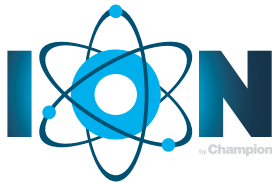


Champion®

The Dishwashing Machine Specialists

Installation and servicing instructions with specifications
for the **ION by Champion** Scale Prevention System
116234, 115683, 115661, 116235, 115684, 115685, 115686

ION by CHAMPION SPECIFICATIONS



Female Pipe Thread (FPT) On Each End



HOUSING MATERIAL: STAINLESS STEEL

Water Flow Rate			
Model	GPM	LPM	End Connection
116234	0.1 to 1.32	0.4 to 5.0	1/4" FPT
115683	0.4 to 2.3	1.5 to 8.7	1/2" FPT
115661	2.2 to 4.7	8.3 to 17.8	3/4" FPT
116235	4.3 to 9.0	16.0 to 33.6	1" FPT
115684	7.3 to 16	28 to 61	1-1/4" FPT
115685	15 to 35	57 to 132	1-1/2" FPT
115686	36 to 53	136 to 201	2" FPT

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INSTALLATION INSTRUCTIONS

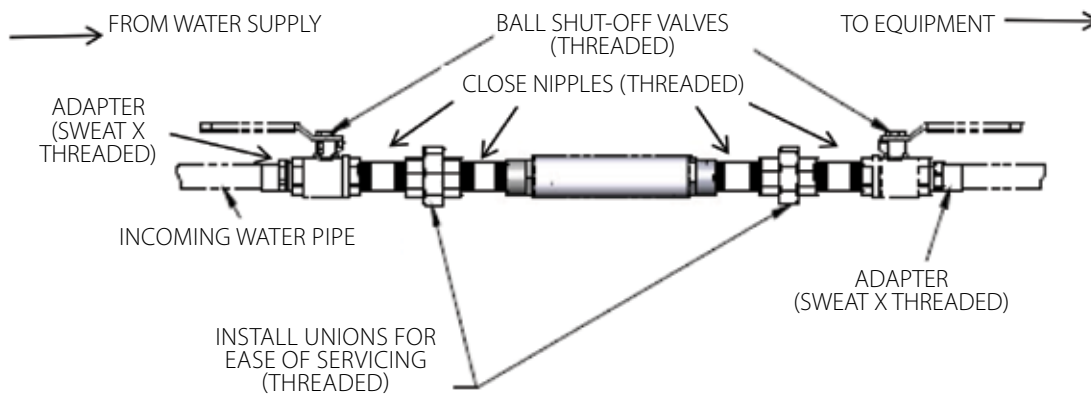
WELCOME TO THE ION by CHAMPION WATER CONDITIONING SYSTEM

Before installation, please read all steps.

Installation should always be made by a licensed and bonded plumber or contractor or certified installer. Install as close as possible to the water meter or pump (but not closer than five (5) pipe diameters from the pump). The ION by Champion unit is designed to be non-directional – **there is no preferred flow direction**. When the ION by Champion is installed in a pressurized piping system, the unit can be installed either horizontally or vertically with equally good results. If the ION by Champion is installed in a **non-pressurized** piping system, it should be installed in the vertical position (with the water flowing from the bottom upward), this insures full contact between the flowing water and the catalytic core of the ION by Champion. These instructions apply to all ION by Champion Stainless Steel housings.

Install the ION by Champion unit on the incoming water supply line in a location between the water supply and equipment that is easily accessible for the annual cleaning.

For dishwashers, install the ION by Champion unit in a location that is before any filters, and before any soap or detergent is added to the water. For almost all equipment, install the ION by Champion **before** any filters. The only time a ION by Champion is installed after a filter is for a filter that removes iron (Fe) from the water.



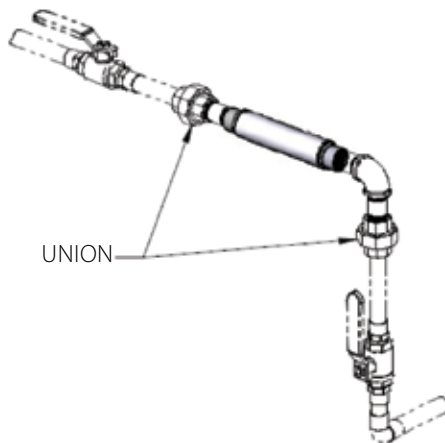
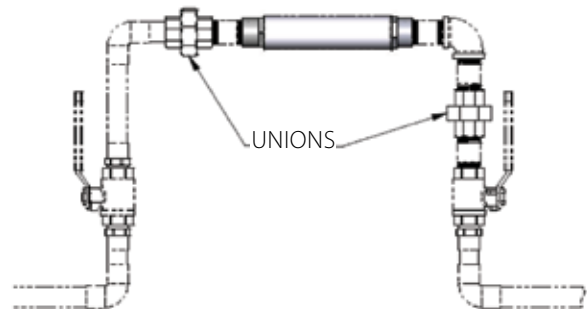
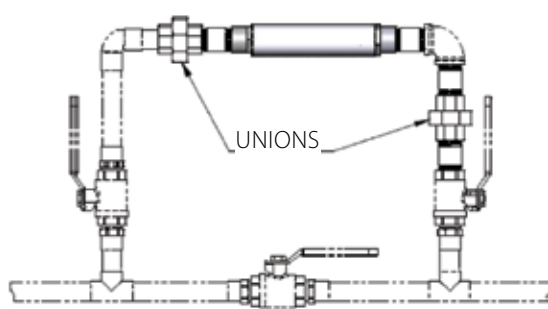
1. Install the ION by Champion on clean equipment. Install into a section of piping that is straight, without kinks, bends, or heavy corrosion. Use caution to not drop the ION by Champion unit, as the core metals are brittle and can shatter. Remember to install unit with unions, so that it can be easily removed for annual cleaning.
2. Before cutting the pipe, be sure to turn off the water at the water meter or main supply line. Open a cold water faucet to allow the system to drain and relieve any pressure in the water system.
3. Use Teflon pipe tape on all ION by Champion threaded fittings. Pipe gunk is **not** approved (and may harm the operation of the unit). As a general rule, hand tighten threaded joints first. If a threaded joint leaks, tighten gradually with a wrench until leak stops.
4. After installation, open the water supply shut-off valve slowly to allow the air to escape. Wait 30 seconds or until all the air has exited the piping system. Then open the water supply valve all the way and let the water run for a few minutes.
5. The water is now conditioned and the ION by Champion will immediately begin removing scale from the internal portion of the water supply piping. If there is an existing heavy scale build-up, the incoming water may be cloudy for a few days. This is a normal occurrence. Initially, it may also be necessary to increase the cleaning cycles on all screened water outlets as the scale is being removed. It is expected that as the line is cleaned out, the need to clean these screens/aerators will be reduced.

