

# IONGEN™ FAQ

For the [G1] and [G2] Series







## The IonGen™ System Comparison



Original IonGen™ G1 System (2011 & Prior)



IonGen™ G2 System (2012 - Current)





#### What is the lonGen™?

The lonGen™ electronic water clarifier for Ponds, Pondless® Waterfalls and other decorative water features drastically reduces maintenance and provides crystal clear water without the use of chemicals.

- It significantly decreases the debris that normally attached to the rocks & gravel throughout the pond, waterfall and stream
- It's not a chemical water treatment
- It can be used on ponds with fish and plants
- One system treats ponds up to 25,000 gallons







#### What are the main components of the lonGen™?



Control Panel - Touch pads allow the user to adjust the level of copper ions produced based on the condition of the water feature.



The Probe - Copper bars are activated by the control panel and slowly dissolve into the water.

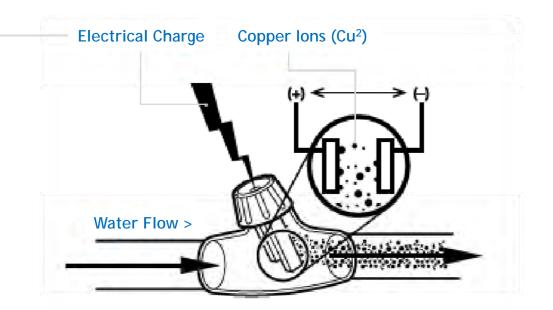




#### How does the lonGen<sup>™</sup> work?



A microprocessor in the Control Panel sends a signal to the Probe causing the outermost metal atoms of the Probe's bars to lose an electron creating a positive ion.



The positive ion attempts to flow from one bar to the other and is swept away by the flowing water and dispersing it into the water feature.





#### Does the lonGen™ automatically adjust the amount of ions?



- No, adjustment is made manually by raising or lowering the ionization level using the + and buttons
- Use visual cues related to the appearance of the water feature to determine if the ionization level should be raised or lowered. Try maintaining the ionization level at the lowest level and raise when needed. Unnecessarily maintaining the lonGen™ at full ionization power will exhaust the probe at a faster rate and may cause copper levels to exceed the maximum recommended level of 0.25 ppm (mg/L).





## I've been operating the lonGen™ for several weeks and don't notice any difference?

- The lonGen™ releases a trace amount of ions into the water. The low dosing rate is
  what makes the unit safe for use in ponds. Larger ponds or ponds with poor water
  conditions will take longer to achieve the desired results due to the low dosing rate.
- The following pages will address several things to help improve results with the lonGen™





#### The Importance of Understanding Alkalinity

#### Why is alkalinity important to the success of the lonGen™?

- This is due to the relationship of Alkalinity and copper
  - A good range of alkalinity level is between 100-250 mg/L (ppm).
  - Copper ions become <u>ineffective</u> if the alkalinity is above 250 mg/L (ppm).
    - One easy way to reduce alkalinity if it is too high is to conduct a partial water change. Make sure
      to check the tap waters alkalinity levels using the alkalinity test kit to make sure it falls between
      the good Alkalinity range of 100-250 mg/L (ppm)
  - If you have fish do not operate below 100 mg/L (ppm)!
    - One easy way to raise low alkalinity levels is to use ordinary baking soda. Adding ¼ cup (0.15 lbs) per 1,000 gallons will typically raise the alkalinity by 10 mg/L (ppm). Raising alkalinity should not be done all at once, but over a period of days.
- High evaporation can change the alkalinity
  - Alkalinity levels in water features with high evaporation rates can be elevated and continue to
    elevate as the minerals are left behind and additional minerals are added within the new
    water used to top-off the water feature.
  - Too high of alkalinity may be a reason why you don't see results with ionization or had good results, but then notice it decline later in the season. One easy way to reduce alkalinity if it gets too high is to conduct a partial water change.
- Alkalinity Test Kits are available (Item #80005)



Original IonGen™ G1 Control Panel (2011 & Prior)



Why is the ionization light flashing green? *or* Why can't I raise the ionization level to full power?

 This is typically related to insufficient water flow across the probe or insufficient water conductivity. The following pages will address how to troubleshoot. IonGen™ G2 System (2012 - Current)



Why can't I raise the ionization level to full power?

 This is typically related to insufficient water flow across the probe or insufficient water conductivity. The following pages will address how to troubleshoot.





#### Why can't I raise the ionization level to full power?

## Make sure the Probe is receiving enough water flow

 The probe should be located in an area where there is sufficient water flow to ensure proper distribution of ions throughout the water feature. If it is plumbed into the main water feature recirculation there will be more than enough flow.



