HYDRO SPA

Manufacturer of Fine Spas
13055 49th St. N.
Clearwater, FL. 33762
http://www.hydrospa.com OR http://www.hydrospa.net

Part # 7063
Revision: January 01, 2001

Royalty Series

Give Yourself the Royal Treatment

Manufacturer of Fine Spas

HYDRO SPA

Owner's Manual and Safety Instructions

SYMPTOM: THE WATER LEVEL DROPS

a. Some water loss due to evaporation is normal if rapid water loss occurs, or if you notice wetness on the floor around the hydrotherapy spa, contact your dealer for service.

b. A clamp or seal inside the pump compartment may be loose. Check inside the pump compartment for excess water and watch the pump unit while it is operating to see if water drips from any of the plumbing. If you can identify the location of the leak inside the spa jet unit tighten the clamp or replace the damaged seal.

SYMPTOM: THE SPA CONTINUES TO RUN AFTER IT HAS BEEN SHUT OFF

a. Heater element may be bad and require replacement
Note: If the water is already below the minimum setting, The pump will not shut off.

Your Spa *and* Dealer

The Royalty Series

Empress
Duchess
Princess

Spa Model:
Spa Serial Number: _____
Purchase Date: _____
Dealer's Name: _____
Address: _____
City: _____ **State:** _____
Zip Code: _____
Phone Number: _____

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⚠ IMPORTANT SAFETY INSTRUCTIONS

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

- READ AND FOLLOW ALL INSTRUCTIONS!
- DANGER: TO REDUCE THE RISK OF INJURY, do not permit children to use product unless they are closely supervised at all times.
- WARNING: RISK OF CHILD DROWNING, extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use spa unless they are supervised at all times.
- DANGER: TO REDUCE THE RISK OF INJURY, do not remove suction grate or cover.
- DANGER: RISK OF ELECTRICAL SHOCK. Do not operate any electrical appliance such as light, telephone, radio or TV within five (5) feet of spa.
- DANGER: RISK OF ELECTRICAL SHOCK. Position spa at least five (5) feet from all metal surfaces except as provided for in Item Number 1.
  1. Spa can be installed within five (5) feet of metal surfaces, if, in accordance Article 680 of the National Electrical Code, ANSI/NFPA 70-1984, each metal surface is permanently connected by bonding wire which is attached to pressure wire connector provided for that purpose.
  2. If bonding is required, a pressure wire connector is provided in the electrical enclosure adjacent to the power supply terminals to permit connection of a bonding wire between this point and any metal equipment, metal enclosure of electrical equipment, metal water pipe or conduit with five (5) feet of this spa as needed to comply with local requirements. The bonding wire must be at Number 8 AWG (8.4mm2) solid copper wire.
- Position spa to provide drainage of the compartment for electrical components.
- For floor recesses spas, install to permit access for servicing from above or below floor.
- NEVER USE AN EXTENSION CORD!

SYMPTOM: THE WATER DOES NOT HEAT

a. Make sure that the hydrotherapy spa is fully Covered with the spa cover. The spa cover Must be tight for the water to heat. Set the air control to low. Set the temperature to the desired setting. The water will heat at 1.5°F an hour. If you are using the spa indoors, and the room temperature is maintained at 70°F, it will take approximately 24 to 36 hours for the water to reach the set temperature.

b. If you are using the hydrotherapy spa outdoors, it may take longer for the water to heat. See the chart below for the approximate heating time.

Air Temperature	Heating Time
70°F +	24 to 36 hours
50°F-70°F	2 to 3 days
30°F-50°F	3 to 4 days

If the water still has not heated after four days, contact your dealer for service.

c. If actual water temperature is lower that the set temperature, and the Heat On LED indicator on the console is not lit, contact your dealer for service.

SYMPTOM: THE WATER IS NOT BEING CLEANED BY THE FILTER

a. Check to see if the filter is in place. Clean the filter if it is dirty.

b. Check the chemical balance of the water. If the pH is incorrect, the sanitizing agents will not function properly.

SYMPTOM: THE WATER PULSATES OR THERE IS MINIMUM WATER FLOW

a. Adjust the water level. This usually occurs only when the water level is low. Add water until

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HYDRO SPA®

W A R R A N T Y

Lifetime Spa Structural Warranty

Hydro Spa warrants the Alter Hours, Regency, Royalty and Fitness spa shell structure, against the lamination of the fiberglass laminate of the shell caused by defects in materials and workmanship for so long as the original purchaser owns the spa. Contact your dealer first if you have any questions concerning warranty issues, prior to contacting Hydro Spa.

