

Onzen

International Technical Guide

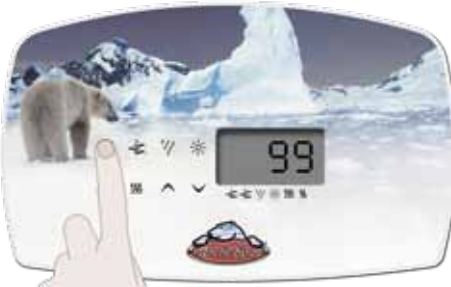
Onzen + Sea Salt = Natural Salt Water care made easy.

Onzen Start - Up Guide



STEP 1

Fill your spa through the filter intake as shown. If you have sediment or high mineral content a “carbon filled pre-filter”, as pictured, can help. **(this is optional and will prolong the fill time).**



STEP 2

Once your spa is filled, turn the power on and run the pumps until all of the air works its way out of the lines.



STEP 3

Test Calcium hardness. Level should be 50 ppm or less. If high, lower with a calcium remover product.

Test Alkalinity. It should be 100 max. If high, lower it with pH Down or muriatic acid. Do not raise Alkalinity!

NOTE: Skipping these steps on Start-up can cause scaling problems and cloudy water that may not be covered under warranty.

NOTE: Use all products according to directions on the bottle.



STEP 4

Test pH. Levels should be between 7.2 – 7.8. If pH is high, (over 7.8) add Adjust Down.

NOTE: Use all products according to directions on the bottle.



STEP 5

Dissolve 1 lb of salt crystals in a pail of hot water.
(2 lb for the Arctic Ocean)

Onzen Start - Up Guide



STEP 6

Slowly pour the dissolved salt from the pail into the spa water. Wait 1 hour. Then test and adjust alkalinity and pH levels if needed. Refer to steps 3 and 4 for correct levels.

STEP 7

Repeat “STEP 5” and “STEP 6”. On a 7’ spa, this is the final pound of salt. After testing and adjusting alkalinity and pH levels, you will now need to test sodium levels. See “Using Sodium Test Strips” (pg 6) for details. If sodium levels are low, you can add salt crystals directly into spa (without dissolving), 1/2 cup at a time (using cup provided) until desired sodium level is reached (between 2000 – 3000 ppm).

STEP 8

Repeat “STEP 5” and “STEP 6” for an 8’ spa. You will then test the sodium levels (Refer to “STEP 7” for more details).

Onzen Salt Chart

Spa model	Water Volume	Amount of salt to add
Kodiak	1492 L / 394.1 US gallon	2985 g / 6.6 lbs
Yukon	1364 L / 360.3 US gallon	2730 g / 6 lbs
Klondiker	1264 L / 333.9 US gallon	2528 g / 5.6 lbs
Glacier	1131 L / 298.8 US gallon	2262 g / 4.9 lbs
Fox	875 L / 231.2 US gallon	1750 g / 3.8 lbs
Frontier	1267 L / 334.7 US gallon	2534 g / 5.5 lbs
Summit	1339 L / 353.7 US gallon	2678 g / 5.9 lbs
Tundra	1614 L / 426.4 US gallon	3228 g / 7.1 lbs
Ocean	6000 L / 1585 US gallon	12000 g / 26.4 lbs
Cub	1176 L / 310.7 US gallon	2352 g / 5.2 lbs



STEP 9

You should have sanitizer readings within 24 hours. If levels get too high, turn this setting down. If you are not getting any readings, turn setting up.

On Start-up, add one capful of “Boost” to establish a sanitizer residual.

Use “Boost” to sanitize the water after heavy usage, or if the Chlorine level is too low.

Important: Always test and balance the pH and Chlorine levels before each spa use.

* Expect the pH to increase slowly over each week and when it gets too high use ADJUST DOWN to correct it.

High Ph will cause premature failure of the system, cloudy water, and decreased effectiveness of the sanitizer.

The Onzen system works best with low levels of calcium. Check your calcium levels monthly to ensure long life of the spa equipment and maximum user enjoyment.

On average, you will need to change the filter every 3 months, and replace the water twice a year. However, this can vary with use and conditions.

Using Sodium Test Strips



STEP 1

Take a sample of water from the spa in a small cup (about 1" full)



STEP 2

Place the lower end of the strip into the water. **IMPORTANT:** Keep top half of strip **COMPLETELY** dry to get an accurate reading.



STEP 3

Leave strip in water for 3 – 5 minutes until yellow band at top of strip turns dark.



STEP 4

Obtain your reading: where top of white peak falls on the number scale. Read top of peak to the nearest 0.2 division.



