

US Water Systems Bodyguard Plus Whole House Chemical Removal Filter



BODYGUARD™
SUPER FILTER *Plus*

Owners Manual

390-BGP-A, 390-BGP-B, 390-BGP-C

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Unpacking / Inspection

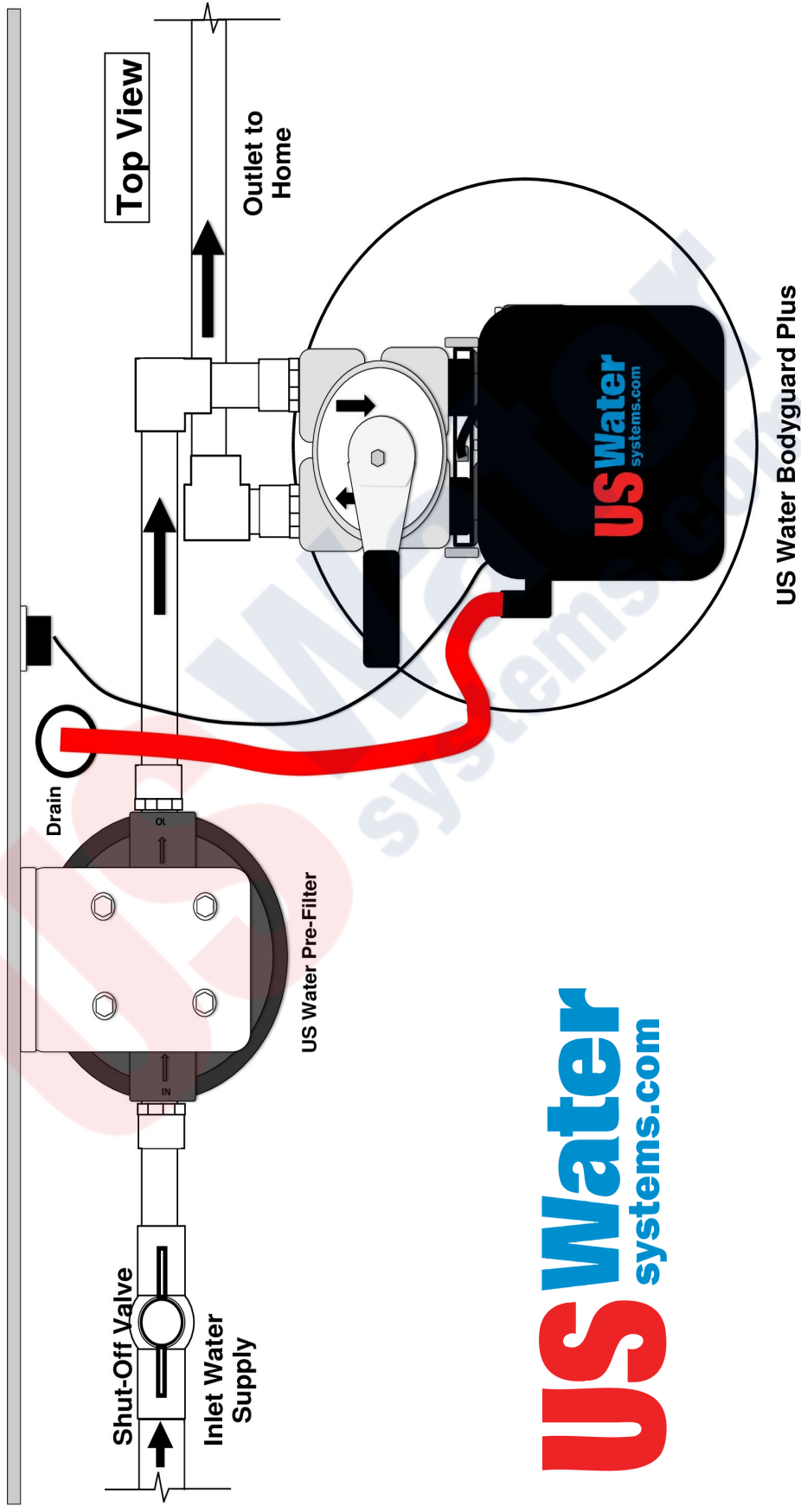
Be sure to check the entire system for any shipping damage or parts loss. Also note damage to the shipping cartons. Contact US Water Systems at 1-800-608-8792 to report any shipping damage within 24 hours of delivery. Claims made after 24 hours may not be honored.

Small parts, needed to install the system, are in a parts bags. To avoid loss of the small parts, keep them in the parts bag until you are ready to use them.

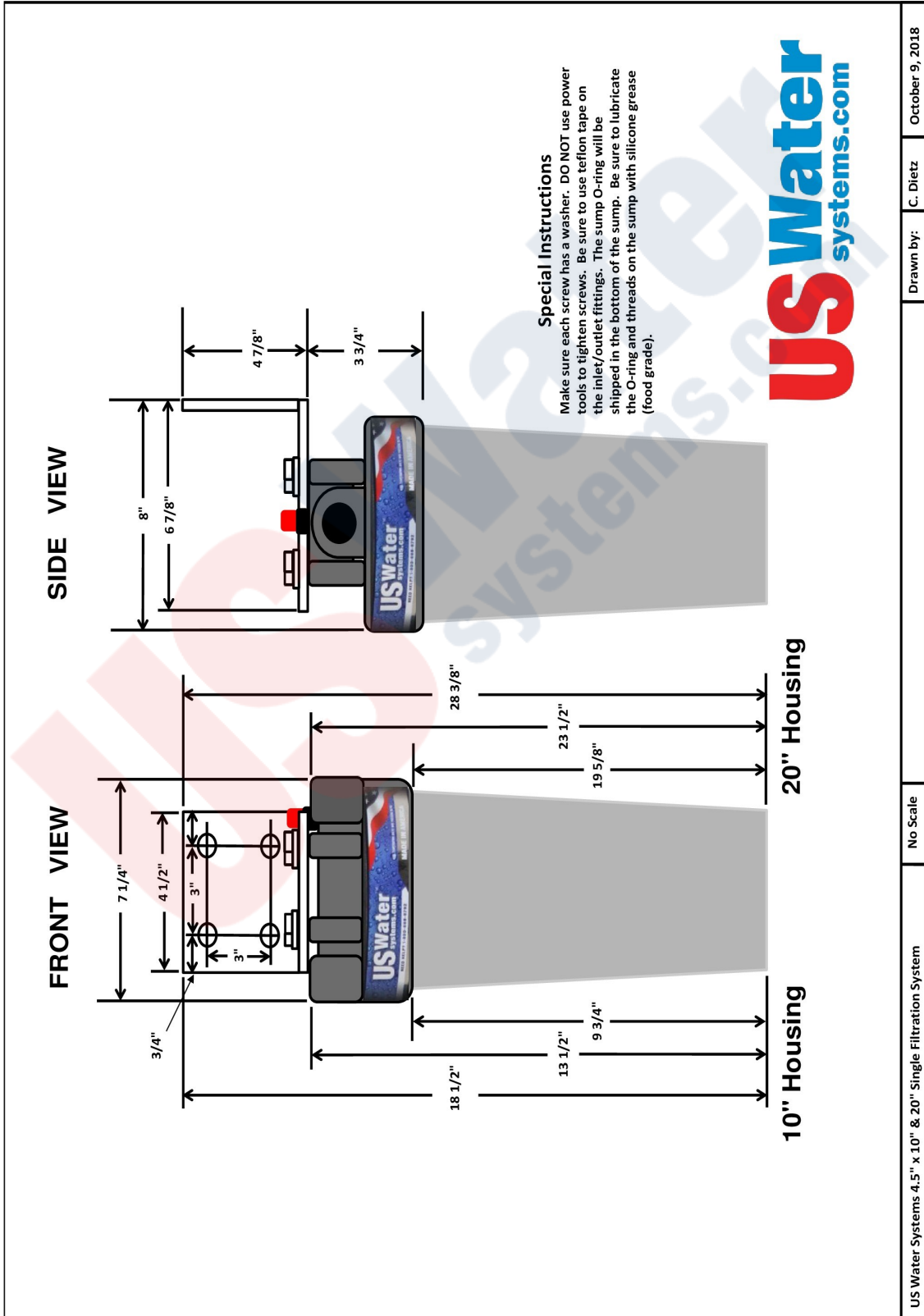
Safety Guide

- Check and comply with your provincial / state and local codes. You must follow these guidelines.
 - Use care when handling the filter 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.

