



South Seas Spas™



RELAX & SPABAD

En ny nivå av välbefinnande

OWNER'S MANUAL

3. Insert the hose in the area where the filter was located as shown in the picture below.



Figure 8. Filling Location in Filter Housing

4. Fill the spa to the bottom of the pillows to cover jets. **DO NOT overfill the spa.** The water level will rise when occupants are inside.
5. With the front panel off, verify there are no leaks at the pump unions. **Pump unions can become loose during shipping. Verify that there are no leaks during filling of the spa.**
6. Replace both filters.

Powering the Spa On

Turn the power to the spa on at the main circuit breaker. Verify that the spa has no warnings or error messages on the panel display. To verify the circulation system is in good working order, perform the following steps:

1. Open all jets to maximum flow position.
2. Press the Jet 1, 2 and 3 buttons to turn the individual pumps on or off.
3. Observe and verify good water flow exists in the jets of each seat.

Upon initial start, one pump will initially come on for 5 minutes and then cycle through each pump sequentially for a one minute duration.

Testing the GFCI for a 60 Hz System

The electrical service panel for the spa must be equipped with a GFCI. To avoid the risk of electrical shock, perform the following safety test before each use of the spa:

1. Check that the power is turned on at the electrical service panel.
2. Turn on the GFCI. If the GFCI stays on, it is functioning properly.

The spa system will automatically trip the GFCI 24 hours after power up. This is a safety feature and cannot be disabled.

DANGER RISK OF ELECTRICAL SHOCK

If the GFCI fails to operate as described, there is a possibility of electric shock if the spa is used. Shut off the power at the main electrical service panel until the source of the problem has been identified and corrected by a licensed electrician or qualified spa technician.

Priming Pumps

1. Turn off power at electrical service panel.
2. Locate and loosen the pump union by turning it counterclockwise one half of one turn.
3. Allow air to escape from the fitting. When a steady stream of water flows from the pump union, close it by turning it clockwise until tight.
4. Turn on power at electrical service panel.
5. Perform one additional check to ensure water is flowing from the jets during the auto purge cycle. If so, continue to Water Preparation. If no water flow is coming from the spa jets, please call your Tropic Seas Spas™ dealer for further assistance.

Water Preparation

Proper understanding of the treatment of fresh water prior to use is an important part of maintenance and is one of the key aspects enabling worry free usage. Failure to properly prepare the water can result in substantially decreased life of the components and may void the warranty in severe cases. Please consult your local Tropic Seas Spas™ dealer in regards to appropriate start-up and maintenance kits available when purchasing the spa.

TOPSIDE CONTROLLER INSTRUCTIONS



Figure 10. Tropic Seas Spas™ Two Pump Topside Controller Face



Figure 11. Tropic Seas Spas™ Three Pump Topside Controller Face

Menus

Navigating the entire menu structure is done with 2 or 3 buttons on the control panel. The Up Arrow (Warm) or Down Arrow (Cool) buttons are:



These buttons allow changing the Set temperature while the numbers are flashing in the LCD.



The LIGHT Button is used to choose the various menus and navigate each section.

Pressing the LIGHT button while the numbers are flashing will enter the menus.

The menus can be exited with certain button presses. Simply waiting for several seconds will return the panel operation to normal.

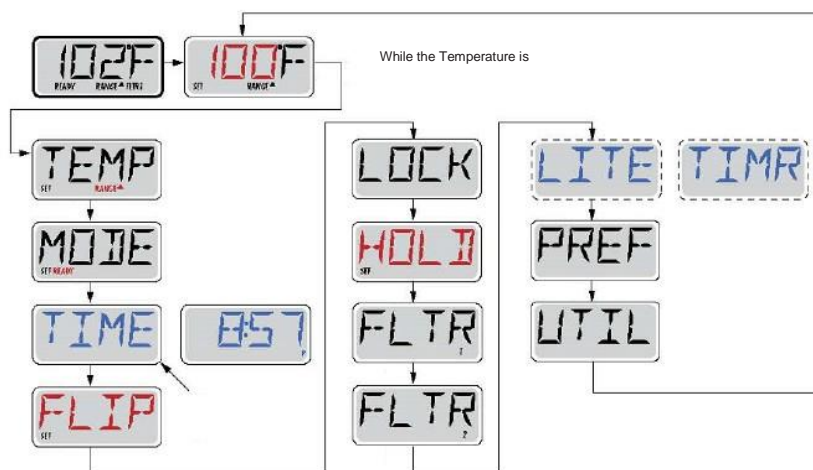


Figure 12. Menu Layout

Spa Operation


When the spa is first actuated, it will go into Priming mode which is indicated by “Pr”. This Priming mode will last for 5 minutes and then the spa will begin to heat and maintain the water temperature in the Standard Mode.


