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Installation Instructions & Owner's Manual

*Whole-House Non-Regenerating
Carbon Filter*



Model 109588

Version 1 - 08/2026

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PRODUCT INFORMATION

MODEL NUMBER _____

SERIAL NUMBER _____

DEALER INFORMATION:

Installation

PACKAGE CONTENTS

The following components are included with your Plumber's Choice Non-Regenerating Catalytic Carbon Filter.

Included Component	Description
Catalytic Carbon Filter Tank	Factory-filled with catalytic carbon media
Filter Control Valve	Factory-installed on tank
Bypass Valve	Included for installation (not factory installed)
Adapter Kit	Connects building plumbing to the bypass valve
Service Wrench	For servicing the control valve and fittings
Installation, Operation & Maintenance Manual	Installation and maintenance instructions

The following materials are required or recommended but are not included.

Installer-Supplied Item	Notes
Plumbing pipe and fittings	As required for installation
Full-port ball valves (2)	Recommended for future service
Hose bibs (2)	Recommended to simplify manual regeneration
Stainless steel flex connectors (2)	Recommended to simplify installation and enable manual regeneration
PTFE (Teflon®) thread seal tape	For threaded connections
Expansion tank	Where required by local plumbing code

GENERAL INSTALLATION & SERVICE WARNINGS

The control valve, fittings and/or bypass are designed to accommodate minor plumbing misalignments. There is a small amount of “give” to properly connect the piping, but the water treatment unit is not designed to support the weight of the plumbing.

Do not use Vaseline, oils, other hydrocarbon lubricants, or spray silicone anywhere. A silicone lubricant may be used on black “O” Rings, but is not necessary. **Avoid any type of lubricants, including silicone, on red or clear lip seals.**

Do not use pipe dope or other sealants on threads. Teflon® tape must be used on the threads of the 1” NPT inlet and outlet and on the threads for the drain line connection. Teflon® tape is not used on the nut connections or caps because “O” Ring seals are used. The nuts and caps are designed to be unscrewed or tightened by hand or with the special plastic Service Wrench, #100249864 (CV3193-02). If necessary, pliers can be used to unscrew the nut or cap. Do not use a pipe wrench to tighten nuts or caps. **Do not place screwdriver in slots on caps and/or tap with a hammer.**

SITE REQUIREMENTS

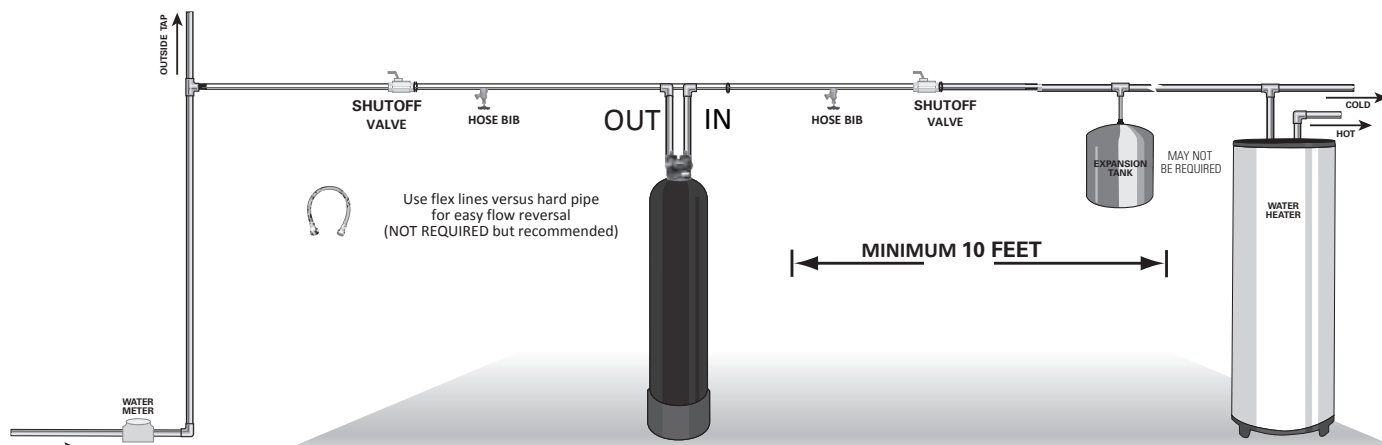
- Water Pressure – 25-100 psi
- Water Temperature – 40-100°F (0.5-37.7°C)

Recommended installation shown in this manual provides several advantages:

Allows the filter to be isolated without shutting off water to the entire home.

Makes pressure relief quick and convenient.

Enables manual regeneration when installed using the recommended plumbing configuration.



