

CalSpas[®]

A Division of California Acrylic Industries, Inc.

CHANGING THE WAY YOU FEEL

Powered by GE Motors

1998 System

Owner's Manual

Duplication without written consent is strictly prohibited.

1-800-CAL-SPAS

California Acrylic Industries, Inc. • 1462 East Ninth Street, Pomona, CA 91766 • 1-800-Cal-Spas
www.CalSpas.com

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This owners manual is filled with valuable information that will help you in all steps of spa ownership. It will answer many questions you may have from general operation to weekly maintenance. We suggest you keep this manual accessible for quick reference as you walk through the various functions of your new CAL SPA.

If you have any questions after reviewing this manual, please contact your local Showroom/Dealership or call 1-800-CAL-SPAS. We have fully trained professionals who can walk you through any question or problem you may have.

Please take a minute to fill out the following information, it can save time when trying to identify your spa for service or answering troubleshooting questions.

SHOWROOM/DEALERSHIP

ADDRESS

TELEPHONE NUMBER

SALESPERSON

DATE PURCHASED

DATE DELIVERED

SPA MODEL

SPA SERIAL NUMBER

EQUIPMENT NUMBER

IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

1. **Read and follow all instructions**
2. **Warning**-To reduce the risk of injury, do not permit children to use this product unless they are supervised at all times.
3. All 220 volt spas require a **DEDICATED 50 AMP GFCI SERVICE WITH FOUR # 6 AWG COPPER WIRES** between the spa and the main breaker.
4. **Danger**-Risk of Accidental Drowning. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use the spa unless they are closely supervised at all times (Keep spa cover on when not in use).
5. **Danger**-Risk of injury. The suction fittings in this spa are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure that the flow rates are compatible. Never operate spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.
6. **Danger**-Risk of Electric Shock. Install at least 5 feet (1.5m) from all metal surfaces. As an alternative, a spa may be installed within 5 feet of metal surfaces if each metal surface is permanently Bonded by a minimum **No. 8 AWG** solid copper conductor to the outside of the spas control box.
7. **Danger**-Risk of Electric Shock. Do not permit any electrical appliance, such as a light, telephone, radio, television, within 5 feet (1.5m) of spa.
8. **Warning**-To reduce the risk of injury:
 - a.) The spa water should never exceed 104°F(40°C). Water temperatures between 100° (38°C) and 104°F (40°C) are considered safe for a healthy adult. Lower water temperatures are recommend for young children, and when spa use exceeds 10 minutes.
 - b.) Since excessive water temperatures have a high potential for causing fetal damage during early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperatures to 100° (38°C) and not to exceed more than 10 minutes (Always check with a physician).
 - c.) Before entering a spa, the user should measure the water temperature with an accurate thermometer, since the tolerance of water temperature-regulating devices varies.
 - d.) The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning.
 - e.) Persons suffering from obesity or with a medical history of heart disease, low or high blood pressure, circulatory system problems or diabetes should consult a physician prior to spa use.
 - f.) Persons using medication should consult a physician before using a spa since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.

Save These Instructions

Basic Spa Information

Introduction:

Congratulations on the purchase of your new Cal Spa. Our purpose is to provide you with the most relaxing hot water massage you have ever encountered. In order to maximize the pleasure of your new spa, you will need to understand how it works.

Your new Cal Spa has been engineered with a high-powered water pump that pushes water through various therapy jets which will relax even the tightest of muscles. In addition to the water pressure, you can add air into the spa water with air venturies or the optional turbo feature, to increase the intensity of your massage.

Do not be afraid to push buttons or turn knobs to learn about your new Cal Spa, as it is built with quality materials and excellent craftsmanship.

The following operating and maintenance instructions are very important, and must be followed carefully. With the proper care and maintenance, your Cal Spa will provide you with years of satisfaction and performance with minimum effort.

The filtering of your spa is very important, this alone will cut down cleaning time and use of excess chemicals. We recommend that your spa filters no less than four hours twice a day. All spas will automatically do this when you turn them on for the first time.

It is very important to keep the spa covered when not in use for two reasons. The first is heating efficiency- the spa will use less electricity in maintaining your set temperature. The second is to protect your spas finish from the suns ultra violet rays.

Your spas' optional turbo feature should be used sparingly. When operating the turbo, water temperature drops quite rapidly and also dissipates chemicals.

The filter(s) need to be cleaned on a regular basis. This is very simple and only takes a few minutes. The result is increased water clarity and equipment longevity.

Cleaning your filter just requires you taking the filter out, spraying it down and reinstalling it. (See page 9 for filter cleaning instructions.)

The spas water level is also very important to the operation of your spa. If the water level is too low or too high, your spa won't run or clean properly. (The water level should be to the middle of the Weir Skimmer area when no one is in the water.)

We recommend that your spa water be changed every 4 to 6 months. You may find the need to change your spa water more often with heavy use.

When empty, your spa should be cleaned with a non abrasive cleaner, like "Cal Spas All Surface Cleaner," then rinsed thoroughly.

