

# TROUBLESHOOTING CHEAT SHEET FOR POOL PILOT (CUBBY) IN-LINE SERIES

## 1) Alternate red/green

- ?? Unit is self testing for 1 minute when first turned on.
- ?? Unit is discharging internal capacitors when turned off.

## 2) Solid Green Light ✍

- ?? Unit Working but not producing chlorine, in its rest period.
  - Remember when output dial is set at "0" or if unit is in its rest period you will get solid green light.
- ?? 220 volt power supply may only have 110 volt going to the power supply
- ?? 816 Led board may have a bad solder joint
- HINT:** At 100% output setting the unit should always flash green. If it doesn't the cable may be plugged into the Blue Port. The blue port will put the unit in low output mode.

## 3) Flashing Green Light ✍

- ?? Unit is Producing Chlorine.

## 4) Single Red Flash ✍

- ?? Indicates a Flow Problem

A: Filter may be Dirty

- If filter is dirty, clean or backwash the filter to increase the overall flow.

B: Water exiting the filter is being diverted away from inlet of the flow detector the inlet of the flow detector.

- Make sure they do not have valves closed off or water diverting away to other water features like, waterfalls, therapy jets, etc. If they are diverting water away to a water feature they may have to adjust the valve so more flow goes thru the flow switch to activate the switch. **REMINDER** you need at least 15 gpm going thru the flowswitch to activate it.

C: Ensure the flow detector has been installed in the proper direction of the flow of water.

- On the flow switch are arrows indicating the direction of the flow, so they can Look at the flowswitch and visually make sure the arrows are in the direction of the flow.

D: The flow detector may have failed. Check switch for continuity to verify flow switch has failed - use your multi-meter.

## 5) Two Red Flashes ✍

**HINT: Remember if you take cell out of the water while the unit is powered up you will get 2 red flashes.**

?? Cell may be scaled.

A: If scaled, turn unit off (0%), then clean cell in a bucket or directly in the well with 1 part muriatic acid to 4 parts water for 15 - minute intervals until scales is completely removed. \* Always add acid to water & never the other way around.

- If you clean the cell in the well
- Turn Garden hose on and insert into well.
- Put 1 to 2 cups of acid in the well
- Wait approximately 15 minutes or until bubbling stops \*\*\*\*\*The hose is put in there so you do not have the acid going directly onto your finish, which can cause damage\*\*\*\*\*.
- *To determine what caused the cell to scale, get complete chemical readings.  
Chlorine, pH, Total Alkalinity, Calcium Hardness, Stabilizer, Water Temp.*
- *Compare with Taylor Watergram or Langeliers Saturation Index.*

**If the cell scales in less than 1 week and all the chemical readings are Correct, then the unit may not be reversing polarity.**

B: Ensure that the cell cord is properly attached to the power supply.

C: Ensure that the bottom port is **Not** obstructed.

- If debris in bottom port –flush out with hose
- Once flushed out, take a bucket of pool water and dump into well to increase the salt level in the well.

***Remember, adding fresh water dilutes the salt level!***

?? Cell may have Failed

A: Check the cell with a 957B tester for Volts and Amps.

RC-3 cell: 6 – 10 Volts over 10V will get 2 red flashes

RC-5 cell: 13 – 16 Volts over 16V will get 2 red flashes

The amps for a RC-3 and RC-5 cell is 2.8 to 3.1 Amps

*If they do not have a 957B tester have them send in cell for us to check.*

**NOTE:** *Serial Number 201914 and newer allows the volts to rise above 16v with either cell but will flash Red to indicate a problem but still allows you to check cell amps & volts.*

B: Look inside the cell to see if the blades are showing signs of depletion. Usually the outer blades on the RC-3 and RC-5 cell start depleting.

*(Depletion is when the outer blades become shorter than the inner blades.)*

?? Salt May be Low

A: Check the salt reading by using your Salt test strips, a salinity meter or have them take a sample of water to a local retail store to get tested. The recommended salt level should be 2500 ppm - 3000 ppm.

## 5) Two Red Flashes ✍ Cont'd

?? Very Cold Water

A: If the water temperature is below 60 degrees. Lower your output dial to “0” and put in a non – chlorine shock until the water temperature increases above 60 degrees.

?? The unit may not be reversing Polarity

A: The microprocessor chip may have failed

- To replace chip:

- 1) Turn unit off
- 2) Take off power supply cover. The chip is located below the ORP J2 at U3.
- 3) Remove chip carefully.
- 4) Put new chip. When installing new chip, the circle on the chip must be at the bottom!
- 5) Then restart unit.

B: The power supply will need to be sent in to Autopilot.

## 6) 3 Red Flashes ✍

?? Low Cell Volts, short circuit in cell, or failed power supply. Check DC volts @ Blue flow connector for 4.6 to 5.0 v DC. Lower than 4.6v DC = bad power supply.

## 7) 4 Red Flashes ✍

?? No volts or amps, failed power supply

## 8) No Chlorine Production

?? Make sure the unit does not have any Red Flashing Lights ✍

?? Verify if the flow cable is installed in the low output port (Blue Port) or the normal output port (White Port).

A. **REMINDER** – Flow cable installed in the Blue Port/low output port will only produce 1/8 of the time. **Example:** if the chlorine setting is at 100% you will only produce 12 ½ % of the time. Each chlorine settings is based on a 36-minute cycle.

?? Check volts and amps of unit.

?? Gallons of Pool

?? Verify Pump Run Time is Correct

A: Minimum 10 hrs a day

?? Get all Chemical readings

A: Especially make sure they have the correct Stabilizer level.

B: Make sure Total Chlorine and Free Chlorine match in PPM.

- Total Chlorine and Free Chlorine should match and if Total Chlorine is Greater than Free Chlorine by 0.3 ppm they must shock the Pool because the chlorine is Combined and not properly Sanitizing the Pool.

?? If the chemical readings are correct then recommend them to Increase Pump run time.

