ARIES SPAS

BY ARIES ACRYLIC MANUFACTURING, INC. 2500 I-30 EAST ROCKWALL, TEXAS 75087 ™

ARIES SPAS

OWNER'S MANUAL

2500 I-30 East
Rockwall, TX 75087 • (214) 771-6286

Printed in the USA

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 Aries Spa Staff

Table of Contents

Spa Safety

The consumer Product Safety Commission (December, 1979) recommends the following "Safety Rules for 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, anti-histamines, or anti-coagulants, should not use spas or hot tubs.

Placement of Portable Spa

Electrical Hookup

Please refer to your equipment manual and contact a qualified electrician. All spa equipment packs require a dedicated 60 amp, single phase, 220 volt service, consisting of four wires. **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.

Your spa should be filled with water to approximately the top slit in the skimmer (see picture of skimmer in "Circulating fittings" below).

Starting your IMS Motor

Before turning on your home circuit breaker, turn off the main power switch (located in the lower right hand corner of the equipment pack). Also, make sure that both the thermostats (one on the top-of-the-spa location, and one on the equipment pack) are turned to the

"off" position or the lowest setting possible.

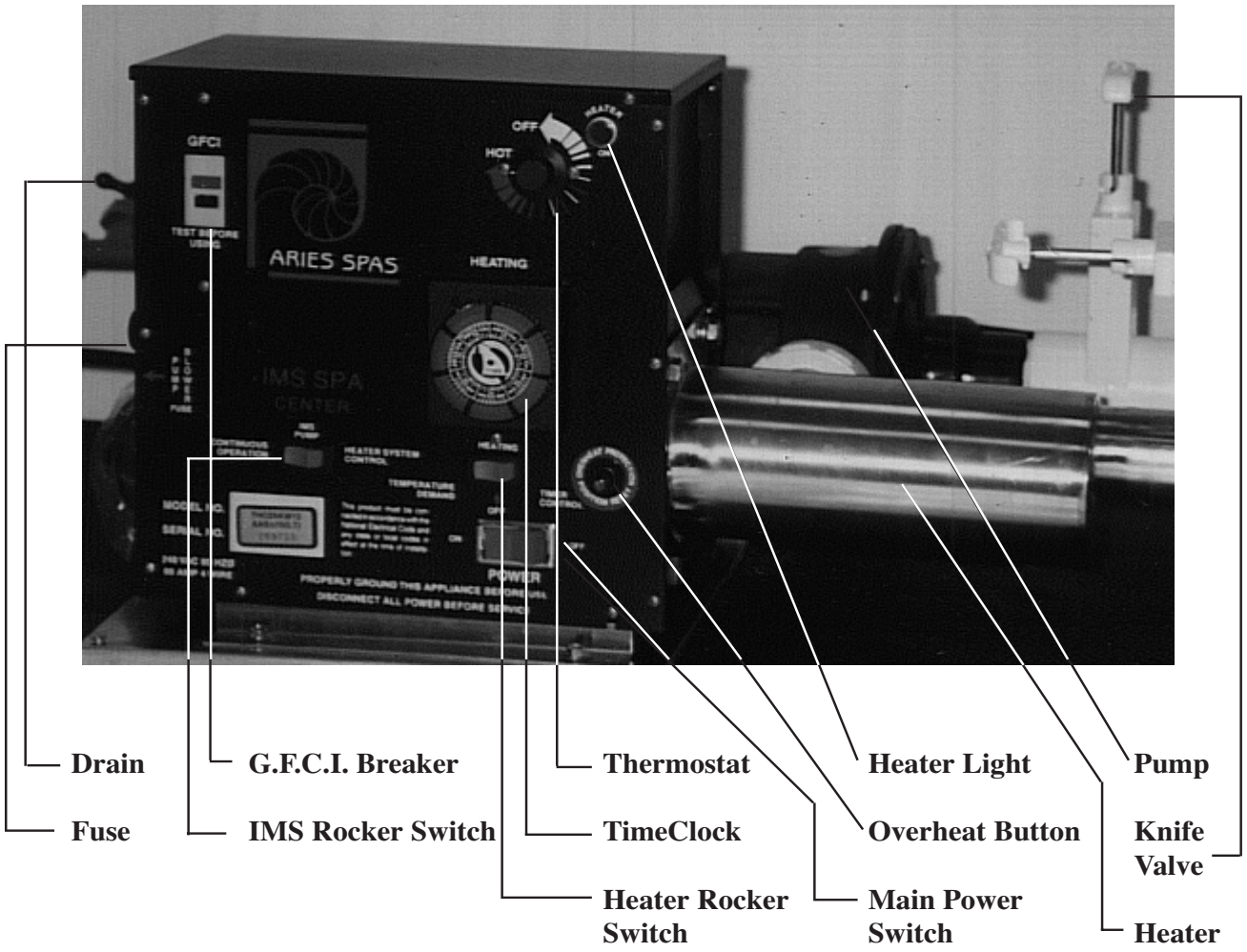
Set the two Rocker Switches to the desired settings (refer to "Rocker Switch Settings" in the "Operation" section). We recommend a combination of the IMS Switch to "Continuous", and the Heating Switch to "Temperature Demand".

