

## FRESHWATER® SMART MONITORING SYSTEM

# Consumer FAQs.

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*Tired of squinting at soggy test strips or wondering what chemicals to add to keep your spa water clean and balanced? Those days are over, thanks to our newest evolution in water care. The FreshWater Smart Monitoring System takes the guesswork out of keeping spa water clean and fresh. To make sure you have all the facts about this revolutionary new technology, we've pulled together answers to the most asked questions.*

*For detailed information about the Smart Monitoring System, the FreshWater Salt System, FreshWater IQ, and so much more, please check your [Owner's Manuals](#).*

## OVERVIEW

### What does the FreshWater Smart Monitoring System do?

- The Smart Monitoring System is designed to work with our FreshWater Salt System. While the Salt System generates chlorine from salt to keep spa water clean, the Smart Monitoring System tests the water every hour to ensure chlorine, pH, and salt levels are right where they should be.
- The Smart Monitoring System displays the test results on your spas' control panel and provides clear instructions if any salt or chemicals are needed.

### How does the Smart Monitoring System work with the FreshWater IQ System?

The FreshWater Smart Monitoring System and the FreshWater Salt System are both components of the FreshWater IQ System – the most intelligent salt water system on the planet.

- The FreshWater Salt System automatically generates chlorine from salt to keep water clean. This innovative water care system uses fewer chemicals, so your spa water feels fresh and natural and is gentle on skin and eyes.
- The Smart Monitoring System is equipped with a replaceable sensor that regularly tests the water and provides clear instructions to keep your water balanced and ready to enjoy.

### What parts are included in the Smart Monitoring System?

The FreshWater Smart Monitoring System contains the following components:

- A **Start-Up Kit** that contains the pre-assembled Smart Monitoring System controller and replaceable sensor.
- A **Factory-Installed Plug** which protects the system wiring from getting wet. It should not be removed until you are ready to install your controller and sensor.
- A **Housing**, located on top of the spa's bartop, holds the controller and sensor, allowing for easy access and replacement via a removable cap.
- A factory-installed **Handle and Cable**, located inside the Housing, connects your system internally to your spa.

## Which spas are compatible with the FreshWater IQ System?

FreshWater IQ comes standard on all 2024 and newer Utopia® Series spas and is an available option on 2024 and newer Paradise® Series spas. FreshWater IQ is not compatible with spas made before January 2024.

Series	Model	FreshWater IQ Availability	
Utopia	Cantabria®, Geneva®, Niagara®, Tahitian®, Florence®, Ravello™	Included	• Salt System included • Smart Monitoring System included
Paradise	Makena®, Salina®, Reunion®, Seychelles®, Martinique®, Kauai®	Optional	• Salt System ready • Smart Monitoring System ready
Vacanza	Palatino®, Marino®, Vanto®, Tarino™, Celio™, Aventine®	Not Available	

## How long does the replaceable sensor last?

The sensor can last up to 12 months. Many factors affect the life of the sensor, such as how often your spa is used and the chemistry of your water. When these factors are accounted for and the spa is properly maintained, your Smart Monitoring Sensor will continue to automatically test your water and provide recommendations for up to a full year.

## Will the Smart Monitoring System work with every water care system?

The Smart Monitoring System is designed to work exclusively with the FreshWater Salt System.

Using other water chemical systems with the Smart Monitoring System will provide inaccurate results. To guarantee the best performance, make sure your Salt System is fully up and running before starting the Smart Monitoring System.

## Why can't I use ozone, silver ion, or MPS with the Smart Monitoring System?

The chemistry behind the Smart Monitoring System will only support chlorine and salt-based chlorine systems, like the FreshWater Salt System. All other system types have different chemistries that are not compatible with the Smart Monitoring System.

## How will the Smart Monitoring System interact with the current spa mobile apps?

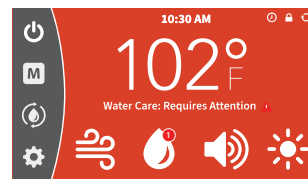
The Caldera Spas app does not currently support the Smart Monitoring System; however, you can still use them to operate the current spa function, including the FreshWater Salt System.

## Will the readings from the Smart Monitoring System be stored in any way?

History of chemistry levels measured by the Smart Monitoring System is not stored in the system.

## How will the spa inform the user that attention is needed?

- Spas equipped with a logo light will flash the logo light to indicate attention is needed.
- The spa control panel will provide notifications to the user to check the water care items.