US Water Bodyguard Plus System



System Dimensions



October 9, 2018

C. Dietz

Drawn by:

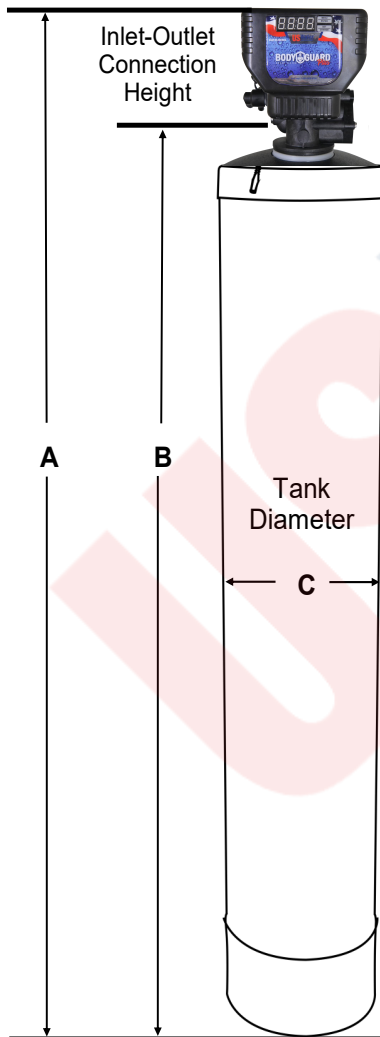
No Scale

US Water Systems 4.5" x 10" & 20" Single Filtration System

System Dimensions

US Water Bodyguard Plus systems are complete, self-contained and ready to use. A simple inlet and outlet, and drain connection is all that is required for installation. Please review operating pressures, temperatures and water chemistry limitations to ensure compatibility.

Overall System Height



Model	Tank Size	A	B	C
BGP-A	9" X 48"	54.00"	49.25"	9"
BGP-B	10" X 54"	61.00"	55.25"	10"
BGP-C	13" X 54"	61.00"	55.25"	13"

US Water Interceptor Filter Specifications and Operation

BENEFITS

- Removes Sand
- Removes Sediment
- Removes Silt
- Reduces Chromium 6
- Removes 99.9% Bacteria
- Removes 99% Cysts
- Removes Silica
- Removes Lead

The US Water Disruptor media is manufactured from a naturally occurring element called boehmite, which has no known Health Side Effects. In fact, boehmite has long been used as an additive to food products and digestive analgesics. Additionally, it has passed testing for NSF/ANSI Standard 42 and 61 for potable water and USP Class VI testing and endotoxin testing.

FEATURES

- Peak Flow:
- 4.5" x 10" - 12 GPM
- 4.5" x 20" - 25 GPM
- Pipe Size:
- 12 GPM - 3/4" MNPT
- 25 GPM - 1" MNPT
- Cartridge has double O-ring seal for a positive barrier
- System conforms to NSF/ANSI 61
- Rated up to 90 psi
- Low pressure drop - typically < 3 PSID (clean)

Includes mounting bracket, screws, and housing wrench.

PRETREATMENT GUIDELINES

- Turbidity < 3 NTU
- pH 5-9.5
- Iron < .3 ppm
- Manganese < .05 ppm

This systems performance is dependent upon incoming water quality and factors such as iron, sulfur, manganese, sediment and other particulates need to be addressed ahead of the Pulsar Interceptor Pre-Filter. Life expectancy of the filter varies with the water supply, but many users experience filter change intervals in excess of a year when coupled with proper pre-treatment

IMPORTANT NOTICE:

The Interceptor electro-adsorptive filter media takes out a very wide spectrum of contaminants, including bacteria, virus, cysts and ever, iron, sulfur and manganese must be removed ahead of it. In a sense, it is like ultraviolet or UV disinfection in that the water must be free of sediment, silt, algae, sand, iron, sulfur and manganese. There are hundreds of organics in a water supply that can impact it's performance. There are no guarantees on it's life expectancy, although in most cases, they last 6 months to a year. Tannins are somewhat problematic and are removed in over 90% of the cases, but occasionally, they are impossible to remove, due to the nature of the tannin itself or due to other contaminants. The filter has a one year warranty for structural integrity and manufacturing defects, but is not warranted against plugging or removal of tannin. It's like a doctor prescribing a medication that does not work for you, but works for most people. When he changes the prescription, he doesn't refund your former prescription. The Disruptor is amazing, disruptive technology that removes more contaminants than any other filter.

Bodyguard Plus Equipment Introduction

US Water Bodyguard Plus™ Whole House Chemical Removal Filter

The US Water Bodyguard Plus™ Whole House Water Filtration System incorporates the heavy duty Interceptor™ filter and the Bodyguard™ filter with the backwashing valve so that any family can now afford a Bodyguard™ for their home! The 21st Century electronic backwashing valve doesn't use "dinosaur buttons" for programming. Instead, the system is programmed in seconds with your smartphone and our WATERLOGIX™ App. The Bodyguard Plus delivers clean, great-tasting water from every tap in your home by removing chlorine, chloramines and other chemicals in your tap water. The US Water Bodyguard Plus removes the highest percentage of most contaminants of any filtration system on the market, due to the large amount of carbon that it contains. In many cases, the Bodyguard Plus has 2 or 3 times the amount of carbon as our competitors*. It also reduces or removes other harmful contaminants including the following:

- Chemicals
- Chlorine
- Chloramines
- Dioxin
- Heavy Metals
- Herbicides
- Odors
- Pesticides
- Pharmaceuticals
- Tastes
- TCE
- THM
- VOC's

Benefits

- Great Tasting Water – Removes the chemicals while leaving the minerals. You drink more water when it tastes great.
- Healthier Water – No other system removes as many contaminants as the US Water Bodyguard Plus™. Buy a filter or be a filter.
- Better for the Skin and Hair – Harsh chemicals like chlorine and chloramine are irritating to the skin on both a physical and chemical basis. Your hair will shine and your skin will be more radiant without the harsh chemicals.
- Better Indoor Air Quality – With the chemical contaminants removed, there will no vaporization or atomization of chemicals into the air from the water supply. Your lungs will know the difference.
- Long Lasting - The premium coconut shell catalytic carbon in the Bodyguard filter lasts up to 1,000,000 gallons or 5 years.
- Simple, Easy Installation – Optional Installation Kit makes installation a breeze.
- Housing includes mounting bracket, screws, and housing wrench
- Backwashing filter includes 1" stainless steel bypass valve

Engineering Information

- 1" Inlet handles up to 25 GPM
- Cartridge has double O-ring seal for a positive barrier
- System conforms to NSF/ANSI 61
- Rated up to 100 psi
- Low pressure drop - typically < 3 PSID (clean)

Pre-treatment Guidelines

- Turbidity < 3 NTU
- pH 5-9.5
- Iron < .3 ppm
- Manganese < .05 ppm

This systems performance is dependent upon incoming water quality and factors such as iron, sulfur, manganese, sediment, and other particulates need to be addressed ahead of the Interceptor™ pre-filter. Life expectancy of the filter varies with the water supply, but many users experience filter change intervals in excess of a year when coupled with proper pre-treatment

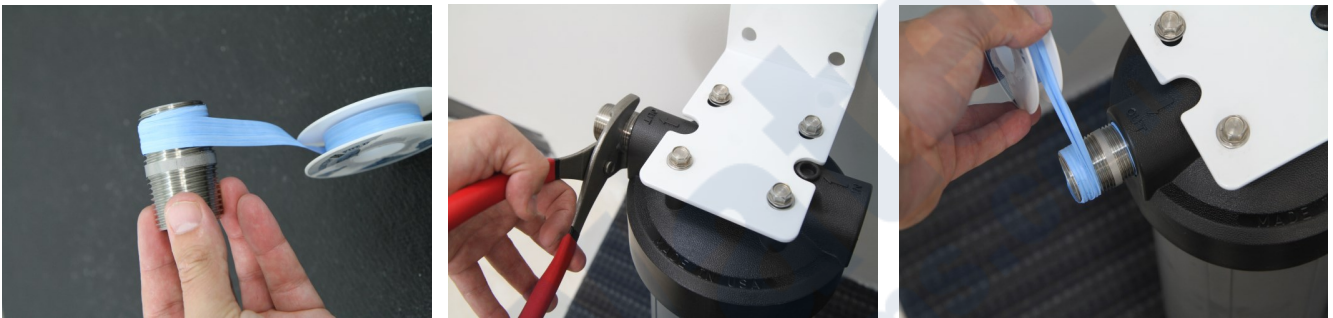
Filter Installation Instructions

1. Install the Interceptor system in the desired location in the water treatment system. Typically this will be the first component in the line of treatment. The cap is marked "IN" and "OUT" on the top of the housing.
2. Mount the housing to the bracket using the supplied screws, orienting the housing to match the applications' desired flow direction.



Filter Installation Instructions

3. Install threaded nipples or other threaded fittings in the housing. Be sure to use Teflon tape on the fittings. Tighten them with channels locks. If flex pipes with rubber gaskets are used there is no need to Teflon tape the outer fittings. If a normal plumbing fitting is used then be sure to Teflon tape the outer fitting.



4. Mount the filter to the wall using the necessary fasteners for the wall type. Mark the hole locations on the wall using a marker or pencil while holding the filter housing level. If this is to be mounted to a studded wall, a mounting board can be used. A shelf board or plywood can be mounted to the studs, then the filter housing can be screwed to the plywood or shelf board. (Shelf board pictured below).



Filter Installation Instructions

5. Shut off the water and release the water pressure at the lowest sink or spigot. Cut the pipe and connect it to the filter. Connect the inlet plumbing to the inlet on the filter housing. Tighten with channel locks.



