



Portable Spas  
**Operating Manual**



# Operating Manual

## Congratulations...

Congratulations...on becoming the owner of a Silver Spas Spa. You'll find the control systems in our spas have been designed for simplicity and can be programmed to suit your individual preferences.

With the proper care and service of your new spa, and the correct chemical maintenance of the water, your spa will provide years of enjoyment. Please take time to read this manual carefully before operating your spa.

Important.....

Do not power up your Spa until you have read this entire Operating Manual. Improper installation may result in equipment damage and void the Spa Warranty.

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## Orientation

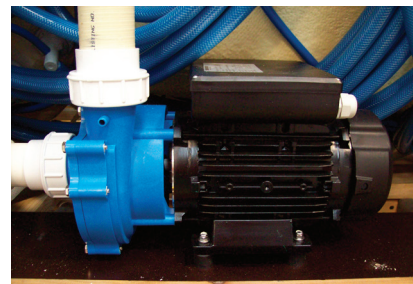
**Touchpad Control Centre** – located on the topside of your spa. This touchpad operates pump/s, blower, temperature adjustment and other ancillary functions that you may have, such as filter cycles, lights and diagnostic codes.



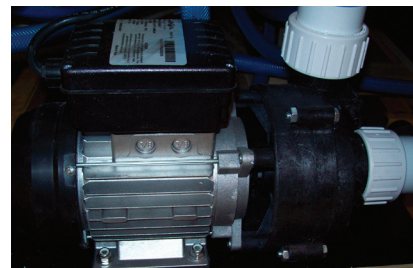
**Control Box and Heater** – where power supply, blower, ozone (if used) and circulation pump are connected. Located in the engine bay of your spa.



**Main and Boost Pump** (if applicable). Located in the engine bay of your Spa, this is the largest of the pumps in size and power. Used for creating water pressure through jets. Also used for filtration in the case of a 2-speed pumps option (refer to Controller Instructions).



**Circulation Pump** (if fitted) – located in the engine bay of your spa. This highly efficient, small power usage pump is used in the filtration and circulation of water through the heater.



**Ozone** (if fitted) – used for water purification. For additional chemical requirements when using ozone, contact your Authorised Dealer. There are two types of ozone units used in Spa Industries Global spas.





## General Information

### Warranty

Your spa warranty covers the spa and associated equipment you have purchased. Please ensure you read and understand the Warranty and complete the Online Registration Form and forward it to Silver Spas. Return of this information is critical in activating your Warranty.

### Access

**IMPORTANT NOTE:** As stated in the Pre-Delivery Manual, when installing the spa, ensure there is 500mm unobstructed clearance around the entire perimeter of the spa. Ensure service access panels can be removed without obstruction. Failure to allow sufficient clearance may result in additional charges when servicing, general repairs or the need for warranty occurs.

portablespawarranty

### Spa Serial Number



Your spa has its own serial number. This number will need to be quoted if warranty service is required. This number can be found in one of two places.

1. Identification/Compliance Label - Located above the spa controller withn spa engine bay.
2. Name Plate - Located on the bottom of the spa frame on the Touchpad side.

### Identification/Compliance Label (Portable Spas and Swim Spas)

Silver Spas Spas come complete with their own Identification / Compliance Label which can be found in the engine bay area of the spa. It is an aluminium plate containing a host of information.

Information will need to be given to the Authorised Spa Dealer when purchasing consumables (eg. filters or chemicals) or in the event of organising routine servicing of the spa or warranty requirements.