When refilling your, spa use regular tap water. **DO NOT USE SOFT WATER.**

NOTE: Spas built in the winter months may be delivered with the bleeder valves removed from the pumps and taped inside the control box. We remove the bleeder valves after water testing at the factory, to prevent possible freeze damage during shipping. Prior to filling your spa for the first time, make sure you replace the air bleeder valves and check the equipment area for any unions that might have loosened during shipment.

In addition to your portable spas' redwood skirt, you may have purchased a gazebo, cabana, steps or any other redwood accessory. We recommend that you protect them by applying a high quality redwood protectant or sealer and repeat as specified on the directions.

220 Volt Information

All 220 volt spas are required to have a GFCI breaker and should only be wired by a licensed electrician. To ensure proper wiring of your GFCI please follow the wire diagram at the bottom of this page.

Always Follow Applicable Local, State, and Federal Codes and Guidelines.

Your new 220 volt CAL SPA requires a **DEDICATED 50 AMP GFCI SERVICE WITH FOUR # 6 AWG COPPER WIRES**. This will include a black and red wire for your incoming power, a white wire used for your neutral and a green wire for your ground.

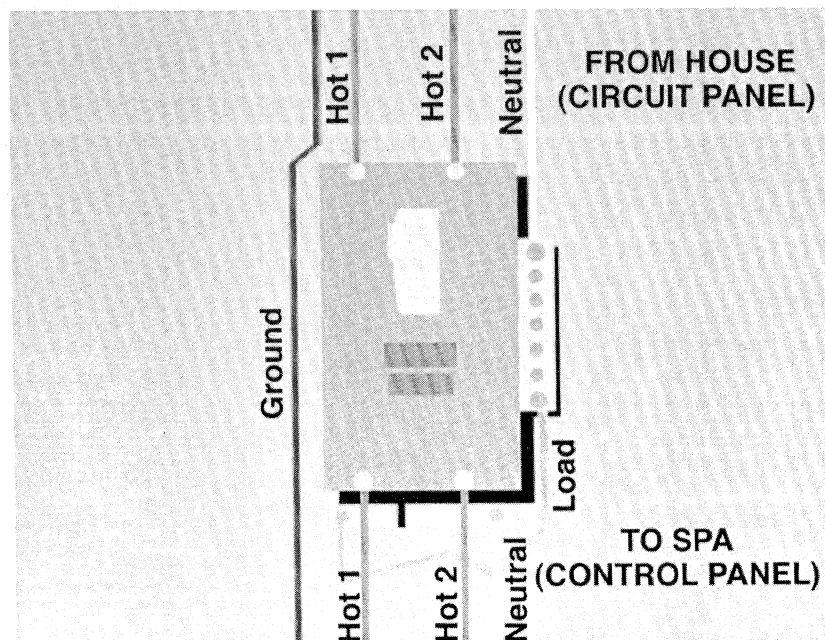
Before each use of your spa check the GFCI. During this test the spa should be operating.

1. Press the test button on the GFCI. The GFCI will trip and the spa will shut off.
2. Wait 30 seconds and reset the GFCI breaker, this is done by turning the breaker off and then back on. Your spa will be operational in about 5 seconds.

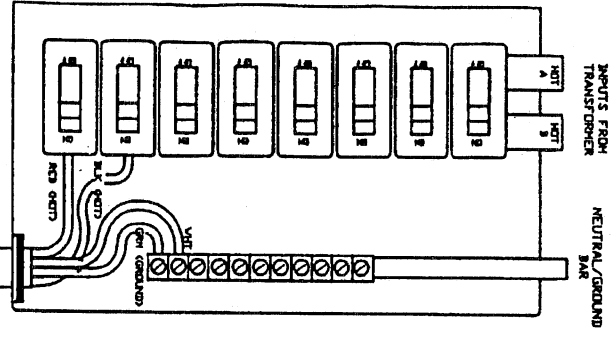
Your spa is now safe to use.



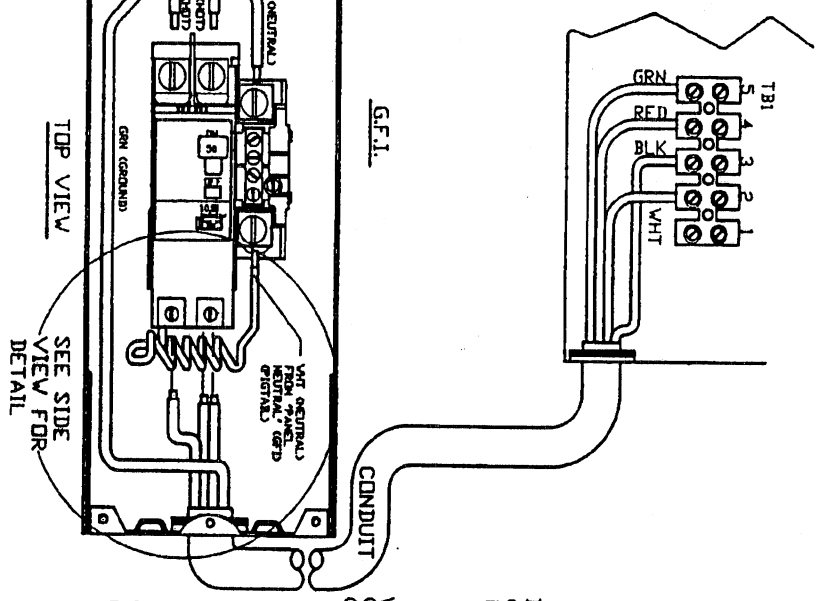
G.F.C. HOOK-UP



CIRCUIT BREAKER PANEL
120/240V SOURCE
(HOUSE)



