



# **OWNERS MANUAL**

**FOR**

**DELUXE SYSTEM D-1000**

**PREMIER SYSTEM D-2000**

**ELITE SYSTEM D-3000**



# OWNER'S INFORMATION

## Dealer

*Company*

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*Address*

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*Phone*

---

*E-Mail*

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## Installer

*Company*

---

*Address*

---

*Phone*

---

*Warranty Turned In / Date*

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**Model**

---

**Serial Number**

---

**Equipment Pack**

---

**Color**

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**Date of Delivery**

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We Appreciate your business and our sincere desire is that you receive years of pleasure and therapy from your Dynasty Spa. Please call your local Dynasty Spa Dealer if you have any questions or problems. If they are unavailable, please feel free to call the Dynasty Spas Customer Service Group at: 800-951-6224.



# DYNASTY SPAS OWNERS MANUAL

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## ***Dear Dynasty Spa Owner:***

Congratulations on your purchase of a new Dynasty Spa. You now possess the ultimate passport to tranquility - a miniature vacation at home, ready and waiting for you in your own backyard!

We want you to enjoy your Dynasty Spa. Many hours of research have gone into the design of your spa, to ensure the ultimate in hydrotherapy and relaxation. Only the highest quality components have been used, to ensure years of trouble-free operation. Your comfort and enjoyment has been designed into your Dynasty Spa from the start.

Please take the time to read through this Owner's Manual. In it, you will find guidelines on caring for your spa, a complete explanation of the controls, safety instructions, a troubleshooting section, and lots more.

Once again, we welcome you to the family of Dynasty Spa owners. Your thoughts and ideas are important and we encourage you to share them with us. Please write to us at the address below, or send us an e-mail with your comments.

Thank you for your business and your confidence in our company. We look forward to serving you!

Sincerely



Mike Deans  
President , Dynasty Spas

Dynasty Spas  
100 Dynasty Way  
Athens, Tennessee 37303  
[www.dynastyspas.com](http://www.dynastyspas.com)

# IMPORTANT SAFETY INSTRUCTIONS

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When installing and using this electrical equipment, basic safety precautions should 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 closely supervised at all times. Keep Spa cover locked when not in use.
- 3) A wire connector is provided on 220 V units to connect a minimum No. 8 AWG (8.4 mm<sup>2</sup>) solid copper conductor between this unit and any metal equipment, metal water pipe, or conduit within 5ft. (1.5 m) of the unit.
- 4) 110 V cord connected spas are provided with a GFCI on the end of cord. The GFCI must be tested before each use. With the spa operating push the test button. Spa will shut off, next push the reset button on the GFCI. The product should now operate normally. If the product fails to operate there is a ground current flowing indicating the possibility of an electrical shock. Disconnect the power until the fault has been identified and corrected.
- 5) **DANGER** *Risk of injury*. The suction fittings in this spa are sized to match the specific water flow created by the pump, be sure that the flow rates are compatible. Never operate the 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 electrical 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 connected by a minimum No. 8 AWG (8.4mm<sup>2</sup>) solid copper conductor to the wire connector on the terminal box that is provided for this purpose.
- 7) **DANGER** *Risk of electrical shock*. Do not permit any electrical appliance, such as light, telephone, radio or television within 5ft. (1.5m) of spa.
- 8) **WARNING** *To reduce the risk of injury:*
  - The water temperature in a spa should never exceed 104° F. A water temperature of 104° F is considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.
  - Since excessive water temperatures have a high potential for causing fetal injury during the early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperature to 100° F.
  - Before entering a spa, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature - regulating devices varies.
  - The use of alcohol, drugs, or medications before or during spa use may lead to unconsciousness with the possibility of drowning.

# IMPORTANT SAFETY INSTRUCTIONS

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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 before using a spa.

Persons using medication should consult a physician before using a spa since some medication may affect heart rate, blood pressure, and circulation.

- 9) The causes, symptoms and affects of hyperthermia may be described as follows:

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal temperature of 98.6 degrees F.

The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness and fainting.

The effects of hyperthermia include:

- Failure to feel heat
- Failure to recognize the need to exit the spa
- Unawareness of impending hazards
- Fetal injury in pregnant women
- Physical inability to exit the spa or hot tub
- Unconsciousness resulting in the potential of drowning.



- 10) For Cord Connection Units

- Replace damaged cord immediately with same specification cord.
- Do not bury cord.
- Connect to grounded, dedicated 20 amp receptacle.

- 11) Never touch or come in contact with any electrical accessory when in your spa or when your body is wet.

- 12) Prior to performing any service to the Spa Pack, turn off ALL power to the system at the main power source breaker.

- 13) Never turn equipment pack on unless spa is filled with water 2" above the skimmer.

**CAUTION:** *Each persons body and circulatory system has different tolerances and responds differently to warm/hot immersion. Most people in good health find a water temperature of about 102°F to be satisfying and limit time in water at this temperature to 20-30 minutes. Use of alcoholic beverages and certain medications may affect the way your body's system reacts to warm water/hot immersion. CONSULT YOUR PHYSICIAN FOR RECOMMENDATIONS.*



# BASIC INTRODUCTORY INFORMATION

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Congratulations on the purchase of your new spa. Our purpose is to provide you with a warm and relaxing spa which incorporates a soothing water massage. In order to maximize the pleasure of your spa, you will need to understand how it works.

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

- The pump and heater should be operated a minimum of four hours per day for cleaning and heating.
- The length of time required to heat your spa to the desired water temperature will vary, depending on the air temperature, season, and wind velocity. Therefore, this is something each owner must adjust to your liking. We highly recommend using a vinyl hard cover to minimize heat loss and to protect your spa when not in use. Covers are available from your local Dynasty Spa dealer.
- The replaceable filter cartridge is trouble free and easy to clean. A routine cleaning is the best practice. Make sure the pump is off, then remove the cartridge. Wash it off using a water hose with a pressure nozzle and then reassemble. This should be done on a monthly basis.
- Keep the spa water level 2" above the skimmer. Never allow the water level to drop below the bottom of the skimmer opening. If the water level is too low, the skimmer will allow air into the water lines of the pump, causing it to lose its prime (water - flow). Running the pump without water flow will damage the pump seal assembly and could possibly result in further equipment damage.
- If your spa has a redwood skirt or if you purchased a redwood gazebo, we recommend applying a wood sealer of your choice (always follow application instructions) to protect the finish. Repeat as directions suggest.
- You should clean your spa at least every 3-4 months. Drain the spa water and use a liquid cleanser free of abrasives to clean your spa. Such cleaners would be, for example 409 or Fantastic. DO NOT use hard brushes. Fill with regular tap water and chemically treat the water for a clean and healthy spa.

