

**USWater™**  
systems.com

# Bodyguard Whole House Chemical Removal Filter

117-BGS-XXX



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## Unpacking and Inspection

Be sure to check the entire unit for any shipping damage or lost parts. Also note damage to the shipping cartons. Contact US Water Systems at 1-800-608-8792 to report any shipping damage within **24 hours of delivery**. Claims made after 24 hours may not be honored. Small parts, needed to install the unit, will be in a parts bag. To avoid loss of the small parts, keep them in the parts bag until you are ready to use them.

## Safety Guide

- Check and comply with your provincial / state and local codes. You must follow these guidelines
- Use care when handling the system. Do not turn upside down, drop, drag, or set on sharp protrusions
- **WARNING:** This system does not remove biological contaminants. US Water Systems recommends that bacteria levels be checked periodically to ensure there is no bacteria present. Coliform and E.coli most importantly.

## Bodyguard Whole House Chemical Removal Filter

The Bodyguard Whole House Chemical Removal Filter provides chlorine, chloramine, chemical, and pesticide removal for the whole house. This efficient system uses no electricity and produces no waste water.

The Bodyguard Whole House Chemical Removal Filter utilizes a 5-stage process engineered to provide healthy, safe, great tasting water to every faucet in your home. It removes heavy metals like lead and mercury, organic chemicals like herbicides, pesticides, and VOCs, as well as industrial solvents and much more.

### Benefits

- **Delicious Taste** - The 5-Step Process not only removes harmful chemicals but it also provides clean, great tasting water from every tap in your home. Not only do you have the best water but you also get the peace of mind in knowing that it is incredibly pure.
- **Awesome Beverages** - Coffee, tea, and many other other drinks are 99% water. Quality water dramatically improves the taste of any beverage while making it even more healthy.
- **Easier Breathing** - By removing the chlorine, chloramine, and VOCs (volatile organic chemicals) from the water, these chemicals can no longer vaporize or evaporate in your shower steam. Who would have thought that improving your water would also improve your indoor air quality?
- **Healthier Skin** - By reducing your exposure to harsh chemicals, like chlorine, chloramine, and other contaminants, your skin and hair will be healthier and more moisturized. These chemicals can cause excessive drying and damage to the skin and hair.
- **Better Food** - Boiling water and cooking foods condense the contaminants and results in food that not only looks better but it is also much healthier for you and your family.



## Five-Step Treatment Process

- **Step 1** - 5 Micron Magna Filter: "Magna" means great in Greek and this is the best filter with the most amount of surface area on the market. It's also 100% made in the USA. Most of our competitors filters are made overseas.
- **Step 2** - Washed Quartz Gravel: Provides a great substrate for the up flow filtration
- **Step 3** - KDF-55 Redox Media: Not only is KDF-55 bacteriostatic but it also removes 50% - 80% of the chlorine by the redox process. This dramatically increases the life of the carbon.
- **Step 4** - Coconut Shell Granular Activated Carbon: This type of carbon is known for giving the water a "sweeter taste" but its key purpose is to remove chemicals, especially chlorine, so that the Catalytic Carbon will last much longer.
- **Step 5** - Catalytic Carbon: This carbon is especially effective at removing chloramine which is why we extend its life by using KDF-55 and GAC ahead of it.

## Before Starting Installation

### Proper Installation

*This water system must be properly installed and located in accordance with the Installation Instructions before it is used or the warranty will be void.*

- **Do not** install or store where it will be exposed to temperatures below freezing or exposed to any type of weather. Water freezing in the system will break it. Do not attempt to treat water over 100°F
- **Do not** install in direct sunlight. Excessive sun or heat may cause distortion or other damage to non-metallic parts.
- Maximum allowable inlet water pressure is 100 psi. If daytime pressure is over 80 psi, night time pressure may exceed the maximum. Use a pressure reducing valve to reduce the pressure.
- System must be operated in a vertical position. Do not lay it down during operation.
- Place the system on a smooth, level surface. Because the system operates in an UP-Flow, fluidized bed mode, having a level surface is more important than with a softener or media filter.
- A bypass valve should be installed on every system to facilitate installation and service.
- Observe all local plumbing and building codes when installing the system.

## Specifications

Please review operating pressures, temperatures and water chemistry limitations to ensure compatibility.

