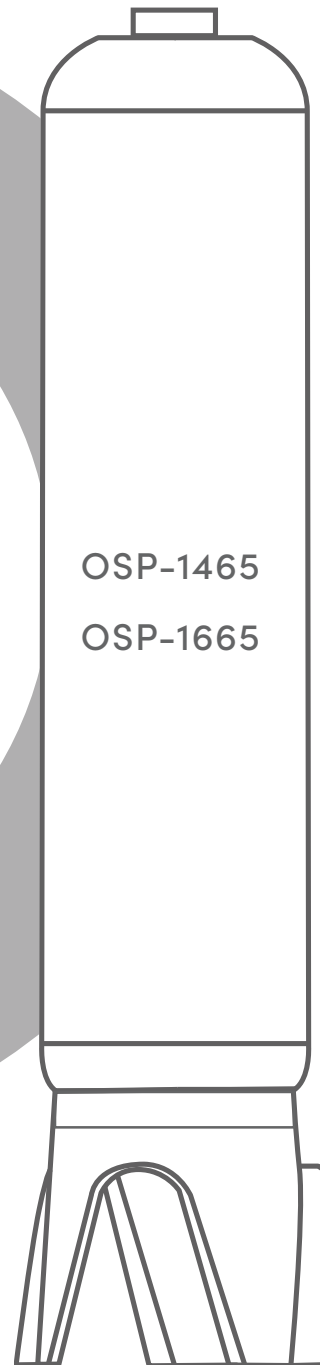
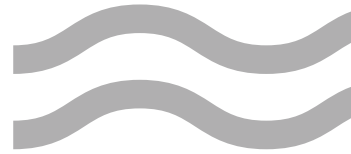




OneStop⁺™

Technical Data & Operating Instructions



Chemical-free, salt-free,
scale prevention, and
heavy metals reducer



INTRODUCTION AND NOTES

OneStop+™ ANTI-SCALE SYSTEM

INTRODUCTION

The One Stop+ system protects from scale formation on internal and external plumbing surfaces. Additionally, it reduces heavy metals such as copper, lead, mercury, zinc, and cadmium. It can be installed at the point of entry to a building to treat both hot and cold water, or it can be located directly before a water heater, boiler, or other water using device that requires protection from hard water.

One Stop+ prevents scale by transforming the normal dissolved hardness minerals into undissolved crystal microparticles. These crystals stay suspended in the water and have a greatly reduced ability to react and attach to surfaces as dissolved hardness does. Therefore the problem of internal build-up of scale in pipes, water heaters, boilers, espresso and coffee machines, fixtures, and glass is greatly reduced.

One Stop+ is not a water softener – Water treatment chemistry (e.g. antiscalants, sequestrants, etc.) will most likely have to be changed to be compatible with One Stop+ treated water. Laundry and warewashing chemistry will likewise require adjustments.

OneStop+ BENEFITS

- Chemical-free scale prevention. Cost savings and environmentally friendly benefits.
- Simple installation and virtually maintenance-free.
- No electricity, no salt, no regeneration or backwash, no wastewater, completely self-contained.
- Improves the efficiency of boilers and other water-using appliances.
- Reduces heavy metals such as copper, lead, mercury, zinc, and cadmium.
- Reduces existing limescale deposits.
- Compatible with all on-site and community wastewater treatment systems.
- Not subject to water softener restrictions and “bans”.
- OneStop+ retains essential minerals. Its treated water has no added sodium, is safe to drink, and is well suited for use in food and beverage preparation.

Using a OneStop+ system with other water treatment equipment

Due to the unique properties of OneStop+, there are some unique requirements for using OneStop+ in conjunction with filtration or other forms of water treatment.

1. OneStop+ must be the last stage in the treatment chain. Do not install filters after OneStop+ or before any devices for which scale prevention is required. POU filters, e.g., carbon or RO, are exempt from this requirement.
2. Do not apply phosphate or any other antiscalant before or after OneStop+.

An important note about iron and manganese in the water supply

Iron and Manganese

Like conventional water softening media, OneStop+ needs to be protected from excess levels of certain metals that can easily coat the active surface, reducing its effectiveness over time. Public water supplies rarely, if ever, present a problem, but if the water supply is from a private well, confirm that the levels of iron (Fe) and manganese (Mn) are less than 0.3 ppm and 0.05 ppm respectively. If water quality is unknown, a water analysis is advisable to understand the water chemistry.

Cautions

- Do not let the system freeze. Damage to the tank may result.
- System must be operated in a vertical position. Do not lay it down during operation. The system may be placed horizontally for shipping and installation but must be operated in the vertical position.
- Install the system so that it is level, because level surface because the system operates in an upflow, 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.

