ARUBA SPAS

OWNERS MANUAL

ARUBA SPAS
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INTRODUCTION

Dear Aruba Customer,

Thank you for purchasing an Aruba Spa. At Aruba Spas our philosophy is simple, build the best spa, back it with an excellent warranty and with comprehensive customer service. The 2003 Aruba Spa includes many features, which are designed to ensure that your spa is dependable and simple to operate. This manual will guide you through the set-up, installation and start-up of your new spa. It will explain how to operate and care for your spa. We believe reading this entire owner's manual is the simplest way to ensure the full enjoyment of your new Aruba Spa. It is most important that you read and follow the safety instructions included in this manual. You should become familiar with all of the safety guidelines listed in this manual and make sure you follow them while using your spa.

At Aruba what we know how to do best is build spas. We have learned that quality through simplicity is the best way to build a spa. We believe that knowing how your spa is built will make installing and operating it easier, so the first part of this manual explains how your spa is built. Please take the time to read this section of your owner's manual.

It is important that you keep this manual for reference purposes. We have tried to make sure this manual includes all the information you will need about your spa.

HAZARD
Denotes risk of personal injury.

WARNING
Denotes a circumstance that could cause personal injury or a circumstance where damage to the spa's surface, structure or equipment could occur.

IMPORTANT
Denotes extremely important information.

If you have any further questions or need additional information please call one of our customer service representatives at 1-800-609-2227. We are certain that you will find owning an Aruba Spa as relaxing as using it.

The highlighted terms are used throughout this manual to indicate facts that are particularly important for your safety, and for maintaining your spa in good working order.

HOW YOUR ARUBA SPA IS BUILT

At Aruba, building spas is our passion. We believe that quality through simplicity is the best way to build a spa. Over the years we have refined our spa construction process to achieve the best results. We are proud of the results that we have achieved using the methods described below and hope that knowing how your spa is made will make installing and operating it easier.

The building process starts with the shell of the spa. At Aruba Spas we use the thickest acrylic sheet available. Using a thicker acrylic sheet is important because the spa shell is formed by placing a heated acrylic sheet over a vacuum-former, which molds it into the shape of the spa. As the acrylic sheet is formed it stretches and thins. Using a thicker acrylic sheet ensures a stronger and more durable surface.

Fiberglass backing is then applied to provide structural support for the acrylic shell. A triple bond system is used to ensure a complete bond is formed between the acrylic spa shell and the fiberglass structural support. A unique type of resin is applied as a skin coat to the outside surface of the spa shell. This skin coat is then backed by an additional layer of fiberglass reinforced resin. The skin coat forms a chemical bond between the acrylic spa shell and the fiberglass structural support. This triple bond system ensures the long lasting integrity of both the spa shell and spa surface.

After fiberglassing, the holes for the jets are precision drilled through the spa shell. The rough surface of the fiberglass backing around the holes is then machined and smoothed. We take this extra step in manufacturing to ensure the jets seat against a smooth surface for a tight fit and seal.

The plumbing system is then installed and lines are attached to each of the jets. A manifold is installed at each junction between the main plumbing line and the lines leading to the jets. Running a short line from the manifold directly beneath the jets provides the best water pressure and allows the jets to operate at their full capacity. Once the spa is plumbed it is water tested as part of our quality inspection process to ensure that there are no leaks.

The spa shell is then lowered into the framed cabinet or “spa skirt”. At Aruba Spas we use this innovative process to ensure the structural integrity of our spas. Wooden supports

are then custom fitted by hand to the areas underneath the seats and stairs to provide additional strength to these areas. This process recognizes that every spa is not identical and ensures individual inspection and custom fitting of each spa.

The spa shell is then insulated with 2 LB closed cell foam. As Aruba Spas are made in Canada we know Canadian weather conditions. With this in mind we use enough insulation to get the maximum obtainable R factor from our insulating foam. The use of closed cell foam ensures that water cannot be absorbed into the insulation. The insulation also locks all supports into place and secures the spa to the spa skirt.

The electronic operating system, which controls the heating, filtration and lighting systems is then installed and pre-tested in our factory. We have selected a well designed operating system that is easy to use and features a number of energy-saving options and safety options such as child lock-out.

The final touch to the spa is the attractive spa skirt with strong, stable corners and removable side panels fitted into the frame to allow easy access to all plumbing. The spa skirt is made from solid tongue-in groove, red cedar and is designed to use shorter lengths of wood that may otherwise not have been utilized. We only use wood that has been harvested from select-cut forests using environmentally responsible techniques.

GETTING STARTED

Your spa comes complete with the following items:

- HTC-4 R12 tapered Grey Spa Cover with locks and Spa Cover Limited Warranty.
- Digital Pack and Topside Unit
- Aqua Flo Flow-Master Owners Manual
- Aruba Spas Limited Warranty Registration
- Allen Key

Please check to make sure you have received all these items. In addition, if you have ordered any extra accessories please check to make sure that they have been included with your spa.

TOOLS REQUIRED FOR INSTALLATION

- Voltmeter
- Ammeter
- Ohmmeter
- Screwdrivers (Phillips & flat head)
- 2 wire restrainers
- Wire cutters
- Wire strippers
- #6 AWG 3 wire Chg: (plus ground) if spa is more than 30ft from the Main Breaker Box.

ITEMS REQUIRED FOR THE INSTALLATION OF YOUR SPA

- At least four people are required at time of delivery to place your spa into position.
- 220 Volt Electrical Service
- An Electrician to do the electrical connection.
- 50 Amp GFCI circuit breaker. (see page 8)
- An Allen Key to open and remove the access panel. (supplied by Aruba Spas)

IMPORTANT SAFETY INSTRUCTIONS

1) Children should not use spas or hot tubs without adult supervision.