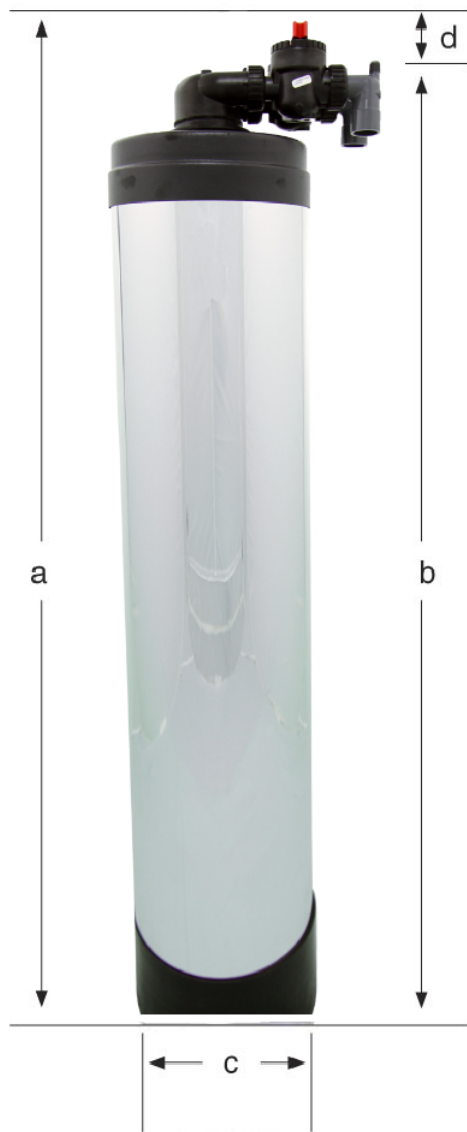
Specifications	BGS-10	BGS-15	BGS-20
Tank Size	9" x 48"	10" x 54"	12" x 52"
Plumbing Connections	3/4" QC	1" QC	1" QC
Gravel Quantity - Pounds	3	4	5
KDF 55 - Pounds	3	4	5
GAC Carbon - Cubic Feet	0.33	0.5	0.66
Catalytic Carbon - Cubic Feet	0.33	0.5	0.66
Maximum Flow Rate	10 GPM	15 GPM	20 GPM
Continuous Flow Rate	8 GPM	12 GPM	16 GPM
Approximate Flow Rate @ 15 PSI Pressure Drop	8 GPM	12 GPM	16 GPM
Approximate Flow Rate @ 25 PSI Pressure Drop	10 GPM	15 GPM	20 GPM
Dry Weight (lbs)	40	47	65
Service Weight (lbs)	90	115	175
3/4" Pre-Filter Size	4.5" x 10" / 5 Micron	N/A	N/A
3/4" Pre-Filter Part Number	361-USP-MF-4510-05-222	N/A	N/A
1" Pre-Filter Size	N/A	4.5" x 20" / 5 Micron	4.5" x 20" / 5 Micron
1" Pre-Filter Part Number	N/A	361-USP-MF-4520-05-222	361-USP-MF-4520-05-222
Electrical Requirements	No Electricity Needed		
Water Pressure	Min. 20 - Max 125 PSI		
Temperature	40°F - 110°F		
pH	6.5 - 8.5		
Chlorine	< 3 mg/L		
Ferrous Iron, Max*	0.3 mg/L		

