



Spa Pool **Water Care** Handbook

Easy Guide to Water Maintenance

***This Guide
Used with
'Spa Supplies
5 in 1
Test Strips'
With Batch EXP:
Dec 2020***



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INTRODUCTION



Water Maintenance Made Easy

Just like a car, your spa pool needs care and general maintenance to keep it looking good and running smoothly!

To ensure your spa pool is ready to be used at all times, we need to ***treat and balance the water*** to keep it clean, fresh and inviting.

You may have received a 'Water Care Startup Kit' with your purchase, which will be used along with this guide. If you do not have a kit, please purchase one from Alpine Spas or Spa Supplies.

Successful water care consists of a simple startup procedure and an ongoing, easy maintenance care plan.

If you have a general idea about water maintenance or just want to get on with treating your spa pool, you can skip straight to startup in Section 2.

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Section 1

BEGINNERS GUIDE TO WATER TREATMENT



What is Water Treatment?

Water treatment is the process of adding chemicals to your spa pool's water to keep it clean and safe to bathe in. Treating the water involves two parts - **Sanitising** and **Balancing**.

Sanitising the Water

Sanitising means adding a disinfectant such as chlorine into the water to kill bacteria. Without sanitising the water properly, you are putting the users health at risk and also potentially voiding the warranty of your spa pool.

Whether we like it or not, every time a spa pool is used, bacteria gets into the water along with oils and dirt. Without proper sanitising, bacteria will grow quickly and will turn the water into a foul smelling, discoloured and potentially dangerous environment.

To further help eliminate bacteria, your spa pool may also be equipped with automatic sanitising systems such as an ozone generator and/or a U.V system. These powerful systems will virtually kill all bacteria that passes through them, however bacteria can multiply quickly and hide in places they can't reach such as deep within the pipes.

So in order to make sure all bacteria in the spa pool is removed, you must also use a small amount of primary sanitiser such as Chlorine (included in a 'Water Care Startup Kit').

Chlorine comes in a powder form which is added manually by sprinkling into the spa pool while the jets are on. If you're adding more than a few teaspoons you should always dissolve in a bucket of water first, before adding.

Tip: Adding a primary sanitiser such as Chlorine on a regular basis will help prevent an outbreak of bacteria growth.

SECTION 1



Balancing the Water

Sanitising the water is easy, but you must also consider other factors and properties of the water if we want to be sure it is clear and comfortable to bathe in. This is where the balancing pH, Total Alkalinity and Calcium Hardness comes into play. It may seem overwhelming at first, but it's only these three factors (aside from sanitising) that need to keep in check.

pH Levels

pH is the scale measurement of the acidity or alkalinity of a substance (in this case, spa pool water). The scale runs from 0 (very acidic) up to 14 (very basic) with a pH of 7 being neutral.



Lemon juice sits at 2.0 on the scale (very acidic), while soapy water is around 12 (quite basic). Your skin and eyes prefer a pH level of between 7.2 to 7.8, which is one of the reasons why we need to keep the spa pool water in this range, so it's comfortable to bathe in!

The pH of the spa pool water will continuously change because as you bathe you are unintentionally adding in small amounts of body oils, soaps and shampoos. Unbalanced pH can cause a range of problems such as skin and eye irritation, pump corrosion, spa shell corrosion and more.

Keeping the pH in an optimal range of 7.2 - 7.8 not only keeps you and your spa safe, it also ensures your sanitiser can work effectively.

Generally the pH will only need decreasing from time to time with ***PH DECREASE***. If it is very low, the pH can be raised with ***PH INCREASE*** (sold separately) or for small increases use the ***PH BUFFER*** supplied.



Total Alkalinity

Total Alkalinity (TA) is a measurement of the total amount of 'alkali' (not to be confused with alkaline) present in the spa pool water. It is measured in PPM (parts per million) and is displayed on your test strips.

The alkali act as a 'bodyguard' to your pH, helping to stabilize it by taking the brunt of any change to the water from acidic or basic substances that enter the spa pool.

Balancing your TA to between 80 - 120PPM will help to lock pH within the 7.2 - 7.8 OK range. It's important to set the TA first at startup, so your pH is much easier to balance going forward!

Calcium Hardness

Calcium Hardness or 'total hardness' is a term for the measurement of minerals in your water including calcium and magnesium. Sometimes this referred to as soft water (low calcium) or hard water (high calcium). It is also measured in PPM (parts per million) with the ideal range between 120 - 250 PPM.

It's important to have an optimal level of Calcium Hardness because:

- Soft water will force the water to draw from other minerals such as copper and iron, wrecking havoc on your spa pool parts, corroding heating elements and pump seals.
- Hard water will attempt to get rid of the excess calcium and will leave scale build up on your shell, inside your pumps and on your heater element.

Generally town supply water from the tap sits in the OK range but may need raising slightly on startup with the **CALCIUM HARDENER** supplied.

SECTION 1



Other Regular Maintenance

These steps don't need to be carried out as regularly in your water maintenance plan but are still key factors in achieving crystal clear water.

Shocking (Shock Dose)

Once a fortnight and/or after heavy usage, the spa should be 'shock dosed' with a larger than normal dose of **SPACHLOR**. Shocking oxidizes excess organic materials or 'leftovers' and will help to quickly clean up cloudy or green water. Always dissolve chlorine for a shock dose in a bucket of water first and add to the spa with jets on.