2) Do not use spas or hot tubs unless all suction guards are installed to prevent body hair entrapment.

3) People using medications and/or who have an adverse medical history should consult a physician before using a spa or hot tub.

4) People with infectious diseases should not use a spa or hot tub.

5) To avoid injury, exercise care when entering or leaving a spa or hot tub.

6) Do not use drugs or alcohol before or during the use of a spa or hot tub to avoid unconsciousness and possible drowning.

7) Pregnant or possibly pregnant women should consult a physician before using a spa or hot tub.

8) Water temperature in excess of 40 degrees C (104 degrees F) may be injurious to your health.

9) Before entering a spa or hot tub, check the water temperature readout on the topside control.

WARNING
It is most important that you read these safety instructions before using your spa.

HAZARD
The use of alcohol or drugs greatly increases the risk of hyperthermia in spas.

10) Do not use a spa or hot tub immediately following strenuous exercise.

11) Prolonged immersion in a spa or hot tub may be injurious to you health.

12) Do not permit electric appliances (such as light, telephone, radio, or television) within 1.5 meters (5 feet) of a spa or hot tub.

13) Maintain water chemistry in accordance with manufacture's instructions.

HYPERTHERMIA

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal temperature of 37 degrees C (98.6 degrees F). The symptoms of hyperthermia include drowsiness, lethargy due to an increase in the internal temperature of the body. The effects of hyperthermia include:

- Unawareness of impending heat
- Failure to perceive heat
- Failure to recognize the need to leave the spa
- Fetal damage in pregnant women
- Unconsciousness and danger of drowning

POSITIONING YOUR SPA

Your spa is self-contained. You can place it on a deck, patio, in your yard, or indoors. Proper site location is an important element of the overall enjoyment of your new spa, so make sure you take enough time to properly plan out the positioning of your spa. The following information is provided to help you determine where to place your spa. If you have any questions or concerns about where to locate your spa, please contact our customer service department.

IMPORTANT

Check with your local building codes with regards to fencing and gate requirements. Your spa measures 84"x84"x34" the dry weight is 650 lbs, with water 4000 lbs.

YARD INSTALLATION

Position your spa above ground in an area with good drainage, on a level surface that contacts the spa fully. The ideal base is a concrete pad, however compacted gravel, paving stones or railway ties may also be used. Locate the spa so the equipment door is readily accessible. The equipment has to be above grade and not subject to flooding. If using compacted gravel, it must be on a firm level base and it must be contained in a secure wood or concrete border so that the loose gravel cannot shift once the spa is in place.

DECK INSTALLATION

Before placing your spa on a deck or other raised platform, you must have the structure checked for its loading capacity by an Engineer or competent Contractor. Before placing the spa on the deck, you should place 1.5" high-density foam insulation under the spa. This helps insulate the spa and prevent the transmission of noise. At the same time providing the underside of the spa with extra insulation.

WARNING

One must support the entire base of the spa, from the outside edges to the centre, to support its weight. Improper placement of your spa may void the warranty.

WARNING

Do not permit electric appliances (such as light, telephone, radio, or television) within 1.5 meters (5 feet) of a spa or hot tub.

INDOOR INSTALLATION

Before attempting to place the spa indoors check the door openings to ensure that they are large enough for the spa to fit through. In addition, you must have the structure checked for its loading capacity by an Engineer or competent Contractor. The minimum loading capacity required is 100 lbs per square foot. The spa should be placed in a well-ventilated area so that excess condensation can be removed from the area where the spa is located. Locate the spa so the equipment door is readily accessible for maintenance and service needs, and ensure you have an area with proper drainage.

You may also wish to think about the following considerations before installing your spa:

- location to facilitate adult supervision if children are using the spa
- location relative to trees (falling leaves and shade)
- exposure to sunlight
- landscaping and night-time lighting
- view from your house
- wind direction
- storage area for maintenance equipment and chemicals
- adjustment of sprinklers so they do not hit spa or spa cabinet

WARNING

Electrical codes change from Province to Province. Check with your electrician for the electrical codes in your area.

ELECTRICAL CONNECTION

A certified electrician must make all electrical connections to your spa, in accordance with all applicable electrical codes for your area. The spa's GFCI breaker must be sized in accordance to electrical requirements of spa. The Full Load Amperage (FLA) is recorded on the spa's nameplate.

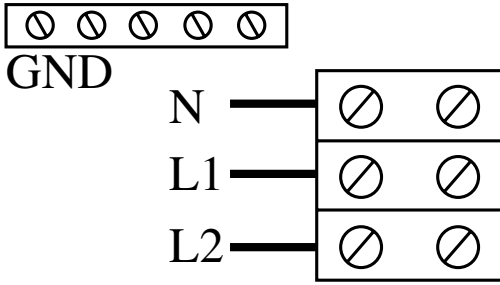
WARNING

Failure to use a GFCI breaker for electrical connection to your spa could result in serious harm or death. No electrical power should be available near the spa without GFCI protection.

ELECTRICAL CONNECTION ACCESS

To access Electrical connections:

Electrical connections are within the spa pack. There are 2 wire access locations on either side of the front panel. The electrical requirements are 220V with a neutral.



IMPORTANT SAFETY INSTRUCTIONS

1. Read and follow all instructions.

2. A ground terminal is located inside the supply terminal box. To reduce the risk of electric shock this terminal must be connected to the grounding means provided in the electric

supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying this equipment.

