



LEISURE POOLS SWIMMING POOL HANDBOOK



IMPORTANT LETTER PLEASE READ

PLEASE RETURN ATTACHED WARRANTY CARD IN ORDER TO HAVE A VALID LIFETIME STRUCTURAL WARRANTY

Congratulations on purchasing a Leisure Pools fibreglass swimming pool.

Your Leisure Pools fibreglass swimming pool has been manufactured with superior raw materials and under stringent quality control conditions in order to provide you with a quality product.

We have set out in this Handbook some important information that you should be aware of in order to protect and maintain your Leisure Pools fibreglass swimming pool. Please read this Handbook and keep it in a safe place as a point of reference. If you maintain your Leisure Pools swimming pool it will provide you with years of fun and enjoyment.

Your Leisure Pools fibreglass swimming pool is covered by a Lifetime Structural Warranty for the purchaser of the swimming pool. In order to preserve the Lifetime Warranty there are some basic steps that are set out in this Handbook that you need to undertake in order to maintain your Lifetime Warranty (refer to the Lifetime Warranty in this Handbook for the complete conditions applying to the Warranty)

It is important that for you to have a valid Lifetime Structural Warranty that you post to us the Warranty Card on the back page of this document within 6 months of receiving this letter.

We wish you and your family both good health and happiness and hope that your Leisure Pools swimming pool provides you with the fun and enjoyment that you deserve.

Kindest Regards

Leisure Pools & Spas Manufacturing Pty Ltd As trustee of the Leisure Pools & Spas Manufacturing Unit Trust

IMPORTANT INFORMATION PLEASE READ

1. POOL FENCING

It is critical for everyone's safety that you are aware of your safety obligations in terms of fencing your swimming pool. <u>No water may go into a pool until it is properly fenced.</u>

Council regulations and in some states, legislation, require that your pool be enclosed by fencing. Fences must be at least 1.20m high and gates must be self closing and self latching. We recommend that you refer for specific detail to Australian Standard AS 2818 and AS 1926 that are available from your local Standards Australia office.

Different States and Council areas have different regulations on where the fence must be placed. If you are unsure then contact your local Council and get details of their requirements.

2. USE OF THE POOL

Although a swimming pool is a lot of fun there is a very serious side to using your swimming pool. Death and injury can occur if you do not properly use your swimming pool.

None of Leisure Pools swimming pools have been designed for people to dive into them. Accordingly you should not allow pool users to dive into your swimming pool. We strongly do not recommend the installation of diving boards. You should also ensure that persons using the pool do not use any obstacles around the swimming pool to jump off or to use as a diving platform. Severe injuries can result from divers hitting the side or bottom of a pool. Leisure Pools recommends the installation of "No Diving" signs around your swimming pool.

Children should be supervised by an adult and should be trained to swim both for their confidence and safety. Leisure Pools recommends that there is life saving benefits in having some family members trained in resuscitation and other emergency procedures. Leisure Pools recommends the installation of a resuscitation sign within your pool enclosure.

3. THE BASICS OF POOL OPERATION

Your Leisure Pools fibreglass swimming pool (also know as a Fibre-Reinforced Composite Pool) will have a skimmer box at the deep end of the pool or in the case of the Roman style pool on the side wall. The skimmer box is the point at which water is drawn from the pool by the pump. The skimmer box as the name suggests is designed to trap floating debris from the water surface in a basket built into the skimmer box. The basket can be removed from the skimmer box and emptied.

The skimmer box basket will also trap debris that is vacuumed from the floor of the pool by the vacuum or automatic pool cleaner. A plate is inserted into the skimmer box over the basket in order to create a suction point for the vacuum or automatic pool cleaner hose. You should check the skimmer basket regularly and empty debris from it so as not to impede the operation of the pump.

Once through the skimmer box the water travels along the suction line to the pump itself. At this point there is a basket built into the pump to trap any debris that managed to get through the skimmer box basket. This is called the hair and lint basket and is designed to trap finer particles of debris. Again, this basket is removable and should be cleaned regularly.

