

# SYSTEM GUARANTEES/WARRANTIES

## Manufacturers Guarantee: (3 Years)

The Manufacturers Guarantee is effective for three (3) years after the date of purchase. In the unlikely event of your unit becoming unserviceable, i.e., the power indicator lights not functioning, return the unit for replacement to the place of purchase, with proof of purchase information. Inquire about our additional extended warranty options.

This guarantee does not extend to any other electrical or water fed appliance or device that may be in use in conjunction with the Hydro-Max System. We accept no liability for the malfunction of any device other than the Hydro-Max unit which has, either directly or indirectly been sold to the end user.

The Hydro-Max System does not affect the potability or the mineral content of the water as there is no direct contact with the water. We therefore accept no responsibility for water quality.

## Supplier Performance Guarantees: (6 Months)

The Hydro-Max Systems are provided to the customer with a “Customer Satisfaction Guarantee” for a period of 3 months. This guarantee is provided to ensure that all of our customers, whether direct or indirect, are satisfied with the performance of the Hydro-Max System.

Due to the aggressive de-scaling nature of this technology, customers are asked to power the system for a minimum period of 6 months. This period of time will allow the system to address calcium in the lines. If you believe the unit is not operating correctly contact your distributor for assistance. Should your supplier be unable to assist in resolving your performance concerns by system modification or upgrade to a more powerful unit over the next 60 days, then you will be offered a refund of the unit price (less 10% restocking charge) on return of the unit. An additional 30 days are required to process the refund.

This guarantee does not include the total elimination of scale in non-free flowing water systems, e.g. water heaters (not properly flushed to purge scale). This aragonite material will obviously harden if left to settle on extremely hot heater elements.

Distributor:

# ***HYDRO-MAX***

# **Residential System**

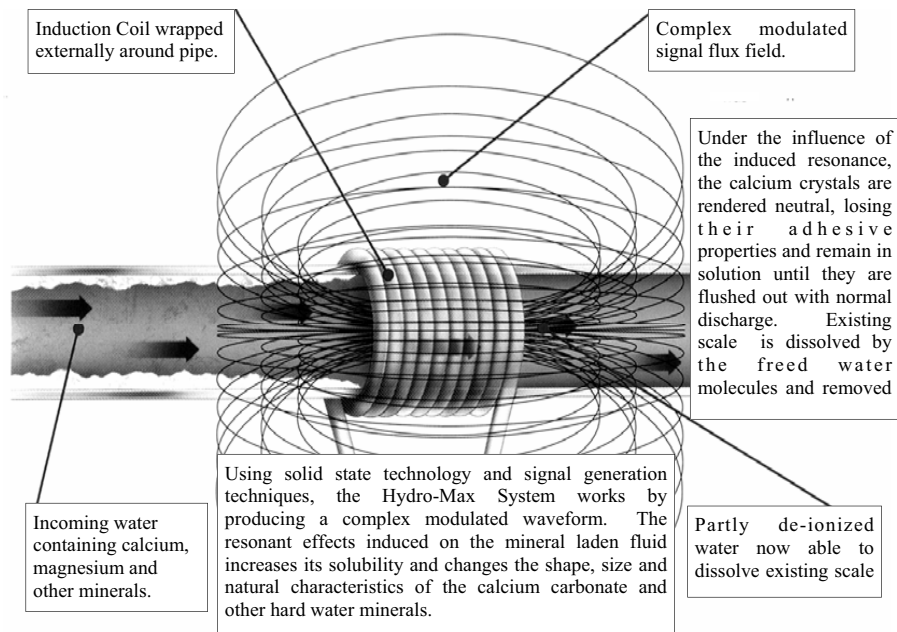
# **Owners Manual**

# INTRODUCTION

The Hydro-Max System is a new and revolutionary breakthrough in the treatment of hard water and it's effects on water fed appliances. The System is non-invasive and non-chemical by design and is suitable for practically all situations requiring hard water treatment.

Hydro-Max requires no chemicals for operation. It is designed for non-professional installation, and it's portable so if you move following your purchase, your Hydro-Max System can move right along with you, preserving your investment. The operating costs for the system are between 3 to 6 cents per day.

## OPERATING PRINCIPALS



## INSTALLATION

The HYDRO-MAX System is easy to install. A standard 110V electrical outlet is needed within 3 feet of the unit installation. The most desirable place to install the unit is immediately after the water meter, or before any plumbing line tees, so that the entire plumbing system is treated for de-scaling. The unit may be installed outdoors, at a well head for example, provided a separate waterproof housing such as a Nema-4X enclosure is used. Because the unit is a solid state device, it can be mounted in any position necessary. The unit should be installed within 3' of the water line to be treated.

1.

*If there is a water softener already installed, how do we install the Hydro-Max system?*

*Do we use both the water softener and the Hydro-Max system?*

**The option is yours:** Because existing build-up in your plumbing will be dissolved into the water, the use of your water softener may help to diminish the effects of this temporary increase in hardness. After approximately one month put the softener on by-pass.