3. At least two lugs marked "Bonding Lugs" are provided on the external surface or inside the supply terminal box. To reduce the risk of electric shock, connect the local common bonding grid in the area of the spa to these terminals with an insulated or bare copper conductor not smaller than #6 AWG.

4. All field installed metal components such as rails, ladders, drains or other similar hardware within 3 meters of the spa shall be bonded to the equipment grounding bus with copper conductors no smaller than #6 AWG.

5. Save these instructions.

START-UP PREPARATIONS

Before performing the operations in this section, make sure you have read and understood all of the previous instructions set forth in this manual. Make sure the spa has been installed correctly, including electrical wiring connections as specified in the previous sections. The following procedures must be done in the order they are listed.

WARNING

Do not run the pump until the spa is full of water. Running the spa pump without water could cause damage to the operating system and void the warranty.

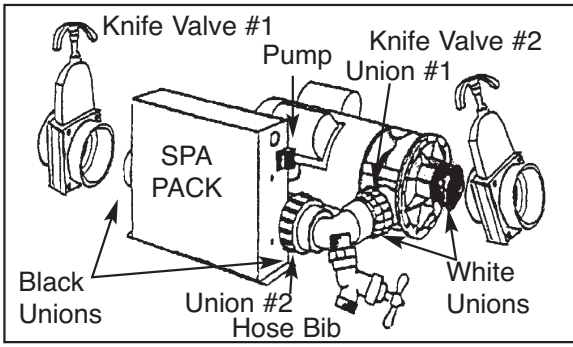
Things to check before turning on the power to the spa:

1) Make sure the spa is clean, and that there is no foreign material in the spa.

WARNING

Unions must be hand tightened before filling the spa with water. Failure to do so may cause the unions to leak, which can damage the spa pack, and voids the warranty.

2) Check all four unions (or six if you have a circulating system) and ensure that they are hand tight. There are two white unions on the pump: one on the inlet side and one on the discharge side. See equipment diagram.



There are also two black unions located on each end of the stainless steel heater barrel. The unions can come lose during shipping, and may need to be tightened. Do not over tighten the unions. If a union leaks after being hand tightened close the knife valves to stop the flow of water. Loosen the union that is leaking and inspect the O-ring for a possible crimp. Reinstall the O-ring and retighten the union.

WARNING
Only turn union one turn counter clockwise.

3) To fill your spa, place garden hose directly in the filter. The spa holds 360 gallons (1620 litres) of water. You will notice that there is an indented wave in the spa. This is the water line. It is important that you maintain your water at this level.

INITIAL START-UP

Before proceeding with the initial start-up, make sure you have completed the start-up preparations from the previous section. The following procedures must be done in the order they are listed.

HAZARD

This system should be set to maintain a water temperature NO GREATER THAN 40° CELSIUS (104° F).

1) Make sure all of the jets are in the full open position, (refer to Hydrotherapy Jets, page 13).

2) The Electronic Operating System spa control has automatic functions that operate upon start-up and normal operation to protect the system. Power up system and "Pur" will appear for 30 seconds while system is in purge mode then normal operation will resume.

3) With the breaker in the "On" position check to see if water is circulating. If not then you must prime the pump. To prime the pump turn union #1 slowly 1/2 to 1 turn to release air, being careful not to open too far. After you hear the water begin circulating, retighten the union. The pump must be primed every time the water is changed. Check to see if water is coming from all the jets.

4) At the end of the boot up, 30 seconds, the pump will be in high speed until the water temperature reaches 52°F. If your water temperature is below 39°F, at the time of fill, the topside control will toggle back and forth reading th2/39. The pack system is in lockout and the pump will run in high speed until the water temperature reaches 52°F. Once the water temperature has reached 52°F, the pump will then run in low speed. You can now set your water temperature to your desired level.

Note: At the time of boot up, your spa will automatically go through its first filtration cycle for 2 hours.

5) Press the pump button on the control panel to test if the pump is changing from low to high-speed, (refer to Topside Control Component Identification, next page). You will be able to tell the difference between low and high-speed by the sound of the water moving through the spa's plumbing system. Press the pump button again to return the pump to low speed.

6) Once the water has reached the set temperature add chem-

icals to adjust the water balance (see Chemical Maintenance, page 19).

7) The spa pack is thoroughly tested before shipping. The most common cause of immediate pack failure is dry firing (this occurs if the pump is running and the water is not circulating) and this type of failure is not covered by warranty.

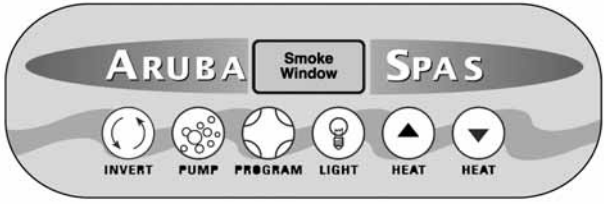
8) If you experience any problems with the procedures above contact an Aruba customer service representative.

9) After your spa is operational you must install the Spa Cover latches. The locks will already be attached to the end of the straps. Position the tie strap so it is fully extended, without stretching. Locate the 2 holes on the locking mechanism, marking them with a pen. Remove the locking mechanism from the strap and fasten to the spa.

HAZARD
Never leave an uncovered spa unattended, and never leave a covered spa unlatched.

SPA OPERATIONS GUIDE

Topside Control Component Identification



Heat s and Heat t buttons

The spa's thermostat is to provide you with optimum control of the spa water temperature. This temperature set point can be adjusted from 21° C (70° F) to 40° C (104 degrees F).

Invert Button

This button will flip the LED readout 180°.