Water then passes into the filter for the filtration and removal of even finer particles from the water. Filters are generally sand type filters or cartridge type filters. Most filters have a pressure gauge built into the filter which will tell you when to clean the filter. The more clogged the filter becomes the higher the pressure will become and this is normally indicated on the pressure gauge.

Cleaning a sand filter is easy. Simply turn off the pump and position the handle at the top of the filter to the backwash position. Turn the pump on and you will see the dirty water rushing out to the drain. Most filters have a sight glass where you can view this happening. Normally, backwashing for 3-4 minutes is sufficient. Turn the pump off and move the handle to rinse and run the pump for about 20 seconds. Again turn the pump off and return the handle to the original filter position and turn the pump on again. Please don't wander off while you're backwashing because the water could quickly drop below the level of the skimmer box and run the pump dry.

The cartridge filter has to be removed from its housing in order to clean it. Usually this necessitates undoing a clamp from the top of the filter and removing the lid. You can then extract the cartridge filter for cleaning. A hose is all you need to wash away the debris that is trapped in the folds of the cartridge filter. Sometimes it helps to slightly open up the folds in the cartridge with your fingers to get the hose right in to thoroughly clean the cartridge. The pump must be off through the entire procedure. Once the cartridge filter is clean re-assemble the cartridge filter and replace the lid and clamp. There will be some trapped air inside the filter housing. This can be expelled by opening up an air bleed on the top of the lid. Turn the pump on and the air will hiss out of the air bleed. Do this until water spurts out and when this happens tighten up the air bleed and you're back in business.

The clean filtered water will now return to the pool via the return line, but first it will normally be sanitised by a salt chlorinator. The salt chlorinator cell is installed in the return line and produces chlorine from the salt water by means of electrolysis.

There are two types of cells being the standard cell and the self-cleaning cell. Standard cells over time will get a build up or encrustation on the cell. This has to be cleaned off or the cell will be too blocked to work properly. The result is that you do not produce enough chlorine to sanitise the pool and algae growth may occur.

To clean the cell, it's a simple matter of removing it from its housing and dipping it into a solution of hydrochloric acid (pool acid) and water in a bucket. Normally dilute the acid 10 to 1 but please check the salt chlorinator manufacturer's instructions as it may vary. Don't leave the cell in the acid solution for very long as it may damage the cell. The acid solution should do the job in about 10-to 15 minutes and when the cell is clean again simply wash it off with clean water and return it to the housing. When handling acids we recommend the use of eye goggles and gloves. The acid product should have safety information on the handling of the product. The acid should then be safely discarded. Do not pour it into the pool. The self cleaning type cell as the name suggests cleans itself automatically by reversing the polarity of the electric cell.

So now, the clean filtered sanitised water is on the way back to the pool via the return line. The return line is usually divided at this point into the water returns to the pool via two return jets. It's a good idea to have one of these jets adjusted to move surface water toward the skimmer and one adjusted toward the floor to move any debris on the floor. Thus, the cycle is complete and if you run your filtration the correct amount of time according to the size of the pool and temperature conditions you should have very few problems.

Here are some helpful hints:

- In the heat of summer you can generally run your filtration for about 8 hours a day. Try to do this by running 4 hours in the morning and 4 hours in the evening. The idea is to produce chlorine at a time when the sun is not so strong as the sun is the greatest enemy of chlorine production. For autumn and spring you can go to 6 hours per day and even down to 4 hours per day in winter. However you would naturally adjust this to where you live in Australia.
- As for water level, keep the water level at about 2/3 of the way up the skimmer box opening. If you have it too low then the water may not be able to be drawn from the pool and your pump could be damaged. Alternatively if you have the water too high the skimmer will not be able to skim debris off the top of the pool surface.
- When you wish to vacuum the pool you must purge all of the air from the vacuum hose before you begin. If you don't the pump will draw the air from the hose and will get an air lock and not work. You can purge the air from the hose by putting the vacuum head or automatic pool cleaner on the floor of the pool then slowly submerge the hose and expel the air. When you see water come out of the top of the hose you can then connect it to the vacuum plate in the skimmer box and vacuum the pool.
- Use your pool test kit regularly, at least every week, after all its your health and the investment in a swimming pool that you will be protecting. Look at the water condition, it should be crystal clear. If it's not then something is wrong. Check the water with your test kit, check the filter condition, check the salt chlorinator or other sanitising device, and check the length of time you are running your filtration. If in doubt, take a sample of the water to your pool shop for analysis.
- Don't neglect your pool during winter. Just because you are not using it doesn't mean you shouldn't protect your investment.