10-Year Hydro Spa Surface Warranty

Hydro Spa warrants the Alter Hours and Regency Series interior acrylic spa surface against blisters, cracks, or delaminating resulting from a defect in the acrylic surface material for a period of 10 years from the date of purchase, based on the following formula: Retail cost divided by months covered (120, 60 for Royalty and Fitness), multiplied by months owned = replacement cost. Royalty and Fitness Series 5 year surface warranty.

Lifetime Manifold Plumbing Warranty

Hydro Spa warrants the Alter hours and Regency plumbing manifolds, fittings, and parts to be free of defects in materials or workmanship for so long as the spa is owned by the original purchaser.

Electrical Equipment Warranty

Hydro Spa warrants Alter Hours electrical equipment and components to be free of defects in materials and workmanship for a period of 2 years from the date of purchase. Regency, Royalty, and Fitness series are warranted for a period of 1 year from the date of purchase.

Warranty Performance

In the event of a defect covered under the terms of this Limited Warranty, notify your Hydro Spa Dealer. Use all reasonable means to protect the spa from further damage. A service representative from your Dealer will repair the spa subject to the terms and conditions contained in this Limited Warranty. The service representative may assess reasonable travel charges, during inspection or repairs. If we determine that repairs are not feasible due to functional defect, we reserve the right to provide a replacement part or spa in lieu of repair. We will replace with a part of value equal to the original purchase. In such event, reasonable costs for removal of the defective spa and delivery and installation of the replacement spa will be the responsibility of the spa owner. We reserve the right to an on-site inspection by an authorized service representative.

Limitations and Exclusions

This limited warranty applies to spas sold after January 1, 2001 by Hydro Spa. This limited warranty applies only to the Original Purchaser and terminates with any transfer of ownership. This limited warranty does not apply to a spa used for any commercial, rental, club purposes, or for any spa used outside of the United States. The purchaser must establish the date of purchase by dated sales invoice or delivery receipt.

This limited warranty does not cover damage resulting from abuse, misuse, or neglect including any installation, operation, maintenance, or use of spa other than in accordance with the Owner's Manual of the spa. Damage caused by operation of the spa at water temperatures outside the range of 32 degrees F, and 120 degrees F, damage caused by dirty, clogged, or colorfilled filter cartridges, damage to the spa surface caused by improper use of chemicals or cleaning agents, allowing undissolved spa sanitizing chemicals to lie on the surface, damage caused by improper pH balance or other improper water chemistry, damaged caused by failure to provide even and sufficient support for the spa, are considered abuse and may invalidate this Limited Warranty. Damage caused by repairs or alterations performed by anyone other than an authorized service representative is not covered. Failure caused by accidents, acts of God, noncontractual normal wear and tear, cosmetic blemishes and other causes beyond our control is excluded.

The warranty is in lieu of all other warranties, expressed or implied, including implied warranties of merchantability and fitness for a particular purpose. In no event shall Hydro Spa be liable for incidental or consequential damages.

Disclaimer

The spa owner is required to provide adequate access to the spa for any repair or inspection. Hydro Spa shall not be liable for loss of use of the Spa or other incidental or consequential costs, expenses or damages, which my include but are not limited to water damage, or the removal of a permanent deck or other custom fixture. Under no circumstances shall we, or any of our representatives be held liable for injury to any person or damage to any property, however arising. This warranty gives you specific legal rights and you may have other rights. No Agents, Dealers, Service Company, or other party is authorized to change, modify, or extend the terms of this Limited Warranty in any manner what so ever.

TOP LOAD FILTER ASSEMBLY

PART#	*KEY*	*DESCRIPTION*
500-1000	*1*	Lock ring assembly
715-1001	*2*	Plug, Air relief
804-0114	*3*	O-ring, Air relief plug
511-1000	*4*	Filter lid
805-0360	*5*	O-ring, Filter lid
500-1070	*6*	Brominator, 10 Tablet
519-1060	*7*	Flow restriction tube
711-1010	*8*	Filter space ring
817-2500	*9*	Filter cartridge, 25 Sq. Ft.
817-5000		Filter cartridge, 50 Sq. Ft.
817-7500		Filter cartridge, 75 Sq. Ft.
817-1000		Filter cartridge, 1000 Sq. Ft.
550-5000	*10*	1 ½" Filter body, w/Bypass
550-4900		1 ½" Filter body, w/Bypass
550-5010		2" Filter body, w/Bypass
550-5060		2" Filter body, w/Plug
550-5110	*11*	1 ½" Extended Filter body, w/Bypass
550-5150		1 ½" Extended Filter body, w/Plug
550-5230		2" Extended filter body, w/Bypass
550-5220		2" Extended filter body, w/Plug
718-1000	*12*	Filter body nut
715-1010	*13*	1 ½" Plug
715-9900		2" Plug
600-1000	*14*	1 ½" Bypass valve assembly
600-1040	*15*	2" Bypass valve

Filter cartridge installed in the Royalty Series

Part number **817-2500**

To order filter or parts call (727) 573-9611 or fax (727) 573-7758 when placing your order. You can also e-mail your order in at
service@hydrospa.net
sales@hydrospa.net

Light-Optional
To turn on or off the light by pushing the light button.