		Contact E-mail: <a href="mailto:service@spaindustries.com.au">service@spaindustries.com.au</a> Post: P.O. Box 25, Hallam, 3803, VIC, Australia Approval No: ESV120693 IP Rating: IPX5			
Model: <b>Silver Spas R306 - PS</b>		Serial No: <b>J104017</b>			
Weight:	270	Dry (kg)	Options:	Light Ozone&Stereo	
	1670	Full (kg)		Litres: 1400	
	1Ø 3Ø		Boost Pump:	2.5HP 2S X1	
	240 415	V (A.C. ± 5%) 50 Hz		Circ Pump: N/A	
Power Supply:	15	A (Load Shed)	Controller:	IN.YJ2	
	22	A (Full Load)		Heater: 3 Kw	



## General Information

### Important Safety Instructions

Do not power up your spa until you have read this entire Operating Manual.  
Improper installation may result in equipment damage and void the Spa Warranty.

Please take note:

- You must contact local Authorities in relation to pool fencing and other mandatory regulations that MUST be adhered to when installing a spa. Australia and New Zealand spas must comply with AS1926
- A permit to fill your spa may be required from your local government department.
- 1. Do not use the spa while under the influence of drugs or alcohol, as they cause drowsiness and can result in drowning.
- 2. Before entering the spa, the user should check the water temperature with an accurate thermometer. A temperature of 38°C is considered safe for a healthy adult. Special caution is suggested for young children.
- 3. It is recommended that you use the spa for no longer than 15-20 minutes at a time.
- 4. Do not put your head below water level.
- 5. Consult a doctor before using the spa if taking any medication. Pregnant women should seek medical advice before entering a spa.
- 6. Always disconnect spa from power supply before servicing your spa.
- 7. Always supervise children using the spa.
- 8. Do not use a spa that is not properly maintained and chemical balanced.
- 9. Ensure all electrical connections meet the appropriate codes and standards.
- 10. The spa is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely.
- 11. Young children should be supervised at all times whilst in and around the spa.

Note: All spas must be connected to a dedicated circuit protected by a safety switch and circuit breaker, and must comply with AS/NZ 3000.



## Installation

### Preparing A Foundation For Your Spa

#### Indoor / Outdoor

Your spa needs a good solid foundation. The area that your spa sits on must be able to support the weight of 500kg/m<sup>2</sup> (1000kg/m<sup>2</sup> for Swim Spas). If the foundation is inadequate, it may shift or settle after the spa is in place, causing stress to the shell.

Note: Damage caused by inadequate or improper foundation support is not covered by the Spa Warranty. It is the responsibility of the spa owner to provide a proper foundation for the spa. (please refer to paragraph below)

Place the spa on an elevated foundation so that water drains away from it. Proper drainage will keep components dry and protect them from continual damp conditions, and will also aid you when draining the spa for maintenance.

If you are installing your spa indoors, pay close attention to the flooring beneath it.

Always remember that the spa is filled with water. Choose flooring that will not be spoiled or ruined from water damage. Spa Industries Global will not accept responsibility for water damage caused through spa being placed in unacceptable surroundings.

If the spa is to be located on decking ensure the deck is capable of withstanding the combined weight mentioned above. It is recommended that a qualified contractor prepare the foundation for your spa. A base of 100mm (4inch) minimum concrete pad or equivalent is required to place your spa. If mounting on a deck centre supports must be installed to support the centre of the spa.

## Electrical Connections

As stated in the Spa Industries Pre-Delivery Manual, a qualified Registered Electrical Contractor must undertake all electrical connections. You must also have a Certificate of Electrical Safety issued by the Electrical Contractor at completion of the installation. This certificate may need to be presented to your Authorised Spa Dealer or Spa Industries Global in the event of a warranty claim.

### Requirements:

1. Extension cords are not to be used under any circumstances.
2. Ensure the power supply is correctly rated.
3. Ensure all electrical connections meet the appropriate codes and standards.
4. Keep electrical connections dry at all times.
5. A licensed electrician ONLY, must connect the power.
6. Ensure spa is connected on a dedicated circuit protected by a safety switch.
7. Ensure spa is permanently and reliably connected to the fixed wiring.
8. Spa should be supplied through a residual current device (RCD) with a rated tripping current not exceeding 30mA.
9. Parts containing live parts, except parts supplied with safety extra-low voltage not exceeding 12V, must be inaccessible to a person in the spa.
10. CAUTION: In order to avoid a hazard due to inadvertent resetting of the thermal cutout, the spa must not be supplied through an external switching device, such as a timer or connected to a circuit that is regularly switched on and off by the utility.

