

Floatron Operation Instructions for swimming pools



Floatron Operating instructions are very comprehensive. Many after sales queries can be answered by reading the instructions.

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Initial Assembly

Upon receipt of your floatron, unpack all of the contents, being sure to look inside of the insert for parts. Read all instructions before proceeding. After carefully reading the operating instructions:

Inspect the solar panel for any visual damage or imperfections which may have occurred during shipping.

If any discrepancies are noticed, contact us immediately on receipt.

1. Lay the unit face down on a smooth surface. With one hand, hold the spring electrode down in a compressed condition to allow unobstructed access for the mineral electrode installation.
2. Engage (clockwise) the threaded end of the mineral electrode onto the silver coloured metal screw / stud at the centre of the unit, which is also at the centre of the spring electrode.
3. Tighten snugly by hand, about a quarter turn after making contact with the black rubber seal at the base.
4. Place screen cage assembly over the electrodes and centre the hole in the cage with the bore in the mineral electrode end.
5. Attach screen to electrode with thumb screw.

Notes:

- The spring electrode is permanently installed and is not removable. Do not attempt removal by twisting or pulling. Permanent deformation may result.
- Save your original box and inserts for safe and convenient storage during the off season.
- The purpose of the screen cage is to trap any deposits or residues which form on the electrodes during normal operation. The screen prevents any particles from falling into the water.

Your floatron® is now ready for the water, but your water may not be ready for the floatron®. Read on.

Starting up

- The floatron® will protect your pool against microorganism invasion. Its solar ionisation process transforms your water into biologically healthy and algae resistant mineral water. Depending on the volume of water, weather conditions, and usage, the initialisation period will range from about a week to several weeks. The floatron® cannot ionise a pool instantly because it is designed as a trickle charger with a safe and effective low power output. Therefore, it is important to maintain a normal sanitiser level during this initialisation period until the ion concentration reaches a protective level.
- Begin with normally chlorinated water, and normal pH for your pool. Use your regular chlorine test kit to maintain approximately 1.0 ppm (Parts Per Million) chlorine residual. More chlorine may be necessary if conditions warrant.
- Clear the water prior to floating your floatron®. If your water is less than clear, it may require a 'shock' dose of oxidiser / chlorine.
- Check for presence of copper ions in the water with the ion test kit. See 'Ion testing' . The typical reading at this point is zero to trace amount (0.0 - 0.1 ppm). If higher concentrations are detected, this is usually caused by the previous addition of a copper based algaecide, if so, manage as outlined under 'Ion testing' chapter.
- Free float while ensuring direct sunlight on the unit. If necessary, tether in a sunny part of the pool any suitable restraint may be tied to the tethering chain for this purpose.
- Operate pump and filter system during daylight hours when your floatron is generating ions. This will allow proper mixing and circulation of the minerals. Pump operation is unnecessary and optional at night, and the unit can be left in the pool overnight.

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Ion testing

The mineral electrode is made of a unique alloy of several specific metals, predominantly copper. The ion test kit detects the presence of the copper ions, thereby enabling you to determine if the water has an adequate level of protective minerals. The reagents in the kit are very sensitive, and readings can be affected by various interferences. Accordingly, use the ion test as a basic and general indicator. Test only once a week; more often is unnecessary (we advise keeping the test kit in the fridge).

1. Read ion test kit instructions on the test kit.
2. Weekly checks should show an increasing concentration over time.
3. The target is 0.3 ppm, which upon reaching, chlorine reduction may begin.
4. If the ion reading climbs to 0.5 ppm or more, remove the unit from the water for a week and monitor ion level (weekly).
5. Once the level drops to 0.3 ppm or less, resume floating the unit and continue weekly ion checks.
6. If the ion level maintains at 0.3 ppm, then continue floating full time.

The purpose of ion testing is to initially determine that it is safe to reduce chlorine, and subsequently to establish a floating schedule which results in a steady ion reading of approximately 0.3 ppm. Depending on conditions, pools with 20,000 gallons (91 cubic metres) or more usually require full time floating. Smaller pools will usually maintain an adequate ion level with a part time floating schedule. For example, one day in, one day out, two days in, one day out, one week in, one week out, etc. Pools with screened enclosures will probably require full time floating as the output will be about half of that with normal full sun.

The first few weeks

During this period you should witness the ion level build up to approximately 0.3 ppm. Float the unit daily and do not reduce the floating schedule unless the ion level tends to climb too high. Remember, more ions are not better. The water has a capacity to hold only a certain amount of minerals, and attempting to exceed what is known as '*saturation point*' may result in minerals collecting on pool surfaces. It is important to spend a few minutes a week to check the ion level and to keep the electrodes clean (see **electrode cleaning**).