**CAUTION:** *Cover must be kept on spa at all times when spa is drained or winterized. Direct exposure to sunlight can damage plastic parts and interior surface, jets, or any interior components. Damage as such will not be covered under warranty.*

**WARNING:** *Do not use soft water. It may harm your acrylic.*



# SET-UP & DELIVERY GUIDELINES

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## Getting Ready For Delivery & Set-up Of Your New Spa

### Surface And Pad Requirements

- Your new portable spa must be placed on a uniformly firm, flat, and level surface. A concrete pad 4 inches thick is best.
- If your spa is located near sprinklers, adjust or cap them so as not to hit the siding of the spa.

### Balconies And Deck Requirements

- Decking must be constructed to support 85 pounds per square foot.
- Balconies must be constructed to meet current state and local codes.
- Gates must be self closing and self-latching.

### Access & Clearance

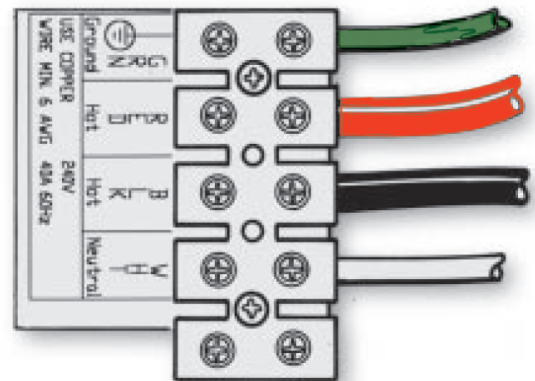
- Your spa requires up to 40" of clearance through gates between house and side fences, and up to 8.5' overhead clearance depending on the size of the unit.
- The clearance required to turn a corner can be equal to the length of the spa.
- All debris blocking access to the job site, must be removed prior to delivery. Any trimming of trees or bushes, removal of debris, leveling of ground or other general maintenance must be done prior to delivery and is the responsibility of the customer.

### Electrical Requirements

- Your 110 Volt spa pack requires an isolated (no other appliances or lights on this circuit at any time) 110 Volt, 20 amp circuit breaker cords maximum length 15 ft.
- Your 220 Volt spa pack will require a 50 amp dedicated GFCI circuit breaker, depending on model.

### Wiring Requirements

- 4 Wire #8 Gauge wire **under** 50 ft.  
2-Hots, 1-Neutral, 1-Isolated Ground
- 4 Wire #6 Gauge wire **over** 50 ft.  
2-Hots, 1-Neutral, 1-Isolated Ground





# SET-UP & DELIVERY GUIDELINES

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## Getting Ready For Delivery & Set-up Of Your New Spa

### **Wiring Requirements (Cont.)**

- Extension Cords are not to be used in conjunction with operation of the spa. Low voltage damage could result, which is not covered by warranty.
- If you have any doubts, have your electrical system checked by a qualified electrician.

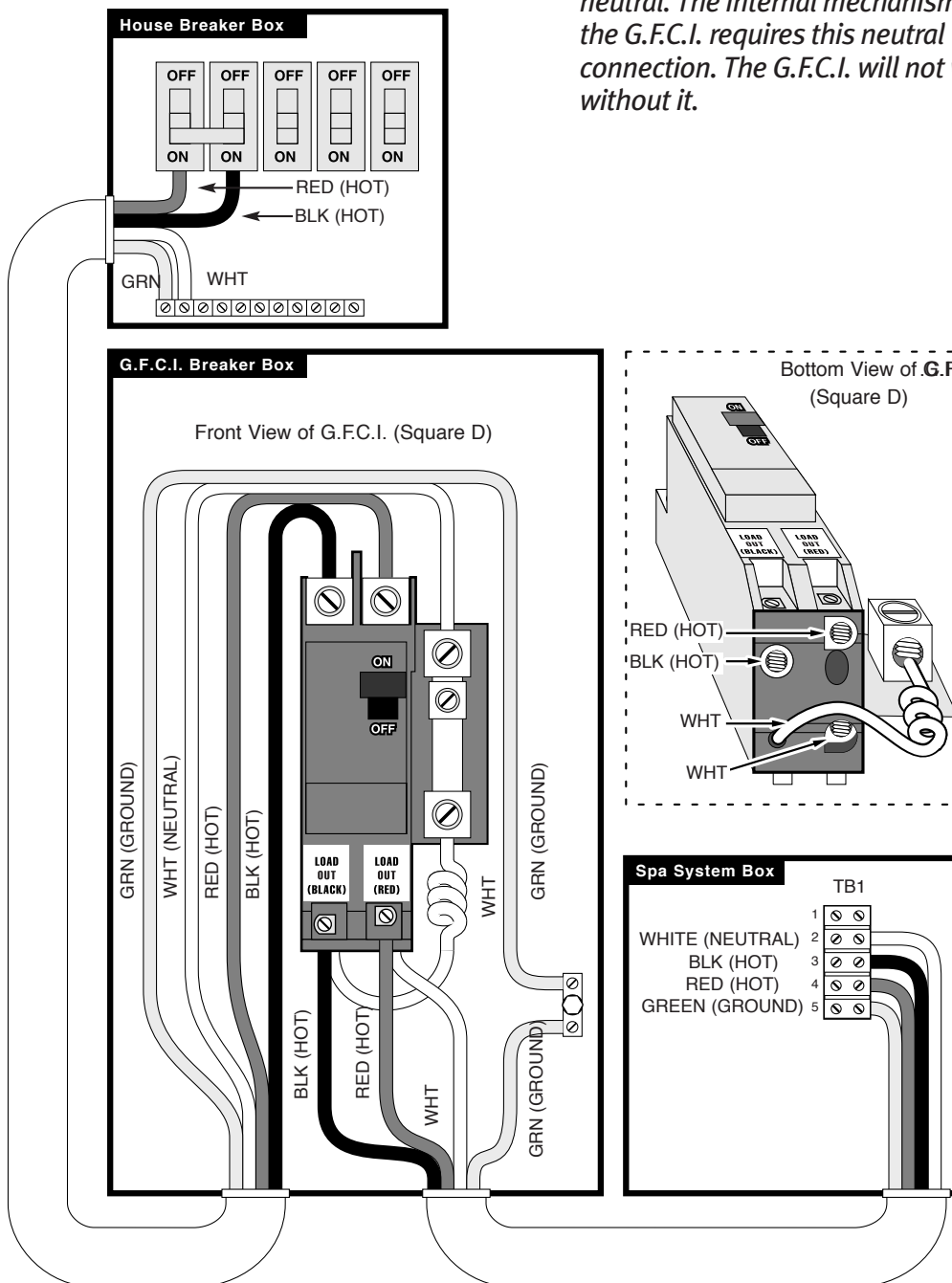
*It is the customers responsibility to acquire necessary permits, to arrange for installation and hook up of the electrical power.*

