# **Owners Manual**





**≪** iCoolsport.com





#### **OWNER'S MANUAL FOR ICOOL RECOVERY SYSTEMS**

Models covered by this manual:

Lite with Cold Cycle only

Lite Dual Temp, with Reverse Cycle Cold and Hot capability

All Lite models may be used with a range of water pumps other than the supplied pump if required: This includes the more powerful A.C. voltage pump included with your iCool that includes an effective pool water filtration system. Do not use pumps that exceed 100 Litres per minute or with a rating of more than 500 Watts.

WARNING: Do not use Chlorine, Bromide or Salt in this machine! These chemicals eat away most metals and can also be harmful to athletes.

Because of the very small size the Lite uses a very compact stainless steel heat exchanger with silver connection seams. Chlorine and Bromide are very corrosive and can quickly cause serious damage to stainless steel and silver.

If you must use corrosive chemicals such as chlorine or salt water then you must use any of the larger iCool models. All of our bigger iCools have titanium heat exchangers. Titanium is a rare metal that resist most chemicals

Bacteria grows much more slowly in very cold water, therefore the use of such harsh chemicals is not necessary to keep the water safe in ice baths. (see page 2)

ALL ICOOL MACHINES ARE DESIGNED AND MANUFACTURED IN AUSTRALIA

www.icoolsport.com



### INTRODUCTION

Your iCool Lite is smallest system available that can provide the full range of ice bath therapy temperatures in any single person iCool pool or any normal sized bathtub. It's breakthrough technology packs the most cooling power possible in such a small space. The Lite is designed for either fixed position operation or for easy transportation to almost anywhere you need to provide ice bath recovery.

To avoid damage it should always be transported in the purpose designed iCool military grade protective travel case, available as an option.

#### **PERFORMANCE**

Your iCool Lite has impressive performance for such a small system, but naturally it can not cool a pool as fast as our much larger iCools. You can expect cooling of at least 3 to 5 degrees C per hour in a single person pool and it may cool even faster depending on your basic setup and local conditions. The temperature in the operating area, the amount of water being cooled and the starting temperature of the water will all have some effect.

#### FOR BEST PERFORMANCE

Operate in a well ventilated shaded area. Definitely not in direct sunlight

Use an insulated pool (all iCool pools are properly insulated)

Use an insulating matt under the pool to prevent loss of cold into the ground. (All iCool pools have built in insulating mat)

Use a pool cover. Most iCool pools include a cover.

When water is very cold the difference between the pool water and the room temperature is very large, so the cold can be quickly lost. Good insulation reduces these losses. Good insulation will result in much faster cooling and save a lot of electricity.

#### **HOLDING THE SET TEMPERATURE**

In normal conditions, once your pool reaches your set temperature your iCool Lite has been designed to have enough cooling power to continue to hold that temperature even if several athletes are using the pool.

#### **NEVER USE CORROSIVE CHEMICALS**

Bromide and Chlorine can cause major long term damage even to the high grade stainless steel heat exchanger in your iCool and could eventually cause a total system failure that is not covered by your warranty. These chemicals eat away most metals and can also be harmful to athletes. This Model iCool has a stainless steel heat exchanger tank that must only be used with fresh clean water. To control bacteria, a small amount of mild bathroom type disinfectant gives the same result as chlorine and will not cause harm to your iCool. It is also much safer for athletes. **Please also avoid the use of salt water to ensure long life of your system.** 

For extended use of the same pool water, iCool includes a small light weight filtration system with your lite that allows extended multi athlete use. It is fully compatible with your Lite which includes a special electric shock protection power outlet to operate the filter pump safely.

#### **POOL SETUP ADVICE**

Before you turn on your iCool system you must set up and fill the pool. iCool portable inflatable pools come with their own instructions and are easy to set up. Please be sure that the pool is in the position you require before you fill them with water as the weight of the water will make it impossible to move the pool once it is filled.



### **IMPORTANT SAFETY NOTICE**

Your iCool Lite can only be used with the voltage marked on the machine, IT IS NOT MULTI VOLTAGE. The voltage is marked under to the main power socket. It will be either 110volts (USA, Japan) or 220volts (Europe etc)

In the unlikely event that your system shuts itself down for any of these reasons, you must identify and correct the problem that has caused the safety systems to operate before allowing anyone to use the system.