Filtering

Your spa has filter cartridge/s that help to skim the water and remove excess debris. These are a vital part of keeping your water clear and work within a 'filter-cycle', an automatic process in which your spa controller runs the circulation pump at dedicated periods during the day. During this time, any automatic systems (ozone / U.V) help to disinfect the water, lowering the amount of additional sanitiser you need to manually add.

Ensuring your filter cartridges are clean is an important factor for a healthy spa. Clogged filters will result in a range of water chemistry issues, not to mention the extra load placed on the pumps and components which can void the warranty.

Check your filters a minimum of once per week and wash thoroughly with a hose. Once a month you should wash the filters in a filter cleaning solution (you can find more on this in your spa manual).

Tip: Remember to check your filters regularly and clean them thoroughly (in-between the filter papers). You may find that a simple clean will help make your water easier to balance.



Filter cycles can sometimes be programmed via the control panel. If you have a heavy bather load (a lot of users on a regular basis) it may be worth increasing the duration and/or frequency of the filter cycles. Consult your manual for settings and recommendations.

General Cleaning

Always keep your spa as clean as possible by removing any debris and wiping away any build up of scale or grime. Leaves, dirt and dust can affect the pH of the water and be working against you to keep within the optimal range of 7.2 - 7.8.

Summary

You must sanitise and balance the water to ensure it is clean and safe to use. This is done with our Startup Kit which contains all the necessary products, including test strips that can tell you what products to add and how much.

- Sanitiser should be added regularly (see section 3).
- pH should be kept in the ideal range of 7.2 to 7.8 (OK).
- Total Alkalinity ideal range (OK) is between 80 - 120PPM.
- Calcium Hardness ideal range (OK) is between 100 - 250PPM.

Now that you have a basic understanding of whats involved with treating spa pool water, you can move on to the next sections which explain the startup process and how to use your Startup Kit products exactly to balance and sanitise the spa pool water.

SECTION 2



Section 2

SIMPLE 8-STEP SPA STARTUP GUIDE

Simple Water Setup Guide



Please ensure you have followed any 'Pre-Fill Guides' in your spa pool manual before starting these steps.



1. Grab your Startup Kit, check power to the spa pool is off and remove the cover.



2. Place your hose in the filter box (remove any pre-installed filters) and fill the spa pool up to the recommended fill line (see manual).



3. Once full, turn on power to the spa pool. A 'priming cycle' will automatically run. This tests the components, while also preparing itself to heat up (allow 5 minutes).



4. Run your pump/s and 'shock dose' the water using '**SPACHLOR**'. (Follow the instructions found in section 3).



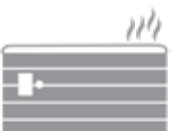
5. Test the water's PH and Total Alkalinity levels and add appropriate chemicals to balance if required (see section 3).



6. Allow pumps to circulate for 20 minutes with covers off so the chemicals can mix. Check your set temperature is at the desired setting.



7. Replace cover and allow to heat (12+ hours).



8. Enjoy your new spa pool! Test for Calcium Hardness after 1-2 days and adjust as necessary (see section 3).

SECTION 3



Section 3

NO HASSLE WATER CARE & DOSING GUIDE



Treatment Procedure and Tips

This section provides the information you need to effectively **treat the water** and maintain clear healthy water to bathe in at all times.

Here is an example minimal water care schedule for 3x weekly usage for a family of 3. Heavier usage may require weekly shockdose and filter cleaning.

| | BALANCE WATER | SANITISE | SHOCKDOSE | CLEAN FILTERS | DRAIN |
|------------------|---------------|-----------------------------|-----------|---------------|-------|
| STARTUP | ✓ | | ✓ | | |
| WEEKLY | ✓ | Per Guidelines (Page 21) | | ✓ | |
| FORTNIGHT | | | ✓ | | |
| EVERY 3-4 MONTHS | | | | | ✓ |

Be sure to follow the below guidelines and warnings:

Test Strips

- Turn off all pumps before dipping test strip.
- Test strips may give more accurate results when dipped horizontal.

Mixing Chemicals

- Completely remove cover before adding products.
- Turn on pumps and sprinkle products into jet stream. Large doses should be mixed in a bucket of water first.
- Never mix dry chemicals together.
- Remove headrests when shock dosing.

Measuring/Dosing

Measure your products with the container's cap or a teaspoon. The dosage tables on pages 22-25 are displayed with these icons:



= 1 Level Capful



= 1 Level Teaspoon

SECTION 3



A Look Inside your Water Care Kit

The Startup Kit contains the following necessary products to keep your spa pool water clean and fresh:

Startup Kit contains:



SPA CHLOR



CALCIUM HARDENER



PH BUFFER



PH DECREASE



TEST STRIPS

Recommended extra products to have on hand*:



FILTER CLEANER
(Assists cleaning of filter cartridge)



CRYSTAL CLEAR
(Clears up cloudy water)



NO FOAM
(Removes foam from water)



ALGAEICIDE
(Kills algae if present)



PIPE CLEANER
(Cleans out pipes)

Products available to purchase online from spasupplies.co.nz



Testing Strips: *(Page 16-17)*

Without test strips, you won't know how much to dose. These are vital for balancing water as it reports the condition of the water and shows which parameters need balancing and by what amounts.

