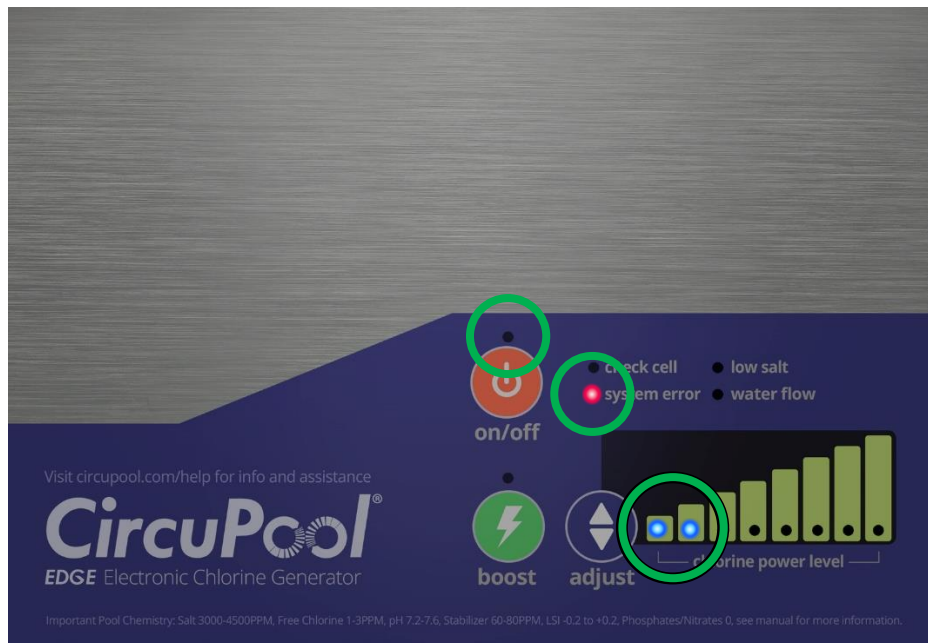


How to Diagnose System Error Codes

When the System Error indicator light is lit, perform the following diagnostic to identify the System Error code. The System Error light **MUST BE ILLUMINATED** before testing.

If the SYSTEM ERROR LED is lit:

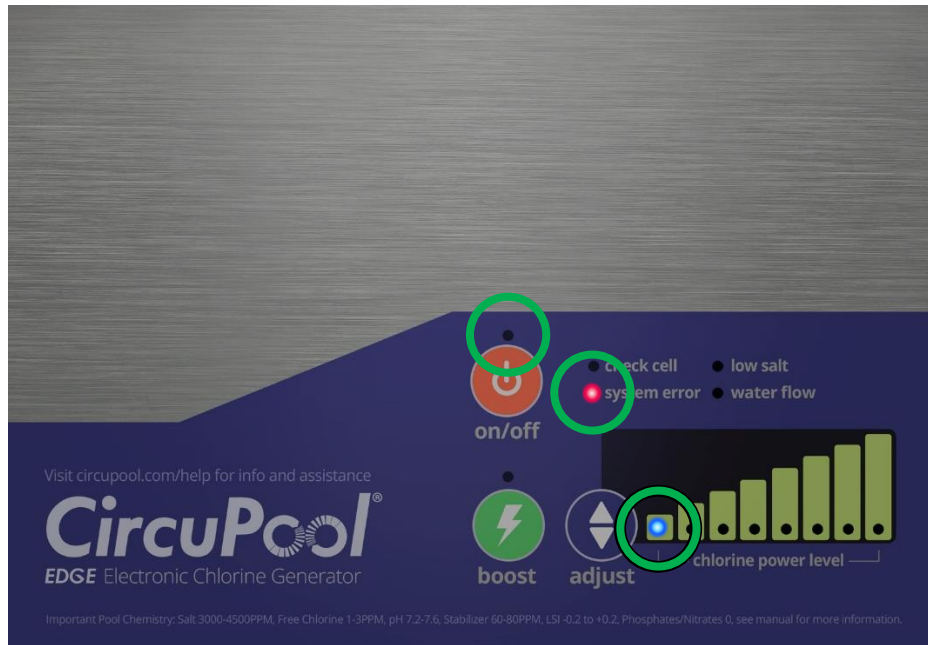
1. If unit is currently ON (if the LED above on/off is lit), tap the on/off button once to turn it OFF.
2. The unit will go OFF, but the System Error light will remain ON. To get the Error Code, count the number of LED lights that are lit on the "chlorine power level" graph (anywhere from 1 to 7 will be lit).
3. This count is the System Error Code currently indicated. Proceed to the corresponding section for that System Error code. In the example below, System Error code 2 is shown.