Pump button

The control panel button designated "PUMP" activates the pump when pressed. The pump sequence is low speed, high speed, off. The pump, when the "PUMP" button is manually pressed, turns off after thirty minutes (a thirty-minute default).

NOTE: You will not be able to turn off your pump if your spa is in a filter cycle, heating, or in freeze protection (less than 52°F).

Light

The control panel button designated "LIGHT" activates the spa light when pressed. The light turns off after two hour (a two-hour default).

Filter Cycle Programming

Proper filtration is an important key to maintaining the clarity of your spa's water. The filter system is designed for unsurpassed effectiveness at removing debris and suspensions from the water while the water is circulating.

By pressing the Heat key and the Program key at the same time, you can adjust your filtration cycle from the factory setting of 2 hours every 12 hours, in 1-hour intervals.

NOTE: If the water temperature does not drop the internal timer still operates the filter cycle to ensure proper filtration.

CELSIUS OR FAHRENHEIT

By pressing the Program key and the Light key at the same time you can change the degree settings from Celsius to Fahrenheit or vise versa.

AIR CONTROLS

There are two air controls beside the topside control panel. By turning these controls you may adjust the amount of air going to the jets. When fully open you are getting the maximum amount of air for full hydrotherapy action. To reduce the amount of air coming out of the jets simply close the air controls.

HYDROTHERAPY JETS

Adjustable jets

Micro Directional

Your spa is equipped with the following jets:

You can adjust the volume of water from these jets by turning the face plate clock wise to decrease the volume of water and counter clock wise to increase it. You can also change the direction of the water flow by pushing on the side of the small orifice in the centre of the trim kit.

WARNING:
All jet trim kits must be properly seated or air flow may be restricted

Micro Swirl

You can adjust the volume of water from the micro swirl jets by turning the face plate 1/2 turn clockwise to decrease the volume of water and counter clock wise to increase it.

The micro-swirl jets on your spa are interchangeable. To remove either trim kit you must place a screwdriver between the face plate and the acrylic spa surface then push with a gentle upwards motion and the trim kit will pop out of the jet body. To replace just place the trim kit into the jet body and gently push it into place. Be careful not to scratch the spa surface with the screwdriver and do not force the trim kit into or out of the jet body. To remove adjustable jets, pop them out an inch then unscrew them.

Cluster Jets

The cluster jets are small single orifice jets that are not adjustable and cannot be removed.

Ozone Jet

The purpose of the ozone jet is to inject ozone into your spa. It is not to be used for hydrotherapy. If you do not have an ozonator water will still flow into the spa from this jet.

WARNING

Do not block Ozone Jet at anytime. Blocking the Ozone Jet may result in damaging the ozonator and voiding the warranty.

Massage Jet

You can adjust the volume of water from both the swirl jets and the massage jets by turning the face plate clockwise to decrease the volume of water and counter clockwise to increase the volume of water.

The massage jet provides a wide pattern of massage with a high volume of water that flows in a large circular pattern for deep muscle massage. The swirl jets provide a similar circular pattern that is more focused to a smaller area. These jets working together in the same seating area provide you with a large volume of hydrotherapy massage.

Swirl Jet

CHILD LOCKOUT (LOC)

This special feature is used to prevent unauthorized use of the spa. This system incorporates a unique panel locking system which disables the controls on the panel. The temperature readout flashes in this function.

You can enable the lockout function by pressing the Heat key and Light key at the same time. You can disable the lockout function by doing the same.

OZONATORS-OPTIONAL

IMPORTANT

It is necessary to use Chlorine or Bromine chemical treatment with an ozonator.

WARNING

This system only accepts a 220v Ozonator.

(Standard on the Aruba Deluxe Spa)

Ozone is injected into the spa's water during the filtration cycle. The ozone is injected into the water to supplement chemical sanitizers, oxidize organics and control minerals. If during a filter cycle the pump is manually turned on, the ozonator will turn off. The ozonator will remain off until the start of the next filter cycle.

WARNING

Do not block Ozone Jet at anytime. Blocking the Ozone Jet may result in damaging the Ozonator and voiding the warranty.

TROUBLE SHOOTING

This is a self-diagnostic control system. The system will automatically display an alphanumeric symbol if a problem is detected.

No display at topside

- Check that the topside is correctly plugged into spa pack.
- Check the breaker
- Check that connection to main board is clean and sound

Display flashes "th1/39" on system start up

- Check that the temperature sensing probe connection to main board is clean and sound

Display flashes"th2/current temperature" on system start up

- Check that the temperature sensing probe connected to the main board is clean and sound

Note: a new temperature-sensing probe may be needed for the above 2 points.

Display flashes "th2/39" on system start up

- This indicates that both thermisters are detecting spa water temperature of less than 39° F/4° C or they are both disconnected (open). The pump will run in this condition.

Display flashes "OH" (OVER HEAT)

- This indicates that the spa water temperature is over 112° F. The system should shut down in this state and will re-start automatically when the water cools below 112° F

Display flashes "hot" (OVER HEAT)

- This indicates that the heater body is over 112° F. The system should shut down in this state and will re-start automatically when the water cools below 112° F.

Display flashes "HL" (HIGH LIMIT)

- This indicates that either the heater or the spa has reached 118° F or higher. The system will not re-start automatically. To re-start the system, the water temperature must be below 112° F and the heater key at the topside control must be pressed.

Display flashes "FLO" (FLOW)

- This indicates that there is a water flow problem or defective pressure switch.
- You may have an air lock at the heater barrel. See page 11 for priming the pump.
- Make sure filters are clean
- Check that service valves are open
- Ensure water level is at water line
- Check for obstruction of flow

Display flashes "FLC"

- This indicates that the flow switch is stuck in the closed position and should be replaced.