6. Connect the outlet plumbing to the outlet on the filter housing. Tighten with channel locks.



NOTE: The connections above are made using the installation kits used with the US Water Systems Modular Filtration System. These flex pipes have a rubber gasket and do not require Teflon tape. If pipe fittings are used be sure to use Teflon tape on the threads prior to installing the fitting on the filter housing. If copper pipe and fittings are being used make sure all solder joints within 12-15" of the filter housing are completed and the pipe is cool, prior to connecting it to the housing fittings.

Filter Installation Instructions

1. Remove the sump from the filter housing and install the filter. A very small amount of silicone grease or water can be used to lubricate the O-rings on the filter. The filter housing cap has a coupling that will accept the o-ringed nipple on top of the filter. Install the filter so the nipple on the top is fully seated in the filter housing cap.

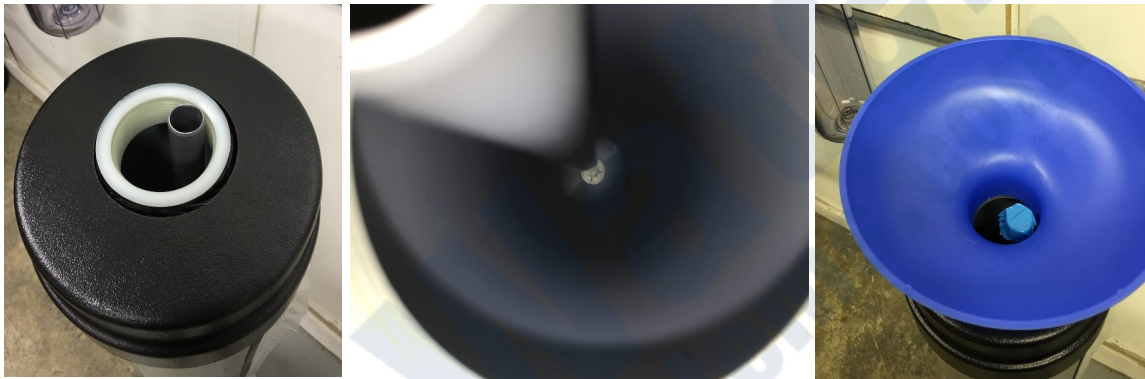


2. Lubricate the O-ring on the filter housing sump and install it. Tighten the filter sump hand tight. That should be adequate. Do not use abrasive tools to tighten the housing or damage may occur.



Bodyguard Plus Tank Filling

1. Make sure that the distributor tube is secured in the bottom of the tank (use a flashlight if necessary).
2. There is an O-ring inside the control valve that seals around the distributor.



3. Cover the distributor tube opening with a cap or piece of tape. Duct tape works exceptionally well for this.

NOTE: IT IS IMPERATIVE THAT NO MEDIA (gravel or carbon) BE ALLOWED INSIDE THE DISTRIBUTOR TUBE.



4. Add the gravel first then add the carbon.
5. Place the included funnel inside the tank opening securely. It is easiest to do this if there are two people (one to hold the funnel and one to pour the media), but one person can do it, especially if you secure the funnel to the tank with duct tape, being careful not to spill the media.
6. A dust mask should be worn over the nose and mouth as the carbon fines can cause irritation to the nose if breathed in. However, the carbon is in no way toxic.
7. Pour all included gravel in the tank first followed by the all the carbon.

Note: It does not matter what carbon is put in first (catalytic or GAC), just make sure the gravel is put in before any carbon.

The tank should now be filled approximately 70-80%. US Water does not send extra media.

Bodyguard Plus Valve Installation

8. Lubricate the distributor O-ring and the outer tank O-ring.



9. Install the upper basket on the bottom of the valve 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 valve on the tank. Thread the valve on the tank by turning it clockwise. Be sure not to cross-thread the valve on the tank.



10. Tighten the valve hand tight, then snug it further by tapping it with the palm of the hand. **DO NOT** use tools to tighten the valve or damage could occur.



Bodyguard Plus System Installation

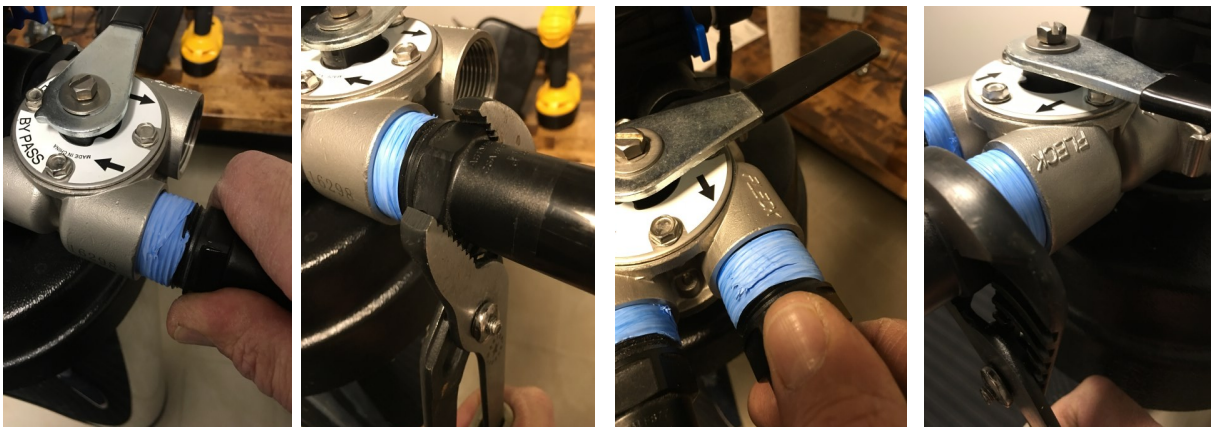
1. If the hot water tank is electric, turn off the power to it to avoid damage to the element in the tank.
2. If the supply is a private well, turn the power off to the pump and then shut off the main water shut off valve. If you have municipal water, simply shut off the main valve. Go to a faucet or spigot, (preferably on the lowest floor of the house) turn on the cold water until all pressure is relieved and the flow of water stops.
3. Locate the backwashing tank close to a drain where the system will be installed. The surface should be clean and level.

NOTE: Any **solder joints** being soldered near the valve must be done before connecting any piping to the valve. Always leave at least 6" (152 mm) between the control valve and joints being soldered when soldering pipes that are connected to the valve. Failure to do this could cause damage to the valve.

The Bodyguard Plus is equipped with 1" female pipe threaded ports on the control valve bypass. The bypass is marked with arrows to show proper flow direction. The arrow pointing toward the valve indicates the inlet. The arrow pointing away from the valve is the outlet.



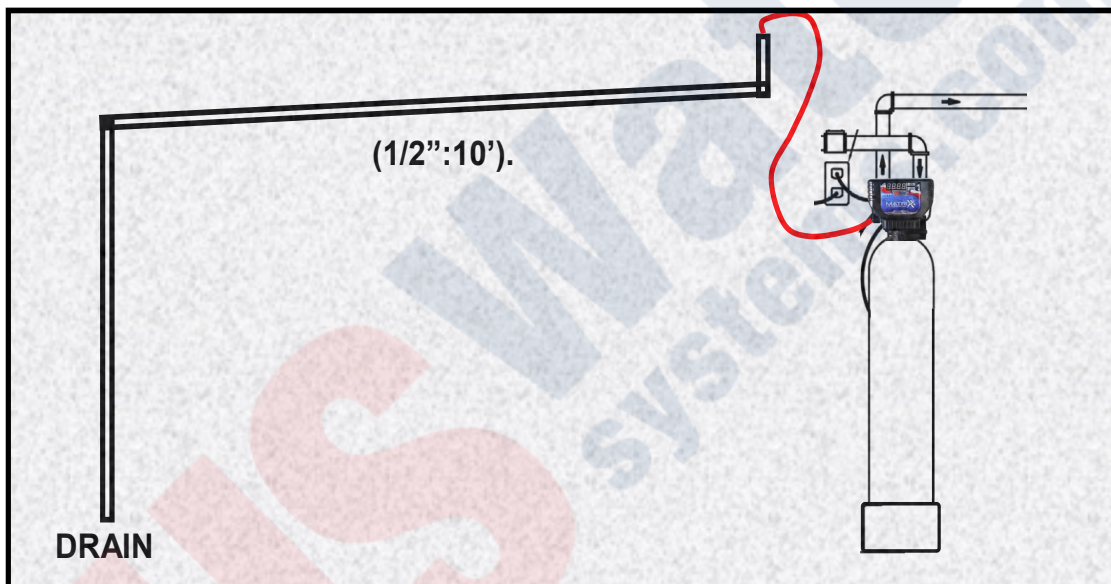
4. Be sure to use Teflon tape or other pipe sealant on the plumbing fitting threads and install them in the bypass accordingly. Use channel locks to ensure they are tight.



NOTE: All piping should be secured to prevent stress on the bypass valve and connectors.