Notes to the installer

The OneStop+ system differs from a conventional softener or media filter in a number of key respects.

- The cartridge is light and only partially filled with media, this is normal. The upflow operation of the system requires a lot of freeboard to allow the bed to fully fluidize.
- Please see the "an important note about iron and manganese in the water supply".
- Please see the note about "Using OneStop+ with other water treatment equipment".



TECHNICAL DATA AND COMPONENTS

OneStop+™ ANTI-SCALE SYSTEM

EQUIPMENT SPECIFICATIONS

OneStop+ systems are completely self-contained. The system is shipped with the OneStop+ media packaged separately in buckets. The OneStop+ media should be loaded into the tank before installation. A simple inlet and outlet connection are all that are required for installation. Please review operating pressures, temperatures, and water chemistry limitations to ensure compatibility.

Specifications

Inlet Connection	2" PVC Socket
Outlet Connection	2" PVC Socket
Temperature	4° ~ 49°C / 40° ~ 120°F
pH	6.5 ~ 8.5
Hardness (Maximum)	1300 ppm
Ferrous Iron, Max	0.3 ppm
Manganese, Max	0.05 ppm
Chlorine, Max*	<3 ppm
Water Pressure	Min: 1 bar (15 psi) Max: 10.5 bar 150 psi
Calcium Sulphate (CaSO ₄)	≤ 300 ppm treat before OneStop+
Phosphate (PO ₄)	< 0.3 ppm: Activated carbon prefiltration recommended > 0.3 ppm: Activated carbon prefiltration require
Oil & Polyphosphates	Treat before OneStop+
Hydrogen Sulfide	Treat before OneStop+

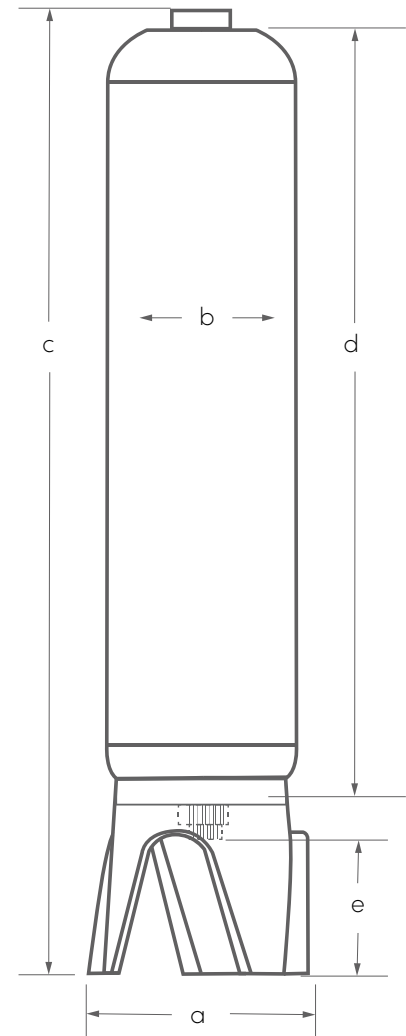
Mechanical Specs

	OSP-1465	OSP-1665
Dry Weight (with OneStop+ Media) (lbs. / kg)	74 / 33.6	105 / 47.5
Media Volume (L)	12.5	20

Dimensions (cm/inches)

	OSP-1465	OSP-1665
a	36 / 14.2	40 / 15.7
b	37 / 14.3	41 / 16.3
c	190 / 75	190 / 75
d	165 / 65	165 / 65
e	18 / 7	18 / 7

Note: Minor dimensional variation may occur



Note: The overall height and the height of the inlet fitting may vary due to material variations and assembly tolerances. Please allow additional clearance above the tank for making connections.