Turn on the main power switch. The IMS motor should start running immediately. If it does not, recheck your Rocker Switch settings and try again.

Once the IMS motor is running and water is circulating properly, you should be able to observe water and/or bubbles coming from the Ozone and the Ozone Recovery jets, 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 IMS pump motor is running.
2. Make sure that the knife ("T" shaped) valves are open. These valves are located on the pipes on either side of the equipment pack. They are opened if the handles are extended as far out as they will go.



Make sure that the knife ("T" shaped) valves are open, or serious damage could result.

3. Open the air bleed valve on the filter lid to allow any trapped air to escape. Re-close this valve as soon as water starts to flow out of it.

If you have tried all the above, and there still are no bubbles coming from the ozone and ozone recovery jets, **STOP!** Turn off the main power switch and call us immediately! Do not go on to the next paragraph or serious damage may occur to your spa equipment pack.

Once you are sure that the IMS motor is circulating the water, you are ready to select the appropriate thermostat and TimeClock settings, as listed below.

Equipment Pack Settings

Power Switch

The Power Switch is the main "On-Off" switch to the equipment pack. In the "Off" position, the equipment pack cannot operate.

Rocker Switch Combinations

The following are combinations of the two Rocker Switches located on your equipment pack. Choose the settings that best suits your needs from the six combinations, listed below, .

IMS set to "Continuous", Heating set to "Temperature Demand"

This is the recommended method of operating your spa year-round.

With the IMS rocker switch set to "Continuous", the low-speed circulating pump continually circulates and filters the water. Also, if your spa is equipped with an ozone generator (optional), the water will be more thoroughly ozone-charged.

And with the Heater rocker switch set to "Temperature Demand" the heater will cycle on and off, holding the water at the temperature you desire (see "Setting the Thermostat" below).

IMS set to "Continuous", Heating set to "Off (center position)"

This setting can be used during mild weather, when the spa will not be used for an extended period of time, or during summer months, if a "cool-pool" situation is desired. *Do not use this setting if there is a possibility of freezing temperatures, as the heater is not able to operate in this setting, and water in the equipment could freeze and cause damage to your equipment pack!*

With the IMS rocker switch set to "Continuous" the low-speed circulating pump continually circulates and filters the water, as above.

And with the Heater rocker switch set to "Off", the heater will not operate.

IMS set to "Continuous", Heating set to "Timer Control"

This setting can be used during mild weather, and is useful in situations where the spa is only used at prescribed times, such as on weekends only. *Do not use this setting if there is a possibility of freezing temperatures, as the heater is not able to operate in this setting, and water in the equipment could freeze and cause damage to your equipment pack!*

With the IMS rocker switch set to "Continuous", the low-speed circulating pump continually circulates and filters the water, as above.

And with the Heater rocker switch set to "Timer Control", you will turn over the operation of the heater to the TimeClock (see "Setting TimeClock"). The heater will only operate at the times set on the TimeClock, regardless of whether the temperature falls below that required by the thermostat settings.