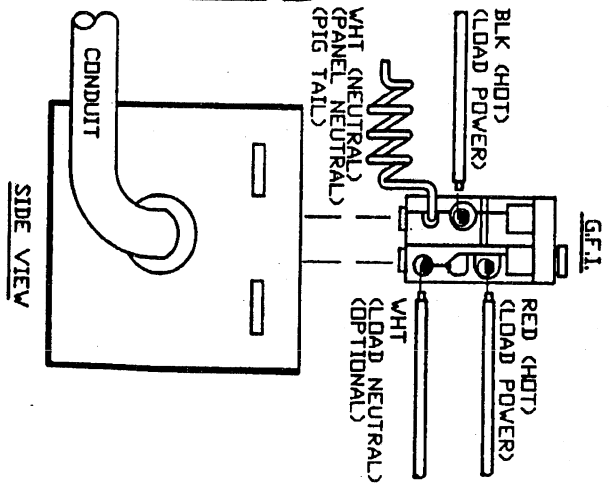
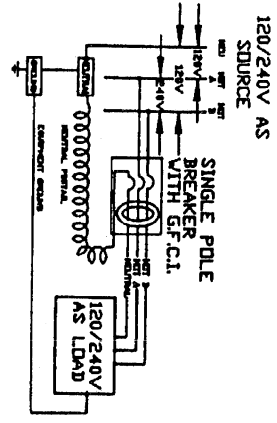
G.F.I. HOOK-UP



TOP VIEW

SEE SIDE VIEW FOR DETAIL

SCHEMATIC DIAGRAM



SIDE VIEW

Set-Up and Delivery Guidelines

Getting Ready For Delivery and Set-up of Your New Cal Spa

Planning For Delivery Of Your Portable Spa:

Your 220 volt spa will require a 50 amp dedicated GFCI circuit breaker that should be installed by a qualified electrician.

Surface and Pad Requirements

Your new portable spa must be placed on a uniformly firm, flat and level concrete pad. We recommend a 3½" thick slab.

If the location of your spa is going to be near a sprinkler system, make sure you adjust the sprinkler heads away from the spa. Water continually sprayed on spa cabinet or in equipment area may cause wood or electrical component damage.

Requirements for Decking, Gates and Balconies:

All decking must be able to support 150 pounds per square foot.

Surrounding area gates must be self closing and self latching (California Requirements).

Balconies must be constructed to current state and local code. (Spa load requirements are 150 pounds per square foot)

Planning for Delivery Of Your In-ground Spa:

Selecting the right site for the installation of your in-ground spa and equipment is very important. These sites should be city and state approved, also considering the ease of access, landscaping, and architectural styling.

The following is a list of information the delivery crew will need prior to delivery.

Clearance through gates, around gas meters, fireplace, air conditioners or other obstacles.

Height between ground and lowest point under roof eaves. Distance between spa and equipment. (Including all turns and obstacles)

Finished height of spa lip. (From ground to bottom of lip)

IMPORTANT

ALWAYS HAVE A LICENSED CONTRACTOR /ELECTRICIAN INSTALL ALL EQUIPMENT.

ALWAYS WATER TEST YOUR NEW IN-GROUND SPA FOR FIVE DAYS BEFORE COMPLETING ANY DECKING OR FINISH WORK.

DO NOT PLACE EQUIPMENT MORE THAN 20 FEET FROM SPA.

DO NOT INSTALL EQUIPMENT HIGHER THAN SIX INCHES ABOVE WATER LEVEL, OR LOWER THAN THE BOTTOM OF THE SPA.

LEAVE ALL TRENCHES OPEN FOR FINAL INSPECTION BY YOUR LOCAL INSPECTOR.

WARNING

Do Not Exceed 104°F

Excessive Temperature May Void Warranty

General Operating Instructions

Your new Cal Spa is very versatile, you can direct the flow of water and air through various locations in your spa. The following list of features are available on most spas.

Air Venturies: Air Venturies are the smaller knobs located around the top of your spa. Each one will let you add a mixture of air in with the jet pressure. Multiple air venturies allow you to add or turn off the air in different seats.

Adjustable Jets: Almost all Jets are adjustable. These Jets just require a turn from left to right to either turn that Jet on or off.

Diverter Handle: Diverter handles are the larger knobs on the top of your spa. They allow you to mix air with jets for optional supercharged jets.

Priming The Pump(s) On Portable Spas

An important step in starting-up your new Cal Spa is priming the pump. Priming the pump is the process of removing the air from the plumbing lines. To do this, just follow the easy steps below.

1. Turn power off at the breaker.
2. Open all the gate valves (if equipped: up=open).
3. Fill the spa to the proper water level with **REGULAR TAP WATER**. (½ way up on weir skimmer area)
4. Open the air relief valve, located in the skimmer area.
5. After the air bubbles stop coming out of the air relief valve, tighten valve until closed (Do not over tighten).
6. Turn power on at breaker.
7. After a five second countdown, press the jets button.
8. Allow pump to run for up to five minutes. If water does not start to circulate within five minutes repeat steps 1 through 7.

