

# Spa owners manual

 **sapphire spas.**  
australian made & family owned



# Welcome

Please take the time to read the entire manual before operating your spa. This manual holds vital information for a spa owner and we suggest keeping it in a safe place.

This manual will acquaint you with the operation of your new spa and general maintenance required. This manual may also be found on our website. Every effort has been made to ensure the accuracy of this owner's manual, however Sapphire Spas reserve the right to change specifications or design without notification or obligation. If you have any questions about any aspect of your spa set up, operation or maintenance, contact your authorised Sapphire Spas dealership or Sapphire Spas Head Office.

# Register your spa

Please take a moment to register your warranty. This will allow us to contact you in regards to important product notification and ensure that you enjoy your Sapphire Spa for many years to come. Prior to registering, you will need the serial number that is located within the equipment compartment of your Sapphire Spa. To register please go to <http://www.sapphirespas.com.au/warranty-registration>.

## MYSAPA RECORD

Please fill in the information below and save these instructions for future reference. Sapphire Spas will request this information upon submission of a service request.

Your Name \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Spa Model Name \_\_\_\_\_

Date of Installation \_\_\_\_\_

Dealer \_\_\_\_\_

Dealer Address \_\_\_\_\_

Control System Number (circle)    **SV2**    **SV3**    **SV4**    **iTouch**

Serial Number (located in the equipment compartment of your spa)

\_\_\_\_\_

# Contents

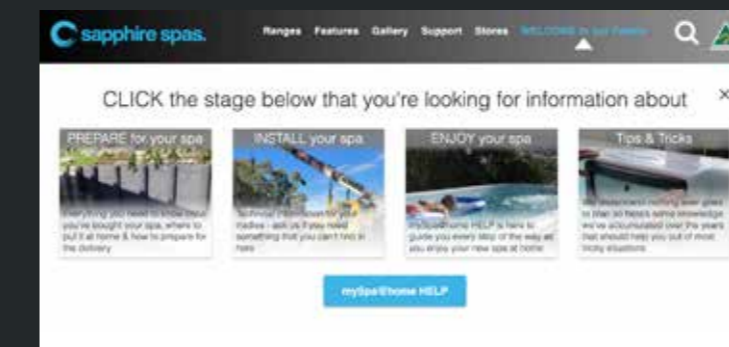
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# Welcome to our family

As part of the Sapphire family our level of care doesn't end once you hand over the money. Remember that, as a Sapphire Spa owner, you're protected by our lifecare commitment; just contact the team at your local store.

Take the time to look through 'WELCOME to our Family' tab on our website:



## PREPARE for your spa

Everything you need to know once you've bought your spa, where to put it at home & how to prepare for the delivery.

## INSTALL your spa

Everything you need to know as you're installing your spa, including technical information for your tradies.

## ENJOY your spa

We know all you want to do is jump in – nobody wants to read the manual! As part of the Sapphire Family we're here to guide you every step of the way with simple instructions & practical videos, as you enjoy your new spa at home.

## Tips & Tricks

We understand nothing ever goes to plan so here's the knowledge we've accumulated over the years.

## mySpa@Home help

is a comprehensive collection of 'how to' videos, manuals & quick references guides to have right by your side as you enjoy your new purchase.



# Unwrap your new spa what do I do first?

**VIDEO INSTRUCTIONS**  
Visit the mySpa@Home support page  
[sapphirespas.com.au/myspa-at-home](http://sapphirespas.com.au/myspa-at-home)  
for video instructions.



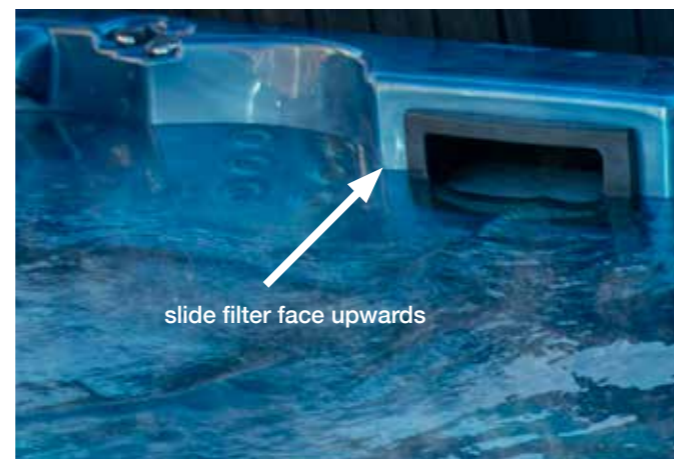
## Inspect for damage

Carefully unwrap your spa and thoroughly inspect it for any damage. If you notice any transit damage to your product, please photograph the damage, keep all paperwork/labels and contact the dealer from which the spa was purchased immediately.



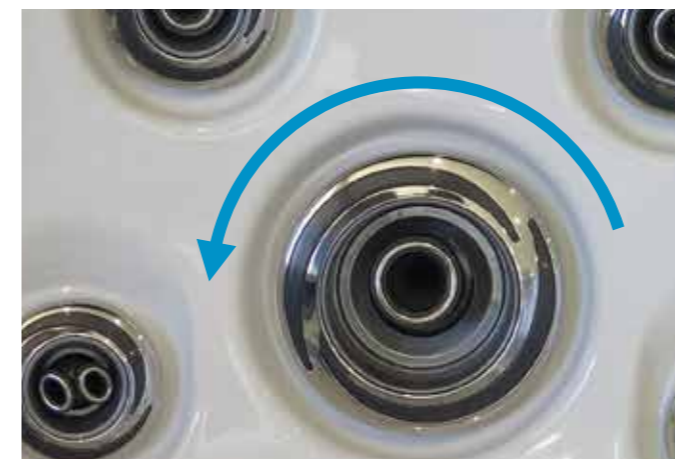
## Wipe out excess water

Your Sapphire Spa has been thoroughly factory tested during the manufacturing process to ensure maximum reliability and long term satisfaction. Wipe out any excess water from the spa that may have drained from the plumbing after testing and make sure the spa is clean prior to filling.