Air Control (AVC)
By turning the lever, it will allow more air flow through the jets providing more water agitation.

MAINTENANCE and *CARE*

Your new spa was built to give you years of enjoyment and pleasure. However, certain maintenance steps must be taken in order to extend life and usability of the spa.
IMPORTANT! The warranty on your spa and equipment is dependent on proper water balance through the use of spa chemicals. A special section of this manual will cover chemical usage and requirements. In addition to chemicals water balancing, the following maintenance procedures must be followed periodically.

CLEANING THE SPA

The spa shell should be cleaned with a mild soap solution. Do not use solvents. The spa should always be clean and dry before being moved or Stored.

MAINTAINING THE SPA COVER

The spa cover should be cleaned monthly. To clean the spa cover, use water and a non-abrasive cleaner on the entire cover. Rinse the cover with a garden hose to remove any cleaner residue. Dry the cover entirely. You should also use a non-silicone based vinyl conditioner on the cover after you clean it. This will protect the cover from sun damage.

MAINTENANCE SCHEDULE

Daily
- Check the water level and refill the spa to the proper level if needed.
- Check the pH balance and sanitizer level. Adjust if necessary.
- Clean the surface of the water with a skimming net.

Weekly
- Clean the spa shell at the waterline.
- Check and thoroughly clean the filter if needed.
- Replace the filter if needed. (always have a spare.)

Monthly
- Clean the spa cover.
- Soak the filter for two hours in a trisodium phosphate (TSP) solution. Rinse the filter in clean water.

UNDERSTANDING SPA JARGON

Below are a some parts and accessories that are installed in your spa. These pictures listed below are to help you better understand their operation and what they look like..

Air Blower
If you like the bubbling sensation, the blower will provide this.

Air Control (AVC)
By turning the lever, it will allow more air flow through the jets providing more water agitation.

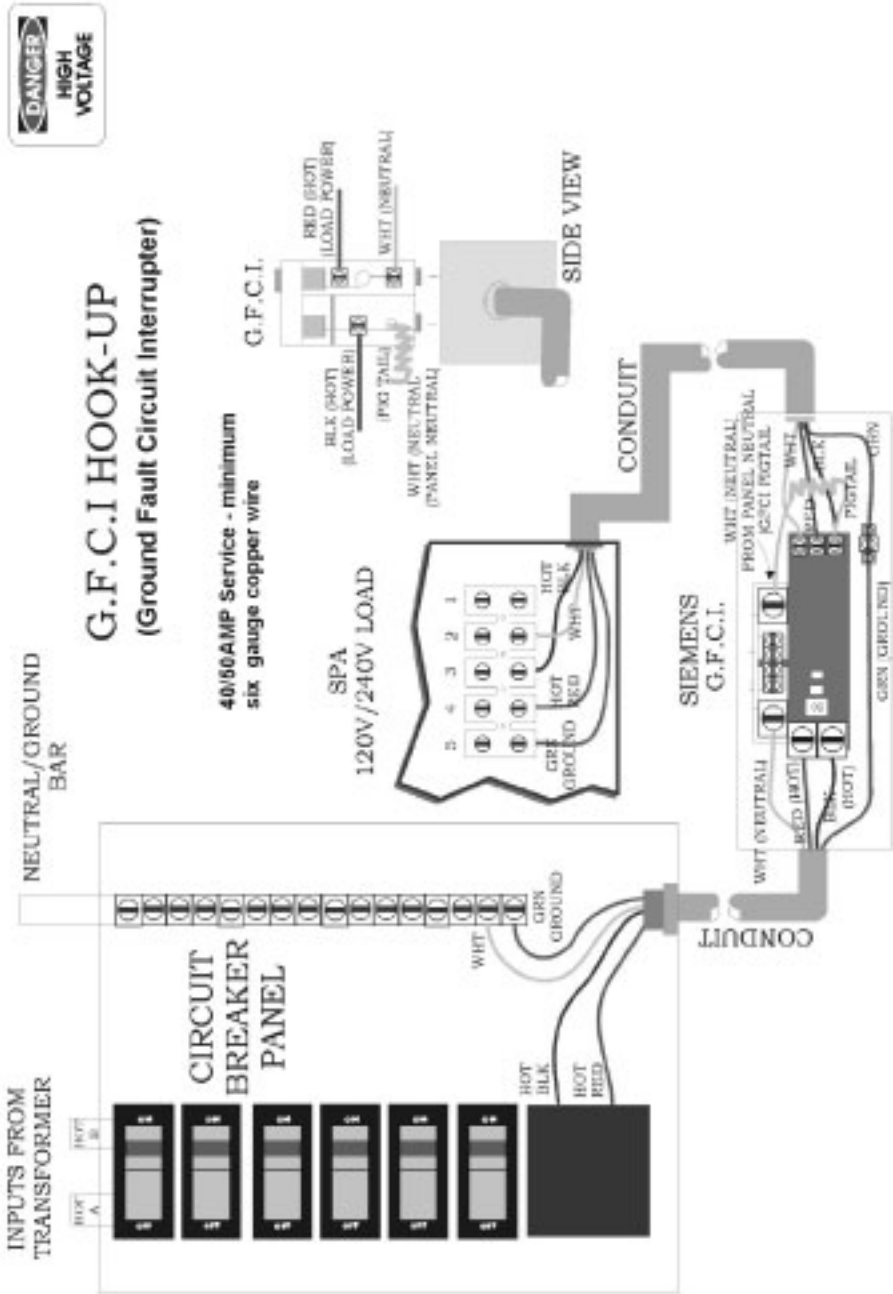
The pump moves water through you spa filter, heater system, jets, and spa.