Anti-Scale System

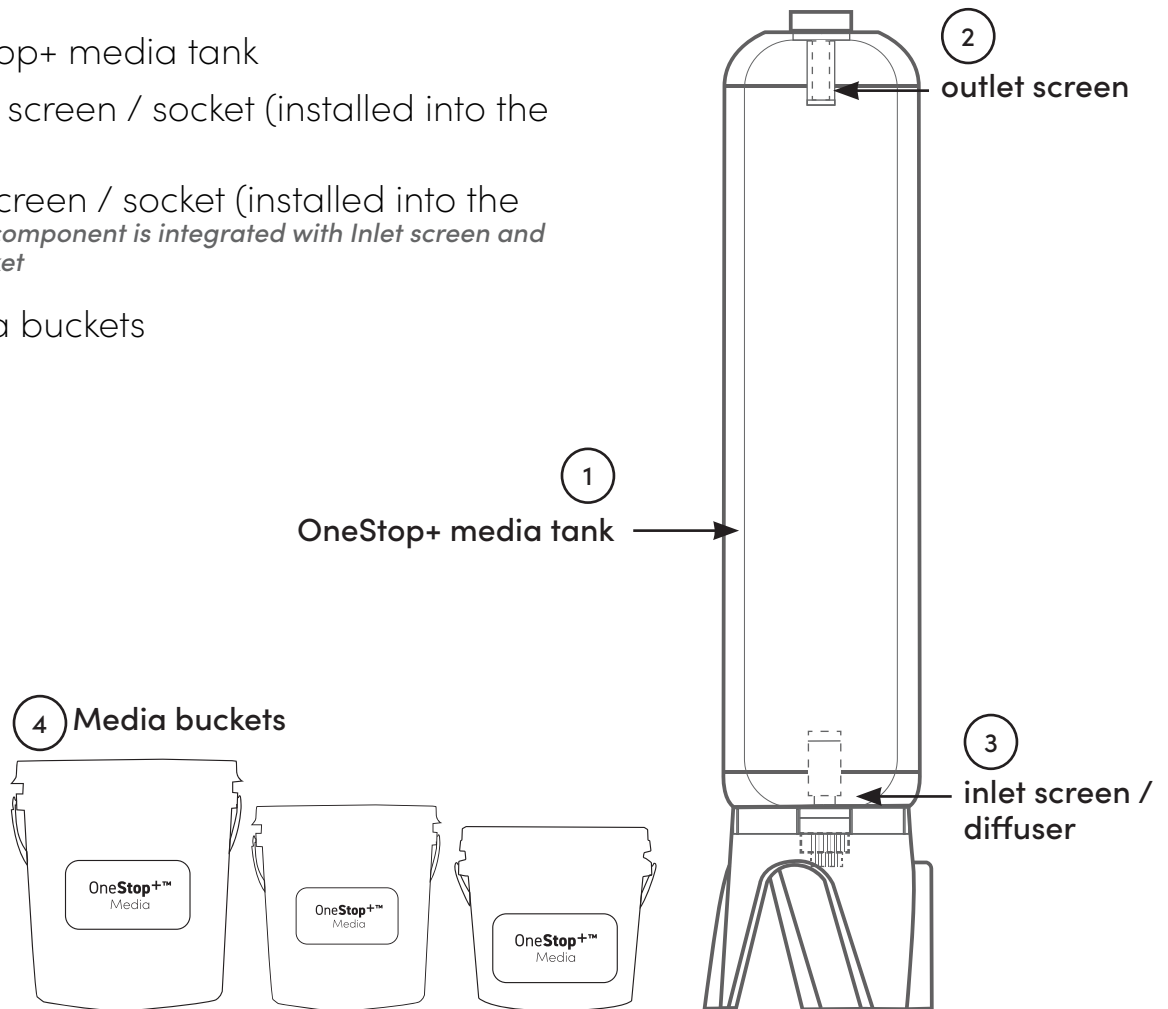
OneStop+™ COMPONENTS

#1 OneStop+ media tank

#2 Outlet screen / socket (installed into the tank)

#3 Inlet screen / socket (installed into the tank), *the component is integrated with Inlet screen and 2" union socket*

#4 Media buckets



Maximum Service Flow (gpm / lpm) vs Water Temperature

Continuous Duty Systems :

System	40°F / 4.4°C	45°F / 7.2°C	50°F / 10°C	55°F / 12.8°C	60°F / 15.6°C	65°F / 18.3°C	70°F / 21.1°C
OSP-1465	40/151	44/167	48/182	50/189	50/189	50/189	50/189
OSP-1665	48/182	54/206	60/226	63/238	67/254	74/279	80/203

Intermittent Duty Systems :

OSP-1465	50 gpm / 189 lpm at all temperatures
OSP-1665	80 gpm / 303 lpm at all temperatures

Note: Intermittent duty is defined as less than 2 hours of Maximum Flow per 24 hour period. Higher Flow rates can be achieved by combining systems in an array.