MUNICIPAL INSTALLATION

Installation

1. The media tank should be installed on a firm, level surface (above or below grade).
2. Remove the upper cap on the valve using the service wrench. Fill the tank about 75% full to soak (if possible). Do NOT overfill as carbon will expand and potentially overfill.
3. It is NOT recommended to install any water treatment unit with less than 10 feet of piping between its outlet and the inlet of a water heater.



CAUTION: To protect the unit in the event of a hot water heater backup, the manufacturer recommends the use of an expansion tank on the outlet side of the unit (see diagram).

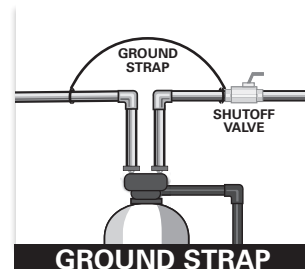
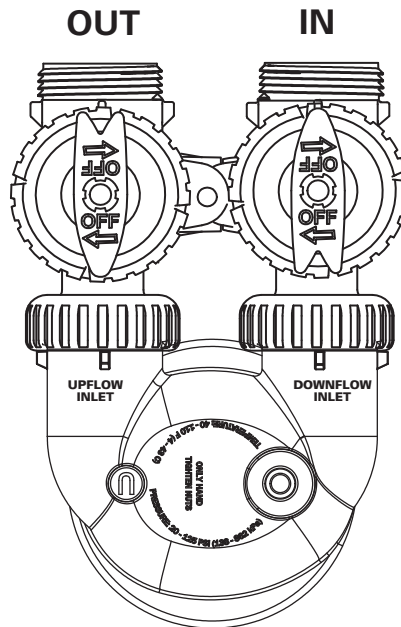
4. Do not locate unit where it or its connections (including the drain and overflow lines) will ever be subjected to temperatures under 33°F.
5. Do not subject the tank to any vacuum as this may cause an “implosion” and could result in leaking. If there is a possibility a vacuum could occur, please make provision for a vacuum breaker in the installation.
6. **INLET/OUTLET PLUMBING:** Be sure to install a Bypass Valve onto the main control valve before beginning plumbing. If it is desired to bypass outside hydrants, a cold water kitchen sink, or other locations, provisions should be made at this time. Install an inlet shutoff valve and plumb to the unit’s bypass valve inlet located at the right rear as you face the unit. There are a variety of installation fittings available. They are listed under the Installation Fitting Assemblies section of the manual. When assembling the installation fitting package (inlet and outlet), connect the fitting to the plumbing system first and then attach the nut, split ring, and “O” Ring. Heat from soldering or solvent cements may damage the nut, split ring, or “O” Ring. Solder joints should be cool and solvent cements should be set before installing the nut, split ring, and “O” Ring. Avoid getting solder flux, primer, and solvent cement on any part of the “O” Rings, split rings, bypass valve, or control valve. If the building’s electrical system is grounded to the plumbing, install a copper grounding strap from the inlet to the outlet pipe. Plumbing must be done in accordance with all applicable local codes.

Provisions should be made to bypass outside hydrants that are not to have filtered water. It is also advisable to install hose bibs on the inlet and outside of the filter for future testing and service of the equipment. Where heavy sediment is observed, it is advisable to install a cartridge or bag-style filter immediately upstream from the filter. A nominal micron rating of 50 to 100 is recommended. The purpose of this is to protect the control valve of any debris from the incoming water supply. If desired, a cartridge filter may be used after the system as a polishing filter.

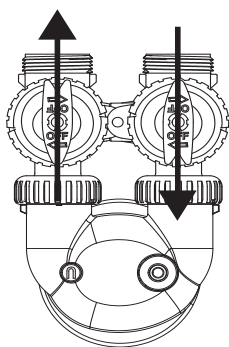
7. **INSTALLING GROUND:** To maintain an electrical ground in metal plumbing of a home’s cold water piping (such as a copper plumbing system), install a ground clamp or jumper wiring.

NOTE: If replacing an existing unit, also replace the ground clamps/wire. If removing a unit, replace the piping with the same type of piping as the original to assure plumbing integrity and grounding.

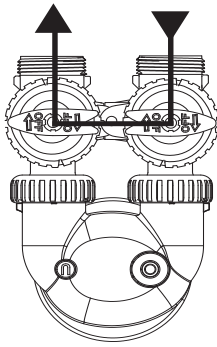
OVERHEAD VIEW OF BYPASS VALVE



NORMAL OPERATION



BYPASS OPERATION



Start-Up Instructions

OPERATION

The Pure Flow City Water Filter requires no backwashing and eliminates the need for a control valve and the extra water needed to regenerate. The unit is equipped with an upper strainer assembly to prevent media loss. Please contact Plumber's Choice with any questions pertaining to the Pure Flow installation.

OPERATING LIMITS

The unit is designed to function with minimum water pressures of 25 psi, maximum water pressures of 100 psi, and a maximum water temperature of 100 degrees F.