# WIRING DIAGRAM

## Factory Recommended G.F.C.I Load Center Wiring



**Note:** The white neutral wire from the back of the G.F.C.I MUST be connected to an incoming line neutral. The internal mechanism of the G.F.C.I. requires this neutral connection. The G.F.C.I. will not work without it.



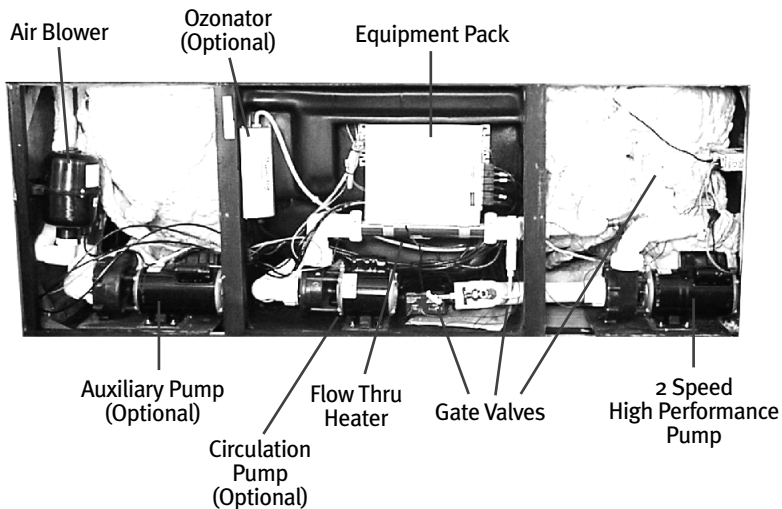
# GENERAL PRE-OPERATION INSTRUCTIONS

## Priming Pump For Electric Packs

The Power pack system is located under the wood skirt. The equipment can be serviced by simply opening the doors.

It is important to make sure that all of the air is out of the equipment pack before operating. To do this follow procedures below:

- Turn off power at the breaker
- Make sure the gate valves are open
- Fill the spa with water going thru the filter
- Turn the power on at the breaker
- Start the pump on Hi-Speed and water will start circulating within one to two minutes. (The pump is self-priming). If water does not circulate, turn off the power and make sure all gate valves are open if so equipped.
- Restart the pump. Within one to two minutes, it should be primed



Set thermostat, located on top side control panel to desired temperature, and continue heating until desired temperature has been reached. Depending on equipment, this will normally take 8 to 10 hours.



**WARNING:** Do not run spa with gate valves closed or run pump with no water circulating in spa for long periods. This could damage the spa equipment.

# TOP SIDE CONTROL INSTRUCTIONS

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Depending on the Dynasty Spa model you purchased, you'll have different options available to you with Dynasty's digital controls. The operations of your hot tub can be enjoyed at the touch of a button. This section is designed to walk you through the details of the operation of the Dynasty 1000, 2000 & 3000 controls.



## D - 1000 System





### Initial Start-up



When your spa is first powered up, it will automatically heat and maintain 100°F until you change the setting temperature.

### Temperature Adjustment (80° F -104° F)

The current temperature is constantly displayed on the LED. Press either  or  pad once to display the set temperature. Each time either pad is pressed again, the set temperature will increase or decrease depending upon which pad is pressed. After three seconds, the LED will automatically display the current spa temperature.


### Jets

**Two Pump Option:** Touch the  pad once to activate the low speed of pump 1. Press the pad again and the high speed of pump 1 and pump 2 will run. Press the  pad again to turn off the equipment.

**One Pump and Blower Option:** Touch the  pad once to activate the pump's low speed. Press the pad again and the pump's high speed and the blower will run. One more press, and only the pump's high speed will run. Press the  pad again to turn off the equipment.

The low speed of pump 1 will run when the heater is turned on or when a filter cycle is activated. If automatically activated, the low speed of pump 1 cannot be disabled from the front panel; however, the high speed of both pumps may be started. The low speed of pump 1 turns off after 2 hours. The high speeds of pump 1, pump 2, or blower (if installed) turn off after 20 minutes.







### Light

Press the  pad to turn the spa light on or off. The light will automatically turn off after 1 hour.

# TOP SIDE CONTROL INSTRUCTIONS

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## Preset Filter Cycles

Your spa will automatically filter itself twice each day. The first filter cycle will begin 1 minute after the spa is energized. The second filter cycle will begin 12 hours after the start of the first filter cycle. Filter duration is programmable at the topside panel for 0, 1, 2, 3, 4 or 12 hours. The default filter time is 2 hours. To program, press the  or  pad, then the  pad. Continue to press the  or  pad to select the filter duration. Press the  pad again to exit programming. The low speed of pump 1 constantly runs during the filter times (unless the high speed is on). The ozone generator (if installed) will run 24 hours a day.

