

Please note the following is intended as general advice only.
Always consult a pool professional for advice specific to your pool.

Question

Why do I have a low chlorine level in my pool?

Answer

Answers are listed below in order from most common to least common

1. Low Stabilizer Level in the Pool Water (Outdoor Pools Only)

You MUST ensure the stabilizer level in the pool water is between 40ppm and 80ppm.

If you do not add stabilizer, UV light from sunlight will break all the chlorine down within hours.

Low stabilizer levels may also result in wide chlorine level swings - low to high, high to low.

Add stabilizer as per recommendations. Overdosing stabilizer will inhibit chlorine effectiveness.

If the pool is in poor condition, manually shock dose with chlorine and operate the filtration system for 24hrs per day until it is clear and then return to auto.

2. High Bather Loads

High bather loads introduce more than the usual swimmer wastes which may overwhelm the salt chlorinator output. New pools generally experience a higher-than-normal bather load.

It may be necessary to shock dose the pool manually and periodically with chlorine to meet this demand.

Manually adding a chlorine shock dose during periods of high chlorine demand is NORMAL.

Manual additions have the ability to break down the elements in the pool water that lead to high chlorine demand.

Your pump and chlorinator may need to operate for more than 8 hours per day if the chlorine demand is high.

If the pool is in poor condition, manually add a chlorine shock dose and operate the filtration system for 24hrs per day until it is clear and then return to auto.

3. Filtration Hours are Insufficient to Meet Demand

Operating your filtration system for more than 8hrs per day when demand is high is NORMAL.

The idea that all filtration systems only need to operate for 8hrs per day is not true.

Extra running hours will allow the chlorinator to introduce more chlorine into the pool.

Extra running hours will provide for more pool water turnovers through the filter which will greatly assist with waters clarity.

If the pool is in poor condition, manually add a chlorine shock dose and operate the filtration system for 24hrs per day until it is clear and then return to auto.

4. Rain, Debris or Garden Run Off

These events can strip the pool of chlorine and cause a huge chlorine demand.

Often the pool owner is unaware of the run-off into the pool from paving or a surrounding garden bed unless you are watching during a rain storm.

Phosphates and nitrates will enter the water and cause a huge chlorine demand.

Test for phosphates and add phosphate remover.

Shock dose the pool manually with chlorine and increase filtration hours per day.

If the pool is in poor condition, manually add a chlorine shock dose and operate the filtration system for 24hrs per day until it is clear and then return to auto.

5. Cell has a Mineral Build Up and Requires an Acid Clean

The cell will clean itself where water balance conditions are kept within the normal range.

Generally, where the calcium level exceeds 200ppm and water temperatures are high, you may need to periodically clean the cell with acid for it to produce chlorine.

In some instances, particularly where chemicals are fed through the skimmer box, a non-conductive coating that you may not see coats the cell and prevents it from producing chlorine.

DO NOT ADD CHEMICALS TO THE SKIMMER BOX.

- See 'Cell Maintenance' in FAQ for instructions on cleaning the cell.
- See 'How To Test If The Pool Lab Chlorinator Is Producing Chlorine' in FAQ for instructions on testing a Pool Lab cell.

If the pool is in poor condition, manually add a chlorine shock dose and operate the filtration system for 24hrs per day until it is clear and then return to auto.

6. Incorrect Salt Level

The message **HIGH SALT** is nothing to worry about, this message informs you NOT to add more salt.

The message **HIGH SALT OFF** means you have too much salt in the pool and to protect the chlorinator, it switches off chlorine production.

Dilute the water with fresh water to rectify.

If the pool is in poor condition, manually add a chlorine shock dose and operate the filtration system for 24hrs per day until it is clear and then return to auto.

7. Low Water Flow

Low water flow will prevent the cell from producing chlorine.

Low water flow will prompt the message – **LOW FLOW OFF**.

- Check baskets and filters for blockages.
- Clean filter.

If the pool is in poor condition, manually add a chlorine shock dose and operate the filtration system for 24hrs per day until it is clear and then return to auto.

CHLORINE SHOCK DOSE PROCEDURE – Based on a 50,000lt Swimming Pool

If sufficient chlorine is added in one large dose, you will meet the high chlorine demand and provide the conditions for the salt chlorinator to resume the regular chlorine requirements of the pool.

We often see a 500g sachet of chlorine being prescribed to overcome a high chlorine demand issue.

This quantity of chlorine will do little to nothing to solve a high chlorine demand issue.

For 50,000lts, add 15lts – 30lts liquid chlorine or 2kg – 4kg of 70% Granular Chlorine.

In some cases, larger doses are required.

If you have a POOL LAB ASP installed

The ASP is the world's most accurate and reliable Chlorine and pH management system.

For over 10 years, it has proved to provide the most reliable instrument used in the pool industry.

It is beneficial to view the historical Chlorine & pH readings to establish what is going on.

- Hold the **VIEW** button for at least 5 seconds until the screen menu alters.
- Push the **UP** or **DOWN** button until the asterisk is next to the word **HISTORY**.
- Push the **UP** or **DOWN** button to view the previous 24 test readings.

Comparing on-site test results or Pool Shop results with POOL LAB ASP readings

To compare chlorine readings, the following method must be followed:

- To compare readings with a manual test, you must use a good quality test kit like a Taylor test kit and use Taylor brand reagents that are new. Older reagents may provide inaccurate readings.

- You must take the sample water from the skimmer box.

This is the same location that the ASP will take its test water from.

- You must initiate the ASP to take the test at the same time that you perform a manual test.

Repeat the tests three times and observe the results.

Given the Taylor test is a manual "human optical test" you cannot expect an accuracy of more than 0.5 to 1.0ppm from person to person.

If the manual test is within 1ppm of the ASP result, this is okay for the purpose of comparison.

If the ASP reagents are very dark in colour and you cannot see the writing on the bag, this may contribute to the actual chlorine level in the pool being higher, not lower than the ASP reading.

Another reason for differences in readings between manual and ASP is water movement in the pool.

A swimming pool can actually have high and low chlorine levels within the one body of water depending on the hydraulics of the pool.

This can lead to variations in readings.

Test strips must not be used to compare readings as they provide a rough indication only.

When comparing ASP readings with pool shop test results

First, initiate a chlorine and pH test on the POOL LAB system.

How to initiate a chlorine and pH test on the POOL LAB system:

- Press and hold the VIEW for 5 seconds
- Navigate using the UP or DOWN button to ASP TOOLS and press VIEW
- Navigate using the UP or DOWN button to RUN TESTS and press VIEW

The test sequence will take approximately 10 minutes to complete and display the results.

Whilst the test sequence is underway, take a water sample from the pool.

- The water sample container must NOT be a soft drink bottle or have contained acidic goods.
- The water sample container must be rinsed a number of times with pool water to ensure it is clean.
- Take the water sample at a depth of 300mm away from pool returns and preferably close to where the filtration system draws in the water from the pool.

Take the water sample to your pool shop for testing immediately - once water is dispensed into a bottle and effectively aerated and stored for a period, the chlorine and pH levels will change.

**POOL LAB uses a photometric system to test water which is the gold standard throughout the world.
Not all pool shops will have equipment as accurate as POOL LAB.
Do not expect the pool shop results to be identical to POOL LAB.**