4. **POOL CHEMISTRY**

It is important to be aware that untreated or improperly treated pool was can be a health threat. Chemically balanced and sanitised water, on the other hand, will provide a healthy and visually appealing environment for you, your family and friends.

Pool water is contaminated with algae and bacteria from a variety of sources, including wind, top-up water and swimmers. Controlling these influences is an ongoing requirement and involves:

- Chemically balancing the water to ensure it is neutral to swimmers, the fibreglass swimming pool itself and pool equipment;
- Sanitising the water to oxidise contaminants;
- Filtering the water to remove oxidised contaminants;
- Regular testing and balancing your water take little time and ensures that all is well with your pool water.

Water Balance

Your Leisure Pools swimming pool is a water container and the water it contains must be suitable for:

- The swimmers; and
- The Leisure Pools fibreglass swimming pool.

Balanced water means that its chemical demands have been met. If the chemical levels are too low the water will aggressively seek the products it needs by attacking and damaging the pool surface and equipment. At the other end of the scale, high chemical levels will precipitate from the water and damage the pool surface and equipment.

Out of balance water can, therefore, cause expensive damage to your Leisure Pools fibreglass swimming pool and equipment and may also inhibit the sanitising process. In simple terms, a scientific water balance program suggests that you should balance the following variables:

- pH
- Total Alkalinity
- Calcium Hardness

pН

pH is a measure of how acidic or alkaline the water is. The pH scale ranges from 0 to 14, with 7 being neutral. Values below 7 are acidic and values above 7 are alkaline.

With pool water we are seeking a pH balance suitable to the pool users, the fibreglass swimming pool shell and the sanitiser used. Leisure Pools strictly recommends a pH level of between 7.0 and 7.2.

Topping up your pool, heavy rain, heavy bathing loads and chemical additions can all change the pH level of your pool water. pH must be kept within the operating range because if it is too high or too low it may:

- Create swimmer discomfort;
- Interfere with the sterilising action of your pool sanitiser;
- Damage your Leisure Pools fibreglass swimming pool.

Regardless of the chlorine type or chlorinator process you use any pH drift above 7.0 to 7.2 will inhibit the sanitising effect of your chlorine and damage your Leisure Pools

fibreglass swimming pool. In that regard, in order to maintain your Lifetime Structural Warranty on your Leisure Pools fibreglass swimming pool shell you must maintain the pH level between 7.0 to 7.2. You must keep a monthly written record of the levels in the pool in order to not invalidate your Lifetime Structural Warranty.

Total Alkalinity

This is a measure of bicarbonates, carbonates and hydroxides in your water. The recommended range is 80 to 120 parts per million with 100 parts per million being ideal. In that regard, in order to maintain your Lifetime Structural Warranty on your Leisure Pools fibreglass swimming pool shell you must maintain the total alkalinity between 80 to 120. You must keep a monthly written record of the levels in the pool in order to not invalidate your Lifetime Structural Warranty.

Lower total alkalinity will lead to the water attacking the walls of the fibreglass swimming pool. Low levels will also cause the pH levels to be very unstable with small additions of chemicals resulting in major shifts in the pH values. Your total alkalinity can be changed in the following ways:

- Adding buffer to your pool water to raise the total alkalinity;
- Adding acid to your pool water to lower pH and will also lower total alkalinity;
- Adding top-up water to your pool will change the total alkalinity depending upon the total alkalinity of the top-up water.

