

# **Owner's Manual**

**Recreational Series** 

## **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 it is our sincere desire that you receive years of pleasure and therapy from your Dynasty Spa. Please call your local Dynasty Spas Dealer if you have any questions or problems.



## **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 have 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.

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

Sincerely

Mike Deane

Mike Deans President , Dynasty Spas

Dynasty Spas 101 Dynasty Way Athens, Tennessee 37303 www.dynastyspas.com When installing and using this electrical equipment, basic safety precautions should be followed, including the following:

1) READ AND FOLLOW ALL INSTRUCTIONS.



- 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.
- 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) 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 that the flow rate marked on the original suction fitting.
- 5) 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 (8.4 mm2) solid copper conductor to the wire connector on the terminal box that is provided for this purpose.
- 6) DANGER Risk of electrical shock. Do not permit any electrical appliance, such as light, telephone, radio or television within 5ft. (1.5m) of spa.
- 7) 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.
  - 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.

8) 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.
- 9) Never touch or come in contact with any electrical accessory when in your spa or when your body is wet.
- 10) Prior to performing any service to the Spa Pack, turn off ALL power to the system at the main power source breaker.
- 11) Never turn equipment pack on unless spa is filled with water 2" above the skimmer.

**CAUTION:** Each person's 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/hot water immersion. CONSULT YOUR PHYSICIAN FOR RECOMMENDATIONS.





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 you receive from 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 their own 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.
- You should clean your spa at least every 3-4 months. Drain the spa water and use an abrasive free liquid cleanser, such as 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.



## 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.

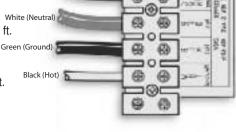
Red (hot)

#### **Electrical Requirements**

• 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 Green (Gr Ground
- 4 Wire #6 Gauge wire over 50 ft. 2-Hots, 1-Neutral, 1-Isolated Ground



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

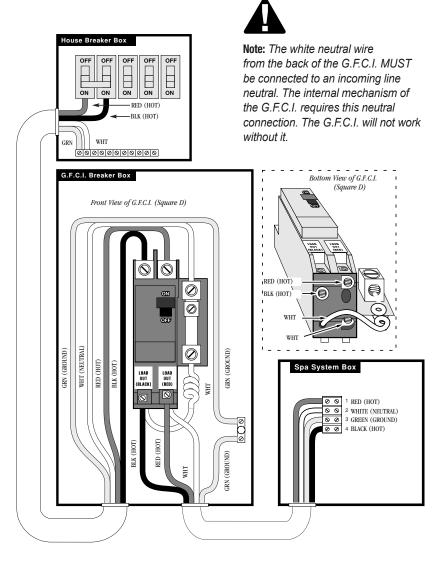
#### Wiring Requirements (Cont.)

- 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 customer's responsibility to acquire necessary permits, and to arrange for installation and hook up of the electrical power.

## Wiring Diagram

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

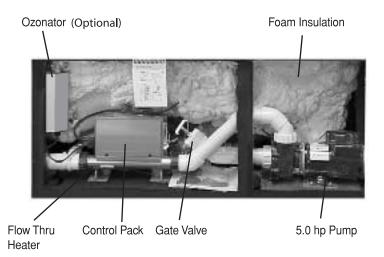


## Priming Pump For Electric Packs

The power pack system is located under the skirt. The equipment can be serviced by simply removing the door.

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

- Turn off power at the breaker.
- Make sure the gate valves are open.
- Fill the spa with water going through the filter.
- Turn the power on at the breaker.
- Start the pump on Lo-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.
- 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 and outside conditions, 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**

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.



#### To start the pump:

Press the **Pump** key to turn the pump on at low speed. A second press will turn the pump to high speed. A third press will turn the pump off. A built-in timer will shut the pump off after 20 minutes unless it has been manually deactivated.



The "Pump" indicator light will be on when the Pump is running.

#### To turn the light on:

Press the **Light** key to turn the light on. A second press will turn the light off. A built-in timer will shut the light off after 2 hours unless it has been manually deactivated.

The "Light" indicator will be on when the light is on.

