

Owner's Manual

excalibur series

Dynasty Spas, 101 Dynasty Way, Athens, TN 37303
www.dynastyspas.com

All Information In This Manual is Subject to Change Without Notice

Dynasty
SPAS™

Owner's Information

Dealer

Company

Address

Phone

E-Mail

Installer

Company

Address

Phone

Warranty Turned In / Date

Model

Serial Number

Equipment Pack

Color

Date of Delivery

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 Owner's 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
101 Dynasty Way
Athens, Tennessee 37303
www.dynastyspas.com

Important Safety Instructions

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 mm²) 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 (8.4mm²) 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 (cont.)

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°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

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 or mahogany skirt or if you purchased a wood 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 cleansers 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

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

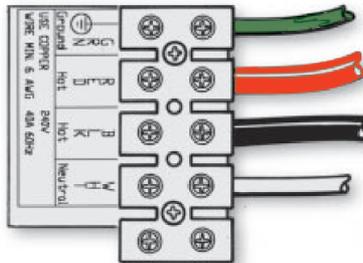
- Your spa requires up to 40" of clearance through gates between house and side fences, and up to 8.5' overhead clearance depending on the size of the unit.
- The clearance required to turn a corner can be equal to the length of the spa.
- All debris blocking access to the job site, must be removed prior 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. - Must use copper connections
- Your 220 Volt spa pack will require a 50 amp dedicated GFCI circuit breaker, depending on model.

Wiring Requirements

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



Set-up & Delivery Guidelines

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.

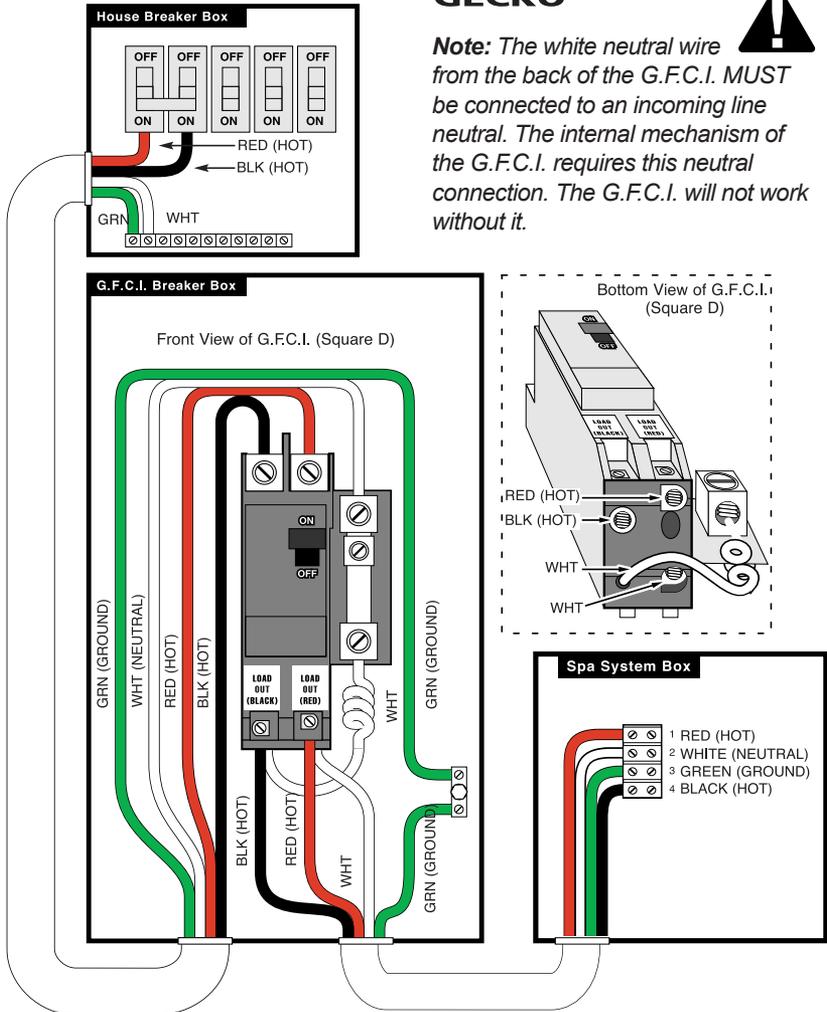
It is the customers responsibility to acquire necessary permits, to arrange for installation and hook up of the electrical power.