## Freeze Protection

If the high limit sensor detects 40°F at the heater, then the high speed of pump 1 and pump 2 (if installed) automatically activates to provide freeze protection. The equipment stays on until the sensor detects 45°F at the heater. Freeze protection is activated regardless of the spa's status. In colder climates, an optional additional freeze sensor may be added to protect against freeze conditions. See your dealer for details.

## Diagnostic Messages

**OH Overheat Protection (Spa is deactivated)**  
**DO NOT ENTER THE WATER.** If the spa water has reached 112°F, remove the spa cover to cool the water. Overheating may occur if the filter cycle is set too long. At 110°F, the spa should reset itself. If the high limit sensor detects 118°F at the heater, the spa will shut down. When the heater cools to 110°F, press any button to reset the spa. If the spa will not reset, then shut off power to the spa and call your dealer or service organization.

**FL Flow Switch Detection**  
Flashing alternately with temperature. The filter may need cleaning. The water level is too low. Be sure flow valves are open. **FL** (NOT FLASHING) a pressure switch has malfunctioned. Contact your dealer or service organization.

**Sn Sensor (Spa is deactivated)**  
The high-limit sensor or water temperature sensor is not working. Call your dealer or service organization.



**WARNING! SHOCK HAZARD! No User Serviceable Parts.**

*Do not attempt service of this control. Contact you dealer or service organization for assistance. Follow all owner's manual power connection instructions. Installation must be performed by a licensed electrician and all grounding connections must be properly installed.*

# TOP SIDE CONTROL INSTRUCTIONS

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## D - 2000 System



### Initial Start-up


When your spa is first powered up, it will automatically heat and maintain 100 F until you change the set temperature.

### Temperature Adjustment


Press the  pad to display the temperature setting. The set temperature is flashed on the display. In a few seconds, the numbers will stop flashing, and the display will show the actual water temperature.

Pressing the pad a second time will cause the set temperature to increase or decrease depending on what direction was last chosen. Each 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 again. Press the pad to display the temperature, and again to make the temperature change in the desired direction.


### Jets

Press the  pad to activate the low speed of pump 1. Press the pad again for the high speed of pump 1 (and pump 2 if installed). Press the jets pad again to turn off the pump(s). The low-speed pump also runs when the heater is on (not on circulation pump systems) and during filter cycles. If automatically activated, the low-speed pump cannot be disabled from the front panel; however, the high-speed pump(s) may be started. The low-speed pump turns off after 2 hours, and the high-speed pump(s) turn off after 20 minutes.

### Blower (optional)

Press the  pad to turn the blower on and off. The blower will automatically turn itself off after 20 minutes.

### Light

Press the  pad to turn the spa light on or off. The light will automatically turn off after 1 hour.

### Preset Filter Cycles

Your spa will automatically filter itself twice each day. The first filter cycle begins

# TOP SIDE CONTROL INSTRUCTIONS

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## Preset Filter Cycles (cont.)

1 minute after the spa is energized. The second filter cycle will begin 12 hours after the start of the first filter cycle. Filter duration is programmable at the topside panel for 0, 1, 2, 3, 4 or 12 hours. To program, press the **SET** pad, then the **JETS** pad. Press the **SET** pad again and F2 will be displayed on the panel. (F2 is the default filter time and indicates a 2 hour cycle). Continue pressing **SET** to cycle through the rest of the filter time options, FO = 0 hour, F1 = 1 hour, F2 = 2 hours, F3 = 3 hours, F4 = 4 hours, and FC = 12 hours. Press the **JETS** pad again to exit the programming mode. During filtration, the low-speed pump will run and the blower (if installed) operates for 30 seconds at the start of the first filter cycle to clean out the air channel. If a circulation pump is installed, when the water is at set temperature or below, it will run for 24 hours/day to constantly filter the water. However, it turns off at 2°F above the set temperature and comes back on for 1 hour every 3 hours until set temperature is reached again. An ozone generator (if installed) also runs 24 hours/day.

## Freeze Protection

If the high limit sensor detects 40°F at the heater, then the high speed of pump 1 and pump 2 (if installed) automatically activates to provide freeze protection. The equipment stays activated until the sensor detects 45°F at the heater. Freeze protection is activated regardless of the spa's status. In colder climates, an optional additional freeze sensor may be added to protect against freeze conditions. See your dealer for details.

## Auxiliary Panel (optional)

The jets and blower (if installed) can also be activated from an auxiliary panel. The operation is the same as described for the main panel.

## Diagnostic Messages

### **OH** Overheat Protection (Spa is deactivated)

**DO NOT ENTER THE WATER.** If the spa water has reached 112°F, remove the spa cover to cool the water. Overheating may occur if the filter cycle is set too long. At 110°F, the spa should reset itself. If the high limit sensor detects 118°F at the heater, the spa will shut down. When the heater cools to 110°F, press any button to reset the spa. If the spa will not reset, then shut off power to the spa and call your dealer or service organization.

### **FL** Flow Switch Detection

Flashing alternately with temperature. The filter may need cleaning. The water level is too low. Be sure flow valves are open. **FLO** (NOT FLASHING) a pressure switch has malfunctioned. Contact your dealer or service organization.

### **Sn** Sensor (Spa is deactivated)

The high-limit sensor or water temperature sensor is not working. Call your dealer or service organization.

# TOP SIDE CONTROL INSTRUCTIONS

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## D - 3000 System





D - 3000 System  
auxiliary panel (optional)

### Initial Start-up

When your spa is first powered up, it will automatically heat and maintain 100°F until you change the set temperature.

### Temperature Adjustment

The current temperature is constantly displayed on the LCD. Press either  or  pad once to display the set temperature. (The temperature is designated by a triangle in the upper left corner.) Each time either pad is pressed, the set temperature will increase or decrease depending upon which pad is pressed. After three seconds, the LED will automatically display the current spa temperature.