1. Upon reaching the recommended ion level of 0.3 PPM, start chlorine reduction by allowing the chlorine concentration to drop to about half of its normal level, or approximately 0.5 ppm.
2. The pH range may now be expanded from 7.2 - 7.8. The floatron works well at higher pH values, so do not adjust the pH if it is within this recommended range.
3. Keep in mind that the general idea is to use your floatron just enough to maintain an adequate ion level, and to determine how little chlorine is necessary to keep the water clear. Allow the water to settle down and seek its own balanced condition.
4. Clean electrodes weekly.

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Electrode cleaning

The floatron is the only purifier which, in addition to generating beneficial mineral ions, collects undesirable minerals such as calcium and iron. This has the effect of softening your water. The sacrificial mineral electrode is designed to slowly erode away, and in the process will form a scale build-up which will require occasional cleaning. The spring electrode may also form a scale, which normally consists of calcium, and should also be cleaned. The initial rate of build-up will be quicker in harder water, and will slow as the water becomes progressively softened. Heavily scaled electrodes will restrict electrical flow and slow the ionisation process, therefore it is advantageous to clean them on a weekly basis:

1. Lay unit face down, preferably on grass.
2. Remove the thumb screw and screen.
3. Blast with a jet of water from garden hose nozzle, from different directions, to knock off loose material and scale.
4. Reduce the water flow, and with water running over the electrodes, attack build-up with cleaning brush to remove most of the remainder of residues, **and/ or** run water over the electrodes, slide the spring up and down, while making contact with the centre electrode from various directions. The residues will wash away with the water.

The centre electrode need not be cleaned down to bare metal, although the spring is relatively easy to clean completely. If the majority of the scale is removed, the floatron will perform satisfactorily. It is not possible to clean the electrodes too much or too often. The cleaner the electrodes, the more efficient the operation.

Occasionally, the screen will require cleaning to ensure a free flow of water and ion exchange. Because the mesh is very fine, deposits can slowly choke the openings in the screen and restrict water flow. To clean the white mesh screen:

1. Hose out loose debris.
2. Immerse screen in a jar dilute acid i.e. pH minus or vinegar until visually free of blue / white scale build-up.
3. Rinse screen and reinstall.

Notes:

The dilute acid dip can also be used to clean the electrodes. Place the unit on top of the jar with the electrodes immersed, and remove when the bubbling action ceases. Do not leave electrodes submerged for more than a few minutes. Rinse and reinstall screen.

Routine

It is important to spend a few minutes a week to monitor the water balance, clean the unit, and to learn the trends. After a couple of months of experience, you should have a good idea about how little chlorine or oxidiser, is required, how much floating time does the job, the best way and frequency to clean the electrodes, etc.

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The floatron works well with chlorine and most other oxidisers, i.e. bromine, and salt water systems, but it is not compatible with Copper based algaecides, Baquacil or Softswim products. Conditioners, clarifies, etc. are unnecessary. Higher chlorine levels may be required with an increase in water temperature, increased swimmer load, rainfall, or new water added. If using liquid chlorine, add at or after sundown because the sun's rays quickly neutralise chlorine. The recommended levels are not absolute and may vary with changing water conditions. What works best for your pool is determined by experience. Allow your water to seek its own balance. Do not arbitrarily alter the pH, apply large doses of chlorine (AKA 'Shock'), add algaecide, add conditioner, or try to change perfectly clear water. Give your pool water time to stabilise, and remember, **simplicity is the key.**

Electrode Replacement

The mineral electrode is sacrificial and designed to slowly disintegrate. After an average of 12 - 24 months, depending on conditions, the electrode will wear away and require replacement. You will know this when it is '*pencil thin*', or about 1/4 inch (< 1cm) at its thinnest point.

To remove the spent electrode:

1. Remove screen assembly and clean parts.
2. While compressing spring electrode with one hand, rotate centre electrode counter-clockwise. If necessary, use pliers for advantage.
3. Continue to unthread until free.

Closing/ Reopening of pool

Whether closing for the winter or for holiday, your pool water should remain clear for months if correctly put away:

1. Ensure ion reading 0.3 to 0.5 ppm. The mineralised water will protect against algae; the ions act as an algaecide, therefore no need to add additional algaecide.
2. Turn off all equipment, including pumps, chlorinators, etc.
3. If the water is clear, no need to oxidise. If less than clear, add chlorine / oxidiser until cleared.
4. Remove floatron.
5. Drain water, winterise pumps, cover, etc. as desired.
6. Clean and remove electrode from the unit and store in an airtight plastic bag or jar.
7. Store your floatron indoors. Avoid freezing.

To reopen your pool:

1. Top up water level, backwash, and vacuum.
2. If water is cloudy, add enough oxidiser (chlorine) to clear.
3. Test ion level. Float unit to re-establish 0.3 ppm. Temporarily increase oxidiser until protective ion level is attained. Be sure to maintain enough oxidiser to ensure water clarity.
4. Verify pH is within 7.2 - 7.8 Range. Correct if necessary.