### WARNING

To ensure safe operation the power outlet you use must have a proper earth connection

#### **BUILT IN SAFETY SYSTEMS**

Your iCool system has many safety features to protect against such things as a loss of water flow, overheating of the system, or any chance of the user receiving an electrical shock. If any such potentially dangerous things should occur, in most cases your iCool will shut itself down and a red warning screen will appear to assist you to identify and correct the problem. In the case of overheating, the main fan will continue to run for some time until the temperature is safely back to normal.

For the safety of users, any leakage of even a small amount of electrical current will cause the system to instantly remove all electrical power.

#### PLEASE TEST THE EARTH LEAKAGE SAFETY DEVICE REGULARLY

The main power switch is also part of the electrical safety circuit that can prevents the possibility of electric shock. It is essential to test this safety system each time you use the iCool to make certain it is operating correctly. This is very easy to do and takes only a few seconds.

Turn on the main switch (blue colour) and then press the orange test button marked T just above the switch. If the safety system is working normally, pressing the test button will cause the main power switch to shut off instantly.

After a successful test, reset the main switch to ON to begin normal operation. If pressing the test button fails to instantly shut off the power switch DO NOT USE THE SYSTEM until you contact iCool for advice. Failures of this system are very rare.

### **ADVICE**

#### **OBTAINING THE CORRECT FLOW OF WATER**

Occasionally you may experience some difficulty getting the water to flow correctly through your iCool due to trapped air in the system or the hoses.

As you gain experience using an ice bath system you will learn to overcome this quickly and easily.

#### **ABOUT PUMPS**

Water flow through your iCool Lite is produced by a high-quality long life circulating type pump that is fitted with a water filter to assist in keeping the water in your pool clean.

Circulating type pumps are not self priming, they can lift and move water reliably for many thousands of hours, but due to the long life design they can not provide suction to begin the flow if there is air trapped anywhere in the pump or hoses. Self priming type pumps are not used because they are generally not as reliable over long periods and not suitable for this type of system.

Like all circulating pumps, the pump with your iCool can not begin to operate unless it is has a head of water above the pump and any air tapped in the system is removed. Therefore, before you start, the water in the pool must be above the pump inlet port. There must be no air trapped in the supply hose and no part of the hose from the pool to the cooling system can be above the level of the water because this traps air which can prevent water flow from starting.

There are several easy ways to clear trapped air in the system. For example, by touching the PUMP ON-OFF button 3 or 4 times so that the pump is off for about 5 to 10 seconds each time. The surge when the pump starts can often clear the trapped air, but it may take a few times if there is a lot of trapped air.

If you still do not have a good flow of water try detaching the water hose from the outlet fitting on the iCool. This is the hose connected to the top fitting that returns the water to your pool. Now turn on the pump until a good clear flow of water comes out of the top connector fitting, then quickly snap the hose back into position on the iCool and lock it. This is the most effective way to clear an air blockage so that water can flow normally.

#### YOU ONLY NEED TO BLEED THE SYSTEM ONCE FOR EACH SET UP. Once primed of air, (and until it is emptied or moved), the system will remain primed until and water will normally flow instantly each time you start the pump

NEVER OPERATE THE PUMP WITHOUT WATER FLOWING. Water pumps can not operate for long periods without water because the water provides the lubrication to the bearings.

## **QUICK START GUIDE**

The following is a guick start guide to get your iCool up and running guickly, however you should read the entire manual to get the most out of your iCool.

### STEP 1

#### **Connect electric power**

Connect the power cable provided with your iCool to a standard power outlet capable of providing at least 10 amps in countries with a 220 V supply and 20 amps in countries with a 110 V supply. Although the system requires much less power than this in normal operation, all heat pump compressor motors need considerably more power for a minute or so each time they starts up.





### WARNING

For safety, the power outlet you use must be earthed correctly

The main power switch is also part of the electrical safety circuit that prevents the possibility of electric shock. It is a good idea to test this system each time you use the iCool by turning on the main switch and then pressing the test button above the switch. If the safety system is working normally, pressing the test button will cause the main power switch to shut down instantly. After this test, reset the main switch to ON to begin normal operation.

### STEP 2

#### Connect the water hoses

The new filter and pump combination supplied with your iCool provides the proper flow rate and a combined water filter to keep the pool water clean.