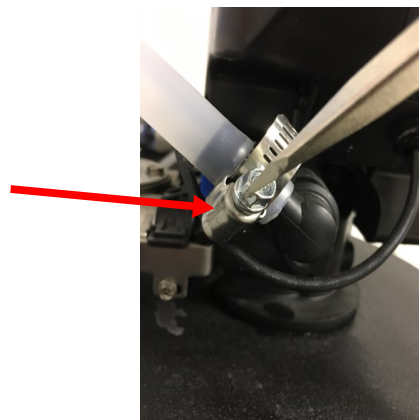
Bodyguard Plus System Installation

5. Connect the drain hose to the valve and secure it with a hose clamp. Run the drain hose to the nearest laundry tub, floor drain or approved air gap fitting. The drain can be run overhead or down along the floor. Drain tubing should be a minimum of 1/2" ID. When running the drain overhead it is important that the tubing has no dips or kinks. If the drain is ran overhead and must run linearly to the available drain it is recommended that a hard pipe is used of larger diameter than the drain line. This linear pipe should have a physical "drop" toward the drain (1/2":10'). The goal is to have a gravity drain without much back pressure when traveling long distances.



NOTE: A DIRECT CONNECTION INTO A WASTE DRAIN IS NOT RECOMMENDED. A PHYSICAL AIR GAP OF AT LEAST 1.5" SHOULD BE USED TO AVOID BACTERIA AND WASTEWATER TRAVELLING BACK THROUGH THE DRAIN LINE INTO THE SYSTEM.

Hose barb fitting
for drain line.
Be sure to use a
hose clamp to se-
cure the line.



NOTE: Be sure to secure the drain line. The system will drain with force and it should be secured to prevent a leak. Hose clamps should be used to secure the drain line at the connection points.

New Sounds

There may be new sounds when the system operates. The Backwash cycle lasts up to 25 minutes. During this time, water can be heard running intermittently to the drain.

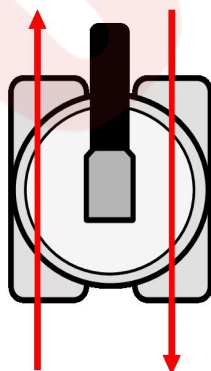
Automatic Hard Water Bypass During Regeneration

The regeneration cycle can last 25 to 30 minutes, after which treated water service will be restored. During regeneration, untreated water is automatically bypassed for use in the household. Hot water should be used as little as possible during this time to prevent untreated water from filling the water heater. This is why automatic backwash is set for sometime during the night and manual backwashes should be performed when little or no water will be used in the household. Normal regeneration time is 2:00 AM.

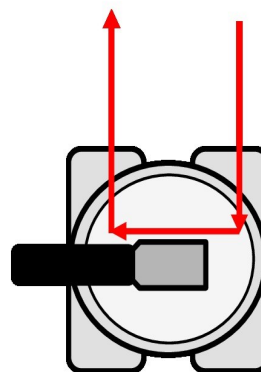
Manual Bypass

In the case of emergency, the system can be isolated from the water supply using the bypass valve located at the back of the control. In normal operation the bypass is open with the handle in line with the inlet and outlet pipes.

To isolate the system, simply rotate the handle counter-clockwise (as indicated by the word BY-PASS and arrow pointer on the handle) until it stops. Water can be used at related fixtures and appliances as the water supply is bypassing the system. However, the water used will be untreated. To resume treated water service, open the bypass valve by rotating the handle clockwise.



SERVICE



BYPASS

System Regeneration Using Onboard Buttons

Normal Operation

1. Home Display

The home display will alternate between the Time of Day and Gallons left until the next regeneration. The meter will count down to zero (0000) and then regenerate at the scheduled time set.

Starting a Regeneration Cycle

1. To Start **Delayed Extra Cycle**

- If Days Remaining Until Next Regeneration does not read '000', press and hold the Set/Change button for 3 seconds until the display reads '0000'
- Regeneration cycle will initiate at the next designated regeneration time.

2. To start **Immediate Extra Cycle** First complete above step.

- With Gallons Remaining Until Next Regeneration at '0000',
- Press and hold the **Set/Change** button.
- After 3 seconds, the regeneration cycle will begin.

3. To **Fast Cycle** thru regeneration First complete above 2 steps.

Note: Press and hold the Set/Change button for 3 seconds to advance to the next cycle step. Fast Cycle is not necessary unless desired to manually step through each cycle step. (Repeat until valve returns to the home display)

Filter Cycles		Default (Min)
Step 1	Backwash	10
Step 2	Rest	2
Step 3	Rinse	10

Programming Using Onboard Buttons

1. To enter Main Menu, press the **Menu/Enter** button. (Time of Day will flash)

2. To set the **Time of Day**, press the **Set/Change** button. (First digit will flash)

- To change digit value, press the Set/Change button.
- To accept the digit value, press the Menu/Enter button.
- Next digit will flash to begin setting.
- Once the last digit display is accepted, all digits will flash.



3. To set **A.M.** or **P.M.**, press the **Menu/Enter** button.

- To change digit value, press the **Set/Change** button.
- To accept the digit value, press the **Menu/Enter** button.
- Once A.M. or P.M. is accepted, the next menu item will flash.

4. To set the Number of Days between Backwash Cycles(A), press the Set/Change button. - Repeat instructions from step (2).

Notes: 1) Maximum value is 29.

2) If value set to 0, Automatic Backwash will never occur.

3) Default setting is 7 days for filters

5. To Exit Main Menu, press the **Menu/Enter** button.

Note: If no buttons are pressed for 60 seconds, the Main Menu will be exited automatically.

Home Display

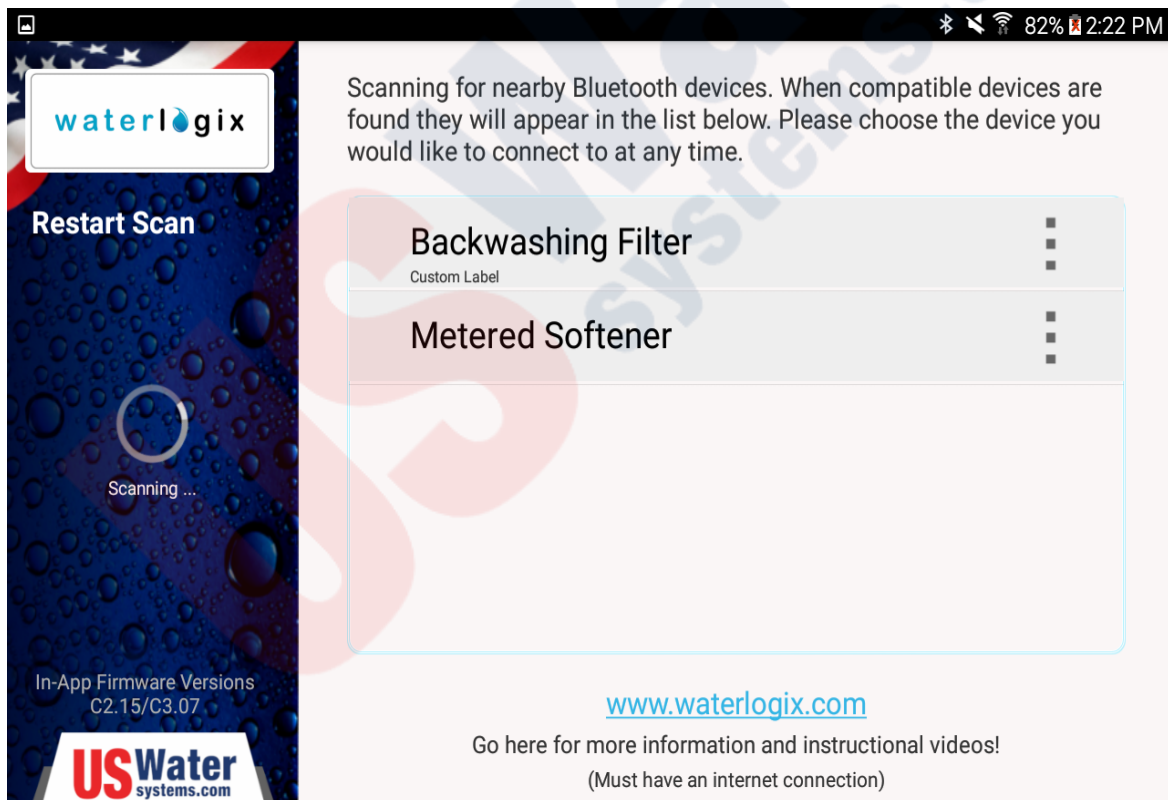
Alternates between the display of Time of Day and Number of Days until the Next Backwash. - Days Remaining until the Next Backwash will count down from the entered value until it reaches 1 day remaining. - A Backwash Cycle will then be initiated at the next designated regeneration time.