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.



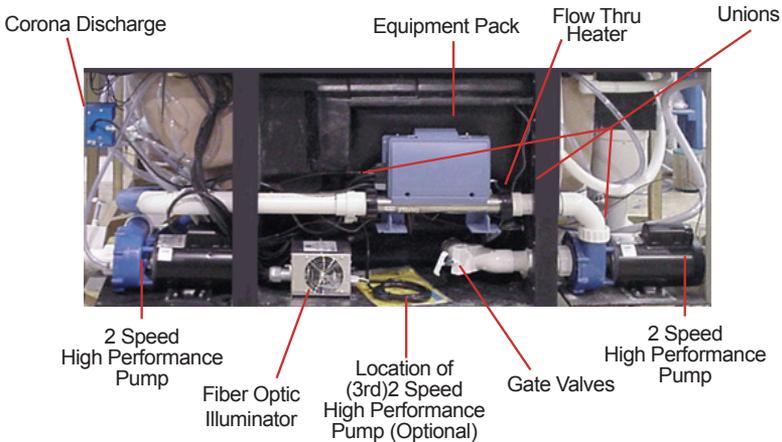
General Pre-Operation Instructions

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 to fill line, or just below neck jets
- Open Air bleed screw, just beside skimmer, to prime pumps. After bubbles stop, tighten off bleed screw.
- 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

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 3000, 4000 & 5000 controls.

3000 & 4000 Systems



Starting Pump 1:

Press **Pump 1** to turn Pump 1 on at low speed. Press a second time to turn pump to high speed. A third time turns pump off. A built-in timer automatically turns pump off after 20 minutes.

▼ The "Pump 1" indicator lights up when Pump 1 is on.



Starting Pump 2:

Press **Pump 2** to turn Pump 2 on. Press a second time turns Pump 2 off. A built-in timer automatically turns Pump 2 off after 20 minutes, unless it has been manually deactivated.

▼ The "Pump 2" indicator lights up when Pump 2 is on.



Turning the light on:

Press **Light** to turn light on. Pressing a second time turns light off. A built-in timer automatically turns light off after 2 hours, unless it has been manually deactivated.

▼ The "Light" indicator is displayed when light is on.



Fiber Box Option: If spa has an optional fiber box, press **Light** key to turn fiber box (motor and light) on. Pressing a second time turns fiber box off but leaves light on. A third time turns both motor and light off. A built-in timer turns fiber box off after 2 hours, unless it has been manually deactivated. The "Light" icon is displayed when fiber box light is on. It flashes when fiber box motor and light are on at the same time.

Automatic water heater start:

When water temperature is 1°F (0.5°C) lower than the Set Point, the heater will automatically turn on until water temperature reaches Set Point plus 1°F (0.5°C).

▼ The "Heater" indicator lights up when the heater is on. It flashes when there is a request for more heat but the heater has not yet started.



N.B.: If your system is configured in Low Current Mode, the heater will not start if a pump is running at high speed.

Setting water temperature:

Use **Up** or **Down** arrow key to regulate water temperature. The temperature setting will be displayed for 5 seconds to confirm your new selection.



▼ The "Set Point" indicator displays the desired temperature, NOT the current water temperature!



Water temperature can be adjusted by 1° increments from 59 to 104°F (15 to 40°C).

Economy mode:

Press **Econo** key to switch from Normal mode to Economy mode. In Economy mode, system maintains temperature at the desired Set Point during filter cycles only. Set Point is 20°F (11°C) below the Normal mode Set Point for the rest of the time. In Economy mode, the display will toggle between the current water temperature and the "Econ" message.



3000 & 4000 Top Side Control Instructions

The system automatically performs two filter cycles per day, at 12-hour intervals. During a filter cycle:

- Pump 2 runs for one minute, then
- Pump 1 runs at low speed for the programmed number of hours

The "Filter Cycle" indicator lights up when the filter cycle is on.

To set the filter cycle duration:



Press and hold **Filter** key until the display shows "xx", representing the currently set filter cycle duration in hours.