#### To change the water temperature:

Press the **Up** or **Down** arrow key to increase or decrease the desired water temperature. The selected temperature setting will be displayed for 5 seconds as a confirmation.

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The "Set Point" indicator light indicates that the temperature shown is the desired, not the current, temperature of the water!

The temperature can be adjusted in 1-degree increments from  $59^{\circ}$ to  $104^{\circ}$  F ( $15^{\circ}$  to  $40^{\circ}$  C).

#### Water heater automatic start:

When the water temperature is  $1^{\circ}$  F (0.5°C) lower than the set point, the heater will turn on automatically until the water temperature reaches the set point plus  $1^{\circ}$  F (0.5°C).



The "Heater" indicator light will be on when the heater is on.

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Note: If your system is configured in Low Current Mode, the heater will not start if the pump is running at high speed. "Light" indicator

"Pump" indicator light







#### HOW TO PROGRAM THE FILTER CYCLE DURATION

The system will automatically perform two filtration cycles per day, 12 hours apart. During a filter cycle, the pump runs at low speed for a predetermined number of hours. The ozonator is also activated. The "Filter" indicator light will be on when a filter cycle is in progress.

#### To set the filter cycle duration:





Press and hold the **Light** key for 5 seconds. The display will show the currently set filter cycle duration in hours.

Use the **Up** or **Down** arrow key to change the setting. 0 = no filtration 12 = continuous filtration When the desired setting is displayed, press the **Light** key to confirm. A filter cycle will start 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  $2^{\circ}F(1^{\circ}C)$ . If the temperature cools down to  $1^{\circ}F(0.5^{\circ}C)$ 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 it's 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  $109^{\circ}F$  (43°C).

Call your dealer or service supplier if problem persists.

The display is flashing.

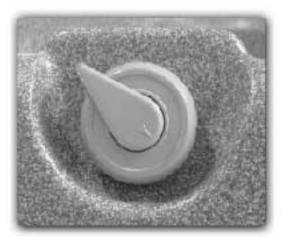
A power failure has occurred. Press any key to reset the system, then reprogram all desired parameters.





#### **Air Venturies**

Each spa is equipped with 1 or more air venturies, located on the topside lip. The purpose of these controls is to regulate the mixture of air and water that flows through the jets.



#### **Diverter 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.

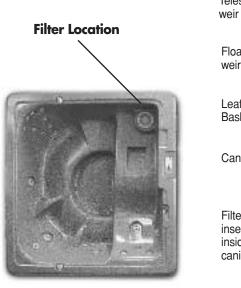


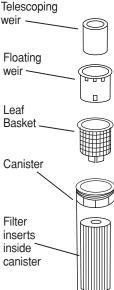
Filtration starts as soon as flow is steady through the filter. The filter cartridge removes the dirt from the spa water, the accumulated dirt causes flow resistance. A dirty cartridge will prevent the spa from heating properly. Therefore, regular filter cleaning is important.

#### **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.

Dynasty Spas extends this Limited Warranty to the original purchaser of any of its Recreational Series spas, manufactured after May, 1998 and installed within the U.S.A.

#### FIFTEEN (15) YEAR SHELL STRUCTURE WARRANTY

Dyansty Spas warrants its spas not to leak, meaning to be structurally sound and capable of holding water only, and against loss of water through the fiberglass laminate of the spa shell caused by defects in materials and workmanship for a period of FIFTEEN (15) YEARS from the original date of purchase, as long as the spa is owned by the original purchaser. Upon inspection, Dynasty Spas may, at its option, choose to repair or replace any spa shell submitted as a structural warranty claim.

#### FIVE (5) YEAR SURFACE FINISH OF SHELL WARRANTY

Dynasty Spas warrants the surface finish of its Recreational Series spas to be free from blistering and cracking due to defects in the acrylic surface material for a period of FIVE (5) YEARS from the original date of purchase, as long as the spa is owned by the original purchaser. This surface finish warranty does not apply to discoloration or fading. Further, this Limited Warranty does not apply if a failure is caused by or contributed to by any of the following: improper installation, improper use of chemicals, improper introduction of foreign substances into the water, etc. and/or failure to adequately protect the surface from elements/sun and extreme temperatures. In the event of a defect, the acrylic surface repair is further limited to only the defective portion of the surface is a finish and is not part of the fiberglass structure.