 If the Flow Chamber is not plumbed into the recirculation line and is submerged in a filter, try removing the probe from the Flow Chamber and submerging the bare probe into the filter. This may provide better flow across the probe's bars. Try also experimenting with moving the probe to different areas of the filter(s) where the water flow rate may be greater.





#### Why can't I raise the ionization level to full power?

## Inspect Probe and remove debris or scrape away scale build up

- The probe may be clogged with debris, covered with bluish green scale build up or could be close to being exhausted. Inspect probe and remove debris or scrape away scale build up.
  - If clogging occurs frequently then make sure the water is being properly pre-filtered using a mechanical filter, such as a skimmer.
  - If bluish green scale build up occurs frequently then this is a sign of insufficient water flow. Move the probe to a location with greater water flow.
- Replace the probe if the probe's bars are exhausted (the bars will appear significantly deteriorated).









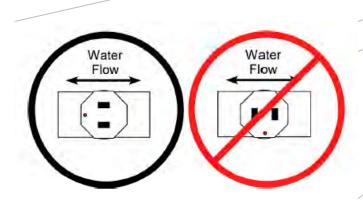
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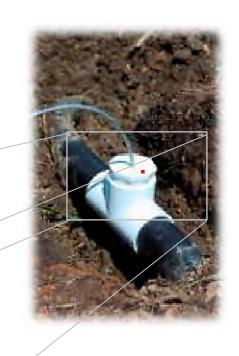


The following troubleshooting step only applies to the [G1] longen™ System

#### **Check for proper Probe orientation**

 Make sure the red dot on the top of the probe cap is orientated in line with the direction of the water flow.
 This will maximize the distribution of ions into the flow of water.









#### Why can't I raise the ionization level to full power?

- Conductivity in the water may be too low
  - If you've verified that there is enough flow, have inspected the Probe and you are still experiencing flashing green or the inability to raise the ionization level, you may need to increase the conductivity of the water. Add a small quantity of Aquascape Pond Salt (1/2 cup per 100 gallons) to the water. This raises the conductivity and provides the Control Panel the ability to increase the activation and release of ions
  - Raising the conductivity will improve the performance of the lonGen™, as well as increase the rate at which the Probe exhausts. Make sure to lower the ionization levels once desired results are achieved to prolong the life of the Probe and make sure the copper level does not exceed 0.25 ppm (mg/L)







#### Why is the probe exhausted after only a few months?

Use visual cues related to the appearance of the water feature to determine if the ionization level should be raised or lowered

- Try maintaining the ionization level at the lowest level and raise when needed. Unnecessarily maintaining the lonGen™ at full ionization power will exhaust the probe at a faster rate.
- Always make sure to periodically test the copper level in the water to make sure it doesn't exceed the recommended limit. The copper level should not exceed 0.25 ppm (mg/L).







I've been testing my copper levels, but don't see any indication of copper on the test strips?



- It is normal to not have any copper registering on the test strips as the copper is being utilized within the system at a rapid pace.
- Use visual cues to determine if the ionization level should be raised or lowered. It is always good practice to routinely monitor the copper levels in the pond. This is especially true of small ponds that have lower volumes of water, as the copper levels can rise quickly if left unchecked. The copper level should not exceed 0.25 ppm (mg/L).





#### The water appears to be stained brown or brownish-green?

# This is more than likely the result of organic debris decomposing in the water feature

- Any of the following will help clear the water:
  - Use a debris net to physically remove organic matter from the bottom of the pond.
  - Rapid Clear Flocculent clears cloudy or discolored water by clumping up suspended debris so it can be removed by the filter. We recommend using Rapid Clear in combination with a Rapid Clear Fine Filter Pad.
  - SAB Stream and Pond Clean contains bacteria and enzymes to help speed up and complete the break down of organic debris. Also includes a powerful phosphate binder.
  - Water changes can be conducted. Always remember to use Aquascape Pond Detoxifier when adding tap water to remove chlorine and chloramines.







#### Should I operate the lonGen™ during the winter?

- It is recommended to shut down the lonGen<sup>™</sup> System in regions that have climates that experience cold temperatures. The water feature is dormant this time of year and there will be nothing utilizing the copper, which could create elevated copper levels.
- When starting the lonGen<sup>™</sup> back up in Spring make sure to wait for the visual cues, such as debris attached to the rocks and gravel to begin to appear again before raising the ionization level. Raising the ionization level when there is nothing utilizing the ions could create elevated copper levels.
- The copper level should not exceed 0.25 ppm (mg/L).





# IONGEN™ FAQ

For the [G1] and [G2] Series







### This Concludes this Training Module

For additional information please feel free to contact:



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