Use **Up** or **Down** arrow keys to change setting.
0 = no filtration
12 = continuous filtration



When the desired setting is displayed, press **Filter** key again to confirm. A filter cycle starts immediately.



An irregularly flashing "Filter" indicator light indicates that the system has stopped filtering after 3 hours because the water temperature exceeds the set point by more than 2° F (1° C). If the temperature cools down to 1° F (0.5° C) above set point before the scheduled end of the cycle, filtering will resume for the remainder of the programmed duration.

Note: After a power failure, the filter cycle duration will return to its default value (6 hours). In this case, the first filter cycle will start 12 hours after power has been restored.

Troubleshooting



Pumps have started up for one minute on several occasions and "Filter Cycle" indicator is flashing.

Not a bug but a feature!

Our **Smart Winter Mode** protects your spa from the cold by automatically turning pumps on for one minute several times a day to prevent water from freezing in pipes.

3 flashing dots are displayed.

A problem has been detected.



Do not enter the water! Check and open water valves. Clean filter if necessary. Check water level. Add water if necessary.

Shut power off and power your spa up again to reset the system.

Call your dealer or service supplier if problem persists.

Water temperature is flashing.

Water temperature in the spa has reached 112° F (44° C).



Do not enter the water! Allow water to cool down. The system will reset automatically when water temperature reaches 109° F (43° C).

Call your dealer or service supplier if problem persists.

The display is flashing.

A power failure has occurred. Press any key to reset the system, then reprogram all desired parameters.



5000 Top Side Control Instructions

5000 System



Starting Pump 1:

Press **Pump 1** to turn Pump 1 on at low speed. Pressing a second time turns Pump 1 to high speed. A third time turns Pump 1 off. When at high speed, a built-in timer turns pump off after 20 minutes and when at low speed after 2 hours, unless it has been manually deactivated.

 The "Pump 1" icon lights up when Pump 1 is on at high speed. It flashes when Pump 1 is on at low speed.

Starting Pump 2:

When blower or Pump 3 are not installed: Press **Pump 2** once to turn Pump 2 on at low speed. Pressing a second time turns Pump 2 to high speed. A third time turns pump off. A built-in timer turns pump off after 20 minutes, unless manually deactivated first.

 The "Pump 2" icon lights up when Pump 2 is on at high speed. It flashes when Pump 2 is on at low speed.

When blower and Pump 3 are installed: Press **Pump 2** once to turn Pump 2 on at low speed. Pressing a second time turns Pump 3 on and Pump 2 to high speed. A third time turns both pumps off. A built-in timer automatically turns pumps off after 20 minutes, unless manually deactivated first. The "Pump 2" icon lights up when Pump 2 and Pump 3 are on at high speed. It flashes when Pump 2 is on at low speed.

Starting Pump 3:

Press **Pump 3** to turn Pump 3 on. Pressing a second time turns Pump 3 off. A built-in timer automatically turns pump off after 20 minutes, unless manually deactivated first.

 The "Pump 3" icon lights up when Pump 3 is on.

*Note: If blower is installed, press **Pump 3** to turn blower on at high speed. Press a second time to turn blower to low speed. A third time turns blower off. A built-in timer turns blower off after 20 min., unless manually deactivated first. The "Pump 3" icon lights up when blower is on at high speed. It flashes when blower is on at low speed.*

Automatic water heater start:

When water temperature is 1°F (0.5°C) lower than the Set Point, the heater will automatically turn on until water temperature reaches Set Point plus 1°F (0.5°C).

 The "Heater" icon lights up when the heater is on. It flashes when there is a request for more heat but the heater has not yet started.

Temperature display unit:

Press and hold **Light** key for 5 seconds to display water temperature in either Fahrenheit (°F) or Celsius (°C).

Turning the light on:

Pressing **Light** key once turns light on at high intensity. Pressing a second time turns light to low intensity. A third time turns light off. A built-in timer turns light off after 2 hours, unless it has been manually deactivated.

 The "Light" icon is displayed when light is on at high intensity. It flashes when light is on at low intensity.