INSTALLATION MANUAL

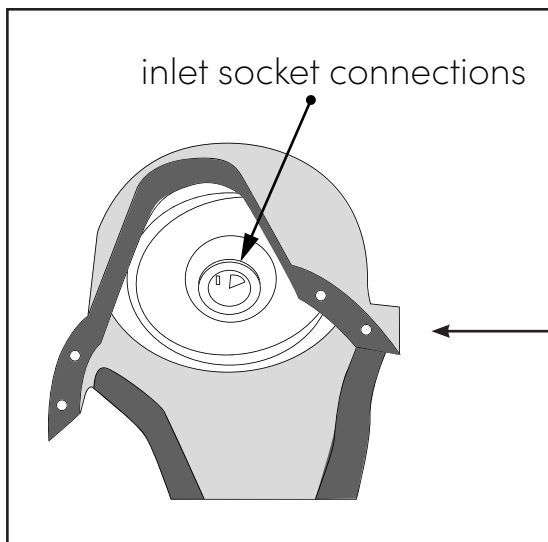
OneStop+™ ANTI-SCALE SYSTEM

INSTALLATION INSTRUCTIONS

1. The systems and media are shipped separately. Open the top outlet socket to load the media. Reattach the socket after the media is loaded and hand tighten. **Do not overtighten.**

Lay the tank down and check the inlet socket connection (bottom) of the tank. (See Fig. 1) It is common for it to loosen during shipment.

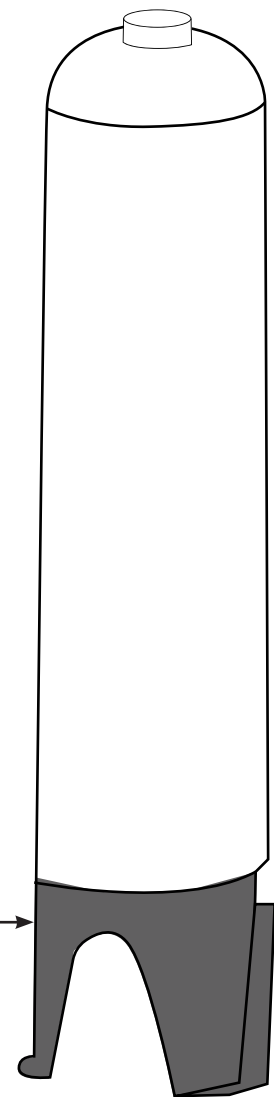
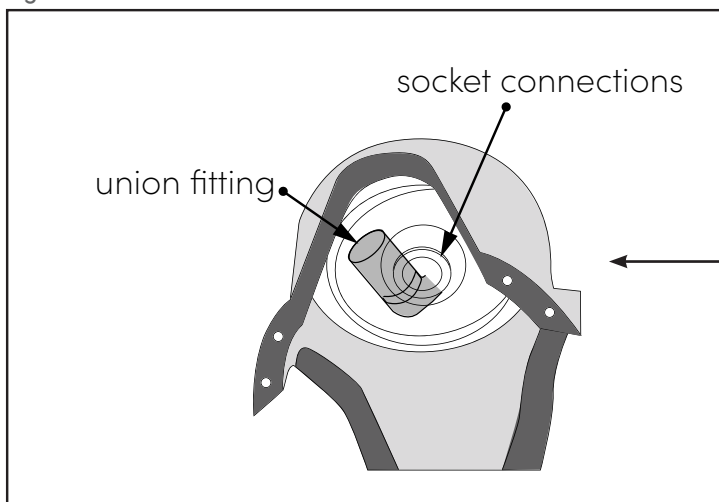
Fig. 1



2. Connect a union fitting and elbow to the inlet socket connection (bottom). (See Fig. 2)

The unions are not threaded and piping must be connected with PVC adhesive glue.