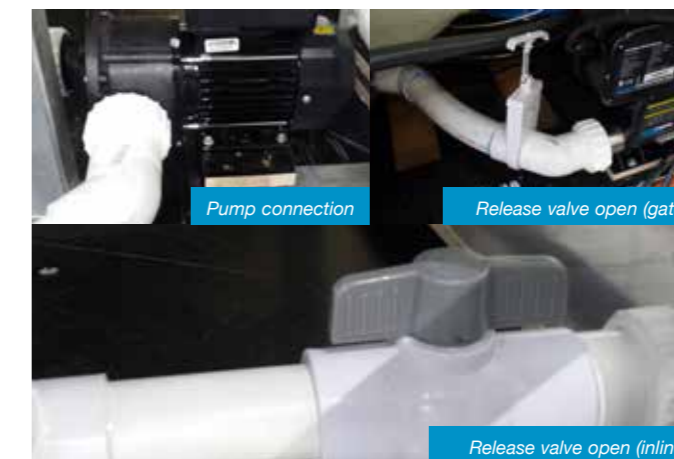
## Remove filter tray & cartridges

Slide filter face upwards, then remove filter tray cover & filter cartridges before filling (2 x cartridges in spa pools / 4 x cartridges in swim spas).



## Rotate jets

Rotate all jets to the 'on' position.



## Check pump connection and release valves

Prior to filling your spa, remove the side panels where the engine compartment and control equipment are situated. Ensure all your pump connections are tight and release valves are open as they may have shifted during transit.



## Check air controls

Ensure all air controls on the topside of your spa are turned to the 'off' position. Failure to turn off the air controls will extend your heat up time dramatically.

**Warning:** It is important that home owners comply with state and council regulations which are in place to improve safety outcomes. Additional information can be obtained from your local council or please visit [spasa.com.au](http://spasa.com.au)

## Spa pool prior to filling



### Attaching cover lifter

Once your spa is in its final position, we recommend attaching your cover lifter before you fill your spa, to ensure enough clearance for the lifter mechanism to operate freely. Do not place too close to nearby walls.

All cover lifters have different clearance parameters.



### Access in cabinet power supply BEFORE FILLING

Before filling your spa, remove door panel and bring power out of the corner that's applicable especially if 15amp cord & plug are supplied as cord is 4.5MTS in length from the control box.



myHotTub





### Check the drain valve


Ensure the drain valve of the spa pool is closed. Please note: all drain valves are external, excluding myHotTub (as above inside cabinet) hose.


## Spa pool equipment access

Detail for removing the cabinet doors, plumbing location, electrical power cord / conduit access to power control box.

 Remove these screws with an allen key where applicable.

 Remove the raised joiner strips which hold panels in place where applicable.

 Removable side panel extends up under acrylic flange (flange is 90mm in height).

 Ideal electrical conduit access through corners of spa as we've allowed 35-40mm access to enable conduit to be hidden.

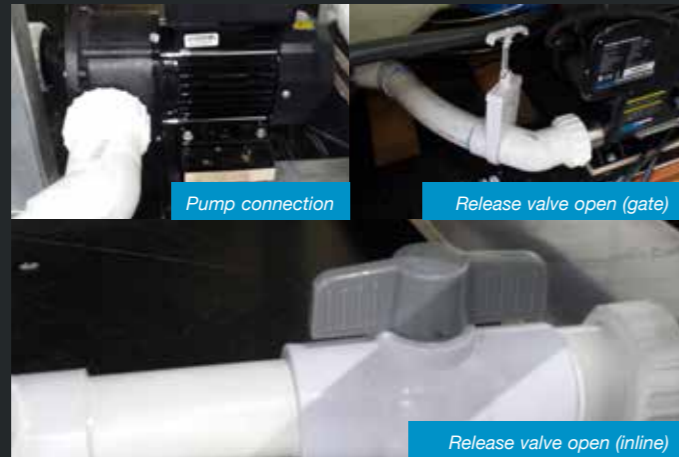


## Swim spa prior to filling



### Check the drain valve

Ensure the drain valve on the outside of the spa cabinet is closed.



### Check pump connection and release valves

Prior to filling your spa, remove the side panels where the engine compartment and control equipment are situated. Ensure all your pump connections are tight and release valves are open as they may have shifted during transit.




### Heat & Cool pump installation


We've compiled all technical information for your tradies but call your local store if there's something that you can't find here.


Take the time to look through **'WELCOME to our Family/install your spa'** tab on our website.


## Swim spa equipment access

Detail for removing the cabinet doors, plumbing location, electrical cabling conduit access to power control box.

 Remove these screws with an allen key where applicable.

 Remove the raised joiner strips which hold panels in place where applicable.

 Removable side panel extends up under acrylic flange (flange is 90mm in height).

 Ideal electrical conduit access through corners of spa as we've allowed 35-40mm access to enable conduit to be hidden.



# Electrical tradie information

## ☐ Qualified electrician

Ensure a qualified electrician has hooked up your power source.