Fiber Box Option: If spa has an optional fiber box only, pressing **Light** key turns fiber box (motor & light) on. Pressing again turns fiber box motor off but leaves light on. A third time turns both motor and light off. A built-in timer turns fiber box off after 2 hours, unless it has been manually deactivated. The "Light" icon is displayed when fiber box light is on. It flashes when fiber box motor and light are on at the same time.

Time & Temperature display:

The display toggles every 5 seconds alternately showing the hourly time and the current water temperature.

5000 Top Side Control Instructions

Setting water temperature:

Use **Up** or **Down** arrow key to regulate water temperature. The temperature setting will be displayed for 5 seconds to confirm your new selection.

 The "Set Point" symbol indicates the desired temperature, NOT the current water temperature!



Water temperature can be adjusted by 1° increments from 59 to 104°F (15 to 40°C).

 An irregularly flashing "Filter Cycle" icon means that the system has stopped filtering after 3 hours because water temperature exceeds Set Point by more than 2°F (1°C). If temperature cools down to 1°F (0.5°C) above Set Point before the scheduled end of the cycle, filtering will resume for the remainder of the programmed duration.

Troubleshooting



Pumps have started up for one minute on several occasions and "Filter Cycle" icon is flashing.

Not a bug but a feature!

Our **Smart Winter Mode** protects your system from the cold by automatically turning the pumps on for one minute several times a day to prevent water from freezing in pipes.

The display is flashing.

A power failure has occurred. Press any key to reset the system, then reprogram all desired parameters.



Water temperature is displayed.

Water temperature in the spa has reached 112°F (44°C).

Do not enter the water! Allow water to cool down. The system will reset automatically when water reaches 109°F (43°C).

Call your dealer or service supplier if problem persists.



3 flashing dots are displayed.

A problem has been detected.

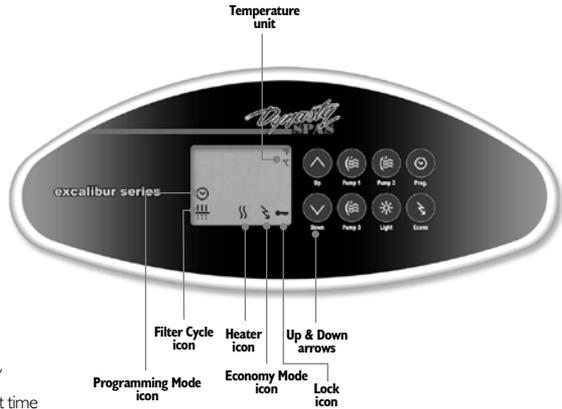
Do not enter the water! Check and open water valves. Clean filters if necessary. Check water level. Add water if needed.

Shut power off and power your spa up again to reset the system.

Call your dealer or service supplier if problem persists.

5000 Top Side Control Instructions

7 Step Programming Sequence



Step 1	Time of day
Step 2	Filter cycle start time
Step 3	Filter cycle duration
Step 4	Filter cycle frequency
Step 5	Economy mode start time
Step 6	Economy mode duration
Step 7	Storing settings in memory & returning to Normal mode

Step 1- Time of day

Setting the time: 10:25 am 11:43 pm

- 1- Enter Programming mode by holding **Prog.** key pressed down for 2 seconds.
- 2- The display will show the current setting.
- 3- Use **Up** and **Down** arrows to change setting.



Step 4- Filter cycle frequency

Setting filter cycle frequency:



FF06

FF10

- 1- Press **Prog.** key a fourth time.
- 2- The display will show **FFxx**, with "xx" representing the frequency per day.
- 3- Use **Up** and **Down** arrows to change setting.

Steps 2 & 3- Filter cycle start time & duration

The system automatically performs two filter cycles per day, at 12-hour intervals. During the filter cycle, Pumps 1 & 2 and the blower will run for one minute, then Pump 3 will run for one minute. Pump 1 will then run at low speed for a programmed number of hours. The "Filter Cycle" icon lights up when a filter cycle is on.

To program a filter cycle, you must enter: 1) the time you want the cycle to start and 2) the duration of the cycle. If no filtering is required, the duration should be set to "0". For continuous filtering, the filter cycle duration should be set to "12:00".

Setting filter cycle start time:

- 1- Press **Prog.** key a second time.
- 2- The display will show **FSxx**, with "xx" representing the starting hour.
- 3- Use **Up** and **Down** arrows to change setting.