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If the pool was previously shut down with an insufficient ion level, or severe conditions were encountered late in the off season, less than clear water conditions may be experienced upon reopening.

Operational Check (This is a brilliant way to see how your floatron works!)

It is unlikely that your floatrons will not generate ions. Should there be any doubt, the following quick check will visually prove electrical generation:

1. Fill a clear, glass or plastic, jar or equivalent with pool or tap water.
2. Clean electrodes and leave screen off.
3. Place the floatron on the top of the jar, resting on the lip, with the electrodes immersed in the water.
4. With a full sun shining on the solar panel, very fine bubbles will be observed after a few seconds originating from the spring coils. This demonstrates that electrical current is being generated. Absence of bubbles indicates a problem.

Tips

1. Read the instructions a couple of times to start.
2. Save your original box and inserts for safe and convenient storage during the off season.
3. Allow new plaster type finishes to cure for a month prior to using the floatron.
4. Baking soda works well to raise pH, and is readily available and reasonably priced.
5. Household bleach works excellently for small pools. For large pools, too many gallons may be required, making more concentrated forms of chlorine more convenient.
6. Keep a tablet of chlorine in the skimmer, or floating dispenser, to provide a constant input of oxidiser into the pool. When necessary, add an additional boost to maintain clear water.
7. Use kitchen cleaner to clean the white plastic floater.
8. Store chlorine in a cool and dark place.
9. Keep ion test kit in refrigerator.
10. Check level of total dissolved solids (TDS) at your local pool store. Readings of approximately 2000 PPM or greater indicate the need to drain and refill with fresh water. If that is not possible, partial draining and refilling is beneficial. With a high TDS, the water cannot absorb and retain minerals very easily, nor can oxidisers be very effective - it is simply too hard.
11. The addition of cyanuric acid (stabiliser) is not necessary if you already use a stabilised form of chlorine, such as tablets.
12. The floatron works well with a pool cover. The choices are to open the cover enough to float the unit, or cut a 3 inch (7cm) "X" into the cover which allows the electrodes to remain in the water while the top is exposed to the sun.
13. Clear, high quality water without algae, and an abnormally low ion reading, does not necessarily indicate that your floatron is not functioning properly, in this situation, test the ion level of backwash water if possible and [contact us](#).
14. When replacing the mineral electrode, ensure that the threads are dry and free of water or corrosion - adding a little Vaseline at each end makes unscrewing the electrode easier.

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15. In hard water conditions, over time, the solar panel may form calcium deposits which are left by water evaporation. To quickly and easily remove the scale, apply diluted acid with a toothbrush. Allow to dissolve deposits and rinse.
16. The mineral electrode residues have been found to benefit vegetative growth. By cleaning your unit in the vicinity of plants, enhanced growth rates and plant size can be realised. As with any fertiliser, do not over apply, or do not clean in one particular spot for too long. Move around the garden for weekly cleaning.
17. Wearing rubber gloves to clean the electrode, prevents copper deposits staining you fingernails.

Do's & Don'ts

1. Do not automatically take advice for granted from those who are not experienced with the floatron. This type of expert opinion is often influenced by the desire to sell or use chlorine and related pool chemicals, additionally, recommendations more often than not reflect a chlorine based pool chemistry, and are not applicable to ionised water.
2. Do not add any clarifiers or metal removers which will eliminate the beneficial mineral ions generated by your floatron.
3. Do not use with Baquacil or Soft Swim brand products, or others with similar chemistry. These chemicals must be removed from the water first. [Contact us](#) for directions how to do this.
4. Addition of algaecide is unnecessary as the floatron is an algaecide generator.
5. 'Shocking' ionised mineral water is poor technique. It's like an atomic bomb to the water. The water should be finessed. Oxidiser should be added at reduced dosages to clarify cloudy water.
6. When using the ion test kit, be sure to sight through the sampling tube from top to bottom for colour comparison, not through the side. A low reading will result if viewed through the side.

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Instructions for Hot tubs

Outside:

- 1) Float the floatron on a sunny day for an afternoon.
- 2) Run the pump now and then. If there is low volume circulation this may be left running during mineralisation.
- 3) As soon as the level of 0.3 - 0.5ppm copper is shown on the test kit provided remove the floatron.
- 4) Once the level is established test every two weeks and re-mineralise as required.
- 5) After using the hot tub pour a few splashes of bleach into the water and run the pump for a minute. By the time the tub is used again the chlorine (bleach) will be gone.

Inside:

- 1) Float the floatron in a bucket of water in good sunlight for 10 - 15 minutes. Add this mineralised water to the tub. Repeat until the copper level reading is 0.3 - 0.5ppm.
- 2) Once the level is established test every two weeks and re-mineralise as required.
- 3) After using the hot tub pour a few splashes of bleach into the water and run the pump for a minute. By the time the tub is used again the chlorine (bleach) will be gone.

Ponds & water features

Please see specific [Fish Pond instructions](#) which can be downloaded from our website.