IMS set to "Heater System Control", Heating set to "Temperature Demand"

This setting can be used to run the spa only at those times when heating the water is necessary. Using this setting in warmer weather is not recommended, as it may not allow the spa water to circulate and be filtered sufficiently.

With the IMS rocker switch set to "Heater System Control", you turn over the operation of the circulating pump to the heater. The heater and circulating pump are tied together in this setting combination, and the water will only circulate at those times when the heater is running.

And with the heater rocker switch set to "Temperature Demand", the heater cycles on (as does the circulator pump simultaneously), only when the temperature falls below that required by the thermostat setting. The heater (and circulating pump) will remain running only until it has brought the water to the temperature required by the thermostat.

IMS set to "Heater System Control", Heating set to "Off (Center Position)"

Do not use this setting combination. The spa water cannot circulate with the rocker switch in this combination of settings.

IMS set to "Heater System Control", Heating set to "Timer Control"

This setting is used to circulate and heat the spa at prescribed times. If you use this setting, make sure to set the TimeClock for long enough periods of time to circulate and filtrate the water sufficiently. *Do not use this setting if there is a possibility of freezing temperatures, as the heater is not able to operate in this setting, and water in the equipment could freeze and cause damage to your equipment pack!*

With the IMS rocker switch set to "Heater System Control", you turn over the operation of the circulating pump to the heater. The heater and circulating pump are tied together in this setting combination, and the water will only circulate at those times when the heater is running.

And with the Heater rocker switch set to "Timer Control" ,the heater turns on only at those times that you have preset on the Time-Clock (see "TimeClock" below).

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.

If you have no spa-side thermostat available, set your equipment pack thermostat to the desired temperature. Initially, most people turn the thermostat to highest setting. After the water has reached maximum temperature, using a spa thermometer, the temperature can be gradually lowered by adjusting toward cooler temperatures, as desired.

TimeClock

If you have set your Heater Rocker-Switch to "Timer Control", then the settings on your TimeClock will determine when your spa will heat, and depending on the combination of Rocker-Switch settings, may also determine when the spa water will circulate and filter (see Rocker-Switch settings above).

The TimeClock is a seven-day timer, designed to control the heating and/or circulating (see "Rocker-Switch" settings above) of your spa water.

In the center ring of the TimeClock is an arrow. Outside the arrow is a ring with the seven days of the week, each divided into three-hour time-blocks, reading from right to left (the 12:00 AM position is at the far-right of each day, with 3:00 AM to the left, etc.). Outside of the time-tab ring is a ring containing the tabs used to set the running times of your spa.

To set the TimeClock, first set to the current time.

Turn the tab ring and attached time ring clockwise, until the arrow in the center ring points to the current day and time of day.

Then, using your fingernails, pull the time-set tabs on the outer ring toward you for each three-hour time-block you wish the spa to operate (according to "Rocker-Switch Settings" above).

If Rocker Switches are set to "IMS-'Heater System Control', Heating-'Timer Control'", and no tabs are pulled outward, the spa will not circulate or heat at all.

G.F.C.I. Breaker Reset Button

Your spa equipment pack is equipped with a G.F.C.I. breaker. This breaker protects against accidental electrical shock caused by water or excessive moisture on the electrical components.

To make sure that the G.F.C.I. breaker is operating properly, press the black button labeled “Test”. If operating normally, the spa equipment pack will shut off, and will require resetting. If water comes into contact with the components, the black button will pop out. To reset, push the red “reset” button. If the black button immediately pops out again, wait a sufficient amount of time for the moisture to evaporate, and try to reset again. If the black button continues to pop out, call your spa dealer or the factory.

Overheat Protection Button

Your spa equipment pack is equipped with a heater overheat sensor. This sensor protects your heater by turning off power to the heater 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 trap water in the heater for longer-than-normal periods of time.

If the Overheat Button 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

Single Function Controls

The following function buttons operate by pushing once to turn on, and pushing again to turn off.

“Jets” Button

This button operates the water jets (fittings in the spa wall that circulate the water into the spa under pressure). On systems with one circulating pump and two high-speed pumps, several of the jets will be powered by the “Auxiliary/Light” button (below).

