



ARIES SPAS

BY ARIES ACRYLIC MFG., INC.



OWNER'S MANUAL



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BY ARIES ACRYLIC MANUFACTURING, INC.

2500 I-30 EAST

ROCKWALL, TEXAS 75087

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Spa Safety

The consumer Product Safety Commission (December, 1979) recommends the following "Safety Rules for Spas and Hot Tubs":

1. Hot tub water temperature should never exceed 104°F. A temperature of 100°F is considered safe for a healthy adult. Special caution is suggested for young children.
2. Drinking of alcoholic beverages before or during spa/hot tub use can cause drowsiness, which could lead to unconsciousness and subsequently result in drowning.
3. Pregnant women beware! Water temperatures exceeding 100°F should be avoided. Soaking in water above 102°F (in bath or spa) can cause fetal damage during the first three months of pregnancy.
4. Before entering the spa or hot tub, users should always check the water temperature with an accurate thermometer. Spa thermostats may err in regulating water temperature by as much as 4°F.
5. Persons with a medical history of heart disease, circulatory problems, diabetes or blood pressure problems, should obtain their physician's advice before using hot tubs or spas.
6. Persons taking medications which induce drowsiness, such as tranquilizers, antihistamines, or anticoagulants, should not use spas or hot tubs.

About this manual

This booklet was designed to be an aid in understanding the operation, functions, and maintenance of your Aries Spa.

To receive maximum pleasure from your Aries Spa, it is helpful to understand how the spa operates and to have knowledge of proper maintenance procedures.

Different applications and installations require various types of equipment. If your equipment is different from that described in this manual, it may be necessary to refer to any manuals supplied by your equipment manufacturer for specific operating and installation information.

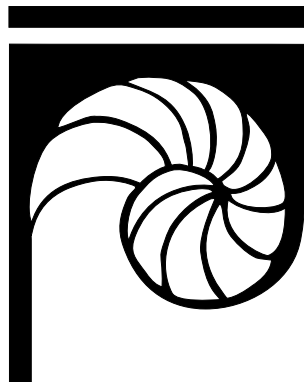
We hope that this manual will give you all the information needed to understand the basics of operation and maintenance of your spa. If you have questions that were not answered in this booklet, please give us a call.

Enjoy,
The staff at Aries Spas

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Placement of Portable Spa

Electrical Hookup

Please refer to your equipment manual and contact a qualified electrician. All spa equipment packs require a dedicated breaker (not a GFCI type, as one is built into your equipment pack). The breaker should be 50 or 60 amp (depending on equipment options), single phase, 220 volt service, consisting of four wires; two hot wires, a neutral wire and a ground wire. Wire size is determined by length of run, but generally #8 wire for 0-50 feet and #6 wire for 51+ feet is recommended. This might vary, depending on length of run or other unforeseen factors. **Any variation from this service will void warranty.**

Location

It is very important that your spa be located on a solid, level foundation.

A filled spa is very heavy (3,000 to 4000 lbs.), with most of the weight resting on the center portion. Without firm support for the bottom of the spa, settling can occur, causing the outside edge or “lip” of the spa to carry the weight-load, pulling the spa out of shape. *Cement blocks are not acceptable, unless they are concreted into place.* **Aries Spas will not be responsible for damages incurred on spas placed on other than level, solid surfaces.**

Operation

Initial Start-up

Please read this section fully before attempting initial start-up of your spa.

Always turn the thermostat(s) and electric power off when filling or draining the spa, and always fully open any valves that could restrict water flow to and from the heater element.

Filling your Spa

Your spa should be filled with water to approximately the bottom slit in the skimmer (to identify, see picture of skimmer in the “Suctions Fittings” section of this manual). The water level should never be below the regular or whirling jets, but should never cover any neck jets or the recovery jet (to identify, see pictures of the above mentioned jets in “Jets” section of this manual). *Do not overfill spa.*

Starting your Circulating Pump

Before turning on your home circuit breaker, turn off the main power switch (the black button on the GFCI, located in the center of the equipment pack).

**If you do not see any switches or dials when looking at the equipment pack, then simply pull open the swivel faceplate covering the top portion of the equipment pack. (This is not screwed into position, but simply held in place by a catch resembling a screw.)*

Also, make sure that both the Thermostats (the one on the top-of-spa location and one on the equipment pack) are turned to the “off” position or the lowest setting possible.

Set the Rocker Switch on the left side of the equipment pack to the Low Speed Mode (refer to “Equipment Pack Settings” in the “Operation” section, if necessary).

Turn on your home circuit breaker. Turn on the main power switch by pushing the red “Reset” button on the GFCI, located in the center of your equipment pack.

Lift the acrylic lid that covers your Top Loading Pressure Filter, and release any trapped air by turning the Bleed Valve (the small valve located on the filter lid) counterclockwise until you hear a release of air. *Do not totally unscrew or remove the Bleed Valve.* Once a steady stream of water starts spurting from the Bleed Valve, retighten by turning in a clockwise

direction until hand-tight. (For more information on the Bleed Valve, see the “Top Loading Pressure Filter” section of this manual.)

The Circulating Pump motor should start running immediately. If it does not, recheck your Rocker Switch setting and try again.