Erratic operation at topside panel

- Shut off system and restart
- Check for debris inside topside panel control housing
- Check cable connection at the topside control, remove, clean and reconnect
- Try new topside control

No heat

- Check the topside control for "HL". This indicates that the system has overheated. Make sure the temperature has fallen to less than 112° F and press the heat key to reset.
- Check that the temperature set point is higher than actual tub temperature.
- Check for flashing LED at topside control to indicate heat demand
- Check to see if the pilot light at the equipment panel is on. This indicates if power is actually getting to the heater element. If this light is on and there is still no heat, the element should be checked for continuity. If there is no continuity, the element needs to be replaced.

Overheat

- If the water is too hot and the high limit has tripped the breaker, the water must be allowed to drop to less than 112° F before it will reset. Reset by pressing the heat key at the topside control.
- The circulation of the water may be too low, allowing the heater body to overheat. Be sure that all valves are fully open to allow maximum water flow over the heater element.

The friction and radiant heat from the pump motor can cause an extremely high ambient temperature around the spa and the equipment causing an overheat condition. If this condition is suspect, try running the spa with the equipment door off to see if it still overheats.

Ground Fault Interrupter Trips

- Check if it does it only when heat turns on, if so check element by removing the power to the element terminal and turn the heat on. If it only faults when the element is connected with power, the element has a ground fault and must be replaced.
- This can be done with the pump, ozonator, or any other peripheral equipment as a process of elimination to see where the fault may be.
- Be sure that the neutral on the GFCI has been wired properly in the main panel.

Improper Temperature Measurement

- Remove temperature sensor from it's current location and submerge directly into the spa/hot tub water. Compare it to another accurate digital thermometer. This will tell you if it is the sensor or the application. (See temperature sensor in the description and use of controls section of this manual).

Pressure Switch

- The pressure switch is not adjustable.

CHEMICAL MAINTENANCE

Your spa comes with a cartridge filter system. Filtering of the water helps to maintain water cleanliness and clarity. While the filter traps most solid materials, it is still necessary to add a sanitizer such as bromine or chlorine to the water to control bacteria, algae and to oxidize any organic materials in the water. This section will explain how to use bromine to maintain clean, clear and odor-free water. Chlorine is also available through your local Pool and/or Spa retail outlet. When purchasing from your local retailer, it is recommended that you bring a sample of your water for analysis and guidance on which chemicals you may require.

Chemicals and test strips can be purchased directly from Aruba Spas by calling us at 1-800-609-2227.

IMPORTANT

You must use either chlorine or bromine based chemicals. You may change from chlorine to bromine without emptying the tub. If you are changing from bromine to chlorine you then must empty the tub and start with fresh water. Never mix chlorine with bromine out of the water.

INITIAL START UP PROCEDURES

(dosages are for 360 gallons (1620 litres) of water)

1. Use your test strips or test kit to test your fill water for pH, total alkalinity to determine any water balance adjustments necessary.

WARNING

Make sure you dilute all chemicals with spa water before adding them to the spa. Adding full strength chemicals to the spa may damage the spa surface and will void the warranty.

2. When filling your spa with water, add STAIN & SCALE to protect your spa against staining and scale formation on the spa walls and on the heater element.

3. You must balance your water so that it is neither alkaline (scale forming) nor acidic (corrosive). Balanced spa water should be between 7.4 - 7.6 on the pH scale, with total alkalinity in the range of 125 - 150 ppm. Use SPA INCREASE (pH up) or SPA DECREASE (pH down) as needed to adjust the pH. Add alkalinity increaser to raise total alkalinity.

WARNING

Improper chemical maintenance can damage the spa surface and/or equipment, and will void the warranty.

4. Once your water has reached the set temperature, add your choice of sanitizer, bromine or chlorine. The importance of maintaining an adequate level of sanitizer in your spa can not be overemphasized. Warm water presents a fertile environment for the growth of bacteria and viruses. This growth is prevented when adequate sanitizer levels are continuously maintained.

WATER MAINTENANCE SCHEDULE

Weekly

1. Sanitizer - check to insure sanitizer level is at the right range. Add sanitizer when necessary.

2. Add a sequestering agent to prevent scaling and staining.

3. Add a flocculent to spa water. This will quickly clean and brighten hazy, cloudy water caused by microcontaminants in the water that are too small for the filter to remove.

WARNING

Sanitizers such as Sodium Tri-chlor type chlorine (tablets/sticks), calcium hypochlorite, sodium hypochlorite, or any chemical that may remain undissolved on the spa surface will damage your spa and will void the warranty completely.

4. If you are using bromine or chlorine tablets, it is also recommended to add a shock treatment on a fresh fill and weekly thereafter. If the spa has had high use during the week, an additional shock treatment would be required.

**Note: When adding a shock treatment, please insure the spa cover is left off the spa at least 30 minutes, to allow the "gassing off" process. It also saves wear and tear on your spa cover.*

5. You may occasionally need to use a small amount of ANTI FOAM to reduce foaming and sudsing should it occur. Soap residue will cause foaming - rinse out bathing suits well.

CONDUCTING PROPER WATER TESTS

1. Total alkalinity is the key to water balance. Always adjust total alkalinity first, and then pH.

2. Water should be circulating before you take your sample. If the pump has been off, turn it on for a few minutes. If you are using a test kit rinse the sample vial 2 or 3 times with the spa water before you take your sample. Sample the water from 46 cm (18") below the water surface. If you are using test strips they should be immersed to a depth of 46 cm (18") and then swirled three times. Follow the manufacturers directions carefully when performing your water test with either the test strips or the test kit.