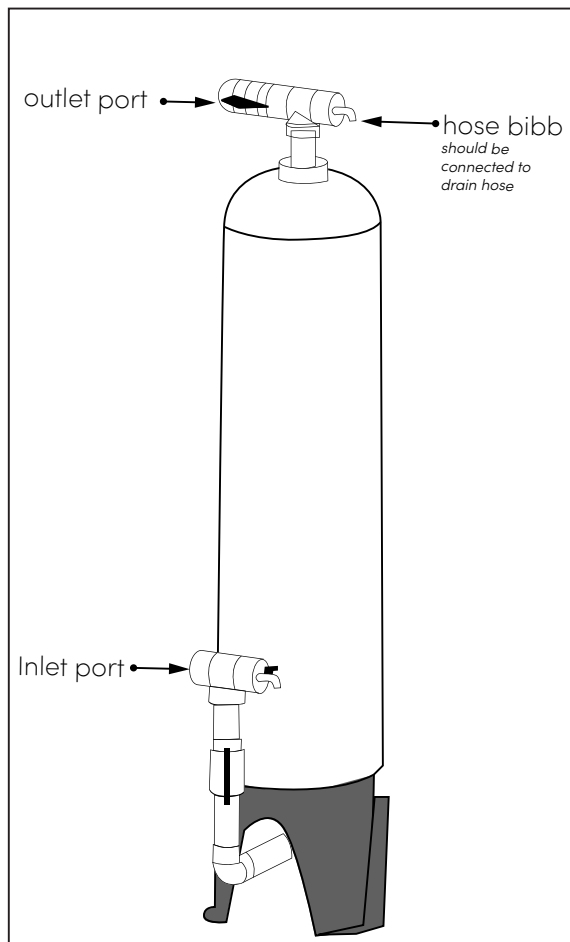
Fig. 2



INSTALLATION INSTRUCTIONS

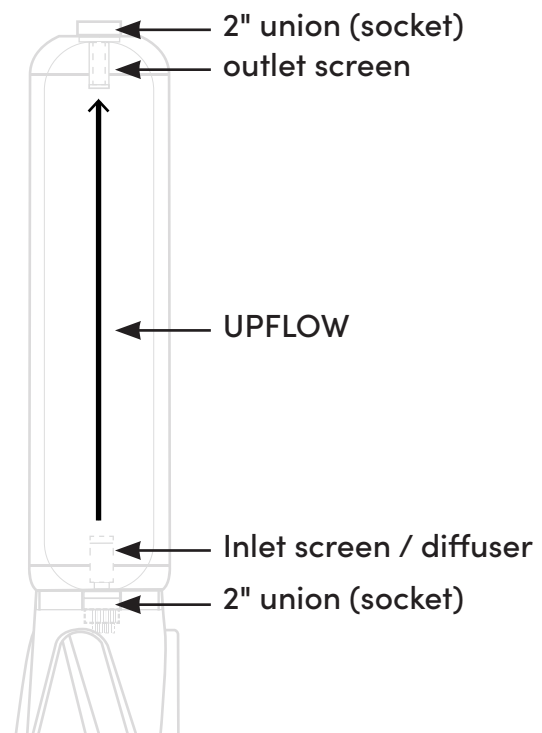
3. Connect the inlet and outlet plumbing according to your preferences and applicable local codes. Include sample/drain ports with hose bibb connections on the inlet and outlet piping to facilitate startup and service. (See Fig. 3)

Fig. 3



Important Notes

1. We recommend the installation of a dual-union ball valve on the inlet and outlet to isolate the tank for servicing.
2. A full bypass should be installed so that the full-service flow can be routed around the system as needed for servicing.
3. The OneStop+ system operates in the UPFLOW mode which is the opposite of a conventional softener. The inlet is on the bottom, the outlet on the top.





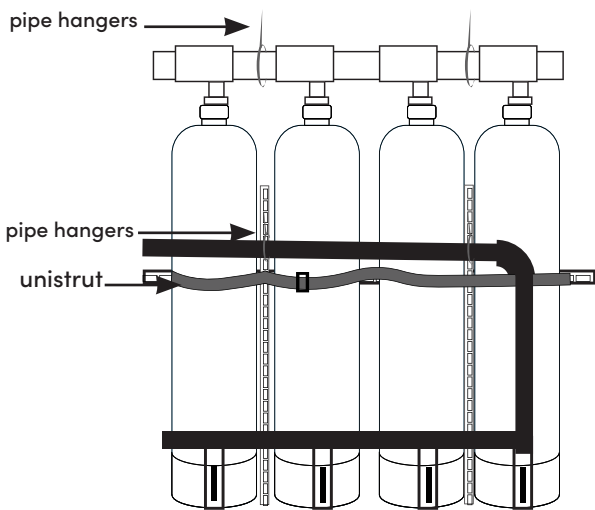
INSTALLATION MANUAL

OneStop+™ ANTI-SCALE SYSTEM

INSTALLATION INSTRUCTIONS

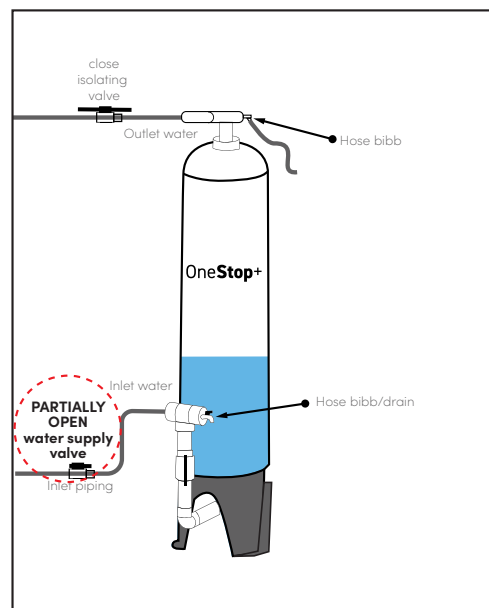
Warning

The full weight of the piping and valves must be supported by unistrut, pipe hangers or other means. The tank connections can not support the weight of the piping. This photo from a multi-tank system installation shows properly supported piping.