Jets
The openings through which water flows into the spa. Jets affect the direction, volume & velocity of the water.

Sensor Assembly
The Sensor will monitor the spa water temperature.

Ozonator
Ozonators bubble ozone into the spa to kill organic matter such as bacteria. They use an ultraviolet lamp. They are mounted in the cabinet and supply ozone into the heater return line.

Slide Valve
Handle must be pulled out during normal operation of spa allowing flow of water thought pumps and system.



CHLORINE AND pH TEST KIT: An accurate, high quality test kit is needed to properly test and maintain the chlorine and pH levels in the spa water.

THERMOMETER: A thermometer is necessary in your spa to provide an easy temperature reading. Water temperatures, which are too hot, are unsafe and could cause damage to your spa's finish. Recommended temperatures ranges are 102°F to 104°F. UL has determined that water in excess of 104°F is UNSAFE .

The following chemicals are not necessary for safe use in your spa. However, depending on the type of water available to you, the products are highly recommended. In most cases, these products will increase the life of your spa and equipment and will make the spa more pleasant to maintain.

SPA SHOCK: This chemical oxidizes or "burns-out" most organic contaminants in the spa water. It works together with the chlorine in your spa. Most often it is a weekly or bi-weekly treatment. (This product is mandatory when using a tablet form of chlorine, bromine or granular).

STAIN & SCALE REMOVER: A stain and scale remover prevents water discoloration due to certain minerals in the water. It also prevents scaling which could corrode the pump and shorten its lifespan. Depending on the brand, stain & scale remover is most often a weekly treatment.

WATER CLARIFIER: This product is designed to coagulate small particle of unwanted dirt or grime in order to aid filtration. As with the stain & scale remover is most often a weekly treatment. Use of this chemical will prolong your filtration system and filter a spa.

ALKALINITY INCREASER: Total alkalinity in the water is the combined measurement of a group of alkaline sales in the water. Too low alkalinity may cause the pH levels to fluctuate excessively when being adjusted. The ideal range for total alkalinity is between 90 -150 p.p.m. range. (A special test kit is required).

CALCIUM HARNESS INCREASER: Calcium is the mineral in water, which determines whether the water is "soft" or "hard". Low calcium can make the spa water is ideal in the 225 - 275 p.p.m. range. (A special test kit is required). Test Strips are recommended for testing.

BROMINE: Bromine is an alternative to chlorine as a disinfectant. The benefit of using bromine is that it has less odor and is more pH independent.

The GFCI is a mandatory electrical safety device required for all portable spas as specified in the National Electrical Code Article 680-42. Equipment systems with a built in GFCI Meeting the code requirements will be marked on the top of the control panel with an identification label.

Your spa equipment requires a DEDICATED CIRCUIT 3 prong receptacle. No other appliances or lights can be on this circuit. Refer to equipment data label for power supply requirement of your spa equipment. Use copper conductors only. The ground must be equal to or larger than the largest power conductor.