STEP 5

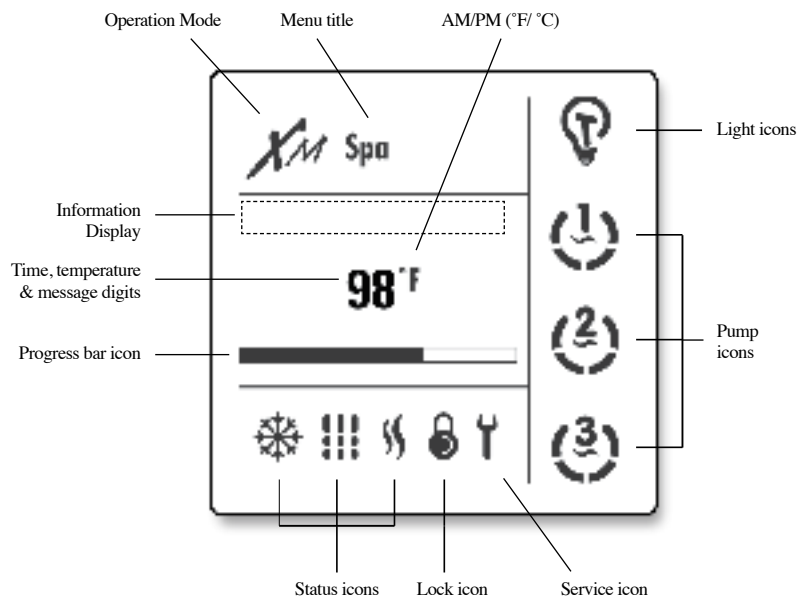
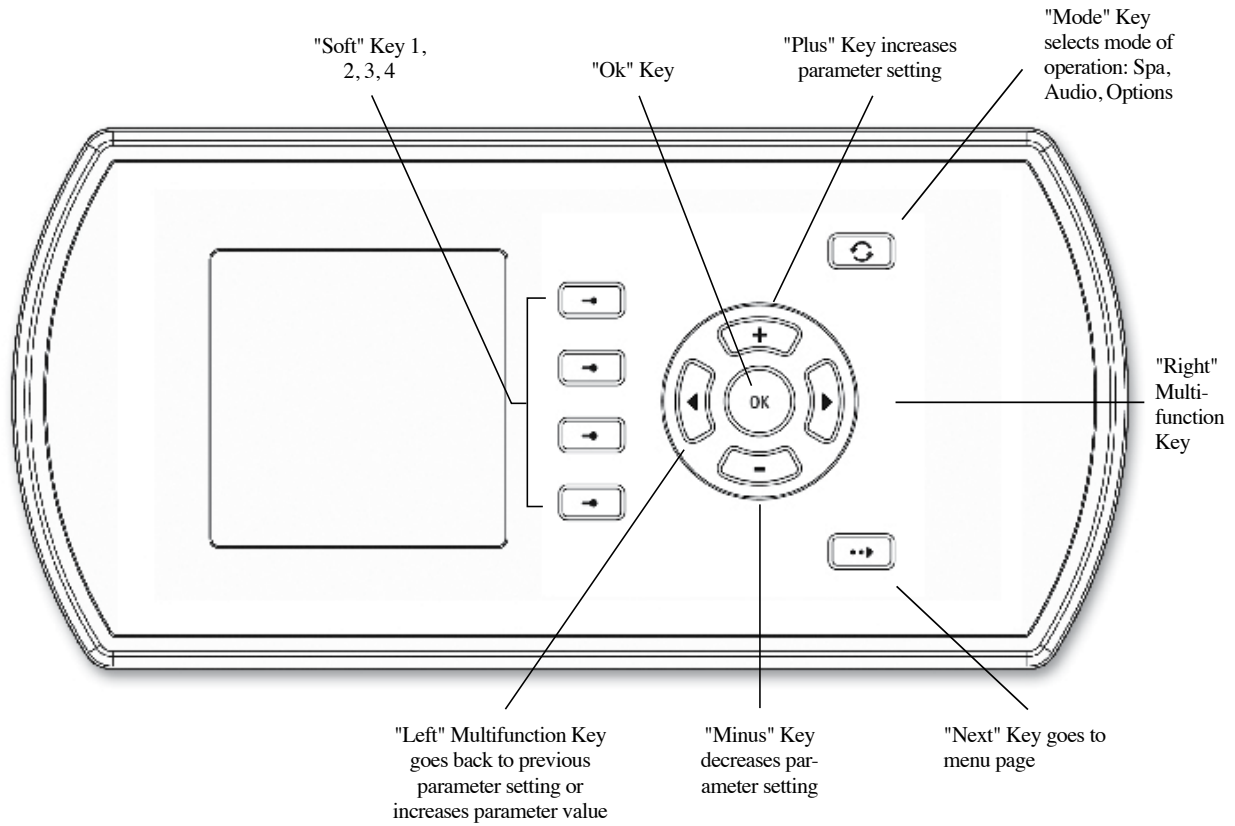
Correspond that number with the numbers on the bottle.



A level of 2000-3000 ppm is ideal.

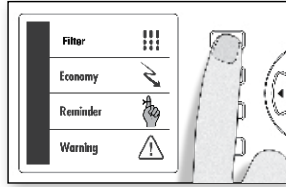
*add or dilute water as needed.

*salt concentration will only change if water is splashed or drained out. Do not add salt unless this test confirms the level is below the ideal range.



