

# Tier1 Water Home Filtration System

Carbon+KDF Series

OWNERS MANUAL



**BEFORE YOU BEGIN INSTALLATION, READ THIS ENTIRE MANUAL. FOLLOW THE INSTALLATION INSTRUCTIONS CAREFULLY.**

1. Avoid pinched o-rings during installation by applying NSF certified lubricant to all seals.
2. This system is not intended for treating water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

# Table of Contents

UNPACKING/ INSPECTION	3
SAFETY GUIDE	4
PROPER INSTALLATION	4
SYSTEM DIMENSIONS	4
SPECIFICATIONS	5
INSTALLATION INSTRUCTIONS	6
TROUBLESHOOTING & OTHER GOOD PRACTICES	8

# UNPACKING / INSPECTION

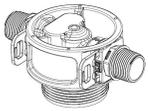
Be sure to check the entire unit for any shipping damage or parts loss. Also note damage to the shipping cartons.

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

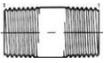
## What is included with your system?



Inlet/Outlet adapters (2)



Adapter (cap)



Stainless Steel Nipple (2)



Locking Clips (2)



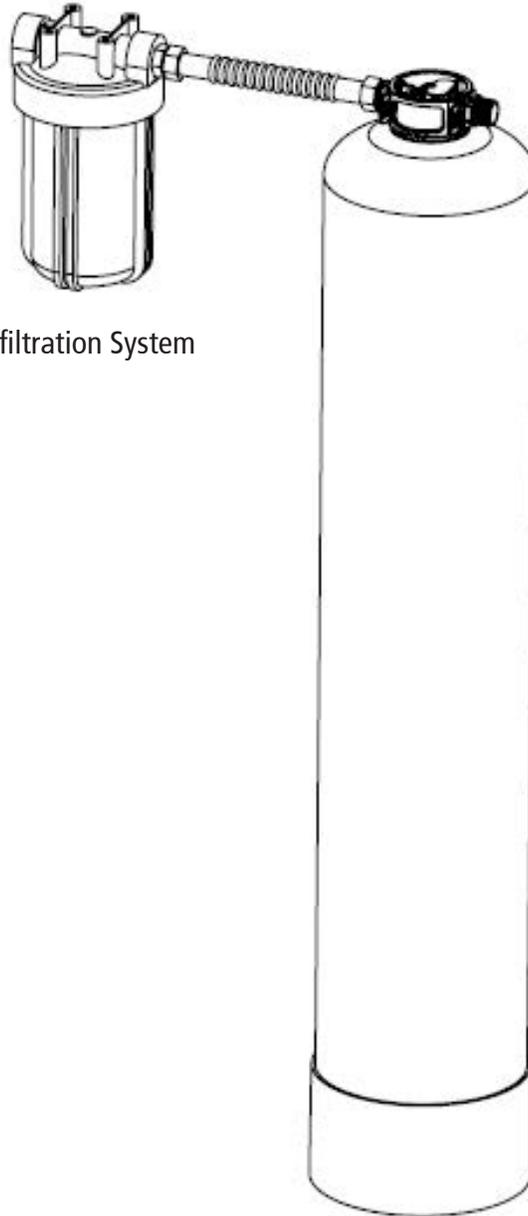
Flex Connectors (2)



Ball Valve



Prefilter bracket, wrench, screws



Prefiltration System

Tank prefilled with media

**Note:** If you've opted to order both our Carbon System and Salt-free Softener, only one prefiltration system will be provided.

## SAFETY GUIDE

*For your safety the information in this manual must be followed to minimize the risk of electric shock, property damage or personal injury.*

Check and comply with your provincial / state and local codes. You must follow these guidelines.

Use care when handling the filter tank. Do not turn upside down, drop, drag or set on sharp protrusions.

## PROPER INSTALLATION

*This system must be properly installed and located in accordance with the installation instructions before it is used.*

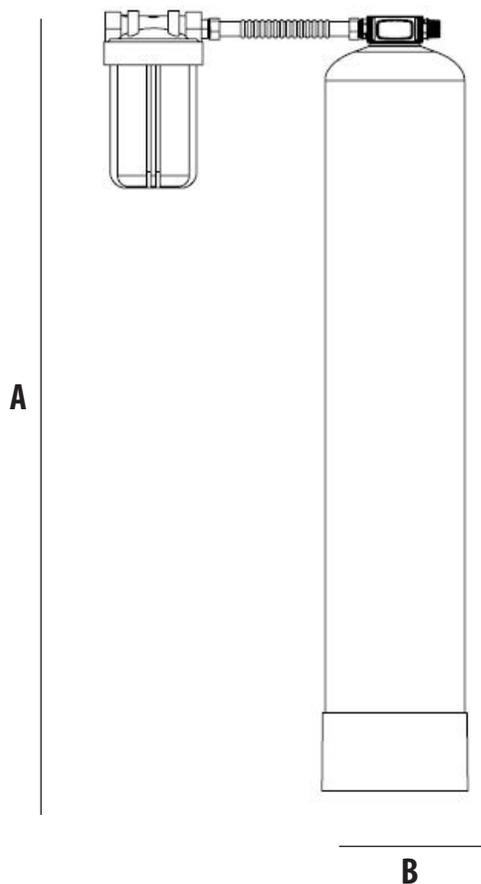
Use only *lead-free solder and flux* for all sweat-solder connections, as required by state and federal codes. Maximum allowable inlet water pressure is 125 psi. If daytime pressure is over 80 psi, night time pressure may exceed the maximum. Use a pressure reducing valve to reduce the flow if necessary.

