

ACE® SYSTEM START-UP

Fill your spa

Use the CleanScreen® pre-filter with the valve 50% closed. **Important:** If there are metals present in the water, they must be removed before starting up the ACE system start up. Treat for metals and wait 24 hours before turning the ACE system on or adding any chlorine or oxidizers.

System Start-up

- Balance water using a 5-way test strip.** Using a FreshWater® 5-way test strip, measure pH, alkalinity, and hardness levels to determine if your water is in the "OK" ranges for the ACE system and adjust as needed.
- Reduce Hardness to 50 ppm.** Use the Vanishing Act® calcium remover. Rinse before use, and follow instructions on the box. Continue start-up while Vanishing Act is working; reposition the bag after jets are turned on/off. More than one Vanishing Act may be needed.
- Add salt.** With jets running add salt to the filter compartment one cup at a time, and allow 5 minutes to dissolve. Use salt test strips to verify salt level is around 1750 ppm. **Note:** The water care icon and On/Ready light may flash until water reaches a temperature above 95 degrees.
- Enter Output level.** Press the Options hard button on the control panel to access the water care menu. Within the water care menu, scroll through Use Levels (0 = system off, 10 = maximum output) by pressing the soft button near the word Output. **The recommended Output level at start-up is between 3 and 5, depending on spa size.**
- Superchlorinate/Shock.** Add granular sodium dichlor as directed on the bottle to create an instant chlorine residual of 5 ppm, helping the ACE system address impurities in fill water and plumbing. Allow jets to run for 5 minutes per jet system, rotating diverter valves.

ACE system Parameters	Target	Min - "OK" Range - Max	
Salt	1750 ppm	1000 ppm	1750 ppm
Hardness	50 ppm	25 ppm	75 ppm
Alkalinity	80 ppm	40 ppm	120 ppm
pH	7.4	7.2	7.6
Chlorine	3 ppm	1 ppm	5 ppm

Spa Model	Salt cups or grams	
Vista® / Summit®	9.5	2750
Grandee®	9.5	2750
Envoy®	8	2500
Aria®	7.5	2200
Vanguard®	7.75	2250
Sovereign®	6.75	1950
Prodigy®	6.25	1800
Jetsetter®	4.0	1150
Gleam™	9.5	2750
Pulse®	7	2030
Flair®	6	1750
Bolt®	5.5	1595
Glow®	5	1450

24 hours later

- Remove Vanishing Act calcium remover and discard in your normal trash.
- Test spa water with a test strip and adjust alkalinity and pH as needed. **If Hardness level still reads above the recommended range of 50 ppm, use additional calcium remover at this time.**
- If there is not at least 3 ppm of chlorine in the water, manually add granular sodium dichlor to reach 3 ppm. **Repeat this step each day until the ACE system can independently maintain a chlorine residual.**

Important: The ACE system cleans the water before it produces a chlorine residual. If there is not a measureable amount of chlorine in the spa water after 24 hours, this is an indication that the ACE system is still in the process of cleaning the water. If you use the spa very heavily initially, it may take the ACE system a few days to clean the spa water and keep up with your chlorine demand.



Spa Owner Responsibilities

The ACE[®] system makes spa ownership simple and easy by reducing the amount of time required to care for your spa water. It is important to note that maintaining balanced and sanitized spa water is ultimately the responsibility of the spa owner. Follow the guidelines below to ensure your success.

- **Maintain balanced spa water.**
 - **Always maintain balanced spa water.** The pH and alkalinity levels must stay within the OK range. Use a test strip weekly, or each time you use the spa, to verify.
 - **Keep total hardness at or below 50 ppm.** High levels of calcium in spa water will lead to more frequent cell cleaning and replacement. Use a test strip to check hardness, especially after topping off the spa. Use the Vanishing Act calcium remover as needed, or a softened water source.
 - **Test for chlorine regularly.** Use a test strip weekly, or each time you use the spa, to measure the chlorine level in the water. The recommended chlorine level is between 1 and 5 ppm. It is okay to add FreshWater[®] Concentrated Chlorinated Granules to supplement the system.

- **Adjust Output level as needed.**
 - **To maximize cell life, keep the Output level as low as possible** to meet your normal chlorine needs. If your use pattern changes, adjust the Output level up or down accordingly. Use the Boost function or add FreshWater[®] Concentrated Chlorinated Granules on occasions when needed.
 - **Use the Low Use Output settings when appropriate.** The ACE system **does not have a sensor** and cannot measure how much chlorine is in the water. The ACE system will continue to generate chlorine according to the Output level selected, even if you have not been using the spa. High levels of chlorine can damage the spa. If you are not going to use the spa for an extended amount of time – like a vacation – adjust the output level to 1.
 - **Boost only occasionally.** The Boost feature allows you to increase the Output level temporarily. Activating a Boost will cause the cell to run at maximum output (level 10) for a 24-hour period, and then return to the previous setting. Select an Output level that meets your everyday needs, and use Boost pre- and post- events that are outside your normal use. If the Output level is already high, the Boost will be less effective.

- **Ongoing maintenance**
 - **30-day check-up.** Every 30 days the water care icon on the control panel and the Hot Spring ready light on the front of your spa will flash as a reminder to conduct this **30-day maintenance routine**: (1.) Test and balance spa water, (2.) Confirm Output level, (3.) Rinse filter(s), and (4.) shock the water. The 30-day timer will reset any time you adjust your Output level. If you do not perform the 30-day maintenance routine, the ACE system will default to a low-use Output level.
 - **Clean the ACE Cell regularly.** The ACE cell has a finite life and will need to be replaced periodically. To maximize time between replacement, regularly inspect the cell for scale and clean it at least once every three months. Look through the holes at the end of the cell; anything that obstructs the view through the channels is scale. Follow the cleaning procedure in the Owner's Manual.
Important: Never insert anything into the cell or pressure wash it. This will damage the electrodes.