### Note to the Electrician:

Drill appropriate size hole through base for cable and conduit entry. Ensure cables are fitted through base prior to filling with water.

**Never rest spa on power cords.**

## Power Requirements

The power requirement of your spa can be found on the Identification / Compliance Label of your spa (read about in 'Identification / Compliance Label' section of this manual). Power requirement is expressed in 'Full Load' and also 'Load Shed'.

**Full Load** - is the maximum full load current draw of the spa.

**Load Shed** - is a feature of the Control System which by a minor setting change will cause the heater to shut down when the boost pump or blower is actuated. Hence the lower power requirement valve.

Directions on ascertaining this setting can be found on the back of the Control Box lid.

## Power Consumption

### Electrical Terminations

With all Silver Spas spas, you will usually find the Control Box at the same end of the spa as the controller Touchpad Control Centre.

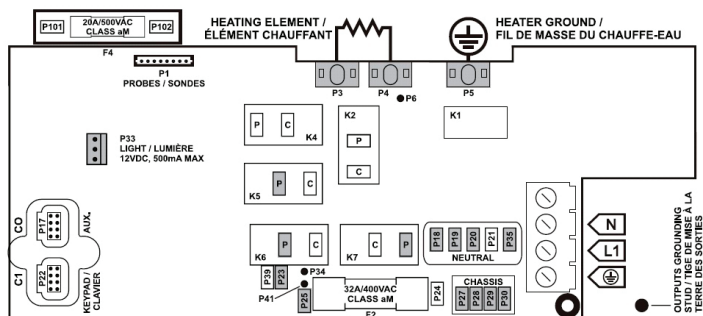
There are a number of electric controllers that you may find on your Silver Spas spa. The Gecko System is the unit most widely used by Silver Spas. If it requires direct wiring the terminal connection can be found inside the Control Box.

The Gecko System has a Terminal Block in the control box similar to that in adjacent photo.

To gain entry to the Engine Bay, remove service access doors with a screwdriver. The Engine Bay can be found below the Digital Touchpad Control Centre.

Be sure to take extreme care when connecting power cables to the unit, as incorrect connection can cause damage to the Control System.

Power supply to the spa needs to be on a dedicated circuit and be protected by a Residual Current Device (Safety Switch), as well as the correct size cable and circuit breaker protection.



## Touchpad Control Centre (Portable Spas)

The spa is fitted with a Gecko Touchpad Control Centre. The instruction sheet for your Spa Control Centre can be downloaded from [www.silverspas.co.nz](http://www.silverspas.co.nz). The instruction sheet shows step by step operation procedures to operate pumps, blower, light (if applicable), ozone (if applicable) also for the control and setting of filter times and filter durations.





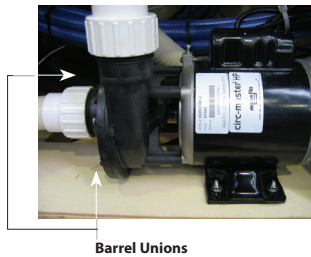
## Checklist

### Checklist Prior To Filling Your Spa

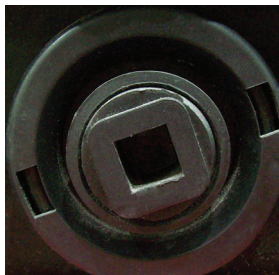
Never operate equipment without correct water in your spa. Serious damage to the pump and/or heater may occur. Damage caused to the pumps or heater through poor water chemistry will not be covered by the Spa Warranty.