Priming The Pump(s) On Gas Packs

1. Turn power off at the breaker.
2. Open all the gate valves (if equipped: up=open).
3. Fill the spa up to the proper water level with **REGULAR TAP WATER**. (½ way up on weir skimmer area)
4. Remove lid(s) from pump basket(s) and filter canister.
5. Fill pump basket(s) and filter canister with a garden hose until full and replace lids snug.
6. Turn power on at breaker.
7. Press the jets button.
8. Allow pump to run for up to five minutes. If water does not start to circulate within five minutes repeat steps 1 through 7.

Important Notes:

Be careful not to over tighten filter or pump basket lids.

Never run spa with gate valves closed or run pumps without water circulating for long periods of time.

All spas will automatically run on filter speed until water temperature reaches set temperature.

Filter Maintenance

Portable And In-ground Spas

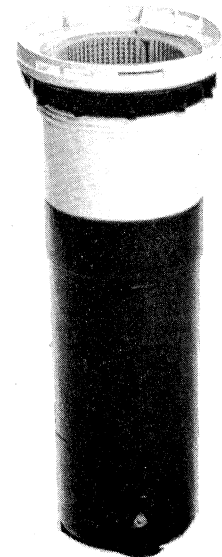
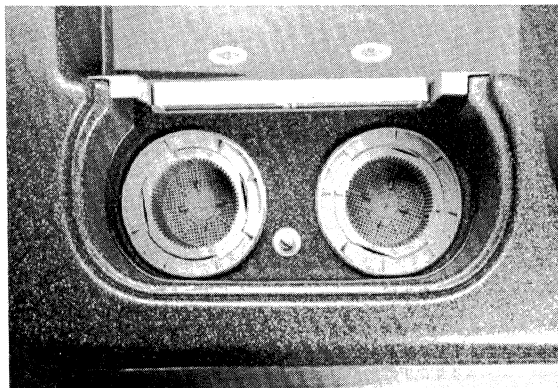
Filtration starts as soon as the pumps are primed and water flow is steady. As the flow of water goes through the filter, dirt and debris is removed and accumulated in the filter cartridge. As the filter cartridge accumulates more and more dirt and debris, water flow is lessened and jet performance is reduced. **This can cause your spa not to run or heat properly.**

Clean Your Filter Regularly, And Replace As Needed

Filter Cleaning: Portable Spas

Your new Cal Spa has been designed for quick and easy filter maintenance. The filter cartridge should be cleaned once a week.

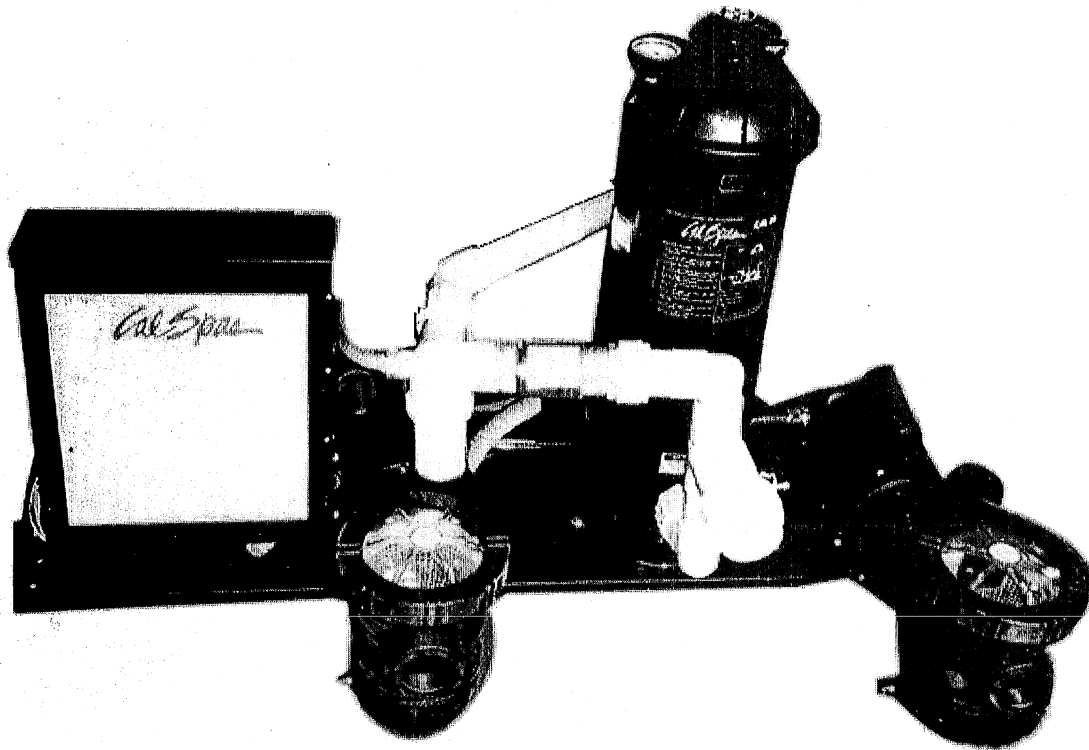
1. Turn power off at the breaker.
2. Remove filter cover.
3. Remove filter basket. (Twist and Pull-up)
4. Remove filter, (Pull-Out) and clean with a garden hose.
 - a. Hold filter vertically.
 - b. Spray filter cartridge with a pressure nozzle, starting from the top and spraying down each pleat.
 - c. Turn filter cartridge over and repeat step (4b).
 - d. Reinstall filter cartridge in reverse order of removal.



