

Instructions for Installing and Maintaining ICS Series Cartridge Filter Systems:

Thank you for purchasing your salt free water conditioning system. These instructions are meant for those who are experienced water treatment professionals or plumbers. There are no instructions for those without adequate plumbing experience. If you are a home owner, please consider hiring your local water treatment professional or an experienced plumber to install your ICS System. Once your ICS System is installed a simple filter change is all that is required to maintain peak operating condition.

Notes and Warnings:

- Follow local plumbing codes and good plumbing practices.
- Do not use the filter wrench to tighten housings to caps, simply snug the housing to cap by hand for the O-ring to seal.
- Do not use petroleum based products to lubricate the O-ring. Use only silicon lubricant PN: SIL-LUBE (included with ICS assembly).
- Do not use any type of thread sealant or tape on the threads of the sump to cap. If a leak develops replace O-ring and lubricate.

1) Location: Locate your ICS Filter Assembly on a wall near your main supply line. Total weight of loaded assembly with water can be over 50 lbs. May be located outdoors out of direct sun and protected from freezing conditions. Protect wall and floor from water that may be spilled during installation and when changing cartridges. Provide at least 12” of space between below the ICS system.

2) Installation:

- a) Mark housings with installation date. Remove cartridges note which housing cartridge comes from.
- b) Mount on a solid and plumb surface making sure the ICS is level using anchoring devices designed to hold at least 100 lbs.
- c) Install valves on the inlet, outlet (marked on housing cap) and BDV (bottom drain valve) to enable control of water during installation and maintenance.
 - i) Other installation considerations;
 - Install a bypass assembly around the ICS System (see installation diagram).
 - Install a 0-100 psi pressure gauge on either side of the Housing Assembly. This will help you know when to change filters.
 - Connect ¼” tubing to the outlet of the BDV that is long enough to reach a bucket placed on the floor.
 - d) Connect plumbing to the ICS System and turn off all water valves.
 - e) Check for leaks;
 - i) Close outlet and BDV valves.
 - ii) Bleed air and fill with water.
 - While pressing red PRV on top of system slowly turn on water inlet valve to let air escape, release PRV when air is gone.
 - iii) Check for leaks repairing any found.
 - If there is a leak where the housing meets the cap;
 - Turn off water valves and relieve pressure by pressing the PRV and drain by opening BDV.
 - Loosen the leaking housing (may require a wrench), check O-ring for damage and groove for debris then hand tighten only.
 - Close BDV.
 - Repeat e) above to relieve air and check for leaks again. If leak continues replace O-ring (lubricate with silicon grease only).
 - f) Install Cartridges;
 - i) Drain housing(s)
 - Turn off water valves and relieve pressure with PRV.
 - Empty housing using BDV if present and PRV. Remove housing with wrench.
 - ii) Disinfect housings prior to installing cartridges;
 - Thoroughly wash and rinse your hands.
 - Wipe inside with clean cloth and diluted bleach.
 - Close BDV.
 - iii) Install filter cartridges into housings;
 - Remove protective wrap on cartridge(s) and note which housing(s) each cartridge goes into.
 - Install cartridges into housings.
 - Install housing with cartridge in the specified order (**do not use wrench – Hand-Tighten Only**).
 - Bleed air and fill with water (see 2)e) above). If unit is Valve-In-Head style, slowly rotate handle on top of housing to ON position.

- g) Start up your ICS system and ready for use.
- i) Open outlet valve, fully open a downstream tap and run water until filter fines and air is removed.
 - ii) Note and record the downstream tap opened and the pressure difference between the pressure gauges when water is flowing. This is your initial delta P (differential pressure). With use, the delta P on some filters may widen indicating filter needs changing. For the most accurate delta P fully open the same tap each time you record delta P.

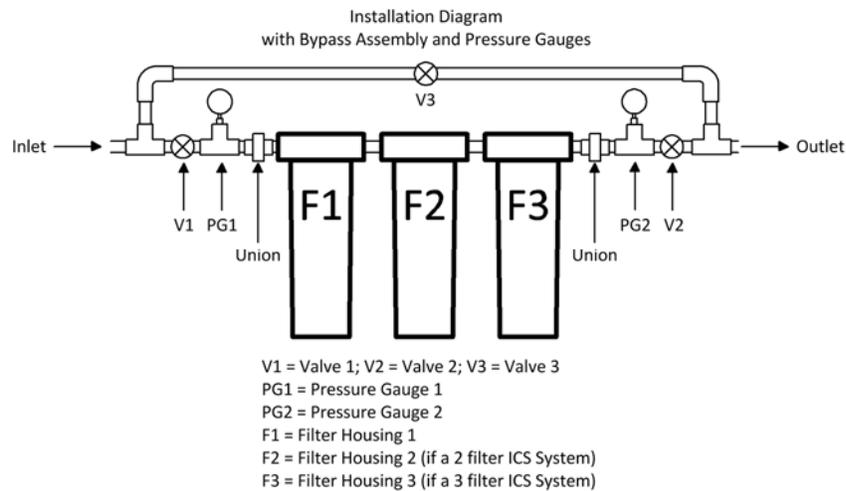
3) Maintenance:

- a) Inspect and record delta P when cartridges are new and on a periodic basis (see 2)g) above). Periodically inspect for any leaks and repair as needed.
 - i) Change filter cartridges; Typical and maximum filter changing frequency is every 12 months; Water quality and volume treated may require more frequent changes or;
 - ii) Change when pressure difference is 5 to 7 psi above the difference when cartridge is new as measured in step or;
 - iii) Change when soap suds are not greater in treated water when compared to untreated water or;
 - iv) Change when water spots are no longer easy to clean or;
 - v) Change when taste, odor or staining re-appears
 - vi) Mark your calendar to remind you to change your cartridges again in 1 year. Inquire about our Filter Change Reminder Service.

4) Order a new cartridge refill kit:

Always keep a spare cartridge or set of cartridges on hand so you will have them the next time your cartridges need changing.

Life’s Short – Enjoy Your Water; Consider our Auto Reminder or Auto Fill Programs.



ICS System	Replacement Filter Kit	Replacement O-Ring	Replacement Wrench	Bottom Drain Valve
ICS-A	ICS-AK	P-151122	P-SW-4	ICS-BDV0404
ICS-B	ICS-BK	P-151122	P-SW-4	ICS-BDV0404
ICS-H	ICS-HK	P-151122	P-SW-4	ICS-BDV0404
ICS-IB	ICS-IBK	P-151122	P-SW-4	ICS-BDV0404
ICS-P0523	ICS-P0521K	P-151121	P-SW-1A	X
ICS-P0525	ICS-P0521K	P-151121	P-SW-1A	X
ICS-P0527	ICS-P0521K	P-151121	P-SW-1A	X
ICS-P	ICS-PK	P-151122	P-SW-4	ICS-BDV0404
ICS-PH	ICS-PHK	P-151122	P-SW-4	ICS-BDV0404
ICS-S5	ICS-S5K	P-151122	P-SW-4	ICS-BDV0404
ICS-SI	ICS-SKP	P-151122	P-SW-4	ICS-BDV0404
ICS-ST	ICS-STK	P-151122	P-SW-4	ICS-BDV0404
ICS-TO	ICS-TOK	P-151122	P-SW-4	ICS-BDV0404