- ☐ Remove all access service panels around the exterior of the spa, inspect for any item that may have come loose during transport. Leave doors off until spa is filled with water and a check for leaks has been undertaken.



- ☐ Check barrel unions on all pumps and heaters to ensure they are tight; as they may loosen during transport. They are not a Warranty item, and must be tightened prior to Start Up.



- ☐ Check external drain/fill valve (if installed) is closed and drain cap tight.



- ☐ Check shut-off valve. Valve (if installed) are located either side of the pump/s. The handles should be in the up position. This allows the water to travel through the pipes to your pump.

Note: The only time these are closed (down position) is during servicing.



- ☐ Fill your spa with clean water. Remove one filter and place hose directly into skimmer box to fill. This will help to alleviate air locks being created in the pumps or heaters. Fill until all jets are covered or at level shown on the skimmer/ filter box faceplate. Replace filter once correct water level is achieved. Make sure all jets are in the open position (Refer to Jet Section of this Operating Manual).

- ☐ Fit plastic locks to side of cabinet so as to hold the hard cover. (as per Hardcover Manufacturer's instructions.)

- ☐ Check for leaks around and under spa.



# Operating Manual

## Start Up

- If spa is a plug-in model, plug the power cord into the power point and switch the power on. If the spa is hard wired, turn power on at the main isolator. When the unit is powered up, it is normal operation that the spa pumps may turn on and run for up to 4 minutes depending on the type of controller.
- Chemical addition. Contact your local Authorised Spa Dealer in relation to the best chemical selection for your spa.
- To heat your spa adjust the Temperature Button up, or to decrease heat simply adjust the Temperature Button down, depending on the model of the spa (Refer to your control instructions).
- Check for leaks, replace service access panels.

Note: Depending on water capacity, heater size and ambient temperature, it can take up to 12 hours to heat the spa to approximately 38°C. Swim Spas will take possibly twice as long.

## Spa Maintenance

You are responsible for the maintenance of your spa.

### Hygiene

The 'home' environment can affect the condition of your spa water. You should always shower prior to entering your spa. Good personal hygiene assists with water maintenance.

Our bodies need to adapt to the spa. Body oils will expel from your skin at a faster rate until your body adjusts to the spa environment. The same will occur when your friends come over to enjoy your new spa.

This may mean your filters will need cleaning more frequently in these instances.

### Cleanliness

Your spa should be kept free from dirt and grit at all times. This will minimize the likelihood of particles being lodged in the jets or your spa's operating equipment.

It is wise to have a mat or foot wash near your spa, so that the spa users can wipe their feet before they enter the spa.

Dirt and grit in your plumbing system is not covered by Warranty, and can cause damage to your spa.

### Chemical Management

It is extremely important to maintain your water chemistry of your spa, not only for health reasons, but also for the protection of spa components. The pH level should read between 7.2 and 7.8 to ensure clean water. The total alkalinity should read between 80 and 120 parts per million. Making sure all these requirements are correct will ensure your spa is clean and free of dirty water. If you don't maintain your water within these requirements you are risking voiding your Warranty as well as making your spa a breeding ground for disease. Your Authorised Spa Dealer can best guide you on the use of chemicals and what they would recommend.



## Spa Filters

### Cleaning Your Spa Filter Cartridges

Filter cartridges are made from fine polyester paper like material, specifically designed to filter out body oil and grime. Your spa is equipped with easy access skimmer cartridge filters. The average life expectancy of a filter cartridge is approximately 12-18 months, (with proper care and correct water maintenance).

It is recommended that the filters need to be cleaned every week to remove all body oils and grime from the surface (cleaning intervals dependent on usage)

Replacement filter cartridges may be purchased from your Authorised Spa Dealer. (It is recommended that you purchase a second set of filters.)

### To Remove Cartridge Filter Elements

1. Turn power off to spa from circuit breaker or isolation switch.

Note: Ensure power is turned off during cleaning of filters as foreign matter can make its way into the pumps, heater and plumbing system while filters are removed.