## What if the FreshWater Salt System is not installed and someone installs the Smart Monitoring System?

If the FreshWater Salt System is not properly installed and fully operational, there will be no access to the Smart Monitoring System on the home screen. The home screen will not display the Water Care icon since the Salt System is not installed.

## When the sensor life indicator is in the red, what happens?

- As soon as the Smart Monitoring System indicator bar moves into the red section of the indicator bar, the system will stop working and will not provide any measurements on the home screen.
- Although all status meters will be visible, no status indicators for chlorine, pH, or salt will be present and the detail screens will not be accessible.

## Can the Smart Monitoring System be forced to make an immediate reading?

Results will be displayed automatically, each hour. There is no way to generate an instant reading.

# SYSTEM FUNCTION

## How are readings displayed?

Readings are displayed on the spa's topside control panel within the Water Care section.

Selecting the icon brings you to the Water Testing System home screen where you will find graphics that display your water reading.

● Green	Within range
● Yellow	Slightly out of range
● Red	Out of range

## What are the green/recommended ranges of the readings?

Chlorine	1-5 ppm
PH	7.2-7.8
Salt	1500-2000 ppm sodium chloride

## How do I start up the FreshWater Smart Monitoring System?

First, set up the FreshWater Salt System.

- The Salt System needs to be installed and operational before starting up the Smart Monitoring System.
- Follow the Salt System start-up process found in the Salt System Quick Start Guide or [Owner's Manual](#).
- Make sure the spa is maintaining the required chlorine residual before beginning the process of installing the Smart Monitoring System.
- Follow the instructions in the Quick Start Guide or digital online [Owner's Manual](#) to install the Smart Monitoring System.

## What is the 24-hour initialization period?

After the Smart Monitoring System Start-Up Kit is installed and the spa is power cycled, the salt, sensor, and cartridge reading will populate within 10 minutes, and the spa will display "24-hour initialization period." Chlorine and pH values will not populate for 24 hours. 24 hours after installation of the Start-Up Kit, all values (chlorine, pH, salt, Smart Monitoring Sensor, and salt cartridge) will populate on the control panel.

## Will the FreshWater Salt System 10-day reminder still be active with the Smart Monitoring System installed?

The 10-day timer confirmation of the FreshWater Salt System output settings is still required. If the 10-day timer is not addressed, the FreshWater Salt output levels will drop automatically at 15 and 20 days.

## If I turn off the FreshWater Smart Monitoring System, does this affect the 12-month sensor life?

When the Smart Monitoring System is turned off, the 12-month clock stops as the replaceable sensor is not operating or running tests.

## Will very high metal levels in tap/fill water affect the Smart Monitoring System?

High levels of metals will affect the FreshWater Salt System operation and startup. Metals can change the water color, stain the shell, and deposit on the sensor to alter its performance. Maintain the metals levels to the suggested ranges per the Salt System recommendations. If you have high metal content in your fill water, it is recommended to use FreshWater Clean Screen® Pre-filter.

# START-UP

## What happens if the Smart Monitoring System is installed before the Salt System is installed and the spa started-up per best practices?

- If the FreshWater Salt System is not installed, the Water Care menu, including the Smart Monitoring System display, will not be visible on the control panel.
- If the Smart Monitoring System and Salt System are installed and turned on, but the start-up is not complete, the Smart Monitoring System will provide inaccurate data.
  - If salt has not been added or is below the low yellow level, the Smart Monitoring System will be disabled.
  - If the initial chlorine shock has not been added, oxidizers and chloramines in the tap/fill water will cause the Smart Monitoring System to report incorrect levels.

The Smart Monitoring System should be turned off until the full Salt System start-up is complete. At that point, the Smart Monitoring System can be started up. Instructions can be found in the Quick Start Guide or the digital online [Owner's Manual](#).

## Why does my Water Care menu say “Initializing” when the spa is powered up?

The spa will indicate “Initializing” until the first reading is completed after the system is turned on. This typically takes 5-10 minutes. When a new sensor is installed, the spa will indicate a “24-Hour Initialization Period” for the first 24 hours of operation.

## What is the 24-Hour Initialization Period?

When a sensor is first installed, the spa will perform a 24-hour start-up sequence. Chlorine and pH will not be displayed until that is complete. This will also happen when the sensor is replaced.

