USA OWNER'S MANUAL

ION FARM 2000 & 5000

NOTE – THIS MANUAL IS ALSO USED FOR THE ION FARM 5000 MODEL
INSTALLATION AND FILTER CHANGING

INTRODUCTION

Welcome to the growing ranks of satisfied Ion Farm users. Depending on when your Ion Farm was purchased, it may be labeled Ion Farm 2000, HTH 2000, or Europa-21. They are all the same model.

We sincerely believe that you will be pleased with the quality and performance of your new Ion Farm. It has been manufactured to exacting ISO 9001 standards and thoroughly inspected prior to shipment. Please read this manual carefully before putting your Ion Farm into service.

WARNINGS

- Read manual prior to installation and operation.
- Never leave Ion Farm power on with water turned off.
- Verify with your health practitioner that prescribed medications or existing conditions will not be affected by alkalinity.
- Your new Ion Farm is intended as a point-of-use appliance only. Serious damage may result from misuse of your Ion Farm. Never attach any plumbing or tubing to the flexible dispensing hose.
- Your Ion Farm will only operate on 110-120 VAC. Severe damage will occur if used on incorrect line voltage.
- Never drink the acidic water by-product from your Ion Farm
- The Ion Farm is NOT intended for use on microbiologically unsafe water.
- Follow manufacturer's suggested uses for pH levels. The consumption of water that is too alkaline may cause diarrhea or other symptoms.
- No medical claims have been made nor implied by the manufacturer. Always see your physician at the first sign of illness. Manufacturer is not responsible for adverse effects that may result the use, or misuse of ionized water.
- Never operate the Ion Farm with hot water. Serious filter and water cell damage will result.
- Never open the case of your Ion Farm. There are no user-serviceable components, aside from the filter and calcium cartridges, which are accessed by removable covers.
- Maintain a clean and dry area around your Ion Farm. Never allow unit to sit in standing water.
- Notify your Ion Farm dealer at the first sign of malfunction and discontinue use immediately.

1. INSTALLATION

1.1. COMPONENT INVENTORY - Prior to installation, remove contents of shipping carton and verify that there are no missing components. See the table below as a reference. **NOTE: A new machine may have traces of water near the input/output ports. This is the result of random "wet" functional testing as part of the quality control program.**

Table 1. Ion Farm component list

Main ionizer body	
Metal flex hose	
Plastic tube kit	
Metal screw clamps - 4	
Needle valve fitting	
Pipe adapters - 1	
Nails for wall mounting (in some markets)	Not Shown
pH test kit	
Fuse	

1.2. **ELECTRICAL AND WATER CONNECTIONS** - From this point forward, we will refer to your new water ionizer as the Ion Farm. Select a location for your Ion Farm that is near both the water source and a 110 VAC electrical outlet. Outlet should be suitable for a 3-pronged plug. A 3-pronged adapter may be used if necessary. Ideally, there will be space for the rotating flex hose to be moved up, down and sideways to accommodate various container sizes.

1.2.1. The Ion Farm is intended for connection to a cold water line. It has a built in solenoid valve that controls the flow of water at the push of the "Power" button. This will alleviate clutter on the faucet itself with an under-sink connection. **Note: the Ion Farm is still a counter-top unit because of the user controls.** READ SECTION 3 (OPERATION) BEFORE PLUGGING ION FARM INTO AN ELECTRICAL OUTLET.

1.2.2. Water Line Connection

1.2.2.1. Your Ion Farm is equipped with a needle valve sleeve and adapters to permit direct installation to a cold water line. Users will find the water line connection more convenient since there will be neither hoses nor diverter valves attached to the faucet. Instead, there will be a hose going from the Ion Farm water input port directly to a special needle valve fitting installed on the cold water line. Another advantage of this installation method is that the Ion Farm will now control the flow of water when the user presses "POWER." Inside the Ion Farm is an electric solenoid valve that starts and stops the flow of water so there is no need to turn on the water from the faucet. Just as with a new dishwasher, or "In-sink-er-ator," you may have to get a plumber involved.