3. The ideal range for proper water maintenance is as follows:

BROMINE	3.0 - 5.0 ppm
CHLORINE	1.0 - 3.0 ppm
pH	7.4 - 7.6 ppm
ALKALINITY	125 - 150 ppm

4. Bromine (or Chlorine) levels need to be tested daily.

5. pH levels need to tested daily.

IMPORTANT

If your bromine (or chlorine) reading is above 6.0 you may obtain a false result when testing for pH. In this case, lower the chlorine or bromine before performing any other tests.

6. The water in your spa should be hard (bypass water softener). If you suspect you have soft water, you may need a calcium increaser. Check with your local spa store.

7. Alkalinity levels need to be tested weekly.

8. Water testing should be done at home using test strips or an accurate test kit, or by taking your water to a spa or pool retail outlet and having them test your water sample (you should expect to pay a nominal fee for this service).

CHEMICAL TABLE OF EQUIVALENTS CHART

15 ml = 1 TBS

4 TBS = 1/4 cup

15 g = 1 TBS

PROBLEMS ASSOCIATED WITH IMPROPER WATER BALANCE

Low pH:

- causes rapid sanitizer loss.
- causes eye irritation and itchy skin.
- corrodes equipment

Solution: add pH increaser (pH up) to raise the pH levels.

High pH:

- forms scale.
- causes short filter runs.
- clouds water.
- reduces sanitizer efficiency.

Solution: add pH decreaser (pH down) to lower the pH levels.

Low Sanitizer Levels:

- allows growth of bacteria and viruses in spa water.

Solution: refer to Chemical Maintenance, Initial Start Up Procedures, page 19.

Causes of pH change:

- adding water.
- rain.
- bather load.
- adding chemicals.
- dust.
- algae.

CARE FOR YOUR SPA

DRAINING YOUR SPA

Drain and re-fill the spa as indicated below:

Average Use:	Every 60 - 90 days
Heavy Use:	Every 30 days
After Parties:	Drain

Before draining your spa you may add whirl-o-clean to the warm water and start the pump for about 30 minutes. This will help in eliminating grease and oils in the plumbing and jets.

WARNING

Do not leave your spa exposed to direct sunlight when there is no water in the spa. Exposure to direct sunlight could damage the spa shell and void your warranty.

To drain the spa:

1. Turn off all power to your spa.

2. Attach a hose to the hose bib at the bottom of the spa and gravity drain by the siphon method.

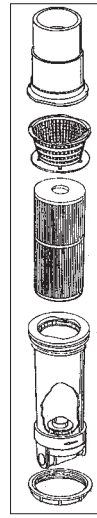
3. Clean the surface (see "Spa Surface" later in this section).

4. Refill the spa. Follow the initial start-up procedures to re-prime the spa.

WARNING

Make sure you replace your filter cartridges at least once every six months.

FILTER CLEANING



1. Your spa is equipped with a top access filter. To access the filter cartridge, remove the skimmer basket and filter cartridge.

2. Once a week remove filter, just hose it off well and replace it. Every 4-6 weeks properly clean your filter in a filter cleaner solution. Soak 4-6 hours (or overnight).

3. Once cleaned, re-install filter cartridge and skimmer basket.

4. How often the cartridge filter needs to be cleaned depends largely upon how many bathers are using the hot tub. With average use we recommend cleaning the cartridge filters approximately every 4-6 weeks. However, more frequent or greater numbers of people may require more frequent cleaning.

IMPORTANT

Be sure to thoroughly rinse the filter cartridge to thoroughly remove any cleaning agents. If this is not accomplished, foaming of the water may occur during the filter cycle of the hot tub.

SPA SURFACE

Your spa has a very high quality acrylic surface. Stains and dirt will generally not adhere to the surface. Do not use household products for cleaning the spa surface. Be careful of detergents as they may contain phosphates that may contaminate the water and will cause foam build-up. Also, many cleaning agents contain abrasives which will scratch the surface, and therefore must not be used. After cleaning, be sure to rinse the surface with water to ensure all excess

cleaning solution is properly diluted and removed. This will avoid unnecessary reaction of skin irritations from chemical contact to the body. Follow product recommendations. You may also wish to periodically polish the acrylic surface with spa polish (Gel Gloss).

WARNING
When cleaning the surface use only acrylic cleaners.

WARNING
Do not use caustic solutions as they may damage the spa shell surface and void the warranty.

CABINET

When properly cared for the Cedar cabinet of your spa will maintain its good looks for many years. All woods react to the elements differently by expanding and contracting, so make sure you re-stain the wood every 10 to 12 months with an oil based stain to thoroughly protect the wood. Clear wood finish can be used as a good wood sealing agent. The wood must be properly maintained.

COVER

With safety and convenience in mind the spa cover has been designed with child safety latches and a slope designed to create a natural run-off for rain water. Please ensure the use of spa straps and latches to secure the cover when not in use. This will help to discourage unsupervised children from entering the spa and keep the spa cover secure in high-wind conditions.

DO NOT allow snow to build up on the cover as it is not intended to bear weight. Weight on the cover may cause the edges of the cover to curl, or progressively warp and bow the cover, or in extreme cases cause the foam inserts to break. To avoid this keep all weightbearing objects off of the cover. Water and snow must be swept off to keep them from accumulating or puddling on the cover. Should puddling occur,

unzip the vinyl, remove the foam insert, turn it over and re-insert it.

WARNING

The cover is not a safety cover. Do not stand, sit or lie on it or permit any heavy weight to rest on it. This will damage the cover and void the warranty.