#### **ELECTRIC POWER REQUIREMENTS**

The new filter pump is installed as shown on the next page. The diagram shows an iCool Compact series unit however the same instructions apply to all iCool models. The filter pump plugs in to the power outlet provided on the side of all new iCools manufactured from late 2015 onwards. The new power outlet controls the pump from the touch screen in the normal way.

If your iCool is an earlier model and does not have this new socket you can operate your new filter pump by plugging it directly in to a normal power outlet, however you will need to activate the "Disarm Flow Safety Sensor" function to prevent your Lite shutting down due to a false "No Water" alarm. (explanation in next paragraph)

Also, the water flow sensor can be permanently disarmed by a small wiring change. Full details of both options can be found under "Support/Technical" on the iCool website. Look for "HOW TO USE THE NEW FILTER PUMPS WITH AN OLDER MODEL ICOOL LITE OR COMPACT"

Please read the important safety warnings below if your filter pump is not powered by your iCOOL

#### ABOUT AUTOMATIC WATER FLOW ALARMS ON THE LITE **SERIES**

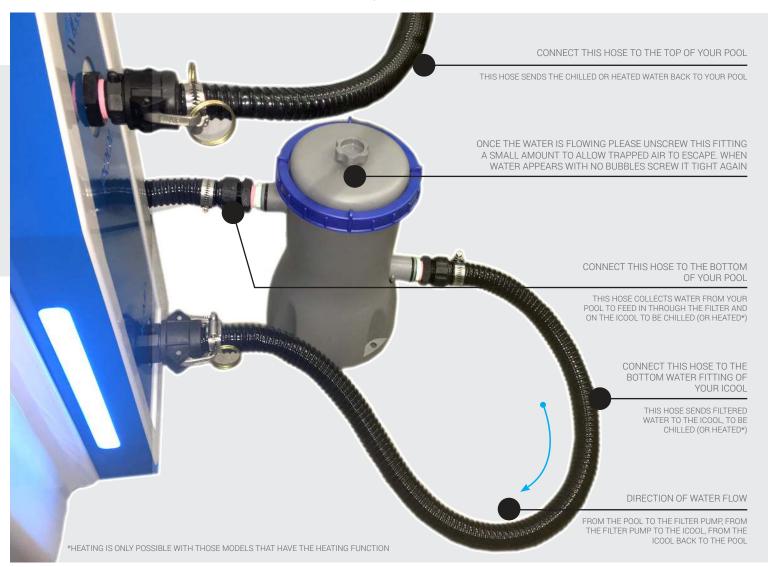
Water flow monitoring will operate normally when the new filter pump is plugged in to the special power outlet on any of the new LITE series

However, if your LITE model does not have the new pump power outlet socket you can plug your new filter pump directly in to a normal wall outlet. The no water flow alarm will operate and the alarm will sound and the red warning will appear. To continue to use your older model LITE you will need to touch the disarm flow safety sensor button on the right hand side of the warning screen. This will over ride the water flow sensor. Then you can touch the START PUMP AND START SYSTEM again and you LITE will operate normally even with the pump connected to another power outlet.

There may be a 3 minute delay before you hear the refrigeration compressor start again, this is a normal safety feature.

## STEP 3

### The water hose connections shown below apply to all Compact and Lite models



### Filter pump power outlet on all new models



#### WARNING

Only when your filter pump is connected to the power socket on your iCool, can your iCool provide proper electric shock protection

If you plug the filter pump into any other electric outlet please be sure that the outlet you use is protected by an electrical safety device. No person should enter the pool unless an electrical safety device is provided.

If there is no safety device then you must disconnect the pump before entering the pool.

iCool filter pumps are double insulated as a normal precaution, but it is not wise to completely trust this. Nothing is as safe as a proper electrical safety device called an R.C.D. Residual Current Device. All iCools are fitted with and R.C.D.



## STEP 4

# Turn on the power switch and your system software will begin loading

Your iCool has a full colour high-resolution touchscreen that eliminates all switches and provides complete control over your iCool system in a user-friendly and intuitive manner. It also provides a substantial amount of additional information to assist you.

When you turn on the power for the first time the system will load the latest software from its memory and run a diagnostic self test routine. This will take about 20 seconds. During this time you will see the screen shown at right and then a BLACK screen.