Programming Using Water Logix App

US Water Systems has moved into the 21st century with our latest line of equipment that utilizes the Water Logix Bluetooth System Control Application for iPhone and Android. This app allows the user to control every aspect of the water systems from convenience of a smart phone. The Water Logix system control app will allow the user to monitor usage history, change cycle times, start a regeneration and advance through a regeneration. Although the Matrixx system has buttons on the control,

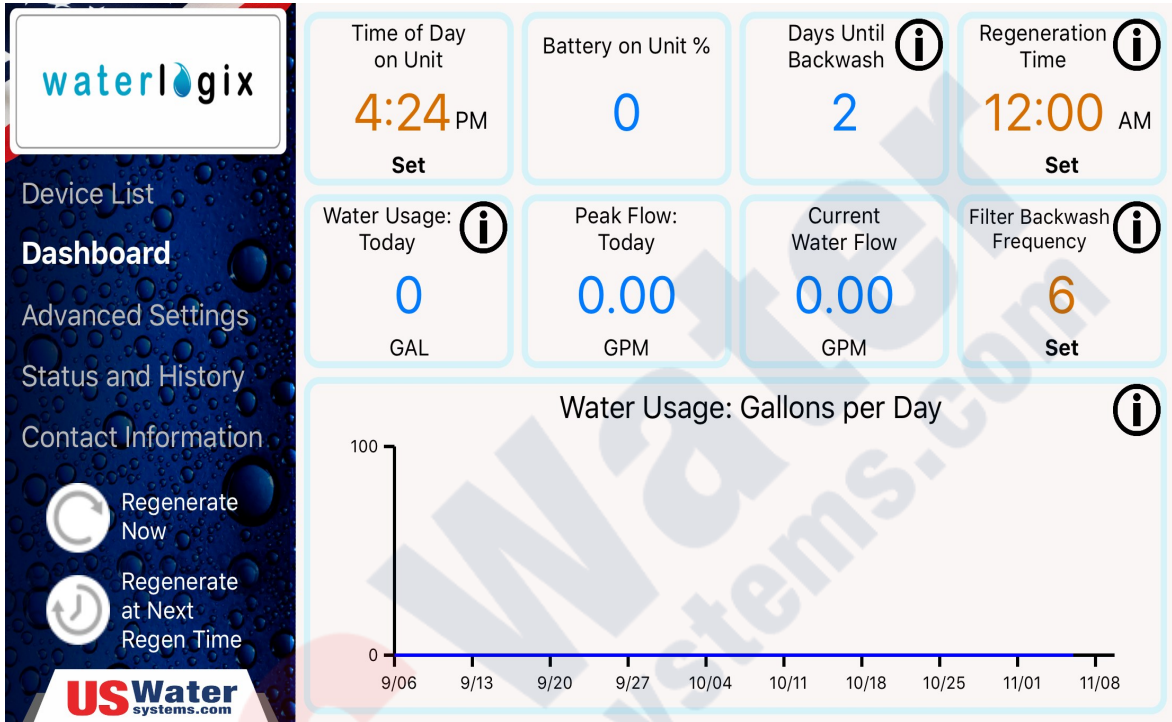
To use the Water Logix Bluetooth app;

1. Go to the App store on the phone to be used and search for “Water Logix”.
2. Download the free Water Logix app.
3. Open the app to begin programing.
4. Once the app is open it will begin scanning for control valves in the Bluetooth vicinity.



5. Once the app connects to the control valve or valves they will appear on the screen. Each valve can be renamed by tapping on the three vertical dots on the valve listed on the screen. Choose “Label Device” and a lettered keyboard will appear. The user can name the valve using the key board then save it by pushing “OK”.
6. Choose the valve to be programmed by tapping on the name. A “Dashboard” will show up for the control valve.

Programming Using Water Logix App

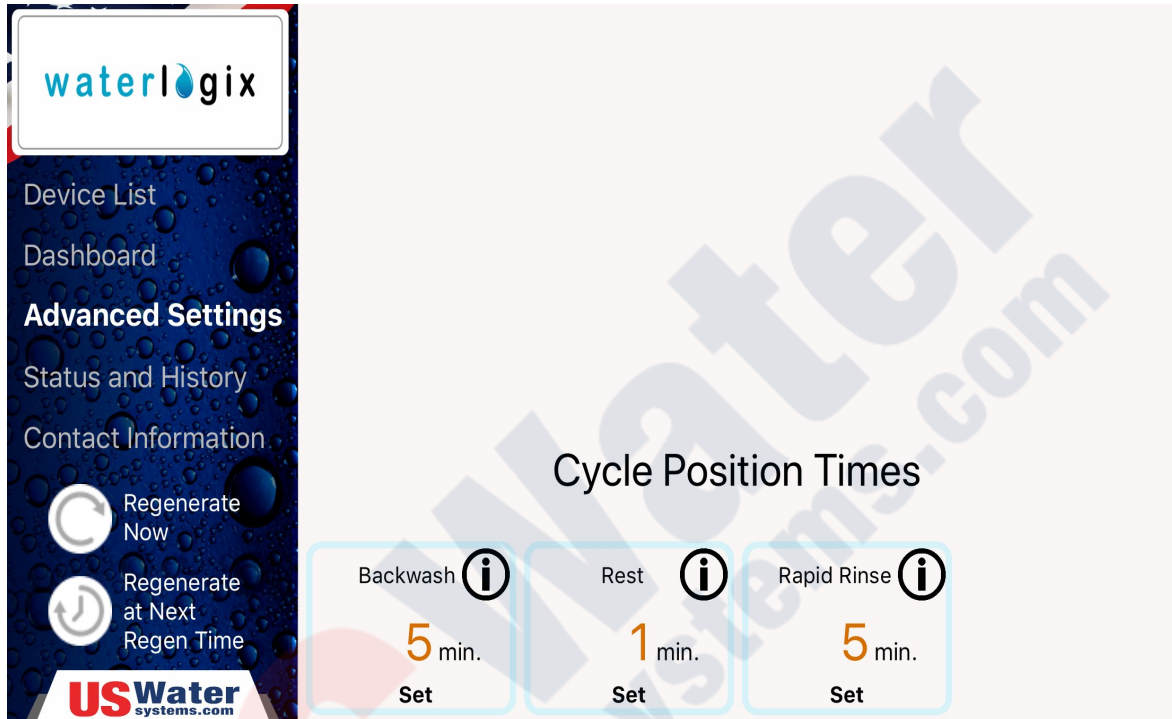


Dashboard

Parameters that can be changed are indicated with orange font. To change a parameter tap on the orange font then use the keyboard that appears to change the value.

1. **Time of Day:** Tap on the “Time of Day” box. A box will appear that allows you to set the unit to the time that matches the device being used to program the unit. Press “OK” and the time will change to the current time of the device.
2. **Backwash Frequency:** Tap on the “Filter Backwash Frequency” box and input the desired days between backwashing. Most municipal applications should set this to 7 days. Some conservative applications can be set as far as 14 days but 7 days is recommended.
3. **Regeneration Time:** Tap on the “Regeneration Time” box. Input the desired regeneration time for normal operation. This is typically two hours after everyone in the house is asleep or the business is closed for the day.

Programming Using Water Logix App

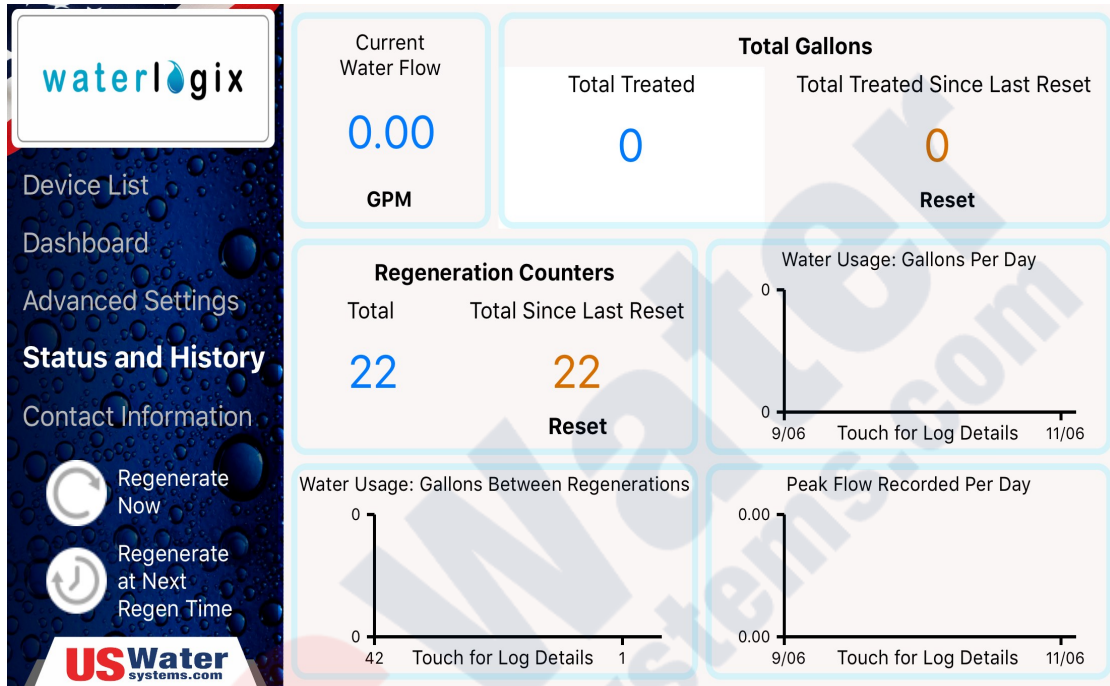


Advanced Settings

Parameters that can be changed are indicated with orange font. To change a parameter tap on the orange font then use the keyboard that appears to change the value.

