously, water usage outdoors is unavoidable at times. Take one of the following actions before using large amounts of water outdoors:

Use a non-filtered water spicket/hose bib that is plumbed prior the filtration system. Since the water taken at this location is unfiltered, there is not chance of overloading the filter with iron.

If a non-filtered water hose bib is unavailable, put the filter into bypass by turning the two red handles behind the digital filter control valve so that they are pointing at each other (Model: WS1 digital valve) or turn the red or black handle so that it points to "Bypass" (Model: 2510 mechanical valve).

If filtered water is desired for filling a small pool or spa, it is permissible to do so *only* if you *stop and backwash the filter every 300 gallons*. (For example, if the well pump is rated at 10 gpm then it will take approximately 30 minutes to reach 300 gallons.)

If the filter becomes overloaded with iron due to the amount of water used in one day, manually backwash the filter to clean up the bed. The filter can be manually backwashed as many times as desired but please allow the filter to go through all of its cycles naturally. Do not unplug the filter valve while it is backwashing. *Please remember, it takes time for a filter to clean itself once it is loaded full of iron.*

If bed becomes excessively loaded, chlorine and/or citric acid can be used to clean the bed. Contact an authorized Filter Tech dealer for details or reference "*Cleaning the Media Bed*" from your Filter Tech Dealer or from www.filtertechofgeorgia.com.

Finally, **the warranty does not cover equipment after excessive amounts of water has been used.**

2. Make sure nothing impedes the free flow of water from the back-wash drain-line.

Generally, the length and size of the drain line is as follows:** A 3/4" drain line should be no longer than 10 feet before it is dumped into the yard or septic line. A 1" line can be 30' long and a 1 1/2" line can be 50-100 feet long before it is dumped into the yard or septic line†. (Per application)

**These are guidelines and not rules. Application, media type and experience dictates proper length of drain lines. †Installer is responsible for following all plumbing codes.

In most instances, installers are responsible only for running the drain line out of the house, basement, garage or well house. Some homeowners prefer to reroute the drain water away from the building.

Follow these guidelines for redirecting the drain water coming from the drain line.

1. DO NOT put a hose bib on the end of the drain line.
2. DO NOT direct the drain water into a sprinkler, mister or irrigation equipment of any sort.
3. DO NOT submerge the end of the drain line in a creek, pond, lake or pool.
4. DO NOT allow the end of the drain line to become obstructed with dirt or other material.
5. DO follow local plumbing codes and use an air gap when plumbing into a septic line.
6. If the drain line must be extended, Filter Tech recommends using 2" PVC pipe or 4" black flexible corrugated gutter pipe.

The length and size of the drain line plays an integral part in keeping the system clean. During backwash, water is directed up through the media bed, picking up the iron that has been trapped in the media and sending it out the drain line and out of the system. Each filter requires a minimum flow rate and pressure to effectively lift and clean the media bed during the backwash cycle. A disruption in the amount of water flowing through the system during this cycle can leave the bed dirty, allowing the iron, manganese and hydrogen sulfide to collect until it overflows the system and becomes detectable in the house (staining, taste, etc.)

The water flowing through the drain line during backwash is turbulent in nature. During backwash, the water becomes agitated as it pushes up through the loose media bed. The control valve directs the water through a small flow control and into the drain line. Turbulent water creates more friction. Friction creates backpressure. Backpressure will reduce the rate at which the media will expand and clean itself. If the media doesn't expand enough to clean out the iron that it has trapped, the filter will overload with iron and staining will occur in the house.

The warranty does not cover filter problems that are related to drain-lines that are improperly installed, extended, or blocked.

3. Contact the authorized installer of this filtration equipment at the first sign of trouble (Especially if issues are not related to #1 or #2 above).

The 5 most common reasons for system problems fall within one of the following categories:

Too long / too small of a drain-line restricts the flow of the backwash water. Since this turbulent water has to lift and expand a heavy media bed, any slight restriction results in a bed that will not clean itself of iron and manganese.

Not enough flow rate or pressure. Heavier catalytic medias like Catalox, Pyrolox, Filox and KDF require a thorough lifting and expansion of the media bed to properly clean the media.

Well system issues. The most common reason for sudden filter problems is often related to a problem in the well system. Example: water-logged pressure tanks, failed check valves.....

Filter valve problems such as nonfunctioning timer motors or wear on the piston and the seals & spacers.

Overloading the filter bed with iron occurs when homeowners use more water than the filter is designed to filter. Filling swimming pools, irrigation, pressure-washing ...etc.

The authorized installer will quickly check the system over for common items that can effect the proper functioning of the filter system and then take a *raw* and *filtered* sample of the water. Once a water analysis has been conducted, problems can be approached from a much more knowledgeable perspective. A “before” and “after” sample can reveal quite a bit in terms of the source of the problem and the steps needed to make corrections or adjustments to the treatment systems. The samples will also help to determine if there have been changes in the quality of the raw water since the filter was installed. In addition, the two samples also create a record in the manufacturers database that can be reviewed at a later date if problems reoccur.

As mentioned in the *5 most common reasons for system problems* listed above. Well system issues are also a fairly common reason that a filter system may all of a sudden “fail”, especially if the system has worked perfectly anywhere from 3 months to several years. The authorized installer will be able to determine if there is a well system issue that is creating a low flow or low pressure problem that easily creates a filter system issue.

Also, since the automatic electronic valve on top of the filter is essential to performance of the system, it must be checked for mechanical problems as well. As with most everything mechanical, there are moving parts that tend to wear and need replacing after several years of continuous operation. On the newer valves such as the Clack WS1, there are much fewer parts than the older electro-mechanical filter control valves. The newer valves are also easier to maintain and repair which saves time in labor and parts costs.