



Saline Purification System

OWNER INSTRUCTION MANUAL

IMPORTANT INFORMATION!

**PLEASE READ BEFORE START-UP OF
YOUR SALINE PURIFICATION SYSTEM!**

POWER SUPPLY SERIAL # _____

MODEL# _____

VOLTAGE _____

Manufactured by
OCEAN MAGIC ENTERPRISES
Arizona, U.S.A

Telephone 1-623-334-8808
E-mail-SaltyMagic@cox.net
Internet-www.oceanmagic.net

FIVE YEAR *WARRANTY

“OCEAN MAGIC” ENTERPRISES

Atlantis... SALINE PURIFICATION SYSTEM

This FIVE YEAR *WARRANTY is issued to:

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

“OCEAN MAGIC” Enterprises (“OME”) warrants the Atlantis... Saline Purification System against defects in materials and workmanship under normal use, service and conditions for a period of 24 months (*2 years) from _____, the date of the original purchase. This warranty is only extended to the original end-user purchaser, _____, and is non-transferable. If OME is notified in writing of alleged defects in the Atlantis... Saline Purification System within 24 months (2 years) from the purchase date, our obligation under this warranty shall be limited to replacing at no cost, any major component of the system, or, at our option, repairing any part or parts necessary. (Control Unit is unconditionally guaranteed for Full 60 months.)

At the discretion of OME no warranty shall be given if the the Atlantis... Saline Purification System has been subject to misuse, alteration, neglect, abuse, accidents or not having been serviced according to manufacturer's instructions. Damage caused by wind, storm, earthquake, flood, fire, heat or other acts of God are also not covered under this warranty. In no event shall OME be liable to anyone for special, incidental or consequential damages relating to the warranty or the product which is subject of this warranty (i.e., scaling or etching of pool surfaces due to improper operation of system), even if OME has been advised of such damages. Further, for a period of 36 months (*3 years) immediately following the original 24 months (2 years) from date of purchase), OME will repair or replace at a pro-rata cost (plus the then current hourly labor rate of the installer) from the date of purchase by the original owner any major component of the system, or, at our option, repair any part or parts necessary. At the discretion of OME no warranty shall be given if the Atlantis... Saline Purification System has been subject to misuse, alteration, neglect, abuse, accidents or not having been serviced according to manufacturer's instructions.

(Entire warranty is based on a 60 month prorata basis i.e. system fails within first 24 months there is no cost for replacement of failed component. Control unit is warranted for the full 60 months. If the electrolytic cell fails in 25th month or beyond, cost of replacement is based on number of months used out of 60 months times cost of replacement item divided by 60 months.)

Example: \$60.00 item divided by 60 months is \$1.00 times 28 months of warranty used equals \$28.00 replacement cost plus labor.)

OCEAN MAGIC” ENTERPRISES Arizona, U.S.A..

Email - saltymagic@cox.net / Office 1-623-334-8808 / Web- oceanmagic.net

INSTALLER: Name: _____ Phone: _____

Address: _____

City: _____ State: _____

Zip Code: _____

Warning!

Failure to observe the following could damage your pool equipment and invalidate your warranty !

1. Atlantis... should be installed by an experienced Pool Technician. Failure to install and operate this product as specified may result in a hazardous situation which could cause personal injury or property damage.

2. Your Atlantis... has been built with an electronic flow switch. This device automatically shuts the Atlantis... "OFF" when water flow through the cell stops or the temperature within the control unit reaches a pre-set upper limit.

DO NOT MODIFY THIS SYSTEM IN ANY WAY!!!

It has been manufactured and installed for your protection and the longevity of the Atlantis... itself.

3. Do not dismantle the electrode grids or detach them from the end-cap.

4. Do not immerse head of electrode in cleaning solution.

5. Water pressure in the cell must not exceed 40 psi (276kpa). Filter gauge may or may not reflect cell pressure. **Atlantis... SHOULD ONLY BE INSTALLED AFTER THE FILTERING EQUIPMENT ON THE LOW PRESSURE SIDE OF YOUR FILTRATION SYSTEM (Return water line) !!!**

6. Water temperature through cell should not exceed 104 degrees Fahrenheit (40 degrees Centigrade). **Do not operate system at high production levels for long daily hours in cold water during the winter months. High production is not necessary during that time period and cell can be seriously or irreparably damaged and have to be replaced.**

7. Scale deposits must not be allowed to build up so thick as to bridge the gap between the electrodes of the cell. Do not ever allow the electrode plates to be bridged by metal of any type. Clean the cell as needed. Do not leave electrodes in cleaning solution for more than three (3) minutes. **If this is not followed the plating can become damaged making the electrodes ineffective at producing the proper electrolytic reaction, therefore making them unusable. This is not warrantable.**

8. Power supply must not be installed directly above any other heat source (i.e. a heater). It must be in a ventilated area.

