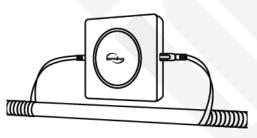
# WHOLE HOUSE

# iSpring Electronic Water Conditioner



Model: ED2000S

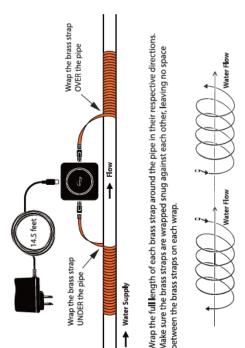
# Installation Instructions & User Manua





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# We stand behind our products

Since 2005, iSpring has been dedicated to providing high-quality drinking water to families across the United States. We provide various residential faucets and water filtration systems that purify your water in everyday life and deliver pure, healthy, and tasty water to you and your family.

At iSpring, we strive to develop products to the highest of standards and aim to make excellent drinking water accessible for all households. With affordable pricing, reliable quality, prompt delivery, and top-notch customer service, we hope to assist in bringing you great water for years to come.

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# 2 Before Installation

Please read this manual carefully and completely before proceeding with the installation. Please retain the manual for future reference.

# 2.1 Packing List

The product includes a control box, two brass straps, a power adapter, a magnetic plate, and some tape.

The control box measures 3.9 x 3.9 x 0.6 inches. Each brass strap is 59 inches long and 0.4 inches wide. The input voltage of the power adapter is AC 100 - 240 V with a frequency of 50/60 Hz. The output voltage of the power adapter is DC 24 V with a maximum current of

# 2.2 Testing for Hardness and Iron Levels

The hardness and iron levels can significantly affect the operation of ED2000S. It's extremely important to understand the hardness and mineral level of your water before installing a water conditioning system. Minerals and hardness of the water impact the time required to change the characteristics of the limescale. The best way to discover the mineral level and hardness in your water is to contact your local health authority or water testing

#### 2.2.1 Iron Concentration

High Iron levels (insoluble and soluble) in water can degrade the operation of ED2000S' electrical field, decreasing its efficiency on a reducing scale. If you have high iron levels in your water, it's recommended to install an iron removal system before ED2000S to lower the iron level. If iron levels are above 0.3 ppm (parts per million), an iron removal system should always be used.

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#### 1 Product Introduction

This iSpring Electronic Water Conditioner (Model: ED2000S) utilizes revolutionary technology that conditions hard water and reduces scale build-up. It is chemical-free and environmentally friendly. It is easy to install and effectively reduces scale build-up in plumbing, nozzles, valves, and home appliances. The following timetable can be observed for performance evaluation of ED2000S for the first 90

After 1 week: You can notice the soap lathering more easily and effectively. Scale on water pipes, the water heater elements (immersion rod heaters) and tanks break down. You may observe 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 directly.

After 2 weeks: Loosening of scale on showerheads, faucets, kettles can be observed. Wiping plastic, ceramic, metal, and glass surfaces become much easier. Soap and detergent required for bathing, cleaning, and laundering is significantly reduced.

After 1 month: With the loosening of scale from the water heating system, it should take less time for heating the water. The scale on pipes, faucets, and showerheads should be significantly reduced.

After 3 months: After 3 months, you can see the disappearance of scale from the showerhead. The 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: ED2000S is NOT a water softener and does not REMOVE calcium or magnesium from the water.

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# 2.2.2 Water Hardness

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

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"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."

The water hardness is determined by the concentration of magnesium and calcium in 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. ED2000S removes no calcium or magnesium ions from the water, therefore testing the water before and after the installation of ED2000S will show no change in the water hardness as per the traditional methods. The effects of ED2000S can be determined by observing the changes in 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. It can be used as a reference to determine the hardness of your water once the water test results are received.