1.2.2.2. If you are not comfortable completing basic plumbing operations yourself, it is suggested that you contact a professional plumber to install the supplied needle valve fitting onto the cold water line. The needle valve assembly should be installed with the barbed hose fitting pointed in the direction that the tubing will be routed for attachment to the Ion Farm input port. **NOTE: ION FARM WATER IONIZERS BUILT AFTER JAN 1, 2002 ARE EQUIPPED WITH A SELF PIERCING SADDLE VALVE AS AN ALTERNATE MEANS OF WATER LINE CONNECTION. SEE SUUPLEMENTAL INSTRUCTIONS.**

1.2.2.3. Once the needle valve assembly is installed, determine the route that the plastic hose will take to the Ion Farm. For some, this may be through a hole in the sink that was formerly used for

a spray hose, or one in the counter that was created solely for Ion Farm installation. Note that the Ion Farm can be installed anywhere that there is a cold water line, such as near a utility basin. It even has mounting holes on the back panel to permit wall mounting.

1.2.2.4. Measure the approximate distance required to reach the Ion Farm and cut the hose to this length. Allow some extra length to allow for movement of the Ion Farm, or for the future addition of a prefilter.

Figure 1. Needle valve with hose

1.2.2.5. Loosen one of the supplied screw clamps sufficiently to slide over the end of the hose. Slide the end of the hose over the barbed fitting on the needle valve assembly, slide the screw clamp so that it is over the portion of hose penetrated by the barbed fitting and tighten the screw clamp with a screwdriver. Fitting should be tight, without over-tightening.

1.2.2.6. Guide the hose through the decided route to the Ion Farm. Loosen second screw clamp sufficiently so that it too slides over the end of the hose.

1.2.2.7. Slide hose end onto the Ion Farm fitting labeled "Inlet of tap water." As before, slide screw clamp over that portion of hose penetrated by the Ion Farm inlet fitting and tighten with a screwdriver.

Figure 2. Hose secured to inlet

1.2.2.8. Note that the needle valve fitting has a slotted screw adjustment for opening and closing the valve. The valve is closed when screw is turned clockwise to stop. LEAVE THIS VALVE CLOSED UNTIL FINAL WATER SUPPLY CONNECTION TO ION FARM HAS BEEN MADE AND INSTALLATION IS COMPLETE. **DO NOT PLUG ION FARM INTO ELECTRICAL OUTLET UNTIL DIRECTED IN SECTION 3 (OPERATION).**

Figure3. Acid Outlet

1.2.2.9. The final connection will be to the acid discharge port. Cut a length of hose that will reach the drain of adjacent sink and connect to "ACID OUTLET" port. There is no clamping necessary at this connection. Allow sufficient hose length to reach a container, in the event that you wish to collect acid water for use on plants, wounds, etc.

Figure 4. Tidy hose routing via cutouts in base

1.2.3. **PREFILTERS** Counter-top filters – In some markets, counter-top carbon block and fluoride removal prefilters may be available. Both utilize the same counter-top outer case, which disassembles for cartridge replacement. The carbon block filter offers additional capacity for chlorine and heavy metal removal and will generally improve the taste and smell of water that might otherwise be objectionable. It will also allow the built-in filter on the Ion Farm to last longer. REMEMBER – NO FILTER WILL MAKE BIOLOGICALLY UNSAFE WATER, SAFE TO DRINK.

Figure 5. Fluoride prefilter

1.2.3.1. The second counter-top prefilter is for the removal of fluoride and arsenic for use by those who wish to limit their fluoride intake. Up to 97% of fluoride and arsenic will be removed. The counter-top prefilters are installed as follows:

1.2.3.2. Locate the best place behind your Ion Farm to place prefilter stand.

1.2.3.3. Cut plastic hose at approximately this location.

1.2.3.4. Place screw clamp over hose end closest water source and slide this end onto the prefilter barbed fitting labeled “IN FROM FAUCET.” Slide screw clamp over area penetrated by barbed fitting and tighten.

1.2.3.5. Take hose end going to Ion Farm and slide on a second clamp. Push hose end onto barbed fitting labeled “OUT TO WATER IONIZER.” Attach screw clamp as before.