*How can I tell it is working?*

### Residential Applications:

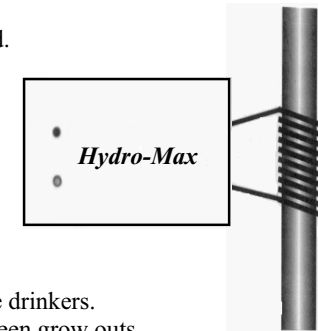
1. - Scale around taps, sinks, shower heads, and any surfaces in contact with water will disappear.
2. - You can see a difference in the toilet bowl float if you turn it a half turn to establish a reference point for future referral.
3. - As your hot water heater de-scales, the heater will become more efficient. Water heats more quickly.
4. - One can use less soap and detergents.
5. - Hair rinses quickly, squeaky clean.

### Pool & Spa Applications

1. - No more scale clogged water pipes.
2. - An end to unsightly, scale lined pools.
3. - Pool filter performance is greatly improved.
4. - Water clarity greatly improves.
5. - Silky feel to pool water.
6. - Helps reduce wide swings in pH.
7. - Reduced skin and eye irritation.
8. - Up to 35% reduced need for chlorine.

### Agricultural Applications

1. - No more scale clogged water pipes.
2. - An end to scale build-up on bell and nipple drinkers.
3. - Reduced cleaning time on equipment between grow outs.
4. - Enhanced performance of medicators.
5. - Energy savings of 15% to 30% in hard water areas.
6. - Maintains effective use of slab heating systems.
7. - Eliminates difficult clean-up and maintenance of water curtains.
8. - Increases effective use of misting systems.



# PERFORMANCE GUIDE

The Hydro-Max System treats all incoming water as it passes the coil and alters the characteristics of the calcium and other minerals so that they do not stick to surfaces and form hard scale. It is important to remember that the calcium is still in the water and will be visible in appliances that are not subjected to free flowing water.

## Your Hydro-Max System Will:

1. Prevent any further *hard scale* build-up.
2. Remove the existing scale that is inside your water system.
3. Soften the existing hard scale around taps, basins and toilets, etc...
4. Reduce soap scum and produce better soap lather.
5. Make the water feel *silky*.
6. Reduce the harsh effects of hard water on skin and clothing.

## How will you know that your system is working?

The amount of time required before you experience the effects of the system varies from home to home, depending on the amount of water used. Generally, signs of aggressive de-scaling are seen within 1-2 weeks. **Note:** The system may initially seem to become less effective at times. This is due to the removal of the existing scale which is being brought back into solution. This will briefly create the effect of increased hardness. Once the scale has been removed from the system the full effectiveness of the system will return.

## External Scale

Using external scale as a tracking reference to determine whether or not the system is working is a good idea. Areas to monitor this are:

1. Scale around taps, sinks, etc...will begin to soften providing that the newly treated water is in regular contact with the scale. Once softened, these deposits can be removed using a stiff scouring pad.
2. Surfaces in contact with splashed water will become easier to clean.
3. Scale on shower heads will soften and become easy to remove. During de-scaling, some deposits may collect inside the nozzle. These can be easily flushed.

## Internal Scale

1. As your hot water system is de-scaling, your water heater will become progressively more efficient.
2. If the system was severely scaled water flow may also improve.

## Soap Scum and Skin Effects

The treated calcium is non-sticky, you will usually notice:

1. Less scum on the bath and improved soap lathering.
2. Improved skin condition for anyone suffering from dry skin. Even those with normal skin can feel the difference.

## Dishwasher

Continue to add rinse aid in accordance with manufacturers instructions, otherwise soft calcium deposits may appear where water has dried onto horizontal surfaces.

## IMPORTANT NOTES:

For some time after installation the unit will be de-scaling your water system. This often results in the water appearing to be harder and calcium deposits increase in places like shower heads. Once de-scaled inside, your water system will stay scale free and calcium marks outside the system should easily be wiped away.

**Water Softeners:** Water softeners often leave deposits inside a water system, therefore if a softener is in use you may want to allow the Hydro-Max System to remove them before the softener is switched off. In this case leave the softener and the Hydro-Max on together for about 1 month.

# TYPICAL USER EXPERIENCES

The treated water is immediately altered and will start de-scaling your plumbing system. The scale redissolves one molecule at a time, so there are no problems with calcium plugging up filters or screens in the system. If you've never used a softener before, you will experience a dramatic difference in the "feel" of the water. The water will feel silky and you will notice that your hair rinses squeaky clean after shampooing. You may also smell chlorine if your water supply is chlorinated, because of the reduced surface tension of the water. The chlorine controls organisms inside your plumbing, but it isn't good for you, your hair, or your skin. So having the chlorine perform its function in the water and then having it dissipate before you drink or bathe is ideal.