Sanitiser (Chlorine): *(Page 21)*

As explained in section 1, bacteria and viruses can grow quickly in hot water. A Primary sanitiser such as chlorine is used to effectively disinfect the water and keep it fresh.

pH Decrease (Lower pH & Alkalinity): *(Page 24/25)*

If your pH is too high, the water is too alkaline/basic and can cause problems such as cloudy water and skin/eye irritation. You need to lower the pH to within the normal range (7.2 - 7.8) using a decreasing product.

pH Buffer (Raise Alkalinity & pH): *(Page 23)*

If your alkalinity is not in optimal range, you will have trouble maintaining a stable pH level as it is easily affected by changes to the water. Use pH Buffer to increase the Total Alkalinity to the correct range which helps to 'lock-in' your pH level.

Calcium Hardener: *(Page 24)*

Also referred to as 'Total Hardness', this product raises calcium in the water. Town supply generally contains an optimal amount of calcium and should require minimal balancing.

SECTION 3



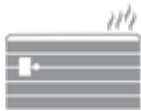
How to Test the Water



1. Turn off jet pumps (circulation pump on is okay).



2. Take a test strip from out of the bottle.



3. Quickly dip the test strip into the spa water, closest to the middle as possible and down 10-15 cm. You may find dipping the strip horizontally can product better results.



4. Give it a light flick to remove excess water, wait 30 seconds, then compare the colored tabs on the strip with the color chart on back of the test strip bottle.



5. Write down your readings and add the right amount of chemicals to adjust the levels as required.

Testing Strips

Spa pool water should be tested and balanced a minimum of once a week. This may need to be adjusted accordingly if you are finding the water has changed considerably in one week (try every third day until the water is corrected and then reduce testing to weekly again).

In the Startup Kit is a bottle of test strips which can be used to assess the current condition of the water. The results of the test strips can be used to indicate which chemicals should be used to balance the water and the dosage required to achieve the optimal ranges.

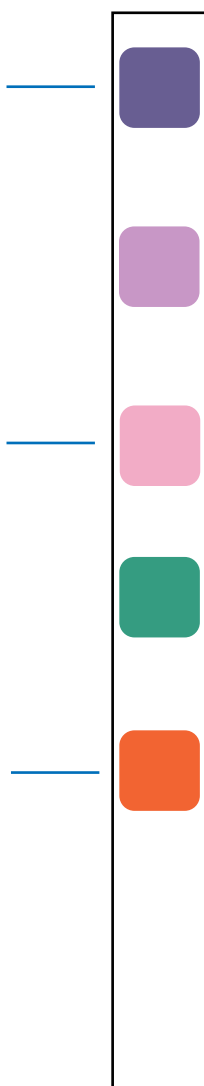


Matching Results to your Test Strip.

The test strip contains 5 squares that represent the levels of Sanitiser, Calcium Hardness, Total Alkalinity and pH as shown below.

Total Hardness

This square represents the reading of Calcium Hardness or how soft/hard the water currently is. This is displayed in PPM (parts per million).



Total Chlorine:

Disregard this reading*
See sanitising plan page 21.

pH:

This square represents the reading of pH and it's current position (high/low/ok) on the measurement scale (e.g. 7.8)

Free Chlorine:

Disregard this reading*
See sanitising plan page 21.

Alkalinity:

This square represents the reading of Total Alkalinity. This is displayed in PPM (parts per million).

**This guide assumes your spa pool is equipped with an automatic sanitiser such as Ozone or U.V. system. Such systems may breakdown certain parts of the sanitiser that is picked up on the test strip resulting in blank results for Free & Total Chlorine. To combat this, we recommend following a consistent sanitising plan which doesn't require checking the Free & Total Chlorine (see page 21 for more detail). A spa pool without these systems would be aiming to maintain consistent level of Free & Total Chlorine of around 2-3 ppm.*