After turning the power on at the main power panel, the top-side panel display will go through specific sequences. These sequences are normal and display a variety of information regarding the configuration of the hot tub control.

Priming Mode – M019*



This mode will last for 4-5 minutes or you can manually exit the priming mode after the pump(s) have primed.

Regardless of whether the priming mode ends automatically or you manually exit the priming mode, the system will automatically return to normal heating and filtering at the end of the priming mode. During the priming mode, the heater is disabled to allow the priming process to be completed without the possibility of energizing the heater under low-flow or no-flow conditions. Nothing comes on automatically, but the pump(s) can be energized by pushing the “Jets”  button.

If the spa has a Circ Pump, it can be activated by pressing the “Light” button during Priming Mode. 

Priming the Pumps

As soon as the above display appears on the panel, push the “Jet” button once to start Pump 1 in low-speed and then again to switch to high-speed. Also, push the Pump 2 or “Aux” button, if you have a 2nd pump, to turn it on. The pumps will now be running in high speed to facilitate priming. If the pumps have not primed after 2 minutes, and water is not flowing from the jets in the spa, do not allow the pumps to continue to run. Turn off the pumps and repeat the process.

NOTE: Turning the power off and back on again will initiate a new pump priming session. Sometimes momentarily turning the pump off and on will help it to prime. Do not do this more than 5 times. If the pump(s) will not prime, shut off the power to the spa and call for service.

Important: A pump should not be allowed to run without priming for more than 2 minutes. Under NO circumstances should a pump be allowed to run without priming beyond the end of the 4-5 minute priming mode. Doing so may cause damage to the pump and cause the system to energize the heater and go into an overheat condition.

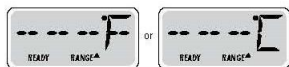
Exiting Priming Mode

You can manually exit Priming Mode by pressing the Up Arrow (Warm) or Down Arrow (Cool) buttons.




Note that if you do not manually exit the priming mode as described above, the priming mode will be automatically terminated after 4-5 minutes.

Be sure that the pump(s) have been primed by this time. Once the system has exited Priming Mode, the top-side panel will momentarily display the set temperature but the display will not show the temperature yet, as shown below. This is because the system requires approximately 1 minute of water flow.



Pumps

To ensure proper functionality and component longevity, individual jet pumps must not be cycled on and off more than one time every minute.

Press the “Jets” button  once to turn pump 1 on or off, and to shift between low and high speeds if equipped.

If left running, the pump will turn off after a timeout period. The pump 1 low-speed will time out after 30 minutes. The high-speed will time out after 15 minutes.

Circulation Pump Mode

If the system is equipped with a circulation pump, it will be configured to work in one of three different ways:

1. The circulation pump operates continuously (24 hours) with the exception of turning off for 30 minutes at a time when the water temperature reaches 3°F (1.5°C) above the set temperature (most likely to happen in very hot climates).
2. The circulation pump stays on continuously, regardless of water temperature.
3. A programmable circulation pump will come on when the system is checking temperature (polling), during filter cycles, during freeze conditions, or when another pump is on.

The specific Circulation Mode that is used has been determined by the Manufacturer and cannot be changed in the field.

Filtration and Ozone

On circulation systems, the ozone will run with the circulation pump. The system is factory-programmed with one filter cycle that will run in the evening (assuming the time-of-day is properly set) when energy rates are often lower.

The filter time and duration are programmable. A second filter cycle can be enabled as needed. At the start of each filter cycle, Pump 2 will run briefly to purge its plumbing to maintain good water quality.

Freeze Protection

In colder climates, an optional additional freeze sensor may be added to protect against freeze conditions that may not be sensed by the standard sensors. Auxiliary freeze sensor protection acts similarly except with the temperature thresholds determined by the switch. See your dealer for details.