The Interconnection between pH and Total Alkalinity

From the last section it can be seen that acids will lower the pH and Total Alkalinity. There is an interconnection between these two chemical components and, because of this, they need to be adjusted together. The levels you are seeking to maintain are:

- pH 7.0 to 7.2
- Total Alkalinity between 80 to 120 part per million

Let's have a look at the interconnection. Assume that the pH is ok but the total alkalinity is low. To raise the level, add "Buffer" (sodium bicarbonate) at the required rate. However, buffer is an alkali and will also raise the pH level. Acid, which is used to lower pH, also lowers total alkalinity. The trick is therefore to raise the total alkalinity artificially high so that when the acid is added, to lower the pH to the correct range, the total alkalinity is also reduced to the correct range.

Two acid types are used to lower pH. One is Hydrochloric Acid and the other is Sodium Bisulphate. Both will effectively lower the pH and total alkalinity. If using Hydrochloric Acid to lower pH it is vital that it be diluted (one part of acid to ten parts of water) prior to adding to the pool. Note that the filter should be running during addition and at least for one hour afterwards to ensure adequate mixing. No other types of acid should ever be used for pH or total alkalinity adjustment.

Calcium Hardness

In simple terms, this measures the amount of dissolved calcium in your pool water. The desired range is 175 to 225 parts per million. Both total alkalinity and calcium hardness need to be brought into balance. If not, low levels will mean that the water is corrosive to the pool and equipment. High levels will lead to scale formation on the pool and equipment leading to damage.

Measurement of calcium hardness cannot be performed by a normal pool test kit. We suggest that a water sample be taken to a pool shop for testing. A rough rule of thumb in areas where calcium levels in top up water are not naturally high is that annual testing will suffice after the initial adjustment. The only qualification to this is if you use calcium hypochlorite to sanitise your pool. Depending upon the method used, this chemical can quickly raise calcium hardness levels and may require more frequent testing and adjustment.

Sanitiser

Chlorine is the most commonly used water sanitiser in the world. There are many forms of this highly effective product, including:

- Calcium hypochlorite (65% active granular chlorine)
- Sodium hypochlorite (liquid chlorine 10-15% active)
- Stabilised chlorine (chlorine in two forms "dichlor" granular chlorine approximately 60% active and "trichlor" slow dissolving tablets approximately 90% active)
- Salt water chlorinators these units produce chlorine through electrolysis of salt in the pool water.

Whatever form of chlorine you use, for it to work requires the pH to be in the correct range, and sufficient quantities of chlorine. The Health Department recommends chlorine be:

- At least 1 part per million of Free Available Chlorine in an unstable pool; or
- At least 2 part per million of Free Available Chlorine in a stabilised pool.

To check Free Available Chlorine use a DPD test kit.

Stabiliser

Ultra-violet light attacks chlorine. Stabilising pool water involves adding the chemical Cyanuric Acid which reduces the amount of chlorine destroyed by sunlight. Up to 5 parts per million of free available chlorine can be destroyed in three hours in strong sunlight.

For health and financial reasons it is important to overcome this effect as much as possible, and so stabilising the water is strongly recommended in all outdoor pools. For the initial stabilising of a new pool, cyanuric acid should be added to achieve the recommended level of 30 to 50 parts per million.

Stabiliser is lost through splash out and backwashing of the filter, and so will need to be relaced, especially during the swimming season. To do this it is necessary to first test for residual levels in the water. A pool shop will be able to test the water in your pool and tell you how much stabiliser to add.

As you only need stabiliser in warmer months, adjust the level at the beginning of the swimming season and check it every few months during the season. Of course, if you

have to pump out water, or lose a lot through splash out and backwashing more frequent testing and adjusting will be required.

Chemical Additions

As a general rule you are far better off adding small amounts of chemicals, running the filter and testing the effect after several hours. Attempting large chemical changes by adding large amounts of chemicals can result in big problems.

5. DO NOT EMPTY YOUR SWIMMING POOL

It is critical that you do not empty your swimming pool or lower the level of the pool water below the skimmer box, to do so will void your Lifetime Structural Warranty.

Fibreglass swimming pools are designed to be a membrane in the ground between the earth and the water. To remove the support of either the earth or part of the water will place enormous strain on the structural integrity of the fibreglass swimming pool resulting in possible damage to the structure of the shell.

Emptying or lowering the water below the skimmer box should only be done under the supervision of your pool builder. If in doubt, contact the manufacturer, Leisure Pools & Spas Manufacturing Pty Ltd for advice.