The thermal cover should be cleaned regularly. As often as is necessary wash the cover with a mild soap and rinse with clean water. All vinyls contain plasticizers which must be maintained to prevent drying out, cracking, flaking and deterioration. These plasticizers migrate out and escape naturally through time. Sun and cold speed up this process. Application of a vinyl cleaner and conditioner at least once a month will retard this deterioration. We recommend the use of 303 Protectant.

IMPORTANT

Fading and discolouration of the spa cover will occur naturally with extended exposure to the sun.

The vinyls used in your spa cover are marine treated, but will deteriorate faster when exposed to high levels of chlorine, bromine, ozone or other active chemicals. Each time Chemicals are added, remove the cover completely and place it far enough away so that splashing will not reach the cover.

The cover handles and tie downs are double reinforced with thick vinyl coated rip-stop PVC material. However, mistreatment by sudden jarring motions can damage them. To prevent damage any handling of the cover must be done in a gentle manner.

WARNING

Do not use solvents, petroleum based products, abrasive cleaners or strong detergents. Do not use products that contain silicone or alcohol. Use of these products will damage the cover and void the warranty.

SPECIAL COLD WEATHER INSTRUCTIONS

Your spa is designed for year round use and winter operation. Winter is also perhaps the most enjoyable season for spa use. We also recommend continuous operation throughout the winter months because it is very difficult to get water out of all of the plumbing lines. If for some reason you must close down your spa in the winter we recommend you winterize it as follows:

1. Drain your spa completely. You may tip your spa on edge and use a wet vacuum or blower to evacuate as much water as possible from the spa. The idea is to get all the water out of the plumbing lines and equipment.

WARNING

Any damage caused to the spa by freezing, once it has been drained for the winter, is not covered by warranty.

2. Once the spa is completely drained, open the hose bib and loosen the unions to allow the water to expend freely within the system. Also, remove the drain plug on the bottom of the pump. This should prevent any ice from expanding and damaging drainpipes and fittings. The key is to eliminate any sealed areas in the system that may contain water. Your local pool and spa retailer may provide this service at a nominal fee.

3. If you receive a heavy snowfall during the winter, you may want to build a temporary cover over the top of your spa. This can be done with 1/2" sheets of plywood supported by 2' x 4' cross members.

WARRANTY INFORMATION

We are pleased to announce that Aruba Spas has an excellent and secure warranty program. This program offers the best protection because it is backed by "full reimbursement contractual liability insurance" which protects the customer for the full length of the term of the warranty. Make sure you return the Warranty Registration Card that comes with your spa.

If you encounter a problem with your spa please take the following steps.

IMPORTANT

Smart Protect Warranty certificate is on page 30. Please make sure you read this document carefully. It is important to understand this warranty and its exclusions.
For warranty service contact a Smart Protect Warranty service agent at 1-877--877-2087

1. Refer to the Trouble Shooting guides on page 17 and 32. Use these guides to determine what may be wrong with your spa. This is important information to give the service technician. In addition, checking the guides will help you to determine if you need to call for warranty assistance.

2. If you need assistance in trouble shooting call 1-800-609-2227.

Smart Protect WARRANTY

L I M I T E D

WARRANTY

RIDGEWOOD ENTERPRISES LTD., the manufacturers of ARUBA SPAS extends this limited warranty solely to the original purchaser of any ARUBA brand spa manufactured after January 1, 2003.

FIVE YEAR LIMITED SHELL STRUCTURE and SURFACE

ARUBA SPAS warrants the spa against water loss due to defects in the spa shell for a period of five years from the original date of purchase. ARUBA SPAS warrants the interior surface of the spa against blistering, cracking, or delaminating for a period of five years from the original date of purchase.

FIVE YEAR LIMITED NO LEAK

ARUBA SPAS warrants the spa against loss of water due to defects in the fittings and plumbing lines for a period of five years from the original date of purchase.

ONE YEAR LIMITED SKIRT

ARUBA SPAS warrants the wood cabinet against defects in workmanship and materials (excluding skirt finish) for one year from the original date of purchase.

TWO YEAR LIMITED SPA PACK AND PUMP

ARUBA SPAS warrants the spa pack and pump against mechanical or electrical breakdown: parts and labour, for a period of two years from the original date of purchase.

THREE YEAR LIMITED HEATER BARRELL

ARUBA SPAS warrants the heater element against failure: labour coverage for a period of two years and parts coverage for a period of three years from the original date of purchase.

Smart Protect WARRANTY

920 Leathead Rd
Kelowna, BC V1X 2J8 1-877-877-2087

REGISTRATION: To validate this warranty, the original purchaser must complete the warranty registration card and mail it to ARUBA SPAS within 30 days of delivery of the spa.

PERFORMANCE: In the event of any defect covered by this Limited Warranty, ARUBA SPAS or its authorized agent will correct such defect subject to the terms and conditions contained in this Limited Warranty. There will be no charge for parts or labor to repair the spa, although you may be assessed reasonable repairman travel mileage charges if the spa is located outside your service agent's area. If SMART PROTECT WARRANTY determines that repair of the covered defect is not feasible, we reserve the right to instead provide a replacement spa equal in value to the original purchase price of the defective spa. Removal of the defective spa and delivery and installations of the replacement spa will be the responsibility of the spa owner. To obtain service for any defect covered by this Limited Warranty, notify SMART PROTECT WARRANTY PROGRAM within 30 days of its occurrence and use all reasonable means to protect the spa from further damage.