Clean-Up Cycle (Optional)

When a pump is turned on by a button press, a clean-up cycle begins 30 minutes after the pump is turned off or times out. The pump and the ozone generator will run for 30 minutes or more, depending on the system. On some systems, you can change this setting.

Temperature Operation

Adjusting the Set Temperature

When using the panel for Temperature control, pressing Up Arrow (Warm) or Down Arrow (Cool) will cause the temperature to flash.



Pressing the Up Arrow (Warm)/ Down Arrow (Cool) buttons again will adjust the set temperature in the direction indicated on the button. When the LCD stops flashing, the spa will heat to the new set temperature when required.

If the panel has a single temperature button, pressing the button will cause the temperature to flash. Pressing the button again will cause the temperature to change in one direction (e.g. UP). After allowing the display to stop flashing, pressing the Warm/Cool Buttons will cause the temperature to flash and the next press will change the temperature in the opposite direction (e.g. DOWN).

Warm/Cool buttons will cause display to be flashing.

Press the Warm (Up) or Cool (Down) buttons repeat until desired temperature is reached.

Press the Light Button to set the temperature.



Modes of Operation

Ready Mode

Ready Mode will circulate water every 1/2 hour, using Pump 1 Low, in order to maintain a constant water temperature, heat as needed, and refresh the temperature display. This is known as “polling.”

Rest Mode

Rest Mode will only allow heating during programmed filter cycles. Since polling does not occur, the temperature display may not show a current temperature until the heater pump has been running for a minute or two.

Circulation Mode

If the spa is configured for 24HR circulation, the heater pump generally runs continuously. Since the heater pump is always running, the spa will maintain set temperature and heat as needed in Ready Mode, without polling.

In Rest Mode, the spa will only heat to set temperature during programmed filter times, even though the water is being filtered constantly when in Circulation Mode.

Press Up Arrow (Warm) and Down Arrow (Cool) buttons until display is flashing.



Press Light Button until Mode appears.



Press Up Arrow (Warm) or Down Arrow (Cool) Buttons to toggle between Ready and Rest.

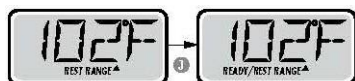


Press the Light Button to set.



Ready-In-Rest Mode


Ready/Rest appears in the display, if the spa is in Rest Mode and Jets button is pressed. It is assumed that the spa is being used and will heat to set temperature. While Pump 1 High can be turned on and off, Pump 1 Low will run until set temperature is reached, or 1



hour has passed. After 1 hour, the System will revert to Rest Mode. This mode can also be reset by entering the Mode Menu and changing the Mode.

Show and Set Time of Day

When the time of day is highlighted.

Setting the time-of-day can be important for determining filtration times and other background features. When in the TIME menu,  SET TIME will flash on the display if no time-of-day is set in the memory. 24-hour time display can be set under the PREF menu.

Press Up Arrow (Warm) or Down Arrow (Cool) buttons until display is flashing.



Press Light button until Time appears.



Press Up Arrow (Warm) or Down Arrow (Cool) to toggle time settings hours.



Press Light button to set the hours.



Press Up Arrow (Warm) or Down Arrow (Cool) to toggle time settings hours.



Press Light button to set the minutes.



NOTE: If power is interrupted to the system, Time-of-Day is not stored. The system will still operate and all other user settings will be stored. If filter cycles are required to run at a particular time of day, resetting the clock will return the filter times to the actual programmed periods.

When the system starts up, it defaults to 12:00 Noon, so another way to get filter times back to normal is to start up the spa at noon on any given day. SET TIME will still flash in the TIME Menu until the time is actually set, but since the spa started at noon, the filter cycles will run as programmed.

Flip (Invert Display)

Press Up Arrow (Warm) or Down Arrow (Cool) buttons until display is flashing.



Press Light button until Flip appears.



Press Up Arrow (Warm) or Down Arrow (Cool) to toggle time settings hours.



Press Light button to set the minutes.