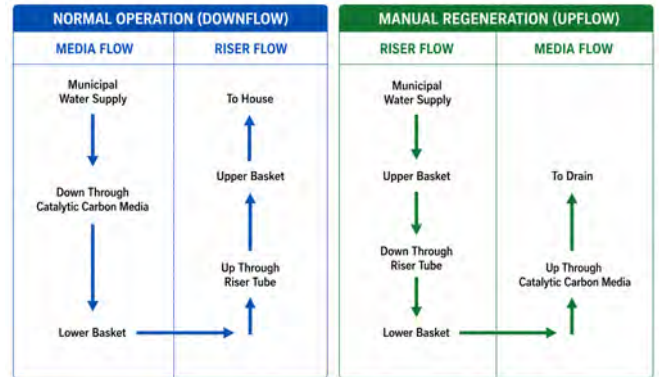
IN AND OUT VALVE



- CAUTION: Ensure the In and Out Valve is tight on top of the tank. DO NOT overtighten.**
- Locate the bypass valve assembly that is packaged with the system. The bypass valve has two red handles that allow you to bypass the unit, two threaded connections for the tail piece kit and two O-ring seal connections with nuts for the In and Out Valve. Align the insert connection ends with O-rings and nuts to the inlet and outlet connections of the control valve. Hand tighten the nuts.
- Locate and assemble the tail piece kit. Align tail piece assembly to the bypass valve threaded inlet and insert until the nut can be tightened. Hand tighten the nuts.

SERVICE LINE PIPING

- Keep unit far enough away from walls and other obstructions to allow for servicing the unit. attach bypass and fittings to the valve. Pipe water filter into the service lines. Plumb the inlet plumbing into the DOWNFLOW INLET port of the in-out valve. Plumb the outlet plumbing into the UPFLOW INLET port of the in-out valve. Always follow local plumbing codes when installing our water treatment equipment.
- If sweat fittings are used, be sure soldering is done in such a manner as not to allow heat to reach the control valve or bypass. If using copper pipe, make all sweat connections away from the tank, strainer, and head assemblies or the heat will damage them and void warranty. Use unions on the inlet and outlet connections.
- Pipe a shut off valve and hose bib into the inlet and outlet piping as shown in the Drawing.



NOTE: For manual regeneration, plumbing connections are temporarily reversed so water enters the normal outlet side and exits the normal inlet side to a drain or approved discharge.

FILLING FILTER WITH WATER

- Direct water from the outlet hose to a floor drain or outside and flush the plumbing to ensure no glue, tape or shavings enter the unit. With the shut off valve to the house closed, the bypass open and open the outlet hose bib, slow open the shut off valve on the inlet and run water through the newly installed plumbing to drain.
- Fully open the outlet bypass and SLIGHTLY crack open the inlet bypass. Air will slowly be pushed out of the tank and out the drain. Once water is running out the drain, you can close the inlet bypass and allow the media to soak for 30 minutes with the bypass and hose bib closed. Once soaked, open the hose bib, and both the outlet and inlet bypass handles to direct water from the system to drain. Run water until the water becomes clear and free of air pockets. When clear, close outlet hose bib.
- The unit is now in the service position.
- If you choose not to pipe in hose bib, then you should rinse the system by running water at an outside spigot or nearby sink until the water is clear and has no fines or color. You should thoroughly rinse the system of its fines and color before placing the unit into service position. Should take approximately 20-30 minutes.

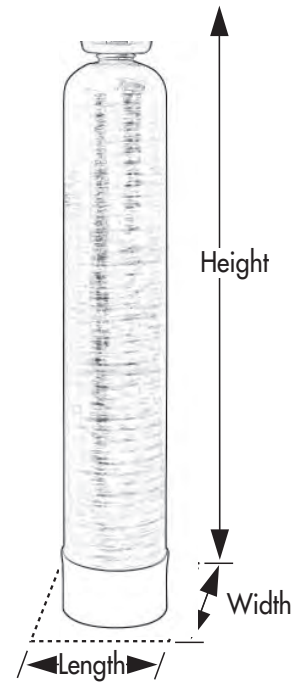
IF UNIT IS SHIPPED DISASSEMBLED

- Make sure the top opening of the distributor pipe before filling the tank with media.
- Pour in the gravel provided with the unit into the top of the tank. .
- Pour the coconut carbon provided with the unit into the top of the tank.
- Remove the material used to cover the top of the distributor pipe and clean the tank threads of any media. Reattach the in and out valve assembly.