2. Slowly / partially open the supply water ball valve. Allow the tank to slowly fill with water. (See Fig. 2.1) When a steady stream of water appears at the drain, close the supply valve. (See Fig. 2.2)

Fig. 2.1



Start up

1. Connect a hose to the hose bibb on the outlet of the tank. Run the hose to a drain. (See Fig. 1)

Fig. 1

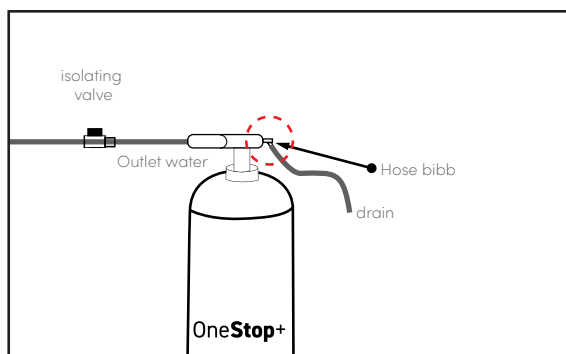
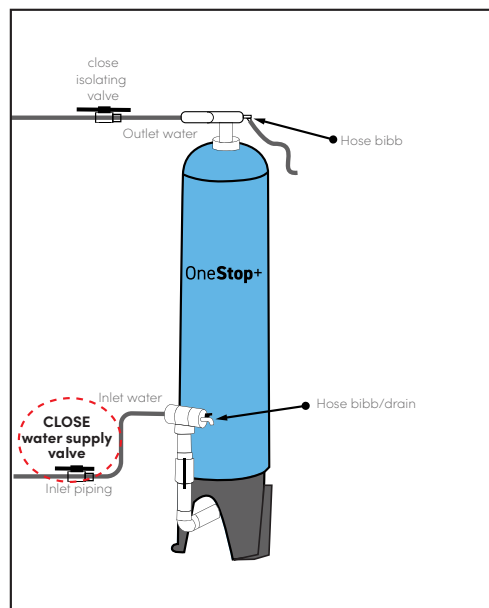