Restricting Operation and Unlocking

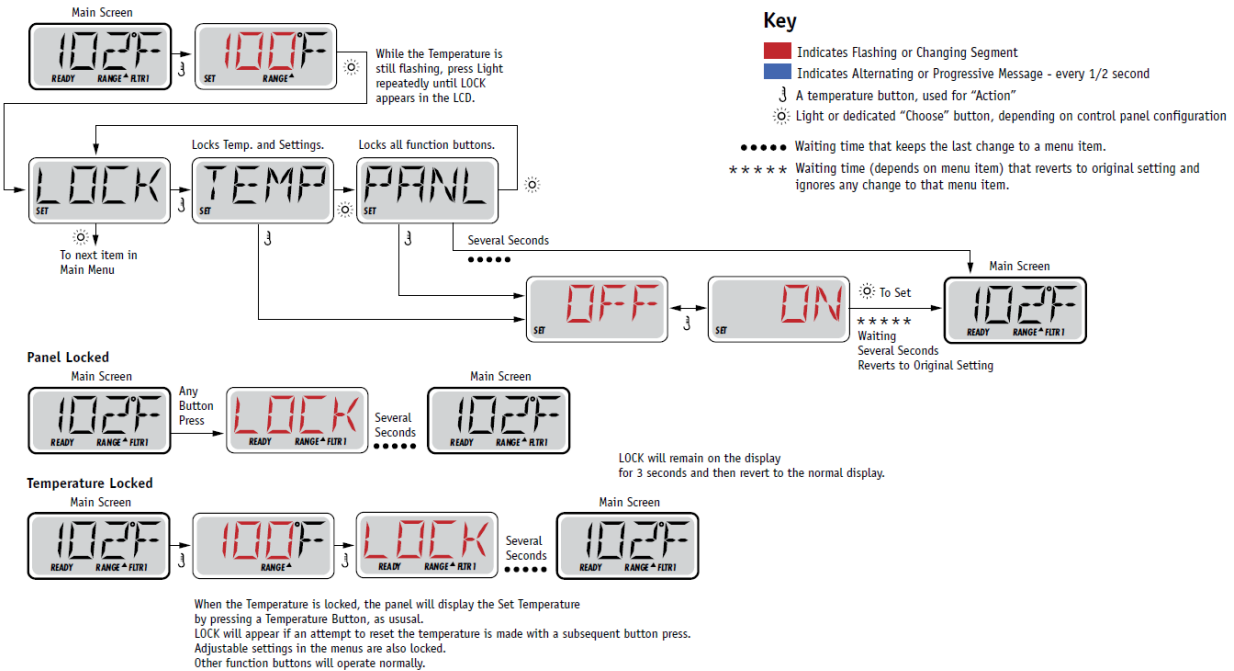
The control can be restricted to prevent unwanted use or temperature adjustments.

Locking the panel prevents the controller from being used, but all automatic functions are still active.

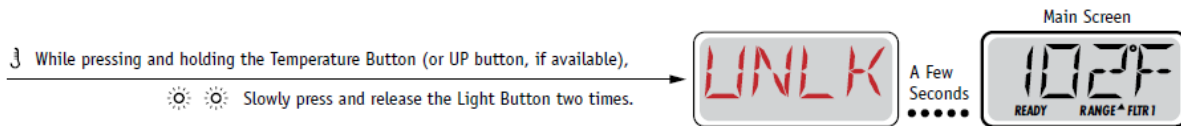
Locking the Temperature allows Jets and other features to be used, but the Set Temperature and other programmed settings cannot be adjusted.

Temperature Lock allows access to a reduced selection of menu items.

These include Set Temperature, FLIP, LOCK, UTIL, INFO and FALT LOG.



This Unlock sequence may be used from any screen that may be displayed on a restricted panel.



NOTE: The ONLY button that will work in the Unlock Sequence is the UP button.

Setting the Filter Cycle

Filter cycles are set using a start time and a duration. Start time is indicated by an "A" or "P" in the bottom right corner of the display. Duration has no "A" or "P" indication. Each setting can be adjusted in 15 minute increments. The panel calculates the end time and displays it automatically.

Press Up Arrow (Warm) or Down Arrow (Cool) buttons until display is flashing.



Press Light button until FLTR appears.



Press Up Arrow (Warm) or Down Arrow (Cool) until BEGN appears.



Press Up Arrow (Warm) or Down Arrow (Cool) until 8:00 appears.



Press Up Arrow (Warm) or Down Arrow (Cool) to toggle HRS in 1 hour increments.



Press Light button to switch to minutes.



Press Up Arrow (Warm) or Down Arrow (Cool) to toggle minutes in 15 minute increments.



Press Light button to set the minutes.