FS10

FS08

Steps 5 & 6- Economy mode start time & duration*

Setting Economy mode start time:



ES10

ES08

- 1- Press **Prog.** key a fifth time.
- 2- The display will show **ESxx**, with "xx" representing the starting hour.
- 3- Use **Up** and **Down** arrows to change setting.

Setting Economy mode duration:



Ed04

Ed06

- 1- Press **Prog.** key a sixth time.
- 2- The display will show **Edxx**, with "xx" representing the duration in hours.
- 3- Use **Up** and **Down** arrows to change setting.

Setting filter cycle duration:

- 1- Press **Prog.** key a third time.
- 2- The display will show **Fdxx**, with "xx" representing the duration in hours.
- 3- Use **Up** and **Down** arrows to change setting.



Fd04

Fd06

Step 7- Storing settings in memory

Press **Prog.** key a seventh time to store the settings in the system's non-volatile memory and to return to Normal mode.

5000 Top Side Control Instructions

Digital control pad lockout

This function allows you to prevent unauthorized parameter setting of the unit. This feature is especially helpful when young children have access to the keypad.

There are two modes you can choose from: *Full* lock or *Partial* lock. *Full* lock means that all keypad functions are locked. *Partial* lock means that the basic functions of the spa will remain accessible (pumps, blower and light), but it will be impossible to change the temperature Set Point, to override the Economy mode or to enter the Programming mode.

When control pad is locked, the "Lock" icon will be displayed.

Locking your digital control pad:

- 1- Press and hold **Pump 1** key for 5 seconds.
 - LocP** 2- The display will show **LocP**, with "P" representing *Partial* lock.
 - LocF** 3- Release the key and the keypad will be in *Partial* lock mode. Keep key pressed down for 5 more seconds if you want to be in *Full* lock mode. The "LocF" message will then be displayed.

When control pad is locked, all automatic functions of the system run as usual. If a key is pressed down, a "LocP" or "LocF" message will be displayed for 1 second. To unlock the keypad, simply press and hold **Pump 1** key again for 5 seconds.

Economy mode

Press **Econo** key to switch from Normal mode to Economy mode. To save energy, the Economy mode Set Point is 20°F (11°C) below the Normal mode Set Point.

- The "Economy Mode" icon lights up when Economy mode is on.

There are 3 available Economy operating modes:
noEc: No Economy mode
Ec 1: Economy mode on during a programmed number of hours (see Steps 5 & 6*)
Ec 2: Economy mode always on

Selecting the desired Economy mode:

- 1- Press and hold **Econo** key for more than 2 seconds.
 - noEc** 2- The display will show the current mode (noEc, Ec 1 or Ec 2).
 - Ec 1** 3- Keep key pressed down until the desired mode is displayed.

After 5 seconds, the new setting will be programmed.

Inverted display

Press and hold **Pump 2** for 5 seconds to invert the display. Note that the °F or °C icon is not displayed in reverse mode. Follow the same procedure to return to default mode. If a power-up occurs, the display always returns to default mode.

Summary of control panel parameters

FSxx	Filter cycle start time
Fdxx	Filter cycle duration
FFxx	Filter cycle frequency
ESxx	Economy mode start time
Edxx	Economy mode duration
Tu X	Temperature unit
LoCX	Control pad lockout



Excalibur Stereo Features

Whether you want to be worlds away, or have the world at your fingertips, the Dynasty Spas Excalibur Series 6 Speaker AM/FM CD w/remote, delivers total entertainment and delights all the senses.



Features

- 4 x 40 Watts 160 Total
- Water resistant detachable security panel
with sealed membrane switches
- Front Panel Completely conceals CD Slot
- High Speed audible track search
- Random, Repeat, intro, pause
- 30 Station Presets (18FM/12AM)
- One Touch Memory
- Digital LCD Clock
- 3 Band Weather Receiver
- Electro-luminescent backlighting



Note: For more information, please refer to your stereo owner's manual guide located inside your equipment area.