Once the Circulating Pump motor is running and water is circulating properly, you should be able to observe water and/or bubbles coming from the two Circulation Jets (one regular-sized, one small) usually located near your steps and/or the light. This indicates that the water is circulating properly.

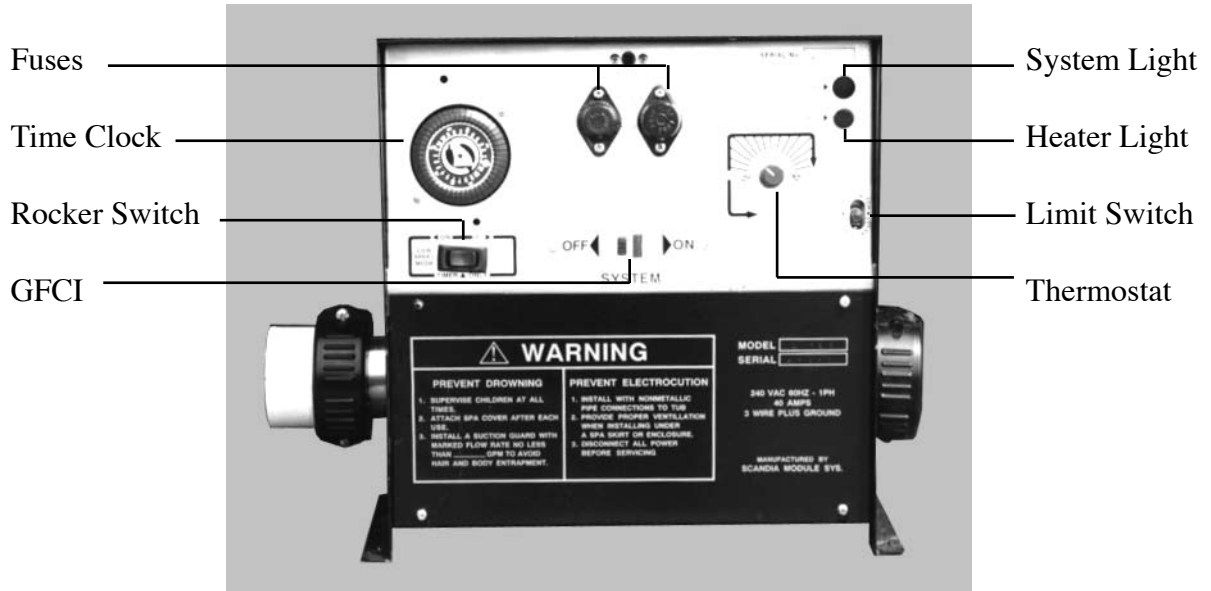
If no water flow is observed, do the following:

1. Listen to make sure that the Circulating Pump motor is running.
2. Make sure that the Knife (“T” shaped) Valves are open. These valves are plumbed into the pipes on either side of the equipment pack. They are opened if the handles are extended as far out as they will go.
3. Recheck the Bleed Valve on the filter lid to make sure you have released all trapped air. Sometimes draining a small amount of water from the Hose Bib (located by the Equipment Pack) is also helpful for releasing air lock.

If you have tried all the above, and there still are no bubbles coming from the Circulation Jets, **STOP!** Turn off the main power switch (push the “Test” button) and call us immediately! Do not go on to the next step or serious damage may occur to your spa equipment pack.

Once you are sure that the Circulating Pump motor is circulating the water, you are ready to select the appropriate Thermostat and Time Clock settings, as listed below.

Equipment Pack Settings



Equipment Pack with access door open

Power Switch (GFCI)

Your Aries Spa Equipment Pack is provided with a ground-fault circuit interrupter (GFCI). It is located in the center front of the Equipment Pack. This breaker protects against accidental electrical shock caused by water or excessive moisture on the electrical components.

You can use this GFCI as a system “On-Off” switch.

GFCI Breaker “Test” and “Reset” Buttons

To make sure that the GFCI breaker is operating properly, press the black button labeled “Test”. If operating normally, the Equipment Pack will shut off, and the black button will pop out and require resetting. The same will happen if water comes into contact with the components.

To reset, push the red “reset” button. If the equipment has been wet, and the black button immediately pops out again, wait a sufficient amount of time for all moisture to evaporate, and try to reset again. If it continues to pop out, call your spa dealer or Aries.

Equipment Pack Thermostat

If you have a Spa-side Thermostat, make sure that the Thermostat on your Equipment Pack is set to “Off”, or the minimum setting possible. Otherwise, malfunctions of both Thermostats could occur.

Set your Spa-side Thermostat to the desired temperature range, and set your equipment pack Thermostat to “Off”. If you have no Spa-side Thermostat, set your Equipment Pack Thermostat to the desired temperature. The maximum heat setting will generally result in a water temperature of 104° -107°. Use a spa thermometer and your personal preference as a guide in setting the Thermostat.

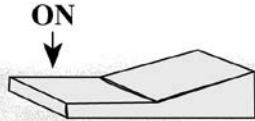
If the outside temperature is very warm, and you have inadvertently overheated the water in the spa, it will take some time to cool down. You can add ice to the water to speed the cooling process.

Rocker Switch Settings

We recommend running your spa on Low Speed Mode year-round, except for extremely hot months (June, July, Aug.), during which we recommend the use of the Time Clock mode for operation during the evening or cooler hours.