#### The iCool Logo will flash white

The iCool Logo is the system STATUS BAR, it changes colour or flashes to give a clear indication of each function. While the software is loading it will flash white until the welcome screen similar to those shown below will appear.

If you ordered a personal logo screen it will look similar to the examples below and the iCOOL logo (status light) will stop flashing and show a steady white light to indicate that the systems check was successful and that your iCool is ready to use.

### **Personal Logo Welcome Screens**

If you did not request a personal logo screen then the standard iCool WELCOME screen will appear.

Touch the welcome screen anywhere to continue

The main operation screen will appear

Your Lite is now ready to cool (or heat if it is the dual temp model)

**Heating is only available if you purchased the Dual Temp Model.** Changing from COOLING to HEATING is automatic and depends on the first temperature that you pre set. See heating mode instructions on page 9.

#### **Main Operating Screen**

The MAIN OPERATING SCREEN provides many options which are covered elsewhere in this manual.

To quickly start the system you can simply accept the default water temperature setting of 15°C that appears on start up. For a different temperature touch the CHANGE settings button and 10°C will be inserted automatically or you can change to any other temperature.

Temperatures can also be displayed in Fahrenheit scale for use in the USA. This is explained later in this Manual.



The Software Loading Screen



The iCool Status Light













Personal Logo Screens



Main Operating Screen

### STEP 5

#### Water temperature screen

If using the water temperature setting screen touch the up and down arrow buttons and the desired pool water temperature will appear on left-hand button of the screen in the blue window marked "selected temperature".

Once the pool water temperature you want your iCool to provide is showing, touch the start button. This takes you back to the main run screen which is the screen that you will use most of the time during normal operation.

Touch the START PUMP button. This will start the pump operating and water should begin circulating. The iCool Status Logo will turn BLUE to indicate that the water pump is on.

NOTE! When you touch START buttons they change to STOP buttons and can then be used to STOP that function if required.

NOTE: If you are using a pump that is plugged in to another power source other than the iCool, you must still touch the Start Pump button first before the Start System button will operate.



### WARNING

It is essential that the water is flowing correctly before you touch the start system button



Water Temperature Setting Screen

## STEP 6

Now that you have pre set your desired temperature and started the circulating pump, the touch screen should look like the picture at the bottom of page 8 (of course the temperatures may be different). Notice that the pump button will change from start to stop when touched. You use the same buttons to either start or stop the pump and system.

Now, touch the start system button and the cooling (or heating) cycle will begin. The iCool Status Logo will turn GREEN to indicate that the water is being cooled to your preset temperature or RED if it is heating. When your temperature is reached the system will then cycle on and off to maintain it at that temperature automatically.

#### **About the Heating Mode**

If your iCool is the DUAL TEMP MODEL (Cold and Hot) it will automatically switch to heating or cooling depending on the temperature you set at the time you first switch it on. The water is then automatically cooled or heated to your preset temperature and kept at that temperature.

For safety reasons you can not switch between Cold and Hot modes while your Lite is operating. To change the mode you must switch off the main power. The first setting you make after turning on the main power will determine which mode the Lite automatically selects. For example if you set a temperature that is below the current pool temperature it will automatically lock in to the cooling mode. If you select a temperature that is above the current pool temperature it will automatically lock in to the heating mode.

In an emergency you can stop all functions immediately by touching the "all stop" button however, if the cabinet is hot, the fan may continue to run until the cabinet has cooled.

The SYSTEM can only be started once within any 3 minute period to avoid overloading the compressor. If you don't hear it start do not touch the START SYSTEM again, it will start automatically after the 3 minutes safety period elapses.

#### If the iCool status light turns red when you start the cooling cycle.

The can only occur if the water temperature in the pool is already lower than the cooling temperature you set. In this case the iCool will automatically attempt to heat the water to match the temperature you have set. The red iCOOL lights to indicate activation of the heating mode. However there is a way to overcome this and lock in the cooling mode. Please go to the bottom of page 16 for a full explanation

Note: Even if the red heating indication lights are on no heating can occur if your model does not have the heating option.

