

**PORTABLE
SPAS**
NEW ZEALAND

Spa Pool

WATER CARE Handbook

Easy Guide to Water Maintenance



 **Store**

59 Nuffield Street
Newmarket, Auckland

 **Sales**

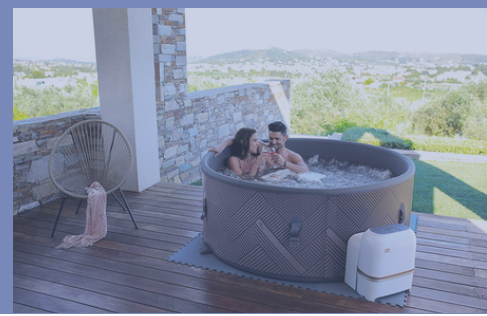
+64 27 411 2323
sales@portablespas.co.nz

 **Service**

service@portablespas.co.nz

PORTABLESPAS.CO.NZ

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 Starter Kit with your purchase, which will be used along with this guide. If you do not have a kit, please purchase one from **Portable Spas**.

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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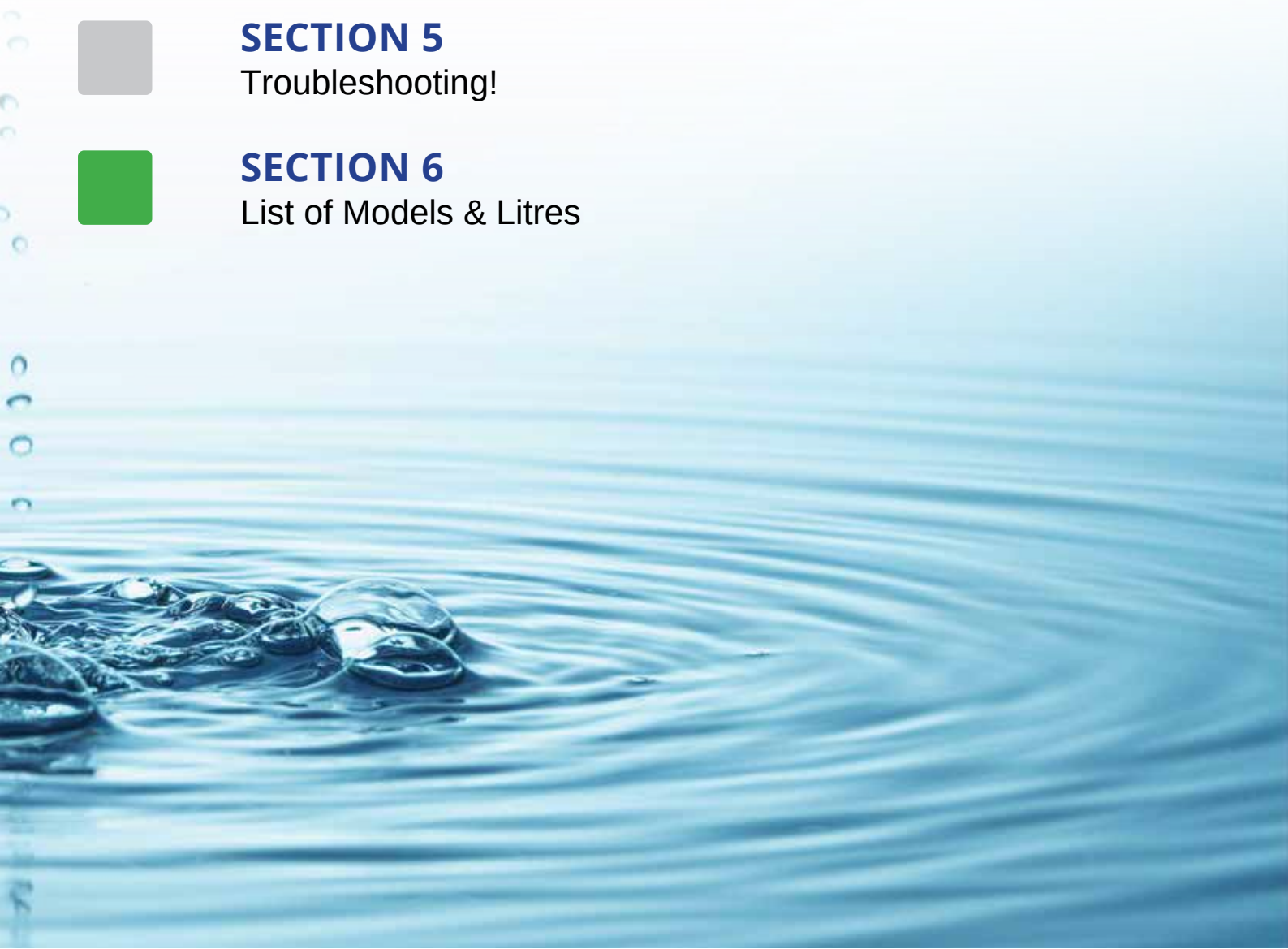
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Section 1