## Electrical Wiring (Terminal Block Connections)

AUS / NZ / European Models (230-240V AC)

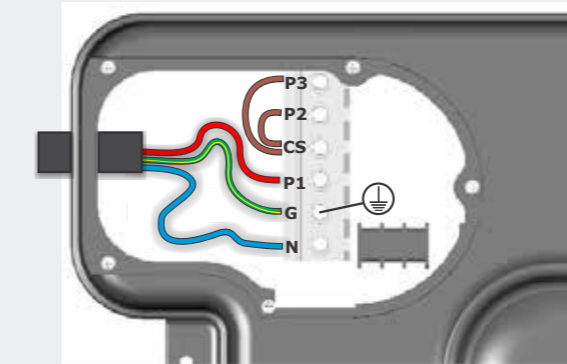
**Tools Required:** Wire Strippers, Phillips head screwdriver, flat head screwdriver

- ▶ Remove five (5) x Phillips screws from mains lid to access terminal block.
- ▶ Cut away appropriate length of outer insulation from mains power cable and strip away 25mm (1") of wire insulation from the end of each wire.
- ▶ Route mains cable through one of the two snap out holes provided and secure the cable with a gland to provide adequate cable strain relief (Tighten gland with use of a tool to ensure supply line anchorage point cannot be removed by hand).

- ▶ Push the wires into the correct terminals as labelled. Refer wiring guide below or on the sticker inside the terminal block area.
- ▶ Tighten all screws on the terminal block with a screwdriver and check to ensure each wire has been firmly secured. Then screw mains lid back on.

### ⚠ WARNING

- **This appliance must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.**
- Correct wiring of the main electricity board, RCD and spa pack is critical.
- When installing appliance refer to your local wiring regulations.
- When installing mains power cable providing service loops (additional wire length for future serviceability) to incoming wiring is recommended.

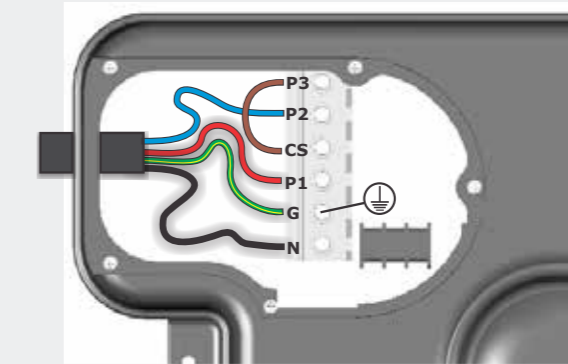


**230-240V (3 wire) single phase**

Terminal	Wiring
P3	Link to CS
P2	Link to CS
CS	Link to P3 and P2
P1	Phase
G	Earth
N	Neutral

\*Dip Switch 5 OFF  
\*Dip Switch 6 OFF

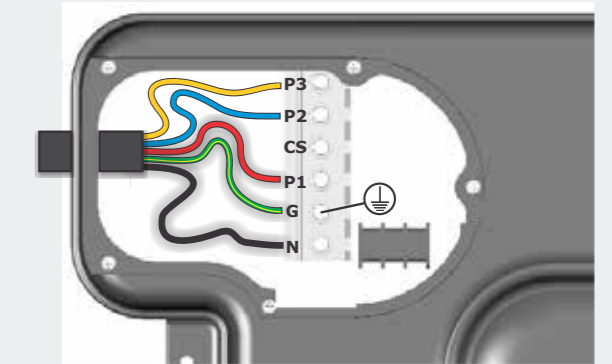
\* Refer Dip switch information on page 11



**230-240V (4 wire) dual phase**

Terminal	Wiring
P3	Link to CS
P2	Phase 2
CS	Link to P3
P1	Phase 1
G	Earth
N	Neutral

\*Dip Switch 5 ON  
\*Dip Switch 6 OFF

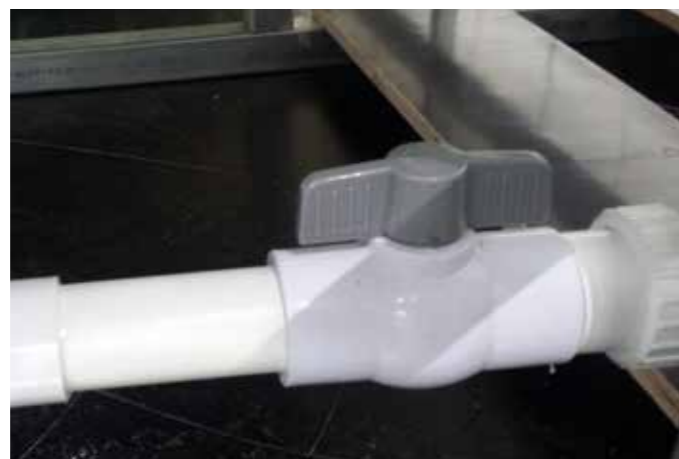


**230-240V (5 wire) three phase**

Terminal	Wiring
P3	Phase 3
P2	Phase 2
CS	Not used
P1	Phase 1
G	Earth
N	Neutral

\*Dip Switch 5 ON  
\*Dip Switch 6 ON

## Filling your spa almost time to jump in



### Double check release valves are open

Remove cabinet doors (using allen key supplied) and double check that all release valves (refer step one – inspection) in the plumbing system are fully open to maximise the amount of air that can escape the pipe work during filling.



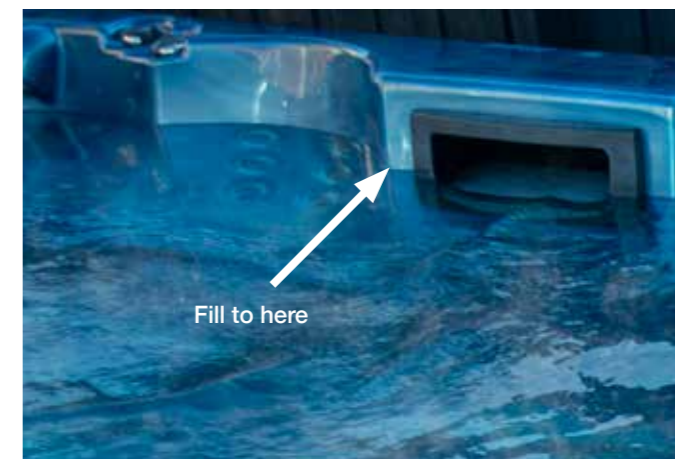
### Remove filter cartridge(s) before filling

Remove filter cartridge(s) before filling to enable filling of the spa through the filter itself. This will flood the pipe work with water and minimise the chance of air pockets forming in the plumbing during the filling process.



