# CONTROLOMATIC

# SmarterSpa+
## Saltwater Chlorine Generator

# Installation & Operation Manual

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# IMPORTANT WARNING AND SAFETY INSTRUCTIONS

**1    READ AND FOLLOW ALL INSTRUCTIONS**

**2    SAVE THESE INSTRUCTIONS**

**3    WARNING—To reduce the risk of injury, do not permit children to use this product.**

**4    WARNING—Use SmarterSpa+ only according to these instructions. Any modification or misuse of this product will void the warranty.**

**5    WARNING—Install SmarterSpa+ in accordance with all national and local electrical, plumbing, safety, and other applicable codes.**

**6    WARNING—Connect SmarterSpa+ to a GFCI (Ground Fault Circuit Interrupt) or GFI (Ground Fault Interrupt) protected VAC power source only.**

**7    WARNING—Protect the power supply and outlet from exposure to the elements, i.e. direct sun, rain, snow, condensation, etc.**

**8    WARNING—Cutting the cord from the power supply to the SmarterSpa+ electrode voids the warranty. Damage will occur if the connection is reversed.**

**9    WARNING—DO NOT use with extension cord. Injury may result.**

**10   WARNING—DO NOT operate SmarterSpa+ if damaged in any way.**

**11   WARNING—DO NOT pull on the cord to disconnect the power supply from power source. Do not allow the cord to be walked on, or to rest on sharp edges or corners. Do not drop, throw, or otherwise rough handle SmarterSpa+.**

**12   WARNING—Disconnect, remove, and store SmarterSpa+ indoors when spa has been winterized or drained.**

**13   CAUTION—Leave spa cover open at least 1 minute to allow trapped gases to escape prior to use.**

# IMPORTANT WARNING AND SAFETY INSTRUCTIONS

14   CAUTION—Measure water quality parameters and adjust if necessary prior to each spa use.

15   CAUTION—Although SmarterSpa+ does assist in monitoring chlorine levels, manual water sampling and testing periodically by the owner is required to ensure safe water conditions.

16   WARNING—Remove the SmarterSpa+ electrode from the spa when using the spa.

17   WARNING—DO NOT handle the SmarterSpa+ electrode during chlorine generation (visible bubbling). Slight discomfort may be felt in cuts, sores, or sensitive skin areas due to chlorine concentration and the electrolysis process.

18   WARNING—DO NOT insert objects into, or tamper with the SmarterSpa+ electrode in any way. Inserting metal objects into the electrode may cause damage and will void the warranty.

19   WARNING—DO NOT plug SmarterSpa+ control box directly into the VAC supply, as this will damage the SmarterSpa+. Always use the provided low-voltage power supply.

# SmarterSpa+ Overview

SmarterSpa+ is a semi-automated saltwater chlorine generation system, specifically designed for portable spas up to 1000 gallons (3800 liters). SmarterSpa+ generates chlorine from a small amount of ordinary salt (sodium chloride, NaCl) dissolved in the spa water. The amount of salt added is very small in relation to the volume of the water in the spa. The concentration required for the SmarterSpa+ is only about 5% of the salt level of ocean water, which is below the level that most people can taste.

The small addition of salt also benefits spa users by providing a softening effect on the water, leaving hair and skin feeling smoother and healthier than with traditional sanitizing products. All it takes for SmarterSpa+ to keep your spa water fresh and clean is 2.5 cups of salt per 100 gallons (380 liters) of water.

SmarterSpa+ produces chlorine in its pure form using electrolysis in order to sanitize the spa water. The SmarterSpa+ will automatically start a chlorine generation cycle when the chlorine level is low enough, using its chlorine detection technology. Since the warmer temperatures of the spa cause the chlorine to dissipate more quickly, that chlorine detection maintains the chlorine level without risking over-chlorination.

Since the chlorine originates from the salt, the unused chlorine inherently converts back into that salt, allowing the SmarterSpa+ to reuse that salt to make new chlorine. Essentially, this means that the salt level will remain fairly steady, only gradually decreasing from things like splashing or people leaving the spa with salt water still inherently on them.

# Water Preparation & Maintenance

To ensure proper operation, the spa should be prepared before installing the SmarterSpa+, so it should be drained, rinsed, refilled with fresh water, and balanced to the recommended levels indicated in this section. We have included test strips to help you measure and verify the water chemistry in that last step.