2. Remove lid.
3. Unscrew filter cartridges unscrew anti-clockwise.
4. Clean with the high-pressure nozzle to remove all debris clinging to the element.
5. Soak filter in a recommended Filter cartridge cleaner to remove all body oils and grime. Check with cartridge cleaner instructions.
6. Thoroughly rinse cartridge with clean water using a high-pressure nozzle again.
7. Replace filters - Be careful not to over tighten
8. Replace filter lid.

Note: Deep clean and soak the filter cartridges in special filter cleaners on a monthly basis, rotate with extra set of cartridges if possible. (Filter cleaner is available from your local Authorised Spa Dealer.)

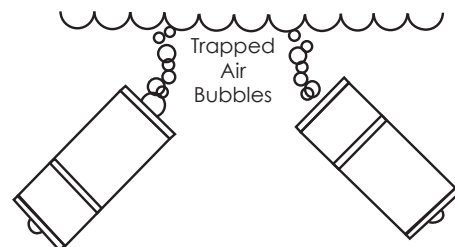
## Replacing / Inserting Filters

Prior to replacing filters in the spa following cleaning, thoroughly rinse cartridge to remove all soap residue (foaming may occur if not correctly rinsed).

When installing cartridge, submerge filter cartridge into the spa top first, to allow all trapped air to escape prior to inserting filter into Skimmer Box.

Failure to do this can induce an airlock into the plumbing system, this will cause the pump and heater to not operate correctly. To ensure there are no airlocks, simply loosen the barrel unions to the pump and heater to release any trapped air and then re-tighten. (when conducting the mentioned procedure ensure spa power is turned off.)

Be sure not to over tighten filter.



## Draining the Spa

Approximately every 8-12 weeks, or more frequently depending upon usage, you should completely drain your spa.

About 1/3 of the water capacity should be drained off every month in addition to the above procedure to keep the water manageable.

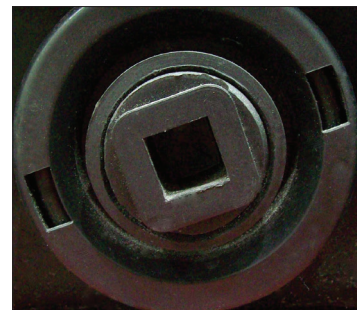
The frequency of complete drainage depends on a number of variables including the amount of use, attention paid to water quality, maintenance etc. You will know it is time for a change, when you cannot control foaming and/or you can no longer get the normal feel or sparkle to the water even though the key water balance measurements are all within the proper parameters.

Your spa has a recessed external drain valve, usually located on the front of the cabinet. This has been designed as the most practical and easiest way to empty your spa.

1. Isolate power at Circuit Breaker.
2. Remove center plug on drain and connect the garden hose connector (sold separately).
3. Turn the lock nut anti-clockwise to start draining.
4. Use a bucket and a sponge to remove any remaining water from seats / foot well of spa.
5. After draining the spa remember to turn the drain valve to the off position.

Note: If draining for winter and the spa is going to be left empty for periods of time, loosen barrel unions to pump to remove all water from the plumbing system, and tighten once all the water is removed.

Make sure hardcover is put back over the spa as continuous direct sunlight can damage acrylic shell. Damage from UV or sunlight is not covered by Warranty.





## Acrylic Shell Maintenance

Ensure spa is not continually exposed to the elements, the acrylic shell can reach very high temperatures if spa is located without shading or cover. Damage due to sunlight or extreme temperatures is not covered by the Spa Warranty. Exposure to the elements while not filled with water, while hardcover is removed or by simply no shading of the spa may cause damage to the acrylic shell.

With normal use of your spa, oils, lotions and hairsprays will build up on the surface of the water sometimes leaving a scum line around the perimeter of your spa shell.

