

123FILTER[®] ELECTRONIC WATER CONDITIONER

MODEL: ED2000

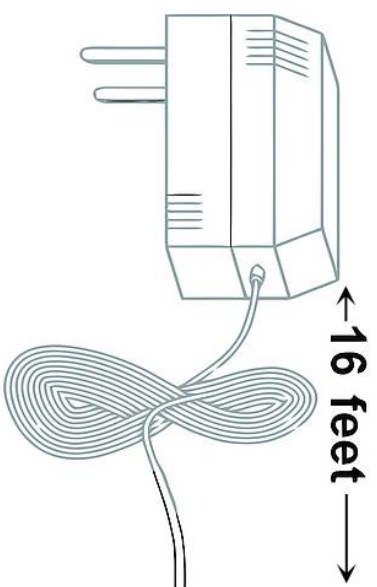
The revolutionary environmental technology that conditions hard water and reduces scale build-up. It is chemical free thus environmental friendly. It is easy to install and effectively reduces scale build-up in plumbing, nozzles, valves, and home appliances. To gain the most benefit and make this chemical free solution complete, it is ideal to use it with Iron-reducing Whole House Filter, Shower Filter and Under-sink Water Filter. The total cost is about the same or even less than a Salt-based Water Softener.

Please read this manual carefully and completely before proceeding with installation.

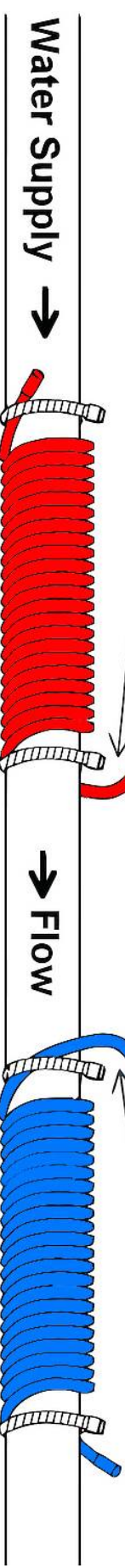
Please retain the manual for future reference.

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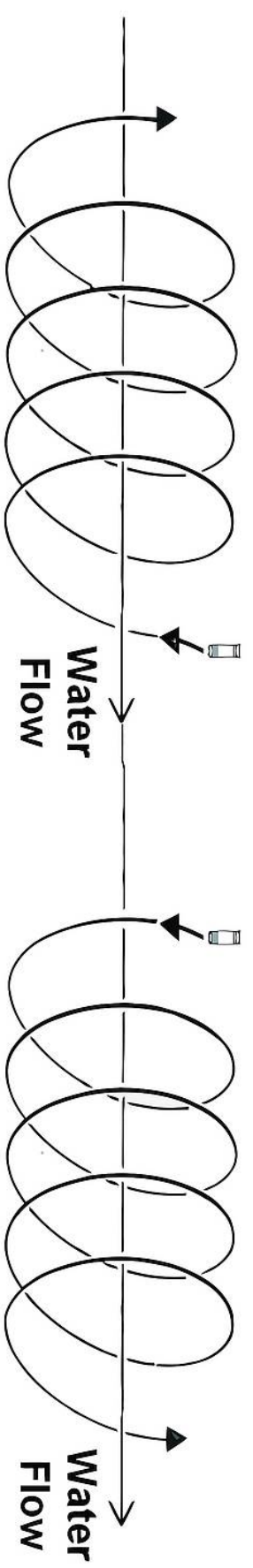
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Wrap the red coil UNDER the pipe



Wrap the full length of each coil around the pipe in their respective directions. Make sure the coils are wrapped snug against each other, leaving no space between the coils on each wrap.



BEFORE INSTALLATION

Please read the following information carefully and completely before installation.
The product dimensions measure 12 x 9.5 x 2.5 inches, with each coil 55 inches long.
The operating voltage is 110 - 120V.

CUSTOMER SATISFACTION AND WARRANTY REGISTRATION

The ED2000 unit comes with a guarantee of 12 months from the date of the original purchase against manufacturing and material defects. Details of warranty are available at the end of this manual. In order to activate your warranty please fill out and mail the registration form available at the back of this manual to our warranty department today. This will allow us to better assist you if you have any questions about the ED2000 water conditioning system. It also allows us to keep the ED2000 system users informed on water quality issues and new product announcements.

TESTING FOR HARDNESS AND IRON LEVELS

The hardness and iron levels can significantly impact the operation of ED2000. It's extremely important to understand the hardness and mineral level of the water before installing a water conditioning system. Minerals and hardness of the water impacts the time required to change the characteristics of the lime scale. The best way to find out the mineral level and hardness in your water is to connect with your local health authority or to take help from a water testing service.