9. Use only Silicone grease to lubricate end cap threads and O ring.

10. Pool/spa water alkalinity must be maintained in the range of 90-110 ppm.

FOR WARRANTY SERVICE PLEASE CALL YOUR INSTALLER or:

“OCEAN MAGIC” ENTERPRISES

Arizona, U.S.A.

Oceanmagic.net

saltymagic@cox.net

THANK YOU...

...for your purchase of the *Atlantis... Saline Purification System*. You have made a wise decision and will enjoy it for many years to come.

Not only will you save more than 90% on the cost of sanitizing chemicals, you will also enjoy remarkable water clarity, and the pleasure and exhilaration of bathing in slightly saline water.

Please take a moment now to read through your Owner Instruction Manual. Learn the simple steps to keep your pool or spa sparkling clean, how your new *Atlantis...* works, and much more.

By following the few simple steps outlined in this manual, your pool and spa will remain a thing of beauty and pleasure for years to come.

Your *Atlantis...* is backed by our comprehensive warranty described in the Warranty section. The exclusive *Atlantis...* warranty is an expression of the confidence "OCEAN MAGIC" Enterprises has in its products. It is your assurance of prompt and expert after sales service by professional technicians.

Thank you again for choosing the *Atlantis...* We wish you many happy years of swimming in your "*Atlantis...*" pool or spa.

Please remember to always practice pool safety!

SYMPTOM H

Production indicator meter is reading in the low range of the Indicator:

CAUSE (A): There is insufficient water flow through the cell causing the water sensor probe to shut off the power supply.

REMEDY: a) Be sure there is sufficient water flow through the system cell. Is the pump on? Is flow restricted because the filter needs back washing? **Look for a pocket of air trapped in the top of the cell housing.** Is the electrode pack inserted properly with the tongue shaped sensor on the top? This would confirm one of the problems just mentioned or a suction leak.

b) Make sure that all electrical connections from cell to power supply are making solid contact.

CAUSE (B): Salt concentration is too low. It should be between 6,000 and 7,000 ppm to allow output to reach 100%.

REMEDY: Calculate the amount of salt needed to bring levels to over 6,000 ppm and add to the pool water. Refer to this Manual section, **SALT: WHEN AND HOW TO ADD IT.**

SYMPTOM I

System stops working, all lights are off.

CAUSE (A): Circuit breaker has tripped to "OFF" position.

REMEDY: Check fuse in control unit. A power surge may have burned out fuse.

REMEDY: If breaker has tripped, turn it on. If it trips again, call a licensed electrician.

CAUSE (B): "OFF"/"ON" switch is in the "OFF" position, and/or optional "Automatic/Manual" timer Control switch is in the "Manual" position.

REMEDY: Turn on control center by switching the "OFF/ON" switch to the on position. Red LED in switch should come on and remain on.

NOTE: If your *Atlantis...* has the optional built-in timer control** and your system is in "Manual" mode and all the clock trippers are in the off position, this part of the system is in manual override mode. However, if the timer control is in the "Automatic" mode and the clock trippers are set to go on and off at specific times then the control center will be activated off and on automatically.

** {Only available in U.S. by special order.}

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SYMPTOM D Slimy walls of pool or spa:

CAUSE: Combined algae and bacteria growth.

REMEDY: Scrub down affected walls and follow remedy as for Symptom B, using the shock procedure as described in Symptom B.

SYMPTOM E Eye and / or skin irritation:

CAUSE: Incorrect pH levels or chloramines.

REMEDY: a) Adjust pH to 7.2 to 7.8 range.
b) Check that combined chlorine is more than 0 and follow remedy for Symptom B.

SYMPTOM F Scale formation on pool equipment:
To clean scale from the electrodes, see *Atlantis... MAINTENANCE* section. (Hard crusty deposits of calcium on cell plates which makes them harder to clean, is indication that alkalinity is above 120 ppm.)

CAUSE (A): High total alkalinity.

REMEDY: Adjust total alkalinity to 90 to 110 ppm.

CAUSE (B): Incorrect pH and hard water.