Example of System Error Code 2 - the unit is OFF (no LED above on/off), the system error LED is lit, and 2 power LED's are lit.

Note: Some critical System Errors (2, 4, 5, 6, 7) may result in automatic shut-down of the Control Module. In these cases, the ON/OFF indicator will already be off with the System Error light on, and the corresponding number of LED lights will already be shown on the power graph. If the Control Module is turned back on, it will continue to shut off and return to the System Error state, showing the number of LED lights that correspond with the specific error code.

System Error 1 – No/Low Salt, Cell Scaling, Air, or Connection Problem



If a System Error 1 is illuminated, it is critical to check and fix these 5 issues before proceeding.
The following issues will commonly cause this error.

- Check the pool's [salt level](#) and adjust to minimum 3500ppm if necessary.
- Confirm cell is [fully clean](#) & free of scale & debris between plates. Clean again if necessary.
- Check for air getting pulled into the cell causing large bubbles during operation.
- Check if cell plates are damaged, deteriorated, pitted or physically worn. If so, this indicates corrosive water chemistry (low LSI, preventable) and the cell must be replaced.
- Check all cable connections and clean if necessary, to remove any corrosion or debris.

If none of the above resolve the System Error 1, proceed with the additional troubleshooting on the next page to determine what the source of the issue is.

System Error 1 (CONTINUED) – Sub-Error Codes

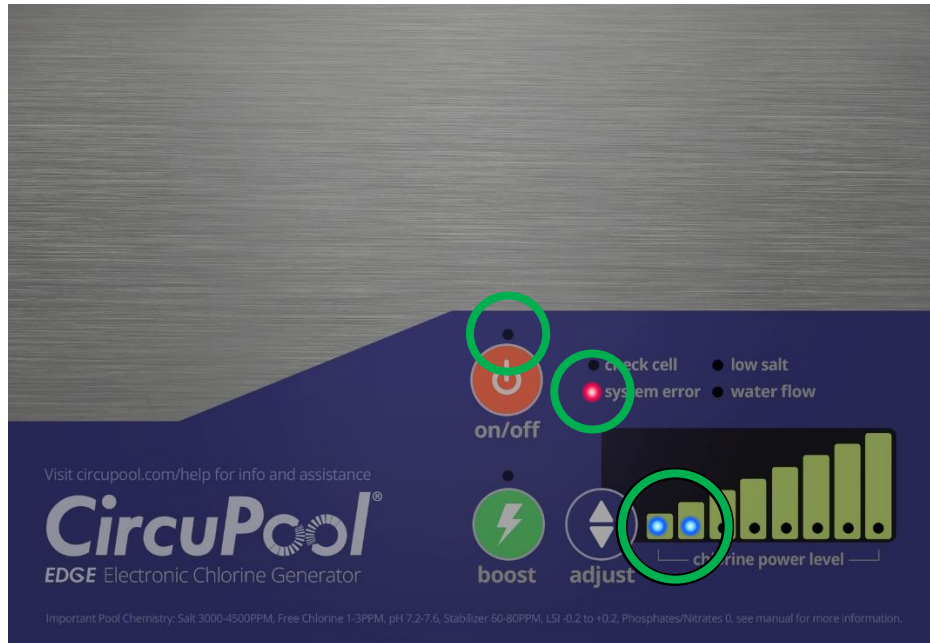
1. Disconnect the Control Module's cable connectors from the cell, and then connect the Control Module cable's white and black connectors together (bypassing the cell and connecting the cable to itself, as shown). Leave the cell's short connectors disconnected.