In most cases, filter replacement is recommended but not required, with the exception being for hydrogen peroxide systems. The combination of hydrogen peroxide and chlorine may cause gum-like buildup, water discoloration, and skin irritation, so it is important in that case to make sure that there is no residual hydrogen peroxide in any part of the spa, particularly that filter.

SmarterSpa+ will significantly reduce the amount of spa maintenance required, but regular chemical checkups, including chlorine levels and pH, are recommended, for the sake of proper water maintenance and thus the health and safety of the spa users, not to mention also for the lifespan of the SmarterSpa+ unit and the spa. The table on the next page lists the generally accepted ideal water chemistry for spas.

It is recommended that chlorine and pH levels are checked before each use, or at least once per week when not in use. Alkalinity, hardness, and salt levels should be checked at least once per month (see the table on the next page and Salt Requirements for recommended levels).

About once a month, use a phosphate remover (available at your local pool and spa supply store or online) to manage the phosphates in the spa water, to keep them from increasing the demand for chlorine and reducing the life expectancy of the SmarterSpa+ electrode.

It is also recommended to manually shock the spa after high usage (e.g. after a party with multiple users), or biweekly if used frequently. Make sure to leave the spa circulating for several hours before retesting, ensuring more accurate test results.

## Recommended Levels

| Parameter | Recommended Level |
|---|---|
| Free Chlorine | 2.0-3.0 PPM |
| pH | 7.2-7.6 |
| Total Alkalinity | 80-120 PPM |
| Total Hardness | 250-400 PPM |

**Warning:** Consistent chlorine levels above 5.0 PPM (parts per million) and/or consistent salt concentration levels above 5000 PPM may lead to corrosion of metal components in the spa.

**Warning:** Consistent hardness levels below 250 PPM may lead to spa equipment damage and failure. Make sure total hardness levels are within the recommended range above.

## Salt Requirements

SmarterSpa+ will generate either chlorine or bromine depending on the type of salt used: use sodium chloride (NaCl) for chlorine or sodium bromide (NaBr) for bromine. For the sake of consistency in this manual, we will primarily use chlorine spas in our explanations and examples, but those will all still apply to bromine spas, with the only exception being the quantity of salt needed (see more details on the next page).

**Warning:** Salt only needs to be added once per spa water change, so adding unneeded salt may cause the salinity to increase too much, causing the SmarterSpa+ to shut down, to protect the power supply and the electrode from damage.

**Chlorine Salt—Sodium Chloride (NaCl):**
For chlorine spas, raise the salt level to 1500 PPM (parts per million). Pool salt is the most common salt used for saltwater chlorine generators (i.e. your SmarterSpa+), but you can use any salt that is at least 99% pure sodium chloride and does not use any anti-caking agents. Essentially, when you check the ingredients list, sodium chloride should be the only one on the list.

Some mineral-enriched salts can also be used to help make the water even softer on the skin, but they will require higher quantities to achieve that 1500 PPM sodium chloride salt level. Those extra minerals may increase your risk of having too much overall salt in the water, so make sure to monitor the salt lights (or the Salt status in the app) as you add the salt. See more details on the next page, after the chart.

**Bromine Salt—Sodium Bromide (NaBr):**
For bromine spas, raise the salt level to 3000 PPM (parts per million). Similar to sodium chloride (NaCl), you will need the sodium bromide (NaBr) to be at least 99% pure, which will most likely be easiest to find at a pool and spa store, locally or online.

If you are unsure about what would be best for your spa, your local pool and spa store can likely analyze a sample of your water to give you that more specific help.

## Estimated Salt per 100 Gallons (380 Liters) of Spa Water

| Salt Type | Pounds | Kilograms | Cups | PPM |
|---|---|---|---|---|
| Sodium Chloride (NaCl) | 1.5 | 0.7 | 2.5 | 1500-2000 |
| Sodium Bromide (NaBr) | 2.5 | 1.1 | 4 | 2500-3000 |

The amount of salt to add depends on the size of the spa, which should be listed in your spa's manual. You can also estimate the size of your spa with an online spa volume calculator.