Run HRS appears on display.



Press Up Arrow (Warm) or Down Arrow (Cool) to toggle minutes in 1 hour increments.



Press Light button to set hours.



Press Up Arrow (Warm) or Down Arrow (Cool) to toggle minutes in 15 minute increments.



Press Up Arrow (Warm) or Down Arrow (Cool) to set.



General Messages

Priming Mode – M019



Each time the spa is powered up, it will enter Priming Mode. The purpose of Priming Mode is to allow the user to run each pump and manually verify that the pumps are primed (air is purged) and water is flowing. This typically requires observing the output of each pump separately, and is generally not possible in normal operation. Priming Mode lasts 4 minutes, but you can exit it earlier by pressing any Temp button. The heater is not allowed to run during Priming Mode.

NOTE: If the spa has a circulation pump, it will turn on with Jets in Priming Mode. The circulation pump will run by itself when Priming Mode is exited.

Water Temperature is Unknown



After the pump has been running for 1 minute the water temperature will be displayed.

Possible Freezing Condition



A potential freeze condition has been detected, or the Aux Freeze Switch has closed, and all pumps are activated. All pumps are ON for at least 4 minutes after the potential freeze condition has ended, or when the aux freeze switch opens.

In some cases, pumps may turn on and off and the heater may operate during Freeze Protection. This is an operational message, not an error indication.

The Water is Too Hot – M029



The system has detected a spa water temperature of 110°F (43.3°C) or more, and spa functions are disabled. System will auto reset when the spa water temperature is below 108°F (42.2°C). Check for extended pump operation or high ambient temperature. During the warmer months, changing the filter cycle is recommended to prevent the spa from overheating with the high ambient temperature.

Safety Trip – Pump Suction Blockage – M033



The Safety Trip error message indicates that the vacuum switch has closed. This occurs when there has been a suction problem or a possible entrapment situation avoided. (NOTE: Not all spas have this feature.)

The Water Flow is Low – M016



There may not be enough water flow through the heater to carry the heat away from the heating elements. Heater startup will begin again after about 1 minute.

Flow-Related Checks

Check for low water level, suction flow restriction (filters), closed valves or trapped air.

The Water Flow has Failed – M017



There is not enough water flow through the heater to carry the heat away from the heating element and the heater has been disabled. After the flow problem has been resolved press any button to reset and begin the heater start up.

Flow-Related Checks

Check for low water level, suction flow restriction (filters), closed valves, or trapped air.

The Heater May be Dry – M028



Possible dry heater or not enough water in the heater to start it. The spa is shut down for 15 minutes. Press any button to reset the heater startup.

Flow-Related Checks

Check for low water level, suction flow restriction (filters), closed valves, or trapped air.

The Heater is Dry – M027



There is not enough water in the heater to start and the spa is shut down. After the problem has been resolved, press any button to reset and restart the heater.

Flow-Related Checks

Check for low water level, suction flow restriction (filters), closed valves, or trapped air.

The Heater is Too Hot – M030



One of the water temperature has detected 118°F (47.8°C) in the heater and the spa is shut down. Press any button to reset when water is below 108°F (42.2°C).

Flow-Related Checks

Check for low water level, suction flow restriction (filters,) closed valves, or trapped air.

A Reset Message May Appear with Other Messages



Some errors may require power to be removed and restored.

Flow-Related Checks

Check for low water level, suction flow restriction (filters,) closed valves, or trapped air.

On some systems even when spa is shut down, some equipment may occasionally turn on to continue monitoring temperature or if freeze protection is needed.

Sensor Related Messages

Sensors Are Out of Sync – M015



The temperature sensors may be out of sync. Call your dealer for service.

Sensors Are Out of Sync – Call for Service – M026



The temperature sensors ARE out of sync. The Sensor Balance is Poor fault has been established for at least 1 hour. Call for Service.



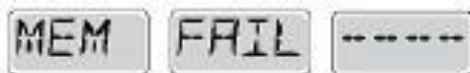
The temperature sensors are out of sync. Call your dealer for service.

Sensor A Fault, Sensor B Fault – Sensor A: M031, Sensor B: M032

The temperature sensors or sensor circuit has failed. Call your dealer for service.

System Related Messages

Program Memory Failure – M022



Call your dealer for service.