IRON CONCENTRATION

High Iron level (insoluble and soluble) in water can deteriorate and can degrade the operation of ED2000's electrical field, decreasing its efficiency on reducing scale. Under such circumstances it's recommended to use an iron removal system to remove out the iron prior to using ED2000. If iron levels are above 0.3 ppm (parts per million) an iron removal system should always be used.

WATER HARDNESS

Definition of hardness:

(Taken from the 1992 edition of Standard Methods for the Examination of Water and Wastewater)

“Originally, water hardness was understood to be a measure of the capacity of water to precipitate soap. Soap is precipitated chiefly by the calcium and magnesium ions present. Other polyvalent cations also may precipitate soap, but they often are in complex forms, frequently with organic constituents, and their role in water hardness may be minimal and difficult to define. In conformity with current practice, total hardness is defined as the sum of the calcium and magnesium concentrations, both expressed as calcium carbonate, in milligrams per liter.”

Currently the water hardness is determined by the concentration of magnesium and calcium the water. A traditional water softener eliminates the magnesium and calcium from the water using a process known as “Ion Exchange”. Water treated with the traditional softeners will demonstrate a change in

hardness as per the present practice of computing water hardness. ED2000 does not remove any calcium or magnesium ions from the water, therefore testing the water before and after the installation of the ED2000 will not show any change in the water hardness as per the traditional methods. The effects of the ED2000 can be determined by observing the changes the treated water on scale forming areas such as: showerhead scaling, humidifier media pad scaling, scaling on cooking utensils and the quantity of soap needed for the laundry.

The table below defines the water hardness as per the Water Quality Association. You can use this table as reference to determine the hardness of your water, once the water test results are received.

ED2000 works effectively on water with a hardness level of 425 ppm or 25 gpg. For harness level above 425 ppm, it is recommended to use the ED2000 in conjunction with a traditional water softener to remove hardness and condition the water. This will minimize the salt required to eliminate the hardness and will sustain the cost saving benefits of the ED2000 water-conditioning system.

DESCRIPTION OF WATER HARDNESS	PARTS PER MILLION (PPM) OF CALCIUM CARBONATE EQUIVALENT	GRAINS PER GALLON (GPG) OF CALCIUM CARBONATE EQUIVALENT
Soft	Less than 17.1	Less than 1.0
Slightly Hard	17.1 to 60	1.0 to 3.5
Moderately Hard	60 to 120	3.5 to 7.0
Hard	120 to 180	7.0 to 10.5
Very Hard	180 and above	10.5 and above

OBSERVATION TIMETABLE

Following timetable can be observed for performance evaluation of ED2000 for the first 90 days.

Day 1:

On the day 1 you can observe that the soap lathers more easily and more effectively as the ED2000 action instantly begins to slacken prevailing scale in the cold and hot water systems.

After 1 week:

Breaking down scale on water pipes, water heater elements (immersion rod heaters) and tanks. You may observe some small particles in the water coming from the hot water tap, although most of the broken down particles will be microscopic and can't be observed by naked eye.

After 2 weeks:

Loosening of scale on showerheads, faucets, kettles can be observed. Wiping plastic, ceramic, metal and glass surfaces becomes much more easier. Soap and detergent required for bathing, cleaning and

laundrying is significantly reduced.

After 1 month:

With the loosening of scale from water heating system, it should take lesser time for heating the water. The amount of scale on pipes, faucets and showerheads should be significantly reduced.

AFTER 3 months:

Disappearance of scale from showerhead. Scaly crust in toilets is significantly reduced. No new crust should form. Depending upon the age of scaling and hardness of water it may take up to 12 weeks for these effects to appear.

Please note: The ED2000 is NOT a water softener and does not REMOVE calcium or magnesium from the water.

INSTALLATION

WHERE TO INSTALL THE ED2000

The ED2000 should be applied on the main water supply pipe through which water enters the building. This will optimize the operation of ED2000 and will ensure that the system conditions all of the water supplied to the building. If a water meter or grounding cable is used, it's recommended to install the ED2000 after the water meter or grounding cable attached to the plumbing system. The ED2000 can be used effectively on any type of water pipe; galvanized, copper, or plastic. ED2000 should be installed at least ten feet from any TV, radio or cordless telephone or any other electronic system to minimize possible interference.

HOW TO INSTALL THE ED2000

STEP1: WRAP THE COILS

Wrap the left antenna from center to left, starting **under** the water pipe. Wrap the right antenna from center to right, starting **over** the water pipe. This way ensures two coils are formed into continues counter-clockwise circles against water flow. Each coil is long enough to wrap at least 12 rounds on 3/4-inch pipe. Minimum 7 rounds are required, the more the better. Secure the wrappings with included cable ties.