Here are some examples, using sodium chloride (NaCl):
- 350 gallons
  - 350 ÷ 100 (gallons) is 3.5
  - 3.5 × 2.5 (cups per 100 gallons) is **8.75 cups**
- 1250 liters
  - 1250 ÷ 380 (liters) is 3.3
  - 3.3 × 2.5 (cups per 380 liters) is **8.25 cups**

Simply pour the recommended amount of salt directly into the spa water to bring the concentration to the recommended level, and turn the spa jets on to help mix it in. If the water is cold, it may take several hours for the salt to fully dissolve.

**Note:** It may take the SmarterSpa+ a few hours to register the salt level the first time because of the salt still dissolving into the water, so we recommend waiting before turning on the SmarterSpa+.

**Note:** If there is too much salt, the SmarterSpa+ will shut down and display **Green** and **Red** (**Salt High** and **Salt Low**) lights at the same time (unless of course the lights were turned off from within the app). When in doubt, start with less salt than you think you need, since it is much easier to add more salt than it is to remove it, since removing it requires draining spa water and adding fresh water. If you have a water softener, your water may already have some salt in it, so in that case, before adding any salt to your spa, let the water get to temperature and then turn the SmarterSpa+ on. That way, you can check the current level and gradually add salt in as needed.

**Note:** If you are trying to decide which salt you want to use, we typically recommend sodium chloride (NaCl), since it is often more inexpensive, all while still being effective. If you have sensitive skin, sodium bromide (NaBr) may be even more gentle than sodium chloride (NaCl) already is, so feel free to check with your dermatologist for which option would be best for you.
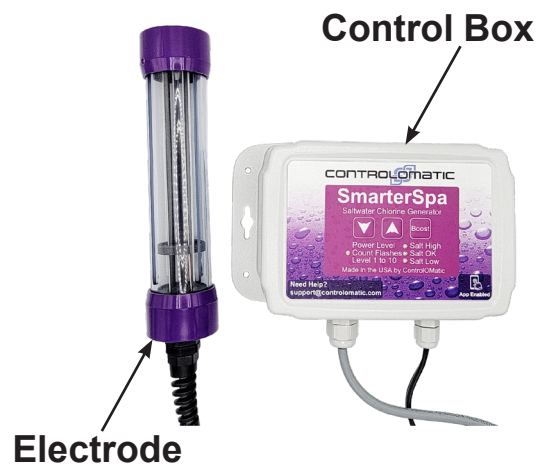
**Prepare the Spa**

Drain and clean the spa, refill, and add salt. Then, allow the water to get to over 95°F (35°C), and balance the water.

**Installation Steps**

1. Add salt (see Prepare the Spa section).
2. Install a protected electrical outlet, if not already available near the spa, for the power supply.
3. Mount the control box (see Mount the Control Box section).
4. Drape the SmarterSpa+ electrode over the side of the spa, ensuring that it is hanging vertically.
5. Turn the SmarterSpa+ on.
6. Set the power level.

**Control Box**

**Electrode**

**Power Supply**

The power supply supports 100 to 240 VAC with an output voltage of 5.5 VDC, and it comes with a 15-foot cord spanning from the power supply to the SmarterSpa+ control box. To prevent damage to the power supply, you will need a weather-protective cover (readily available in hardware stores and online) to house the power supply at the outlet.

**Please note** that installing any equipment inside the spa equipment compartment may void the spa warranty or void the safety certification of the spa and is thus not recommended.

**110 VAC Electrical Outlet**

Locate a GFCI-protected outlet (**required** for fire and shock safety) near the spa. If the outlet needs to be installed, have a licensed electrician add a 110 VAC GFCI-protected outlet.

**220 VAC Electrical Outlet**

Since the power supply plug style is for 110 VAC, have a licensed electrician install a 220 VAC GFCI-protected connection that will accept a 110 VAC-style plug. Please check your local electrical codes to ensure that the outlet is at least the minimum distance from the spa, along with verifying any other safety standards that apply to your overall spa area.

**Power Supply Connector**

Remove the tie straps from the SmarterSpa+ power supply cable and route the cable to the outlet (**without** plugging it in just yet). The cable should already be attached to the power supply, but if it gets disconnected, please note that the connector has two metal pins, one round and the other rectangular, allowing it to only install in one way, since reversing the connection would damage the SmarterSpa+.

The SmarterSpa+ also includes two cable clips, so feel free to use one (³⁄₁₆" with a #6 x ½" screw) to attach the cable to a solid surface if needed.