4. **Backwash:** This should be set to “10” mins and should not be changed.
5. **Rest:** This should be set to “2” mins and should not be changed.
6. **Rapid Rinse:** This should be set to “10” mins and should not be changed.

Programming Using Water Logix App



Status and History

The Status and History screen shows current conditions of the system as well as flow rate and usage history. There are two parameters that can be reset;

1. **Total Regenerations:** This parameter shows how many times the system has regenerated since it was put in service or since the last time the value was reset.
2. **Total Water Treated:** This parameter shows the total amount of water that has been treated since the system was put in service or since the last time the value was reset.

Programming Using Water Logix App



Contact Information

The Contact Information screen is used to provide the customer with contact info for US Water Systems. There is a link to the website and to our support team.

Regeneration Initiation

There are two options for regenerating the system. Tap on the desired option and press "OK".

Regenerate Now: Regenerate Now will queue an immediate regeneration and will start instantly.

Regenerate at Next Regen Time: Regenerate at Next Regen Time will queue the system to regenerate at the specified regeneration time chosen in the programming.

US Water Interceptor Filter Startup Instructions

1. Put the Bodyguard Plus filter in the bypass position (See Page 15). Open a faucet or spigot down stream of the US Water filter. Slowly open the water shutoff valve and all the filter fill and air to be pushed out of the filter through the open spigot or faucet.
2. Shutoff the spigot or faucet down stream and dry the filter housing. Check for leaks. If there are no leaks, move on to the Bodyguard Plus tank startup.

Bodyguard Plus Tank Startup Instructions

1. With the bypass handle in the bypass position, initiate an immediate regeneration. This will advance the valve to the backwash position.
2. Once the valve has stopped moving and is in the backwash position, slow open the bypass handle about 1/8th turn. Water should slowly enter the tank.

NOTE: If there is a loud knocking sound simply turn the bypass handle back slightly as the system is filling too quickly.

3. During the backwash cycle slowly open the bypass valve until there is water coming out of the drain hose. Then open the bypass valve fully.
4. Allow the system to backwash and push all the air out through the drain.
5. The valve will automatically move to the rest cycle when the backwash cycle is complete. Skip this cycle by pressing and holding the “Set/Change” button on the control valve or by pressing “Go to Next Regen Step” on the Water Logix App.
6. This will move the valve to Rapid Rinse. Allow the unit to rinse for the entire cycle. The water in the drain should be running clear by the end of the Rapid Rinse cycle.’
7. The valve will then advance to Service.
8. Once the system has returned to the Service position, the system is installed and ready for use.

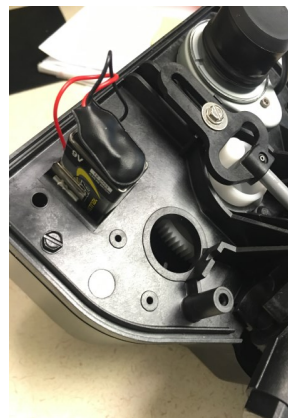
Bodyguard Plus Valve Battery Backup

Battery Back-Up (Uses a standard 9-volt alkaline battery.)

- During power failures, the battery will maintain the time of day as long as the battery has power. The display is turned off to conserve battery power during this time. To confirm that the battery is working, press either button and the display will turn on for five (5) seconds.
- If power failure occurs while system is regenerating, the Signature 2 will motor to a shut off position to prevent constant flow to drain. Depending upon system pressure and other factors, it is possible to observe a reduced flow to drain during this step. After power is restored, the Signature 2 will return and finish the cycle where it left off prior to the power interruption.
- When used without battery back-up, during a power failure, the unit stops at its current point in the regeneration position and then restarts at that point when the power is restored. The time will be offset by the increment of time the unit was without power, so it is necessary to reset the time of day on the unit. No other system will be affected.

WARNING! DO NOT INSTALL THE BATTERY BACKUP UNTIL THE SYSTEM HAS BEEN PROGRAMMED AND START UP IS COMPLETE!

1. Remove the two screws on the back of the valve.
2. Pull out the 9V battery connector, remove battery cover and attach the batter to the connector.
3. Push the batter back in the holder on the valve and replace the cover and screws.



US Water Filter Cartridge Replacement Instructions

1. Shutoff the water supply.
2. Open a faucet or spigot closest to the filter housing and allow all the water to empty from the plumbing system.

WARNING! If the pressure is not released, the filter sump will be very difficult to get loose. It is imperative that the water pressure is released prior to attempting to remove the filter sump.

3. Remove the sump by spinning it counterclockwise until the sump is completely removed.

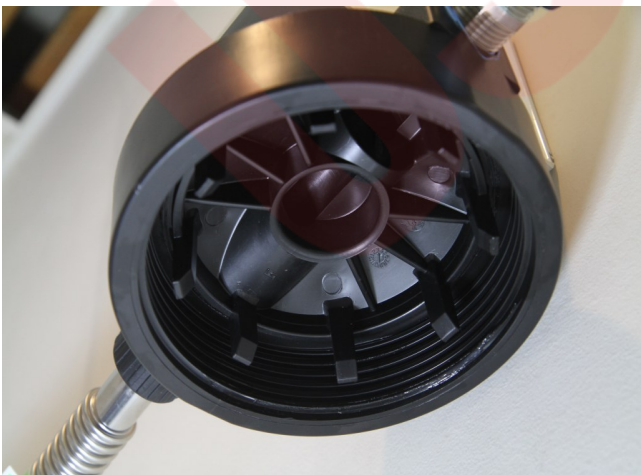


US Water Filter Cartridge Replacement Instructions

4. Remove the old filter and discard.



5. Lubricate the O-rings and install the new filter in the filter housing cap.



6. Lubricate the O-ring for the sump and lubricate the sump threads with food grade silicone grease.

US Water Filter Cartridge Replacement Instructions

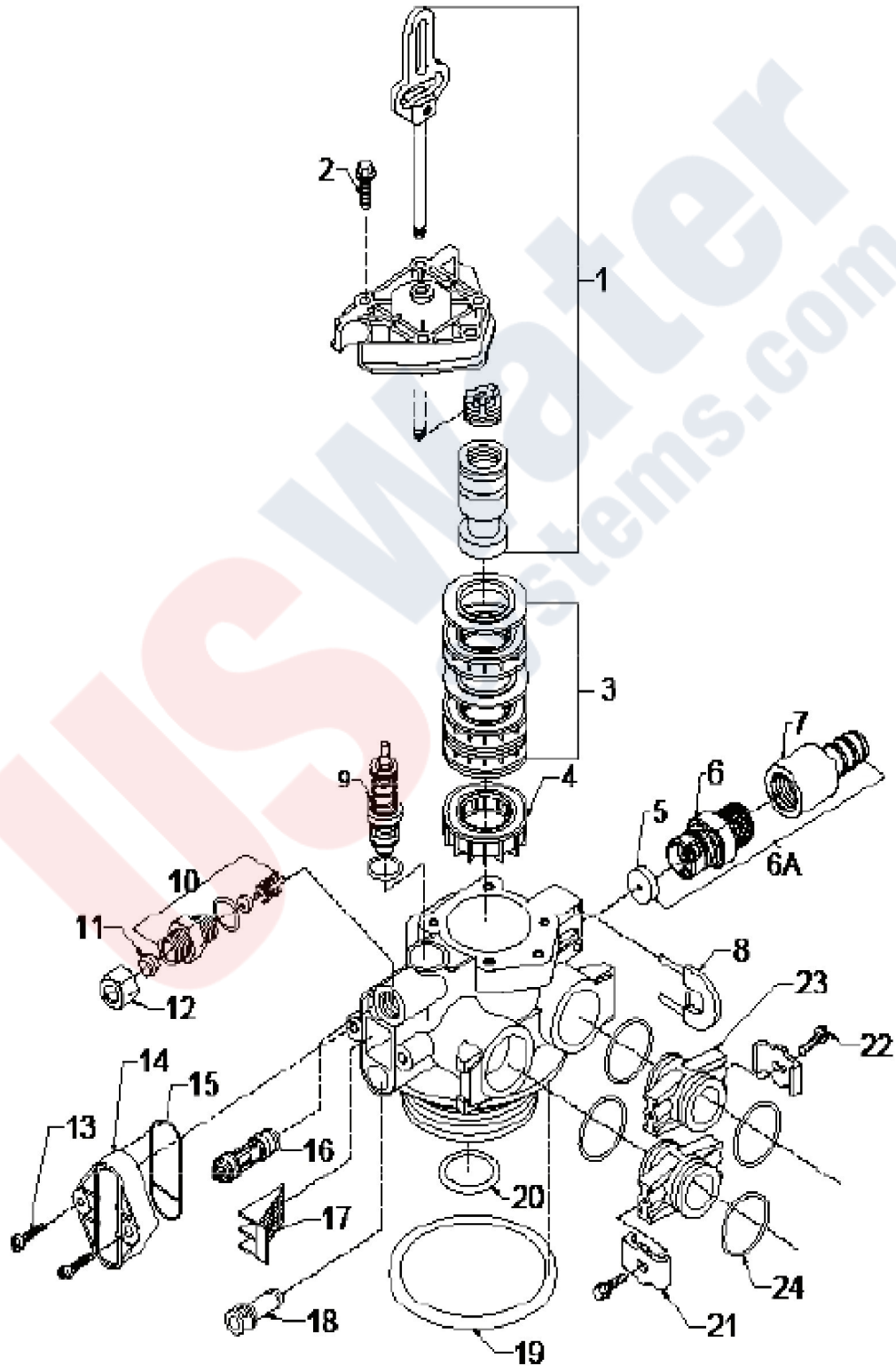
7. Install the filter sump in the filter cap by turning it clockwise until it is hand tight.