If you have replaced a water softener with the Hydro-Max System you may notice the water becoming harder as the scale begins dissolving and likely wonder if the system is working. This is a consequence of de-scaling and the condition will improve daily as the scale is removed.

Your plumbing took years to get the way it is, and it only takes a short time to clean it up. This period may be brief for a newer home, or several months for an older home with low water usage. We recommend flushing your water heater regularly during the first two months to shorten the de-scaling process. **See Flushing Instructions (pg.5)**

If you use a dishwasher and replaced a salt softener with the Hydro-Max unit, you may notice some calcium spotting. This situation will diminish to the residual level of calcium present in the water supply when the de-scaling process is finished. In the meantime, reduce the amount of detergent used and add Jet-Dri, a half cup of household vinegar, or a tablespoon of Borax to the rinse cycle. The reduction of detergents used also applies to laundering.

You should also notice that the toilet bowl, tub, and glass shower stall scaling will come off more easily with normal cleaning after the first several weeks of usage. A side benefit of the Hydro-Max treated water is that the naturally present microorganisms that cause black molds in the bath areas will diminish, or stop completely.

One common problem is scale build-up caused by back splashing on faucets and tub/shower enclosures. Since there is no direct water flow across these surfaces, unlike inside a pipe, the scale must be removed manually. After initial cleaning, new accumulations in the aragonite form will wipe off easily. In some cases it may be necessary to install a sediment filter when eliminating a water softener.

### **IMPORTANT Water Heater Flushing:**

As the Hydro-Max System de-scales your water heater, softened calcium will fall to the bottom of the water heater tank. It is very important that this softened material be purged from the tank. Follow these steps to flush your heater:

1. Turn off the cold water valve that feeds the water heater.
2. Open the vent valve on top of the heater tank.
3. Connect a hose to the drain at the bottom of the heater and open the drain valve.
4. Continue to drain the heater until the water runs clear with no particles visible.
5. Close the drain valve and open the cold water feed.
6. Listen for air escaping from the vent tube as the tank refills. Close vent valve when full.

## **TYPICAL CUSTOMER QUESTIONS**

### ***What does a softener do that the Hydro-Max System doesn't?***

1. Water softeners remove hard water minerals from the water supply.
2. Softened water gives you the feel that you can't rinse soap from your skin.
3. Softened water makes your skin dry.
4. Water softeners add salt (sodium) to your water supply. Health concerns.
5. Softeners require regular maintenance.

### ***Ongoing Expense \$\$\$***

### ***What does the Hydro-Max System do that a water softener doesn't?***

1. In terms of chemically changing hard water to soft water, not much.
2. Hydro-Max water removes calcium build-up from your water system.
3. Hydro-Max saves a lot of money in water heating bills.
4. Provides salt free water. A concern for many health conscious people.
5. Soap rinses squeaky clean, no slippery feeling.
6. Provides environmentally safe discharge to sewers - no salt.
7. Hydro-Max reduces consumption of detergents.

## ***\$\$ Big Potential Savings \$\$***

5.

For slab-built homes with the water meter outdoors, it is OK to mount the unit indoors, running the signal cable through the exterior wall to the pipe being treated. An easy to seal, 1/4" hole is all that is required.

If a salt softener is currently being used, simply unplug it and put the valve in bypass position to experience the sole effect of the Hydro-Max System. If you do not bypass the softener, the Hydro-Max System will quickly dissolve all of the stored calcium held in the ion-exchange bed, creating extra hard water for a period of time. A Hydro-Max System used in-line with a functioning softener (upstream) will allow for longer times between regenerations or less salt required to regenerate. However, we recommend eliminating the water softener for the best possible economic and ecological results.

## **FITTING INSTRUCTIONS**

1. Locate the incoming water main. Choose a position for the coil and a location for the electronic box that is within 3' of a standard 110V wall outlet and the water pipe. **(I.1)** Install the coil on a straight length of pipe approximately 15 inches long or longer (between pipe fittings). This will allow for approximately a 6" distance on either end of the coil away from pipe fittings. **(I.2)** Be sure to leave 3' of clearance between the coil and the electrical service grounding clip on the pipe (if present). Make sure the coil is down stream (after) the water meter.

2. Mount the Hydro-Max box with the screws provided or suspend it from the water pipe with the cable ties provided.

3. Plug the long signal wire into either signal cable port of the black sockets on the controller. Polarity doesn't matter, either pin can be placed in either socket. **You cannot receive a shock from the signal wire or the pins. (only 9 volts).**

4. Fasten the signal wire to the pipe with a cable tie (provided). Wrap all the signal cable around the pipe in one direction. Leave enough to return back to the controller. Fasten down with another cable tie.

5. Guide the signal wire back to the control box and plug it into the remaining black socket.

6. Plug the power cord (with transformer) into the 9VDC socket on the control box and plug the transformer into a standard 110V wall outlet

7. Observe the power lights on the controller and you're done. **2.**  
Top Green light = power to the unit. Bottom Yellow light = completed circuit.