**Cold Weather Operation**

The power supply is not designed to operate in temperatures below -4ºF (-20ºC). If you live in an area that can get that cold, store the power supply in a warm location when the temperature is low or install the power supply in the spa equipment area where there is some protection. For the latter, make sure to first verify where you can install the power supply without voiding your spa's warranty or safety certifications.

**Mount the Control Box**

Find a suitable location to mount the control box, meeting the following requirements:
1. Vertical installation with the two cables coming out the bottom (i.e. all the words are right side up)
2. Out of direct sunlight
3. Exposed to minimal rain and moisture
    a. Even though the box is water resistant, reducing moisture exposure will minimize the chance of moisture getting inside the box
4. On a flat location on the spa skirt that:
    a. is close enough for the power supply cable to reach the outlet
    b. keeps the cable protected, e.g. on a post or wall near the spa
    c. is close enough to the spa for the 10-foot electrode cable to reach, with the electrode hanging in the deepest part of the spa

The SmarterSpa+ box mounting flange has two large holes, allowing for installing the screws first. There are also four corner holes that can be used to mount the control box to the surface.
1. Install the two small screws $7\frac{5}{16}$ inches apart and $2\frac{1}{2}$ inches or more below the top edge of the shell part of the spa.
2. Place the box onto the screws and slide the box down.
3. Tighten the screws.

**Drape the SmarterSpa+ Electrode**

Lift the lid off the spa and drape the electrode over the side into the water. For best results:
1. Place the electrode in the deepest location in the spa. When generating chlorine, the bubbles will travel up and, if the electrode is in the deepest location in the spa, those bubbles will be in contact with the spa water for as much time as possible.
2. Keep in a vertical orientation. If it is horizontal, it will generate less chlorine, due to trapped bubbles reducing the available space on the plates inside.
3. The electrode can be located in the filter area if it will fit—but this is not recommended, as the bubbles will not be in contact with the water as long as they otherwise would in a deeper location. Plus, when the pump is off, the filter door may close, trapping the chlorine in the filter area instead of in the overall spa.
4. The SmarterSpa+ includes two cable clips. Use one of the clips (¼" clip and a #6 x ½" screw) to fasten the cable to the side of the spa if necessary.

If you have not already done so, download the app by using the QR code below or by visiting https://www.controlomatic.com/ssplus-download:



Once you have the app downloaded, stand near your SmarterSpa+, turn on your phone or tablet's Bluetooth, open the app, and Connect via Bluetooth. This will allow you to connect the SmarterSpa+ to your home Wi-Fi and to set up the ability to Connect via Internet, allowing you to connect from anywhere, not just when you are standing by your spa.

**Please note** the location of your router, since your SmarterSpa+ may have trouble getting a good signal if the router is too far away and/or has too many walls in between.

Connecting via Bluetooth will allow you full control of your SmarterSpa+, so long as you stand near the unit—you will lose signal as soon as you walk too far away, just like you would with a pair of Bluetooth headphones, for example. Since it is easy for anyone in Bluetooth range to control your SmarterSpa+, there is an option to add a password for Bluetooth connections, for an added layer of security (visit Settings > Password in the app).

**Note:** If you ever forget that password, just unplug your SmarterSpa+, plug it back in, and then hold the **Boost** button as it turns back on.

Connecting via Internet will allow you to connect to your SmarterSpa+ from anywhere with an internet connection—even from halfway across the world! To set this up, you will need to
1. connect your SmarterSpa+ to your home Wi-Fi (visit Settings > Internet in the app), and
2. sign your unit into your SmarterSpa+ account, or create a new account (visit Settings > Sync Account in the app).

From there, all you need to do to Connect via Internet is to just sign in with the same email and password as your SmarterSpa+ unit.

The SmarterSpa+ has three buttons and four lights built into the overlay on the control box, for use without the app as needed. With the buttons you can view and change the power level, view and change the zero point, switch chlorine generation modes (**Boost**), and more (see Advanced Operation). The lights indicate the salt level and the current mode (chlorine generation or standby).

**Power On**
To turn on the SmarterSpa+, plug the power supply into the outlet. After a minute or two, the SmarterSpa+ will flash all four lights to let you know that the computer inside has finished powering on. It will then flash all four lights again after another minute once it has finished setting up communication (e.g. once it is logged into your SmarterSpa+ account) and is ready for app connections.