#### TWO (2) YEAR EQUIPMENT/COMPONENT AND EQUIPMENT/ COMPONENT LABOR WARRANTY

Dynasty Spas warrants the electrical components: heaters, pumps, relays and contactors and other spa components against malfunction, leaking or defects in materials or workmanship for a period of TWO (2) YEARS from the original date of purchase, as long as the spa is owned by the original purchaser. Replaceable service items (light bulbs, fuses, fiber optic lights, pillows, etc.) are not included in this warranty, but are warranted to be free from defects in materials or workmanship at the time of delivery to the original purchaser. This Limited Warranty does not apply if the failure is caused by or contributed to by any of the following: improper wiring, use of extension cords, improper alterations or modifications, or failure to plug into isolated service, as indicated by the manufacturer's specifications. Further, the Dynasty Spas Equipment Warranty follows the guidelines of the equipment manufacturers. The electrical labor coverage is an extended warranty program purchased by Dynasty Spas, on your behalf. Your dealer or authorized repair facility has details and procedures for submitting warranty claims.

#### TWO (2) YEAR PLUMBING WARRANTY

Dynasty Spas warrants all plumbing parts to be free from defects in material and/or workmanship for a period of TWO (2) YEARS from the original date of purchase, as long as the spa is owned by the original purchaser. Further, this Limited Warranty specifically covers leaks from the spa shell, wall fittings, jet fittings, internal plumbing, internal glue joints, freeze drains and all bonded parts, including the filter compartment and light lens.

#### PERFORMANCE / GENERAL

In the event of any defect covered by this Limited Warranty, Dynasty Spas or its authorized agent will correct such defect to the terms and conditions contained in this Limited Warranty. There will be a reasonable repairman travel charge (trip charge), for services performed after the initial delivery. If Dynasty Spas determines that repair of the covered defect is not feasible, we reserve the right to, instead, provide a replacement spa equal in value to the original purchase price of the defective spa. Delivery and installation of the replacement spa will be the responsibility of the spa owner. To obtain service, notify your authorized Dynasty Spa dealer as soon as possible and use all reasonable means to protect the spa from further damage.

REQUIREMENTS: Dynasty Spas warrants products manufactured and sold by them against defects in material and workmanship under normal usage and care for the periods stated below from the date of the original purchase. This Limited Warranty shall extend only to the original retail purchaser and is not assignable to any other person. A valid, completed warranty registration card must be submitted to Dynasty Spas within 30 days of delivery. For application of the product warranty, return any defective parts to the original source of supply (see individual equipment owner's manuals and warranties included with the Spa Owner's Manual). Seller's obligation under the aforesaid warranty is expressly limited to repairing or replacing, at Dynasty Spas' option, such products or parts thereof which are returned to Dynasty Spas and with full payment of the owner's portion of the warranty cost to Dynasty Spas.

EXCLUSIONS: This Limited Warranty becomes void if he spa is damaged by ground movements, accident, negligence, civil disturbance, Acts of God; if it has been subjected to alteration, neglect, misuse or abuse; if it has been installed and/or used in a commercial application; if any repairs have been attempted by anyone other than Dynasty Spas or its authorized agent; or by other causes beyond the control of Dynasty Spas. Neglect, misuse and abuse include any installation, operation or maintenance of the spa other than in accordance with the owner's manual. Damage resulting from failure to properly winterize the spa prior to freezing weather is not covered under this Limited Warranty. This Limited Warranty does not provide coverage for the insulating cover or any item attached to or installed on the spa AFTER the date of manufacture.

DISCLAIMER: Dynasty Spas representatives are not agents of Dynasty Spas, and no agent, dealer, representative, salesperson or other person is authorized to change, modify, expand or extend this Limited Warranty or anything contained herein or to bind Dynasty Spas in any other manner. Under no circumstances shall Dynasty Spas or any of its authorized representatives be held liable for injury or damage to any person or property for any claims, regardless of the manner in which such claims arise.