### DO NOT fill spa by placing hose in the foot well

Filling a spa this way will create a large number of air pockets in the pipe work and may cause difficulty when priming. Always fill spa through the filter area.



### Fill spa to the correct level

Fill the spa to the half way point of the filter weir to ensure adequate water flow.



### Initiate water priming sequence

Every time the power is turned on the SV controller will initiate a water priming sequence on start up. During priming sequence the filtration pump will run for up to 20 seconds at a time in an attempt to purge air from the plumbing. The keypad display will scroll PRIMING during this sequence. If the spa controller is successful in clearing all of the air from the pipe work, the system will begin normal operation. However, if air is still detected the spa controller will shut down and display a fault code 'ER3-Water Prime' (refer to trouble shooting).



# Turn on your spa powering it up

ONCE THE SV SYSTEM HAS PRIMED, IT BEGINS NORMAL OPERATION.

Set the date/time and temperature.

Refer to your "Quick Reference Guide" supplied for basic operation of your particular touchpad (SV2 / SV3 / SV4 / smartTOUCH).

## VIDEO INSTRUCTIONS

Visit the mySpa@Home support page [sapphirespas.com.au/myspa-at-home](http://sapphirespas.com.au/myspa-at-home) for video instructions.

**spanet**

**SV4 QUICK REFERENCE GUIDE**

**DISPLAY MODE ICONS**

- Water Temperature
- Set Temperature
- Clock

**MENU ICONS**

- Sleep timer menu icon
- Light menu icon
- Blower menu icon

**STATUS ICONS**

- Keypad locked
- Sanitise cycle operating
- Filtration cycle operating
- Fault condition has occurred

**AUTOMATIC INDICATOR LED**  
This LED will turn on whenever the filtration pump is in automatic mode.

**HEATER INDICATOR LED**  
This LED will turn on when the heater or heat pump (if fitted) is operating.

**SANITISER INDICATOR LED**  
This LED will turn on to indicate that the ozone or uv sanitiser unit is operating (if fitted).

**SLEEP TIMER INDICATOR LED**  
This LED will turn on when the controller is in a sleep mode.

**PUMP (A, B, C, D) BUTTONS**  
Used to toggle the filtration pump and / or any additional jet pump(s) on / off (if fitted).

**BLOWER BUTTON**  
Press to toggle blower on/off. A single press turns blower on in vari-speed mode. Use up & down buttons to vary speed. A double press activates the ramping mode.

**SANITISE BUTTON**  
Press once to activate a 20 min sanitisation and clean up cycle to refresh water quality after spa use. A second press will cancel the cycle if already running.

**UP BUTTON**  
Short single presses toggle through the three display modes: W.TMP = Water Temperature, S.TMP = Set Temperature, TIME = Clock. Holding the button will force the controller to begin adjusting the set temperature and will raise the set temperature point. Also used for adjusting settings.

**LIGHT (ON/OFF) BUTTON**  
Used to toggle spa lights on/off.

**LIGHT SPEED / COLOUR**  
Press to activate light speed or user colour selection menus. Use up & down buttons to adjust.

**OK BUTTON**  
Used to confirm and save setting adjustments or to enter setting adjustment menus.

**INVERT SCREEN BUTTON**  
Press to flip screen 180° for easy viewing when spa in use.

**DOWN BUTTON**  
Short single presses toggle through the three display modes: W.TMP = Water Temperature, S.TMP = Set Temperature, TIME = Clock. Holding the button will force the controller to begin adjusting the set temperature and will lower the set temperature point. Also used for adjusting settings.

**ECO FRIENDLY**

**POWER SMART**

## Heating up your spa

### Fit your hardcover

With your settings selected, it's time to fit your hardcover. Place the hardcover on your spa pool to insulate your spa and obtain maximum heat up. Failure to fit your hardcover correctly will extend your heat up time dramatically. Once fitted, allow your spa to heat to your selected temperature and add chemicals as necessary.



Place the hardcover on your spa for optimal heating to required temperature



# Maintenance filters

Spa filter cartridges are made of a polyester micro-pore pleated filter media designed to trap small contaminants suspended in the water. Sapphire Spa filters are a genuine 100 sq.ft. of filter media designed to give maximum area for collection of particle matter in the water. Please note that Sapphire Spas Swimspas have 200 sq. ft. of filter media providing maximum particle matter collection.

Your spa filter system is crucial for the overall quality of the spa water. Dirty, worn out filters will fail in their job of trapping spa contaminants and will put undue strain on the spa pump motor, possibly shortening the life of the equipment.

## IT IS RECOMMENDED THAT YOU:

- ✓ Clean your spa filters every two weeks. More often when bather load is heavy.
- ✓ Clean your filters with every water change.
- ✓ Replace filters after 12 months of use.

## DO NOT:

- ✗ Use laundry detergents or household cleaners to soak your filters.
- ✗ Use a power washer or dishwasher to clean your filters.
- ✗ Use muriatic acid for acid soaking /washing filters.



### Remove filter faceplate

To remove filters, place two hands on the filter faceplate, evenly slide it upwards until you can freely remove it.



### Slide out cartridge cover

After removing the faceplate you can easily slide out the leaf catcher.



### Locate cartridges

Locate the 2 x filter cartridges in the base of the filter box.