Chlorine generation may start within a few minutes, depending on the chlorine level. Unless lights are disabled in the app (visit Settings > Device Lights in the app), the White light will flash every ten seconds to indicate standby mode, until the SmarterSpa+ detects that the chlorine level is low enough to start a chlorine generation cycle.

**Making Chlorine (Salt Level Indication)**
**Note:** None of the lights listed in this section will apply if the lights are turned off from the app (visit Settings > Device Lights in the app to adjust).

When making chlorine, SmarterSpa+ will indicate with a solid light if the salt level is high, low, or normal, along with visible bubbles coming from the electrode. In the app, the Chlorine switch will be in the On position, and the Salt status will be represented with the respective word, e.g. a low salt level would cause the app to simply say "Low" while the **Red** light on the control box is on.

This reading is actually a measure of how much electrical current is being drawn to the plates in the electrode, so if there are extra minerals in your water or salt sources (e.g. well water or Dead Sea Salt), they may add to the reading. Only the actual salt (NaCl) in the water will produce chlorine though.

We recommend starting with lower salt and seeing if that produces enough chlorine, since it is easier to add salt than it is to remove it. Plus, running with minimal salt will help your SmarterSpa+ electrode last longer.

If the lights are on solid, your SmarterSpa+ is generating chlorine:
- Solid **Green**—**Salt Level High**, current between 2.0 and 2.4 amps
- Solid **Blue**—**Salt Level Normal**, current between 1.0 and 2.0 amps
- Solid **Red**—**Salt Level Low**, current below 1.0 amps
- Solid **Green** & **Red**—current has exceeded the maximum of 2.4 amps and the SmarterSpa+ has shut down to protect the power supply and the electrode
  - Drain out some water and refill with fresh water to dilute the salt level
  - Then, cycle power or press the **Boost** button to have it check again
  - For more details and tips for predicting how much water to drain, see the Troubleshooting section in the app

**Standby Mode (Not Making Chlorine)**

The SmarterSpa+ does not have a cycle time—instead, it turns on when needed. When the chlorine level is low, it will automatically start a chlorine generation cycle based on the selected power level. At the end of that cycle, the SmarterSpa+ will turn off until the chlorine level drops again, waiting at least three hours in between cycles so as not to risk over-chlorination. While it is in standby mode, the `White` light will flash every ten seconds (if lights have not been disabled from the app). In the app, the Chlorine switch will be in the Off position.

**Important:** When the estimated electrode life has reached 90% use (i.e. 10% of the life is left), the `White` light will rapidly flash twice every ten seconds instead of just once. Depending on your water and salt sources, power level, zero point, and overall care of the electrode, it may continue to work well, even beyond the 100% point. So, our intention is that this reminder helps you look out for when your electrode starts producing less chlorine and to order a replacement electrode ahead of time, to have it ready for when you need it.

**Chlorine Voltage**

SmarterSpa+ measures the chlorine as a voltage, and that voltage indicates whether or not there is any chlorine in the first place, not necessarily how much there is. In other words, if the voltage is low enough, then that means the chlorine is gone; if the voltage is above that point, then there is chlorine.

If you were to measure chlorine with a test kit, you may get a reading of low or no chlorine. This is normal so long as the SmarterSpa+ starts generating chlorine within a few hours. It is also quite common for manually maintained spas to have brief instances of little to no chlorine in between maintenance.

If you would prefer for your SmarterSpa+ to produce chlorine sooner, before the chlorine levels get that low, you can raise the zero point (see Zero Point section). You also may need to lower the power level so that the SmarterSpa+ turns on more often for less time, balancing the total amount of time that it is on each day.

**Power Levels**

SmarterSpa+ includes ten power level settings, to accommodate for a variety of spa sizes and needs. Since the power output to the electrode is constant for the entire generation process, the power level instead indicates how much time the SmarterSpa+ generates chlorine each time it turns on. The longer it runs, the more chlorine it adds to your spa. For example, the factory setting of 3 indicates that the SmarterSpa+ will run for two hours per cycle.

**View the Current Power Level Setting**

To view the power level, either visit the Controls page in the app or simply press the **Up** or **Down** button once, holding until the `White` flashes start, and then count the flashes. As a couple of examples, 3 `White` flashes means power level 3, and 7 `White` flashes means power level 7.