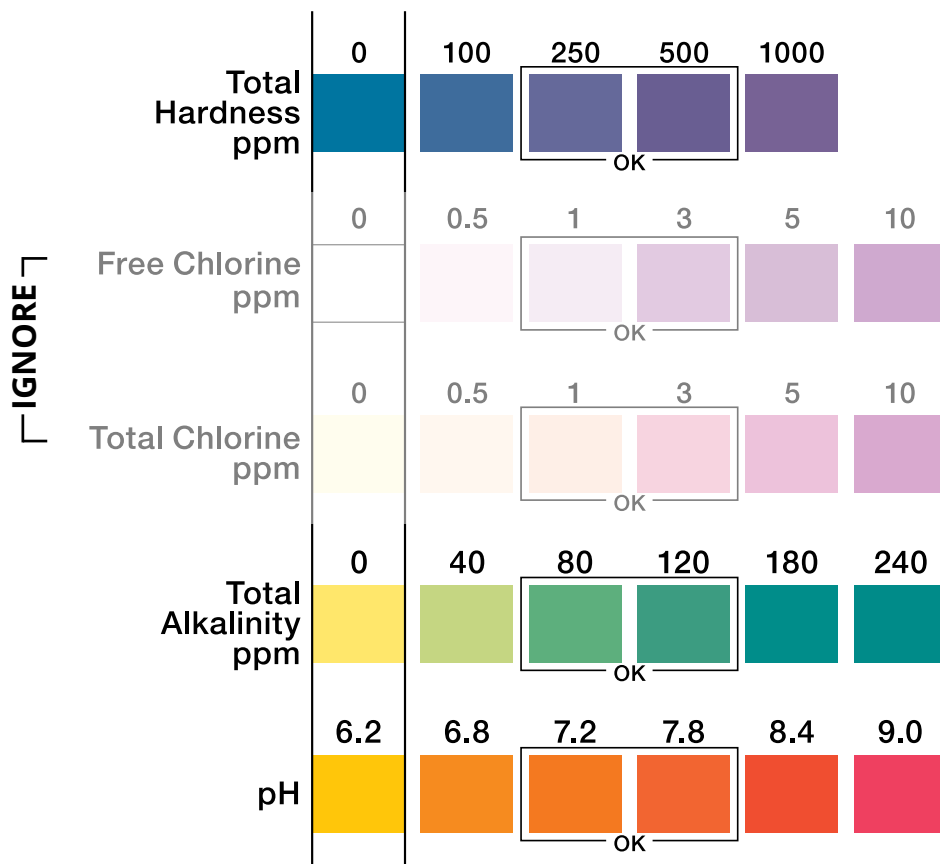
SECTION 3



Reference Chart

The test strip chart is found on the back of the test strip bottle. Once a test strip has been dipped in water, the pads will change colour and your job is to match them as closely as possible to the chart on the bottle (not against this guide).

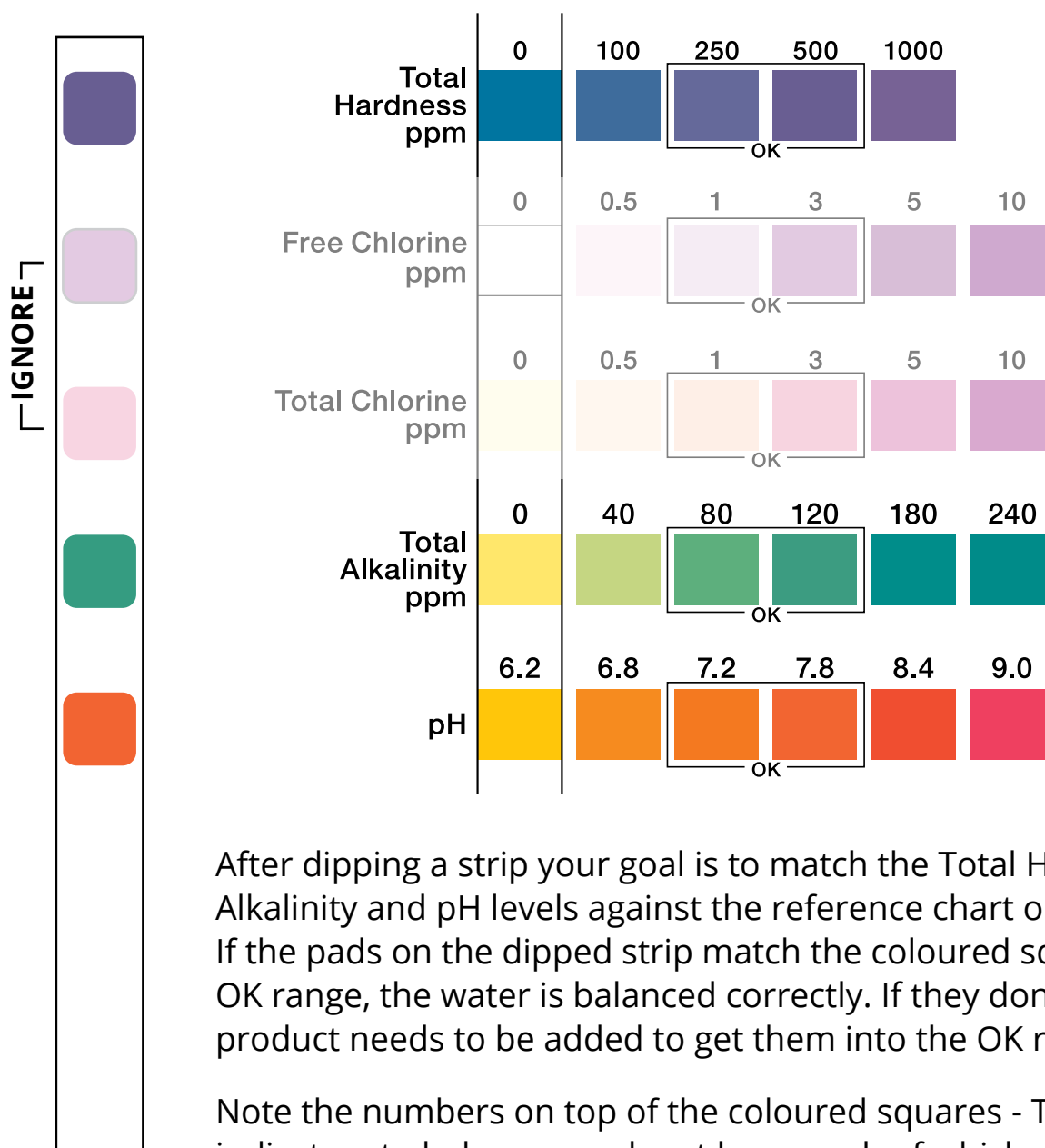
Remember: With a Ozone or U.V system ignore the Total Chlorine and Free Chlorine readings (top two squares) as the readings they produce are not applicable.



The charts on these pages are an example only and cannot be used as reference for comparing your test strip against. Always use the chart located on the test strip bottle.