BEGINNERS GUIDE TO WATER TREATMENT

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 or bromine 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 sanitising systems such as an ozone generator and/or a UV 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.

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 or Bromine (included in either the Chlorine or Bromine Starter Kit).

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

Bromine comes in tablet form and is added to a bromine floater which slowly releases bromine into the spa.

Our spas are not compatible with Silver products

Tip: Adding a primary sanitiser such as Chlorine or Bromine 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 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 we 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 but 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*** (for bromine users) or for small increases use the ***PH BUFFER*** supplied.

Beginners Guide to Water Treatment

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 stabilise 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 is 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 or Shock Dose (For Chlorine Users)

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 bubbles on.

Filtering

Your spa has a filter that helps to skim the water and remove excess debris. This is a vital part of keeping your water clear. The filter cycle is an automatic process in which your spa controller runs the filter pump. During this time, ozone and UV (if equipped) help to disinfect the water, which lowers the amount of additional sanitiser you need to manually add.

Ensuring your filter is 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 filter a minimum of once per week and wash thoroughly with a hose. Replace the filter every 4-6 weeks as debris gradually accumulates within the pleats and the paper within the filter begins to break down around this time. These factors can lead to a restricted amount of flow within the heating system and can cause Flow Errors such as E1 or F1.

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.

Beginners Guide to Water Treatment

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 Kits which contain 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 what is 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 spa and fill the spa pool up to the recommended fill line (see manual).



3. Once full, turn on power to the spa pool. Set the desired temp with the - and + buttons or up and down arrows and press heater.



4. Run your bubbles and 'shock dose' the water using **Spa Chlor** (if using chlorine as per section 3).



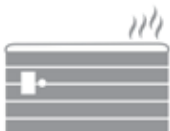
If using bromine, add bromine tablets to your floater and secure the floater lid. As a general rule of thumb, start with one spa bromine tablet for every 400 litres of spa water. Place the feeder into your spa and hold it under the water for a few seconds. Aim for a bromine reading of 3-5ppm (parts per million). Maintain this for one hour. Add additional bromine tablets as needed.



5. Allow bubbles to circulate for 20 minutes with cover off so the spa chlor or bromine can mix and vent properly.



6. Replace cover and allow to heat.



7. After 24 hours, test the water's PH and Total Alkalinity levels and add appropriate chemicals to balance if required (see section 3).

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

SECTION 3

A background image of water splashing, with a light blue semi-transparent rectangle overlaid in the center. The text 'Section 3' is written in white, bold, sans-serif font within this rectangle.

Section 3

NO HASSLE WATER CARE & DOSING GUIDE

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	<input type="checkbox"/>		<input type="checkbox"/>		
WEEKLY	<input type="checkbox"/>	Per Guidelines (Page 21)		<input type="checkbox"/>	
FORTNIGHT			<input type="checkbox"/>		
EVERY 3-4 MONTHS					<input type="checkbox"/>

Be sure to follow the below guidelines and warnings:

Test Strips

- Turn off pump and bubbles before dipping test strip.
- Test strips may give more accurate results when dipped horizontal.