The Circulating Pump is utilized for its economy in circulation, filtering, heating, and sanitation of the water. Circulation is activated in three different modes: Thermostat, Time Clock, or Continuous. An explanation of these modes are as follows:

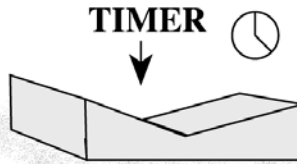
Rocker Switch set to Low Speed Mode



The common uses for Low Speed Mode are: continuous filtration, constant operation of the Ozone Generator (optional), maintaining a precise and even temperature, and aiding in freeze-protection during colder weather.

Rocker Switch set to Time Clock Mode

The Time Clock Mode offers daily filtration at selected intervals. You can set up to 24 separate “On-Off” cycles a day, which can provide additional protection in freeze control management.



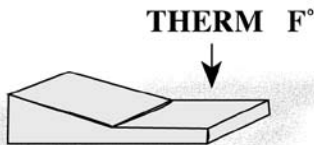
In this mode, the Time Clock must be set to cycle at least 6 hours a day to insure proper filtration (refer “Setting Your Time Clock”).

to

Rocker Switch set to Thermostat Mode

In this mode, when the Thermostat senses a temperature drop, the Circulating Pump is activated, allowing the heater to operate until the desired temperature is reached. *The Time Clock is active during this mode and will also activate the Circulating Pump during the periods set on the Time Clock.*

Time Clock



If you have set your Rocker-Switch to the Time Clock Mode or the Thermostat Mode, then the settings on your Time Clock will determine when your spa will circulate and filter (see Rocker-Switch settings above).

The Time Clock is a 24-hour timer, designed to control the heating and/or circulating (see “Rocker-Switch” settings above) of your spa water.

Setting the Time Clock

If you have your Rocker Switch set to Time Clock Mode or Temperature Mode, it is essential that you also set your Time Clock to cycle On-Off (or to remain always on) at least 6 hours a day for proper filtration.

To set the Time Clock to the current time:

Grasp the Time Clock and rotate clockwise, until the arrow in the center aligns with the current time of day.

To set the Time Clock to cycle On-Off:

Using your fingernails, pull the time-set tabs on the outer ring toward you for the times when you wish the spa to operate (if in proper “Rocker-Switch Settings” above). Each tab represents 30 minutes.

Do not try to remove the tabs. They do not come off of the Time Clock.

If Rocker Switch is set to Time Clock Mode and no tabs are pulled outward, the spa will not circulate or heat at all. If Rocker Switch is set to Temperature Mode and no tabs are pulled outward, the pump will only circulate when the water temperature falls below the set temperature. This may not allow sufficient circulation.

Limit Switch

Your spa equipment pack is equipped with a heater overheat sensor. This sensor protects your heater by turning off power to the Equipment Pack in cases where the water temperature in the heater have reached a higher-

than-normal condition. This can happen when your filter is clogged or dirty enough to slow the water flow and water is trapped in the heater for longer-than-normal periods of time.

If the Limit Switch pops out, thoroughly clean your filter to restore maximum water flow before attempting to reset it.

To reset, push the button inward. If it will not reset, wait until the water inside the heater has had sufficient time to cool, then try again to reset. (Depending on the outside temperature, this could take up to several hours.)

Heater Indicator Light

This light illuminates any time the heater is operating.

Spa-Side Controls

The Spa-Side Controls (also known as Top-Side Controls) put your Thermostat, Activity Lights, Function Buttons, and Digital Temperature Display in a convenient, easy-to-reach location.

The following Function Buttons operate by pushing to turn on, and pushing again to turn off.



“Jets” Button

This button(s) operates the different types of massage jets in your spa.

“Blower” Button

This button operates the Air Blower Pump. It forces air through the Air Injectors (fittings in the spa seats that introduce air into the spa under pressure).

“Light” Button

This button operates the Spa Light, which is usually located in the step area of your spa.

L.E.D. Indicator Lights

There are several Indicator Lights on your Spa-side Control. They will light at certain times, as described below:

“Ready” Light

This light will illuminate when the water has reached the desired temperature indicated by your Thermostat, and is now ready to be enjoyed.

“Heat” Light

This light will illuminate any time the heater is operating. When the water reaches the desired temperature indicated by your Thermostat, this light goes out and the “Ready” Light comes on.

It will also illuminate when the heater is not running in the following instance: If the Rocker Switch is set to Time Clock Mode, and the Time Clock is presently in the “Off” cycle, but the Thermostat setting is calling for heat. The Circulating Pump, controlled by the Time Clock, cannot allow the water to heat, but the spa water is not up to temperature, and the “Ready” Light is not lit.

“Jets” Light

This light will illuminate when the Jet Pump has been activated, using

the “Jet” Button (above). The Jet Pump circulates water at high speed through the various types of Massage Jets in your spa.

Digital Temperature Reading

This digital readout displays the spa water temperature in a conveniently located, easy-to-read manner.