1.2.4. Flex Hose Installation – Locate flex hose and insert threaded end into rotating plastic turret on top of the Ion Farm. Rotate clockwise until finger tight. Flex hose may be gently positioned to best suit water dispensing needs.

Figure 6. Flex-hose installation

2. OPERATION

2.1. **SCOPE -** Section 2 will ensure that the Ion Farm is ready for operation with a pre-check. It will also serve to familiarize the Ion Farm user with the simple front panel controls.

2.2. **PRE-START-UP CHECK LIST** – Please review the following aspects of your installation.

2.2.1. Open filter door and verify that filter cartridge has not been dislodged during shipping. A loose filter will cause leaking.

Figure 7. Make sure filter is seated

2.2.2. Review all hose connections. Verify correct connections and secure clamping.

2.2.3. Once connections have been verified, open needle valve with screwdriver by turning counter-clockwise. Observe connections again for any leaks. Tighten clamps if necessary.

2.3. INITIAL START-UP

2.3.1. Your Ion Farm is now ready to operate for the first time.

Figure 8. Rear panel power switch

2.3.1.1. Open needle valve screw by turning counter-clockwise.

2.3.1.2. Plug line cord into 120 VAC outlet. Press the primary power switch on the rear panel to the ON position. (NOTE: The rear panel power switch may be left in the ON position, unless the Ion Farm is not going to be used for several days.) Then push the "Power" button on the front panel. You will first hear a muffled click as the Ion Farm solenoid valve opens, allowing water to enter the built-in filter. Next you will hear a tune begin to play as the automatic clean cycle begins. Within seconds, water will flow from the flexible dispensing hose on top of the machine. **Note**: **At first, the water may appear to be gray. This is completely normal as the carbon fines from the filter are washed out.** Once the tune has stopped playing, the water is ready for consumption. **Note**: **If this is the first use of your Ion Farm, allow water to flow for 2 minutes so that the water lines are fully flushed out, before use.**

Figure 9 Push Front Panel Power Button

Figure 10. LED during clean cycle

2.3.1.2.1. Automatic Clean Cycle Description – Upon start-up and every use thereafter, an automatic cleaning cycle begins.

During the cleaning cycle, the electrical polarity in the water cell is reversed so that any mineral scale will be repelled from the electrodes. The clean cycle ensures that the water cell will last for many years without clogging. This is why the clean cycle should never be defeated. To indicate that the Ion Farm is cleaning, the “EARLY PURIFIED CONDITION” LED under the filter life indicator will be illuminated. In addition, a tune will play for the duration of the clean cycle. Once the clean cycle is complete and the ionized water is ready for consumption, the tune will stop playing and the “IONIZED CONDITION” LED will illuminate.

Figure 11. Ready to drink

2.4. **ALKALINE PH MEASUREMENT AND CONTROL** – use included pH test kit for best results.

Figure 12. pH test kit

2.4.1. Your Ion Farm is equipped with a simple pH test kit that requires adding two drops of a special solution to a water sample. The sample will change color and pH is determined by comparing the resulting color to a reference chart. The reason this test kit is so important is that it is the only way for the user to know what the actual pH is. The various Ion Farm pH settings do not correlate to specific pH values because actual pH will depend on the composition of the water used. The use of litmus paper is not recommended unless it is a special wide-range variety. **CAUTION: HANDLE THE pH TEST SOLUTION CAREFULLY SINCE IT MAY STAIN CLOTHES AND COUNTER-TOPS. NEVER DRINK TEST SOLUTION OR WATER SAMPLES THAT CONTAIN TEST SOLUTION.**

Figure 13. The last level used will appear at next use

2.4.1.1. pH Measurement and Adjustment Procedure – find a clean clear glass juice glass or test tube (not included) and rinse thoroughly with water to be tested. Then, collect 1 ounce (1 tablespoon) of water directly from the faucet. Open dropper bottle of test solution and place two drops into sample. Swirl sample around to gently mix and compare resulting color to those on provided chart. Write down your result. The pH value of the tap water will serve as a baseline so that the extent to which the Ion Farm changes the pH will be known. Next, turn on your Ion Farm and press the “Mild Alkaline” section of the circular button array. Press again, or until the “Alkaline 1” LED is lit to the left of