IMPORTANT: the next step will determine the second part of the System Error 1 code. Once determined, power the Control Module back off as soon as possible and disconnect the above cable connection. **Do not leave the connections to power supply together for too long, as it could damage the internal power supply.**

2. Turn back on pump and the EDGE Control Module. WAIT 45 SECONDS. The System Error indicator light should come on within a few moments.
 - If all lights flash on the Control Module and it reboots, the electronics are functional and the Cell needs replacement.
 - If the Control Module does not flash all lights and goes directly to System Error, there is an issue with the electronics and the Control Module must be replaced.
3. **Once this is determined, remove power immediately and disconnect the Control Module's cable connectors from each other in order to prevent damage to the unit.** To protect all of the connections until the replacement part arrives, connect the Cell and Control Module back together as normal.

System Error 2 – Over-Current or Debris



If a System Error 2 is illuminated, it is critical to check and fix these issues before proceeding. Turn off pump and salt system. The following issues will commonly cause this error.

- Check cell for any debris or foreign object that may be lodged between plates. Use a high pressure garden hose to get it out, do not stick anything between plates. If mineral scale is present, [clean the cell](#) according to the instructions in the manual.
- Check if cell plates are damaged, deteriorated, pitted or physically worn. If so, this indicates corrosive water chemistry ([low LSI](#), preventable) and the cell must be replaced.
- Check all cable connections and clean if necessary to remove any corrosion or debris.

If none of the above resolve the System Error 2, proceed with the additional troubleshooting on the next page to determine the second numerical sub-error code for this issue. (Example: System Error 2.1, System Error 2.2)

System Error 2 (CONTINUED) – Sub-Error Codes

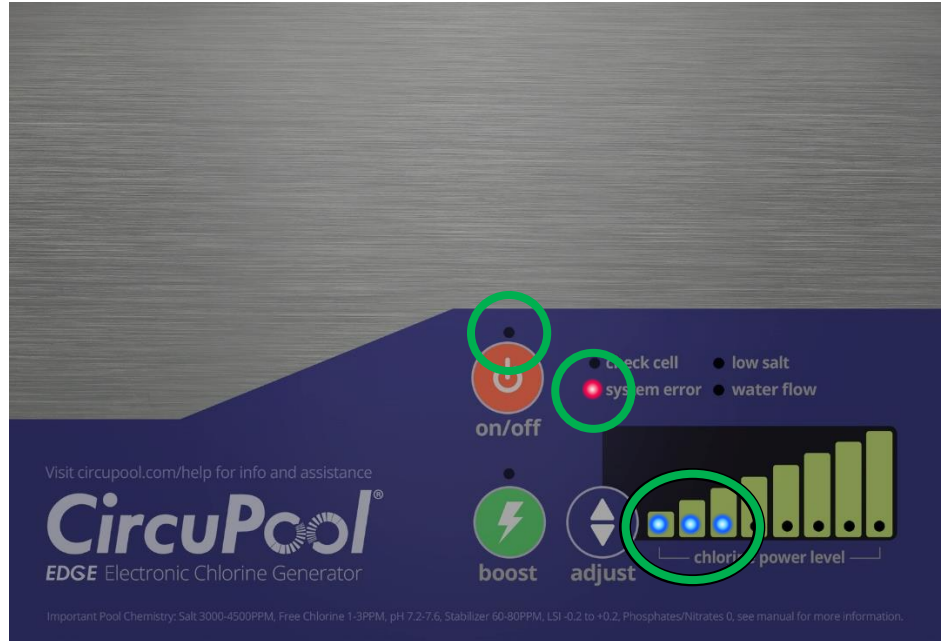
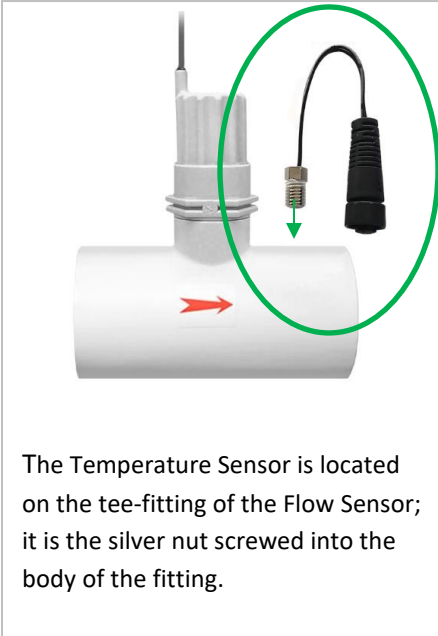
1. Disconnect one end of the Control Module's cable connectors from the cell.