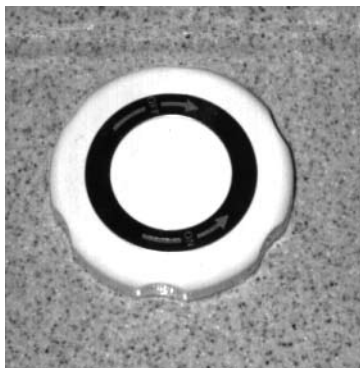
Thermostat

If you have a Spa-side Thermostat, make sure that the Thermostat on your Equipment Pack is set to “Off”, or the minimum setting possible. Otherwise, malfunctions of both Thermostats could occur.

The Thermostat can be set to the desired temperature, within a range from “Min” (approx. 40°) through “Max” (104°-107°).

The maximum heat setting will generally result in a water temperature of 104°-107°. Use the digital readout and your personal preferences as a guide in adjusting the thermostat.

Any time there is a possibility of freezing weather, it is imperative to have heat to the spa. We recommend keeping the water heated to a temperature at which you would be comfortable using the spa.



Venturi

Interior Fittings

Venturi Controls (Air Controls)

Venturi Controls are round knobs located on the “lip” or upper ledge of your spa. Depending on the model, your spa may have one or several Venturi Controls, each operating a certain number of jets. They control the amount of air that is mixed with the water coming through the jets.

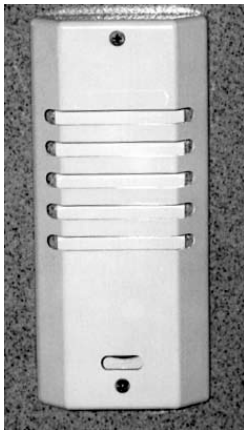
To control the amount of air introduced into your jets, turn the Venturi Control to the desired setting, to any position from far counterclockwise (maximum on) to far clockwise (maximum off). For maximum air injection and a firmer massage, turn the knob all the way counterclockwise. For a more gentle massage, turn toward clockwise.

Circulation Fittings

The interior of your spa has two types of water fittings; suction and return. The spa's Circulating Pump circulates your spa's water by pulling it from the spa via Suction Fittings (the Top Suction or Skimmer, and the Bottom Suctions), passing it through the heater and filter, then returning it to the spa via the Circulation Jets, usually located near the light or step of the spa. Normally, there are two Circulation Jets: one is a normal-sized jet, the other is a very small, white jet.

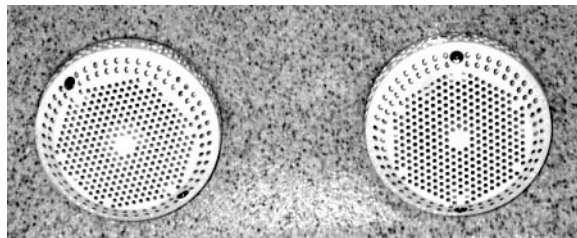
Suction Fittings

The Top Suction, or Skimmer, is designed to skim debris from the water's surface. The Bottom Suctions are designed to pull water and dirt from near the spa's bottom. The Suctions draw water from the spa whenever the Circulating Pump is running.



Skimmer

Massage Jets



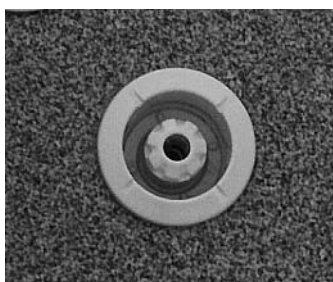
Bottom Suctions

The Massage Jets in your spa are powered by the high-speed Jet Pump. The water is drawn from your spa via a Bottom Suction, and returned through your Massage Jets.

Below are the description and operation of several of the more popular Massage Jets available at press time. In our continuing effort to update and improve the quality of our product, and because of the rapid advancements in the components available to us, jet availability changes frequently. Because of this, the jets described below may not be identical with those being used at the time of your spa's manufacture.

Standard Jets

You can adjust both the direction and the velocity of water flow from the Standard Jets. The water flow can be reduced by turning the center nozzle clockwise. As you turn it, the nozzle protrudes further out.



When fully extended, the water flow is completely stopped. By closing one jet, the pressure in the other jets is increased.

Do not close more than two jets at one time. Doing so can damage the plumbing system of your spa.

You can adjust the direction of flow from the jet by aiming the nozzle in the desired direction.

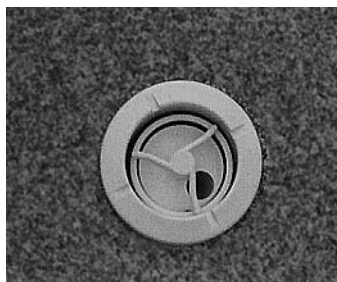
Whirlie Jets

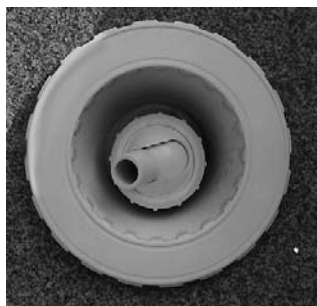
The Whirlie Jets inject the water in a circular pattern to achieve specialized therapeutic results, as well as a wonderful massage. Whirlie Jets are not adjustable.

RotoJet

The RotoJet is optional, and is not available on all models.

The RotoJet is the big brother of the Whirlie Jet, and can move 2 to 3 times the water velocity of the Whirlie Jet. It injects the water in a circular pattern





from 2" to 16" in diameter, determined by adjustment.