Figure 14. Push "MILD ALKALINE” for lower pH

the buttons. Rinse sample container and repeat measurement procedure prescribed above. Again, record pH results. Press the "High Alkaline" button once so that the "Alkaline 2" LED is lit and repeat the test procedure, again recording the pH value. Repeat procedure by again pressing the "High Alkaline" button until samples have been collected, measured, and recorded for levels "Alkaline 3" and "High Alkaline." Finally, press the "Acid" button and log the pH measurement results. This reading should be slightly acidic (below 7). For ionized water that is more acidic, use the discharge coming from the back of the Ion Farm. This water will increase in acidity for each progressively higher alkaline setting. These pH measurement procedures should be repeated once each 6 months to verify that there are no major changes in pH as a result of water chemistry or machine malfunction.

Figure 15. Push "HIGH ALKALINE" for higher pH

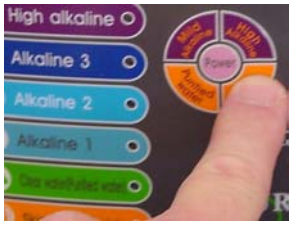

Figure 16. Push "ACID" for mild acidic water

2.4.1.2. Recommended pH for various uses – the table below shows the optimum pH for an intended purpose. Remember that the pH scale ranges from 1 to 14. It is a log $_{10}$ scale, which means that each level of pH is 10 times more than the previous level. For example, a pH of 9.0 is 10 times more alkaline than a pH of 8.0. This is another reason for making sure that the pH of your water is correct for the intended use. **CAUTION – CONSUMING IONIZED ALKALINE WATER AT A HIGHER THAN RECOMMENDED pH MAY CAUSE DIARRHEA.**

Table 2. Suggested pH level uses

PH VALUE	USAGE
7.0 – 8.0 Alkaline	Drinking water for new user and pets
8.0 – 9.0 Alkaline	Drinking water for acclimated user
9.1 – 9.5 Alkaline	Occasional drinking water for acclimated user after exertion
9.0 – 10.0 Alkaline	Cooking – boiling vegetables, rice, pasta, use in dough for bread and piecrusts. Great for coffee, tea, and reconstituting fruit juices
3.0 – 4.0 Acid	External use as antiseptic or for washing fresh produce
4.0 – 7.0 Acid	Various uses, including plant fertilizer or for cut flower arrangements

2.4.2. Purified Water selection – The lower left section of the ionization selector is labeled “PURIFIED WATER” and should be used for those occasions when no ionization is desired, such as in combination with certain medications that might be affected by alkalinity. **CAUTION: CHECK WITH YOUR DOCTOR OR PHARMACIST CONCERNING THE SENSITIVITY OF YOUR MEDICATION TO ALKALINITY.** Water produced while the “PURIFIED WATER” setting is on will be filtered only and not ionized.

3. MAINTENANCE

3.1. **FILTER REPLACEMENT** – Your Ion Farm has a built in filter life indicator. It will read from 9999 to 0 based on time-of-use. Once the value of “0” is displayed (6 to 8 months for a family of 4), the red “REPLACEMENT OF FILTER” LED will illuminate. **NOTE: THE ACTUAL FILTER LIFE MAY BE MORE OR LESS THAN WHAT IS INDICATED. THE FILTER LIFE METER IS CALIBRATED BASED ON A TYPICAL MUNICIPAL SOURCE. SHORTER FILTER LIFE MAY BE EXPERIENCED IN REGIONS WITH HIGH SEDIMENT. LONGER LIFE MAY BE EXPERIENCED IF USED WITH A CARBON BLOCK PREFILTER.** Certainly, we recommend a filter change at the first sign that there is a reduction of pressure, or an “off” taste or odor is noticed. The Ion Farm filter is changed as follows:

Figure 17. Replace filter LED

3.1.1. Turn off power from front "Power" button.

3.1.2. Locate filter door catch on right side of machine. Depress “ridged” area and push door back. Door will completely detach.