Use a recommended cleaner or simply wipe down with a soft cloth and a non-abrasive cleaner. (eg methylated spirits). Clean while spa is drained for servicing or water change-over.

For hard water stains consult your Authorised Spa Dealer for an acceptable Spa cleaner/polish.

- Never allow your spa surface to come in contact with acetone (nail polish remover), nail polish, dry cleaning solution, lacquer thinners, gasoline, pine oil, abrasive cleaners, citrus cleaners or any other harsh chemical. These chemicals can damage your spa shell and void your Warranty.
- Do not use cleaning agents that will leave suds in your spa water.
- Adjustable jets should be removed and washed thoroughly to remove any dirt and grit build up. (Removal of jets is outlined in the 'jet' section)

Note: Minor scratches can be removed by using fine wet & dry sandpaper and car polish. Please consult your Authorised Spa Dealer before attempting this method.

## Spa Hardcover

Using a Spa Hardcover any time when the spa is not in use will significantly reduce your operating costs, heat up time and maintenance requirements.

### Getting The Most From Your Spa Cover

1. When cleaning your cover, use a mild soap and water.
2. Do not walk, jump or lie on cover.
3. When moving your cover, LIFT at all times, do not drag, drop or slide cover.
4. Do not lay cover on rough surfaces.
5. Approximately every four weeks, use a vinyl conditioner on top of the cover. Your Authorised Spa Dealer can best advise you of an appropriate cleaner.
6. Remove foam liner from Hardcover every 12 months and rotate to eliminate sagging of the Hardcover.

It is most important that you connect the lockdown clips to the cabinet, to ensure safety for your family.

Ensure hardcover is fitted on spa at all times when not in use.

Note: Damage to spa caused by the elements due to hardcover not being used correctly will void Warranty.

## Headrest Maintenance

### Removing Your Headrests

Most spa models have moulded comfort pillows / headrests. These headrests are designed for comfort to the spa user.

We recommend removing these headrests periodically to clean behind them. We also recommend removing the headrests if your spa is not going to be used for a long period of time, as consistent exposure to chemicals, ozone and moisture may damage the product over time.

Every 3-6 months the headrests should be removed for cleaning. The headrests are secured to the shell by small snap in lugs, or are simply a slide fit, this prevents the headrest from falling into the spa.

Headrests can be wiped with methylated spirits, then coated with a high grade vinyl rejuvenator to rejuvenate the faded, powdered look.





## Jet Information

### Air Control

These controls allow you to regulate the amount of air that is mixed with water entering through the jets. This significantly increases the jets performance and massage effect. Air Control's should be in the closed position when spa is not in use, to aid in heat retention.



Your new Spa has several different types of jets, with different massage actions. Follow the diagrams for correct operation of your jets. Note: Turning off too many jets may cause water to syphon out of the Air Venturi's.

### Hurricane Jets

The Large Hurricane Jets are interchangeable with each other. Move them around to suit your massage type.

Simply turn the jet clockwise / counter clockwise to turn water flow on /off.

To remove jet face, turn the jet counter clockwise until the face screws out.



### Mini Hurricane Jets

The Mini Hurricane Jets are interchangeable with each other. Move them around to suit your massage type.

Simply turn the jet clockwise/anti-clockwise to turn water flow on/off through the jet.

To remove jet face, turn jet face counter clockwise until the face screws out.



### Micro Hurricane Jets

The Micro Jets are designed for a strong massage effect with a small jet face. (These jets are not able to be turned off).





To keep your jets performing at their best, you should regularly remove adjustable jets and clean them (approximately once every 3 months).

Clean the jet face in hot soapy water. Make sure all fittings are moving freely before re-inserting. (Sand and grit in jet will not be covered by Warranty)

Ensure all soap residue is removed prior to re-installation of jet face.

If you are having trouble removing the jet face a tool can be purchased through your Authorised Spa Dealer.