Air Venturies & Diverter Valve Controls

Diverter Valves

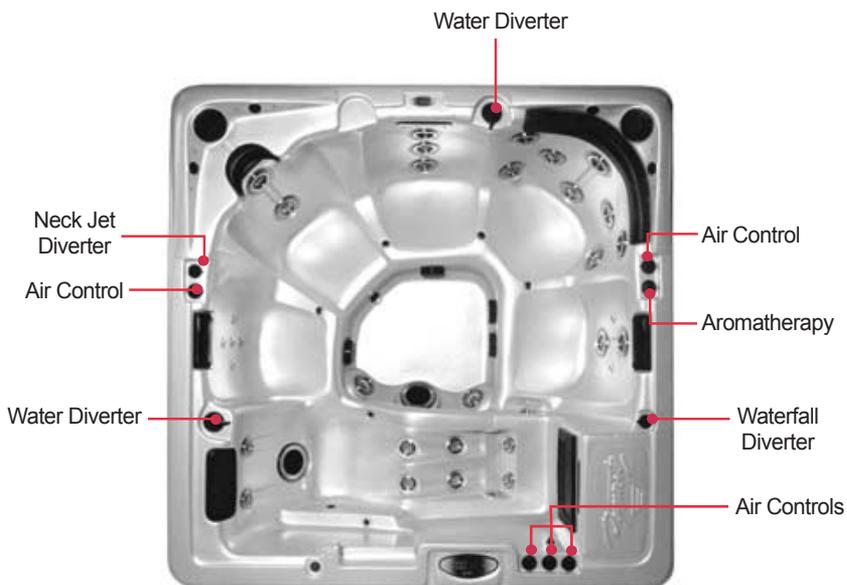
This valve controls the output of the pumps to either side of the spa and neck jets, a simple turn of the pointer toward the seat(s) will increase the output allowed. Another turn of the pointer away from the seat(s) will decrease the flow of the jets, or it may operate all the jets if left in the middle position. The purpose of these valves is to increase or decrease the output of one side or another for maximum or minimum water flow in case of one or multiple person usage. This valve is also used to turn the master massage jet on and off.

Air Controls

Each spa is equipped with either 2, 4 or 5 air controls (venturies), depending on your model. The purpose of these controls is to regulate the mixture of air and water to flow throughout the jets.

Waterfall Diverter

This diverter works much like the standard diverter valves, however it has another purpose. It directly controls the Waterfall(s) that comes standard on your spa. Simply turn the pointer in one direction or another for the desired water flow.



Filter Location

Skimmer / Filter
Location



Baron 3000
Skimmer / Filter
Location



Filter Maintenance

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 (100 sqft.)

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

- Turn off power at the breaker.
- Slide filter cover up and off.
- Remove weir basket to expose blue filter cartridges.
- Unscrew filter cartridges and remove.
- 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.
- Screw clean cartridge back into filter canister, place weir basket back into skimmer housing, slide filter cover back into position.



For Baron 3000 owner's (50 sqft.)

- 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.

Keeping Your Spa Water Clean & Fresh

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

- 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.

Keeping Your Spa Water Clean & Fresh

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

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 SPAALGAECIDE 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

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 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



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

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

- 1) If the spa is not going to be used, drain completely. Be sure all water is removed. Break or loosen unions at each end of pump to ensure water from pump area 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) Remove and clean filter cartridge. Store cartridge in a secure place to prevent freezing.

If the spa is going to be used, maintain normal operating procedures and ensure cover is when possible.

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

WINTERIZE YOUR SPA!

Maintaining Your Spa Cover

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

No heat or heat too low

**Probable Cause #1
Action**

Dirty Filter
Clean Filter / Pull Filter and try running without filter

**Probable Cause #2
Action**

Breaker at house off.
Reset breaker at house. Breaker can appear to be on and one pole can be off. Turn breaker OFF then ON twice.

**Probable Cause #3
Action**

Pump not primed.
Refer to the section of this manual on pump priming

**Probable Cause #4
Action**

Improper line voltage.
Have a Licensed Electrician check the line voltage.

Pump will not prime

**Probable Cause #1
Action**

No water in pump
Make sure water level in spa is correct. Adjust bleed screw located on spa wall next to skimmer area.

**Probable Cause #2
Action**

Closed gate valves or blocked lines.
Open all gate valves. Check suction for blockage.