After the power level is displayed, the SmarterSpa+ displays the chlorine value, the current to the electrode, or the zero point, depending on which button was pressed and whether or not the SmarterSpa+ is currently generating chlorine. See the Advanced Operation section of this manual or the app for more details.

**Changing the Power Level**

To adjust the power level, you can either use the arrow buttons on the Controls page in the app or adjust directly from the control box:

1. Press both the **Up** button and the **Down** button at the same time. The White light will turn on solid (instead of flashing), indicating that it is in power change mode.
2. Press the **Up** button to increase power—the **Green** (**Salt High**) light will flash each time the **Up** button is pressed. Once you reach the maximum power level of 10, the **Green** light will be on solid.
3. Press the **Down** button to decrease power—the **Red** (**Salt Low**) light will flash each time the **Down** button is pressed. Once you reach the minimum power level of 1, the **Red** light will be on solid.
4. When you are finished, do not press any buttons for three seconds, and the White light will flash the new power level, confirming the setting change.

**Selecting the Right Power Level**

Selecting the right power level may require some testing, since every spa is different, and there are a variety of factors that can affect what level would be best for you and your spa. Here are some examples:

- Frequency of spa use
- Number of people
- Spa temperature
- Phosphate levels
- Time of last drain and refill
- Presence of an ozone generator

After this period of initial testing, your SmarterSpa+ will automatically keep your spa chlorinated. To determine which level to test first, see the chart below for the estimated power level for your spa size. This is only a starting point, and the final level may be very different, per the factors listed above.

Here is how you can test which level is right for your spa:

- Day 1: Set the power level according to the table below and the size of your spa.
- Day 2: Measure the chlorine level at the end of a chlorine generation cycle. If it is higher than you want, lower the power level by 1. If it is lower than you want, raise the power level by 1.
- Day 3: Repeat the Day 2 step until the chlorine remains constant at the desired level for a couple of days.

| Power Level | Gallons | Liters |
|---|---|---|
| 1-3 | < 200 | < 760 |
| 4 | 200-300 | 760-1150 |
| 5 | 300-400 | 1150-1500 |
| 6 | 400-500 | 1500-1900 |
| 7 | > 500 | > 1900 |

**Note:** If the chlorine level is 0 PPM (parts per million), even 24 hours after installation, the initial chlorine demand on the spa may be above what SmarterSpa+ can produce in order to break away from zero. In this case, manually add chlorine or shock (according to the product label) to assist in the initial setup. You also may need to add more salt, particularly if you are using a mineral-enhanced salt like Dead Sea Salt, since only the sodium chloride (NaCl) in the water will produce chlorine. We recommend only adding a little at a time since it may take a while for it to dissolve and to change the salt indicator lights, and going over can cause the SmarterSpa+ to shut down to protect the power supply.

If spa usage drops (vacation, winter, etc.), you will not have to adjust the power level: your SmarterSpa+ will automatically increase the time between chlorine generation cycles, preventing over-chlorination. If you would like to lower the power level in those scenarios to prolong the electrode's lifespan, particularly for longer periods of non-usage, feel free to do so.

**Boost Button & Power Level Times**
To start or stop a chlorine generation cycle, press the **Boost** button or toggle the Chlorine switch on the Controls page in the app. If the SmarterSpa+ was in standby mode, it will switch to producing chlorine, regardless of if the water has reached zero point. If the SmarterSpa+ was already producing chlorine, this cancels that cycle.

When pressing the button, the **Green** and **Blue** (**Salt High** and **Salt OK**) lights will flash, acknowledging the button push.