Filter Cleaning:

Gas Packs

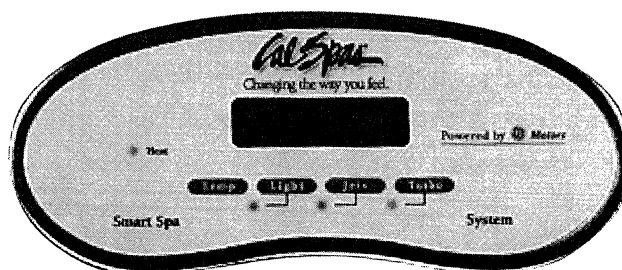
- A. Turn off power at breaker.
- B. Close all gate valves (if equipped: down=closed).
- C. Remove lock nut from top of filter canister.
- D. Remove filter cartridge. (Pull-Up and Out)
- E. Hold filter vertically.
- F. Spray filter cartridge with a pressure nozzle, starting from the top and spraying down each pleat.
- G. Turn filter cartridge over and repeat step (E,F).
- H. Reinstall filter cartridge in reverse order of removal.



System Spa Operation

Start up

When first powered up, the system will perform a self-diagnostic check, then will automatically heat and maintain 100°F until you change the set temperature.



Temperature Adjustment

Press the **Temp** pad to display the set temperature. This temperature will be flashing on the display panel. In a few seconds the display will stop flashing and will display the actual water temperature. When display is flashing, press the **Temp** pad a second time, this will cause the set temperature to increase or decrease depending on what direction was last chosen. Each additional press will change the set temperature in the same direction.

If the opposite direction is desired, release the pad and let the display revert to the actual water temperature. Press the **Temp** pad to display the set temperature, and again to make the temperature change in the desired direction.

Jets/Circulating Pump Controls

Press the **Jets** pad to activate the circulating pump. Press the pad again to activate the circulating pump and pump 1 on high-speed. Press the pad a third time and the circulating pump, pump 1 and pump 2 will be running on high-speed. Press the **Jets** pad a fourth time and only pump 2 will be running. Press **Jets** pad for the fifth time and all high speed pumps will be off.

Light

Press the **Light** pad to turn on the light and again to turn the light off.

Turbo (Optional)

Press the **Turbo** pad once to activate the turbo system, and again to turn it off.

Setting The Temperature lock

Press the **Up** or **Down** pad, then press either the **Turbo** or the **Key** pad to lock the set temperature in. Press the same sequence to unlock.

Automatic Time outs

The circulation pump will automatically turn itself off after 4 hours if not turned off manually.
Either high-speed pump, will automatically turn itself off after 30 minutes if not turned off manually.
The optional turbo will automatically turn itself off after 15 minutes if not turned off manually.
The light will automatically turn itself off after 45 minutes if not turned off manually. (Fiber optic lights turn off after 4 hours, if not turned off manually.)

System Spa Operation (cont.)

Preset Filter Cycles

Your spa will automatically filter itself twice a day. To set filtration time, turn off the power to the spa at the time of day you would like to start filtration. The first cycle will start after the spa is powered up. The second filter cycle will begin twelve hours later. Filter cycle duration is preset for 4 hours. To change duration of filtration time, press the **Temp** pad, then press the **Jets** pad. Press the **Temp** button again to choose from 2,4,6,8, and 0 hours twice a day (0=12 hours continuous filtration). After selecting the desired filtering duration, press the **Jets** pad to exit the filter program. The circulating pump and ozone generator (optional) will run during filter cycles.

Safety Suction System

Your new Cal Spa is equipped with a state of the art "Safety Suction System." This will automatically shut the spa down in the event of filtration or suction restriction. If this happens you can manually reset this system by pressing any topside pad.

Self-Diagnostic Display Messages For System

Message	Meaning	Action Required
OH	"Overheat" The spa has shut down. Either the spa has reached 112° F or the High-limit sensor has detected 118° F in the heater manifold.	DO NOT ENTER THE SPA WATER. Remove the spa cover and let the water cool. At 110° F, the spa should automatically reset. If the spa does not automatically reset, press any pad on the topside panel. If the spa still won't reset, turn off the power and call your local service center.
FL	"Flow" (Not Flashing) A pressure switch has malfunctioned.	Call your local service center.
SF	"Safety" Spa is shut down. The safety suction system has activated.	Check the drains and filter for debris or obstruction. To reset the system press any pad on the topside.
Sn	"Sensor" Spa is shut down. High-limit/ Temperature sensor has malfunctioned.	Call your local service center.

Warning ! Shock Hazard! No User Serviceable Parts.