“Blower” Button

This button operates the air injectors (fittings in the spa seats that introduce air into the spa under pressure).

“Auxiliary/Light” Button

On systems with one circulating pump and one high-speed pump, this button operates the light. On systems with one circulating pump and two high-speed pumps, this button operates those jets powered by the second high-speed pump.

Extra Button

On systems with one circulating pump and two high-speed pumps, this button (not shown in above picture) will operate the spa light.

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, either to bring the water to the desired temperature indicated by your thermostat, or during the time indicated by your TimeClock (depending on the

"Rocker-Switch" settings above).

"Jets" Light

This light will illuminate when the high-speed jet pump has been activated, using the "jet" button (above).

"Blower" Light

This light will illuminate when the air injector pump has been activated, using the "blower" button (above).

Thermostat

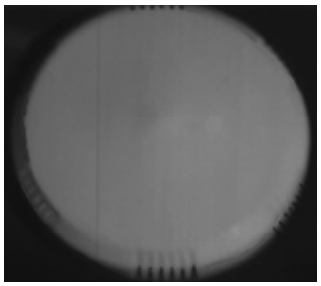
If you have a spa-side thermostat, make sure that the thermostat on your equipment pack is set to "Off", or the minimum setting possible. Otherwise, malfunctions of both thermostats could occur.

The thermostat can be set to the desired temperature, within a range from "Off" (no heat) through "Hot". Set the thermostat to "Warm" any time there is a possibility of freezing weather.

Initially, most people turn the thermostat to highest setting. After the water has reached maximum temperature, using a spa thermometer, the temperature can be gradually lowered by adjusting toward cooler temperatures, as desired.

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 venturis, each operating a certain number of jets. They control the amount of air that is mixed with the water coming through the jets. The air is pulled into the venturi by vacuum created from the rush of water being forced through your spa's jets while the jet pump is running.

To control the amount of air introduced into your jets, turn the venturi knob to the desired setting, to any position from far left to far right. For maximum jet pressure, turn the knob all the way to the left (clockwise).

Circulation Fittings

The interior of your spa has two types of water fittings; suction and return. The spa's pump circulates your spa's water by pulling it from the spa via suction fittings (top skimmer and bottom suction), passing it through the heater and filter, then returning it to the spa via

the jets.

Suction Fittings

Skimmer

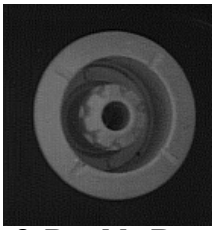
The top suction, or skimmer, is designed to skim debris from the water's surface. The bottom suctions are designed to pull water and dirt from near the spa's bottom. The suctions draw water from the spa whenever the circulating pump is running.

Jets

Below are the description and operation of several of the more popular jets available at press time.

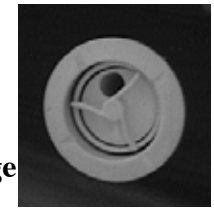
In our continuing effort to update and improve the quality of our product, and because of the rapid advancements in the products available to us, jet availability changes frequently. Because of this, the jets described below may not be identical with those being used at the time of your spa purchase.

Standard Jets



You can adjust both the direction and the velocity of water flow from most 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 will 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.

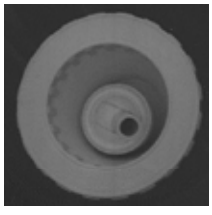
Single & Double Rotary Jets



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

Double Rotary Jets inject the water in an overlapping circular pattern, resembling a sideways figure-eight.

Large



The Large RotoJet is optional, and is not available in all models.

The RotoJet is the big brother of the single Rotary Jet. The RotoJet can move 2 to 3 times the water velocity of the regular Rotary Jet. It injects the water in a circular pattern from 2" to 16" in diameter, determined by adjustment.

The nozzle on this jet 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).

Small RotoJet

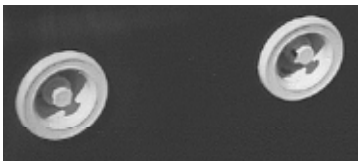
The Small RotoJet is optional, and is not available in all models.