Figure 18. Open filter door

3.1.3. Place fingers on top shoulder of light plastic filter body and press down, while pulling filter cartridge back from compartment.

Figure 19. Push down to release filter top

3.1.4. Once top of filter is clear of compartment, lift cartridge out of compartment.

3.1.5. Remove filter base from filter and set aside. DO NOT LOSE FILTER BASE.

Figure 20. Remove filter base and set aside

3.1.6. Open replacement filter box. Remove foil seals at both the base and top of the cartridge.

3.1.7. With foil seals removed, gently and slowly insert filter base onto filter bottom. Be careful not to force since this may stretch o-rings and cause a leak. If this is the 2nd or 3rd replacement filter, place a very small amount of petroleum jelly on the surface of the filter base o-rings for lubrication. Repeat this procedure with every 2nd or 3rd replacement.

Figure 21. Put filter base onto new filter

3.1.8. With filter base installed, place assembly, base first, onto spring-loaded pedestal in filter compartment. Filter base should seat into hole at the center of this pedestal.

Figure 22. Insert filter base first

3.1.9. Once filter base is seated, guide filter-top up towards top of filter compartment. Once filter-top is against compartment opening, push down on filter shoulders to depress spring-loaded pedestal enough for filter-top to clear opening. Continue pushing filter back into compartment until top filter center fitting snaps onto fixture on compartment ceiling.

3.1.10. Once filter has “snapped” into place, gently rotate cartridge in a horizontal direction to ensure complete o-ring seating.

3.1.11. Turn power back on from the front panel. Once filter life indicator is lit, press and hold the red “Reset” button on edge of filter compartment until filter life indicator returns to “0000.”

3.1.12. Replace door by inserting hinge tabs back into slots and snapping shut.

Figure 23. Make sure filter is fully seated

Figure 24. Push and hold filter life reset button

3.2. **CALCIUM CARTRIDGE REPLACEMENT** – Your Ion Farm has a top-mounted receptacle in which a basket of calcium sulfate pellets may be installed for added ionized calcium in alkaline water for drinking. The calcium will also add to the chlorine removal capacity and further soften the taste of the drinking water. Calcium cartridge use is NOT recommended with installations, such as wells, where there may already be a high level of calcium. Calcium cartridges will last 6 to 9 months and are replaced as follows:

3.2.1. Turn off Ion Farm and locate calcium cap on top left half of machine.

3.2.2. Rotate cap counter-clockwise and lift out of receptacle.

3.2.3. Pull expended calcium cartridge from holder. **NOTE: THE CONTENTS OF CARTRIDGE WILL STILL BE VISIBLE, BUT THE CALCIUM COMPONENT WILL BE DEPLETED.** Discard complete cartridge.

Figure 25. Twist-out calcium cartridge holder

3.2.4. Remove foil seal from new cartridge and insert into cartridge holder.

3.2.5. Replace calcium cartridge assembly back into receptacle and tighten clockwise. Ion Farm is now ready for use. Mark your calendar for 6 months as a reminder for next calcium cartridge replacement.

4. ADJUSTING ALKALINE PRESET VALUES

4.1. **PURPOSE** – Your Ion Farm 2000 is the first water ionizer that provides user- adjustable alkaline levels. This feature enables the user to set the actual ionization strengths associated with each of the four alkaline settings, very similar to the station frequency presets on a car radio. Most users will not need to bother changing any of the factory-set ionization values. However, those who strive for an exact pH value, such as 9.5, or who wish to limit the maximum pH value, will find this capability very useful.

Another use for this feature is for installations where the source water is hard, or contains a high TDS (total dissolved solids) level. With high TDS (hard) water, there are too many electrolytes. This high electrolyte level causes the current drawn during ionization to escalate. When this happens, overheating can occur, at which time, the Ion Farm automatically throttles back the current being applied to the water cell. The result may be a lower pH than what might be otherwise possible on lower TDS (softer) water. The benefit of ionization level adjustment, in this instance, is that the ideal maximum ionization strength may be found that will both yield the highest possible pH, without causing any overheating.