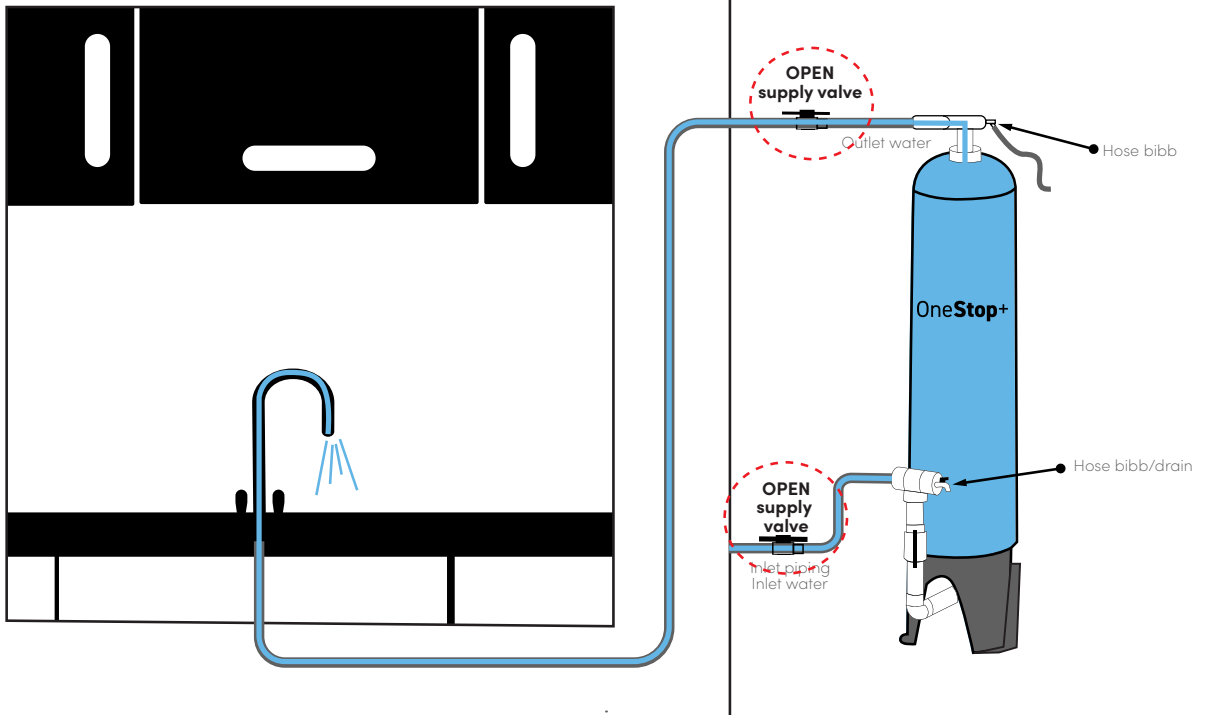
Fig. 2.2



INSTALLATION INSTRUCTIONS

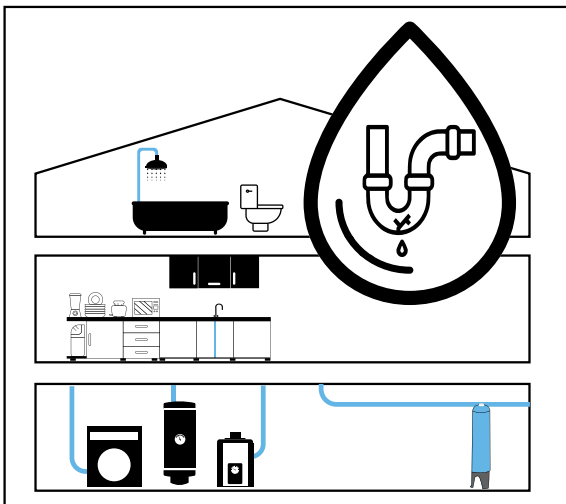
- Open the inlet and outlet valves on the system. Transfer the bypass valves from Bypass to the Service position. Open a nearby faucet downstream from the OneStop+ system to relieve any air. (See Fig. 3)

Fig. 3



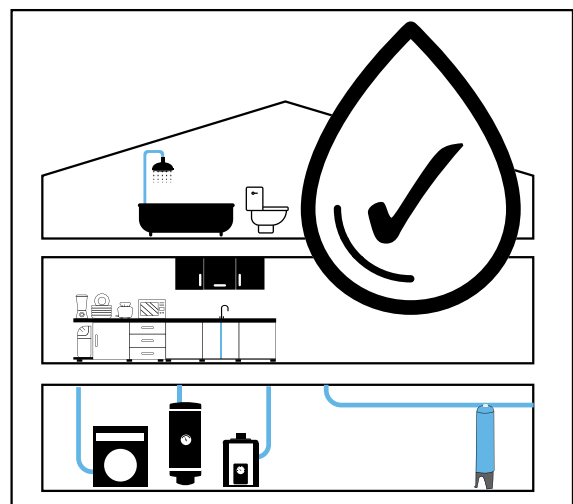
- Check for leaks. Repair as needed.

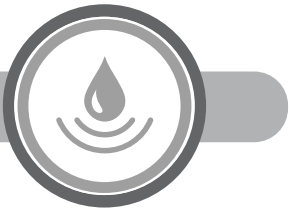
Fig. 4



- The system is now ready for use.