The Small RotoJet has the same function and adjustments as the Large RotoJet (above), but is of a smaller size.

Neck Jets

Neck jets are normally found above or close to the normal water level. They can be turned on or off by pushing the nozzle inward or pulling it outward. It is best to leave the neck jets off (pushed inward) 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.



Jets

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

The Ozone Jets are two small jets, usually located near the light and/or the spa steps. If your spa is not presently equipped with an Ozone Generator (described later in this manual), one can be added at a later date. After the water is circulated through your IMS pump, it is returned to the spa via these two jets. If the spa is equipped with an Ozone Generator, the air bubbles coming from these jets contains the cleansing agent produced by the Ozone Generator. If not equipped with the Ozone Generator, the bubbles are merely air.

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

Occasionally, jets that look similar to Ozone 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 Ozone & Ozone Recovery Jets are not adjustable.

Maintenance

Filter

The spa's water passes through a filter, removing dirt, debris, and body oils from your spa.

Depending on your spa model, several types filter are used. The top loading pressure filter is most commonly-used due to its ease of cleaning and maintenance.

See the list below to determine which type filter you have in your spa.

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 up to 2 years use from each filter cartridge. When the cartridge becomes worn or damaged, replace it with a new one.

Before cleaning the filter, make sure to turn off power to the spa by turning off the G.F.C.I. To do this, push the "test" or "off" button on your G.F.C.I.. Or, you can turn off power to the spa by turning off the main power switch, or the breaker in your electrical panel.

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

Depending on your spa model, different types of filters are used. See the filter descriptions below to determine which type filter you have in your spa. Then, according to the instructions for that type of filter, remove the accordion-folded fabric cartridge. Clean it by spraying with a high-pressure nozzle.

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

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 G.F.C.I. or otherwise turn on the spa.

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.

Top-loading Filters

Make sure that all pumps are turned off before attempting to open this type of filter.

The Top-loading Filter is available on the majority of Aries Spa models.

This type of filter is easily accessed and maintained from the top of the spa.

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, turn off main power switch. Release any excess air in the filter by turning the small plastic valve on top of the lid. Then unscrew the retaining ring by turning counterclockwise. Once the retaining ring has been loosened, lift the retaining ring and the filter lid. Firmly pull up on the cartridge to remove it.

Under-Cabinet Filters

Make sure that all pumps are turned off before attempting to open this type of filter.

This filter is accessible from the door of your spa cabinet. You can recognize it by its bullet shape and "mason-jar" type lid release.

Because your filter is below water level, you must prevent the water from emptying out of the spa through the filter when opened. Do this by closing the push-pull, or "knife" valves located on both sides of your spa's equipment. (These valves resemble a letter "T".) To close the valve, push the "T" handle all the way in. To reopen, pull it as far out as it will go.

These valves must be in "open" position ("T" handle pulled out) at all times except when cleaning filter, at which time they must be closed ("T" handle pushed in). If you attempt to operate pump with either valve in "closed" position, serious damage to spa equipment can occur.

Determine whether your cartridge is installed lid-on-top or lid-on-bottom. (The lid is the part with the "mason-jar" type retaining nut.) If your filter is lid-on-bottom, be advised that as soon as you loosen the lid, all the water in the filter canister will drain out. To avoid getting your feet wet, you can hook a short hose to the hose bib (faucet) located in front of, behind, or next to the filter, and drain this water elsewhere before proceeding.

Once the water has been drained, loosen the retaining nut by twisting, and pull the canister away from the lid.

If your filter is lid-on-top, untwist the retaining nut and lift it up, catching the canister as it comes free from the lid. The canister holds about 1/2 gallon of water, and is going to be very full, so you may want to have a towel handy in case of spills.

Don't forget to open knife valves after you have finished cleaning and reassembling the filter. Otherwise, the water will be kept from circulating through your pump and heater and could cause serious damage to your spa's equipment.

After reopening valves and restarting the system, bleed the air from the filter. Locate the bleeder valve that is highest on the canister, and open it. You will hear a hissing sound as the air is forced out of the system. When water begins to squirt from the bleeder valve, close it tightly.