Comparing the Test Strips



After dipping a strip your goal is to match the Total Hardness, Total Alkalinity and pH levels against the reference chart on the bottle. If the pads on the dipped strip match the coloured squares in the OK range, the water is balanced correctly. If they don't, then some product needs to be added to get them into the OK ranges.

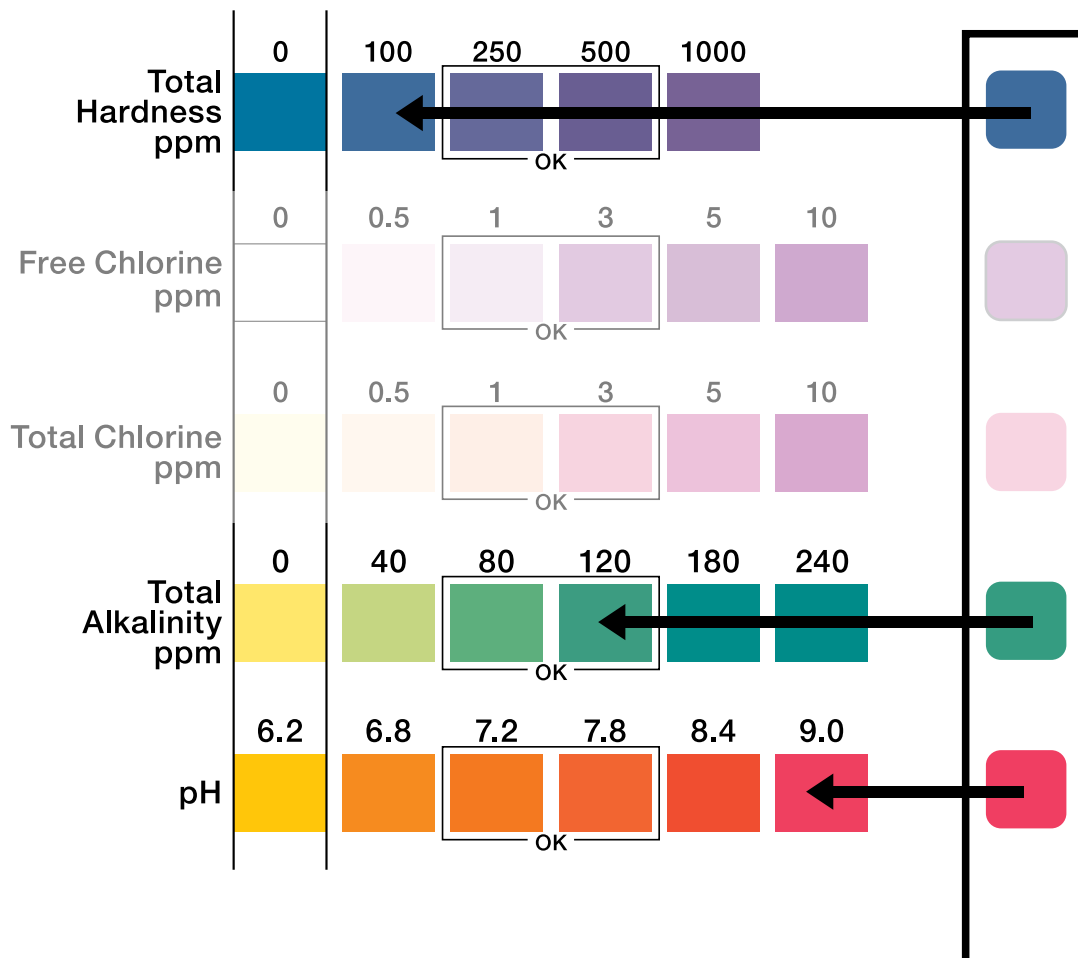
Note the numbers on top of the coloured squares - These are indicators to help you work out how much of which product to add to the water to balance.

- Total Hardness indicators are listed in PPM (parts per million).
- Total Alkalinity indicators are listed in PPM (parts per million).
- pH indicators are the reference to how acidic or alkaline the current spa water is on the pH scale.




SECTION 3



Example Post Dip Test Strip



This example of a post-dipped test strip shows how to match the colours of the pads to the reference chart. Here are the results of the above example test:

| PARAMETER | RESULT (INDICATORS) | SOLUTION / ACTION |
|--|--|------------------------------|
|  Total Hardness | Showing as LOW, indicator 100PPM | Raise with Calcium Hardener |
|  Total Alkalinity | Showing as OK, indicator 120PPM | OK range, no action required |
|  pH Level | Showing as HIGH, indicator 9.0 on the pH scale | Lower with pH Decrease |

We can take the resulting indicators and use them with the tables over the page to know how much of each product is required to balance out the water.



Sanitising your Spa Pool

Chlorine is the safest and most proven method of water disinfection.

Sanitising with Spa Chlor (Chlorine Kit)

SPACHLOR comes in granular form in a 1KG tub. It needs to be sprinkled directly into the water on a regular basis to ensure bacteria-free water.

As some sanitising systems (ozone & U.V) strip out the part that the test strip picks up on for Total & Free Chlorine, you may end up with blank results. To combat this we can follow a simple routine to ensure there is enough sanitiser present at all times to provide effective sanitisation:

| USAGE | ADD SPACHLOR AFTER USE: |
|-------------|---|
| Spa Unused | No, unless water is cloudy or smells then add 3 tsp and run jets. |
| 1-2 Bathers | Add 2 tsp* after use, run pumps. |
| 3-4 Bathers | Add 2-3 tsp* after use, run pumps. |
| 5+ Bathers | Add 2-4 tsp* after use, run pumps. |

It can be difficult to gauge the sanitiser requirements for users as there are a lot of variables at play. Two bathers showering before use compared with two users jumping in straight after exercising will introduce completely different amounts of bacteria and/or organic residues in to the water.