## What is the recommended water chemistry for the Smart Monitoring System?

The Smart Monitoring System requires the same water quality as the FreshWater Salt System. Conditions that affect the function of the Salt System will also affect the function of the Smart Monitoring System. The Smart Monitoring System monitors chlorine, pH, and salt, but alkalinity, calcium hardness, and phosphate levels need to be monitored using a test strip. If necessary, your dealer can assist with measuring total dissolved solids (TDS), cyanuric acid, and metals. Use the same care and maintenance of the Salt System with the Smart Monitoring System.

System Parameter	Target	OK Range	
		Min	Max
Salt	1,750 ppm	1,500 ppm	2,000 ppm
Hardness	50 ppm	25 ppm	75 ppm
Alkalinity	80 ppm	40 ppm	120 ppm
pH	7.4	7.2	7.8
Chlorine*	3 ppm	1 ppm	5 ppm

\*Chlorine range and target may vary by country. Consult your local dealer if you need additional guidance.

## Why do we not start-up the spa with the Smart Monitoring System active to help guide me in building the chlorine residual for the Salt System?

Salt needs to be added, water heated, chlorine added, and the initial water cleaned before an accurate reading can be displayed. The Smart Monitoring System will provide premature readings and incorrect recommendations until the set-up process has been fully completed. The spa and fill water must be thoroughly cleaned of contamination and balanced for optimal and correct operation of the Smart Monitoring System.

## Why does the Smart Monitoring System need the FreshWater Salt System start-up process completed before it provides accurate readings?

For the Smart Monitoring System to operate correctly and provide the best recommendations, the Salt System start-up process must be complete. That start-up process has specific actions and directions to be followed which may not match the recommendations of the Smart Monitoring System. The Smart Monitoring System is designed around a minimal salt level in the spa. If the salt level is not achieved and maintained, the Smart Monitoring System will not operate.

## How long will the Smart Monitoring System give an inaccurate reading if turned on before completing the Salt System start-up process and establishing the chlorine residual?

The Smart Monitoring System will not display accurate results until the FreshWater Salt System is operational and maintaining a chlorine residual.

## It is recommended to keep the chlorine level below 5 ppm. What if the value is high?

Excessive chlorine should be avoided as it can damage spa components. The Smart Monitoring System will recommend reducing the chlorine level when the measurement is not in the green. The recommended level should fall in the middle of the green range.

## Which instructions should I use and in what order should I follow to start-up a new spa?

Follow the best practices in the [Owner's Manuals](#) for your spa, the FreshWater Salt System, and the FreshWater Smart Monitoring System found at [calderaspas.com/owners-corner/manuals](http://calderaspas.com/owners-corner/manuals).

# MAINTENANCE

## Once the Smart Monitoring System is set up and running, what maintenance checks should I conduct, and how often?

- The FreshWater Smart Monitoring System does not replace normal maintenance checks of the spa. Maintain the water to the recommended guidelines in the spa and Salt System [Owner's Manuals](#).
- Check the water per the FreshWater Salt System 10-day timer.
- If the spa water, Salt System, and/or Smart Monitoring System sensor have been exposed to products not recommended by Caldera Spas, like excessive oil-based products or cosmetics, the Smart Monitoring System performance may be impacted. The sensor electrodes, normally silver in color, may become covered in chemical contamination and take on a brown color or oily appearance, and require replacement.

## If all the parameters indicate green or yellow does that mean that there is nothing more to do or check to keep the water balanced?

- Maintain the spa water per standard procedures found in your spa's [Owner's Manual](#) and the FreshWater Salt System [Owner's Manual](#).
- Green readings require no changes.
- Yellow readings recommend minor water adjustments to get back into green.
- Continue to use 5-way test strips with the 10-day reminder to check and balance the water for alkalinity and calcium levels.

## When replacing the sensor on an existing Smart Monitoring System, will the system take 24 hours to start working?

Yes, new sensors will automatically enter the 24-hour initialization period and start showing pH and chlorine readings after that time.

## What happens if I do not want the Smart Monitoring System after it has been installed?

- The Smart Monitoring System can be removed. Be sure to replace the controller with the plug on the tee handle.
- The Smart Monitoring System can be turned off by navigating to the Sensor screen to disable it. This will stop the testing and messaging. The dashboard will be present, but the three parameters will not remain active.