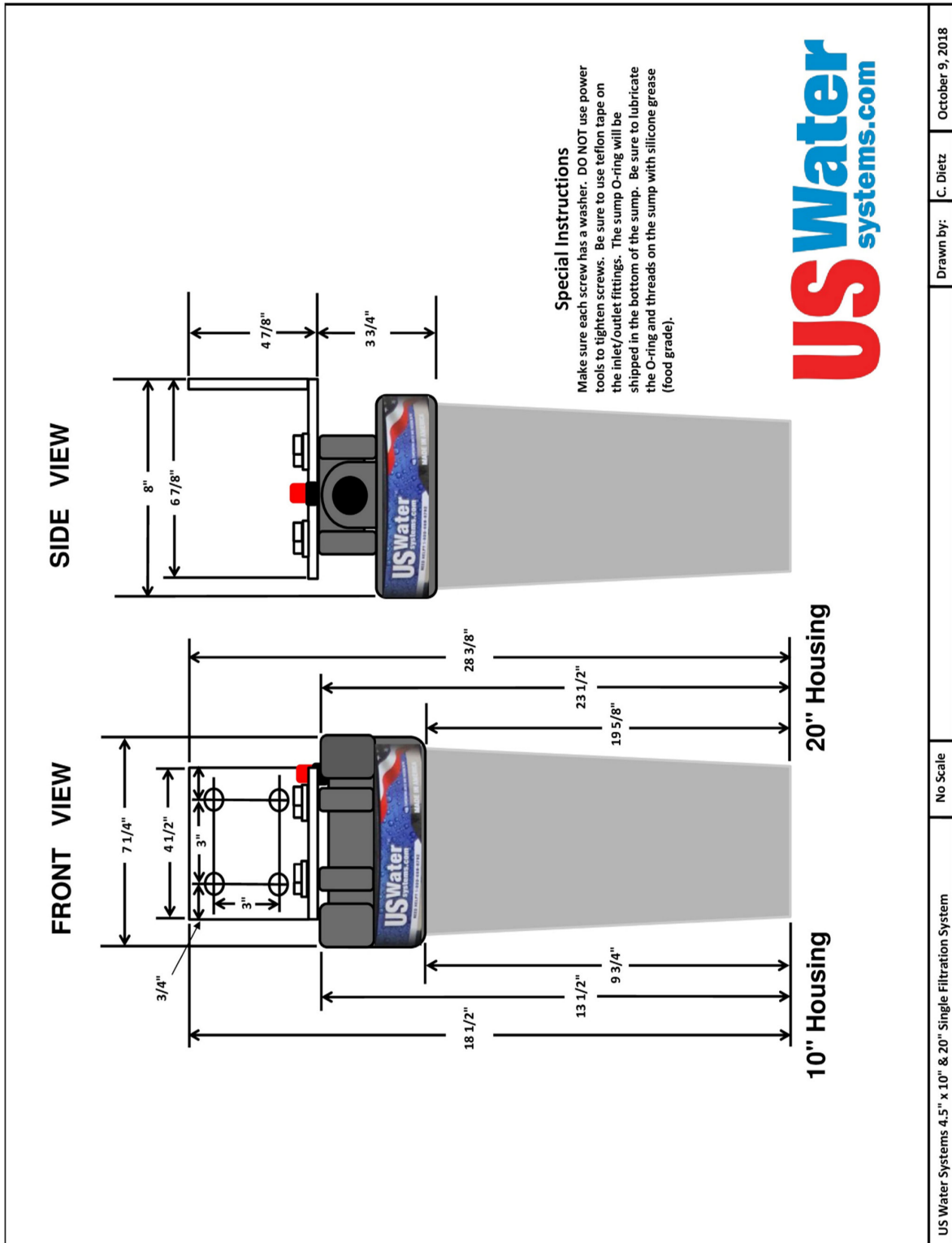
Due to the unique properties of the BodyGuard media, there are some requirements for using the Bodyguard Whole House Chemical Removal Filter in conjunction with other filtration or forms of water treatment.

- Do not apply phosphate or any other anti-scalant before the Bodyguard filter.
- Iron or other "blinding" contaminants should be removed prior to the Bodyguard filter.
- Do not use the Bodyguard filter on water with chlorine concentrations higher than 3 mg/L (ppm)