**Note: Swimspas have 4 x filter cartridges – lower 2 cartridges screw into the base of the filter box, then 2 top cartridges twist onto the top of these.**



### Remove all cartridges (2 in spa pools / 4 in swim spas)

Remove both spa pool cartridges (& top 2 swim spa cartridges) by rotating anti clockwise.

Lower 2 swim spa cartridges need to be unscrewed from base of filter box – you may need to use the top cartridge to loosen the lower ones.



### Inspect cartridge

Example of cartridge that requires cleaning.



### Remove debris with hose

Use a garden hose to apply a water stream at an angle downwards to make sure all debris and foreign matter is dislodged by spraying in between each pleat in the filters.

## Surface cleaning acrylic

Your Sapphire Spa is manufactured from the highest grade acrylic material available. To ensure that it keeps its finish for many years, a small amount of maintenance is required periodically.

### General cleaning

Acrylic is very easy to clean and generally stains and dirt will not adhere to the surface, however you may wish to wipe down the acrylic surface with a soft, damp cloth/sponge and a non-abrasive cleaner (ex. Methylated spirits) after use or during your normal maintenance program.

### Stubborn marks

For more stubborn marks, you should consult your Sapphire Spa dealer for advice on a recommended acrylic surface cleaner.

### Crazing

May occur in acrylic surface as fine lines when spa is exposed to extremely high temperatures even with cover on. These are non structural and not covered under warranty.

### Surface scratches

You may also experience surface scratches caused by general wear and tear. If so, it is strongly recommended that you consult your Sapphire Spas dealer before attempting to remove them using the following method. Apply car polish or a similar product and lightly rub out the scratch in a circular motion.

### Sunlight & UV exposure

Do not expose the acrylic shell to direct sunlight or UV for any prolonged period as this may have a detrimental effect on the surface and possibly void warranty.

### Dirt & sand

Avoid allowing dirt and sand, caused by bathers entering the spa, simply by placing a mat or footbath in the entry areas of the spa. This will assist in the easier maintenance of the acrylic surface.



## Maintenance general

### Cedar cabinets

If you have chosen a cedar cabinet for your spa, you can rest easy knowing it has been engineered and designed with the highest grade 20mm western red cedar available and has been treated with premium grade, mould resistant stain.

Regular treatment of the cabinet will enhance the natural look of the cedar and ensure that your spa will always be the centre piece in its location for many years to come.

Consult your dealer for the ideal product to stain and protect your cabinet.

To treat your cabinet you will need to lightly sand the timber, then apply a good even coat of stain. Small marks and scratches can be treated the same way.

Your cabinet life will depend on how you choose to maintain it and harsher conditions will determine how often the timber requires treatment.

If you notice the cedar losing its richness of colour, it may be time for a treatment.

Sapphire Spas recommend treatment after 6 months of usage, and then periodically every 12 months.

### Duratek cabinets

Duratek cabinets must be washed down with a soap and water solution every 6-12 months.



## Maintenance water quality

Your Sapphire Spa is supplied with a vinyl, key lockable hardcover. All hardcovers contain unique heat sealed foam to prevent moisture retention which can result in added weight and sagging. Our spa covers are top stitched to add strength and durability and use unique, fully key lockable ABS locks.

Maintaining your hardcover should be part of your regular maintenance routine. Dirt acts as an abrasive to the vinyl and can cause wear to the folds, seams and stitching.

Keeping your cover clean is quiet simple but you must follow a routine for cleaning and treatment with a vinyl protector. Your local Sapphire Spa dealer will be able to assist you with an ideal vinyl protectant.

### For long lasting results we suggest:

- Rinse the cover with cool water using a garden hose.
- Spray with your preferred protectant and wipe clean.
- For stubborn dirt we suggest a small sponge, similar to one you would use on your car.
- Rinse again thoroughly with water.
- Do not allow children or pets to walk or jump on the hardcover.
- Do not lift or pull your cover by its straps, flaps, skirts or heat seals.
- Never use laundry/dish washing detergents, abrasives, alcohol based products or harsh household cleaners. These can actually remove some of the top coat and cause premature vinyl failure.
- Rotate foam inserts if you notice any sagging or water pooling.

Your Sapphire Spa headrests are designed for bather comfort and require very little maintenance.

It is recommended that you remove your headrests to clean behind them when you drain your spa. The headrests are secured by two small lugs at the back and can easily be pulled off with your hands.

Thoroughly clean the head rests with a damp cloth or sponge. The headrests are covered by a warranty of two years exclusive only to Sapphire Spas.

With care and good chemical balance your head rests will last many years.



## Maintenance water quality

It is important that you make specific times to give your spa the 'once over', probably every 3 to 4 months.

### The following is a guideline that you may like to follow:

- Disconnect the power source.
- Drain the water from your spa.
- Remove any dirt or sand and inspect the acrylic surface.
- Remove filters and clean as suggested.
- Treat and stain cabinet (if required).
- Clean your hardcover as suggested.
- Remove your headrests and clean.
- Refit all spa products and refill spa.



## Draining your **spa pool**

Depending on bather usage and the type of sanitising system used, your Sapphire Spa needs to be drained regularly every two to four months.

This is necessary because the amount of total dissolved solids becomes excessive, making it difficult to maintain balance of the water and sanitiser effectiveness is hampered.

You only need to drain off approximately 1/3 of your water to refresh your system and maintain good, clean water again. It is advisable to completely drain your spa pool every 6 months or sooner if necessary.



### Pull cap out

Locate the drain valve towards the base of your spa cabinet and pull cap out from the housing approximately 2" until it snaps into place.

### Remove cap

Remove the cap by unthreading counter-clockwise to reveal the threaded connection.

### Fit hose adaptor

Fit the hose adaptor supplied to the threaded connection of the spa drain and snap your garden hose to this.