IMPORTANT: the next step will determine the second part of the System Error 2 code. Once determined, power the Control Module back off as soon as possible and restore the normal cable connection. **Do not leave the connections connected to only one side and powered for too long, as it could damage the internal power supply.**

2. Turn back on pump and the EDGE Control Module. The System Error indicator light should come on within a few moments. Once the System Error light is back on, take note of the number of LED indicators lit on the power graph. This corresponds to the System Error 2 sub code.
 - If one power graph LED is lit (System Error 2.1), the electronics are functional and the Cell needs replacement.
 - If two power graph LED's are lit (System Error 2.2), the Control Module must be replaced.
3. **Once this is determined, remove power immediately in order to prevent damage to the unit.** To protect all of the connections until the replacement part arrives, connect the Cell and Control Module back together as normal.

System Error 3 – Temperature Sensor Connections



If a System Error 3 is illuminated, check and fix these issues before proceeding which will commonly cause this error.

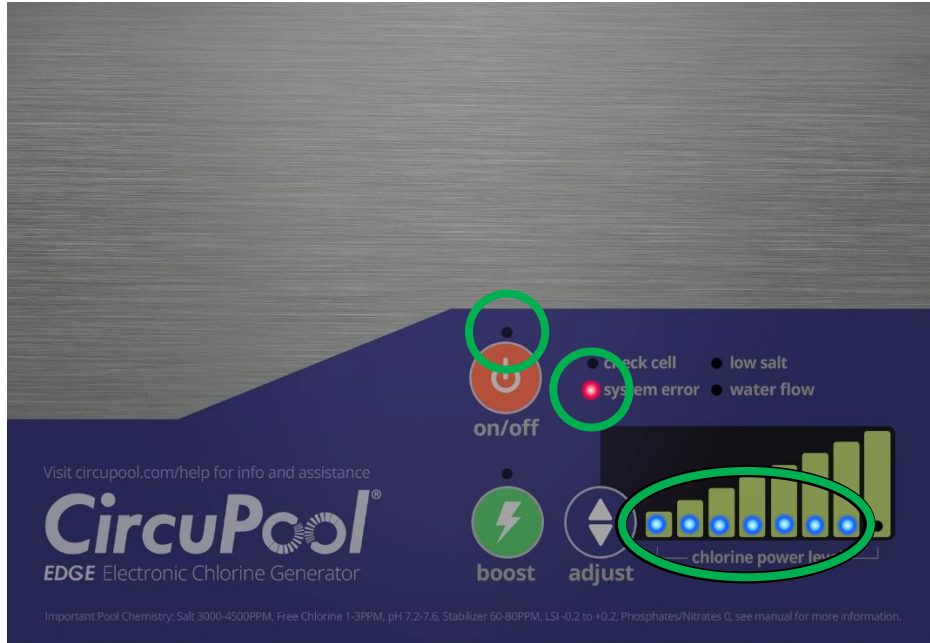
- Check Temperature Sensor connection to make sure the wire is not broken or loose, and that cable connections are free of corrosion; wipe clean if necessary.

If there is no visible damage to the Temperature Sensor or cable connection, proceed with additional troubleshooting. You will need a small metal wire, paper clip, or other similar object to serve as a “jumper” to complete the circuit:



1. Disconnect the Temperature Sensor cable connection.
2. Tap the “Adjust” button on the Control Module until all 8 LED’s are on.
3. Wait about 45 seconds to allow the system to ramp up internally.
4. Press and hold the “Boost” button for about 3 seconds until the “water flow” light comes on.
5. Tap the “Adjust” button twice to get the “check cell” light.
6. At this point there should be 7 LED’s on the power graph.
7. Touch the ends of your jumper to the male prongs on the Temp Sensor connector.
8. With the jumper securely touching both prongs, count the power graph LED’s:
 - If 8 LED’s show, the Temp Sensor itself is bad and needs replacement.
 - If only 7 LED’s still show, there is electronics damage and the Control Module needs replacement.

System Error 4, 5, 6, 7 – Critical Faults



If a System Error 4-7 is illuminated, critical electronic damage has occurred, and the Control Module must be replaced.