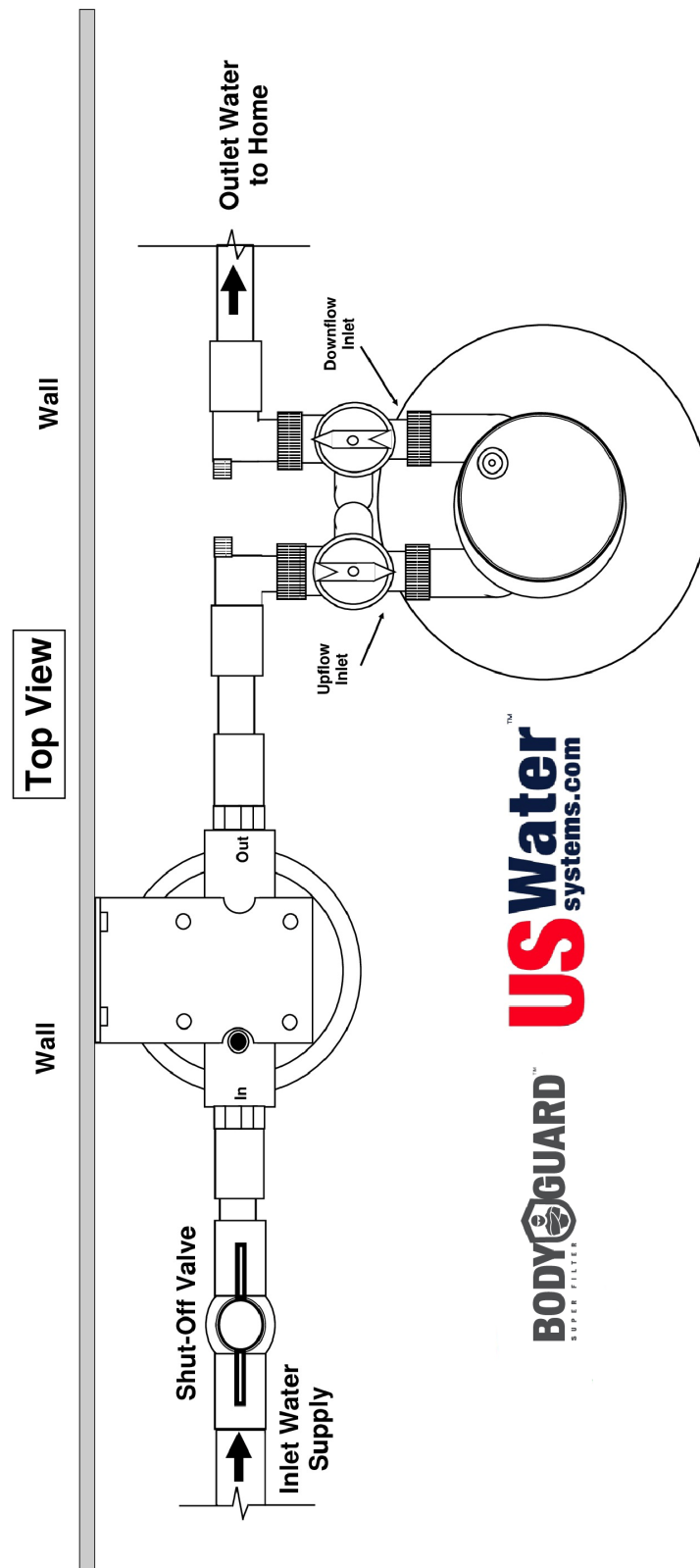
## System Dimensions

Dimensions	BGS-10	BGS-15	BGS-20
A	52.5"	58.5"	56.5"
B	50"	56"	54"
C	9"	10"	12"
D	2.5"	2.5"	2.5"





## Plumbing View



## Installation

1. Remove the tank from the shipping carton.
2. Verify the riser tube is centered in the bottom of the tank. There is an indentation in the bottom of the tank that will allow the distributor tube to be centered. A flashlight may be needed to verify the tube is in the center of the tank.



3. Ensure that the supplied clear, plastic cap is installed on the distributor tube.



4. Use the Blue Funnel provided to pour the media into the tank. The order the media is poured in is important. Begin by pouring the media labeled as Quartz Gravel into the bottom of the tank. Pour it evenly around the hole to ensure it is well distributed in the tank and pour slow enough to keep from plugging the hole. Then proceed to pour the media labeled as KDF and repeat with the bags labeled Granular Activated Carbon and Catalytic Carbon. A helper may be needed to hold the funnel during the filling process.

**NOTE:** It is recommended that a dust mask and safety goggles be worn to prevent possible injury.



5. When media is installed, move the tank side to side to settle the media. Remove the funnel and cap from the distributor tube.
6. If possible, pour enough water to cover the media inside the tank and allow it to soak for 30 minutes. This will ensure a better flush cycle. After 30 minutes, proceed to the next step.
7. Lubricate the inner and outer O-ring of the in/out head.

8. Install the upper basket on the bottom of the head by lining up the tabs then turning the basket clockwise to lock it in place. Place the upper basket over the distributor tube and push the head on the tank. Thread the head on the tank by turning it clockwise. Be sure not to cross-thread the head on the tank.



9. Place the Bodyguard Whole House Chemical Removal Filter tank in the desired location. Typically this is at the water inlet of the home.

10. Prepare the tank connections by installing the nut on the elbow connector. Push the split white ring down over the elbow fitting to the second groove. Use the supplied silicone grease to lubricate the O-ring. Slide the O-ring over the elbow fitting and put it in the first groove. Make sure the O-ring is not twisted.