### Extend thread connection

Pull to extend the threaded connector and allow reasonable flow through the valve to empty the spa. The spa water will drain out through gravity feed only, so this may take several hours. Ensure you run the water to an approved discharge area. It is advisable if you wish to discharge water on the garden or grass, that you do not treat the spa for several days beforehand so chemical build-up will not harm the area. Once the spa is emptied, push the threaded sections back together to seal the drain valve. After a total drain use a towel or sponge to remove any excess water that may remain.

## Draining your **swim spa**



### Remove cabinet door at main touchpad

Remove screws with allen key supplied, then remove cabinet door.

### Locate drain hose

You will find the drain hose within the cabinet to the right (as shown above).

### Turn release valve to open position to allow water to flow from spa

### Connection to garden hose

If the hose supplied is not long enough to reach your discharge point, you can purchase these white pvc fittings to attach the black garden hose attachment supplied.



# Energy expense

## how to minimise

To ensure you are getting the most out of your spa without breaking your budget Sapphire Spas have equipped your SpaPool/SwimSpa with the highest grade technology on the market today. Your componentry will run your SpaPool/SwimSpa at the cheapest rates possible.

Control systems will vary between different spas so make sure you educate yourself on the control system your spa has fitted via our youtube videos and your enclosed manual.

**Sapphire Spas recommend taking the following precautions to make sure you aren't wasting your heat:**

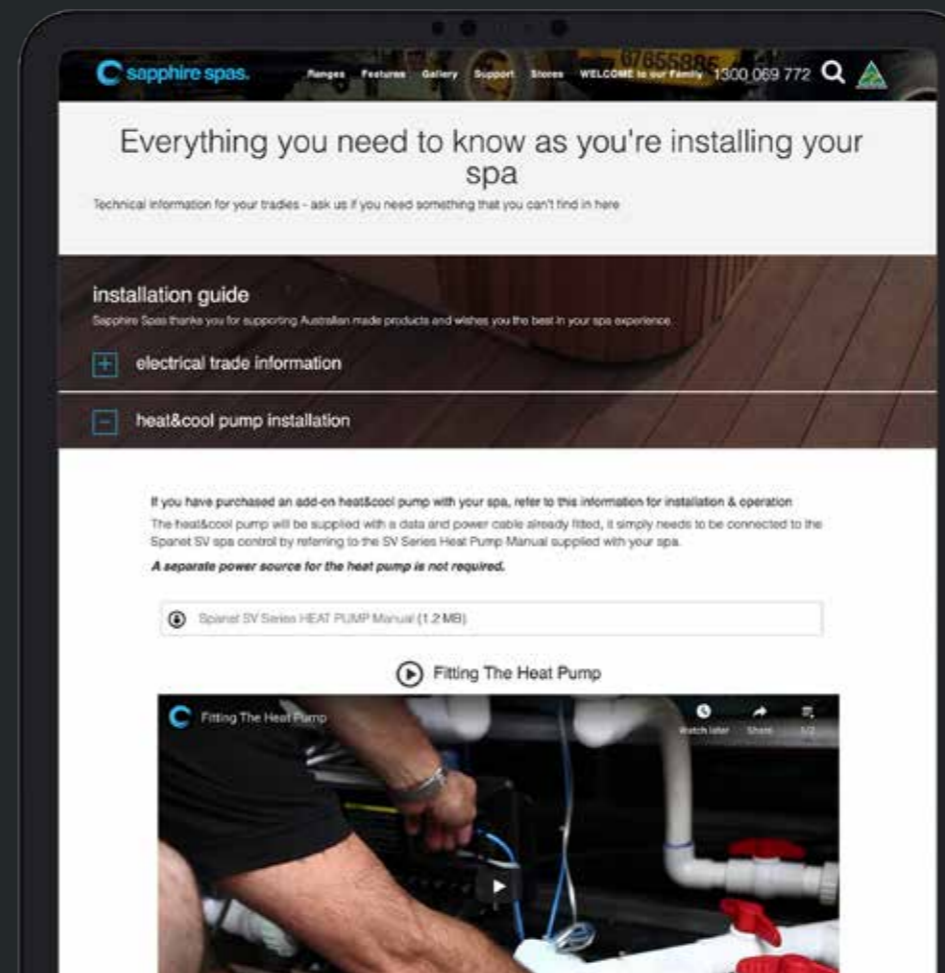
- Keep your hardcover on whenever the spa isn't in use. Not only is this a safety precaution but it is designed to lock in the heat and make sure your spa isn't running over its regular heating schedule.
- Keep your chemicals balanced. Unbalanced water can cause a build-up of grime and scale inside your heater element causing it to malfunction.
- Keep your filters clean. Clogged or dirty filters will reduce the circulation of your spa water, causing undue strain on the pump motor and heater element hampering their ability to heat effectively.
- Protect your spa from extreme cold conditions that may reduce the water temperature causing unnecessary expense.



# heat&cool pump

## installation

If you've purchased a heat & cool pump with your spa, please take the time to look through 'WELCOME to our Family/install your spa' tab on our website:



# Information for your safety

To avoid accidents and possible drowning, extreme caution must be exercised to prevent the unsupervised access to the spa by my children.