System Specs and Replacement Parts

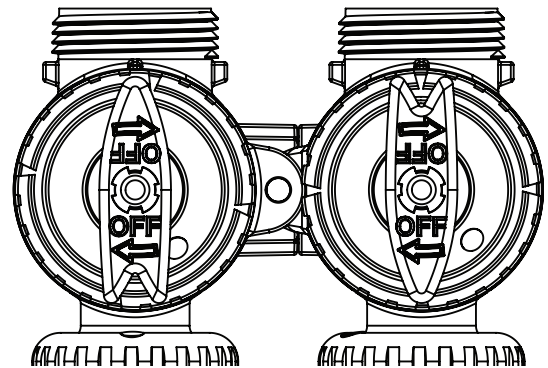
CARBON FILTER SPECIFICATIONS

MODEL NUMBER	109588	109589
Mineral cu. ft.	CATALYTIC CARBON 1.5	CATALYTIC CARBON 2.0
Cont. Flow	5.0	7.0
Peak Flow	10.0	12.0
Total Dimensions	10"W x 59"H	13"W x 59"H
Shipping Weight	90 lbs	145 lbs



BYPASS VALVE

Item #.	Legacy Part #	Current Part #	Description	Qty.
1	CV3006	100249845	Bypass assembly	1
2	CV3147	100246284	Bypass handles	2



IN/OUT HEAD

Item #	Legacy Part #	Current Part #	Description	Qty.
	CD1220	100245769	1220 In/Out Head	1
Not Shown	CV3180	100246307	Base O-Ring	1
	CV3105	100246272	Distributor Pilot O-Ring 215	1



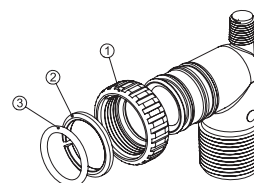
For All Assemblies

Item #	Legacy Part #	Current Part #	Description	Qty.
1	CV3151	100246287	Nut, 1" quick connect	2
2	CV3150	100246286	Split ring	2
3	CV3105	100246272	O-ring 215	2

Legacy Part #	Current	Description	Qty.
CV3007	100246197	1" PVC male NPT elbow assembly	2

Contact manufacturer for optional fittings.

TOP VIEW	FRONT VIEW	SPECIFICATIONS	FUNCTION
		- Max. Pressure: 125 PSI (8.6 Bar) - Material: Polypropylene - Connections: Male Threads - Inlets: Down Inlet / Upflow Inlet	This valve directs water flow between upflow and downflow paths. Rotate the dial to select the desired flow direction.



MANUAL REGENERATION

PROCESS AT A GLANCE

1



ISOLATE FILTER

Close both inlet and outlet ball valves.

2



RELIEVE PRESSURE

Open both hose bibs to relieve system pressure.

3



REVERSE PLUMBING

Disconnect flex connectors and reverse the inlet and outlet connections.

4



CONNECT HOSE

Close the inlet hose bib. Leave the outlet hose bib open and connected to a drain.

5



FLUSH UNTIL CLEAR

Slowly open the inlet ball valve. Flush the filter in upflow until discharge water runs clear.

6



RETURN TO SERVICE

Close inlet valve. Reconnect plumbing to normal configuration. Close hose bibs. Open both ball valves and return the system to service.



**PLUMBER'S
CHOICE
PROFESSIONAL
WATER SOLUTIONS**

Congratulations. You have purchased one of the finest water treatment systems available. In the unlikely event of a problem due to defects in material and workmanship, we proudly warrant our water treatment systems to the original owner, when installed in accordance with Plumber's Choice, LLC specifications. This warranty is effective for all registered products from the date of original installation for:

A period of TEN YEARS: Fiberglass mineral tank except for damages due to freezing, high pressure (120 PSI and above), extreme temperature (100°F and above) or a vacuum on the system.

A period of FIVE YEARS: The control valve and all internal components.

A period of ONE YEAR: All other conditioner components.

Any part found defective within the terms of this warranty will be repaired or replaced by the dealer. You pay only freight from our factory and local dealer charges. To obtain local warranty service, contact original installer.

The above provisions of the warranty are valid as long as the unit is connected in compliance with local plumbing codes and in an equivalent manner and condition of the original installation and is owned by the original owner.

This warranty does not cover damages due to accident, fire, flood, freezing, or any other Act of God. We are not responsible for damages due to change in water conditions, misapplication, misuse, neglect, vacuum, oxidizing agents, alteration, or lack of maintenance. No responsibility is assumed for loss of use of the unit, inconvenience, loss or damage to real or personal property or any incidental or consequential damages. Furthermore, we assume no liability and extend no warranties, express or implied, for the use of this product with a non-potable water source. **To the extent permitted by law, Plumber's Choice, LLC disclaims all implied warranties, including without limitation warranties of merchantability and fitness for particular purpose; to the extent required by law, any such implied warranties are limited in duration to the aforementioned period specified above.**

Some states do not allow the exclusion of implied warranties or limitations on how long an implied warranty lasts. Consequently, 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.

Register product online at www.plumberschoicewater.com/registration or by phone at 615-866-6100.