NOTE: The housing should spin tight fairly easily. If not, add more lubrication to the sump threads. This will aid with removing the sump when the filter needs to be replaced again.

8. Turn on the water supply and open a spigot downstream of the US Water filter to release the air.
9. Once the air has been released, push the red button on top of the filter housing to release any additional air in the filter housing.
10. Check the housing for leaks and repair as necessary.

Control Valve Exploded View

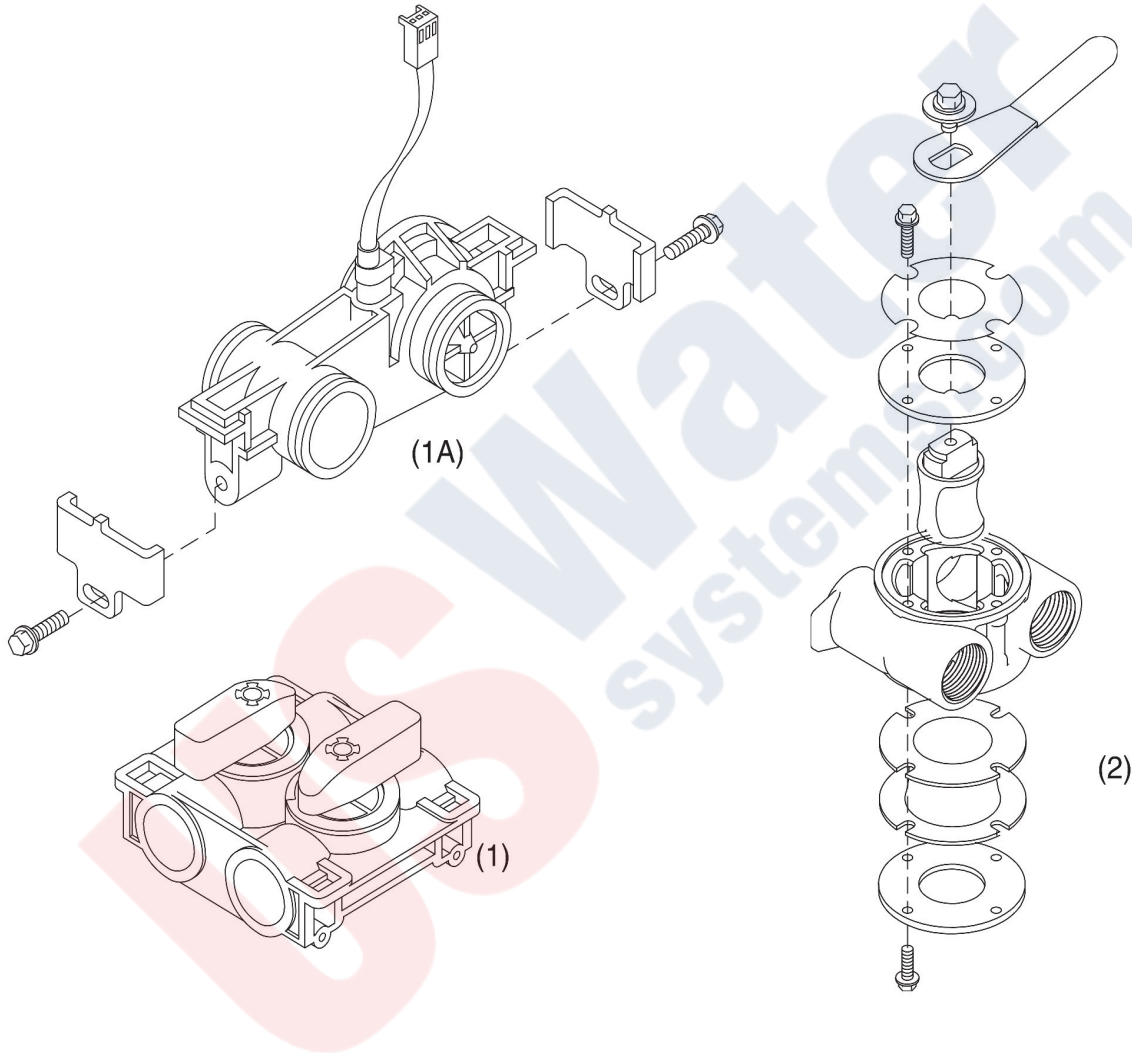


Control Valve Parts List

Ref #	Description	Part #	Qty.
1	Piston Assembly	20001X231	1
2	10-24 x 13/16 Screw	20001X226	3
3	Seal & Spacer Kit	20561X253	1
4	End Spacer	N/S	1
5	Flow Control Button 1.2 GPM	20251X275	1
	Flow Control Button 1.5 GPM	20251X266	1
	Flow Control Button 2.0 GPM	20251X267	1
	Flow Control Button 2.4 GPM	20251X268	1
	Flow Control Button 3.0 GPM	20251X269	1
	Flow Control Button 3.5 GPM	20251X270	1
6	Plastic Flow Control Housing	20017X100	1
6a	Flow Control Assy. 1.2 GPM-PVC	20017X275	1
	Flow Control Assy. 1.5 GPM-PVC	20017X256	1
	Flow Control Assy. 2.0 GPM-PVC	20017X257	1
	Flow Control Assy. 2.4 GPM-PVC	20017X258	1
	Flow Control Assy. 3.0 GPM-PVC	20017X259	1
	Flow Control Assy. 3.5 GPM-PVC	20017X260	1
7	Drain Line Fitting 1/2" NPT X 1/2"	20017X255	1
8	Drain Retainer	20017X214	1
9	Brine Assembly	20561X225	1
10	BLFC Assembly .5 GPM	20001X228	1

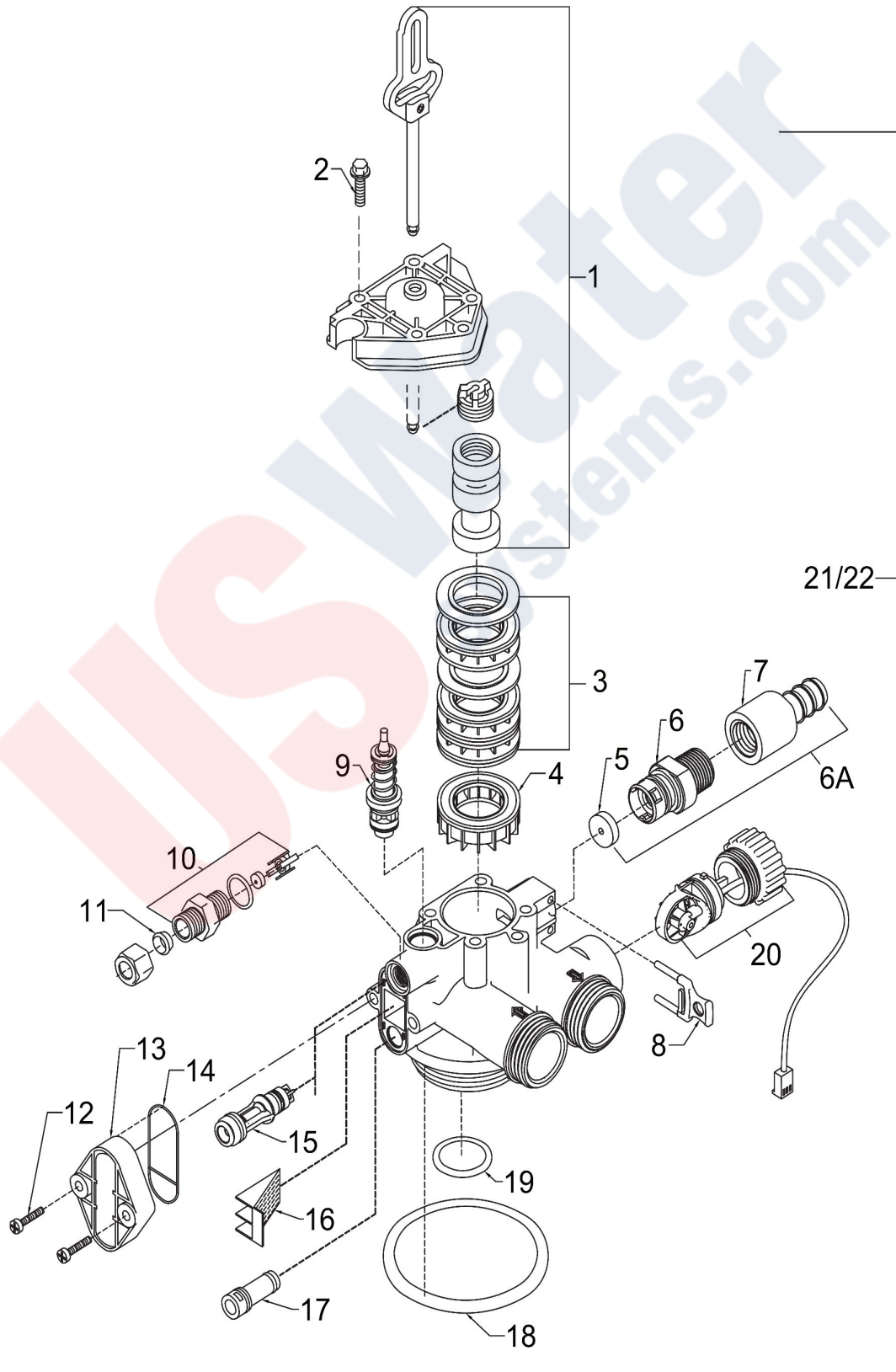
Ref #	Description	Part #	Qty.
11	Brine Line Ferrule	20251X305	1
12	Brine Line Compression Nut	N/S	1
13	10-24 X 1 Hex Screw	20001X226	1
14	Injector Cap	20001X223	1
14a	Injectory Kit-Specify Size- Inc. (1) ea #14, #15, #16, #17 & (2) #13	20001X220	1
15	Injector Seal	20001X224	1
16	Injector Assy. Specify Size	20001X219	1
17	Injector Screen	20001X222	1
18	Injector Plug & O-Ring Assy.	20001X217	1
19	O-Ring	20561X205	1
20	O-Ring	20561X204	1