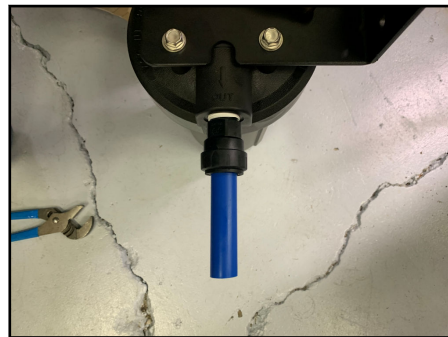
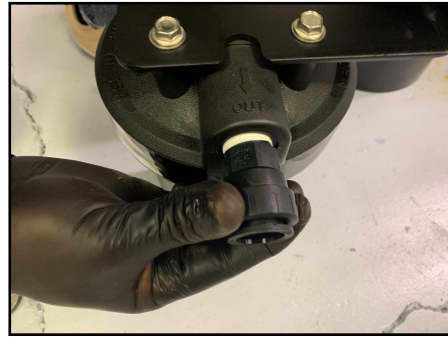
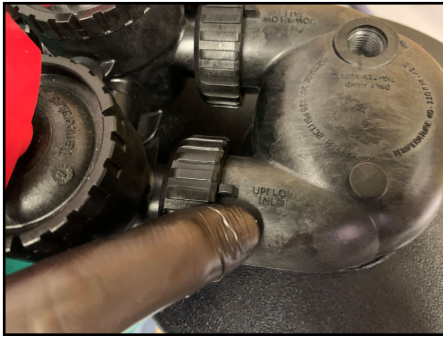
11. Lubricate the O-rings on the supplied bypass with the silicone grease. Install the bypass on the tank and fully tighten the retaining nuts. The bypass will move slightly once tight. It is made to flex and move and will not be rigid. Be sure the O-rings are lubricated on the elbow connectors previously assembled. Install the elbows in the bypass valve and tighten the retaining nuts. These will move when tight. They are made to flex just like the bypass valve connections.



12. Prepare the filter housing by installing the bracket on the housing and tightening the screws. Be sure to use the supplied washers. The filter should flow **left to right**. Install the threaded quick connect fittings in the filter housing. Be sure to use Teflon tape.



13. Install PEX tubing in the outlet fitting previously installed on the filter sump. This will connect to the "Upflow" Inlet on the tank.





14. Level the filter housing and make sure the pipe is not in a bind then install wall fasteners (not included) to secure the filter housing to the wall.



**Be sure to use fasteners compatible with the wall material. The filter needs to be secured to studs or a backing board. It will be very heavy once it is filled with water.**

15. Connect the Cold Water supply to the "IN" port of the pre-filter. Use the provided threaded quick connect adapter to connect CTS plumbing or PEX inlet pipe.

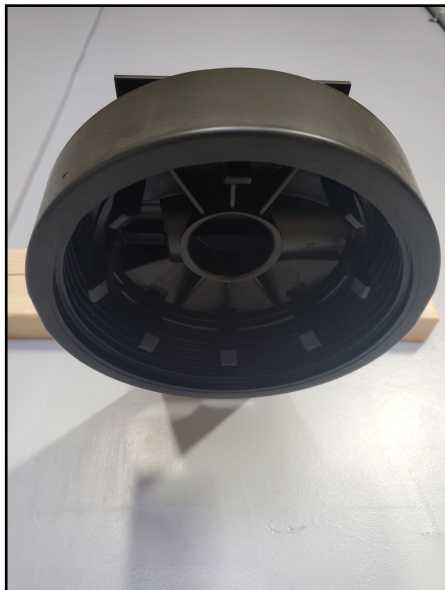
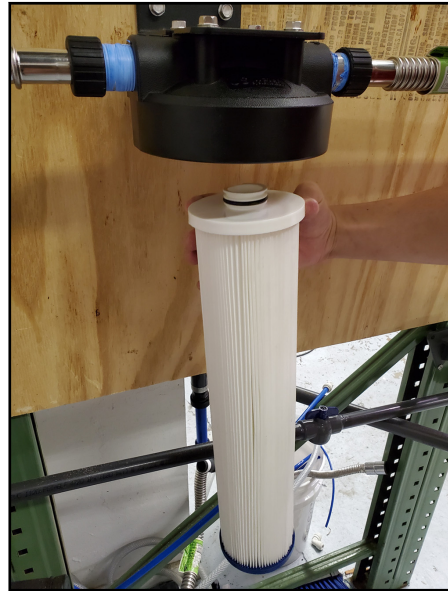


**NOTE:** The BodyGuard Whole House Chemical Removal Filter system operates in the **UPFLOW** mode which is the opposite of a conventional water softener or water filter.