LEGAL RIGHTS: You may also have other rights, which may vary from state to state, in addition to the specific rights given to you hereunder. PLEASE READ THIS LIMITED WARRANTY CAREFULLY IN ORDER TO KNOW YOUR RIGHTS AND YOUR WARRANTY EXPECTATIONS AND LIMITATIONS. RETURN THE SIGNED WARRANTY CARD WITHIN THE SPECIFIED TIME PERIOD AS YOUR ACCEPTANCE OF THIS LIMITED WARRANTY AND IN ORDER TO BE ON FILE TO RECEIVE ANY FUTURE WARRANTY CLAIMS TO WHICH YOU MAY BE ENTITLED.

#### **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 contaminants 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:

- 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.

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

#### Water Testing

Your Dynasty Spa 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 Spa 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 betweenTotal 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.



#### An Overview

#### As Needed (cont.)

#### **Skin Conditioning**

To prevent dry skin, pour SKIN SOFTENER 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 subjected 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 relatively 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, turn valve off and remove the garden hose from the hose bib. 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, you put the cover back on. Avoid extended direct sunlight exposure to the acrylic surface. Extended exposure can cause surface fading or cracking, which could void your warranty.





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



In areas of the country where the temperatures drops below  $32^{\circ}$  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 freeze damage is not 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 a small amount of RV Antifreeze in the spa water and running it before draining the spa.

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



## 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 fall. 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 ,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 GOVER

#### No heat or heat too low

Probable Cause #1	Dirty Filter
Action	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	Improper line voltage
Action	Have a Licensed Electrician check the line voltage.

#### Spa Light won't come on

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

#### Pump will not prime

Action

Probabl Action	le Cause #1	No water in pump Make sure water level in spa is correct. Bleed top air bleed on face of pump till water flows out.
Probabl Action	le Cause #2	Closed gate valves or blocked lines Open all gate valves. Check suction for blockage
Probabl Action	le Cause #3	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.
Probabl Action	le Cause #4	Air lock Bleed off air at air relief valve on pump.
Jets won	't come on	
Probab Action	le Cause #1	Pump not primed Refer to the section of this manual on pump priming.
Probab	le Cause #2	Gates Valves closed

Check to see if gate valves are in the correct position. Check to see that pump is plugged in.

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## Trouble Shooting Guide (cont.)

#### Low water flow

Probable Cause #1	Dirty Filter
Action	Remove filter cartridge and clean.
Probable Cause #2	Closed gate valves or blocked lines
Action	Open all gate valves.
Probable Cause #3	Low voltage or incorrect voltage
Action	Have a Licensed Electrician check the line voltage

#### Spa is leaking

Probable Cause #1 Loose connection Action 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. 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	Pump ran dry
Action	Call dealer for recommended action.
Probable Cause #2	Restricted suction lines
Action	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.

Air Venturi	Mounted on the lip of the spa or at the equipment shroud, to induce air to the jets
Cabinet	The wood panels that surround 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, ozonator, 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 Spas are known for their 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 level. The heater is located under the control box in the equipment area.
Hose Bib	Used in the draining of the spa, it fits a standard garden hose.
Jets	The fittings in your spa that direct the flow of water for massaging action.
Ozone	An optional water purification supplement method using Ozone gas. Gas is made by an Ozone Generator unit that can reduce your sanitizer needs by up to 25%.

рН	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.

## **Recreational Series Model Comparison**

#### Model: Dynamo

Jets: 11 Size: 84"x84"x36" Water Capacity: 320 Gallons Seats: 6 Adults

#### Model: Tuscan

Jets: 18 Size: 78"x82"x30" Water Capacity: 275 Gallons Seats: 6 Adults

## **Model: Venetian**

Jets: 20 Size: 82"x82"x36" Water Capacity: 320 Gallons Seats: 6 Adults

#### Model: Milan

Jets: 22 Size: 92"x92"x36" Water Capacity: 400 Gallons Seats: 6 Adults

## **Spa Maintenance Record**

Date	Action

## **Spa Maintenance Record**

Date	Action	





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All Information In This Manual is Subject to Change Without Notice