**Note:** The SmarterSpa+ cannot make chlorine faster; the **Boost** button simply turns it on for a single cycle. If the spa chlorine has dropped to 0 PPM (parts per million) from heavy usage, chlorine may need to be added to help break past zero.

| Power Level | On Time |
|---|---|
| 1 | 30 min |
| 2 | 1 hr |
| 3 | 2 hr |
| 4 | 3 hr |
| 5 | 4 hr |
| 6 | 5 hr |
| 7 | 6 hr |
| 8 | 7 hr |
| 9 | 8 hr |
| 10 | 9 hr |

**Electrode Lifespan Indicator**

This feature tracks the amount of time the SmarterSpa+ electrode has been actively producing chlorine. The typical lifespan of the electrode is 7000 hours of chlorine generation. To view the lifespan, either check the Controls page in the app, or:

1. Press the **Boost** and **Down** buttons at the same time.
   a. The following lights will flash to indicate the percentage used:
      - **Green** (**Salt High**) = 100
      - **Blue** (**Salt OK**) = 10
      - **Red** (**Salt Low**) = 1
   b. Examples:
      - 5 **Blue** flashes means that 50% life has been used
      - 6 **Blue** flashes and 2 **Red** flashes means that 62% life has been used (38% life is left)
2. When the electrode life has reached 90%, the `White` light for standby mode will rapidly flash twice every ten seconds instead of just once. Depending on your water and salt sources, power level, zero point, and overall care of the electrode, it may continue to work well, even beyond the 100% point. So, our intention is that this reminder helps you look out for when your electrode starts producing less chlorine and to order a replacement electrode ahead of time, to have it ready for when you need it.

To reset the indicator (i.e. after replacing the electrode), either reset from the Electrode setting on the Controls page in the app or press all three buttons on the control box at the same time.

# SmarterSpa+ Advanced Operation

Here is how to read values from the unit lights, for if the app version is not readily available:
- **Green** (**Salt High**) = 100
- **Blue** (**Salt OK**) = 10
- **Red** (**Salt Low**) = 1

So, 1 **Green** flash, 3 **Blue** flashes, and 4 **Red** flashes would mean 134.

**Chlorine Voltage—When in Standby Mode**

The built-in sensor measures for the absence of chlorine as a small voltage. To view that reading (in millivolts), press the **Down** button while in standby mode. The `White` light will flash the power level, and then the **Green**, **Blue**, and **Red** lights will display the current sensor value. When this value is low enough (zero point), the SmarterSpa+ infers that the chlorine is gone and automatically starts a cycle in response. This can also be viewed in the app by tapping the Salt section while connected via Bluetooth.

**Electrode Current (Salt Level)—When Generating Chlorine**

While generating chlorine, the SmarterSpa+ measures the current going to the electrode—this is how it determines which salt light to turn on. To view that reading, press the **Down** button while in a generation cycle. The `White` light will flash the power level, and then the **Green**, **Blue**, and **Red** lights will display the electrode current. This can also be viewed in the app by tapping the Salt section while connected via Bluetooth.

If the value is over 240 (2.40 amps), then there is too much salt in the water, and the SmarterSpa+ will suspend chlorine generation until it detects less salt. This is what is happening when you see both the **Green** and **Red** lights on at the same time.

On the other hand, if your SmarterSpa+ is not making enough chlorine and this value is lower than 150, feel free to add more salt.

**Zero Point**

As previously mentioned in the Chlorine Voltage section, SmarterSpa+ uses a built-in sensor to measure for the absence of chlorine. When the sensor value drops below the zero point, your SmarterSpa+ starts a chlorine generation cycle. The factory default is 15, and will most likely never need to be changed.

After pressing the **Up** button, the White light will flash the power level, and then the **Green**, **Blue**, and **Red** lights will display the zero point value. This can also be viewed in the app on the Settings page.

**Changing the Zero Point**

If you need to adjust the zero point, press and hold the **Up** button, and continue holding the **Up** button through both the power level and zero point displays, which will then end with the White light turning on solid, at which point you can stop holding the button. While the White light is solid, pressing the **Up** button will increase the zero point by 1, and pressing the **Down** button will decrease it by 1. The range is 10 to 150, and to let you know when you reach the ends of the range, the **Red** light will be on solid at 10, and the **Green** light will be on solid at 150. This can also be adjusted in the app on the Settings page.

A higher zero point means that your SmarterSpa+ will start generating chlorine sooner (while there is more chlorine still in the water), causing the SmarterSpa+ to turn on more often. Because of this, you may need to lower the power level so that it turns on more often for less time.

A lower zero point means that the SmarterSpa+ will wait for the chlorine level to drop further before generating more, which may be more efficient for less frequently used spas.

To maximize your electrode's lifespan, we recommend having your zero point at the lowest value that still chlorinates your spa to the desired level.