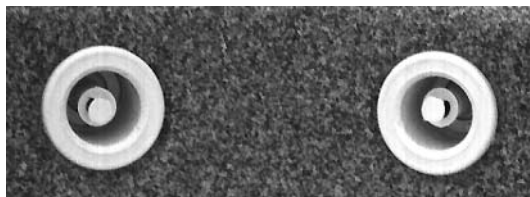
The RotoJet's nozzle can be adjusted to three different positions to increase or decrease the diameter of the circular pattern. For the smallest diameter flow, push the center nozzle into the center position of the slot in which it rests. For a larger diameter flow, push toward either side of the slot. For the largest flow, push nozzle as far as it will go to either side

of the slot.

Also, the water pressure can be adjusted by turning the outer ring of the jet clockwise (to decrease pressure) or counterclockwise (to increase pressure).

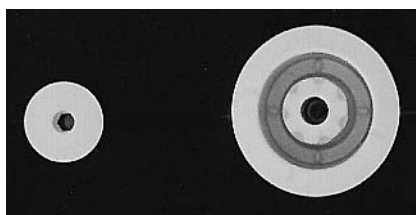
Neck Jets

Neck Jets are normally found above the water level. They can be turned on or off by pushing the nozzle inward (off) or pulling it outward (on). It is best to leave the Neck Jets off while not in use, because they sometime inject the water above the normal water level of the spa, splashing it out.



It is not required that the spa's water level cover these jets.

Circulation & Recovery Jets



Do not obstruct the flow of these jets or serious damage could occur.

The Circulation Jets are two jets, usually located near the light and/or interior spa

steps. One is a regular-sized jet, the other a very small jet. After the water is circulated through your Circulating Pump, it is returned to the spa via these two jets.

If your spa is equipped with an Ozone Generator (described later in this manual), the air bubbles coming from these jets contains the cleansing agent produced by the Ozone Generator. If not equipped with an Ozone Generator, the bubbles are merely air. If your spa does not presently have an Ozone Generator, one can be added at a later time.

The Recovery Jet is a small jet above the spa water level. It looks the same as the small Circulation Jet. This jet is designed to draw air from the space between your spa water and the spa cover. If your spa is equipped with an Ozone Generator, this air is charged with the cleansing agent produced by the Ozone Generator. The air and cleansing agent are reintroduced into your spa's water, to efficiently get the maximum cleansing effect possible.

If your spa is not equipped with an Ozone Generator, this fitting does nothing. It is there to facilitate the addition of an Ozone Generator if one is desired at a later date.

Occasionally, jets that look similar to the small Circulation Jets will be used in place of Neck Jets or Regular Jets in the spa. These jets are not attached to the Ozone Generator, but rather are similar to standard jets. The Circulation & Recovery Jets are not adjustable.

Air Injectors

Most Aries Spas contain 14 to 20 Air Injectors, depending on the model of spa. These are stainless steel fittings located in the seating area of your spa. When you activate the Air Blower Pump by pressing the "Blower" button on your Spa-side Control, air is forced through little holes under the Air Injectors, and the air escapes around the fitting. The result is a stimulating, gentle massage of tiny bubbles.

Maintenance

Filter

As the Circulating Pump circulates the spa's water, it passes through a filter, removing dirt, debris, and body oils from your spa.

The Top Loading Pressure filter is most commonly used due to its ease of cleaning and maintenance. It is available in the majority of Aries Spa models.

Cleaning Your Filter

Cleaning the Filter is an important maintenance procedure. *We recommend that you clean your Filter at least once a week.*



If cared for properly, you can expect to get about 1 year's use from each Filter Cartridge, depending on spa usage. When the Cartridge becomes worn, damaged, or heavily debris-embedded, replace it with a new one.

Before cleaning the Filter, make sure to turn off power to the spa, using the GFCI. To do this, push the "test" or "off" button on your GFCI. Or, you can turn off power to the spa by turning off the breaker in your electrical panel that powers the spa. Also, make sure to turn to the lowest possible setting on your Spa-Side Controls.

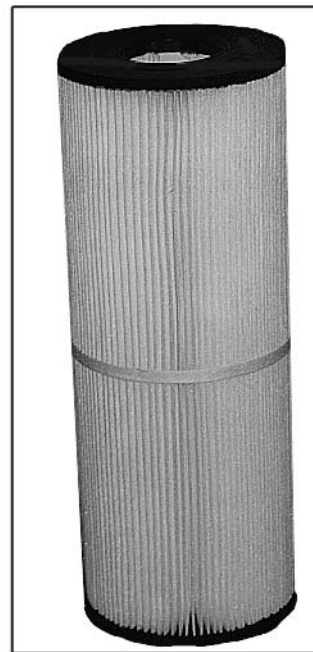
Once power to the spa has been terminated you may proceed to clean your Filter.

As the Top Loading filter is a pressure filter, make sure that power to spa is turned off before attempting to open this type of filter.