Suggested Bill of Material (BOM) to install your new ION by Champion Water Conditioner.
All fittings to be sized to the incoming pipe diameter and ION by Champion Water.
Conditioner pipe diameters.

- 2 each ball shut-off valves (threaded)
- 2 each adapters (sweat x threaded)
- 4 each close nipples (threaded)
- 2 each unions (threaded)
- 1 each roll of Teflon pipe tape

Please note this BOM may not fit all installations. Consult with your licensed and bonded plumber, or contractor.

ALTERNATE INSTALLATIONS FOR EASE OF SERVICING



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CHAMPION SERVICING / CLEANING INSTRUCTIONS

There is no standard cleaning interval for the core of the ION by Champion Water Conditioning unit because water chemistry varies greatly from region to region. Annual cleaning is recommended for waters meeting EPA drinking water standards. Should your water supply be outside these EPA specifications, check the core more frequently to see if the core needs to be cleaned and clean as needed. ION by Champion recommends removal of the core and inspection at least annually to see if cleaning is necessary.

See Figure 2 below

1. Turn water shut-off valves to off.
2. Carefully, remove ION by Champion unit from line after securing water supply.
3. Disassemble the ION by Champion unit, and remove core from the outer housing. Handle with care, core is brittle and will fracture if mishandled such as dropping.
4. If needed, assemble the housing without the core installed inside, and install the housing in the water piping system. This option allows continued water supply while cleaning the core.
5. Soak core in nickel-safe ice machine cleaner, or CLR, or Lime-A-Way or equivalent using all safety and handling precautions on label of cleaner.
6. After core has soaked for a sufficient amount of time (typically 10 to 15 minutes) to loosen any deposits, safely remove core from solution and rinse thoroughly with water. If necessary, use a nylon bristle brush to clean any remaining deposits from the core. The core when clean should have a silvery gray finish; if not, repeat step #6 until the core is clean so water can make contact with the metal core. It is important to the operation of the ION by Champion unit to **not** use any metallic bristle brush. **Do not soak core longer than necessary.** The cleaning solution typically turns jet black. This is to be expected.
7. Reassemble the ION by Champion unit by easily placing the clean core into the outer housing. Be sure O-rings are in place and seated properly. Note models 115685 and 115686 do not have o-rings or spacers. Install ION by Champion unit back into the water supply line.
8. Slowly turn the water shut-off valves to on. Slowly turn on the water faucet or water spigot until all air in the system is removed, allow the water to run for a few more minutes. Your conditioned water again flows freely. You have now completed the servicing of the ION by Champion unit.

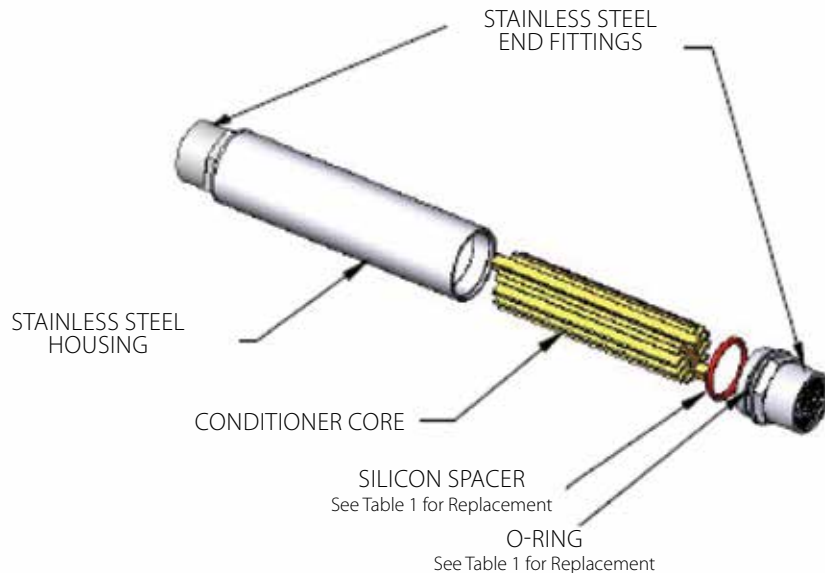


Table 1

Conditioner	O-Ring (Buna)	Spacer (Silicone)
116234	?	?
115683	116200	116201
115661	116202	116203
116235	?	?
115684	?	?
115685	N/A	N/A
115686	N/A	N/A

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