



TROUBLESHOOTING TIPS FOR FROG® @ease® SYSTEMS

Hot tub owners tell us the FROG @ease System is the easiest water care system they have ever used. The key is to maintain water balance and make sure you replace the FROG @ease SmartChlor® Cartridge when empty. (Approximately every 3-4 weeks.)

Here are a few tips should you experience one of these issues.

CLOUDY WATER / UNDER CHLORINATION

- 1 SHOCK THE HOT TUB WITH FROG MAINTAIN®, A NON-CHLORINE SHOCK.



- 2 CHECK YOUR WATER BALANCE

a. If your pH or TA is off, SmartChlor will not be as effective.

Most Often: The Free Chlorine residual is low when the pH is too high.

- Add “pH Down” to bring the pH into the ideal range of 7.2 to 7.8.
- The Free Chlorine residual will then come back up to 0.5 ppm after the pH adjustment has been made.

WATER BALANCE GUIDELINES

pH:	7.2-7.8
Total Alkalinity:	80-120 ppm
Calcium Hardness:	150-250
Total Dissolved Solids:	<1500
Free Chlorine:	0.5-1.0 ppm

NOTE: Free Chlorine levels are reduced up to 75%* when using FROG minerals.

- 3 CHECK TO SEE IF YOUR FROG @ease SMARTCHLOR CARTRIDGE IS EMPTY

- a. In some circumstances, the system may not completely flip over. Pull it out of the hot tub and drain all the water. Then put it back in. If it immediately flips over it's empty.
- b. You can also shake it slightly to feel if there is any SmartChlor material left inside.

- 4 MAKE SURE YOUR MINERALS HAVE NOT BEEN USED FOR MORE THAN 4 MONTHS

- a. When you hear minerals left inside the blue cartridge, it is because one of the minerals does not completely dissolve. The mineral that does the bacteria fighting however only lasts 4 months so you must replace the FROG @ease Mineral Cartridge at that time.
- b. We suggest making a note on your calendar for the replacement date of the minerals and be sure to replace every time you drain and refill the hot tub.

HIGH COMBINED CHLORINE LEVELS

- 1 **THIS IS NORMAL!** With the FROG @ease System's self-regulating process, there is a chlorine reserve that converts to Free Chlorine automatically when needed.
- 2 When testing SmartChlor with other test strips you will see the Total Chlorine is higher than the Free Chlorine. The total is the SmartChlor reserve that is inactive. When the hot tub needs more Free Chlorine to kill bacteria, it pulls from the reserve. Therefore no shocking is required when the total reading is different than the free reading.
- 3 To prevent confusion, always use FROG @ease Test Strips. A 30 count bottle comes with every FROG @ease System.

*Compared to the minimum ANSI recommended chlorine level of 2.0 ppm for a hot tub.