Do not attempt service of this control system. Contact your dealer or local service center for assistance. Follow all owner's manual power connection instructions. Installation must be performed by a licensed electrician and all grounding connections.

Winterizing and Draining Your Cal Spa

Winterizing

In many areas of the country the temperature drops below 32° F. If you live in these areas, it is our recommendation that you always have your spa full of water and running at normal spa temperatures. This will help reduce the risk of freezing in your spa and your spa's equipment.

IMPORTANT WARNING

If you find the need to drain your spa, please be aware of the potential of freezing in your spa's equipment and plumbing. Even if the directions below are followed perfectly, there is no guarantee that your spa will not suffer freeze damage.

Cold Climate Draining

1. Open all filters and filter baskets.
2. Remove filter(s)
3. Drain your spa completely.
4. Remove drain plugs from the front of pump(s).
5. Disconnect the unions from both sides of the pump.
6. Use a wet/dry vacuum to blow any remaining water out of the jets and plumbing lines.
7. Use a soft towel to remove any remaining water in the spa, filter canister, and equipment area.
8. Cover your spa with a good spa cover and all-weather tarp, to ensure rain or snow can not enter the spa.
9. If you have a **Gas Heater**, you will need to follow the winterizing instructions for your particular heater in the owner's manual. This manual will be delivered inside your gas heater.

Draining Your Spa

Your spa should be drained every 4 to 6 months, and refilled with fresh tap water. Here are two recommended methods of draining your spa.

Method one (Portable Spas)

1. Turn off power.
2. Open all filters and filter baskets.
3. Remove filter(s).
4. Hook up the female end of a garden hose to the spas drain fitting, and the other end in a convenient place for draining. *(Locate white hose in the bottom of the equipment area, remove cap and connect garden hose.)
5. Let spa drain completely, then remove garden hose and replace the drain cap.

Method Two (In-ground and Portable Spas)

1. Turn the spa on.
2. Hold the female end of a garden hose in front of any working jet, and the other end in a convenient place for draining.*
3. Hold the garden hose in front of a working jet until you have constant water flow through the hose.
4. After you have a constant flow of water through the garden hose, secure the hose so the female end sets in the bottom of the spa and turn off the power. This process will create a siphon and the water will drain out of the garden hose.

*** NOTE: Prevent drain water from coming in contact with fragile shrubs and foliage.**

Customer Assistance Program

Your satisfaction and goodwill is important to your Dealer and Cal Spas. Normally, any problems with the sales transaction or the operation of your spa will be resolved by your Dealers Sales or Service Departments. Sometimes, however, despite the best intentions of all concerned, misunderstandings can occur. If your concern has not been resolved to your satisfaction, the following steps should be taken:

Step One: Discuss your problem with the Store Manager. Complaints can often be quickly resolved at this level.


Step Two: If after contacting a Store Manager, it appears your problem cannot be resolved by the dealer without further help, **Contact the Cal Spas Customer Relations Department** by calling 1-800-CAL-SPAS. For prompt assistance, please have the following information available to give the Customer Relations Representative:

- Your name, address, telephone number
- Spa Identification Number (This is available from the plate attached to the front of the spa.)
- Dealer name and location
- Spa's delivery date
- Nature of problem



If you wish to write Cal Spas, forward your correspondence to:

Cal Spas
Customer Relations Department
1462 East Ninth Street
Pomona, CA 91766

When contacting Cal Spas, please remember that your problem will likely be resolved by contacting your dealer. This is why we suggest you follow Step One first if you have a problem. Cal Spas' ultimate goal is Customer Satisfaction, therefore, you can be assured your satisfaction is guaranteed.