REMEDY: a) Adjust pH range to 7.2 to 7.8.
b) Add to pool water: Soda Ash to raise pH or Muriatic Acid to lower pH.

SYMPTOM G Production Indicator is in yellow zone to the left.

CAUSE : Check salt level and then check electrode cell for obstruction that may be bridging the gap between plates.

REMEDY: Clean cell. Re -adjust production output indicator.

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INDICATOR LIGHTS SUMMARY

CONTROL CENTER

- A. Red light on "OFF"/"ON" switch glowing, cell is turned on.
- B. Your control unit has a meter for two reasons. The first reason is to indicate the Amount of sanitizer being produced. There is a Summer setting and a Winter setting which gives you control of the amount of sanitizer produced on demand.
- The second is to indicate the level of salt in the pool water. Keep the meter hand setting for the time of year as indicated on the face of the meter or as necessary to maintain a 1 to 2 part per million residual of sanitizer in the pool water.
- Adjust to "Ideal" setting after adding required amount of salt and circulating the water for a period of 24 to 48 hours.

SYMPTOM B Pool green and no chlorine reading:

Chlorine is still considered the most effective way of destroying algae and bacteria in your pool water. A chlorine residual of 1 to 3 ppm for pools and 3 to 5 ppm for spas is considered desirable. However, there are some types of harmful micro-organisms and algae which develop an immunity to these low levels of chlorine.

REMEDY: Super purifying or shock dosing, especially in hot weather, is the remedy. This procedure raises the chlorine residual to a very high level for a very short time and reduces chlorine demand.

1. Super purifying with the *Atlantis*....
 - a) Backwash the filter.
 - b) Adjust pH to 7.2 to 7.8.
 - c) Increase the setting of the production output control to near maximum and run the filter and the Atlantis... for 24 hours continuously. Over-ride the timer if applicable.
 - d) After 24 hours, backwash the filter.
 - e) Re-adjust the pH to 7.2 to 7.8.
 - f) Check the output reading.

SYMPTOM C Chlorine odor:

CAUSE: Combined chlorine or chloramines. Free chlorine does not smell (up to 10 ppm concentration). The problem here is **NOT** too much chlorine as many imagine, it is small amounts of chloramine. Chloramines form By the bonding of chlorine with amino acids from sweat, urine, and other sources. These chloramines cause the "chlorine" odor and also cause eye and skin irritation.

REMEDY: Same as Symptom B.

TROUBLESHOOTING GUIDE

SYMPTOM A No chlorine reading in pool water:

To test for production output, switch on the filtration system and set the production output control knob to near maximum output. After a few minutes take a water sample from one of the points where filtered water returns to the pool. Test this water with your test kit. A chlorine reading of 1 ppm indicates cell is working properly. If there is no chlorine reading, check meter on power supply. The early stages of algae are not visible to the eye, and may also deplete the chlorine level, in which case you will have to increase chlorine production to near maximum and run the filter system for longer periods (possibly 24 hours per day or until problem is solved).

REMEDY:

- a) Adjust pH within 7.2 - 7.8 range.
- b) Make sure electrodes are clean.
- c) Check Cyanuric acid (Stabilizer) levels and adjust as necessary (40 to 60 ppm).
- d) Increase the setting on the production output control.
- e) Adjust total alkalinity to recommended range (90 to 110 ppm).
- f) Increase running time of filter and *Atlantis*.... Make sure the filter is clean and functioning properly.

USE STABILIZER (CYANURIC ACID) TO PROTECT CHLORINE RESIDUAL

This chemical acts as a sun-screen for chlorine and prevents rapid destruction of the chlorine by the sun. Chlorine stabilizer is essential to prolong the life of the chlorine in the pool water. It should be added following the manufacturer's instructions to achieve a level of 40 to 60 ppm.

COPPER BASED ALGICIDES {SPECIAL NOTE: Metal based algicides are harmful to electrode plates and may cause deterioration and failure!!!}

Some algicides break down chlorine in a pool. This can produce an indication that there is no chlorine residual reading, but there is no sign of the pool water going green because of algae. The explanation is that the algicide is controlling the algae, but also breaking down the chlorine to unmeasurable levels. Usually, over a period of time, the effect of the algicide will diminish and the chlorine residual will re-appear.

With the *Atlantis*... System and the correct water chemistry, (as previously indicated) algae is virtually ELIMINATED.