Mixing Chemicals

- Completely remove cover before adding products.
- Turn on bubbles and sprinkle into water.
- Never mix dry chemicals together.
- Remove headrests if fitted 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:

Chlorine Startup Kits contain:



SPA CHLOR



CALCIUM HARDENER



PH BUFFER



PH DECREASE



TEST STRIPS

Bromine Startup Kits contain:



BROMINE



CALCIUM HARDENER



PH BUFFER



PH INCREASE



TEST STRIPS

Recommended extra products to have on hand (not included with starter kits)



CRYSTAL CLEAR
(Cleans up cloudy water)



NO FOAM
(Removes foam from water)



ALGAEICIDE
Kills algae if present



Non-Chlorine Spa Shock
(Contains Potassium Monopersulphate)

No Hassle Water Care & Dosing Guide

Testing Strips: *(Page 16-19)*

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

Sanitiser (Chlorine or Bromine): *(Page 20-22)*

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

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. **If Ph is too low, the water becomes corrosive and can damage the spa shell and heater and pump components.**

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, skin/eye irritation and can damage components such as the heater. You need to lower the pH to within the normal range (7.2 - 7.8) using a decreasing product.

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

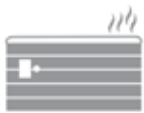
How to Test the Water



1. Turn off the bubbles (filter 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 produce 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.

NOTE: CHEMICALS ARE NOT FAST ACTING. WAIT 24 HOURS BEFORE TESTING AGAIN TO SEE IF AMOUNT ADDED HAS PUT THE LEVEL IN THE OK RANGE

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).

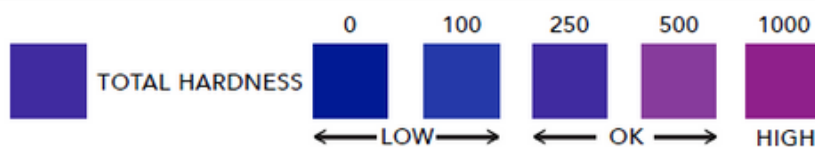
In the Startup Kit is a bottle of test strips which can be used to assess the current condition of the water. The results of the test strips can be used to indicate which chemicals should be used to balance the water and the dosage required to achieve the optimal ranges. Portable Spas also carries 3 in 1 stand alone test strips.

No Hassle Water Care & Dosing Guide

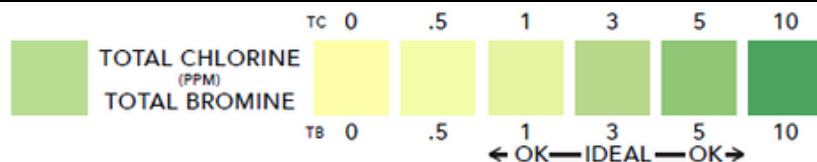
Matching Results to your Test Strip

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

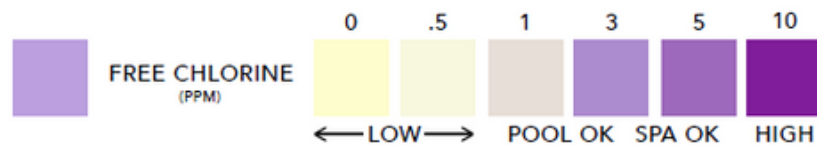
This square represents the reading of Calcium Hardness or how soft/hard the water currently is. This is displayed in PPM (parts per million).



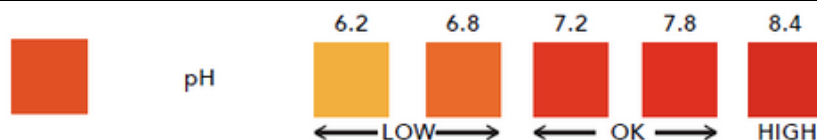
Chlorine that is active and able to sanitise and oxidize contaminants in the water is known as free or residual chlorine. Total Chlorine is the sum of both Free (active) Chlorine and the used up or combined chlorine. The Free Chlorine residual in your spa should be between 3-5 ppm.