- To reduce the risk of injury, children must always be supervised when using the spa.
- Lower water temperatures are recommended for young children as they are especially sensitive to hot water.
- Test the water temperature with your hand or a thermometer before allowing your child to enter the spa to ensure it will be comfortable.
- For childrens' safety, make sure you always lock the cover after using the spa and ensure lockable gates and enclosures are secure.
- Do not allow children to climb on the spa cover; this may void your warranty.
- Remind children that wet surfaces can be slippery & to always be careful when entering and exiting the spa.
- DO NOT place any electrical appliances, extension leads, lights etc within 5 metres of the spa.
- Do not remove any fittings from the spa without consulting the dealer from which the spa was purchased and/or Sapphire Spas. Incorrect removal of any joints or fittings could result in an injury.
- The water temperature of the spa should never exceed 40 degrees.
- Pregnant women, obese persons, people with a history of heart disease, irregular blood pressure diabetes or circulatory system problems should exercise caution & consult their doctor before using a spa.
- The use of drugs, alcohol and medication before or during use of the spa may lead to unconsciousness and possible drowning.
- Ensure you have a satisfactory break after strenuous exercise before using the spa.
- People with infections, sores or skin abrasions should not use the spa.
- Observe a reasonable time limit when using the spa.
- Always enter/exit slowly.
- Maintain areas around the spa and ensure good drainage to avoid slippery conditions and possible injury.
- It is crucial that you maintain water chemistry even when you are not using the spa.
- We do not recommend using the spa alone.
- The hardcover must be secured when spa is not in use.
- Do not allow diving or jumping into the spa.
- It is recommended to display a Resuscitation Chart in close proximity to your spa.

**IT IS YOUR RESPONSIBILITY TO ENSURE YOUR CHILDREN AND OTHERS ARE SAFE IN YOUR SPA AND THAT YOUR SPA IS INSTALLED UNDER YOUR AREA'S COUNCIL REGULATIONS.**

*As per regulations and Australian Standards Numbers AS1926.3 – 2010 Swimming Pool Safety Part 3: Water recirculation systems, and AS 2610.2 – 2007 (Incorporating Amendment No.1) Part 2: Private Spas, Sapphire Spas complies with all relevant Authorities in the Manufacturing of Spa Pools in Australia. All Standards are approved and agreed with SPASA of which we are financial members. Sapphire Spas has a duty of care to maintain both Quality of Product and compliance to Australian Standards, which is our commitment as a responsible Australian Manufacturing Company.*

## IMPORTANT NOTICE

### BEWARE DIRECT SUNLIGHT & UV EXPOSURE

Exposure of the acrylic shell of your spa to direct sunlight & UV may cause excessive temperatures to build up beneath the surface and damage the spa. Installation of spa in direct sunlight & UV may put the acrylic surface under stress and will void the warranty. Keep the spa covered at all times when not in use to prevent the possibility of damage and voiding of warranty.

### BEWARE INCORRECT CHEMICAL USE

The misuse of chemicals on any Sapphire spa will void warranty. Please ensure your chemicals are being tested correctly as per your area's water chemistry. Your local Pool & Spa specialist will be able to assist you in a spa chemical balance plan. Sapphire Spas do not deal directly in chemicals. If you notice your jet faces becoming lighter in colour, jet backings becoming chalky or your headrests beginning to fade, please contact the dealer from which the spa was purchased.

# Troubleshooting & error codes

Should you experience any problem whatsoever, do not hesitate to contact your authorised Sapphire Spas store.

## Common sources of trouble

Here are some tips to help diagnose and rectify some more common sources of trouble, if you choose to have a go yourself first.

SV spa controllers feature self-diagnostics and scrolling error messages to quickly troubleshoot possible problems. Should the spa control encounter a problem the error code / message will scroll across the topside panel screen until the problem is resolved. If an error condition is experienced all spa functions are shut down and the spa should not be used until the error condition has been fixed. A list of error codes with descriptions of problems and possible solutions is detailed below for your reference.

Sapphire Spas have excellent warranties and only use quality equipment, but it is important to understand that much like tyres on a car, some items do wear. These items include pumps & mechanical seals.

**IMPORTANT NOTE: for most error codes mains power to the spa control must be turned OFF and then back ON before the error condition will be cleared.**

## Heartbeat LED

All SV model spa packs feature a red flashing heartbeat LED light. The heartbeat LED is located on the front right hand side of the spa pack itself (installed underneath spa skirt). The heartbeat LED flashes to indicate the current health/ status of the spa pack. When the spa pack is functioning correctly with no errors to report the heartbeat LED emits a single flash in a constant pulse much like a heartbeat (ON, OFF, ON, OFF). If the spa pack encounters a fault the heartbeat LED will begin flashing in sequence with the error code number being experienced (i.e. ER2 = ON ON; OFF ON,ON OFF). If the keypad display is ever blank, a spa user can still determine the health status of the SV controller by removing a door and checking the heartbeat LED on the front of the spa controller itself.

## Service reminder messages

Maintenance reminders such as "SERVICE FILTERS" can be programmed to scroll across the screen every 60 seconds after a certain time period has elapsed. If your keypad display begins scrolling a service reminder every 60 seconds this message can be cancelled/reset by pressing the OK button whilst the service message is scrolling.

## Service filters

A default service reminder scheduled to occur every 2 or 4 weeks. This reminder is to prompt the spa owner to thoroughly clean and service their spa filters. The filters will either require cleaning, soaking in a filter cartridge degreaser solution or replacing. Refer to spa reseller for details on recommended cleaning methods.

How to cancel "Service Filters" scrolling message, then press OK.