HOW TO OPERATE YOUR *Atlantis*...SYSTEM

CONTROL CENTER

1. Verify proper pool water chemistry (all items in proper range see POOL CHEMISTRY SUMMARY page 9).
2. Verify system is properly connected.
3. Turn on pool pump and set pool timer for desired run time.
4. Turn on control center by switching the "OFF/ON") switch to the on position. Red LED in switch should come on and remain on.
5. Adjust production output knob to maximum (but not into red zone of indicator). Check the chlorine level after each timer cycle and adjust as needed until desired production level is reached and maintained. Increases or decreases of production may also be adjusted by adjusting pump running time up or down. The desired level of measurable chlorine is from 1 to 3 ppm for pools and 3 to 5 ppm for spas.

(For commercial pools you should check with the local Health Department for their requirements.)

OPERATING HINTS

A) Filtration and Purification System Operating Periods:

Operate your filtration and purification system for at least 4 to 6 hours per day in the winter and 8 to 12 hours per day in the summer.

B) Output Settings:

Cell life is substantially extended by operating at reduced power settings for longer periods per day. Also, extend cell life and reduce calcium buildup by adding Magnesium Sulphate (Epsom Salts) at the rate of Ten (10#) Pounds per 15,000 gallons of pool water initially then Two (2#) Pounds per 15,000 gallons every three months.

C) Alkalinity is "Most" Important!!!

The ideal range for the alkalinity is 90 to 110 ppm. Too much alkalinity (higher than 110 ppm) will cause the cell to scale too quickly. Too little alkalinity (lower than 90 ppm) will make pH difficult to control.

D) pH is Very Important Too!!!

Ideal pH is 7.2%. High pH (more than 7.8%) may cause cloudy water and rapid system scale build-up. Low pH (less than 7.0%) will cause system corrosion, etching of pool surfaces, and skin and eye irritation.

E) Stabilizer (Cyanuric Acid) Level:

Make sure the pool water has stabilizer/conditioner (CYA=Cyanuric Acid) reading within the range of 40 ppm to 60 ppm. Stabilizer blocks out ultraviolet rays and helps to slow chlorine evaporation.

F) Free Chlorine Reading:

The free chlorine in the pool should be around 1 ppm to 3 ppm and 3 to 5 ppm for spas. Increasing the daily operating period or meter reading increases chlorine production. Decreasing the daily operating period or meter reading decreases chlorine production.

SALT: WHEN AND HOW TO ADD IT

WHEN TO ADD SALT

When the production output indicator is reading in the lower zone of display, (To the left side of the meter or "Summer" setting) and the production output control knob is on maximum, salt must be added or electrodes must be cleaned. Purchase salt water test strips at your favorite pool supply store, and follow the directions on the container. **The salt concentration should normally be between 6,000 ppm and 7,000 ppm, but should never be allowed to fall below 6,000 ppm, as this will reduce the life of the electrodes.**

Salt is not lost through evaporation. Salt is lost when water is splashed out of the pool or lost during filter backwash. Adding fresh water to the pool dilutes the salt concentration. **At a minimum**, salt should be adjusted each year just before summer, and whenever the meter reads in the lower zone.

Note: To protect your equipment, the cell is equipped with an automatic sensor that indicates sanitizer production and also to shut off your system when the water level in the cell housing falls below the built in sensor on the cell head.

HOW MUCH TO ADD

Use only refined salt (sodium chloride) when adding salt to the water in your pool. For normal home pools of about 15,000 gallons, one 50lb bag of salt will increase the salt concentration approximately 375 ppm. For larger pools, greater amounts of salt must be added according to this formula.

******YOU CANNOT ADD TOO MUCH SALT!!** (More is better in this situation.)

Add enough to assure the meter is in the red zone when the control knob is fully to the maximum setting, also test water sample with salt water test strip.

HOW TO ADD SALT

Shut the skimmers off, using only the main drain as a return from the pool. For pools without a main drain or with a combination skimmer/main drain, a vacuum hose from the deep end of the pool must be used. Empty the contents of the estimated required 50lb bags of salt into the shallow end of the pool. The salt brine will slowly drift down to the deep end. You may assist the mixing by brushing the salt on the bottom of the pool to accelerate dilution, allowing it to get sucked in through the main drain, pass through the circulation system, and return to the pool near the surface through the wall returns helping in the mixing process.

This mixing process can take as long as 48 hours of pump run time.

Refer in this Manual to turn-on system section,

"HOW TO OPERATE" YOUR "Atlantis..."