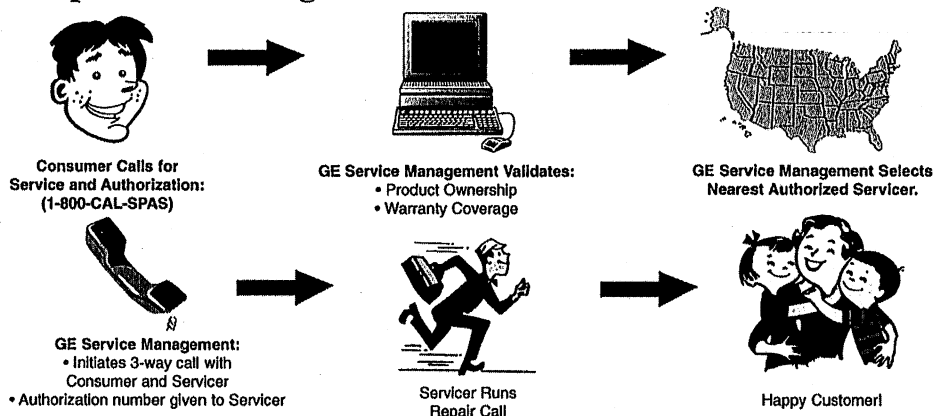


GE Service Management



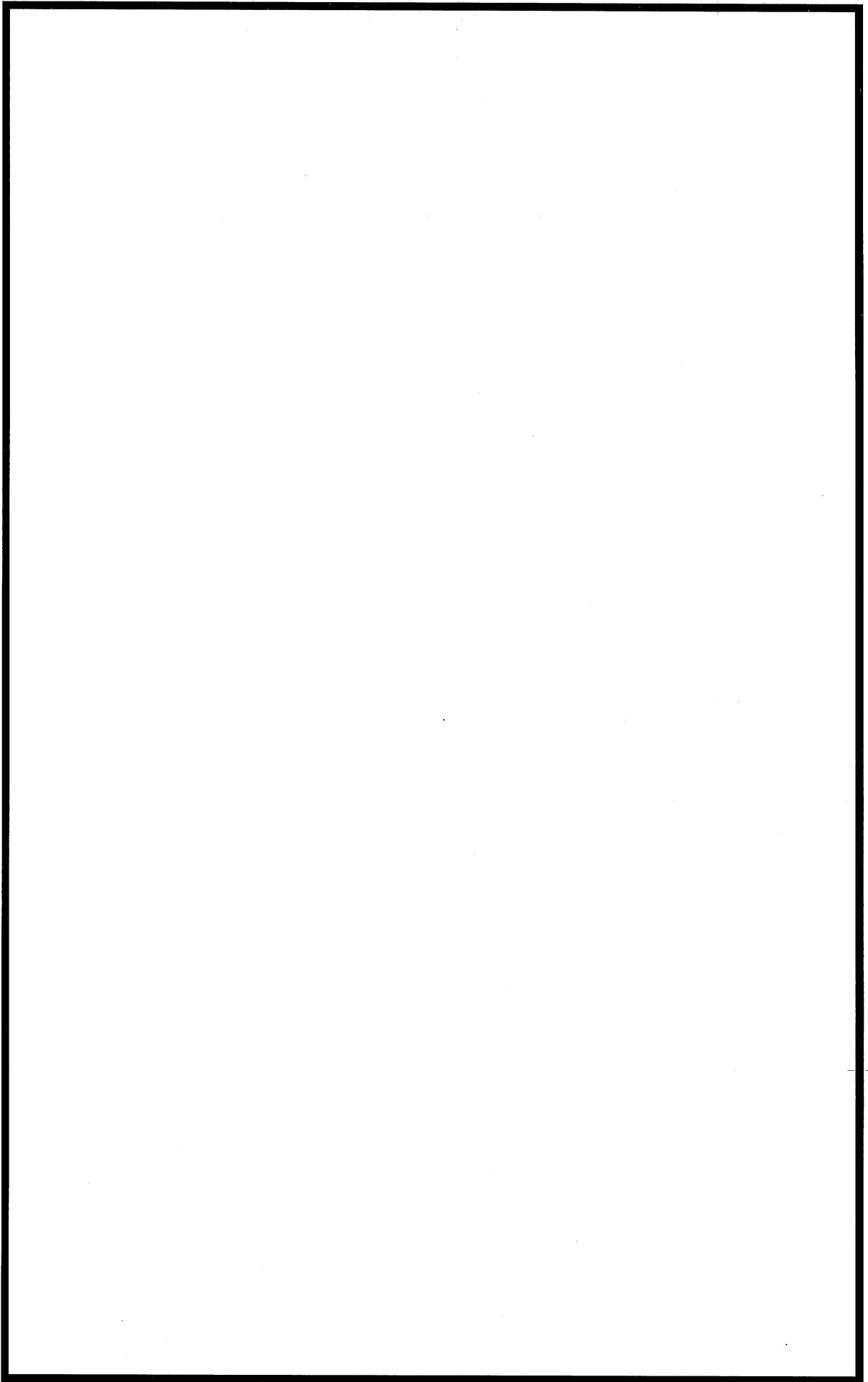
- Exclusive Service Program
- Worlds Largest Service Network
- Prompt and Professional Handling of Calls
- Fast and Efficient Service Scheduling
- Allows You to Spend Your Time on Sales