*You may find that there is plenty of chlorine available in the spa pool when following the above chart. If this is the case you can lower the dosage slowly by half a tsp until you notice a change in the condition of the water. If you are not seeing satisfactory disinfection following the above chart, increase the dosage by half tsp until you see better results.

When adding large amounts (4 tsp +) please add to a bucket of spa water first to dilute the sanitiser, then pour into the spa pool. Do not add large quantities of chlorine directly into the spa pool.

SECTION 3



Shocking with SPACHLOR

SPACHLOR should be added to a bucket of water and mixed before adding to the spa when performing a shock dose. Make sure you fully remove the cover, and also the headrests as these can be damaged in the oxidizing process.

Run the jets/pumps to mix in for at least 1 time out cycle (20 mins) and then replace the cover. A high level of chlorine will be present in the water so we recommend waiting 24 hours before bathing. More aeration of the water (running pumps for longer than one cycle when mixing will reduce the chlorine levels faster).



















Shocking should be done at least once in a fortnight regardless of spa pool use as it helps to remove excess organics and non-organics from the water. Skip the fortnightly shock dose if you have shocked recently for cloudy water and the water appears clear and fresh.

|  = 1 level teaspoon approx 8grams.  = 1 level capful approx 84grams. | | <h3>SHOCK DOSE SPA POOL.</h3> <p>Startup Kit Product: SPACHLOR. How to use: Dissolve in a bucket of water first & then add directly into spa pool water with jets running. Leave cover off and let jets time out, then replace cover. Wait 24 hours before bathing.</p> | | | | |
|---|---|--|--|---|---|--|
| SPA SIZE | 500 LITRES | 800 LITRES | 1000 LITRES | 1200 LITRES | 1400 LITRES | |
| Upon Startup/Fill | 4  (28 GRAMS) | 1/2  (42 GRAMS) | 3/4  (63 GRAMS) | 1  (84 GRAMS) | 1  (84 GRAMS) | |
| After Heavy Use (water is cloudy) | 2  (16 GRAMS) | 2  (16 GRAMS) | 4  (28 GRAMS) | 1/2  (42 GRAMS) | 1/2  (42 GRAMS) | |
| Fortnightly | 2  (16 GRAMS) | 3  (21 GRAMS) | 4  (28 GRAMS) | 1/2  (42 GRAMS) | 1/2  (42 GRAMS) | |



Balancing Total Alkalinity






















Balancing Total Alkalinity is done with the **PH BUFFER** or **PH DECREASE** products. Both are powder form products and can be sprinkled directing into the water with the jets running.

| DESIRED PPM INCREASE | RAISE TOTAL ALKALINITY. | | | | |
|----------------------|--|---|--|---|---|
| | 500 LITRES | 800 LITRES | 1000 LITRES | 1200 LITRES | 1400 LITRES |
| 20PPM | 2½  (17 GRAMS) | 4  (27 GRAMS) | 4¾  (34 GRAMS) | 6  (41 GRAMS) | 7  (48 GRAMS) |
| 40PPM | 5  (35 GRAMS) | ½  (62 GRAMS) | ½  (68 GRAMS) | ¾  (85 GRAMS) | ¾  (85 GRAMS) |
| 60PPM | 7  (51 GRAMS) | ¾  (81 GRAMS) | 1  (102 GRAMS) | 1¼  (136 GRAMS) | 1⅓  (143 GRAMS) |
| 80PPM | ½  (62 GRAMS) | 1  (102 GRAMS) | 1⅔  (136 GRAMS) | 1½  (163 GRAMS) | 1⅔  (190 GRAMS) |
| 100PPM | ¾  (85 GRAMS) | 1¼  (136 GRAMS) | 1⅓  (170 GRAMS) | 1⅔  (204 GRAMS) | 2  (238 GRAMS) |

See next page for lowering Total Alkalinity.












SECTION 3



|  = 1 level capful approx 115grams. | <h2>LOWER TOTAL ALKALINITY</h2> <p>Startup Kit Product: PHDECREASE. How to use: Remove spa cover & add directly into spa pool water with jets running and allow to mix for at least one 20 min timeout cycle.</p> | | | | |
|---|--|--|---|--|--|
| | DESIRED PPM DECREASE | 500 LITRES | 800 LITRES | 1000 LITRES | 1200 LITRES |
| 60PPM | $\frac{3}{4}$  (75 GRAMS) | 1  (120 GRAMS) | $1\frac{1}{3}$  (150 GRAMS) | $1\frac{1}{2}$  (160 GRAMS) | $1\frac{2}{3}$  (210 GRAMS) |
| 80PPM | $1\frac{1}{5}$  (100 GRAMS) | $1\frac{1}{2}$  (160 GRAMS) | $1\frac{3}{5}$  (200 GRAMS) | 2  (240 GRAMS) | $2\frac{1}{3}$  (280 GRAMS) |
| 100PPM | 1  (125 GRAMS) | $1\frac{3}{5}$  (200 GRAMS) | 2  (250 GRAMS) | $2\frac{1}{2}$  (300 GRAMS) | 3  (350 GRAMS) |
| 140PPM | $1\frac{4}{5}$  (175 GRAMS) | $2\frac{1}{3}$  (280 GRAMS) | 3  (350 GRAMS) | $3\frac{1}{2}$  (420 GRAMS) | 4  (490 GRAMS) |