### Jets 1

Press the **JETS 1** pad to activate the low speed of pump 1. Press the pad again for the high speed of pump 1. Press the **JETS 2** pad again to turn off the pump. The low-speed pump runs when a filter cycle is activated or when a freezing condition is detected. If automatically activated, the low-speed cannot be disabled from the front panel; however, the high-speed pump may be started. The low-speed of pump 1 turns off after 2 hours, and the high-speed pump turns off after 20 minutes.

### Jets 2

Press the **JETS 2** pad to activate the low speed of pump 2. Press the pad again for the high speed of pump 2. Press the **JETS 2** pad again to turn off the pump. Both speeds of the pump turns off after 20 minutes.




# TOP SIDE CONTROL INSTRUCTIONS

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## Circulation Pump (optional)

When the water is at set temperature or below, the circulation pump (if installed) runs 24 hours a day. However, it turns off a 2°F above set temperature and comes back on for 1 hour every 3 hours until it reaches set temperature again.

## Blower (optional)

Press the  pad once to turn the blower on high. Press a second time, blower is on low speed. Press a third time to turn off. The blower will automatically turn itself off after 20 minutes.


## Light

Press the  pad to turn the spa light on and off. The light will automatically turn off after 1 hour.



## Fiber Optic Light (optional)

Press the **LIGHT** pad once for the light and the color wheel, again for the light to pause on one color, and again to turn the light completely off. The light will automatically turn itself off after 1 hour


## Standard and Economy Mode

Press the  pad to switch between standard and economy mode. Economy mode only heats the water during filter cycles. Standard mode maintains the desired temperature at all times. We suggest using the standard mode.

## Panel Lock

Press the  pad then **JETS 1**. The panel will be locked, and the LED will show *LOC* alternately with the water temperature. All automatic functions will continue to operate. To unlock the panel, push  then **JETS 1** again

## Preset Filter Cycles

Your spa will automatically filter itself twice each day. The first filter cycle begins 1 minute after the spa is energized. The second filter cycle will begin 12 hours after the start of the first filter cycle. Filter duration is programmable at the topside panel for *FIL0*, *FIL1*, *FIL2*, *FIL3* *FIL4* or *FILC* - 24 hours. The default filter setting is 2 hours. To program, press the **WARM** or **COOL** pad then the  pad. Press the **WARM** or **COOL** pad to select the filter time duration. Press the **MODE** pad again to exit the programming sequence. During filtration, the low-speed pump will run and the blower operates for 30 seconds at the start of the first filter cycle to clean out the air channel. The heater will also run during filter cycles. An ozone generator (if installed) will run 24 hours/day.

## Auxiliary Panel (optional)

The jets and blower (if installed) can also be activated from an auxiliary panel. The operation is the same as described for the main panel.

# TOP SIDE CONTROL INSTRUCTIONS

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## Diagnostic Messages

**OH** **Overheat Protection (Spa is deactivated)**  
**DO NOT ENTER THE WATER.** If the spa water has reached 112°F, remove the spa cover to cool the water. Overheating may occur if the filter cycle is set too long. At 110°F, the spa should reset itself. If the high limit sensor detects 118°F at the heater, the spa will shut down. When the heater cools to 110°F, press any button to reset the spa. If the spa will not reset, then shut off power to the spa and call your dealer or service organization.

**STAN** **Standard**  
The spa is in standard mode and will continually heat to the set temperature.

**ECON** **Economy**  
The spa is in economy mode. *ECON* is flashed alternately with *COOL* and the current spa temperature and when the spa water is more than 20°F cooler than the set temperature. The circulation pump and heater will operate to warm the water to within 15°F of the set temperature.

**FLO** **Flow**  
Flashing alternately with temperature. The filter may need cleaning. The water level is too low. Be sure flow valves are open. Bleed Circulation Pump if needed. *FLO* (NOT FLASHING) a pressure switch has malfunctioned. Contact your dealer or service organization.

**COOL** **Cool**  
The spa water is more than 20°F cooler than the temperature last set. No action is required. Spa is functioning properly. The circulation pump and heater will operate to warm the water to within 15°F of the set temperature.

**ICE** **Ice**  
If the high limit sensor detects 40°F at the heater, then the pumps and blower (if installed) automatically activates to provide freeze protection. The equipment stays on until the sensor detects 45°F at the heater. Freeze protection is activated regardless of the spa's status. In colder climates, an optional additional freeze sensor may be added to protect against freeze conditions. See your dealer for details.

**Sn 1** **Sensor 1(Spa is deactivated)**  
The high-limit sensor or water temperature sensor is not working. Call your dealer or service organization.

**Sn 3** **Sensor 3(Spa is deactivated)**  
The main sensor is not working. Call your dealer or service organization.

# AIR VENTURIES & DIVERTER VALVE CONTROLS

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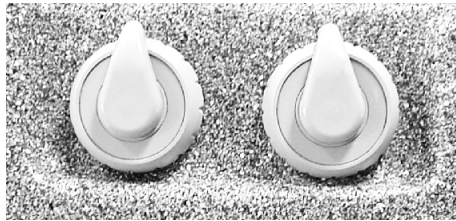
## Mini Diverter Valve



This valve will allow the water flow control of neck and shoulder jets located in the trilogy / ultrassage seats. A simple turn of the pointer toward the seat will increase to the maximum output allowed. Another turn of the point - away from the seat will decrease / turn off the neck / shoulder jets. Each individual jet is also independently adjustable.

## Air Venturies

Each spa is equipped with 2 air controls (venturies), located next to the equipment controls. The purpose of these controls is to regulate the mixture of air and water to flow through the jets. If optional blower is installed, air is also pushed through the air venturies for maximum output. If your spa has a master massage jet located in the foot well, the spa will be equipped with 3 air controls, as pictured. The third control operates the same as the other two.



## Divertor Valve

This valve controls the output of the pump to either side of the spa, or it may operate all jets if left in the middle position. The purpose of this valve is to increase or decrease the output of one side or another for maximum or minimum water flow in case of one or two person usage. This valve is also used to turn the master massage jet on and off.