#### WARNING

For the safety of users, you can not set temperatures below 5°C or above 45°C. (40°F-112°F)

### **DETAILED OPERATION**

#### **DETAILS OF THE MAIN OPERATING SCREEN**

The pool temperature window shows the actual water temperature returning from the pool. This will vary slightly to the actual temperature in the pool because for safety reasons the electronic sensor is in the cooling unit not in the pool. It accurately reads the actual temperature of the water that is returning to the pool.

The actual pool temperature will be slightly different depending on your particular setup. The temperature inside your iCool is always accurately maintained but if you want to maintain an actual pool temperature within 1 degree you can simply set an offset amount to compensate for the difference between the iCool temperature and the pool temperature when selecting your required temperature. For example: if the pool is 2° warmer than the iCool display then set the iCool 2° lower to achieve your exact pool temperature. All iCools maintain the water in their heat exchanger tanks to within less than half a degree of your setting.

#### **Heat Pump**

The heat pump temperature window shows the temperature inside the cabinet. If this exceeds 70°C or 158°F the system will shut down, an alarm will sound and a warning screen will appear. This could happen in extremely hot conditions or if the unit is covered by an object such as a towel or anything that prevents proper airflow.

The outside temperature window shows the current room or outside temperature. It is not desirable to operate this system in temperatures above 42°C or 108° F. If the reading exceeds this you need to move the system to a cooler area or improve the air flow. The preset temperature window always shows your selected temperature. This is the temperature the water will be automatically cooled (or heated) to and maintained at within half of one degree C.

#### Changing the temperature setting

You can change your preset temperature at any time by touching the change setting button, this will take you to the change settings screen. From here you proceed as described previously.

Note: If you have the contrast model, for safety reasons you cannot change directly from heating to cooling or cooling to heating. To do this you must switch off the entire system at the main switch and start again. This is required to reset the computer for safe monitoring.

#### **Fan Speeds**

During normal operation the main fan will automatically change speeds as required to maintain the highest efficiency. The fan will be at full speed when temperatures are high or the water is warm.

#### You can display the pool temperature at full-screen size

If you touch the number in the pool temperature window on the Main Operation Screen for a few seconds the screen will change to a full-screen display of that temperature as shown in the picture at right. This is useful if you wish to monitor the system from a distance. The pre-set temperature and the outside temperature continued to display in smaller windows for your reference To return to the main operating screen touch the BACK 1 button.

#### To stop the system at the end of your recovery session

There are several ways to stop the system and close it down. You can stop the cooling system by touching the stop system button, in this case the pump will continue to run, however you can stop to pump at any time by touching the stop pump button. Alternatively you can stop everything by touching the all stop button. Alternatively you can simply switch off the main power. If you use the all stop button the fan may continue to run for a short time to cool the cabinet.

#### **Emptying the pool using the built in Pump**

You can use the main circulating pump to empty the water from the pool by detaching the top hose from the top of the pool and directing it to a drain. The pump can be turned on and off at any time using the pumps stop/start button.





### **FUNCTIONS OF THE TOUCH BUTTONS**

#### SYSTEM SETTINGS



offers you a SYSTEM SETTINGS button, OPTIMUM SETTINGS ARE AUTOMATICALLY SELECTED so there's usually no need to use this feature. The three settings you can change are the fan speed range, the temperature from degrees Centigrade to Fahrenheit SYSTEM SETTINGS and the sound level from the screen

When your iCool starts up, the first screen you will see

### **Main Cooling Fan Speed**

This allows you to set the main cooling fan to either NORMAL or QUIET MODE. Generally you should always leave it in the NORMAL mode which is fully automatic and allows the system to control the fan speed to give the very best efficiency and fastest cooling.

#### **Quiet Mode**

If you are in a very quiet environment you can select QUIET MODE, but you must be aware that this will reduce the cooling ability of the system, however it will be guieter overall as the fan will not run higher than 60% of maximum unless there is a risk of overheating, in which case the safety system will turn the fan back to high no matter what the setting. The NORMAL setting is used to give absolute maximum cooling power where higher fan noise is not a problem. On a normal day this gives about 25% more cooling than in the QUIET MODE.

#### **Temperature Display Scale**

This can be set to either Centigrade or Fahrenheit and this changes all of the displays throughout the entire system. When you first start the iCool it will normally start in Centigrade as this is the world standard.

Note: Due to complex decimal calculations between C° and F° there may be minor difference in the true Fo displays. This has no effect on actual cooling accuracy.