ED2000S works effectively on water with a hardness level below 425 ppm or 25 gpg. For hardness levels above 425 ppm or 25 gpg, it is recommended to use ED2000S 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 ED2000S 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	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

# 3 Installation

# 3.1 Where to Install

ED2000S should be installed on the main water supply pipe through which water enters the building. This will optimize the operation of ED2000S 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 ED2000S after the water meter or grounding cable is attached to the plumbing system. ED2000S can be used effectively on any water pipe, whether

galvanized, copper, or plastic. ED2000S should be installed at least ten feet from any television, radio or cordless telephone, or any other electronic system to minimize possible interference.

#### 3.2 How to Install

#### Step 1: Install the control box

First, use the supplied tape to attach the magnetic plate to the area in which you wish to install the control box. It can be on the wall or the water pipe. However, it is recommended to install the magnetic plates close to the pipe as possible to ensure there will be enough brass straps to wrap on the pipe.

Next, put the control box on the magnetic plate. It will be attached securely onto a magnetic plate via magnetic attraction.

#### Step2: Connect the brass straps to the control box

Insert the USB plug of the left brass strap into the left USB port of the control box. Then insert the USB plug of the right brass strap into the right USB port of the control box.

# Step3: Wrap the brass straps

Wrap the left brass strap from the control box to the left, starting under the water pipe. Wrap the right brass strap from the control box to the right, starting over the water pipe.

Wrap the full length of each brass strap around the pipe in their respective directions. Make sure the brass straps are wrapped tightly against each other, leaving no space between the straps on each wrap. Secure the wrappings with supplied tapes when necessary.

Wrapping the brass straps this way ensures the formation of a continuing counter-clockwise circle against water flow. Each brass strap is long enough to wrap at least 12 rounds on a 3/4-inch pipe. Minimum 7 rounds are required, the more the better.

#### Step4: Plug-in power adapter

After plugging in the power adapter, the LED lights should flash sequentially and indicate that ED2000S is functioning properly.

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# Warranty

This Limited Warranty extends to the original purchaser of the system only. This warranty covers all Manufacturer-supplied items only that prove to be defective in material, workmanship, or factory preparation. This warranty covers parts only; all labor is excluded from this warranty, including, but not limited to, services related to the removal, replacement, installation, adjustment, maintenance, and/or repair of the unit or its components items. Excludes all non-Manufacturer labor required for any servicing of the unit, including, but not limited to, servicing related to installation, adjustment, maintenance, and repair of the unit. This warranty applies only for the first full calendar year from purchase.

Disclaimers: This Limited Warranty applies only if the system is installed, used, and maintained in compliance with all instructions and requirements enclosed with the system. This warranty will be void if unauthorized, or aftermarket components are used, or unauthorized modification and disassembly are performed.

While the testing was performed under standard laboratory conditions, actual performance may vary. The Manufacturer does not know the characteristics of your water supply. The quality of water supplies, and the amount of water you consume, may vary seasonally. Water characteristics can also change if the drinking water appliance is moved to a new location. The Manufacturer assumes no liability for determining the proper equipment to meet your requirements, and we do not authorize others to assume such obligation on our behalf.

This Limited Warranty covers no Manufacturer-supplied items that are defective due to the use of improper parts, equipment, or materials. This warranty does not cover alterations or modifications of the unit or failure of a unit caused by such alterations and modifications.

# 4 Troubleshooting

#### 4.1 Unit Reset

ED2000S water conditioner operates with no interruption, providing years of enhanced water quality. If your water quality seems to have changed, check to see if your ED2000S is functioning correctly.

To reset ED2000S, simply turn off the unit, wait for some time and then turn on the power again. If you are residing in an area where power surges are frequent, it is recommended to install a surge protector on the electrical outlet that the ED2000S transformer is plugged into.

#### 4.2 Loose Brass Straps

The brass straps must be held tightly against the pipe and the brass straps must be pressed snugly against each other to transfer the energy into the water. If the brass straps are loose, tighten them and re-secure them using the supplied tapes. Make sure that the brass straps are wrapped in the correct direction.

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This Limited Warranty does not cover malfunctions of the unit due to tampering, misuse, alteration, lack of regular maintenance, and misapplication. In addition, damage to the unit due to fire, accident, negligence, the act of God, or events beyond the Manufacturer's control is not covered by this warranty.