# FILTER LOCATION

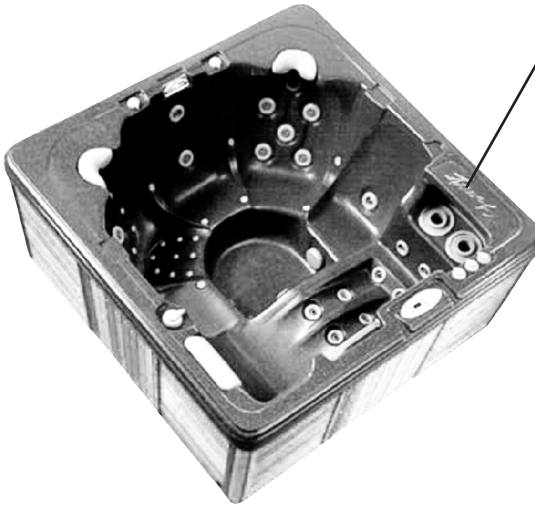
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## Single Filter



Single Filter Location

## Dual Filter



Dual Filter Location



**Note:** The filter should be inspected and cleaned on a monthly basis.

# FILTER MAINTENANCE

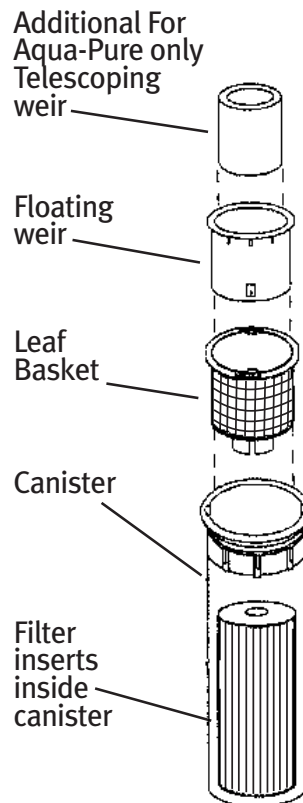
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Filtration starts as soon as flow is steady through the filter. The filter cartridge removes the dirt from the spa water, the accumulated dirt causes flow resistance. A dirty cartridge will decrease flow and may cause spa not to heat properly. Therefore, regular filter cleaning is important.

## Cleaning and Replacing Filter Cartridge

Your Dynasty Spa filter has been designed for quick and easy maintenance.

- Turn off power at the breaker.
- Remove basket from filter canister, remove filter cartridge and clean with a garden hose equipped with a high pressure nozzle, or soak in filter cartridge cleaner if necessary or at every other regularly scheduled cleaning. Rinse filter thoroughly before installing.
- Place clean cartridge in filter canister
- Replace basket weir in filter canister.



**Note:** The filter should be inspected and cleaned on a monthly basis.

## Cleaning Your Spa Water

You need to keep your spa clean and ready to use. When you enter your spa, you bring in as much contaminant as 50 people would in a normal size swimming pool! Because your spa is such a small, enclosed environment, it needs to be a sanitary place. We accomplish this with a simple three step process:

- 1) Balance
- 2) Filtration
- 3) Sanitation

The water that comes from your tap at home is fine for showers or bathing, because it is drained immediately after use. In a spa, your water is used for up to three months. Hot water is a breeding ground for bacteria, so sanitizing becomes necessary, as well as maintaining a specific mineral balance. Having that mineral balance in place ensures that the water, which is naturally corrosive to metal, will not cause damage to the spa equipment. We recommend monthly water testing.



**WARNING:** *Maintain water chemistry in accordance with manufacturer's instructions.*

**WARNING:** *Please be careful with chemicals - damage to the surface of the spa can occur due to the improper use of chemicals such as trichlor or chlorine, chemical tablets, acids or spa cleaners. Do not let undissolved chemicals lie on the surface of the spa. This could invalidate your warranty. Improper water chemistry balance can damage the spa and invalidate your warranty.*

## Filling Spa With Water

When filling the spa, use 2 ounces of SODIUM BROMIDE to create a bromide reserve. When using BROMINATING TABLETS, 2 ounces will treat up to 500 gallons of water. For chlorine system, use CHLORINATING GRANULES (1/2 oz. per 500 gallons).

Once the spa has been filled to the correct level and pumps are primed and running add:

- 1) STAIN & SCALE REMOVER- This prevents staining, rust and corrosion, caused by metals in the source water. One bottle will treat up to 500 gallons for up to 3 months.
- 2) PROTECT PLUS - This prevents a calcium build up. Use 2 oz. on a weekly basis.
- 3) CALCIUM BOOSTER (*If Needed*) - Calcium booster treats the water if low calcium hardness is a problem in your area. It will help prevent equipment corrosion and foaming by raising the spa's water hardness level to an acceptable range of 120 ppm.

# KEEPING YOUR SPA WATER CLEAN & FRESH

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- 4) pH STABILIZER - It will properly adjust and hold the pH for up to 3 months

## Water Testing

Your Dynasty dealer is equipped to perform a thorough analysis of your spa water. Take a one liter sample to the store and they will advise you on the products necessary to properly balance and care for your spa. Unbalanced spa water can quickly damage your equipment. Your Dynasty dealer will advise you on how to protect your investment.

## Balance

Spa water must have the correct chemical balance. Unbalanced water can irritate eyes, corrode the equipment, leave mineral deposits, and decrease the effectiveness of the sanitizer.

Balanced water means establishing proper balance among Total Alkalinity, pH, Calcium Hardness and Total dissolved solids.

## An Overview

### Monthly - For Equipment Protection

**CALCIUM BOOSTER** (*If Needed*) - Calcium booster treats the water if low calcium hardness is a problem in your area. It will help prevent equipment corrosion and foaming by raising the spa's water hardness level to an acceptable range of 120 ppm.

#### **Filter Cleaning**

To keep your filter free of grease, grime, and oil. Clean the filter with SPA CARTRIDGE FILTER CLEAN. One 16 oz. bottle treats a 55 square foot filter. See Filter Maintenance section for location and diagram.

## As Needed

#### **Surface Cleaning**

Between refills and as needed, clean the surface using SPA MULTI-PURPOSE CLEANER. For tough scale & stains, use STAIN & SCALE REMOVER.