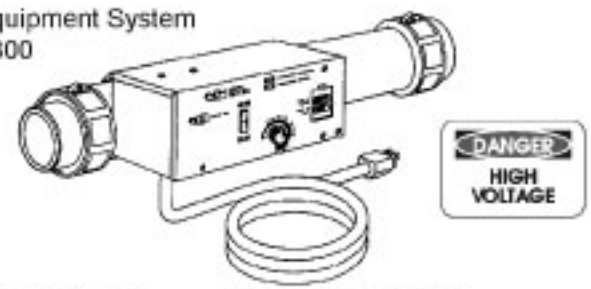
120 volt systems require a three wire electrical service including the ground, consisting of LINE 1 (Black), NEUTRAL (White) and GROUND (Green).

DO NOT USE AN EXTENSION CORD!

Note: If your spa is using a **blower**, a 120V 20 AMP Receptacle will be required to run your spa. If your SYSTEM MisWire LIGHT is lit after activating power, it is an indication that Line 1 or Line 2 has been connected to the Neutral input terminal. This must be corrected before the circuit will allow operation of the equipment. Once corrected, the circuit will automatically reset.

EQUIPMENT

Portable Spa Equipment System
CS-800



Length 15.00"
Height 4.25"
Depth 4.25"

- Stainless Steel Heater Housing
- Heater "ON" Indicator Light
- Bonding Lug Provided
- Quick Disconnect Unions
- Pressure Switch in Control Box
- 1500 Watts at 120V
- 100/120V, 50-60Hz
- 10' Power Input Cord with NEMA Plug (CS-900)

BASIC TROUBLESHOOTING
(before you call for service)

SYMPTOM: THE SPA WILL NOT OPERATE

a. Check to see if the G.F.C.I. breaker is tripped or was not turned on. Reset the G.F.C.I. breaker.

b. Remove the access cover and locate the heater switch on the side of the control box. Make sure that the heater switch is in the "on" position. Important: The spa will not operate if the heater switch is in the "off" position.

SYMPTOM: THE CIRCUIT BREAKER OR THE G.F.C.I. TRIPS WHILE THE SPA IS OPERATING

a. Reset the circuit breaker or the G.F.C.I.. If the circuit breaker or the G.F.C.I. trips again, contact a qualified electrician for service.

SYMPTOM: THE PUMP HUMS

a. The filter may be dirty or damaged. Remove the filter cartridges from the filter housing and clean or replace the cartridges (see page 11).

b. The pump may have a foreign object stuck in the impeller. Contact your dealer for service.

c. The pump may have a loose wire connection. Contact your dealer for service.

SYMPTOM: THE PUMP HUMS BUT DOES NOT ROTATE

a. The pump may be jammed. Contact your dealer for service or, if your spa is no longer under warranty, you may also contact a local spa and pool service provider in your area.

SYMPTOM: THE PUMP IS NOISY WHILE OPERATING

a. There may be debris in the pump. Contact your dealer for service.

b. The pump may have a bad bearing. Contact your dealer for service.

- Consideration should be taken for water splashout. Water can ruin wood floors and some finishes.
- DO NOT use a wall switch, ground fault circuit interrupter, circuit breaker, fuse, or plugging and unplugging the spa as a means of turning on or off your spa for normal everyday use.
- Do not block access door.
- Set the spa on a firm level (flat) surface. Do not set spa on blocks as structural damage may occur.

WHILE USING SPA, FOLLOWING ALL THESE SAFETY PRECAUTIONS

- The causes, symptoms, and effects of hyperthermia may be described as follows: Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6 °F. The symptoms of hyperthermia include dizziness, fainting, drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include (1) unawareness of impending hazard, (2) failure to perceive heat, (3) failure to recognize the need to exit spa, (4) physical inability to exit spa, (5) fetal damage in pregnant women, and (6) unconsciousness resulting in a danger of drowning. **WARNING** - The use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia in hot tubs and spas.
- The water in a spa or hot tub should never exceed 40° C (104° F). Water temperatures between 38 °C (100 °F) and 40 °C (104 F) are considered safe for a healthy adult. Lower water temperatures are recommended for extended use (exceeding 10-15 minutes) and for young children.
- DO NOT JUMP OR DIVE INTO SPA.
- SAVE THESE INSTRUCTIONS!

OZONE GENERATOR SAFETY INSTRUCTIONS - OPTIONAL

- Do not add any device that could, or attempt in anyway to, interrupt the flow of ozone to spa water.
- Do not allow ozone level to reach or exceed 0.1 PPM.
- Do not attempt to energize ozone generator with ozonator's cover off.
- The internal lamp in the ozone generator is intended for application only where humans will not be exposed to the ultraviolet radiation produced.

INSTALLATION

The installation of your spa is not included in the cost the spa unless specifically noted on your invoice by your dealer.

Planning Your Installation
Proper planning is an important consideration when installing your new spa. Site selection is critical step and should be given some serious thought. Planning ahead, before the delivery of your spa, will make the process of installation easier. The following information is provided to assist you in site preparations.