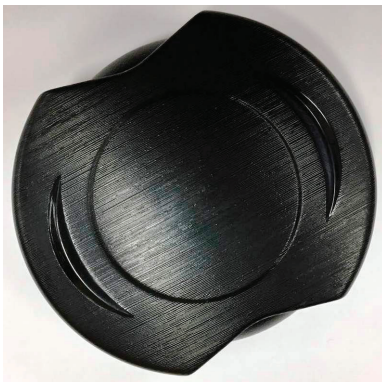
### **Massage Selector / Diverter Valve**

Some models are fitted with a Massage Selector or Diverter Valve. This valve is designed to change the flow of the water from one seat to another.

Do not force the selector handle. If the handle becomes hard to turn, consult your Authorised Spa Dealer.

### **Neck Jet Diverter:**

If the Spa is fitted with reverse molded neck jets, a small diverter will be fitted adjacent the neck jets. Used to divert water to and from neck jets. This componet serves purely as a diverter not an on / off control.







## Blower & Pumps

The pump and/or blower will turn on automatically at various times of the day. This function is to eliminate the water becoming stagnant and allowing build up of bacteria.

The pumps and blowers will automatically turn off after approximately 20 minutes of operation. This is normal operation, designed to protect the pumps and blower.

If pumps and blower do not turn on, simply switch off power supply to the spa and then turn back on (portable spas only). During routine maintenance, it is important to ensure that the barrel unions to the pump are tight, as continued use may cause loosening through vibration.

Note: Pumps and Heaters:

Pumps and heater elements can be affected by corrosion if the balance of your water is not at the correct levels. You **MUST** maintain your total alkalinity and pH levels at the recommended levels at all times or you will void your Warranty on these items. Speak with your local Authorised Spa Dealer about Alkalinity and pH.

## Air Locks and No Flow Conditions

Airlocks are a common cause of problems on initial start up of your spa or after reinstallation of filters after cleaning.

When reinserting filter after cleaning please ensure the correct procedure is followed as set out in this manual (replacing / inserting filters).

The term No Flow Conditions means that the pump/heater on your spa creating the flow and filtering the water through the heater tube has an obstruction. Obstruction meaning dirty filters, a build up foreign matter on the suction side of the pump or an airlock.

Corrective action: if one of the above messages appears on the touch panel the following action is recommended:

Remove filters

Does message disappear

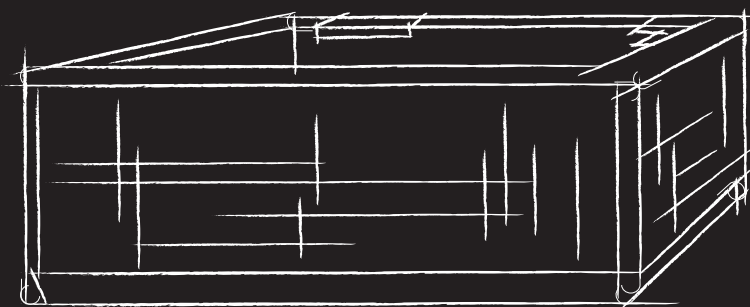
- |     |                                     |
|-----|-------------------------------------|
| Yes | Filters need cleaning or replacing. |
| No  | See next step.                      |

Has Spa been left running while cleaning filters

- |     |  |
|-----|--|
| Yes | Probable blockage in pump.   |
| No  | Probable airlock in filtration system.<br>Isolate power to spa.<br>Loosen barrel union to filtration pump allow air to expel.<br>Should only be water escaping, no air.<br>Once all air is purged re-tighten barrel union to pump.<br>Reset power to spa.<br>If problem persists contact your Authorised Spa Dealer. |

Make sure when cleaning your filter cartridges that the power is isolated from your spa. If you continue to run the spa foreign matter can obstruct the operation of the pump.





*Bringing Family Together*

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