4.2. **ADJUSTMENT PROCEDURE** – Each of the four Ion Farm ionization levels may be set in increments of 1, from 0 to 255, with 0 equaling the lowest (weakest) ionization and 255 representing the maximum. The

adjustment procedure will make use of the supplied pH test kit so that changing pH values resulting from the adjustment may be monitored. The ionization strengths for the four selection levels may be adjusted as follows:

4.2.1. If Ion Farm is operating, turn off power from front panel (push “POWER”).

4.2.2. Move the rear panel main power rocker switch to “OFF.”

4.2.3. Once main power is off, depress and hold front panel "Power" button while moving rear panel rocker switch back to the ON position. You will then notice that the "Filter Life" indicator shows a number between 0 and 255. This number represents the ionization strength and will correspond to the previously used alkaline level (Alkaline 1, Alkaline 2, Alkaline 3, or High Alkaline) as indicated by the illuminated LED opposite its designation.

Figure 26. Press and hold front power button while turning on rear power switch

4.2.4. If the indicated level is to have the ionization strength either increased or decreased, press either the “Purified Water” button to decrease the strength, or the “Acid” button to increase the strength. Holding either button down will allow the values to automatically scroll up or down.

Figure 27. "Purified Water" to decrease ionization strength

Figure 28. "Acid Water" to increase ionization strength

4.2.5. Once the desired value is reached, press the “Power” button to store the selected value in the Ion Farm’s memory.

Figure 29. Push "Power" to save selection

4.2.6. Simply press “Mild Alkaline” or “High Alkaline” to index up or down throughout the four levels. As each level is selected, its corresponding ionization strength value is displayed. Repeat the above steps for each level on which the ionization value is to be changed. Remember to save the changed value by pushing the “Power” button before moving on to the next level.

4.2.7. Once the ionization strength has been entered for all the levels to be changed, turn off the power via the rear panel switch.

4.2.8. Resume operation of the Ion Farm by turning on the power, first via the rear panel main switch, then the front panel switch.

4.2.9. Select the level for which the ionization strength was just changed.

4.2.10. Allow Ion Farm to operate at the selected level for a few seconds, then collect a sample for pH testing.

4.2.11. Measure pH as described in Section 3. Repeat the ionization strength adjustment procedure as described above, if necessary, until satisfactory results are achieved. **Note: In some very hard water applications of 500 or more TDS, it is possible that the fuse will blow on a high setting. If this happens, unplug machine and replace fuse with like 250 V @ 1 amp replacement. Then perform ionization strength adjustment for the affected level by lowering the value by at least 50 points and saving. Repeat until acceptable pH is reached, without blowing fuse.** Call your Ion Farm dealer with any questions on this procedure.

Figure 30. Checking fuse

5. **HOW SHOULD YOU ACCLIMATE YOURSELF TO IONIZED WATER?** – We believe you will find that, as in most things, moderation is the key. You should not feel that you have to make up for all the years of acidity in just 1 week. We do recommend that you limit your intake of carbonated beverages and if possible cut them out altogether. Remember, it can take up to 24 glasses of ionized water to overcome the acidity in one soft drink. Here are some other guidelines for getting started:

5.1. **MORE IS NOT BETTER** – Never use the highest setting for everyday drinking water. Instead, use the included pH test kit to find the setting for your area that will provide you with an 8.0 to 9.0 for drinking. Use the highest setting for cooking, making coffee or tea, and reconstituting frozen juices.

5.2. **ON AN EMPTY STOMACH?** – Ionized water is best on an empty stomach. As you may be aware, alkaline water will neutralize digestive enzymes in the stomach so do not drink alkaline water within 30 minutes before or 90 minutes after eating a meal. Consume as much as you want otherwise, or as much as you would normally drink of other beverages. Most devotees keep a glass of ionized water with them at all times. Should you feel any discomfort or experience diarrhea, reduce your consumption and/or use a lower setting on the Ion Farm. Consider purchasing a small bottle of concentrated alkaline minerals for use in tap water, coffee, wine, etc. during travel or work. These will cost between $15 and $20, and will last a long time since they are

Figure 31. Concentrated alkaline drops

concentrated. They will ensure continuity in your effort to lower acidity during times when you do not have access to your Ion Farm.