General
Check out the local building codes with respects to gates, fences etc...
Be sure that the spa will have proper access to water, draining and electrical. The spa must have proper support underneath to support the weight. In most cases, the best answer is a 4 inch thick cement pad. However, there are many ways to support your spa. Please consult your spa sales representative before constructing a base.

Indoor Installations
Be sure your spa will fit into the space you have chosen. Proper access into the home is needed to move the spa into place. Ventilation may be needed because of the humidity from the spa. In most cases, a Spa Cover is sufficient. Check the load carrying capabilities of the floor. Most homes meet the requirement of 125lbs per square foot. Insure you have proper drainage in the event of a leak.

Out Door Installations
Assure that spa is on a flat level surface. Never put spa on blocks! If spa is not supported evenly over entire bottom surface, structural damage will occur. Protect pump and equipment from the weather (Keep access panel door closed at all times). Assure access to spa's service door, filter, entry and power connection.

ELECTRICAL SPECIFICATIONS

IMPORTANT! Qualified and licensed electrician must perform all electrical hook ups. The following specifications must be followed in order to ensure proper performance and safety.
CAUTION! Failure to abide by specification listed may result in damage to equipment and may void the warranty.

CHEMICAL STARTUP

The initial chemical startup of your new spa involves a number of simple steps. Most important is adjusting the pH level of the water and introduction chlorine (or bromine) into the spa. Follow the step-by-step procedures listed below and remember to follow the directions on each individual chemical bottle.

Test both pH and the chlorine/bromine levels of the water.
Adjust the pH level by adding decreaser or pH increaser . **NOTE!** The pH may be too high or too low to fully adjust in one treatment. Do not try too make large changes in the pH with one treatment; you must increase or reduce the pH gradually to ensure damage does occur to your spa or equipment.
Add chlorine/bromine into the water in the method your have chosen. **NOTE!** If a tablet of chlorine/bromine is used, "shock" the water first with the spa shock.
Add the Water Clarifier and Stain & Scale chemicals as recommended on the chemical bottle.

CHEMICAL TROUBLE SHOOTING GUIDE

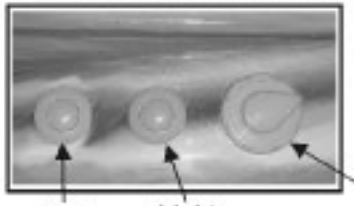
Just as with anything else, adjusting and balancing spa chemicals takes practice. Below are a number of common problems, which may arise in your spa water. Try curing the problem by following the trouble-shooting guide. If the problem persists, or the problem is not covered in the following guide contact your authorized Hydro Spa Dealer.

PROBLEM	SOLUTION
Cloudy Water	1. Cloudy water is normally due to high pH or low chlorine/bromine levels. Test the water and correct the pH levels and chlorine/bromine levels. 2. Excessive use of defoamer chemical may cause the water to turn cloudy.
Foamy Water	Use defoamer in the water. This chemical must be used only when necessary. It will cause the water to turn cloudy if used excessively.
Green or Yellow Water	This usually means the water is low on chlorine/bromine levels. "Shock" the water and test for chlorine/ Bromine levels. Add Water Clarifier.
Scum Line	A scum line will normally appear on the water level of the spa. However, it is unusual for scum line to persist. Add Stain & Scale Remover as directed.

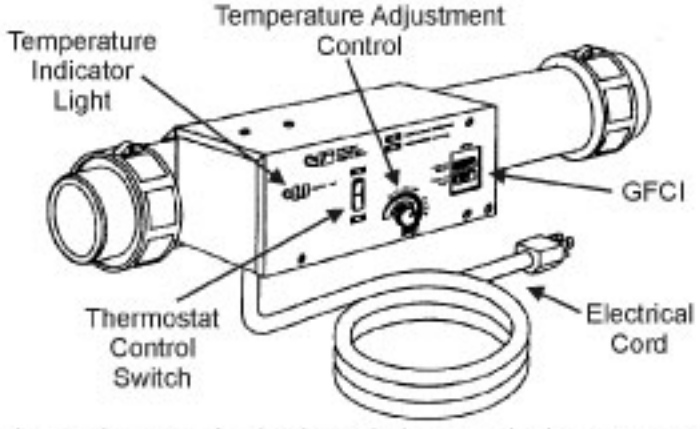
CHEMICAL TROUBLE SHOOTING

TOP SIDE CONTROL BUTTONS

OPERATION



(**Note**: if spa is equipped with a blower, there will be additional button)



Jets
To turn jets on low speed - simply push down on the button once, then again for high speed. Turn off the jets by pushing the button a 3rd time.
Jet Pump - (Two speed operation)The automatically controlled low speed is for filtration and heating. The high speed is for hydrotherapy jet action.