Cal Spas Service Program

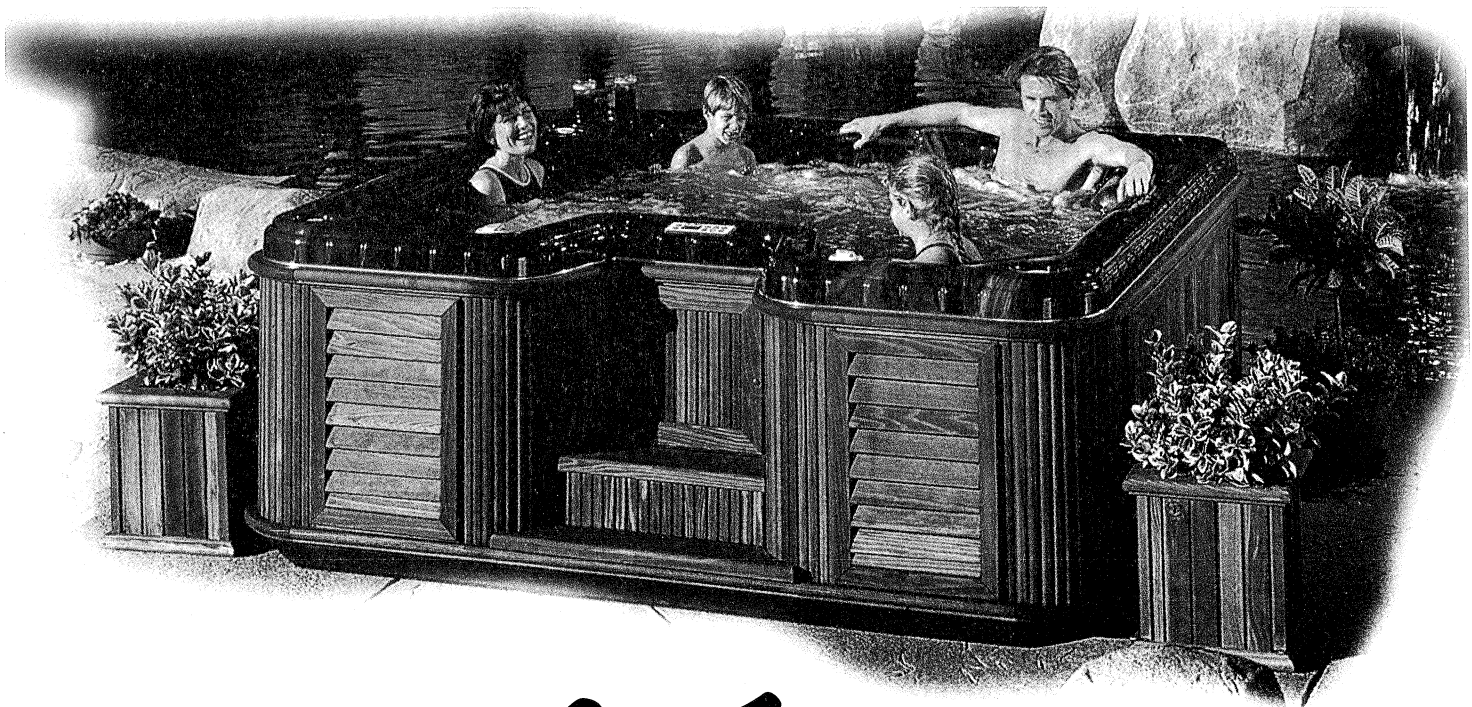


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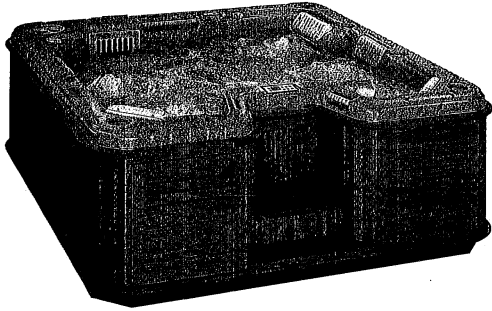


*CAL SPAS, the world's largest spa manufacturer now offers a complete line of **HOME RESORT PRODUCTS**. From game room accessories and pool tables to complete backyard packages featuring spas, gazebos, barbecues and decorative patio furniture. These products and more are now available from the leader in home relaxation. Call us at **1-800-CAL-SPAS** for your nearest retailer.*

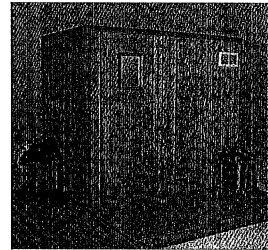


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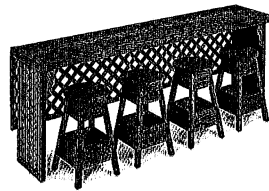
Providing all your Home Resort needs.



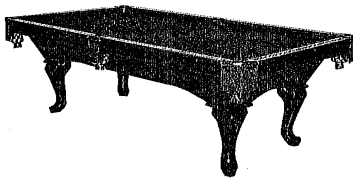
System Spa



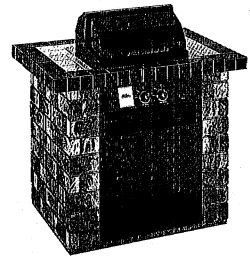
Saunas



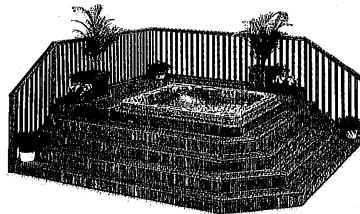
Bar Kits



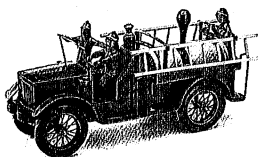
Billiards



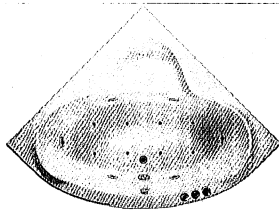
Barbecues



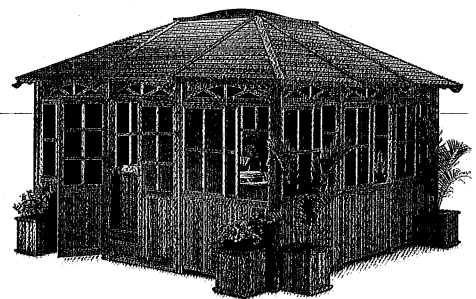
Deck Packages



*Game Room
Accessories*



Bathtubs



Gazebos

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