## What do I need to do to maintain my FreshWater Salt System when the Smart Monitoring System is installed?

Service the Salt System per the guidelines in the Salt System [Owner's Manual](#), maintain water in the recommended parameters, and change the cartridge when it expires. The Smart Monitoring System has no impact on Salt System servicing or operation.

## My sensor expired—what do I do now?

Once the Smart Monitoring System sensor reaches the yellow portion of the life meter, it has approximately 2 months of life remaining. When it goes into the red, the sensor will no longer operate or take readings and a new sensor must be installed to restart the Smart Monitoring System.

## When chlorine is low, what type of chlorine does it recommend?

When chlorine levels are low, increase the output level of the Salt System and/or use the Salt System's Boost function.

# TROUBLESHOOTING

## **Why do the ranges displayed on the control panel not match what my test strip is showing? Should I be concerned if there is a considerable difference?**

The FreshWater 5-way test strips and other commercial test strips can be difficult to read and are not as accurate as the Smart Monitoring System. It is recommended to rely on the Smart Monitoring System for chlorine, pH, and salt values. If any values are significantly off from a reference measurement, first troubleshoot the water. Correct the salt and chlorine levels to the recommended ranges. Incorrect salt and chlorine levels can affect the pH reading. If those values are in line, and the pH is very far off, use a test strip and guidance in your spa's [Owner's Manual](#) to correct the water. If chlorine and/or pH are off after correction, bring a sample of your spa water to your dealer for calibration.

## **How do we know if the Smart Monitoring System is giving an inaccurate reading?**

The Smart Monitoring System can be impacted by many factors. Confirm that silver and MPS have not been added and ozone is not installed. Although the test strip results may vary, they can be used to check the system. Unless the values are extremely off, always rely on the Smart Monitoring System over the test strips.

## **What can cause my Smart Monitoring System to read incorrectly?**

- Use of AG+ and silver nitrate-containing products can permanently offset readings. Remove the silver device, drain and refill the spa, and replace the sensor.
- Use of MPS. The Smart Monitoring System is not calibrated to this type of chemistry. Stop use and allow several days for the MPS to dissipate.
- Installation of ozone. The Smart Monitoring System is not calibrated for ozone use. Remove ozone from the spa.
- Excessive use of dichlor and cyanuric acid build up will dampen chlorine response. Drain and refill the spa.
- Very low alkalinity below 40 ppm will offset pH readings. Increase alkalinity to within the recommended range.
- An incomplete start-up process or fill water that has not been shocked following the Salt System start-up process can cause an incorrect chlorine reading. Shock the water at start-up per FreshWater Salt System best practices.
- Not enough salt in the water can affect all readings. Correct the salt level.
- Low chlorine can affect pH. Correct the chlorine level before adjusting the pH.

## **If the Smart Monitoring System and Salt System are turned on at the same time and parameter readings are not being given after the 24-hour initialization period is complete, what do I do?**

Turn off the Smart Monitoring system until the FreshWater Salt System start-up is complete.

Ensure the correct initial amount of salt is added to the water. The Smart Monitoring System will not be operational until the minimum amount of salt has been added.

## **I lost the screw for my Smart Monitoring Sensor, what do I do?**

Replacement information can be found in the Quick Start Guide and the online [Owner's Manual](#).

## **I dropped the Smart Monitoring Sensor screw in the housing, what do I do?**

The screw must be removed to allow the sensor to fit into the housing and lock into place. The screw is not magnetic, therefore a long item with tape on the end can be used to locate and retrieve the screw.

## **How can I tell if my sensor is damaged or exposed to non-compatible chemicals?**

Indications that the Smart Monitoring System's sensor is damaged or has been exposed to non-compatible chemicals include:

- Readings that bounce erratically every hour.
- Chlorine or pH values that are chronically off from test strips or water lab test results.

## **What should I do if Smart Monitoring System components get wet or are dropped in my spa water?**

- Turn the Smart Monitoring System off on the spa's control panel.
- Quickly remove the sensor and rinse with water, preferably distilled water. Shake all excess water from the sensor and place it in a bag of rice for 48 hours.
- While the sensor is drying, re-install the plug that originally came with the spa in place of the sensor.

## **Where can I go if I need additional assistance with my Smart Monitoring System?**

For help setting up or troubleshooting your Smart Monitoring System, please contact your [local authorized Caldera Spas dealer](#) or call our customer service team 800-999-4688, ext 8432. Phone hours are 7am to 4pm Monday through Friday, PST.