The Settings Have Been Reset– M021



Call your dealer for service if this message appears on more than one power-up.

The Clock has Failed –M020



Call your dealer for service.

Configuration error (Spa Will not Start)



Call your dealer for service.

The GFCI test failed (System Could Not Test the GFCI) – M036 (North America Only)



May indicate an unsafe installation. Call your dealer for service.

A Pump May be Stuck On – M034



Water may be overheated.

POWER DOWN THE SPA! DO NOT ENTER THE WATER!

Call your dealer for service.

Hot Fault – M035



A pump appears to have been stuck on when the spa was last powered on. Water may be overheated.

POWER DOWN THE SPA! DO NOT ENTER THE WATER!

Call your dealer for service.

Miscellaneous Messages

Communications Error



The control panel is not receiving communication from the system. Call your dealer for service.

Test Software Installed



The Control System is operating with test software. Call your dealer for service.

°F or °C is replaced by °T



The Control System is in Test Mode. Call your dealer for service.

Reminder Messages

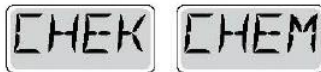
Not all messages may display.

Check the pH



May appear on a regular schedule, i.e. every 7 days. Check pH with a test kit and adjust pH with the appropriate chemicals.

Check the Sanitizer



May appear on a regular schedule, i.e. every 7 days. Check sanitizer level and other water chemistry with a test kit and adjust with the appropriate chemicals.

Clean the Filter



May appear on a regular schedule, i.e. every 30 days. Clean the filter media as instructed by the manufacturer.

Test the GFCI (or RCD)



May appear on a regular schedule, i.e. every 30 days. The GFCI or RCD is an important safety device and must be tested on a regular basis to verify its reliability. Every user should be trained to safely test the GFCI or RCD associated with the hot tub installation.

Change the Water



May appear on a regular schedule, i.e. every 90 days. Change the water in the spa on regular basis to maintain proper chemical balance and sanitary conditions.

Clean the Cover



May appear on a regular schedule, i.e. every 180 days. Vinyl covers should be cleaned and conditioned for maximum life.

Change the Filter



May appear on a regular schedule, i.e. every 365 days. Filters should be replaced occasionally to maintain proper spa function and sanitary condition.

MAINTAINING THE SPA

Draining the Spa

The spa needs to be drained, cleaned, waxed, and refilled about every six months. More frequent water changes may be necessary if bather load is heavy. A hose bib has been provided to assist in draining the spa.



Figure 13. Hose Bib Opening Instructions

- 1) Turn off the power to the spa. Failing to turn the power off, could cause vital components to be damaged. Do not leave an empty spa exposed for long periods of time in hot, sunny weather.
- 2) Pull tab and then turn counter clockwise till cap is removed.
- 3) Connect the hose to hose bib.
- 4) Pull hose bib out to ensure opening of nozzle/drain plug.
- 5) Check the garden hose end to see if water is flowing. If water is not flowing, check the hose for kinks. Also check to see if the valve is in the full open position.

CAUTION: The chemical content and temperature of the water will cause damage to certain vegetation. Draining the spa onto plants or lawns is not recommended.

When choosing to do this, please remove the spa cover and allow spa to cool for a minimum of 24 hours with the spa turned off.

Pillow Care

Remove and clean the pillows with soapy water and a soft cloth when needed. Use a vinyl conditioner once a month. Remove pillows when doing chemical shock treatment.

Jet Care

Cleaning the jets when draining the spa is recommended.

- 1) Spray jet inserts with a mixture of 1 part vinegar to two parts warm water and let soak for 10 – 15 minutes. Periodically rotate the spinner nozzle to break up residue in the jets.



Rinse the jet inserts with a standard garden hose.



Removing, Installing and Cleaning Filters

These are the steps needed to properly replace the filters. Disposable spa filters should be replaced or non-disposable filters should be cleaned every four months.



- 1) Turn off all power to the spa and remove the filter lid by lifting it out towards you.
- 2) Turn the filter counterclockwise and remove it from the filter well.
- 3) Dispose of the used filter.
- 4) To replace, set screen back into its place and turn clockwise to fasten. DO NOT over-tighten.
- 5) Place the new filter into position and turn clockwise to fasten. DO NOT overtighten.
- 6) Use of a quality filter soak product is recommended. Please contact your dealer to purchase spa care products.