The sound level adjusts the sounds made by touching the screen and by the alarms. Normally it should be left on high to assist with settings and to make sure alarms are heard.

A red dot indicates which setting is selected in each of the available settings.



Touch Buttons Screen

MAIN SCREEN





MAKE NEW SETTINGS

#### **Temperature Settings**

When your iCool starts up, you are offered 3 different ways to choose a water temperature setting. Whichever method you choose it eventually takes you to the main run screen. If you make no setting, the system will automatically insert 15°C. (around 59°F) In this case you can go directly to the start pump and start system.

If you want to use your previous setting from the last session, you can touch the use previous setting button and the last setting you used will be automatically inserted into the system. Previous settings may have been lost if you have removed the mains power.

If you want to use a different temperature to the built in presets the most common users make, you touch the make new settings button and this will take you to the screen illustrated below, where you can use the up and down arrows to select the temperature you require. After you make your setting touch of the start button to go to the main screen where you can start both the pump and the cooling system and where all relevant temperature information is clearly displayed.



Water Temperature Setting Screen

#### **Temperature Limitations**

Because of the dangers of hypothermia in the case of an unattended athlete using the pool, your system will not allow you to set temperatures below 5°C/40°F. If the model you are using is the contrast model which also provides heating for contrast therapy you cannot set the temperature above 45°C/112°F because of the risk of scalding. These temperature limits have been set after wide consultation with the sporting industry around the world.

There are no demonstrated benefits in using water temperature lower than 5°C or above 45°C and therefore the risk of doing so is not justified.



Time Setting Screen



TIMER FUNCTION



SET MAIN CLOCK

#### **Timing Functions**

Your iCool offers a number of very useful timing functions including a real-time clock, a countdown timer to time recovery and training sessions and a timer to shut down the system automatically at a predetermined time after use. To set up and use these functions touch the timer function button on the home screen. You can reach this screen by using the back 1 button or the home button.

In order to use the auto shut down function you first need to set the time of day on the built-in clock.

To set the clock touch the set main clock button on

the timing functions screen and the time setting display on the bottom right of the screen will begin flashing. You must set it while one of the numbers is flashing by using the up down and left right keys. Once you stop using these keys for more than a few seconds the display will stop flashing and the time showing is set into the system and the clock begins operating.

The iCool clock operates in the universal 24-hour time style.



SET SHUT DOWN

### **Automatic System Shutdown Timer**

You can preset your iCool to shut down at any time up to five hours in the future. This is very convenient for coaches and specialists who may want to leave the training area early but want to make sure that the system is not left running needlessly. To set this time, touch the set shut down button and the

clock digits on the bottom right of the screen will begin to flash as with setting the clock. Use the same up down and left right arrows to set the number of hours and minutes you wish to elapse before the system automatically shuts down. The system automatically begins

the countdown and will stop when the time you set reaches zero. The time remaining before shutdown is displayed on the main clock display screen.

As the same arrows are used to set all three time functions, to avoid confusion, a red dot appears next to be button of the function being set.

#### **Recovery Session Timer Functions**

A very popular and useful feature of your iCool is the session count down timer.

This allows you to accurately control the immersion times of athletes and to repeat those times as often as needed. This is an essential part of successful cryo recovery therapy and is just as important as maintaining accurate and consistent temperatures, which of course your iCool does perfectly.

The session timer is set up from the main time setting screen by touching the set countdown button. The numbers on the setting screen in the bottom right-hand corner will begin to flash and you can use the left, right and up, down arrows to change the time in minutes and seconds. Once you have set the time you want your athletes to remain in the bath, touching the display countdown full-screen button will take you to the screen illustrated on the next page. This screen allows you to see the countdown from a distance and also to control it in various convenient ways. The current pool temperature and the outside temperature will also be displayed.

The count down can be set for once only, or it can repeat automatically as many times as you like. This is particularly convenient if you have a number of athletes using the same pool at the same time. The system beeps for each of the last five seconds at the end of each countdown to warn the athletes to get ready to get either in or out of the pool and pauses for several seconds to allow the changeover before the countdown begins again (if it is set in the repeat mode).



SET COUNT DOWN



DISPLAY COUNTDOWN







#### **External Lighting**

This model does not have room lighting





#### **Stereo Sound System**

This model does not have a sound system









HELD

### **The Help System**

Your iCool has an extensive built-in electronic help system. Detailed and well illustrated helpful information on every important subject to do with the operation of your iCool, is available from almost any screen simply by touching the help button.