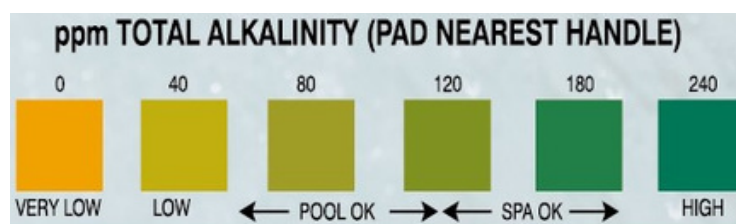
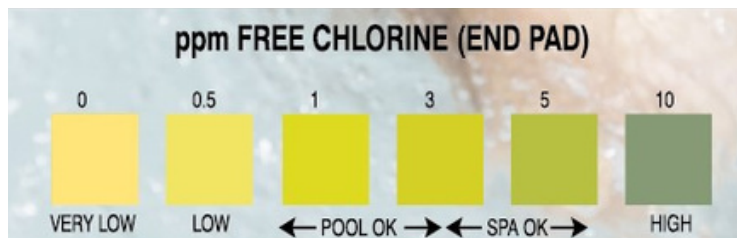
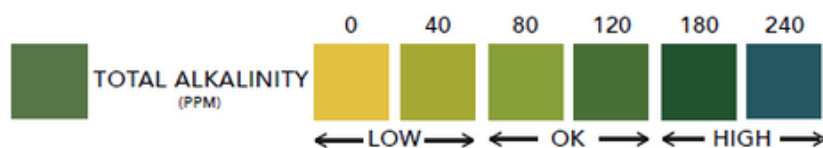
Unlike chlorine, combined Bromine is still an effective sanitiser. Therefore, Total Bromine is measured to indicate the sanitiser residual. You should maintain the bromine level between 4-6 ppm.



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



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



The 3 in 1 Test Strips do not show Total Chlorine or Total Hardness nor are they designed for Bromine.

SECTION 3

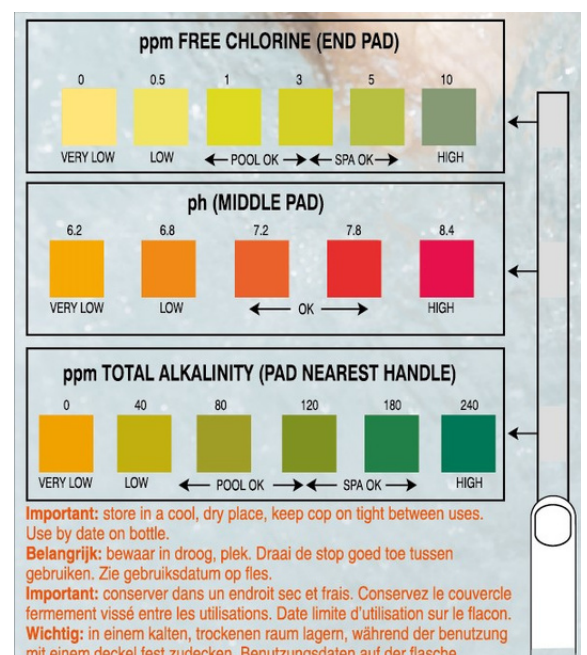
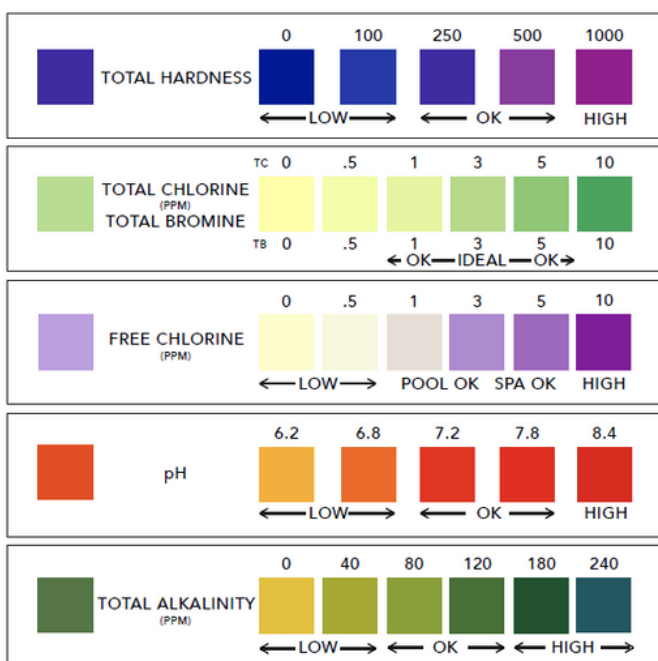
The test strip chart is found on the back of the test strip bottle. Once a test strip has been dipped in water, the pads will change colour and your job is to match them as closely as possible to the chart on the bottle (not against this guide).

