IntelliChlor Diagnostics

Rev 3.00 to 3.06

Blinking cell light ("Clean cell" alarm) is a condition where the cell has low conductivity (*the cell voltage could rise up to 29V, causing the unit to stop generating chlorine until the "alarm" condition is corrected*) this can be attributed to:

1. Low salt level <2,900 ppm, which reduces the conductivity of the water
2. Calcified cell which restricts voltage through the plates
3. Low water temperature which reduces conductivity of the water
4. Air in the cell – which reduces the conductivity of the water.
5. If you have low salinity and if the temperature sensor is bad (shorted), it could think the salt is normal, but the actual conductivity is low, which will trip the alarm.
6. Phosphates / High pH level

To test the temperature sensor you can push and hold the "More" button" for at least 3 seconds. This puts the cell into diagnostic mode where you can test the temp sensor to see if it is good or bad

1. If the "cold" water light turns "red" you have a bad temperature sensor. Replace flow switch (part number 520736
2. If the cold water light "flashes" "red" it is telling you that the temp sensor is reading a temperature of 100 plus degrees. Then you can compare the water temperature with a thermometer to see if the IntelliChlor sensor is reading correctly.
3. You will also notice that the 20, 40, 60, 80 or 100% LEDs will be lit which displays the cell hours used - meaning if the 20% light is lit, it indicates that the cell has run more than 2,000 hours but less than 4,000 (which would be the 40% light) and has 80 to 60 percent of its life left. If the 40% light is lit, it indicates that the cell has run more than 4,000 hours but less than 6,000 and has 50 to 40 percent of its life left.
4.

While in diagnostic mode if you press the "More" button again the % LEDs will show you the temperature (plus or minus 5 degrees) So if you have the 80% LED lit, that is 80 degrees plus or minus 5, so the temperature could be 75 to 85. If two lights are lit the temp is between those lit lights - say you have 80% and 100% lights lit, which would be 90 degrees plus or minus 5 degrees.

You can toggle back and forth between the "temperature" reading and the "cell hours used" by pushing the "More" button.

Another function of the diagnostics is:
If you push and hold the "Less" button the % LEDs will display the cell reversal cycle, if the 20% LED is lit, that is telling you that the cell reversal is set at 2 hours. The cell coming out of the factory is set at the 2-hour cycle and after so many hours (approx. 1 month) it will change to a 3-hour cycle.

When you take a Wand reading, remember to switch the power to the cell off (wait until all lights turn OFF) and then back on to make sure the cell takes a fresh salt reading. If the cell is not powered down, the cell reading from the Wand will be a stored value from the last time the cell checked for salt, possible 12 hours ago. The IntelliChlor takes a new salt reading at every power up and after every 12 hours of cell run time. After recycling power you should run the cell at 100% output for a minimum of 3 min to get an accurate cell voltage reading.

If all checks out OK and you have replaced multiple cells and they all have the cell light flashing, it is usually related to water quality, or something in the water that could plate out on the blades and cover them with a very thin film that could cause resistance, pushing the voltage >29v. It is difficult to tell you without analyzing the cells, so we need samples sent to Damaso Gallo in Deerfield Beach.

Very important –

- Have you tested the salinity level of the pool? Try to keep it at or above 3,400 ppm
- Test the water chemistry
    - If the pH is >7.8 this can cause calcification issues
- Phosphates will cause a higher chlorine demand. This is a food supply for algae
    - Keep phosphate levels below <0.1 ppm (or <100 ppb)
    - Phosphates are known to bind to the cathode of chlorine generating electrode cells causing a reduction or elimination of chlorine production.
- Nitrates will cause a higher chlorine demand. This is another food source for algae and other microorganisms.
    - Keep nitrates below <10 ppm
- Cyanuric Acid levels should be maintained between 50 to 80 ppm for an outdoor pool.