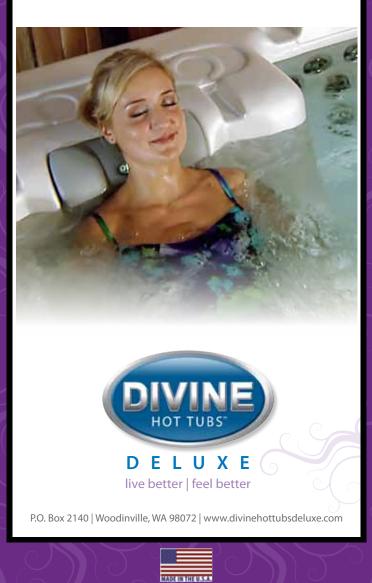
### Divine Hot Tubs<sup>™</sup> Deluxe **SPA MANUAL** Deluxe Series



© June, 2011 | Divine Hot Tubs™ Deluxe | spa manual, US/Canada, Divine Hot Tubs Deluxe deluxe 6-11

#### "We reserve the right to improve our product without notice"

Copyright © 1/1/11 Divine Hot Tubs<sup>™</sup> Deluxe (A division of Hydra Plastics, Inc.). All rights reserved. Specifications may change without notice. International products may be configured differently to meet local electrical requirements.

## **TABLE OF CONTENTS**

#### **5 INTRODUCTION**

5 ICON Key

#### **6 IMPORTANT SAFETY INSTRUCTIONS**

6 Read and Follow All Instructions

#### 8 STEPS FOR A SUCCESSFUL INSTALLATION

- 8 Delivery
- 9 Site Selection and Preparation
- 9 Installation Placing Your Spa
- 11 Electrical Hook-Up Requirements
- 13 Filling Your Spa

#### 14 TOPSIDE CONTROL - TURNING ON YOUR SPA

14 Topside Control Button Reference Display

#### **19 WATER PURITY & FILTRATION**

- 19 Keeping The Water Clean
- 20 Spa Chemistry 101
- 22 How To Use the Chemicals
- 22 Usage Definitions
- 23 Starting A Chemical Maintenance Program
- 25 Filtration
- 25 Ozone Generator

#### 26 JETS

- 26 Types Of Jets
- 27 Jet, Air & Water Controls
- 27 Cleaning The Rotating Jets
- 27 Jet Removal

#### **28 MAINTENANCE**

- 28 Pillows
- 28 Spa Skirt
- 28 The Shell
- 28 Spa Cover
- 29 Winterizing
- 30 Draining The Spa
- 31 Energy Efficiency

#### 32 APPENDIX A

- 32 Troubleshooting
- 32 System Trouble
- 32 Controls
- 33 Pumps
- 33 Jets
- 33 Water
- 35 Frequently Asked Questions

.....

36 Warranty

#### INTRODUCTION

Congratulations on your purchase of a new Divine Hot Tubs<sup>™</sup> Deluxe spa! Your spa is designed and manufactured with the finest components available and is engineered with comfort, low maintenance, and durability in mind.

You will enjoy your spa for many years to come if you are diligent with the care and maintenance of your spa. This manual will help you to determine the best way to take care of your spa based on the amount of use and the type of environment your spa is installed.

It is very important for you to read the entire manual before attempting to use your spa. Contained in this manual are important maintenance and start-up procedures as well as safety precautions that must be followed to ensure the prolonged life of your spa and the safety of the people using the spa. Failure to follow start-up procedures may damage your unit and void your warranty.

Please feel free to contact Divine Hot Tubs<sup>™</sup> Deluxe if you have any further questions after reading this manual. We hope you enjoy many years of fun and relaxation in your new Divine Hot Tubs<sup>™</sup> Deluxe spa.

#### **ICON Key**

The lcon key on the side of this page defines the type of information boxes that will appear throughout the manual. The boxes highlight helpful information that contains useful tips or warnings that apply to the use and care of your spa.

#### ICON KEY





**Key Point** 



### **SAFETY FIRST** IMPORTANT SAFETY INSTRUCTIONS! READ AND FOLLOW ALL INSTRUCTIONS. SAVE THESE INSTRUCTIONS.

Electrical Warning! When installing and using this electrical equipment it is recommended that a licensed and bonded electrician perform the work. Basic safety precautions should always be followed, including the following:

- A pressure wire connector is provided on the outside of the control box to permit the connection of a solid copper bonding wire between the spa and any metal equipment, metal enclosures of electrical equipment, metal water pipe or conduit within 5 feet of the spa as needed to comply with local requirements.
- A green colored terminal (or a wire connector marked "G", "GR", "Ground", or "Grounding") is provided. To reduce the risk of electric shock, connect this terminal to the grounding terminal of your electric service or supply panel with a continuous green insulated copper wire equivalent to the circuit conductor supplying this equipment.
- The electrical supply must include a suitably rated Ground Fault Interrupter Circuit to open all underground supply conductors to comply with section 422-20 of the National Electrical Code. ANSI/NFPA 70-1987. The power supply cut off must be readily accessible to the spa occupant, but installed at least 5 feet from spa water.
- Test the performance of the GFCI according to manufacturers recommendations. If the GFCI does not perform correctly, there may be a ground current flowing indicating the possibility of electric shock. Disconnect the power until the fault has been identified and corrected.