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.

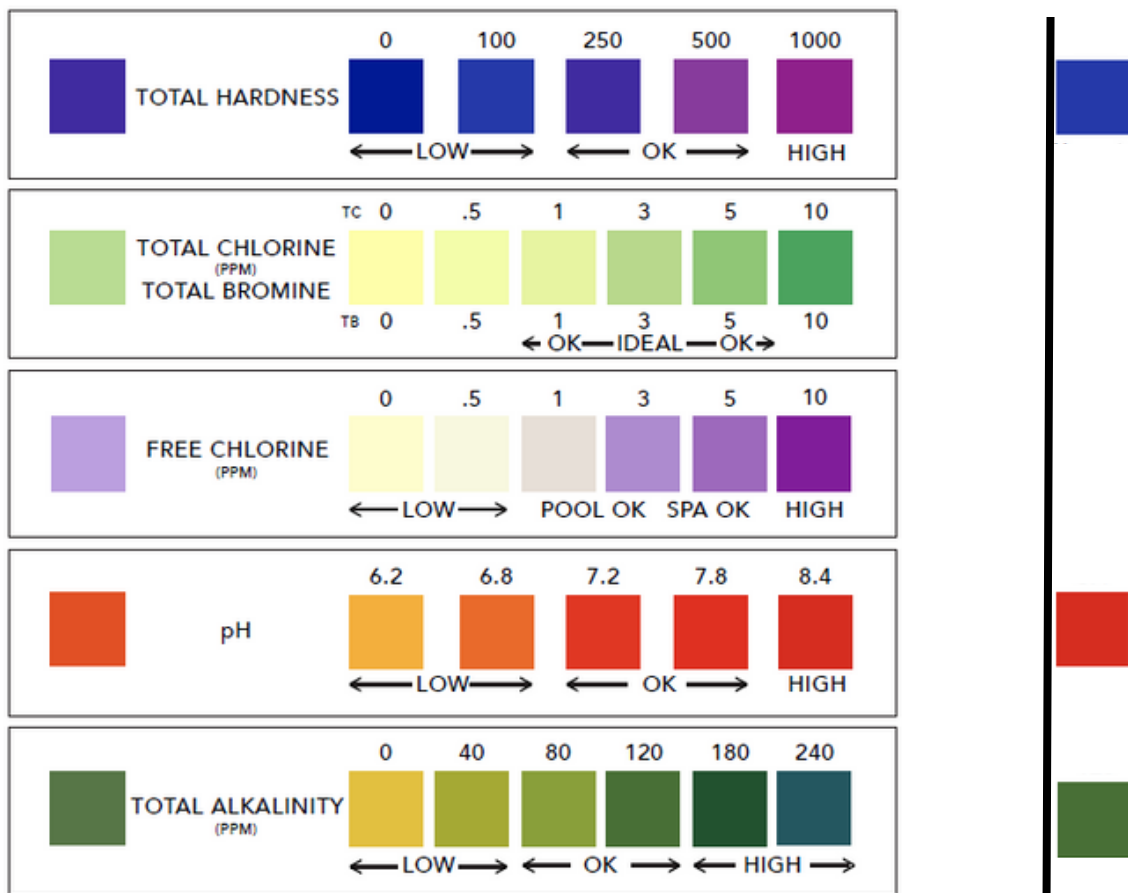
- Total Hardness indicators are listed in PPM (parts per million).
- Total Alkalinity indicators are listed in PPM (parts per million).
- pH indicators are the reference to how acidic or alkaline the current spa water is on the pH scale.



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.

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 starting on page 21 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.

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 bubbles.
1-2 Bathers	Add 2 tsp* after use, run bubbles.
3-4 Bathers	Add 2-3 tsp* after use, run bubbles.
5+ Bathers	Add 2-4 tsp* after use, run bubbles.

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, if fitted, as these can be damaged in the oxidizing process.

Run the bubbles to mix in for at least 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 bubbler or jet pump if equipped 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.