POOL CHEMISTRY SUMMARY

| | | |
|------------------------------|---|--|
| Salt concentration | = | 4,500 to 6,000 ppm |
| Alkalinity | = | 90 to 110 ppm |
| pH | = | 7.2 to 7.8 % |
| Cyanuric Acid (Stabilizer) | = | 40 to 60 ppm |
| Calcium Hardness | = | 200 to 400 ppm |
| TDS (Total Dissolved Solids) | = | 6,500 to 7,500 ppm (Salt Water Pools/Spas) |
| Purifier Residual | = | 1.0 to 3.0 ppm (Pools) 3.0 to 5.0 ppm (Spas) |

Total alkalinity controls pH.

- * **Low alkalinity prevents scaling! (Below 120 ppm.)**
- * **pH is very important!** Low pH causes corrosion. (Below 7.0)
- * Cyanuric acid (**Stabilizer/Conditioner**) helps to keep chlorine in your pool water.
- * Calcium helps prevent pool plaster corrosion. However, if greater than 300 ppm, scaling of the cell and other pool components will be increased.
- * Chlorine is the sanitizer which kills disease bacteria and viruses. It also controls algae, and fungus growth. Concentrations greater than 1 ppm (3 ppm for spas) provide sufficient excess to cover most demand, (i.e. rain, swimmers, etc.).
Extended periods with concentrations greater than 3 ppm (5 ppm for spas) will cause water chemistry stability problems.

This water test schedule will prevent most problems associated with water chemistry.

DAILY

| | | |
|----------|--------------------------------------|---|
| Chlorine | 1 - 3 ppm (Pools) 3 -5 ppm (Spas) | Adjust power supply or pump run time as required. |
| pH | 7.2 - 7.8 | If lower than 7.2 check alkalinity and add soda ash. If higher than 7.8 check alkalinity and add muriatic acid. |

WEEKLY

| | | |
|-------------------|-------|---|
| Combined Chlorine | 0 ppm | Increase adjustment on chlorine production control. Check Stabilizer level. |
|-------------------|-------|---|

WEEKLY

| | | |
|------------------|--------------|--|
| Total alkalinity | 90 - 110 ppm | Add Soda bicarbonate to increase or muriatic acid to reduce / test weekly. |
|------------------|--------------|--|

MONTHLY

| | | |
|---------------|-------------|--|
| Cyanuric acid | 40 - 60 ppm | Add cyanuric acid to 60 ppm and re-test. |
|---------------|-------------|--|

| | | |
|------------------|---------------|----------------------|
| Calcium Hardness | 200 - 400 ppm | Adjust as necessary. |
|------------------|---------------|----------------------|

| | | |
|-----|-------------------|----------------------|
| TDS | 6,500 - 7,500 ppm | Adjust as necessary. |
|-----|-------------------|----------------------|

IMPORTANT: If you need help with any of these tests, take a fresh sample of your pool water to your favorite pool store. *Check cell for excessive scale buildup on the electrode plates at least once a week until you have established the required cleaning schedule.

*Do not use dry acid to adjust pH.

SYSTEM MAINTENANCE

Check and clean your cell regularly or it will die!!!

Initially, check your cell every day for scale on the electrodes. This will enable you to determine the required cleaning period. The *Atlantis...* cell must be cleaned before scale builds up to the point where the space between the electrode plates of the cell are bridged. If the cell operates with scale bridging the electrode plates it will be irreparably damaged and the electrode assembly will have to be replaced.

Such damage is **NOT COVERED BY WARRANTY!!!**

How to clean your cell:

- Switch off the filter pump (unless by-pass valving system is installed) and *Atlantis...* power supply.
- Unscrew the large round ribbed plastic cap of the cell housing, and carefully withdraw the electrodes.
- Scale deposits must **not** be allowed to build up so thick as to bridge the gap between the electrodes of the cell. Clean the cell as needed. First direct a fast water jet from a garden hose onto the electrodes, then immerse the electrodes in a solution of **12 (twelve) to 15 (fifteen) parts water to 1*(one) part Muriatic acid for one and onehalf (1 1/2) to two and one half (2 1/2) minutes** or if this is not effective, use a wooden paint stirring stick to clean the calcium deposits from the grids. (White Vinegar may also be used)

(If calcium deposits are hard and crusty, alkalinity is too high! Adjust alkalinity!!!)

Never use metal objects to clean electrodes!!!