NOTE: Only use Tropic Seas Spas™ approved filters. Using a Non Tropic Seas Spas™ approved filter can cause issues with the circulation system and heater and can void warranty coverage. The filter can be upgraded to a 75 Sq. ft. filter. Please see your Tropic Seas Spas™ dealer.

WARNING: Power to the spa must be turned off prior to removing the filters. The suction at the filter is extremely strong and can cause injury if there is no filter. NEVER run the spa without the filters properly installed. Injury to person and damage to the equipment can occur. Any damage to equipment due to this circumstance will not be covered under warranty.

Storing or Winterizing the Spa

An emptied spa (without water) must not be exposed to direct sunlight as acrylic shell damage may occur to UV radiation. It is not recommended that the spa be drained completely during freezing conditions. Leaving the spa full of water with the power on is

recommended to keep the tub from freezing. If you decide to drain the spa during freezing conditions, contact your local authorized dealer for assistance.

Contact your Tropic Seas Spas™ dealer before refilling a drained spa in freezing temperatures.

WARNING: Damage to the spa caused by freezing is NOT covered under warranty. Please contact your local Tropic Seas Spas™ dealer to assist you in winterizing the spa.

Spa Cabinet Care

The spa comes standard with a Royalwood, or faux wood, cabinet. This cabinet requires no maintenance. You may wish to clean the cabinet with mild soap and water from time to time.

Gently wash the cabinet with mild soap and water and allow to dry completely.

Do not apply any solid type finish such as shellac or varnish. After weathering, these types of finishes will crack and/or turn yellow.

Cleaning the Spa Interior

It is important to clean the interior of the spa every time it is drained to help preserve the sheen of the spa's surface. However, it is important that you do not use any abrasive cleaners or strong chemicals. Your Tropic Seas Spas™ authorized dealer will be able to supply you with the proper cleaning solution the spa. After cleaning, make sure all residues are removed prior to filling the spa. This will help prevent sudsing and improper chemical balance.

Spa Cover Use, Installation and Care

The spa cover has tie down straps and locking hardware at each corner to securely fasten the cover to the spa cabinet. Proper cover lock installation instructions are included with the cover to ensure compliance with the ASTM F1346-91 safety standard for spa covers.

Never stand or sit on the cover while on or off of the spa and never drag it over abrasive surfaces. Lift cover only by the handles provided.

Dirt acts as an abrasive to the vinyl topcoat, and can also cause wear to folds, seams and stitching. Mildew growing on damp, dirty vinyl will begin to actually rot in the fabric, accelerating failure.

Follow this simple routine for cleaning, prior to application of vinyl.

- 1) Rinse with cool water using a garden hose.

- 2) Spray with a gentle, non-foaming cleaner and wipe clean. Never use laundry detergent, abrasives, alcohols, dish soaps or harsh cleaners. These can actually remove some of the topcoat and cause premature vinyl failure.
- 3) For stubborn dirt, use a non-abrasive sponge.
- 4) Rinse again thoroughly with water and allow to dry.
- 5) Repeat monthly, or as needed.

The vinyl cover is affected by the UV in sunlight. Periodic protection with a liquid protectant will extend the life of the spa cover. The wrong kind of protectant can be more harmful than no protectant at all. Keep any product away from the spa that is labeled “flammable,” that contains any type of oil, or that leaves a waxy coating on the cover.

Chemical Treatment of Water

Water from the tap is fine for showers, bathing and drinking. However, in a contained recirculating system such as in a spa, water must be treated with chemicals. The main purpose of chemical treatment is to keep the water sanitary and to maintain a specific pH balance of the water. Proper pH balance ensures that the water will not cause irritation to the users or harm the spa’s components. Chemical treatment does have its limitations. When water evaporates, chemical residues are left behind.

As the levels of the residues combine with other types of residue, such as body oil and detergents, the water becomes increasingly difficult to maintain. Because of this residual effect, at some point it becomes easier and more cost effective to drain, clean and refill the spa with new water. We recommend that the water be changed at least every six months. At this time you should also clean or replace the filters. If the spa has a frequent and/or heavy bather load, it may be necessary to drain and fill the spa more often. Refer to the section titled “Draining the Spa” for instructions on page 45. **WARNING: Spa damage due to improper chemicals use is not covered under warranty.**