Thermostat
The thermostat regulates the water temperature of your spa. It is located on the front panel of the control box. Rotating it fully clockwise will activate the heater and allow a maximum water temperature of approximately 104°F. A full counterclockwise rotation will shut off the heater.

Temperature Filtration Control Switch
Operates the low speed pump 24 hours a day. When set on the **Heat Thermostat Control Mode** it will allow the heater to maintain the spa at the desired temperature 24 hours a day. Both the pump and heater will cycle on and off once the desired temperature has been attained.

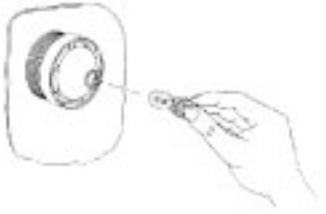
Air Blower-Optional
If your spa is equipped with a Hydro-Therapy Air Blower, it is important not to operate the air blower for more than 15 minutes at a time allowing at least a 30 minute cool down before turning back on.

REPLACING SPA LIGHT BULB

To replace the spa light bulb, open up the access door and look on the body of the shell and locate the light. Remove the bulb by twisting on the bulb socket (not wires), as illustrated. Once removed, pull the bulb from the light socket and replace by reversing steps.

NOTE: The replacement bulb must be of the same electrical rating as the factory installed bulb.

LIGHT
12v Bayonet Mount
Part# - GE912
HYDRO# - 2898



LIGHT HARNESSES
Twist-lock style
HYDRO# - 5401

Winterizing Your Spa

If you DO NOT plan on using your tub during the winter, you must drain all the water out completely. Otherwise you may cause damage to your plumbing lines. See your dealer if you have any questions concerning products that you may use to winterize your tub. Neglect is not covered under the warranty.

Your Cabinet & Cedar Skirting

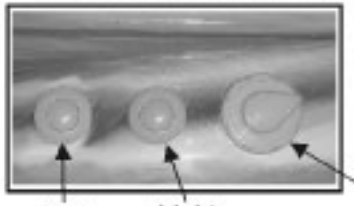
Your cabinet has an access panel or door to the internal parts which consists of a pump or pumps, motor or motors, heater, ozonator (if you have one), filter housing, hoses, and wiring to provide electricity to your control system.

The cabinet frame is made of treated wood, and covered outside by either redwood, cedar or cypress.

The cabinet should be treated just like any other piece of furniture in your home. If spa will be setting outside in the weather, remember that it will be out in all types of conditions such as rain, sun and the wind. It will be necessary at least every 4 months to retreat the wood using a water-resistant stain (linseed oil) to protect the wood as needed. You may also order stain though the manufacturer.

TOP SIDE CONTROL BUTTONS

OPERATION



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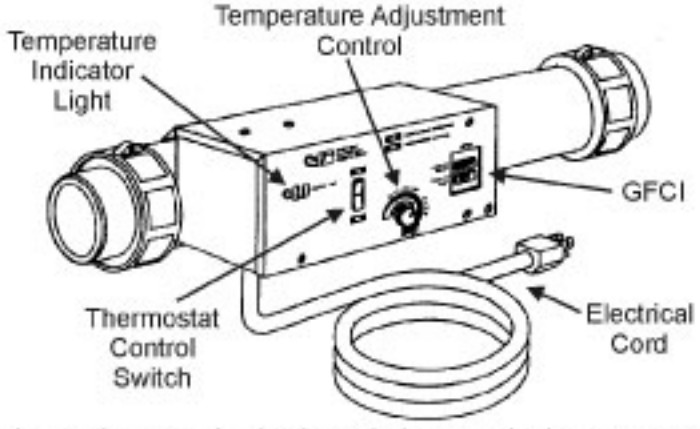

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The thermostat regulates the water temperature of your spa. It is located on the front panel of the control box. Rotating it fully clockwise will activate the heater and allow a maximum water temperature of approximately 104°F. A full counterclockwise rotation will shut off the heater.

Temperature Filtration Control Switch
Operates the low speed pump 24 hours a day. When set on the **Heat Thermostat Control Mode** it will allow the heater to maintain the spa at the desired temperature 24 hours a day. Both the pump and heater will cycle on and off once the desired temperature has been attained.

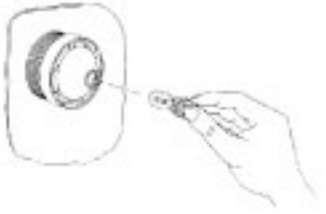
Air Blower-Optional
If your spa is equipped with a Hydro-Therapy Air Blower, it is important not to operate the air blower for more than 15 minutes at a time allowing at least a 30 minute cool down before turning back on.