Incidental and Consequential Damages Limitation: The Manufacturer will not be responsible for any incidental or consequential damages owing to the failure of this unit to comply with express or implied warranties or any defect in the unit, including but not limited to lost time, inconvenience, damage to personal property, loss of revenue, commercial losses, postage, travel, telephone expenditures, or other losses of this nature. If some states do not allow the exclusion or limitation of incidental or consequential damages, you may return the system. If you keep it, you insist this exclusion STILL applies to you.

Owner's Warranty Responsibilities: As a condition of this Limited Warranty, the owner must ensure that periodic maintenance of the system is performed as described in the literature enclosed with the system. Neglect, improper maintenance, abuse, modification, or alteration of the unit will invalidate this warranty. Should your unit develop a defect or otherwise fail to perform under this warranty, contact the retailer from whom the product was originally purchased.

Implied Warranties: The implied at-law warranties of merchantability and fitness for a particular purpose shall terminate on the date one year after purchase.

NOTE: IN CASE SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, YOU MAY CHOOSE TO RETURN THE SYSTEM. IF YOU CHOOSE TO KEEP IT, YOU AGREE THAT THE ABOVE LIMITATIONS STILL APPLY TO YOU.

# **5 Frequently Asked Questions**

#### 5.1 How It Works?

Q. Does ED2000S decrease the calcium in my water?

A. No. ED2000S does not remove calcium from your water.

Q.Is ED2000S effective for severely hard water?

A.ED2000S is effective for treating water with hardness as high as 425 ppm or 25 gpg. For water harder than this, it is recommended to use a traditional water softener besides ED2000S. ED2000S should be installed before the softener for best results.

Q. Do I need more than one ED2000S for my home?

A. One ED2000S is sufficient for most homes, with water mains of 1 inch or less. For houses with water supply mains larger than 1 inch but less than 1.5 inches, it is recommended to install two ED2000Ss side by side.

O. Is there any effect on water pressure due to ED2000S?

A. ED2000S improves the water pressure as it reduces scaling within the water pipe.

Q. What is the effect of ED2000S on the iron content in the water?

A. ED2000S has no impact on the iron content of the water. For water with higher iron content (above .30 ppm), it is recommended to use an iron removal system before ED2000S.

Q. Will ED2000S remove the hardness from my water?

A. No. ED2000S is not a 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 showerheads, cooking utensils, and even appliances.

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# Warranty Registration

To register your product for the warranty, visit our website at 123filter.com and go to the "Warranty" tab.

We provide a 30-day money-back guarantee, a 1-year manufacturer warranty, and lifetime tech support for all of our products. However, we do not have the order information from websites other than 123Filter.com (Amazon, Home Depot, etc.), so please fill in that information upon registration of your system. If you have any questions or concerns about your product, please do not hesitate to call or email us or put it in the notes/comments upon your warranty registration. Your satisfaction is our business!

If you are happy with our products and service, please show your support by writing a product review on Amazon, even just a single line. It takes you just a minute but means a lot to us. Thank you!

#### 5.2 Placement

Q. Does the direction of water flow affect ED2000S?

A. No.

Q. What is the best place to install ED2000S?

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 ED2000S outdoors, please make sure the location is waterproof and with no direct sunlight and heat.

# Q. Can ED2000S be installed horizontally?

A. Yes. ED2000S can be installed in any direction, as long as each brass strap is wrapped tightly and correctly on the water pipe for at least 7 rounds.

Q. I have plastic piping in my home, can I use ED2000S?

 A. Yes. ED2000S is suitable for all types of plumbing, including plastic, copper, and galvanized.

# Q. Is it necessary to install ED2000S on a pipe?

A. Yes. Brass straps should always touch the pipe. At least seven wraps per brass strap are required. It is recommended to install the control box as close to the pipe as possible to ensure there will be enough brass strap to wrap on the pipe, although it can be installed either on the wall or the water pipe.

# Q. If I change home, can I take ED2000S with me?

A. Yes. You can easily remove ED2000S by un-wrapping the brass straps and unplugging the unit, no plumbing is required.

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