STEP2: MOUNT THE UNIT ON THE WALL

Mount or hung the ED2000 on the wall using screws. For convenience, it could also be tied on water pipe using cable ties.

STEP3: PLUG IN POWER ADAPTER

The LED lights should start flashing sequentially and indicates that the ED2000 is functioning properly.

TROUBLESHOOTING

POWER SURGES AND LOCK UPS

The ED2000 water conditioner is designed to operate without any interruption, providing years of enhanced water quality. If your water quality seems to have changed check the items below to determine that your ED2000 unit is functioning correctly.

To reset the ED2000, simply switch off the unit, wait for some time and switch on the power supply. If you are residing in an area where power surges are frequent it is recommended install a surge protector on the electrical outlet that the ED2000 transformer is plugged into.

LOOSE ANTENNA WIRES

The antenna wires must be held tightly against the pipe and the coils must be pressed snugly against each other to transfer the energy into the water. If the antenna wires are loose, tighten them and also retighten the wire ties. Make sure that the antennas are wrapped in the correct direction.

FREQUENTLY ASKED QUESTIONS

HOW IT WORKS?

- Q. Does the ED2000 decrease the amount of calcium in my water?
A. No. The ED2000 does not remove calcium from your water.
- Q. Is the ED2000 effective for severely hard water?
A. The ED2000 is effective for treating water with hardness as high as 425 ppm or 25 grains. For water which is harder than this it is recommended to use a traditional water softener in addition to the ED2000. ED2000 should be mounted before the softener for best results.
- Q. Do I need more than one ED2000 for my home?
A. One ED2000 is sufficient for most homes, with water mains of 1 inch or less. For houses with water supply mains larger than 1" but less than 1.5", it is recommended to install two ED2000s side by side.
- Q. Is there any effect on water pressure due to ED2000?
A. With the reduction in scaling, ED2000 will have a positive impact on the water pressure as a side effect the water pressure will be improved.
- Q. What is the effect of ED2000 on iron content in the water?

A. ED2000 does not have any impact on the iron content of the water. For water with higher iron content (above .30 ppm), it is recommended to use an iron filter before the ED2000. iSpring Water Systems has 1-stage, 2-stage and 3-stage Whole House Water Filters that can be equipped with iron/manganese filter cartridge. iSpring also has flushable Hollow Fiber UF filter that can filter down to 0.1 micron, the physical barrier to remove most iron particles. Please contact us at (678) 261-7611 or sales@123filter.com for detail information.

Q. Will the ED2000 remove the hardness from my water?

A. No. The ED2000 is not water softener and will not affect hardness measured with a traditional test. With an electronic water conditioner the results can be measured by observing changes in scale forming areas such as shower heads, cooking utensils, and even appliances.

PLACEMENT

Q. Does the direction of water flow have any impact on ED2000?

A. No.

Q. What is the best place to install ED2000?

A. It is where the main water line that comes into the house, before it splits to the water heater or other plumbing; preferably indoors. If you need to install ED2000 outdoors, please make sure the location is waterproof and with no direct sunlight and heat.

Q. Can the ED2000 be mounted horizontally?

A. Yes. The box can be mounted in any direction, as long as the two antennas are wrapped on pipe in clock-wise and counter clock-wise direction for at least 7 rounds each.

Q. I have plastic piping in my home, can I use ED2000?

A. ED2000 is suitable for all types of plumbing, including plastic, copper and galvanized.

Q. Is it necessary to install ED2000 on a pipe?

A. Yes. The box can be tight on pipe, although it is recommended to mount the unit on the wall and wrapping the antenna around the pipe. Antenna should touch the pipe. A minimum of seven wraps per antenna are required.

Q. If I change home, can I take ED2000 with me?

A. Yes. You can easily remove the ED2000 by un-wrapping the antennas and unplugging the unit, no plumbing is required.

ED2000 WARRANTY REGISTRATION FORM

Please take a minute to fill out the form. Place in stamped envelope and mail it to the address below. Or, for your convenience, snap a photo with your phone and email it to support@123filter.com with subject "ED2000 WARRANTY REGISTION". You may also register online at www.123filter.com .

ISpring Water Systems, L.L.C.
3020 Trotters Pkwy,
Alpharetta, GA 30004

Name: _____ Order # _____

E-mail: _____ Phone: _____

Address: _____

City: _____ State: _____ Zip Code: _____

1. Do you have iron present in your water? NO Light Moderate Heavy Very Heavy

2. Had you installed an Iron filter prior to purchasing the ED2000? YES NO

3. Where did you purchase the ED2000?

4. Date purchased and Order or Invoice number

5. What is water hardness Level in grains or ppm (ppm-parts per million)?

6. Briefly describe any current water problems; scale build up, odor, taste, staining, etc...

www.123filter.com | support@123filter.com | (678) 261-7611