5.3. **IONIZED WATER FOR COOKING** – Don't miss an opportunity to find other-than-drinking uses for ionized water. Try it in mixes, gravies, sauces, or soups, just to name a few. Use it wherever water is called for in other recipes. In general, the highest setting may be used for cooking, coffee/tea making, and baking.

6. **ACID WATER** – As you know, about 30 percent of the total water going into the Ion farm will come back out as acidic water. Most users will allow this to just run down the drain, however, it is a good idea to keep a gallon or more on hand for these purposes.

   6.1. **COSMETIC PURPOSES** – By pressing the "Acid" button on the front panel, you will get mildly acidic water from the flexible dispensing hose. Use this strength for washing or shampooing. Acid water may be microwaved without affecting the pH.

   6.2. **ANTISEPTIC/PLANTS** – Stronger acidic water is available from the discharge port underneath the Ion Farm. The acidity increases with the higher ionization settings. Use this "super" acid water on wounds, such as shaving cuts. Try daily foot bathes in heated acidic water to treat nail fungus or athletes foot. Experiment with plants and cut flowers. Some (not all) plants will thrive on acidic water. See which setting is best for your plants. **Note: the "Acid" button is tied into the "Alkaline 2" ionization level. In other words, the acid water is the same from the back port on the "Alkaline 2" setting as it is from the top flex hose at the "Acid" selection. With this in mind, it would be easy to set the "Alkaline 2" level to the desired level of acidity using the procedure in Section 4, and have the convenience of dispensing it from the top during the "Acid" function, rather than the discharge hose. The trade-off here is that the alkaline water dispensed while the Ion Farm was using the "Alkaline 2" setting would be correspondingly more (or less) alkaline, depending on how the ionization level was programmed for "Acid" use.**

7. **WHAT YOU CAN EXPECT FROM DRINKING IONIZED WATER** – This is not the place for health claims or testimonials. You can read about these in "REVERSE AGING" by Sang Whang, or "ALKALIZE OR DIE" by Dr. Theodore Baroody. The Internet is full of other books about the benefits of alkalinity in our overly processed and acidic world. Your personal experience may include the following:

   7.1. **TASTE** – Ionized water tastes much better than bottled or tap water. It has a smoother taste and is easier to drink a healthy amount.

7.2. **ALKALINE AWARENESS** – You may lose your taste for other beverages. Once the concept of alkaline water seeps in, the very thought of drinking a highly acidic soft drink will seem so senseless. You will be like an ex-smoker in pursuit of good air, only you will be seeking good alkaline water.

7.3. **ENERGY** – You may notice a higher energy level. Since ionized water has more oxygen, in the form of hydroxide (OH) ions, there will be more oxygen available to metabolize.

7.4. **BETTER CHECK-UPS** – With religious use of alkaline water, you may be surprised at the numbers in your next blood work-up. Cholesterol and trigyceride levels may improve. If you conscientiously eat well too, this benefit may be even more profound.

7.5. **ANTIOXIDANT BENEFIT** – You may notice a lower frequency of colds and other illness. This can be attributed to the antioxidant properties of ionized water. It has been written that the alkalinity, as well, may create a more hostile environment for contagions.

7.6. **DON'T FORGET YOUR ANIMALS** – Pets thrive on ionized water just as humans do. See that they get a fresh bowl every day.

7.7. **THANK YOU** – If you notice any benefits from drinking ionized water, you may feel compelled to tell your friends and neighbors about your experience. We hope that you will recommend the Ion Farm, as a high-value, well-made ionized water machine.

8. **TROUBLESHOOTING** – In the event you experience problems in the operation of your Ion Farm, please check here to see if it is one for which a solution is already provided. Note that even the most basic items are covered since these are often the easiest to overlook.