REPLACING SPA LIGHT BULB

To replace the spa light bulb, open up the access door and look on the body of the shell and locate the light. Remove the bulb by twisting on the bulb socket (not wires), as illustrated. Once removed, pull the bulb from the light socket and replace by reversing steps.

NOTE: The replacement bulb must be of the same electrical rating as the factory installed bulb.

LIGHT
12v Bayonet Mount
Part# - GE912
HYDRO# - 2898



LIGHT HARNESSES
Twist-lock style
HYDRO# - 5401

Winterizing Your Spa

If you DO NOT plan on using your tub during the winter, you must drain all the water out completely. Otherwise you may cause damage to your plumbing lines. See your dealer if you have any questions concerning products that you may use to winterize your tub. Neglect is not covered under the warranty.

Your Cabinet & Cedar Skirting

Your cabinet has an access panel or door to the internal parts which consists of a pump or pumps, motor or motors, heater, ozonator (if you have one), filter housing, hoses, and wiring to provide electricity to your control system.

The cabinet frame is made of treated wood, and covered outside by either redwood, cedar or cypress.

The cabinet should be treated just like any other piece of furniture in your home. If spa will be setting outside in the weather, remember that it will be out in all types of conditions such as rain, sun and the wind. It will be necessary at least every 4 months to retreat the wood using a water-resistant stain (linseed oil) to protect the wood as needed. You may also order stain though the manufacturer.

Every Three Months

- Drain the spa and refill with clean water. Sanitize and test the pH of the water.
- Check for any leaks around the pump or joints in the pipes. The seals will wear out over time; detecting leaks early can reduce repair cost.
- Clean the interior of the spa. **DO NOT** use solvents or waxes.

DRAINING SPA

1. Disconnect the electrical power. Never run spa while draining or empty!
2. Open the access service door. Locate the drain valve, and then remove the cap from the valve and screw on the end of a garden hose.
   NEVER SUPPLY WATER TO THE SPA BY THIS MEANS!
3. Turn down the heat to it's lowest setting.
4. Route the garden hose to a place suitable for draining water and open The spa drain valve. NOTE: Some models may take hours to drain completely.
5. Once drained, close the valve back to closed position and install the cap back to the spa drain hose. **DO NOT** supply power again until the spa is refilled! Once filled run the spa until there is good water flow and all air is bled from the system. Once this is done, turn heater thermostat back to the setting you desire.

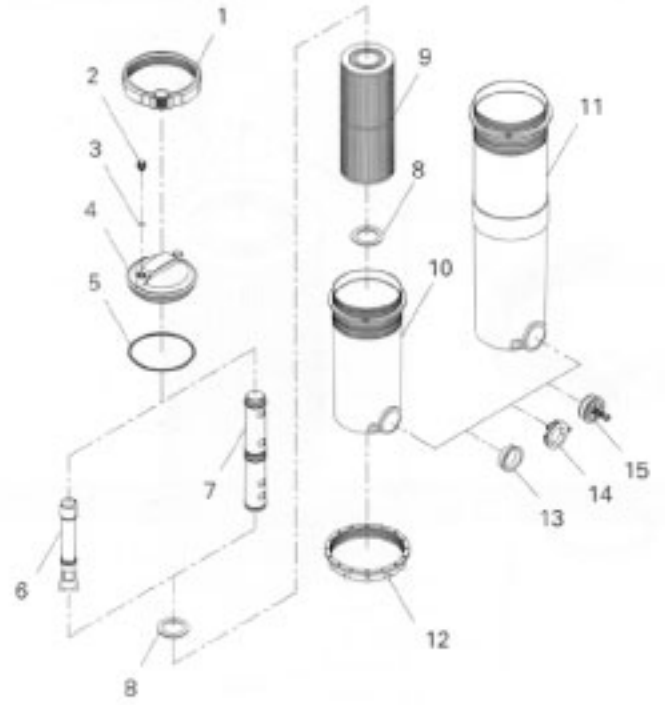
Drain Shut-Off Valve
Non-corroding, tough nylon
HYDRO# - 1610
Hose Threaded End Cap
High-impact polymer construction
HYDRO# - 1611

FILTER and PARTS

The filter(s) in your spa should be cleaned at least every 5-6 weeks, depending on usage. This will ensure that the water is being filtered properly, and there is no restriction in the filter due to dirt and grease.

Cleaning the filter can be done easily using a Filter Degreaser solution and following the directions on the bottle. Soak filters in a degreaser and power wash with a garden hose. It is recommended to have a second filter, which can be cleaned between changes. This will enable you to quickly exchange the dirty filter with the clean one and immediately start your spa again.

TOP LOAD FILTER



(See page 12 for parts breakdown)