#### **Surface Protection**

To protect and seal the spa surface, use SPA FAST GLOSS every time you drain and clean the spa.

#### **Water Balance**

Adjust the pH quickly and easily with pH STABILIZER.

It will properly adjust and hold the pH for up to 3 months.

*Note: Not recommended for calcium hardness levels above 200 ppm.*

*Use SPA UP to raise pH and SPA DOWN to lower pH.*

#### **Sanitizing**

Use 2 ounces of SODIUM BROMIDE to create a bromide reserve. When using BROMINATING TABLETS, 2 ounces will treat up to 500 gallons of water. For chlorine system, use CHLORINATING GRANULES (1/2 oz. per 500 gallons).

#### **Mineral Protection**

STAIN & SCALE REMOVER - This prevents staining, rust and corrosion, caused by metals in the source water. One bottle will treat up to 500 gallons for up to 3 months.

#### **Foam Control**

To control foaming, use SPA FOAM DOWN. For added convenience, use just 3 drops of SPA FOAM DOWN CONCENTRATE.

#### **Aromatic Control**

To make your spa even more relaxing and enjoyable, add ESSCENTS fragrance to it as often as you desire. With 8 exotic scents to choose from, you'll be sure to discover one that sets the perfect mood for you.



# KEEPING YOUR SPA WATER CLEAN & FRESH

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## An Overview

### As Needed (cont.)

#### **Skin Conditioning**

To prevent dry skin, pour SKIN SOFTNER directly into the spa. It smoothes and moisturizes.

#### **Algae Control**

For spas with green or yellow algae, use SPA ALGAECIDE to kill and prevent further algae growth.



*Do not leave your water treatment products outside. If they are subject to extreme heat or cold, their effectiveness can be impaired making them unusable. Always keep these and other chemicals **OUT OF REACH OF CHILDREN.***

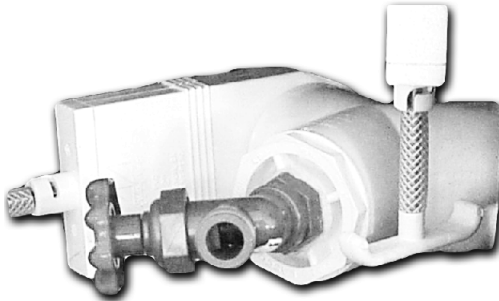
# DRAINING YOUR SPA

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Because a spa holds a relative small amount of water, contaminants such as body oil, perspiration, dirt, hair, etc., may become quite concentrated. For this reason, the water should be drained and replaced every three months depending on use.

- Turn off power at the breaker.
- Hook up a garden hose to the hose bib located in spa equipment area or on the exterior side cabinet.
- When water begins to drain out of the hose, be sure to drain the water to a convenient place.

After draining is completed, remove the garden hose from the hose bib & turn valve off. Wipe down the inside of your spa making sure your surface is dry and free from standing water. We recommend that after draining or cleaning your spa that you put the cover back on. Avoid extended direct sunlight exposure on the acrylic surface. Extended exposure can cause surface fading or cracking, which could void your warranty.



*Note: Be sure that hose is on a downward grade to properly drain spa.*

# WINTERIZING YOUR SPA

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In areas of the country where the temperatures drops below 32 degrees F, it is important to follow these directions

- 1) If the spa is not going to be used, drain completely and store in garage or some type of storage facility. Be sure all water is removed.
- 2) Do not turn unit off with water in the spa. Frozen water may rupture plumbing, and will not be covered under warranty.
- 3) In areas where sub-freezing temperatures can be expected, the filter and equipment should be drained of all water.
- 4) Remove and clean filter cartridge. Store cartridge in a secure place to prevent freezing.

When winterizing the spa, we recommend putting RV Antifreeze in the spa and running it before draining the spa.

Freeze ups or damage caused by freezing are not covered under warranty

# WINTERIZE YOUR SPA!

# WINTERIZING SPA COVERS

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## Proper Maintenance For Your Dynasty Spa Cover

- 1) Use a soft broom to remove accumulation after every snowfall or ice storm
- 2) Splash cool tap water on the hardware to free them if they become frozen shut. WD-40 will keep the lock free, but apply carefully because it can damage the cabinet finish.
- 3) We recommend a good treatment with Vinyl Conditioner before your first snow or ice. If possible, treat during the winter too.
- 4) Monitor your water chemistry. Even if the spa is not used regularly, improper water chemistry can cause a mildew build-up on the cover. Clean water and PH controlled water will prolong the life of the cover.
- 5) If mildew is found, remove foam cores from the vinyl encasement. Mix water, a teaspoon of mild dish washing soap and a cup of bleach. With a soft bristle brush, scrub the inside and outside of the vinyl encasement thoroughly. Then take a washcloth and wipe down each foam core, rinse thoroughly. Place the encasement in the sun and foam cores in the shade to dry. Once everything is thoroughly dry, spray the cores and encasement with a mildew inhibitor (like Pine Sol). Allow to dry completely, then reassemble. The key here of course is to maintain proper water chemistry to avoid mildew.
- 6) We suggest rotating the cover every six months to maintain even wear. Unzip the cover, remove the foam cores, turn over and reassemble.

## Ask Your Dealer About Using A Cover Caddy

**PROTECT YOUR COVER**

# TROUBLE SHOOTING GUIDE

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## No heat or heat too low

<b>Probable Cause #1</b>	Dirty Filter
<b>Action</b>	Clean Filter / Pull Filter and try running without filter
<b>Probable Cause #2</b>	Breaker at house off.
<b>Action</b>	Reset breaker at house. Breaker can appear to be on and one pole can be off. Turn breaker OFF then ON twice.
<b>Probable Cause #3</b>	Pump not primed.
<b>Action</b>	Refer to the section of this manual on pump priming
<b>Probable Cause #4</b>	Improper line voltage.
<b>Action</b>	Have a Licensed Electrician check the line voltage.

## Spa Lights won't come on

<b>Probable Cause #1</b>	Light bulb burnt out.
<b>Action</b>	Replace bulb. (non-warranty)
<b>Probable Cause #2</b>	Dirty connection
<b>Action</b>	Check to see if there is anything covering the connection on the housing that holds the light bulb.