To locate the Filter Cartridge, remove the round acrylic cover located on the top “lip” of your spa. Underneath, you will see a dome-shaped plastic lid held in place with a “mason-jar” type retaining ring. Before attempting to open this, make sure that you have turned off main power switch or GFCI. Release any excess air in the Filter by turning the small plastic Bleed Valve on top of the lid. Then unscrew the retaining ring by turning counterclockwise. Once the retaining ring has been loosened, lift the ring and the Filter lid. Inside, you will find an accordion-folded fabric Cartridge. Firmly pull up on the Cartridge to remove it. Clean it by spraying with a high-pressure nozzle.

If it appears to be heavily embedded with body oil or debris, you can clean it in your dishwasher, as the very hot water helps to break down the body oils. **If you choose to use this method, do not add detergent, and make sure that the dishwasher's drying cycle is turned off.**

Note: For convenience sake, you may want to purchase an extra Filter Cartridge. When one needs cleaning, you can replace it with the other, and soak the dirty Cartridge in a mild solution of swimming pool acid (50 parts water to 1 part acid) or a 50/50 solution of household bleach, overnight. Then let



it dry and shake or brush lightly. This process helps to remove body oils and fine embedded particles, resulting in the cleanest possible Cartridge with the least amount of effort. If you use this method, make sure to hose off the cartridge thoroughly (after soaking and brushing) to remove bleach or acid residue.

Before repositioning the Cartridge, examine it for any tears or other damage. If damage is detected, you will need to replace it.

Reposition the Cartridge in the filter cannister by reversing the process you used to remove it. When you have completed reassembling the filter, reset the GFCI or otherwise turn on the spa.

Make sure that there are bubbles coming from the Circulating Jets. If not, refer to the “Initial Start-up” section of this manual. Once your Circulating Pump is operating properly, return Thermostat to previous setting.

Also, check to see that no water is leaking from around the “mason-jar” lid. If you detect any leaks, turn off the power and remove the lid again. With a small amount of Vaseline© or marine lubricant, lubricate the rubber gasket on the underside of the spa lid. Replace the lid as before and restart the Circulating Pump. If leaking persists, call Aries for assistance.

Water Treatment

It is necessary to operate your Circulating Pump each day to properly filter water and distribute chemicals, or generate ozone (if your spa is equipped with optional Ozone Generator). The time required will vary, due to use and location. We recommend operating the Circulating Pump around the clock to maintain water clarity and purity.

Water treatment is a somewhat specialized topic. We will attempt to cover some of the basics, but we recommend visiting a spa chemical store, or the Aries Factory. Also, there are several good books available on the

subject.

It is necessary to treat your spa's water for two important reasons:

1) To keep the spa water free from harmful bacteria and algae.

2) To keep the water's percentage of acidity and alkalinity (pH) in balance, so that your spa's equipment will not be corroded by acid or clogged by alkaline buildup.

Disinfectants

There are several alternatives for disinfecting your spa, including chemical disinfectants (most notably bromine or chlorine products), and non-chemical methods (such as ozone generators, reverse ionizers, etc.). Ask your spa specialist for a more detailed explanation.

The non-chemical methods will not only sanitize your water, but also help to stabilize the water's pH balance (explained below). This is because you aren't altering the balance by adding chemicals (which have a pH factor of their own).

Bromine/Chlorine Products

To chemically treat against bacteria, spa bromine and chlorine products are often used. Many of these products come in self-dispensing containers. If you use these, check frequently to make sure that your dispenser hasn't run out of chemical. Also, using a spa test kit, test the water frequently to make sure that your sanitizer is at acceptable levels.

Occasionally, it is necessary to add a larger-than-ordinary quantity of disinfectant to remove body oils and protein wastes (such as perspiration) from the water. This large dose, or "Shock Treatment", can be purchased in handy packets, or in bulk form.

Ozone Generator

Ozone Generation is a method of sanitizing water that has been in general use since the late 1800's. The Ozone Generator uses ultraviolet rays to purify the water.

Because this method of sanitizing uses no chemicals, chemical residue in the spa water is eliminated. Also, because you are not adding a product with its own pH factor (see below), the pH of your spa water stays balanced longer.

When using an Ozone Generator for sanitizing, it is extremely important to operate the Circulating Pump for sufficient periods of time each day. We recommend operating the Circulating Pump continuously.

Adjusting pH

It is necessary to keep your spa water's pH (acidity /alkalinity ratio) at acceptable levels. A simplified explanation of pH is that it is like a ruler, with numbers ranging from 1 to 14. The center of the ruler, 7, is neutral, meaning the degree of acid and the degree of alkaline are equal and they neutralize each other. The higher the number past 7, the more alkaline the water is. For example a reading of 7.5 shows barely alkaline water, while 9 has a great deal more alkalinity, etc. On the other hand, the lower the number, the more acidic the water. The desired pH level of your spa's water is within the range of 7.2 to 7.8. Your test kit will most likely have a pH test included.

If your pH level is too high, (the water is too alkaline) use one of the pH-lowering products found in many pool and spa stores. If the level is too low, (the water is too acidic), use one of the pH-raising products available at your local spa supply store. (You might try adding household baking soda to raise the pH if only slight adjustment is needed.) It is best to adjust pH gradually. Otherwise, you may experience what is known as "pH bounce", with rapidly fluctuating pH levels.