6. STANDPIPE

Your Leisure Pools fibreglass swimming pool may have been installed with a standpipe. This is a pipe that travels to the bottom of the fibreglass shell and enables you to measure the height of any underground water. The standpipe will also enable you to use a pump to remove water in and around the pool shell should there be a build up of ground water around the pool.

7. DRAINAGE

It is important that when you are installing your swimming pool and undertaking any landscaping work that you keep in mind the drainage of surface water. You must ensure that surface water does not run towards your swimming pool but rather away from the swimming pool. You must install sufficient drainage to keep the area around your swimming pool free of heavy surface and sub-surface water.

8. MODIFICATIONS / REAIRS TO SWIMMING POOL

The good thing about fibreglass swimming pools is that they are relatively simple to repair should any damage occur. Generally you will find that a good repair will actually be stronger than the original structure as generally a larger quantity of materials is used in the repaired area. Repairs however can only be undertaken by Leisure Pools or people authorised by Leisure Pools. Should you have any repair issues please contact Leisure Pools & Spas Manufacturing Pty Ltd for advice. To have repairs undertaken by someone not authorised by Leisure Pools may void your Lifetime Structural Warranty.



LEISURE POOLS & SPAS MANUFACTURING PTY LTD AS TRUSTEE OF THE LEISURE POOLS & SPAS MANUFACTURING UNIT TRUST

FIBRE-REINFORCED COMPOSITE POOL LIFETIME STRUCTURAL WARRANTY

Leisure Pools & Spas Manufacturing Pty Ltd as trustee of the Leisure Pools & Spas Manufacturing Unit Trust (hereafter referred to as "Leisure Pools") does hereby warrant its Fibre-Reinforced Composite Pool only upon this express limited warranty to the original purchaser only on the following terms:

1. LIFETIME STRUCTUAL WARRANTY:

Leisure Pools warrants the structural soundness of its Fibre-Reinforced Composite Pool against water loss due to defects in workmanship and materials for the lifetime of the original purchaser of the Fibre-Reinforced Composite Pool, or such shorter time as a Court may determine to be fair and reasonable.

2. EXCLUSIONS TO LIFETIME STRUCTUAL WARRANTY:

This limited warranty is void if:

- (a) The purchaser does not return a completed Warranty Card to Leisure Pools within 6 months of delivery of the Fibre-Reinforced Composite Pool;
- (b) the Fibre-Reinforced Composite Pool is damaged or altered as a result of acts of nature including but not limited to earthquake, ground movement, storm or flood; inadequate site drainage, excessive hydrostatic pressure, unground obstructions, tree roots, heavy water flow into the Fibre-Reinforced Composite Pool; or
- (c) the Fibre-Reinforced Composite Pool is not installed in accordance with *Australian Standard AS/NZS1839: 1994* and Leisure Pools Installation Manual (refer to Leisure Pools for the Installation Manual for installation requirements); or
- (d) the Fibre-Reinforced Composite Pool is not installed level; or
- (e) the Fibre-Reinforced Composite Pool is not installed in accordance with Leisure Pools engineers specification; or
- (f) the Fibre-Reinforced Composite Pool is not installed by an authorized Leisure Pools dealer; or
- (g) the Fibre-Reinforced Composite Pool has been subject to any alteration, neglect, misuse or abuse; or
- (h) the Fibre-Reinforced Composite Pool is emptied to a level less than the skimmer box or by more than 30% of the water capacity of the pool (whichever is the lesser) without the written approval of Leisure Pools; or
- (i) the Fibre-Reinforced Composite Pool is allowed to over flow with water; or
- (j) the purchaser does not comply with the Leisure Pools Handbook; or
- (k) the purchase does not keep a monthly written record of the Chlorine, Free Chlorine, pH, Total Alkalinity and Calcium Hardness (calcium hardness is to be tested by a

pool shop every 6 months) levels of the water in the Fibre-Reinforced Composite Pool;

- (l) the purchaser fails to keep the pH level of the water between 7.0 and 7.2, total alkalinity of the water between 80 to 120 parts per million and calcium hardness of the water between 175 to 225 parts per million;
- (m) the water chemistry in the Fibre-Reinforced Composite Pool is allowed to get outside of standard operating water conditions as set out *Standard SAA HB65 1998: Residential Swimming Pools Selection, Maintenance and Operation* causing damage to the surface of the Fibre-Reinforced Composite Pool; or
- (n) the customer does not notify Leisure Pools in writing within 7 days of becoming aware of a potential structural warranty claim; or
- (o) the customer does not provide Leisure Pools or its agents or sub-contractors access to the Fibre-Reinforced Composite Pool during normal business hours.