Touching any help button will take you to the screen illustrated on the right. The screen has eight menu buttons covering all of the important topics.

When you touch the menu button covering the topic you need assistance with, the screen will change to a series of pages covering that subject. Sample screens are illustrated below.

You can flip forward or backwards from page to page using the buttons on the right-hand side of the help screens or you can return to the main help menu page at any time.

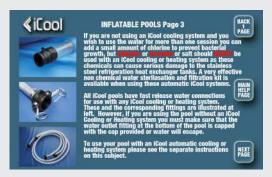
If your screen locks up or displays random text while using the help menus, please restart the iCool at the main switch to correct this. Just as you do if any computer controlled device hangs up.

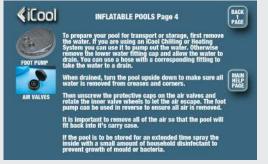


#### **Examples of the Electronic Help System's Pages**









You may need a free local upgrade memory card to access all help files for your region.

## **LOCKING YOUR ICOOL SYSTEM**

#### YOUR ICOOL HAS AN ELECTRIC LOCK TO PREVENT TAMPERING



As you can see, iCool Systems have an attractive user interface, this makes them very intuitive and easy to use, but the downside is that untrained people sometimes like to play with the colourful touchscreens. As with any sophisticated piece of equipment when people start pressing buttons at random anything can happen. We have covered this by installing a secret locking routine.

Note: It is a good idea to keep this secret to as few people as possible.

To lock the screen so that no further inputs can be made, touch and hold the iCool icon on the main run screen for more than 10 seconds (you can only lock from this main screen). A picture of a lock will appear. While ever this lock is visible it is not possible to make any inputs or to change screens.

To unlock the system and return to normal, repeat the procedure. Touch and hold the iCool icon for more than 10 seconds. The lock will disappear and all functions will return to normal.

# **TROUBLESHOOTING**

#### IF YOUR SCREEN FREEZES OR FAILS TO RESPOND

As with all computers and computer controlled devices it is possible that occasionally the system could freeze due to data or software conflicts. Your iCool has 2 computers that monitor and communicate with each other. Occasionally a data error can cause them to stop communicating.

We have designed the system to be as fail safe as possible. In most cases if the screen freezes the main computer will still carry on running the system and monitoring the safety features but you will not be able to change anything. You can either allow it to keep running if that is more convenient, or you can restore the system to normal operation by switching off the main power and re starting, exactly as you would do if your computer or smart phone freezes.

#### Note: The system will always reset to normal when you restart it.

When your screen first starts up and the welcome screen appears a small warning notice may appear in the centre of the screen for one or two seconds referring to the inter computer communication requirements, this is normal. If this notice does not go away it means that data is not flowing to the screen. This is usually because the data cable to the touch screen has come loose or disconnected.

#### **Emergency Override Provisions**

#### Note: Certain safety features in your iCool can be overridden in the event of a partial failure.

ICool systems are very reliable and have attained an excellent reputation around the world for this. In addition we have done all that we can in the designs to build-in ways to work around any partial failure, so that you are not prevented from using your system for an important event. There are some circumstances in which it would be acceptable to temporarily override certain safety systems that may become too sensitive and cause trouble until they can be properly readjusted. This allows systems to continue to operate in circumstances where otherwise it might not be possible. Of course we do not advise the overriding of electrical safety circuits.

For example, depending on the way your system has been set up, it sometimes occurs that the water flow monitoring system may be too sensitive and will stop the pump because it appears that water is not flowing properly. We allow this to be over ridden if it becomes troublesome. Instructions on how to do this will appear on the screen automatically if this happens. It must be remembered of course that if you disarm this system the pump is no longer protected from running dry without water lubrication, so it is essential that you manually monitor the water flow. Our staff can assist you by phone or e-mail to overcome most problems on the spot.