**Probable Cause #3
Action**

Pump surges, jets lose power, then comes back, then loses power again etc.
Check union on front or nose of pump to ensure tightness. Check drain plugs to ensure tightness.

**Probable Cause #4
Action**

Air lock
Adjust bleed screw located on spa wall next to skimmer area.

Jets won't come on

**Probable Cause #1
Action**

Pump not primed.
Refer to the section of this manual on pump priming.

**Probable Cause #2
Action**

Gates Valves closed.
Check to see if gate valves are in the correct position.
Check to see that pump is purged in.

Trouble Shooting Guide (cont.)

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
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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. Reprogram 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

Air Venturi	Mounted on the lip of the spa or at the equipment shroud, to induce air to the jets
Bleeder Screw	An air release screw/valve that is used to release air and prime the pumps, located on side wall next to skimmer area.
Cabinet	The Redwood, Mahogany or Dynalast foam that surrounds the spa, also called a skirt.
Check Valve	Prevents water back flow to blower.
Control Panel	Mounted on the lip of the spa. The digital panel that controls the spas functions.
Control Box	Basically the brain of the spa. Power is distributed to all functions of the spa, pumps, blower, corona discharge, flow switch, heat, etc.
Drain	The fitting set into the footwell that drains water from the spa.
Filter	The filter cleans the spa and removes particles and debris and protects the equipment from foreign substances.
Footwell	The bottom of a spa where you place your feet. Dynasty is known for it's larger footwells and comfortable seating.
G.F.C.I. Breaker	The electronic switch installed in the power box of your house to give power to the spa. This is a non-user serviceable part.
Gate Valves	T-handled valves located at the inlets and outlets of the equipment. The gate valve blocks or opens the water line by the equipment.
Heater	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.
Hose Bib	Used in the draining of the spa, looks like an outdoor faucet and fits a standard garden hose.
Jets	The fittings on your spa that direct the flow of water for massaging action.
Corona Discharge	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.)

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 square opening with the floating gate 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.

NOTES

NOTES

Spa Models Detail Reference Chart

Model	Jets	Dimensions	Gal.	Persons	Weight	
					Dry	Filled
Baron	30	60"x82"x30"	225	3	525	2625
Camelot	40, 50	82"x82"x36"	320	6	615	3175
Gallant	40	78"x92"x33"	325	6	650	3250
Lancelot	30	82"x82"x36"	320	6	615	3175
Monarch	50	92"x92"x36"	425	6	700	4100
Renaissance	30, 40, 50	92"x92"x36"	425	6	705	4105

3000 Series	Standard Spa Features 3000 Series	Models
		30 Jets 2 (Two) Waterway 5 HP Pumps Corona Discharge 1 (One) Waterfall (2 Waterfalls-Baron Only) Black Jets 100 (50 - Baron) SqFt. Filter Aromatherapy Mahogany or Fiber Skirting Arctic Foam Package Solid ABS Bottom Standard Fiber Optics 5 (Five) Year Warranty

4000 Series	Standard Spa Features 4000 Series	Models
		40 Jets 2 (Two) Waterway 7 HP Pumps Corona Discharge 2 (Two) Waterfalls Stainless Steel Jets 100 SqFt. Filter Aromatherapy Mahogany or Fiber Skirting (Redwood or Gray) Arctic Foam Package Solid ABS Bottom Standard Fiber Optics Choice of Volcano or Master Massage Jet in Footwell 5 (Five) Year Warranty
	4000 Stereo Series	
	As above, plus 6 Speaker AM/FM/CD Player with remote	Camelot ST 4000 Renaissance ST 4000

5000 Series	Standard Spa Features 5000 Series	Models
		50 Jets 3 (Three) Waterway 5 HP Pumps Corona Discharge 2 (Two) Waterfalls 4 Button Auxiliary Control Stainless Steel Jets 100 SqFt. Filter Aromatherapy Mahogany or Fiber Skirting (Redwood or Gray) Arctic Foam Package Solid ABS Bottom Deluxe Fiber Optic Jet Package Choice of Volcano or Master Massage Jet in Footwell 5 (Five) Year Warranty
	5000 Stereo Series	
	As above, plus 6 Speaker AM/FM/CD Player with remote	Camelot ST 5000 Renaissance ST 5000 Monarch ST 5000