We do not recommend using chemicals formulated for swimming pools in your spa. These products are highly concentrated for use in large volumes of water (15,000

to 30,000 gals.). Proper dilution of these chemicals to an acceptable strength is difficult at best. Whenever possible, use one of the chemicals specifically formulated for spas. The Aries Factory carries a complete line of spa chemicals.

Caring for your Spa's Surface

To clean the acrylic surface of your spa, use a nonabrasive cleaner, such as Lysol Tub & Tile Cleaner®, Ivory Bathroom Cleaner®, etc. Make sure to rinse thoroughly before refilling. Otherwise, your spa will make soap-suds when you operate the spa. Keep fingernail polish remover, acetone, etc. away from the spa's surface.

Keep sharp instruments, such as nails or stones from coming into contact with the acrylic surface of your spa. If your spa's surface does become slightly scratched, ICI (the maker of Lucite©) recommends applying a coat of auto wax on the scratch. For more serious scratches, it is suggested you carefully sand the scratch with 400 grit sandpaper. For scratches or chips that go completely through the acrylic surface, acrylic repair becomes necessary. There are repair kits available at most spa supply stores.

Draining your Spa

Occasionally, it may become necessary to drain your spa for thorough cleaning or other reasons.

Before draining your spa, turn off spa's Main Power Switch.

Otherwise serious damage to equipment may result.

Siphoning is the easiest method for draining your spa. Before siphoning, make sure that your pump is off and will remain off while the spa is draining or empty. (Do this by pushing the "Test" or "Off" button on your GFCI.) The easiest way to start a siphon is to leave your garden hose hooked to a water spigot, with the free end of the hose in your spa water. Turn on the faucet, as if to add water to your spa. As soon as water starts running into the spa, quickly turn off the water and unscrew the hose from the faucet. The water will automatically start siphoning out.

Note: The above method of starting a siphon only works when the faucet is below the water level of the spa.

Another way of emptying your spa is to use the faucet or spigot attached to the equipment pack. Open the valve (turn the spigot). It is best if you attach a garden hose to the faucet, keeping the water off of the Equipment Pack. The water will start to drain out as long as the free end of the hose is below the water level of the spa.

Note: The above method will drain the water only to the level of the lowest circulating fitting in the spa (the lowest Bottom Suction). The remaining water will have to be siphoned (as described above) or bailed out.

Troubleshooting Guide

Problem	Possible Causes/Solutions
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Spa Equipment does not operate. Nothing works.

GFCI has possibly tripped.

Reset GFCI on spa pack by pushing “reset”. If GFCI resets for a moment, then trips again, see “Blower does not work” below.

Household circuit breaker has tripped.

Switch breaker to "Off" position, then reset to "On".

Equipment is not wired correctly.

Refer to wiring directions in your equipment manual. If you have questions, call your spa dealer or equipment manufacturer.

Can hear Circulating Pump running, but water is not circulating.

Knife valve(s) closed.

Shut off spa immediately. Otherwise, your equipment will “dry-fire” and burn out. Make sure all knife valves are in open position (pulled up).

Circulating Pump has drawn air and lost prime.

Make sure that the water level in the spa is approximately to the top slit of the Skimmer. Turn Thermostat to “off” to protect heater. To release air from the system, with pump running, open Bleed Valve located on the Filter lid. (This is a small screwlike fitting on top of the Pressure Filter.) Wait until water starts to spurt from the Bleed Valve, then re-close.

Let pump run for about ten minutes. If prime has not been restored, momentarily loosen the quick-release nut on the right side of the heater to release air that has been trapped in the pipes, then retighten.

Don't let the pump run for more than ten minutes without prime. To do so could cause serious damage to your equipment. If, after 10 minutes, your pump has not picked up prime, wait 1 hour and try again to restore

prime. If you still can't start circulation, then call Aries Service Department for additional tips.

After prime has been restored, reset Thermostat to desired temperature setting.

The Filter Cartridge is very dirty.

A clogged Filter Cartridge may not allow water to pass through to the spa. To verify whether this is your problem, remove the Filter Cartridge, and reseal your filter without the Cartridge inside. If the water now circulates properly, clean your Filter Cartridge thoroughly, as explained in "Cleaning your filter". If, after cleaning, it still restricts circulation, it has probably become heavily embedded with debris and oil. It will be necessary to replace the Cartridge.

Spa does not heat

The Filter Cartridge is dirty, causing insufficient water flow.

When your heater's interior flow valve senses low water flow (this can be caused by a clogged Filter Cartridge), it shuts the heater off until the flow is again sufficient (protecting your heater from overheating, and possibly burning out). Thoroughly clean your Filter Cartridge and restart the equipment.

The Knife ("T" shaped) Valves may be partially or fully closed, causing insufficient water flow (see "Filter Cartridge is dirty" above).

Make sure that all Knife Valves on either side of the Equipment Pack are completely open ("T" pulled fully outward), and restart spa.

Water level in spa is below normal operating level, causing insufficient water flow to heater (see "Filter Cartridge is dirty" above).

Fill spa to appropriate level (to about the top slit of Skimmer) and restart.

"Limit Reset" Button may be tripped.

Reset your "Limit Reset" Button by pushing. If the spa water or the outside temperature is very warm, you may have to wait several hours

(or overnight) for the water to cool sufficiently to allow resetting.
(Clogged, dirty Filter Cartridge can cause “Limit Reset” Button to trip.)