Fig. 5



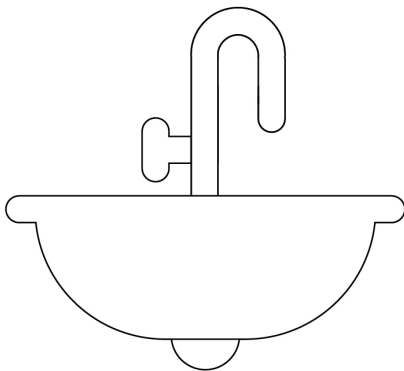


INSTALLATION MANUAL

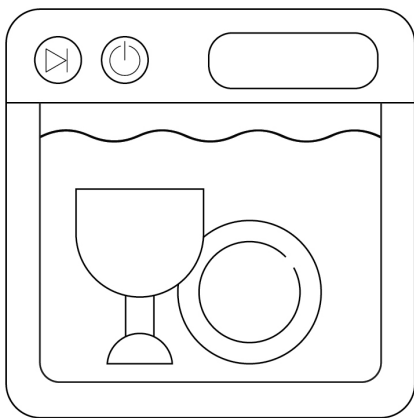
OneStop+™ ANTI-SCALE SYSTEM

A NOTE TO THE HOME OWNER

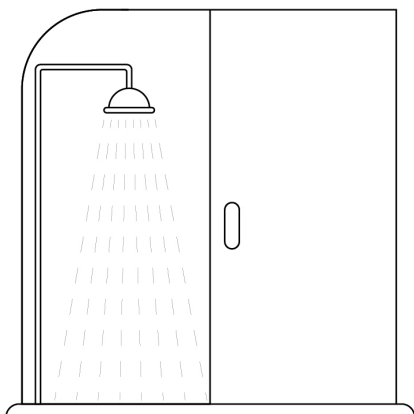
Your OneStop+ system will improve the properties of water throughout your home. Here are some things to expect and some recommendations for maximizing the benefits and your enjoyment of OneStop+.



Sinks and fixtures - reduced spotting. If water is allowed to evaporate off a surface, small spots may be left behind. If wiped off frequently, the spotting should not require any more than a wet cloth or sponge to remove. No harsh chemical should be required as with typical hard water spotting.

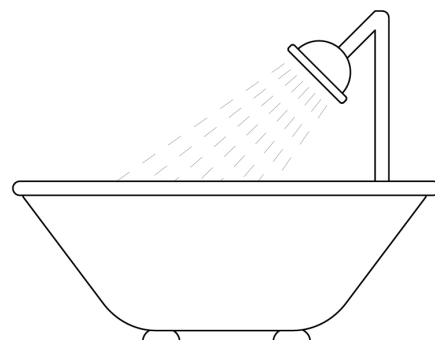


Dishwasher - Spotting on dishes and on the surface of the dishwasher should be greatly reduced. We recommend that you immediately reduce the amount of dishwashing detergent by approximately 50% as compared to hard water use. Dishwashing detergents low in phosphates are highly recommended as they are better for the environment and phosphates can cause spotting. The use of a rinse aid may be advised.



Shower doors and tiles - should have reduced spotting. When water evaporates off a surface, small spots may be left behind. These spots should be easy to remove with a damp cloth or sponge. In very hard water areas treating the shower glass with Rain-X 2 in 1 glass cleaner, or equivalent, will further reduce cleaning requirements.

In the bath you should notice that soaps and shampoos lather more than with untreated water. Soaps and shampoos will also rinse off much easier and faster than they would with traditional soft water. We recommend the use of modern soaps for the best results.



LIMITED WARRANTY

Global Water Solutions warrants the OneStop+ system as follows:

- The Tank is warranted to be free of defects in materials and workmanship for 5 years from the date of original installation.
- The Head is warranted to be free of defects in materials and workmanship for 5 years from date of original installation.
- The OneStop+ media is warranted for performance for a period of 2 years from the date of the original installation.

Conditions

1. The OneStop+ system must be installed and serviced by an authorized Global Water Solutions dealer, or other entity approved by Global Water Solutions.
2. Any component failure must not result from abuse, fire, freezing or other acts of nature, violence, or improper installation.
3. Equipment must be installed and operated in compliance with the local plumbing codes, and on an approved water supply.
4. Equipment is limited to use at water pressures not to exceed 10 bar / 150 psi and temperatures not to exceed 49°C / 120°F.
5. Water supply must not exceed 3.0 ppm chlorine. For water supply exceeding 3.0 ppm chlorine, pretreatment is required. (Please contact your water treatment specialist.)
6. Information, including model number, serial number, and date of installation, must be provided for any claims pertaining to equipment in warranty.
7. Defective parts are subject to inspection by either Global Water Solutions or any authorized representative before final commitment of warranty adjustment is made.
8. Global Water Solutions reserves the right to make changes or substitutions in parts or equipment with material of equal quality or value and of then current production.

Limitations

Our obligation under this warranty with respect to the tank or valve is limited to furnishing a replacement for, or at our option, repairing any part or parts to our satisfaction that prove defective within the warranty period stated above. Such replacement parts will be delivered to the owner F.O.B. nearest factory, at no cost, excluding freight and local labor charges, if any. Our obligation under this warranty with respect to the OneStop+ media will be limited to furnishing a replacement for the media within two years from date of original installation. Such replacement media will be delivered to the owner F.O.B. nearest factory, at no cost, excluding freight and local labor charges, if any. Damage to the media due to chlorine, other oxidizers or fouling or any other operation outside of the limits shown under Specifications, is not covered by this warranty. Global Water Solutions shall not be liable for freight, handling or labor charges, or consequential damages.

Where **Water** Gets **Better**