Power Head Exploded View



Ref #	Description	Part #	Qty
1A	Meter Assembly, Turbine Complete	20003X200	1
1	Plastic Bypass Valve Assembly	20561X292	1
2	Bypass Valve 3/4" Stainless Steel	20561X270	1
	Bypass Valve 1" Stainless Steel	20561X283	1

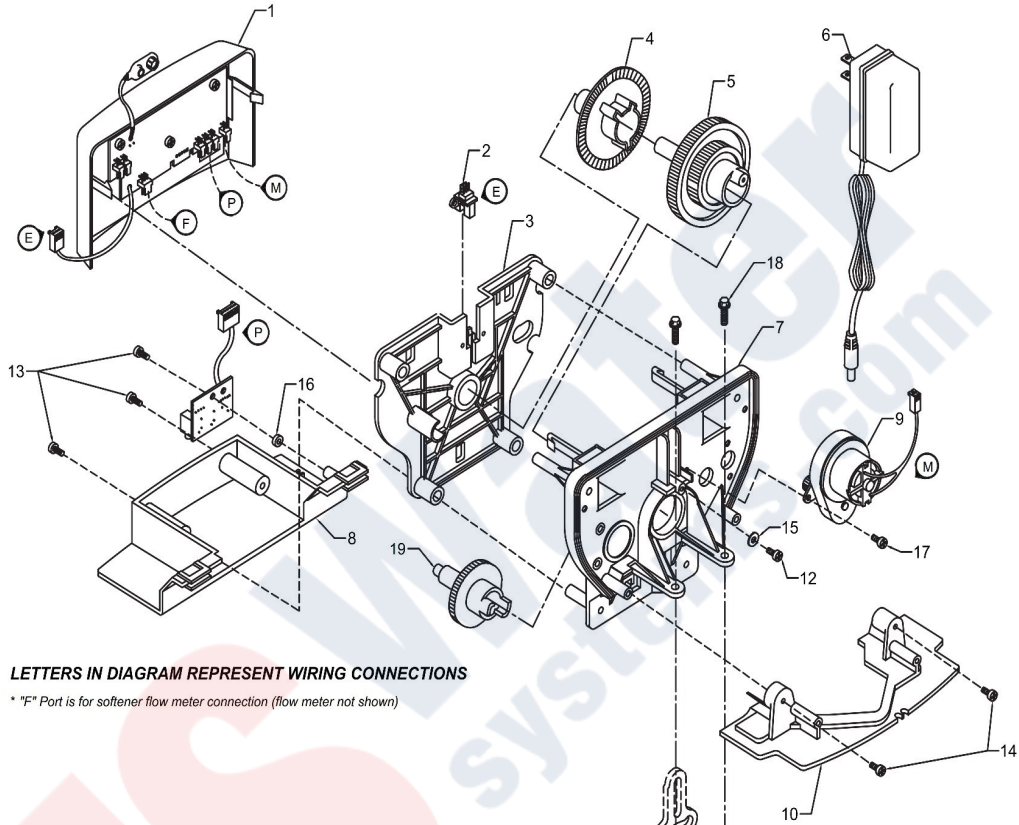
Power Head Parts List



Power Head Parts List

Ref	Description	Part No.	Qty
1	Piston Assembly	20001X231	1
2	10-24 X 13/16 Hex Head	20001X226	5
3	Seal and Spacer Kit	20561X253	1
4	Bottom Spacer	N/S	1
5	Flow Control Button 1.2 GPM	20251X275	1
	Flow Control Button 1.5 GPM	20251X266	1
	Flow Control Button 2.0 GPM	20251X267	1
	Flow Control Button 2.4 GPM	20251X268	1
	Flow Control Button 3.0 GPM	20251X269	1
	Flow Control Button 3.5 GPM	20251X270	1
6a	Flow Control Assy. 1.2 GPM-PVC	20017X275	1
	Flow Control Assy. 1.5 GPM-PVC	20017X256	1
	Flow Control Assy. 2.0 GPM-PVC	20017X257	1
	Flow Control Assy. 2.4 GPM-PVC	20017X258	1
	Flow Control Assy. 3.0 GPM-PVC	20017X259	1
	Flow Control Assy. 3.5 GPM-PVC	20017X260	1
6	Drain Line Flow Control Housing (Blank)	20017X100	1
7	Drain Line Hose Barb, Straight	20017X255	1
8	DLFC Clip	20017X214	1
9	Brine Valve	20561X225	1
10	Brine Line Flow Control Assy.	20001X228	1
11	Brine Line Ferrule	20251X305	1
12	10-24 X 1 Hex Screw	20001X226	2
13	Injector Cover	20009X001	1
14	Injector Seal	20001X224	1
15	Injector w/ Check Ball - White	20017X219	1
	Injector w/ Check Ball - Blue	20017X220	1
	Injector w/ Check Ball - Yellow	20017X221	1
16	Injector Screen	20001X222	1
17	Injector Plug	20001X217	1
18	Tank O-Ring	20561X205	1
19	Distributor Pilot O-Ring	20561X204	1
20	Flow Meter	20017X203	1
21/22	Valve Body Complete	VH1-B-D15	1

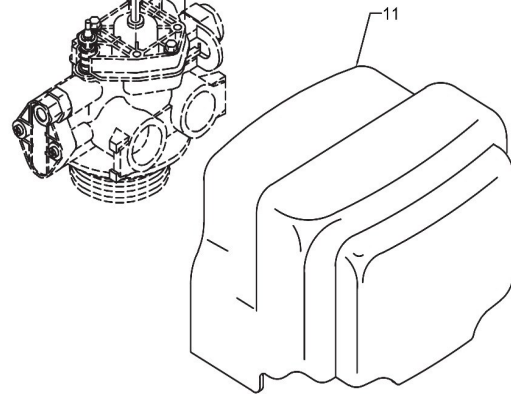
Power Head Parts List



LETTERS IN DIAGRAM REPRESENT WIRING CONNECTIONS

* "F" Port is for softener flow meter connection (flow meter not shown)

Ref	Description	Part Number	Qty
0	Metered Power Head Assy.	21003X100	1
1	Softener Circuit Boad Assy.	21001X102	1
2	Encoder	20001X124	1
3	Front Plate	20001X004	1
4	Encoder Wheel	20001X007	1
5	Main Gear	21001X120	1
6	Power Supply	20001X125	1
7	Back Plate	20001X005	1
8	Lower Front Base For Cover	20111X002	1
9	Motor	20016X006	1
10	Lower Back Base for Cover	20111X003	1
11	Valve Cover	20111X000	1
12	Piston Screw	20001X003	1
13	Screw	SC10	3
14	Screw	SC9	2
15	Piston Washer	20001X002	1
16	Washer Circuit Board	20111X014	1
17	Screw Motor	SC2	1
21	Valve Hex Screw	20001X001	2





Warranty

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

LIFETIME COVERAGE

Tank and Tank Head

We warrant that for the lifetime of the system from the date of purchase, we will replace the tank or tank head assembly at no charge to you except for transportation and standard labor charges. Damages due to environmental issues or improper installation are not covered.

Filter Housing

We warrant that for the lifetime of the system from the date of purchase, we will replace the filter housing at no charge to you except for transportation and standard labor charges. Damages due to environmental issues or improper installation are not covered.

TEN YEAR COVERAGE

Control Valve and Electronics

We warrant that for (10) Ten years from the date of purchase, we will repair or replace the control valve at no charge to you except for transportation and standard labor charges. Damages due to environmental issues or improper installation are not covered.

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.

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.

waterlogix

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