Balancing Calcium Hardness

CALCIUM HARDENER comes in granular form and should be sprinkled directly into the water. Town supply should be close to the OK range by default on first fill, but rural/tank water can be quite 'hard'. If you need to lower Calcium Hardness, drain 1/4 of the spa pool and refill with fresh water with a softener.







|  = 1 level capful approx 70grams. | <h2>INCREASE CALCIUM HARDNESS</h2> <p>Startup Kit Product: Calcium Hardener. How to use: Remove spa cover & add directly into spa pool water with jets running and allow to mix for at least one 20 min timeout cycle.</p> | | | | |
|--|---|--|--|--|--|
| | DESIRED PPM INCREASE | 500 LITRES | 800 LITRES | 1000 LITRES | 1200 LITRES |
| 100PPM | 1  (70 GRAMS) | $1\frac{1}{2}$  (112 GRAMS) | 2  (140 GRAMS) | $2\frac{1}{2}$  (168 GRAMS) | $2\frac{4}{5}$  (196 GRAMS) |
| 200PPM | 2  (140 GRAMS) | $3\frac{1}{4}$  (224 GRAMS) | 4  (280 GRAMS) | $4\frac{4}{5}$  (336 GRAMS) | $5\frac{4}{5}$  (392 GRAMS) |



















Balancing pH

Lowering pH is achieved with the **PH DECREASE** product. Both products come in powder form and are to be directly sprinkled into the water.

NOTE: Wait 1 day before re-testing pH after adding decriaser to the water as results will not appear straight away until thoroughly circulated and mixed in.

|  = 1 level teaspoon approx 8grams. | DECREASE PH LEVEL | | | | |
|---|---|---|---|---|--|
| | Startup Kit Product: pH Decrease. How to use: Remove spa cover & add directly into spa pool water with jets running and allow to mix for at least one 20 min timeout cycle. Wait 1 Day before re-testing for accurate results. | | | | |
| TEST STRIP LEVEL READING 8.4 | 500 LITRES | 800 LITRES | 1000 LITRES | 1200 LITRES | 1400 LITRES |
| To Lower to 7.6: | 1¼  (10 GRAMS) | 2  (16 GRAMS) | 2½  (20 GRAMS) | 3  (24 GRAMS) | 3½  (28 GRAMS) |

pH won't normally need too much of an increase but if you are finding low pH readings, you will need to purchase a **PH INCREASER** product.

|  = 1 level teaspoon approx 8grams. | RAISE PH LEVEL | | | | |
|---|--|---|---|--|--|
| | Startup Kit Product: PHINCREASE (Purchased separately, not in startup kit). How to use: Remove spa cover & add directly into spa pool water with jets running and allow to mix for at least one 20 min timeout cycle. | | | | |
| DESIRED PH INCREMENT INCREASE | 500 LITRES | 800 LITRES | 1000 LITRES | 1200 LITRES | 1400 LITRES |
| 0.3 | ¾  (5 GRAMS) | 1  (8 GRAMS) | 1¼  (10 GRAMS) | 1½  (12 GRAMS) | 1¾  (14 GRAMS) |
| 0.6 | 1¼  (10 GRAMS) | 2  (16 GRAMS) | 2½  (20 GRAMS) | 3  (24 GRAMS) | 3½  (28 GRAMS) |
| 0.9 | 2  (16 GRAMS) | 3  (24 GRAMS) | 3¾  (30 GRAMS) | 4½  (36 GRAMS) | 5¼  (42 GRAMS) |

SECTION 4



Section 4

DRAINING & REFILLING GUIDE



Your spa pool water should be drained every 3-4 months.



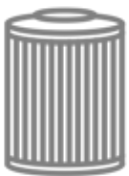
1. **Turn off power to your spa pool.**



2. Drain the water via the drain valve located on the side of the spa pool cabinet. You can attach a hose to empty the water further away if required. A small amount of water left in the foot well is okay, but you can use a sponge and a bucket to completely empty if desired.



3. Wipe down the spa pool shell with a general household all-purpose cleaner, but use sparingly. A microfibre cloth can help to remove scale buildup. Clean around intakes in the foot well if required. Rinse the spa pool down if required and bucket out excess water.



4. Remove filters and wash in filter cleaning solution or replace if necessary (filters last 10-12 months). Remember to place them back in before turning on power to the spa.



5. Proceed to startup/refill guide on page 11.



A pipe-cleaning process should be performed every 6 months. Refer to the guide in your manual.

SECTION 5



Section 5

TROUBLESHOOTING



Common Issues

The following problems are usually a result of a poorly maintained spa pool, with the maintenance routine suggested in this guide having been neglected. Your spa pool water will get more difficult to treat as it gets older due to build up of waste products, so remember to refill every 3-4 months.

My water is cloudy

Cloudy water is usually a result of high/low pH, or a build up of bacteria.

1. Check your filters are clean and do not need replacing.
2. Check your pH/Alkalinity levels and adjust as necessary (page 22-25).
3. Give your spa pool a small shock dose.
4. Add 'Crystal Clear' or a similar clarifier and run the pumps to filter.