Programming

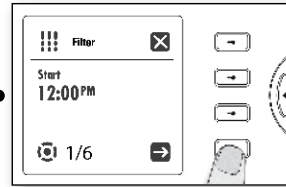
- Filter cycles
- Onzen cycles



Programming spa system

To program the filter cycle, you must enter these parameters: start time, duration and frequency. During a filter cycle, pumps run for one minute to purge the plumbing, then Pump 1 runs for the programmed number of hours.

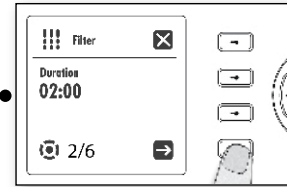
- Press Mode key
- Select Options menu
- Select Spa sub-menu
- Select Filter option



Setting filter cycles start time

The display will show the starting hour previously set.

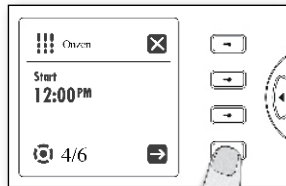
- Use (+) or (-) key to select hour setting.
- Use Right key to set minutes.
- Use (+) or (-) key to change minutes.
- Select Next arrow on screen menu to go to the next parameter: filter cycle duration.



Setting cycle duration

Here we set a value for the filter cycle duration, in hours and minutes.

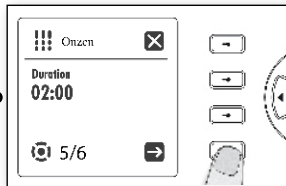
- Use (+) or (-) key to set hour setting.
- Use Right key to set minutes.
- Use (+) or (-) key to change minutes.
- Select Next arrow on screen menu to save changes and go to the next parameter: filter cycle frequency.



Setting Onzen cycles start time

The display will show the starting hour previously set.

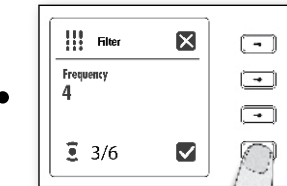
- Use (+) or (-) key to select hour setting.
- Use Right key to set minutes.
- Use (+) or (-) key to change minutes.
- Select Next arrow on screen menu to go to the next parameter: Onzen cycle duration.



Setting cycle duration

Here we set a value for the onzen cycle duration, in hours and minutes.

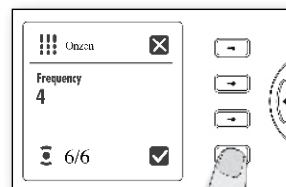
- Use (+) or (-) key to set hour setting.
- Use Right key to set minutes.
- Use (+) or (-) key to change minutes.
- Select Next arrow on screen menu to save changes and go to the next parameter: onzen cycle frequency.



Setting filter cycle frequency

Here we set the number of filtering cycles that the system will perform per day.

- Use (+) or (-) key to select frequency setting.
- Select Enter option on screen menu to save changes and go to back to spa options main menu.



Setting onzen cycle frequency

Here we set the number of onzen cycles that the system will perform per day.

- Use (+) or (-) key to select frequency setting.
- Select Enter option on screen menu to save changes and go to back to spa options main menu.

FAQs

1) What should I do if the pH keeps increasing?

Confirm that your alkalinity is at the recommended level and reduce it manually with 'Adjust Down'.
This is normal, all hot tub salt systems cause pH to increase.

2) Will the salted water damage my lawn?

This is very unlikely. The recommended concentration of salt is 2000-3000 ppm, which is about 10% of the concentration of sea water.

3) Why is my water a bright yellow, or bright green, or a rusty colour suddenly?

This can happen if the pH gets too high. Lower the pH using 'Adjust Down'. High pH is a sign that the onzen output may be turned up too high, so you may need to adjust the onzen output

After balancing the pH and adjusting the onzen output wait about 48 hours. If the colour of the water does not normalize you may need to replace the water.

* Keep an eye on the pH and adjust it weekly to avoid this problem in the future.

4) What is the typical amount of maintenance I need to do with Onzen?

1) Change the water twice a year.

2) Change the filter 4 times a year.

3) Adjust the pH once a week.

4) Check Calcium level monthly to ensure it is in the target range

5) Check the alkalinity weekly to make sure it is in the target range

6) Adjust the Onzen output if hot tub use changes significantly.

7) Adjust the chlorine levels using "Boost" granular chlorine, after heavy use or if the Onzen output is too low.

5) Should I use Best Defense or another scale remover?

It is recommended that calcium be removed from the water in advance rather than adding a scale remover after the fact.

6) What is the impact of phosphates on the Onzen system?

High levels of phosphates (above 250 ppb) may reduce the effectiveness of sanitizer output.

7) What happens if my water becomes cloudy?

i. Test the water for chlorine content. If the level is low add Boost.

ii. Check your filters as they may require replacement

iii. Check you pH level you may need to adjust you pH down

8) Can I use softened water with my Onzen system?

Yes. You probably have a water softener because your water is quite hard. Your water-softener removes calcium from your water and helps you achieve water with calcium content near the target of 50 ppm



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