**WARNING:** Prefilter must be installed level with tank head, as diagram below shows.

Discard all unused parts and packaging material after installation. Small parts remaining after the installation could be a choke hazard.

## SYSTEM DIMENSIONS

Models	A	B
8000	48"	8"
10000	58"	10"



# SPECIFICATIONS

## How Your Filter Works

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

System Specifications	8000	10000
Service Flow Rates		
Normal	5 gpm	7gpm
Filter Media Volume - Cubic Feet	75 ft	1.5 ft
Filter Tank Size	8" x44"	10" x54"
Media Type	Activated Carbon with KDF	
Media Preloaded	Yes	
Media Lifetime	3-5 years (depending on water quality)	
Water Temperature	41 - 100 degrees F	
Max Water Pressure	125 psi	
Plumbing Connections	Includes 3/4" straight adapters	
Electrical Requirements	None	

## BEFORE STARTING INSTALLATION

### Tools, Pipe, and Fittings, Other Materials

Our systems are complete, self-contained, loaded with media and ready to use. Inlet and outlet fittings are included with the filter. To maintain full valve flow, 3/4" or 1" pipes to and from the filter fittings are recommended. You should maintain the same, or larger pipe size as the water supply pipe up to the inlet and outlet.

Use copper, brass, or PEX pipe and fittings. Some codes may also allow PVC plastic pipe.

Helpful Tools: screwdriver, Teflon tape, adjustable wrenches, razor knife

*\*Additional tools may be required if modification into home plumbing is required.*

### If you've opted to install both our Carbon and Scaleless systems please note the below:

Due to the unique properties of scaleless filtration, the scaleless system must be the last stage in the treatment chain.

Do not install any filters after scaleless or before any devices for which scale prevention is required. Point of Use filters, e.g. carbon or RO are exempt from this requirement.

Do not apply phosphate or any other antiscalant either before or after Scaleless.

## WHERE TO INSTALL

Place the filter tank as close as possible to the pressure tank (well system) or water meter (city water). Connect the filter to the main water supply pipe BEFORE the water heater.

**DO NOT RUN HOT WATER THROUGH THE FILTER.** Temperature of water passing through the filter must be less than 100 deg F. Keep the filter out of direct sunlight. The sun's heat may soften and distort plastic parts.

Do not install the filter in a place where it could freeze. Water freezing may damage the system.

Put the filter in a place where water damage is least likely to occur if a leak develops. The manufacturer will not repair or pay for water damage.

If installing in an outside location, you must take the steps necessary to assure the filter, installation plumbing, wiring, etc., are as well protected from the elements, contamination, vandalism, etc., as when installed indoors.

## INSTALLATION INSTRUCTIONS

1. If your hot water tank is electric, turn off the power to it to avoid damage to the element in the tank.
2. If you have 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 the faucet, (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. **ON COPPER PLUMBING SYSTEMS BE SURE TO INSTALL A GROUNDING WIRE BETWEEN THE INLET AND OUTLET PIPING TO MAINTAIN GROUNDING.** Any solder joints near the adapter must be done before connecting any piping to the adapter. Always leave at least 6" (152 mm) between the adapter and joints when soldering pipes that are connected to the valve. Failure to do this could cause damage to the valve.
4. Lubricate the adapter o-rings and insert inlet/outlet adapters into tank cap. Insert locking clips to lock in adapters.
5. Attach nipples. Do not put tape on nipples.
6. Attach flex connectors. Make sure to not apply any tape or putty as flex connectors include a sealing washer.
7. Perform all plumbing according to local plumbing codes. Make sure not to overtighten any plastic parts, and do not over bend the flex connectors.
8. Attach the prefiltration system to wall at equal height with tank adapter. Make sure you have the appropriate amount of space needed before attaching to walls/pipes.
9. Slowly turn on the main water supply. At the nearest cold treated water tap nearby remove the faucet screen, open the faucet and let water run a few minutes or until the system is free of any air or foreign material resulting from the plumbing work.
10. Make sure there are no leaks in the plumbing system before proceeding. Close the water tap when water runs clean.
11. Note : Carbon filters only:  
Once the unit has filled sufficiently that water is at least equal to the height of the media shut down the water for 15 – 20 minutes for the carbon to soak. After the carbon has soaked for the recommended time continue with installation instructions. Additional information for Non backwashing carbon filter. After soaking, remove the aerator screen from the nearest faucet, run water at this faucet until all fines (black) is gone from the water.

## REPLACING THE MEDIA BED

Under normal operating conditions the effective life of the filter media is approximately one to three years, depending on the water quality, after which, taste and odor problems may return. When this happens, contact us for a replacement media bed.



# TROUBLE SHOOTING

	Question	Answer
<b>A. FILTER BLEEDS TASTE AND ODOR OR SEDIMENT</b>	1. By-pass valve open.	Close by-pass valve.
	2. Defective or stripped media bed	Replace media
	3. Quality of water has worsened	Have water sample analyzed to determine any change
	4. Filter capacity too small	Replace with larger unit or add another filter
	5. Leak between valve and central tube.	Check if central tube is cracked or o-ring is damaged. Replace faulty parts.
	6. Internal valve leak.	Replace valve seals, spacer, and piston assembly
<b>B. LOW WATER PRESSURE</b>	1. Iron or scale build up in line feeding unit.	Clean pipes.
	2. Iron build up inside valve or tank.	Remove piston and clean control valve.
	3. Inlet of control plugged due to foreign material.	Clean control and add resin cleaner to clean bed. Increase regeneration frequency.