#### **Failure of the Touch Screen**

#### Even if a touch-screen fails or is damaged, we can usually still get you going.

In our efforts to remain the world's number one supplier of mobile ice bath systems, we have continued to improve reliability, but we have also

engineered ways to ensure that no matter what happens in the field, in most cases you can still use your iCool for that important event. Realistically, even the best electronic systems occasionally have problems, especially in portable systems that have a relatively hard life and where water and heat are involved. Fortunately, we have very few such problems, but as an added benefit we have built into all iCool's a complete manual override system that allows your iCool to operate effectively even if the touch screen is damaged.

We do not publish this over ride information in the manual because it is a little different from model to model, but in the rare event that you ever have a failure of the touch screen which prevents you from operating your iCool, just call or e-mail the local iCool representative in your country, or our international number or go to our web site and we will give you instructions on how to use the manual over ride facility on your particular model.

At www.iCoolSport.com you will find a listing of representatives around the world, or you can request a reply directly from our factory in Australia. You will be contacted promptly and we will explain how to work around your problem until we can arrange repairs. This is an important service that we hope you never need, but it's good to know it is there. In addition to this service you will be pleased to know that your iCool is of a modern modular design, which means that most components can be easily replaced in the field and often by the owner.

#### **UNDERSTANDING THE HEATING MODE PROTECTION CIRCUIT**

For safety reasons you can only initiate the heating mode at the time the unit is first switched on. You can not change to heating while you are using it in the cooling mode. You must switch off at the main switch first.

With TWIN models both heat pumps can cool at the same time or one can heat and one can cool at the same time.

#### You must use a pool cover when heating the water.

We all understand heat rises and so you must use a cover on top of your pool when heating or you will lose a large amount of the heat energy into the room and it will take much longer to heat the water.

#### If the status bar lights turn red when you start a cooling cycle.

It means you have inadvertently selected a temperature that is higher than the current pool water temperature. Switch off at the main power switch to reset the computers and start again, this time set a temperature that is LOWER than the current pool temperature. Once the iCool is operating in the cooling mode you can then change your selected temperature to any temperature, even one that is higher than the current water temperature and is will still stay in the cooling mode. This is useful if the early morning pool temperature is already lower than you require but you want the iCool to prevent the water rising above your desired temperature as the day warms up.

# **SPECIFICATIONS**

2016 Models	LITE	LITE Dual Temp	COMPACT COOL
Cooling Power	2900 Watts	2900 Watts	5000 Watts
Heating Power (Dual Temp Model)		3000 Watts	
Run (& Max.) POWER @ 220 Volts	4 Amps (10 Amps)	4 Amps (10 Amps)	7 Amps (14 Amps)
Run (& Max.) POWER @ 110 Volts	8 Amps (20 Amps)	8 Amps (20 Amps)	12 Amps (26 Amps)
Heat Pump Type	Rotary Compressor	Rotary Compressor	Rotary Compressor
Earth Leak Safety Device	Yes 30 Milliamps	Yes 30 Milliamps	Yes 30 Milliamps
Heat Exchanger Tank	10 Plate, Stainless Steel silvered soldered	10 Plate, Stainless Steel silvered soldered	Titanium
Roller Bearing Wheels	No	No	Yes
Stainless Handles	Yes	Yes	Yes
Hi Resolution Colour Touch Screen	Yes 800 x 480	Yes 800 x 480	Yes 800 x 480
Water Circulating Pump	30 Litres per min average	30 Litres per min average	30 Litres per min average
Maximum Alternative Pump Flow	100 Litres per min 500 Watts	100 Litres per min 500 Watts	150 Litres per min 750 Watts
Main Power Plug	3 Pin Heavy Duty	3 Pin Heavy Duty	3 Pin Heavy Duty
Weight KG/Pounds	21kg 49Lbs	22kg 50Lbs	40kg 88Lbs
Dimensions H. W. D in mm	240 x 420 x 300	240 x 420 x 300	545 x 475 x 290
Dimensions H. W. D in inches	10 x 16.5 x 11.8	10 x 16.5 x 11.8	21.5 x 18.7 x 11.4

#### NOTE ABOUT SPECIFICATIONS:

iCool systems are sold all around the world and these specifications may be different for units delivered in your country due to local conditions or regulations or other factors. Also certain specifications may change due to ongoing research and development, because we are constantly improving our products. We welcome your feedback and suggestions and we offer support for general enquiries and information for specific countries on our website at **www.icoolsport.com** 

Thank you for choosing iCool, the world's most popular ice bath therapy and recovery systems

# www.iCoolSport.com

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