Spa water is too warm and won't cool off

You've heated the water too warm, and the outside temperature is hot, not letting the water cool .

Turn down the Thermostat, and add cool water to your spa. If the outside temperature is very hot, you might try adding some ice, also. This will help speed the process of cooling the water.

Jet Pump does not work

Air hose that activates “Jets” Button has come loose, either at back of “Jet” Button or at back of Equipment Pack.

Make sure that air hose is attached firmly to back of “Jet” button and to the fitting on the Equipment Pack. Inspect the hose for visible leaks or damage. If any are found, replace the air hose. Examine the hose for obstructions, such as insects (fire ants are a common culprit). Clear any obstruction found.

There is an air lock inside the Jet Pump system (this is a common problem in in-deck installations, especially after spa has been drained and refilled).

After turning system off, locate the Quick Coupler closest to the pump that is not operating. Loosen it by turning counterclockwise until water starts flowing out. Retighten and try to operate the system again.

Can hear Jet Pump running, but water is not circulating

All jets are partially or fully closed.

Shut off spa immediately, otherwise your jet pump may overheat and possibly burn out. Make sure to open 3 jets at least 75%.

Knife Valves are partially or fully closed.

Shut off spa immediately, otherwise your Jet Pump may overheat and possibly burn out. Make sure to open all Knife Valves completely.

Nothing works except Air Blower Pump, and it only pumps at very

slow speed

“Pump/Blower” Fuse (on front of Equipment Pack) has blown out.

Replace the fuse (available at hardware and auto parts stores) and try to restart Jet Pump and Air Blower Pump.

Nothing works except Air Blower Pump and Light

The system has been incorrectly wired and is only receiving 110 power, instead of 220.

Call your electrician, or call Aries Service Department for proper wiring instructions.

Air Blower does not work

Air Blower Pump has overheated and tripped its internal Thermal Overload switch.

The Thermal Overload will reset itself after the Air Blower Pump has sufficiently cooled down.

Air hose that activates “Blower” button has come loose, either at back of “Blower” button or at Equipment Pack.

Make sure that air hose is attached firmly to back of the “Blower” button and to the fitting on the Equipment Pack. Inspect the hose for visible leaks or damage. If any are found, replace the air hose. Examine the hose for obstructions, such as insects (fire ants are a common culprit). Clear any obstruction found.

When Air Blower is turned on, all equipment shuts off and won't restart

Air Blower has gotten wet.

The GFCI breaker has tripped because of moisture. The most common causes are:

- 1) overfilling of the spa (or large bather load) causing water to overflow the P-trap.
- 2) Large amounts of humidity or rain, runoff from sprinklers, etc.

To correct the problem, drain spa water to appropriate level, if necessary. Make sure there is no standing water under equipment. Reset

GFCI. If GFCI immediately trips, the blower may still have moisture in it. It may take up to a few days for the blower to dry sufficiently to be able to reset the GFCI. If, after a few days, the problem persists, contact your spa dealer or Aries Service Department..

Can hear Air Blower motor, but there are no bubbles in the spa

The pipe may have become disconnected from the blower.

Locate the Air Blower, and check to see if the pipe has become disconnected. If so, push the pipe back into the opening in the blower. (This pipe was intentionally left unglued.)

Light won't turn on

The air line between the light connection on the equipment pack and the "Light" button has become clogged, or has come loose from the light button or the equipment.

Check and repair the air line in the same manner as described in "Can hear pump running, but water is not circulating" above.

The light bulb is burned out.

In portable spas, take off the back of the light and change the bulb. Replacement bulbs can be found at most large automotive parts stores, or at Aries. Some inground spas are equipped with swimming pool-type lights, accessible from the front. Contact your spa dealer for bulb replacement instructions.

Water in spa is "ugly" or smells bad

Water used to fill the spa was dirty, or water in the piping or air channel of the spa was dirty.

It can take your spa a day or two to clear up when initially filled. Run Circulating Pump continually. In extreme cases, especially when a spa has been filled with well water, it may be necessary to drain and refill the spa, using filtered water.

Water in the air tubes has become stagnant, due to lack of circulation.

Make a habit of turning on the Air Blower Pump for at least 30 seconds each time you use the spa. This will flush the air tubes of standing

water, allowing it to become disinfected.

Water is not being filtered sufficiently.

Run Circulating Pump for longer periods each day. Each time the Circulating Pump operates, make sure that it runs for at least 6 hours, so that the chemicals will be properly mixed in the water. We recommend running the Circulating Pump continuously for maximum filtration.

Filter Cartridge is clogged with body oils and other debris, or filter is damaged..

Thoroughly clean the filter, as described in “Cleaning Your Filter”. If it still seems heavily embedded, or is damaged, replace it.

The water has not been chemically treated or there is a chemical imbalance.

See the section on water treatment.

If spa is equipped with Ozone Generator or other nonchemical sanitizer, it is not operating properly.

Make sure the device is plugged in tightly. If it has a fuse, check to see that the fuse has not blown, and replace if necessary.

Verify that a blue light is being omitted from the Ozone Generator. Also, make sure that bubbles are coming from one or both ozone jets located near the light fitting.

It is recommended that the Circulating Pump runs continually, so that your Ozone Generator can operate round-the-clock.

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