## Pump will not prime

<b>Probable Cause #1</b>	No water in pump
<b>Action</b>	Make sure water level in spa is correct. Bleed top air bleed on face of pump till water flows out.
<b>Probable Cause #2</b>	Closed gate valves or blocked lines.
<b>Action</b>	Open all gate valves. Check suction for blockage
<b>Probable Cause #3</b>	Pump surges, jets lose power, then comes back, then loses power again etc.
<b>Action</b>	Check union on front or nose of pump to ensure tightness. Check drain plugs to ensure tightness.
<b>Probable Cause #4</b>	Air lock
<b>Action</b>	Bleed off air at air relief valve on pump.

## Jets won't come on

<b>Probable Cause #1</b>	Pump not primed.
<b>Action</b>	Refer to the section of this manual on pump priming.
<b>Probable Cause #2</b>	Gates Valves closed.
<b>Action</b>	Check to see if gate valves are in the correct position. Check to see that pump is purged in.

# TROUBLE SHOOTING GUIDE (CONT.)

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## Low water flow

**Probable Cause #1**

**Action**

Dirty Filter

Remove filter cartridge and clean.

**Probable Cause #2**

**Action**

Closed gate valves or blocked lines.

Open all gate valves.

**Probable Cause #3**

**Action**

Low voltage or incorrect voltage

Have a Licensed Electrician check the line voltage

## Spa is leaking

**Probable Cause #1**

**Action**

Loose connection.

Hand tighten all disconnects and fittings.

Check joints and unions

## Motor does not run

**Probable Cause #1**

**Action**

No power to motor.

Check power switches and circuit breakers. Check motor plug where plugged into control panel.

**Probable Cause #2**

**Action**

Pump jammed from foreign matter in impeller.

Call dealer for recommended action.

**Probable Cause #3**

**Action**

Motor overheats during hot days while filtering.

Re-program your controls to cycle during the coolest parts of the day and on shorter cycles.  
(see programming instructions)

## Motor runs hot

**Probable Cause #1**

**Action**

Pump ran dry.

Call dealer for recommended action.

**Probable Cause #2**

**Action**

Restricted suction lines

Make sure all valves are open/clear suction of debris.



**Note:** *These motors will feel hot to the touch. This is normal. The Overheat sensor will turn the motor off if there is an overload or high temperature problem.*

# GLOSSARY OF TERMS

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<b>Air Blower</b>	The air blower supplies air to the jets creating a hydro massage action
<b>Air Loop</b>	A back up system for the check valve, prevents water from entering air blower
<b>Air Venturi</b>	Mounted on the lip of the spa or at the equipment shroud, to induce air to the jets
<b>Cabinet</b>	The redwood or Dynalast foam that surrounds the spa, also called a skirt.
<b>Check Valve</b>	Prevents water back flow to blower.
<b>Control Panel</b>	Mounted on the lip of the spa. The digital panel that controls the spas functions.
<b>Control Box</b>	Basically the brain of the spa. Power is distributed to all functions of the spa, pumps, blower, ozonator, flow switch heat, etc.
<b>Drain</b>	The fitting set into the footwell that drains water from the spa.
<b>Filter</b>	The filter cleans the spa and removes particles and debris and protects the equipment from foreign substances.
<b>Footwell</b>	The bottom of a spa where you place your feet. Dynasty is known for it's larger footwells and comfortable seating.
<b>G.F.C.I. Breaker</b>	The electronic switch installed in the power box of your house to give power to the spa. This is a non-user serviceable part.
<b>Gate Valves</b>	T-handled valves located at the inlets and outlets of the equipment. The gate valve blocks or opens the water line by the equipment.
<b>Heater</b>	The thermostatically controlled heater raises the temperature of the water to the desired degree. This is located under the control box in the equipment area.
<b>Hose Bib</b>	Used in the draining of the spa, looks like an outdoor faucet and fits a standard garden hose.
<b>Jets</b>	The fittings on your spa that direct the flow of water for massaging action.
<b>Ozone</b>	A water purification supplement method using Ozone gas. Gas is made by an Ozone Generator unit that can reduce you sanitizer needs by up to 25%.

# GLOSSARY OF TERMS (CONT.)

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**pH**

Stands for "Potential for Hydrogen" This is the term used to describe the acid (low pH) or alkalinity (high pH) condition of the water. The ideal pH for spa water is 7.5

**Skimmer**

This is the circular outlet at the water level. The skimmer removes surface debris to the filter. The water level in the spa should be kept at 2" above the skimmer for optimum operation.



# SPA MODELS DETAIL REFERENCE CHART

<i>Model</i>	<i>Jets</i>	<i>Dimensions</i>	<i>Gal.</i>	<i>Persons</i>	<i>Weight Dry</i>	<i>Weight Filled</i>
Baron	9, 21	60"x82"x30"	225	3	525	2725
Camelot	37, 39	82"x82"x36"	320	6	615	3175
Duchess	25	92"x92"x36"	425	5	695	4095
Dynamo II	11	84"x84"x36"	320	4	600	3160
Dynamo III	21	84"x84"x36"	320	5	600	3160
Ecstasy	32, 35	92"x92"x36"	400	6	705	3905
Emperor	25, 36	92"x92"x36"	450	6	705	4305
Gallant	25, 29, 33	78"x92"x33"	325	6	650	3250
Jester	17	78"x82"x30"	275	6	595	2795
Knight	17	82"x82"x36"	320	6	600	3160
Lancelot	26, 30	82"x82"x36"	320	6	615	3175
Luxor	25	78"x82"x30"	275	6	595	2795
Monarch	44, 46	92"x92"x36"	425	6	700	4100
Princess	25	82"x82"x36"	320	6	615	3175
Renaissance	40, 42	92"x92"x36"	425	6	705	4105
Tuscan	18	78"x82"x30"	275	6	590	2790
Ultima	45, 54	92"x92"x40	475	6	735	4535
Venetian	20	82"x82"x36"	320	6	600	3160
Windsor	41, 43	82"x82"x36"	350	6	610	3410

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