US Water Systems High Flow Single and Dual Filtration System

Owners Manual
300-H-4520-BG-222-KIT, 320-BGF2-20
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.
System Dimensions
US Water Systems 4.5 x 20 High Flow Filter Housing | No Cartridges

The one thing most filter housings have in common is that they are made in the Far East (usually China). Even the industry standard for “Big Blue” housings, Pentek is no longer made in the USA. The fact that ours are Black and Grey tells you these are not just another “Big Blue” Filter System. These US Water Housings are made in the USA and backed with a Lifetime Warranty, which is the best in the business.

Application:

This housing is a Whole House Filter for point-of-entry such as on the main water line into the home. If you have 1” plumbing, this is the filter for you. It is available with a number of different cartridges to address different water problems, such as:

- **Sediment Cartridges** – Remove sand, dirt, silt and sediment.
- **Chemical Removal Cartridges** – Remove chlorine, chloramine, chemicals, pesticides, tastes and odors.
- **Sub-Micron Cartridges** – Our Disrupter and Interceptor cartridges remove Chromium 6, heavy metals, tannin, bacteria and many other contaminants.
- **Cartridges are Purchased Separately** – You can mix and match them as needed or call us at 800-608-8792 to talk to a Water Specialist about which cartridge is right for your application. See all the Cartridges here: Posi-Seal™ Cartridges for Grey and Black US Water Systems Housings. Just like the Housings, the cartridges are all made in the USA.

Features & Benefits

- **Black and Grey** – Made in the USA
- **Best Materials** – Built with chemical resistant reinforced Polypropylene.
- **High Pressure Housings** - Pressure tested well beyond industry standards: 125°F (51.7° C) and 125 psi (8.62 bar).
- **Commercial-Grade** – These rugged housings are heavy-duty and built to last a lifetime.
- **Lifetime Warranty** – If you build them better, you can guarantee them better and our American Craftsmanship is unbeatable.
- **Full 1” Flow** – All 20 inch housings are 1” flow (the 10” version is 3/4”). Flows up to 25 GPM.
- **Posi-Seal™** - Most cartridges use a “double open end” design (DOE). US Water Systems Housings use a cartridge with a Posi-Seal Design that provides 100% filtration and will not bypass the filter.
- **Includes bracket, screws and wrench.**
Single and Dual Filter Specifications and Operation

US Water Systems 4.5 x 20 Dual High Flow Filter System | No Cartridges

The one thing most filter housings have in common is that they are made in the Far East (usually China). Even the industry standard for “Big Blue” housings, Pentek are no longer made in the USA. The fact that ours are Black and Grey tells you these are not just another “Big Blue” Filter System. These US Water Housings are made in the USA and backed with a Lifetime Warranty, which is the best in the business.

Application:
This is a Whole House Filter System for two filter cartridges for point-of-entry such as on the main water line into the home. If you have 1” plumbing, this is the filter for you. It is available with a number of different cartridges to address different water problems, such as:

- **Sediment Cartridges** – Remove sand, dirt, silt and sediment.
- **Chemical Removal Cartridges** – Remove chlorine, chloramine, chemicals, pesticides, tastes and odors.
- **Sub-Micron Cartridges** – Our Disrupter and Interceptor cartridges remove Chromium 6, heavy metals, tannin, bacteria and many other contaminants.
- **Multiple Applications** – The Dual Whole House Filter System can be used in a variety of ways:
  - **Step Down Filtration of Sediment** – Maybe you start out with a 5 Micron and Step Down to a 1 Micron Filter; or you start with a 5 micron and go to a sub-micron Disrupter; or maybe it’s just a 5 Micron filter followed by a radial flow carbon filter.
  - **Recommended Ahead of Disinfection** – Ultraviolet and Quantum Disinfection require “clean water” and this is one of the best ways to achieve that.
- **Cartridges are Purchased Separately** – You can mix and match them as needed or call us at 800-608-8792 to talk to a Water Specialist about which cartridge is right for your application. See all the Cartridges here: Posi-Seal™ Cartridges for Grey and Black US Water Systems Housings. Just like the Housings, the cartridges are all made in the USA.

Features & Benefits
- **Black and Grey** – Made in the USA
- **Best Materials** – Built with chemical resistant reinforced Polypropylene. BPA FREE LOGO
- **Posi-Seal™** - Double O-Ring Posi-Seal eliminates bypass and blowby to assure 100% filtration, unlike double open-end (DOE) filters,
- **High Pressure Housings** - Pressure tested well beyond industry standards: 125°F (51.7°C) and 125 psi (8.62 bar).
- **Commercial-Grade** – These rugged housings are heavy-duty and built to last a lifetime.
- **Lifetime Warranty** – If you build them better, you can guarantee them better and our American Craftsmanship is unbeatable.
- **Full 1” Flow** – All 20 inch housings are 1” flow. Flows up to 25 GPM.
- **Posi-Seal™** - Most cartridges use a “double open end” design (DOE). US Water Systems Housings use a cartridge with a Posi-Seal Design that provides 100% filtration and will not bypass the filter.

Includes Bracket, screws and wrench
Filter Installation Instructions

1. Install the Single and Dual system in the desired location in the water treatment system. The caps are marked “IN” and “OUT” on the top of the housings.
2. Mount the housing to the bracket using the supplied screws, orienting the housing to match the application’s desired flow direction. The dual system will be built when it arrives flowing left to right. This can be disassembled and changed to match a right to left flow application.
Filter Installation Instructions

3. 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).

4. Install threaded nipples or other threaded fittings in the housing. Be sure to use Teflon tape on the fittings. Tighten them with channel locks.
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 using the necessary fittings or tubing. 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 Flex Pipes used with the US Water Systems Equipment. 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. Or if Flex pipes with male threaded ends are used be sure to Teflon tape them. 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. Use care to keep the plumbing cool during other sweat connections.
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.

NOTE: The filter will fit tightly in the housing cap. It will take force to push the filter in the cap. This ensures a positive seal. BE SURE the filter is pushed all the way in the cap.
Filter Startup Instructions

1. Open a faucet or spigot downstream of the filter. Slowly open the water shutoff valve and let the filter system fill with water. Air will be pushed out of the filter through the open spigot or faucet downstream. Once there is no air coming out of the faucet or spigot, turn the water supply on fully and shut the faucet or spigot.

2. Check for leaks. If there are no leaks the filter is installed and ready for service.
Filter Cartridge Replacement Instructions

1. Shutoff the water supply.
2. Open a faucet of 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.
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.
Filter Cartridge Replacement Instructions

7. Install the filter sumps 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 filter to release the air.
9. Once the air has been released, fully open the supply valve and close the faucet or spigot.
10. Check the housing for leaks and repair as necessary.
11. The filter is ready for use.
For the lifetime of the original purchaser, at the original residential place of installation of this Water Conditioning System, US WATER SYSTEMS, INC. warrants the following:

**Filter Housing**

We warrant that for life 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.

**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.