16. Remove the sump from the filter housing. Remove the wrapping from the 5 micron pre-filter and lubricate the double O-ring seal on the top of the filter. Lubricate the O-ring on the filter housing sump as well.

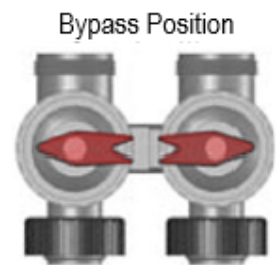
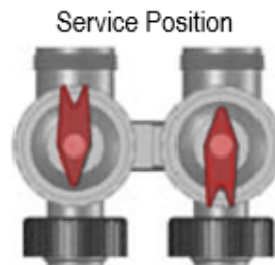


17. Push the filter into the wall mounted housing. Make sure it is completely seated in the housing. Install the sump and tighten it.





18. Place a bucket under the outlet port (downflow inlet) of the Bodyguard Whole House Chemical Removal Filter tank or run a line from the outlet port of the tank to a drain. Place the bypass in the service position.



19. Slowly open the main supply valve (user supplied) to the Bodyguard Whole House Chemical Removal Filter system. Allow the tank to fill with water. Close the supply valve when a steady stream of water comes out of the outlet port and the water is running clear.

**NOTE: The water may have a black tint until the carbon filter is flushed. This is normal.**

20. Once the Bodyguard Whole House Chemical Removal Filter system is flushed, connect the Outlet (marked DownflowInlet) of the Bodyguard Whole House Chemical Removal Filter tank to the CTS or PEX cold water supply feeding the rest of the home.



21. Open faucets downstream from the Bodyguard Whole House Chemical Removal Filter system to relieve any trapped air.
22. Check for leaks. Repair as needed.
23. The system is now ready for service.

## Maintenance Schedule

Media Pack (600-UB-1418) (600-KDF-55) (600-USW-CARB-CAT) (600-USW-CARB-SORB)	Replace every 5 - 7 Years
4.5" x 10" Magna Cartridge (361-USP-MF-4510-05)	Replace every 6 months or as needed
4.5" x 20" Magna Cartridge (361-USP-MF-4520-05)	Replace every 12 months or as needed.

## Warranty

For the lifetime of the original purchaser, at the original residential place of installation of this Bodyguard Upflow System, **US WATER SYSTEMS, INC.** warrants the following:

### **LIFETIME COVERAGE: Media Tank -**

Free of all costs to you except transportation and labor charges, we warrant that we will replace or repair the fiberglass media tank and the control valve body, if for any reason it is found to be defective, because of faulty materials or workmanship.

### **LIFETIME COVERAGE: Head Assembly -**

We warrant that, for life from the date of purchase, we will replace the head assembly at no charge to you except for transportation and standard labor charges.

### **5 YEAR WARRANTY: Media Warranty**

- We warranty that from the date of purchase, we will warranty the media in the Bodyguard for five (5) years, inclusive of shipping or transportation charges.

**GENERAL PROVISIONS** - This warranty does not apply to any commercial or industrial installations or to any part of the water conditioner which has been subjected to misuse, neglect, alteration or accident; or to any damage caused by fire, flood, freezing, Acts of God, or any other casualty, or if the original serial numbers have been removed. Fouling or damage to the media caused by iron, sulfur, bacterial iron, silt, sand, tannins, organics, bacteria, hot water or chlorine voids the warranty on media.

These warranties are in lieu of all other warranties expressed, or implied, and we do not authorize any person to assume for us any other obligation on the sale of this water conditioner. No responsibility is assumed for delays or failure to meet these warranties caused by strike, government regulations or other circumstances beyond the control of US WATER SYSTEMS, INC.

To obtain warranty service, call or write: US WATER SYSTEMS, INC. 1209 Country Club Road Indianapolis, IN 46234 (800) 608-USWA.

ANY IMPLIED WARRANTIES OF FITNESS OR MERCHANTABILITY ARE LIMITED TO THE TERMS OF THIS EXPRESSED WARRANTY AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THOSE HEREIN. US WATER SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow the exclusion or limitations of incidental or consequential damages so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

THIS WARRANTY MAY BE TRANSFERRED TO A SUBSEQUENT OWNER WITH WRITTEN APPROVAL OF US WATER AND PAYMENT OF STANDARD TRANSFER FEE.