EXCLUSIONS: This Limited Warranty is void if the ARUBA SPA has been subjected to alteration, neglect, misuse or abuse; If any repairs have been attempted by anyone other than ARUBA SPAS or its authorized agent; or if the failure is caused by accident, acts of God, or other causes beyond the control of ARUBA SPAS, Neglect, misuse and abuse include any installation, operation, improper water balance or maintenance of the spa other than in accordance with the owner's manual. This Limited Warranty does not provide coverage for demonstrator, used, repurchased or reconditioned spas, spa kits, unplumbed spas, or factory seconds and/or any ARUBA SPA used for commercial use. This Limited Warranty does not provide coverage for filter cartridges, jet trim kits, fuses, pump seals, O-rings, gaskets, and light bulbs, or any item attached to, or installed on, the spa after the date of manufacture. OZONATORS AND SPA INSULATED COVERS ARE EXCLUDED FROM THIS LIMITED WARRANTY, ALTHOUGH THEY ARE COVERED BY SEPARATE WARRANTIES BY THEIR MANUFACTURES.

SERVICE CHARGES: All service calls will be subject to an $80.00 (eighty dollars) charge. If the service work performed is covered by this Limited Warranty, the charges will be refunded. If the service work performed is not covered by this Limited Warranty, the service charges will apply. Service or warranty work performed outside the city limits from where the spa was purchased will be subjected to mileage charges and related expenses.

LIMITATIONS: This Limited Warranty takes the place of all other warranties, express or implied, in fact or at law, including implied warranties of merchantability and fitness for a particular purpose. All warranty service must be performed by ARUBA SPAS or its authorized agents, No agent, dealer, distributor, service company or other party is authorized to change, modify or extend the terms of the Limited Warranty in any manner whatsoever.

DISCLAIMERS: ARUBA SPAS and its authorized agents shall not be liable for any injury, loss, or other damage, whether incidental or consequential, airing out of any defect covered by this Limited Warranty, including without limitation, loss of use of the spa and cost of removal of defective product, even if ARUBA SPAS has been advised of the possibilities of such damage. The liability of ARUBA SPAS under this Limited Warranty, if any, shall not exceed the original amount paid for the defective product. Coverage under this Limited Warranty shall commence as of the original date of purchase and the duration of such coverage shall not extend for any reason whatsoever beyond the stated time periods. These disclaimers shall be equally applicable to any service provided by ARUBA SPAS or its authorized agents.

LEGAL RIGHTS: This Limited Warranty gives you specific legal rights. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, therefore the above limitations may not apply to you.

TROUBLE SHOOTING GUIDE

PROBLEM • DIAGNOSIS • ACTION

P: **Spa won't turn on**
D: No power in spa
A1: Check Breaker
A2: Check Fuses

P: **Spa comes on by itself**
D: Normal function of heating and filtering
A: No action required

P: **Pump shuts down unexpectedly while in use**
D: Default timer of 30 minutes in the electronic operating system
A: Reactivate by touching desired button

P: **Spa does not heat**
D: Temperature setting is too low
A: Turn up thermostat

P: **Poor jet action**
D: Dirty filter
A: Clean filter
D: Air lock in pump
A: Loosen end pump union to release air
D: Water level too low
A: Fill spa

P: **Spa light is out**
D: Burned out bulb
A: Replace bulb
(The Light housing is located behind the spa pack, and there is no need to drain the spa to change the light bulb.)

P: **Motor shuts down while in use**
D: Protective device has shut down motor to protect from overheating
A: The automatic device will reset the motor when it cools down

P: **GFCI shuts down frequently**
D: Faulty GFCI
A: Call electrician
D: Heater element has failed
A: Call Aruba Spas Smart Protect Warranty
D: Ozonator has failed
A: Replace Ozonator

P: **Abnormal water usage**
D: Excessive evaporation
A: Use spa cover when not in use, lower thermostat setting
D: Leak in plumbing
A1: Tighten unions (see #2, START-UP PREPARATIONS)
A2: Call Smart Protect Warranty

P: **Water not clean**
D: Filter dirty or clogged
A: Clean or replace filter
D: Clogged/blocked safety suction
A: Clean safety or suction or skimmer
D: Poor water chemistry
A: Test and correct
D: High content of solids in water
A: Drain and refill spa

P: **Eye or skin irritation**
D: pH is too high
A: Test and correct

P: **pH is too low**
A: Test and correct
P: **Formation of chloramines**
The formation of chloramines is chlorine combining with nitrogen from body wastes, oils etc. - causes familiar chlorine odour
A: Correct by shock

P: **Foaming of water**
D: High concentration of oils and organics being agitated by jets
A: Add antifoam
D: Soft water
A: Test and correct

P: **Scale deposits**
D: High calcium level, high pH, high alkalinity
A: Test and correct

P: **Water leaks or drips in equipment**
D: "O" ring or seals drying out
A: Lubricate "O" rings or replace

P: **Filter often has air in it**
D: Water level is too low
A: Add water to appropriate level
D: Leak in top of filter
A: Check for cracks, replace "O" rings

CIRCULATION PUMP OPERATIONS:

(Optional Purchase)

When you start up your spa ensure that both knife valves on either side of your circulation pump are in the open position (up). Loosen the union to release any air then re-tighten.

You cannot operate the circulation pump from the topside control, it is pre-programmed to run 24 hours a day.

WEEKLY MAINTENANCE SCHEDULE

DATE	Clean Filter	Shock Treatment	Water Clarifier	Check Chemical Balance	General Maintenance

ARUBA SPAS

A Division Of
Ridgewood Enterprises Ltd.
920 Leathead Road,
Kelowna, BC V1X 2J8

Aruba Spas reserves the right to make changes in specifications without notice

MADE IN CANADA
FABRIQUÉ AU CANADA

MEMBER
NATIONAL SPA & POOL INSTITUTE
OF CANADA