**The most common error codes are ER-3 and ER-4. For any other error codes please check the website.**

TROUBLESHOOTING AND ERROR CODES

Error code	Problem	Cause	Solutions
ER-3 water prime	Water prime failed – air detected in heater tube.	Airlock in pipe work, low water level, dirty filter cartridges.	<ul style="list-style-type: none"> <li>– Press Pump A button to retry water prime.</li> <li>– Check spa water level (refill if necessary).</li> <li>– Remove filter cartridges and press Pump A button to retry prime.</li> <li>– Bleed airlock from pipe work by slightly loosening couplings on front of filtration pump.</li> <li>– Remove filter cartridges and flush water down pipe work with a hose.</li> </ul>
ER-4 thermal trip	Heater thermal trip activated. Heater has been active and has had insufficient water flow over the element. Low or no water flow has caused the heater temperature to exceed its maximum limits and the spa control has shut down operation to prevent any damage to the heater unit.	Low water level, airlock in pipe work, closed shut-off valves, dirty filter cartridges, filtration pump failed or operation intermittent.	<ul style="list-style-type: none"> <li>– Turn mains power OFF and wait 10-15 minutes for element to cool and thermal cut-out device to reset. Then turn power back ON.</li> <li>– Check spa water level (refill if necessary).</li> <li>– Remove filters and clean as per manufacturer's recommendations or replace cartridges if required.</li> <li>– Check under spa cabinet to ensure all shut-off valves are in the OPEN position.</li> <li>– Bleed airlock from pipe work by slightly loosening couplings on front of filtration pump, releasing plastic bleed screw, or by removing filters and flushing water down pipe work with a hose.</li> </ul>

SPA WATER MAINTENANCE TROUBLESHOOTING

Problem	Probable causes	Solutions
Cloudy water	<ul style="list-style-type: none"> <li>– Dirty filters.</li> <li>– Excessive oils / organic matter.</li> <li>– Improper sanitization.</li> <li>– Suspended particles / organic matter.</li> <li>– Overused or old water.</li> </ul>	<ul style="list-style-type: none"> <li>– Clean filters.</li> <li>– Shock spa with sanitizer.</li> <li>– Add sanitizer.</li> <li>– Adjust pH &amp;/or alkalinity range.</li> <li>– Run jet pump(s).</li> <li>– Drain and refill the spa.</li> </ul>
Water odour	<ul style="list-style-type: none"> <li>– Excessive organics in water.</li> <li>– Improper sanitization.</li> <li>– Low pH.</li> </ul>	<ul style="list-style-type: none"> <li>– Shock spa with sanitizer.</li> <li>– Add sanitizer.</li> <li>– Adjust pH to rec range.</li> </ul>

SPA WATER MAINTENANCE TROUBLESHOOTING

Problem	Probable causes	Solutions
Cloudy water	<ul style="list-style-type: none"> <li>– Dirty filters.</li> <li>– Excessive oils / organic matter.</li> <li>– Improper sanitization.</li> <li>– Suspended particles / organic matter.</li> <li>– Overused or old water.</li> </ul>	<ul style="list-style-type: none"> <li>– Clean filters.</li> <li>– Shock spa with sanitizer.</li> <li>– Add sanitizer.</li> <li>– Adjust pH &amp;/or alkalinity range.</li> <li>– Run jet pump(s).</li> <li>– Drain and refill the spa.</li> </ul>
Water odour	<ul style="list-style-type: none"> <li>– Excessive organics in water.</li> <li>– Improper sanitization.</li> <li>– Low pH.</li> </ul>	<ul style="list-style-type: none"> <li>– Shock spa with sanitizer.</li> <li>– Add sanitizer.</li> <li>– Adjust pH to rec range.</li> </ul>
Chlorine odour	<ul style="list-style-type: none"> <li>– Chlorine levels too high.</li> <li>– Low pH.</li> </ul>	<ul style="list-style-type: none"> <li>– Shock spa with sanitizer.</li> <li>– Adjust pH to recommended range.</li> </ul>
Musty odour	<ul style="list-style-type: none"> <li>– Bacteria or algae growth.</li> </ul>	<ul style="list-style-type: none"> <li>– Shock spa with sanitizer (if problem is visible or persistent, drain, clean and refill the spa).</li> </ul>
Organic buildup or ring around spa	<ul style="list-style-type: none"> <li>– Build-up of oils and dirt.</li> </ul>	<ul style="list-style-type: none"> <li>– Wipe off scum with clean rag (if scum ring around spa severe, drain the spa, use a spa surface and tile cleaner to remove the scum, and refill the spa).</li> </ul>
Algae growth	<ul style="list-style-type: none"> <li>– High pH.</li> <li>– Low sanitizer level.</li> </ul>	<ul style="list-style-type: none"> <li>– Shock spa with sanitizer &amp; adjust pH.</li> <li>– Shock spa with sanitizer.</li> <li>– Maintain sanitizer level.</li> </ul>
Eye irritation	<ul style="list-style-type: none"> <li>– Low pH.</li> <li>– Low sanitizer level.</li> </ul>	<ul style="list-style-type: none"> <li>– Adjust pH.</li> <li>– Shock spa with sanitizer.</li> <li>– Maintain sanitizer level.</li> </ul>
Skin irritation / rash	<ul style="list-style-type: none"> <li>– Unsanitary water.</li> <li>– Free chlorine level above 5ppm.</li> </ul>	<ul style="list-style-type: none"> <li>– Shock spa with sanitizer.</li> <li>– Maintain sanitizer level.</li> <li>– Allow free chlorine level to drop below 5ppm before spa use.</li> </ul>
Stains	<ul style="list-style-type: none"> <li>– Total alkalinity and pH too low.</li> <li>– High iron or copper in water source.</li> </ul>	<ul style="list-style-type: none"> <li>– Adjust total alkalinity and/or pH.</li> <li>– Use a metal deposit inhibitor</li> </ul>
Scale	<ul style="list-style-type: none"> <li>– High calcium content in water.</li> <li>– Total alkalinity and pH too high.</li> </ul>	<ul style="list-style-type: none"> <li>– Adjust total alkalinity and pH.</li> <li>– If scale requires removal, drain the spa, scrub off the scale, refill the spa and balance the water.</li> </ul>

It is always advisable to consult your local dealer and provide them with a water sample for testing.



we hope this owners manual has helped you get to know your new spa

For more information visit **'Welcome to our Family' TAB ON OUR WEBSITE** for tips & tricks on spa usage & maintenance. if you have any queries about anything stated in this manual, please contact your local store.

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