This limited warranty does not cover water loss due to failure of pipe fittings, inlet fittings, outlet fittings, solar connections, manifold, skimmer, hydrostatic valve relief, light fittings or anything connected with the pool.

This limited warranty does not cover any equipment used in connection with the Fibre-Reinforced Composite Pool or any other accessories supplied or any surrounds including but not limited to decks, concrete, wood, masonry or any other surround around the Fibre-Reinforced Composite Pool.

3. WARRANTY CLAIM

Leisure Pools in its sole discretion will determine if the alleged warranty claim is due to or from a defect in workmanship or materials or alternatively whether the warranty claim is as a result of the actions or non-action by the installer, customer or some other cause.

If Leisure Pools determines that the warranty claim is as a result of defects in workmanship or materials Leisure Pools reserves the right to repair or replace the Fibre-Reinforced Composite Pool. In the event Leisure Pools chooses to replace the Fibre-Reinforced Composite Pool this limited warranty does not include removal or installation of a replacement Fibre-Reinforced Composite Pool. In the event Leisure Pools chooses to repair the Fibre-Reinforced Composite Pool it will repair it so that it can retain water. Any warranty repairs may require modification to the Fibre-Reinforced Composite Pool or texture of the Fibre-Reinforced Composite Pool.

4. DISCLAIMERS

Leisure Pools shall in no event be liable for any personal injury, property damage, direct, indirect, special, incidental or consequential damage or losses of any kind or nature arising from or related to the performance or supply of the Fibre-Reinforced Composite Pool. The liability of Leisure Pools under this warranty shall not exceed the original amount paid for the Fibre-Reinforced Composite Pool.

5. LIMITATIONS

This limited warranty takes the place of all other warranties, express or implied, warranties of merchantable quality and fitness for any particular purpose. All previous representations, understandings and warranties in respect of the Fibre-Reinforced Composite Pool are superseded by this limited warranty and are of no effect. The limited warranty is to be interpreted in accordance with the laws of Queensland.



PLEASE KEEP RECORDS OF YOUR WATER TESTING TO MAINTAIN YOUR LIFESTIME STRUCTURAL WARRANTY

Date	рН	Total Alkalinity	Free Available Chlorine	Calcium Hardness	Comments



PLEASE KEEP RECORDS OF YOUR WATER TESTING TO MAINTAIN YOUR LIFESTIME STRUCTURAL WARRANTY

Date	рН	Total Alkalinity	Free Available Chlorine	Calcium Hardness	Comments



WARRANTY CARD

Customer Name:
Customer Address:
Customer Contact Telephone Number:
Customer E-Mail Address:
Dealer / Installer:
Date of Installation:
Swimming Pool Model :
Swimming Pool Size:
Swimming Pool Colour:
Pool Number:
I have received and read the Leisure Pools Handbook and Warranty.

Signature:

Date:

It would greatly assist us if you could complete this very short questionnaire:

	(Please tick you rating)						
QUESTION	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
1. How would you rank the salesperson in terms of professionalism, product knowledge, and helpfulness?							
2. How would you rank the management of your swimming pool purchase (eg. kept informed of progress, date of installation etc.) from date of purchase to delivery?							
3. How would you rank the installers in terms of professionalism and speed and quality of installation?							
4. How would you rank the information provided to you at handover of your swimming pool from the builder to you?							
	YES		NO				
5. Would you recommend your Leisure Pools dealer to a friend?							
PLEASE POST TO PO BOX 6220, YATALA DC 4207.							

QUEENSLAND