Water Treatment

It is necessary to operate your IMS pump each day to properly filter water and distribute chemicals. The time required will vary, due to use and location. We recommend operating the IMS 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 or pool chemical store, or purchasing one of several good books 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 degree of acidity and alkalinity 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), ozone dispensers, reverse ionizers, etc.. Ask your spa specialist for a more detailed explanation.

The non-chemical methods will also help to stabilize the water's ph balance (explained below) 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 become empty. Also, using a spa or pool test kit, test the water frequently to make sure that your sanitizer is at accept-

able 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, although in spas is relatively new, 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 IMS pump for sufficient periods of time. We recommend operating the IMS pump continuously.

Adjusting ph

It is necessary to keep your water's ph (acidity /alkalinity ratio of your spa water) at acceptable levels. A simplified explanation of ph is that it is a scale or ruler, ranging from 1 to 14. The center of the scale, 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.

Caring for your Spa's Surface

To clean the acrylic surface of your spa, use a nonabrasive clean-

er, such as Lysol Tub & Tile Cleaner®, Ivory Bathroom Cleaner®, etc. Make sure to rinse thoroughly before refilling. Otherwise, your spa will make soapsuds when you operate the spa. Keep fingernail remover, acetone, etc. away from the spa's surface.

Keep sharp instruments, nails, etc. 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 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 G.F.C.I., or turn off the Main Power Switch on the equipment pack.) 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). If desired, you may attach a garden hose to the faucet. 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 remaining water will have to be siphoned or bailed out.

Troubleshooting Guide

Problem Possible Causes/Solutions

Spa Equipment does not operate. Nothing works.

G.F.C.I. has possibly tripped.

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

Power switch is off.

Make sure power switch is set to “on”

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 IMS pump running, but water is not circulating

Knife valve(s) shut.

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

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 bleeder valve located on the filter canister. (On top-load pressure filters, this is a small knob on tip of the filter lid. On under-skirt in-line filters, this is a dime-sized cap located on the side near the top of the filter. Top-load skim filters do not have a bleeder valve.) Wait until water starts to spurt from the valve, then re-close.

Let pump run for approx. 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.

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 our service department for additional tips.

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

The filter is very dirty.

A clogged filter 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 in place. If the water now circulates properly, clean your filter cartridge thoroughly, as explained in "Cleaning your filter". If it restricts circulation after cleaning, it will probably be necessary to replace the filter cartridge.

Spa does not heat

The filter is dirty, causing insufficient water flow.

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

If the spa is equipped with knife ("T" shaped) valves, they may be partially or fully closed, causing insufficient water flow (see "Spa does not heat" above).

Make sure that the 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 (see "Filter is dirty" above).

Fill spa to appropriate level (approx. to top slit of skimmer) and restart.

"Overheat Protection" button may be tripped.

Reset your "Overheat Protection" button. If the spa water or the outside temperature is very warm, you may have to wait several hours (overnight) for the water to cool sufficiently to allow resetting.

Jet Pump does not work

Air hose that activates "Jet" button has come loose, either at back of "Jet" button or at 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.

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 Blower, and it only pumps at very slow speed

"Pump/Blower" Fuse (on side of equipment pack) has blown out.

Replace the fuse and try to restart Jet Pump and Blower.

Air Blower does not work

Blower has overheated and tripped its internal Thermal Overload switch.

The Thermal Overload will reset itself after the blower 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

Blower has gotten wet.

The G.F.C.I. 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 G.F.C.I. If G.F.C.I. 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 G.F.C.I. If, after a few days, the problem persists, contact your spa dealer.

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

The pipe may have become disconnected from the blower.

Locate the blower, and check to see if the blower pipe has be-

come disconnected. If so, push the pipe back into the opening in the blower. (This pipe was intentionally left unglued.)

Light won't operate

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. In inground spas, many 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 IMS 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, 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 filter for longer periods each day. Each time the spa filters, make sure that it circulates for at least 6 hours, so that the chemicals will be properly mixed in the water. We recommend running the IMS pump continuously for proper circulation.

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 is good, 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 IMS pump runs continually, so that your Ozone Generator can operate round-the-clock.

Index

S

T

V

W