**Factory Reset**

If you ever need to factory reset your SmarterSpa+, you can either do that from the Settings page in the app or by holding the **Up** and **Boost** buttons as it turns on, specifically after unplugging it and plugging it back in. This will reset the power level to the default of 3, reset the zero point to 15, remove your home Wi-Fi information, sign out of your SmarterSpa+ account, etc.

The app version makes resetting the Electrode Life optional, but the buttons version resets that setting by default.

Note: Some iOS devices may need to manually forget the SmarterSpa+ in order to be able to reconnect after the factory reset. To do this, go to your Settings app, select Bluetooth, look for a device named "SS-PLUS", tap the ⓘ, and then tap "Forget this Device".

# New to Saltwater Spas

Here are some guidelines and suggestions for if this is your first saltwater spa:

- Always start out with low salt since it is much easier to add salt than it is to remove it. The SmarterSpa+ measures the salt level with an electrical current, so water temperature, other minerals, and other factors can affect the measurement, in addition to the salt itself. If there is too much salt (i.e. when both the **Green** and **Red** lights are on), the SmarterSpa+ will pause chlorine generation so as not to draw too much current and damage itself.

- Keeping your spa balanced is more than just maintaining chlorine: you will also need to maintain the pH, along with possibly balancing alkalinity, hardness, etc., depending on your water source. To get more detailed help for your specific water, bring a sample to your local pool and spa store so that they can analyze your water and give you more tailored advice.

- If you have a sudden increase in spa usage (i.e. from friends visiting), you may need to temporarily increase the power level, manually turn on the chlorine generation, or even shock the water to rebalance after that higher chlorine usage.

- Make sure to occasionally inspect the electrode since some water sources (i.e. ones high in calcium) can cause buildup inside the electrode, both on the plates and on the wires connected to those plates. This buildup will prevent the electrode from generating chlorine, and could potentially even short the unit if left untreated for long periods of time.

  - The easy fix for the buildup is to unplug the SmarterSpa+ and let the electrode soak in a mild acid (e.g. vinegar) for 10-30 minute intervals until the buildup is gone.

# Limited Warranty

Models: This warranty applies to SmarterSpa+ models referenced as "System".

ControlOMatic, Inc. Warrants the system to be free of all defects in material and workmanship for one (1) year from the owners original purchase date. The system includes the power supply unit, cable, electronics, and electrolytic generator for residential use only. The product must be installed properly and used in accordance with this manual and all applicable local codes and regulations. This warranty is not transferable (proof of purchase may be necessary). Damage to the system from improper water maintenance is not covered in this warranty.

In no event shall ControlOMatic, Inc. be liable for consequential damages for breach of this warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply. The warranty does not cover any loss or damage to the product due to improper installation, product abuse, misuse, negligence, or improper maintenance of the system, pool or spa. The warranty does not cover any loss or damage to the spa, spa components, users, or anything outside the system due to system failure. Since ControlOMatic has no control of the use of this system the purchaser assumes all responsibility for using the system.

This warranty does not apply to any costs, repairs, services, damages, claims or losses for all of the following: Service calls to install, reinstall or correct the installation of the product, or to explain the usage of the system to the buyer, repairs necessitated by use other than normal home use, damage resulting from misuse, unintended use, unforeseen use, non pool or spa use, abuse, accidents, alterations, improper installation, or corrective work necessitated by repairs made by anyone other than an authorized service technician.

THE FOREGOING WARRANTIES ARE CONTINGENT ON THE PROPER USE OF THE SYSTEM IN ACCORDANCE WITH THESE INSTRUCTIONS AND SPECIFICATIONS AND SHALL NOT APPLY TO ANY SYSTEM THAT HAS BEEN REPAIRED OR MODIFIED BY PERSONS OTHER THAN THE MANUFACTURER.

THE EXPRESS WARRANTIES SET FORTH IN THIS AGREEMENT ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. MANUFACTURER HEREBY SPECIFICALLY DISCLAIMS ANY OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT WILL MANUFACTURER'S LIABILITY FOR ANY CLAIM, WHETHER IN CONTRACT, TORT OR UNDER ANY OTHER THEORY OF LIABILITY, EXCEED THE AMOUNT NECESSARY TO REPAIR OR REPLACE THE COVERED SYSTEM.

Should any problem develop during the warranty period, contact ControlOMatic: https://www.controlomatic.com/contact-us/.