Do not leave electrodes in cleaning solution for more than three (2) minutes. If this is not followed the plating can become damaged making the electrodes ineffective at producing the proper electrolytic reaction, therefore making them unusable. **This is not warrantable!**

!!! FAILURE TO OBSERVE THE ABOVE COULD DAMAGE YOUR EQUIPMENT AND INVALIDATE YOUR WARRANTY!!!!

- Lubricate "O" ring and cell housing threads with Teflon grease and re-install with salt sensor at the top.
- Reset valves. Turn on pump and *Atlantis...*
- Check and adjust meter reading on power supply.
- Check for water leaks around cell cap. Tighten if necessary.

HOW THE SYSTEM WORKS

The system consists of two components:

(1) "Control and power center" supplies a low voltage (9.0 to 18 Volts DC- 20 AMPS) current to the cell.

(2) "Cell assembly", consisting of the electrodes and housing is placed in the pool circulation return water line (low pressure side) to treat the filtered and heated water as it returns to the pool.

Filtered pool water containing a minimum of 6,000 ppm and an optimum of 7,000 ppm of salt (Sodium Chloride) is circulated through the cell. The salt is then dissociated by the low voltage current to create sodium and pure chlorine gas, the purest form of chlorine. When the chlorine gas is combined with pool water the combination becomes Sodium Hypochlorite.

In simple, non-technical terms, the chlorine instantly starts to destroy bacteria, viruses and algae, it then recombines with the sodium to again become salt, which in combination with the pool water is a very mild saline solution with about two thirds the salt content of a human tear drop. This cycle is continuously repeated with more chlorine being produced from the salt water in the *Atlantis...* cell, purifying the pool water, then again changing back to salt.

Each day when the *Atlantis...* and the filtration system are switched on, dust and debris are trapped by the filter and the *Atlantis...* purifies the pool water as it returns to the pool to make it safe, sparkling clean and a pleasure to swim in.

REQUIRED WATER CHEMISTRY

****The TAYLOR - "4 IN 1" or DPD TEST KIT** is recommended for use with your *Atlantis...* System.

The following is basic pool water chemistry and is required for The *Atlantis...* System. It is important to follow these steps in order.

1. TOTAL ALKALINITY AFFECTS pH CONTROL AND SCALING.

Total alkalinity must be maintained in the range 90 ppm to 110 ppm or excessive scaling will occur. (Overall range for alkalinity is 80 ppm to 120 ppm.)

Total alkalinity is the measure of all the alkaline chemicals in your water (e.g. bicarbonates, carbonates, and hydroxides). It can be thought of as the buffering system necessary to control pH.

Low total alkalinity will make pH difficult to adjust and may cause staining of pool surfaces. To raise total alkalinity, add sodium bicarbonate at the rate shown in the manufacturer's instructions.

If total alkalinity is too high, scale will tend to form in the chlorinator cell, on pool walls, and in the heat-exchanger of your heater. **To lower total alkalinity add Muriatic acid by pouring it into the pool water while walking around the pool perimeter.**

Add 1 pint (473ml) Muriatic acid to the pool water each day until a total alkalinity reading taken at least 24 hours later is in the 90 ppm to 110 ppm range. **When total alkalinity is finally correct you may need to adjust pH.**

2. pH IS VERY IMPORTANT

pH is a simple numerical scale which expresses the acid/alkaline balance of water. A pH value of "7.0" denotes neutrality, (i.e. neither acid nor alkaline). High pH values (i.e. above "7.8") denote alkaline conditions. Low pH values (below 7.0) denote acidic conditions, which can lead to stinging eyes and corrosion of metal fittings and pool surfaces. High pH (alkaline water) leads to clouding of the water.

Plaster coated pools require pH values from 7.2 to 7.8, which is ideal for maximum comfort and minimum chlorine demand.

Always adjust the total alkalinity before adjusting pH!!

3. HOW TO ADJUST pH

Raise pH by adding sodium bicarbonate (soda ash), or dry alkali. First, pre-dissolve in water, then add no more than 1 lb. (0.373 kilograms) at a time. Check pH after each addition is totally dispersed.

Lower pH by slowly adding muriatic acid to the pool water **in one location** in the pool. The acid demand indicated by your 4-in-1 test kit will show the amount to use.

If you have difficulty controlling the pH, check your total alkalinity, return to STEP 1.

NOTE: In Pebble Tec finished pools, the Alkalinity will tend to rise until the Pebble Tec cures. This may take from 6 months to 1 year after pool completion.