Table 3. Troubleshooting guide

SYMPTOM	POTENTIAL CAUSES	SOLUTION
Front "Power" button pressed but nothing happens.	Rear panel main power switch is OFF. Fuse has blown. Circuit breaker has tripped.	Verify that rear panel main power is ON. Check for power at outlet by plugging in something known to work. Remove fuse and verify OK condition. Replace fuse with 250 V @1 amp if burned out. Press front panel power ON once more. Notify your dealer if none of the above solves the problem.
Power on, LEDs light up, but no water exits from top.	Water not connected. Water not turned on at needle valve on water line. Water main is turned off.	Verify that water hose is correctly connected to “Water Inlet” and secured with clamp. Verify that needle valve is opened counter-clockwise. Verify that water main supply is on.
Filter life indicator still reads 9999 even though I changed the filter.	Filter life counter was not reset during filter change.	Press and hold red filter "Reset" button with power on until indicator reads 0000.
The highest setting has been selected but the pH is not alkaline enough.	The pH test was performed incorrectly. The flow rate is too high so that water does is not exposed to ionization long enough. The water has high levels of TDS (electrolytes). The water does not have enough electrolytes.	Review pH test procedure. Ensure that cleaning cycle is finished and alkaline operation has begun. Reduce flow by closing needle valve slightly. Perform ionization strength adjustment as described in Section 4.
The ionized water has developed a fishy or otherwise objectionable smell or taste.	There is too high a level of alkaline minerals. Filter cartridge is depleted. Calcium cartridge is depleted. There is a problem with water supply.	Use a lower ionization level. If no improvement, replace filter cartridge. Replace or start using the calcium cartridge. Check with water authority.
Water leaks out of Ion Farm.	Filter is not correctly installed. There is a loose connection. Ion Farm has been damaged. Power left on with water off causing water seal damage from excessive heat.	Verify that filter is fully seated inside filter compartment. Check all water connections. Verify that Ion Farm has not been dropped or otherwise damaged. Notify dealer if damage suspected.

9. SPECIFICATIONS

Table 4. Ion Farm specifications

Weight	13 pounds
Dimensions	14” h x 10” w x 5” front to back
Alkaline water settings	4
Acid water settings	4
Water cell cleaning	Automatic upon start-up or “Acid" button activation. Reverse polarity type.
Power requirement	110-120 VAC @ 3 amps
Fuse	250 V @ 1 amp
Flow rate	3 quarts/minute
Hard water compensation	Automatic or user-programmed
Maximum pH	Source-dependent; Usually 9.0 to 10.0 pH max.
Certifications	CE, ISO 9001, Korean Govt # 909 Medical Device, UL (pending)

10. CONTACT

10.1. YOUR LOCAL ION FARM RESELLER IS:

Record point of purchase contact information for your Ion Farm here:

Nature’sAlternatives.com
7111 W. Indian School Road #140
Phoenix, Arizona 85033 USA
Tel. 623-873-8080
Fax 305-723-2783
E-mail: comments@naturesalternatives.com
Website: http://www.naturesalternatives.com

10.2. Warranty

TWO YEAR LIMITED RESIDENTIAL USE ONLY WARRANTY

Your Water Ionizer is warranted for a TWO-year period by the US Distributor. The warranty period will commence upon ship date to NON-COMMERCIAL end users only and is limited to covering defects in materials and manufacture only. **Replacement filters are not covered.**

Not covered are any defects resulting from misuse, neglect, or mishandling. Repair or replacement will be the option of the US Distributor. **Return shipments will not be accepted without prior authorization from your Dealer.**

This Water Ionizer warranty covers parts and labor. Not covered are return shipment costs, although repaired or replaced units are shipped at no charge to end user.

Levels of attainable pH will vary according to native water mineral content.

Water ionizers are point of use, drinking water machines only and not intended for use upstream with any other component. Attaching hoses, tubes, or other plumbing to the flex hose will damage the machine and void the warranty.

DISCLAIMER

Although Water Ionizers are certified as medical devices in Korea, no such certifications are transferable to the United States nor are any medical claims made or implied by your Dealer resulting from the consumption of Ionized Water. **As with any other health and exercise program, consult your physician before embarking on a regimen involving the regular consumption of restructured alkaline water.**

VERY IMPORTANT

YOUR WATER IONIZER IS NOT SUITABLE AS A WATER PURIFIER AND IS NOT TO BE USED ON UNTREATED WATER THAT IS MICROBIOLOGICALLY UNSAFE.