If above steps fail – drain ½ water and replace with fresh water. Re-balance chemicals.

My water smells or looks discoloured (green/yellow)

Foul smelling / strange coloured water is usually caused by build up of bacteria. To prevent this from occurring, we need to keep an optimal level of sanitiser in the water (see page 21). If you are following the recommended dosage as per this guide, you may need to increase the frequency and dosage of sanitiser and/or shocking.

1. Check your filters are clean and do not need replacing.
2. Check your pH/Alkalinity levels and adjust as necessary (page 22-25).
3. Give your spa pool a large shock dose, repeat again 6 hours later if there has been little improvement.
4. Return to your chlorine sanitising plan.

If above steps fail – run pumps, use a pipe cleaner/algaecide, then drain/refill water.



My water is foamy?

Foamy water is usually a result of excess body oils or detergents in the spa. Can be a result of heavy bather loads or incorrect pH levels. Bathers showering beforehand and/or rinsing swim wear before entering water can help reduce foaming.

1. Check your filters are clean and do not need replacing.
2. Bucket out excess foam from surface of water.
3. Check your pH/Alkalinity levels and adjust as necessary (page 22-25).
4. Increase filter duration time (see manual for the spa control panel).

If above steps fail - Add 'No Foam' or a similar anti-foam product and run the jet pumps to mix and clean up the water.

My water is irritating my skin/eyes?

Itchy or irritated skin/eyes is usually a result in poorly balanced pH levels, or a too high/too low level of sanitiser.

1. Check your filters are clean and do not need replacing.
2. Check your pH/Alkalinity levels and adjust as necessary (page 22-25).

If above steps fail - Drain $\frac{1}{4}$ of the spa water and add fresh water, balance chemicals.

Dirt/Scum line around edge of spa?

A build up of substance around the inner edge of the spa pool acrylic (just above water line) is usually a sign of excess lotions, body oils, makeup etc, but can also be a sign of high calcium.

1. Check your filters are clean and do not need replacing.
2. Check your pH/Alkalinity/calcium hardness levels and adjust as necessary (page 22-25).
3. Clean line regularly with a microfiber cloth.
4. Shower before using the spa, remove makeup and tie up hair.

If above steps fail - Drain $\frac{1}{4}$ of the spa water and add fresh water, re-balance chemicals.



My water has excessive amount of particles/bits floating in it ?

This can be due to many factors, the most common being a breakdown of organic material that has settled in the pipes, or excess glue from the jet seals.

1. Check your filters are clean and do not need replacing.
2. Bucket out excess bits.
3. Clean pump intakes at bottom of spa foot-well.
4. Increase filter duration time (see manual for the spa control panel) and wash filters every few hours as they will be filtering out the bits.
5. Shock dose spa with SPACHLOR.

If above steps fail - drain spa and flush pipes with a hose, refill and repeat above process.

| ISSUE | SOLUTION |
|------------------------------|---|
| EXCESS FOAM | Shower before use. Use 'No Foam'* for immediate results. |
| CLOUDY WATER | Shock dose, filter water and/or add 'Crystal Clear'* |
| GREEN/BROWN WATER | Shock dose or add Algaecide*. Low/high pH or Alkalinity can tint water strange colours. |
| EXCESSIVE ALGAE | Algaecide* dosage, repeat twice if necessary. Drain spa and refill with fresh water |
| HIGH CALCIUM HARDNESS | Drain 1/4 of the water and fill with fresh water. |
| LOW CALCIUM HARDNESS | Add Calcium Hardener |
| HIGH PH | Add pH Decrease |
| LOW PH | Add pH Buffer or pH Increase* |
| LOW ALKALINITY | Add pH Buffer |
| HIGH ALKALINITY | Add pH Decrease |
| FILTERS CLOGGED | Wash with hose and soak in Filter Cleaner* |

**Products not included in Startup Kit, can be purchased separately.*

SECTION 6



Section 6

LIST OF MODELS & LITRES



Spa Litres

You will need to know the total amount of litres in your spa pool to use the charts in this guide. Consult your manual or retailer for this information.

List of Alpine Spa Models and Litres Guide to Follow

Use the below table to find your Alpine spa pool model and the corresponding litres to use as your guide. Your spa pool may have slightly more or less total litres than what is shown in the table below but rounding by 100-200 litres will not have an impact on water balancing.

| 500 LITRES | 800 LITRES | 1000 LITRES | 1200 LITRES | 1400 LITRES |
|---|---|--|--|--|
| <p>DUO LUX3 FUJI MONT BLANC NEPAL</p> | <p>MAKALU FIESTA4 CUB MAUI HAWAII UTAH YUKON MONACO ZURICH SAN MIGUEL SANTORINI MIAMI</p> | <p>A500 NOVA ASPEN WHISTLER BLACKBURN MATTERHORN SUMMIT LUCANIA YUKON FRONTIER COLORADO NORDIC ALASKA MONTANA VERMONT SAN MARINO SEATTLE</p> | <p>REVIVE5 MCKINLEY MUNRO ELBRUS NEVIS EAGLE CREST SIERRA BOSTON SANTA BARBARA</p> | <p>EVEREST K2 ANTIGUA ELITE CAPTIVA ELITE BARBADOS DOVE CANYON ISLAND MARGARITA GRAND BAHAMA VANCOUVER BAR HARBOR HONOLULU</p> |

Model not featured? The total litres of your spa pool should be printed on the side of your spa on a silver plaque.



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