SPA SIZE	All 6 Person Spas 1000 LITRES	All 8 Person Spas 1200 LITRES
	Upon Startup/Fill	4  (32 GRAMS)
After Heavy Use (water is cloudy)	4  (32 GRAMS)	1/2  (42 GRAMS)
Fortnightly	4  (32 GRAMS)	1/2  (42 GRAMS)

 = 1 level teaspoon
approx 8 grams

 = 1 level capful
approx 84 grams

SHOCK DOSE SPA POOL

Startup Kit Product: SPACHLOR

How to use: Dissolve in a bucket of water first & then add directly into spa pool water with running. Leave cover off and let bubbles time out, then replace cover.

Wait 24 hours before bathing

SECTION 3

Sanitising with Bromine

Bromine does not dry the skin as much as chlorine. It helps maintain water balance because it has a low pH which in turn raises the total alkalinity of the water. Bromine's sanitising effects last longer than chlorine, which leads to a less frequent application.

You need to balance your spa chemistry before you sanitise with bromine. Make sure these are at the right levels:

- **pH must be between 7.2-7.4 for bromine tablets to do their job.**
- Alkalinity 80-120 PPM
- Calcium hardness 250-500 PPM

Carefully add bromine tablets to your floater and secure the lid. Make sure the "gate" is open to allow water to pass through the floater and over the tablets.

Place the feeder into your spa and hold it under the water for a few seconds.

When you first fill your spa with fresh water you'll need to:











- Aim for a bromine reading of 3-5ppm parts per million.
- Maintain this for one hour.
- Then add additional bromine tablets as needed to keep between 4-6 PPM.

Let the feeder bob around in your spa whenever it's not in use.

No Hassle Water Care & Dosing Guide

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 bubbles running.

DESIRED PPM INCREASE	RAISE TOTAL ALKALINITY	
	All 6 Person Spas 1000 LITRES	All 8 Person Spas 1200 LITRES
20PPM	4 ³ / ₄  (34 GRAMS)	6  (42 GRAMS)
40PPM	1 ¹ / ₂  (57.5 GRAMS)	3 ³ / ₄  (86 GRAMS)
60PPM	1  (115 GRAMS)	1 ¹ / ₄  (143 GRAMS)
80PPM	1 ² / ₅  (136 GRAMS)	1 ¹ / ₂  (172 GRAMS)
100PPM	1 ¹ / ₃  (153 GRAMS)	1 ⁴ / ₅  (204 GRAMS)

See next page for lowering Total Alkalinity






SECTION 3



 = 1 level capful approx 115 grams	<h2>LOWER TOTAL ALKALINITY</h2> <p>Startup Kit Product: PH DECREASE How to use: Remove spa cover & add directly into spa pool water with bubbles running and allow to mix for at least 20 minutes</p>	
	DESIRED PPM DECREASE	All 6 Person Spas 1000 LITRES
60PPM	$1\frac{1}{3}$  (153 GRAMS)	$1\frac{1}{2}$  (172 GRAMS)
80PPM	1  (115 GRAMS)	2  (230 GRAMS)
100PPM	2  (230 GRAMS)	$2\frac{1}{2}$  (288 GRAMS)
140PPM	3  (345 GRAMS)	$3\frac{1}{2}$  (402 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 70 grams	<h2>INCREASE CALCIUM HARDNESS</h2> <p>Startup Kit Product: Calcium Hardener. How to use: Remove spa cover & add directly into spa pool water with bubbles running and allow to mix for at least 20 minutes</p>	
	DESIRED PPM INCREASE	All 6 Person Spas 1000 LITRES
100PPM	2  (140 GRAMS)	$2\frac{1}{2}$  (175 GRAMS)
200PPM	4  (280 GRAMS)	$4\frac{4}{5}$  (336 GRAMS)

No Hassle Water Care & Dosing Guide








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 8 grams	<h3>DECREASE PH LEVEL</h3> <p>Startup Kit Product: pH Decrease How to use: Remove spa cover & add directly into spa pool water with bubbles and running allow to mix for at least 20 minutes. Wait 1 Day before re-testing for accurate results.</p>	
TEST STRIP LEVEL READING 8.4	All 6 Person Spas 1000 LITRES	All 8 Person Spas 1200 LITRES
To Lower to 7.6:	$2\frac{1}{2}$  (20 GRAMS)	3  (24 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 if using the chlorine starter kit.

 = 1 level teaspoon approx 8 grams	<h3>RAISE PH LEVEL</h3> <p>Startup Kit Product: PH INCREASE (Not included in chlorine starter kit). How to use: Remove spa cover & add directly into spa pool water with bubbles running and allow to mix for at least 20 minutes</p>	
DESIRED PH INCREMENT INCREASE	All 6 Person Spas 1000 LITRES	All 8 Person Spas 1200 LITRES
0.3	$1\frac{1}{4}$  (10 GRAMS)	$1\frac{1}{2}$  (12 GRAMS)
0.6	$2\frac{1}{2}$  (20 GRAMS)	3  (24 GRAMS)
0.9	$3\frac{3}{4}$  (30 GRAMS)	$4\frac{1}{2}$  (36 GRAMS)

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 bottom of the spa pool shell. You can attach a hose to empty the water further away if required. Use a sponge and a bucket to completely empty any water remaining in the bottom of the shell.



3. Wipe down the spa pool shell with a mild soap solution but use sparingly. A microfibre cloth can help to remove scale buildup. Clean around inlet and outlet. Rinse the spa pool down if required and bucket out excess water. You can also gently turn the spa upside down on a flat, smooth surface to allow water to drain out of the bubble ring.



4. Remove filter and wash (filters last 4-6 weeks). Remember to place back in spa before turning on power to the spa.



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

SECTION 5

Section 5

TROUBLESHOOTING

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 filter is clean and does not need replacing.
2. Check your pH/Alkalinity levels and adjust as necessary (page 23-25).
3. Give your spa pool a small shock dose. Bromine users require a non-chlorine shock such as Spa Store's Spa Shock.
4. Add 'Crystal Clear' or a similar clarifier and run the pump 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 or 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 21-22). 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 filter is clean and does not need replacing.
2. Check your pH/Alkalinity levels and adjust as necessary (page 23-25).
3. Give your spa pool a large shock dose, repeat again 6 hours later if there has been little improvement. Bromine users require a non-chlorine shock such as Spa Store's Spa Shock.
4. Return to your chlorine/bromine sanitising plan.

If above steps fail – run pump, use an algaecide, then drain/refill water.

SECTION 5

My water is foamy

Foamy water is usually a result of excess body oils or detergents in the spa. It 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 filter is clean and does not need replacing.
2. Bucket out excess foam from surface of water.
3. Check your pH/Alkalinity levels and adjust as necessary (page 23-25).
4. Increase filter duration time if leaving your spa off for certain periods of time.

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

My water is irritating my skin/eyes

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

1. Check your filter is clean and does not need replacing.
2. Check your pH/Alkalinity levels and adjust as necessary (page 23-25).

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

Dirt/Scum line around edge of spa

A build up of substance around the inner edge of the spa pool shell (just above the 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 filter is clean and does not need replacing.
2. Check your pH/Alkalinity/calcium hardness levels and adjust as necessary (page 23-25).
3. Clean line regularly with a microfiber cloth.
4. Shower before using the spa and remove makeup and tie up hair.

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

Troubleshooting

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

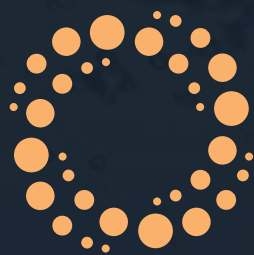
This can be due to many factors, the most common being a breakdown of organic material that has settled in the heater and pipes.

1. Check your filter is clean and does not need replacing.
2. Bucket out excess bits.
3. Clean pump inlets and outlets.
4. Increase filter duration time if leaving your spa off for certain periods of time and wash filter every few hours as it will be filtering out the bits.
5. Shock dose spa with SPACHLOR or non-chlorine shock for bromine users.

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

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

Products not included in Starter Kits can be purchased separately. We do not recommend any chemicals purchased from Bunnings, Mitre 10 or The Warehouse



**PORTABLE
SPAS**

NEW ZEALAND

 **Store**

59 Nuffield Street
Newmarket, Auckland

 **Sales**

+64 27 411 2323
sales@portablespas.co.nz

 **Service**

service@portablespas.co.nz

PORTABLESPAS.CO.NZ