- Electrical Warning!
- DANGER RISK OF ELECTRIC SHOCK. Install at least 5 feet from all metal surfaces.
- DANGER RISK OF ELECTRIC SHOCK. Do not permit any electric appliance such as a light, telephone, radio or television within 5 feet of a spa or hot tub.



Safety Warning!

 WARNING –RISK OF CHILD DROWNING. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use a spa or hot tub unless they are supervised at all times.



- **DANGER** To reduce risk of injury, do not remove suction fittings.
- Installation should provide drainage of the electrical equipment area to prevent electrical shortage.
- Store all chemicals in a cool dry area and keep out of children's reach.
- To reduce the risk of injury:
  - A. Spa heat can cause hyperthermia and unconsciousness! The water in a spa or hot tub should never exceed 104° F (40° C). Water temperatures between 100° F (38° C) and 104° F (40° C) are considered safe for a healthy adult. Lower water temperatures are recommended for extended use (exceeding 10–15 minutes) and for young children.
  - B. Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit water temperatures to 100° F (38° C) and consult their physician.
- The use of alcohol, drugs, or medication before or during spa or hot tub 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 or hot tub.
- Persons using medication should consult a physician before using a spa or hot tub since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.
- Before entering a spa, the user should measure the water temperature since the tolerance of water temperature-regulating devices varies.



### **STEPS FOR A SUCCESSFUL INSTALLATION:**

### **1. DELIVERY**

Your **Deluxe Series** hot tub will be delivered to the <u>curbside</u> of your home. You will need to arrange to have your hot tub placed in your desired location and the connection of the electrical circuits. In most cities, permits are



required for the installation of electrical circuits. When your hot tub delivery company calls to set up a delivery appointment, you may choose to make arrangements with them to place your hot tub for an additional fee. If that is not a service they can provide, we recommend consulting professionals who have experience moving large items.

Review the path that your hot tub will take through your property along with the size of the hot tub to ensure you have enough clearance. Refer to the chart below for the height, width and depth of a packaged hot tub on a pallet. If there are stairs or other obstacles, the spa will have to travel over to get

to the site, additional clearances may be required. Use the supplied measurements to help you determine the best location for your new spa.

Hot Tub	Size of Hot Tub <b>Only</b> (Width, Length, Height)	Size of Hot Tub <u>on Pallet</u> (Width, Length, Height)
DL-620 DLX	40.5" x 92.5" x 92.5" (110 x 235 x 235 cm)	43.5″ x 95″ x 98″ (110 x 241 x 249 cm)
DL-420 DLX	35″ x 76″ x 84″ (89 x 193 x 198 cm)	38" x 87" x 82" (97 x 221 x 208 cm)

We have listed some key points to installing your spa that will help eliminate some of the unforeseeable situations that could occur.

- Avoid installing too close to a building or structure.
- Leave enough room around all sides to allow access to service panels.
- Install on a load bearing, level platform.
- Do not install less than 5 feet from ground conductors.
- Use non-conductive conduit for all wiring.
- If installing below a deck surface, leave enough room to access and remove service panels.

We recommend a level 4" thick concrete pad if you are installing on land (versus deck or platform). The dimensions of the pad should be at least the outside dimension of the spa. You should also accomodate for steps or other items around the spa. Allow a few days for curing the cement when calculating your scheduled delivery date. Balconies and upper decks are not recommended for spa installations, but if you choose to do so, keep in mind that a large filled spa with 6 people can weigh as much as three tons. Balconies and decks must be constructed to current state and local building codes and must support at least 100 pounds per square foot.

If you are building a deck around the spa, be sure that the deck does not cover any of the service panels to the spa. If you are building stairs for getting up to the spa, it is recommended that they be installed in such a way that they can be moved out of the way if entrance to the service panels is required.

The most obvious thing to remember is to plan your installation in a location where it will be easy to move from the delivery truck to the location site. Spas are typically transported on a mover's dolly lying on their side. Check for adequate gate clearance and remove any fence panels if necessary to allow access to the installation site.

### 2. SITE SELECTION AND PREPARATION



The location of your hot tub is entirely up to you. Carefully read these instructions for various ideas of locations that your new hot tub may be placed.

By the time you have made your hot tub purchase, you probably have a spot already picked out. Prior to the hot tub delivery, please verify the following:

- Always place the hot tub on a compacted and level surface. The best surface is a level concrete pad. A hot tub, full of water, can weigh a great deal. Please ensure the spot can support the weight.
- Make sure to level your spa before filling it.
- Locate the equipment panel. The system pack, drain valve, owner's manual and optional ozone generator are usually located all in the same area. Be sure that the connections are tightened during draining. Water inside the system pack will cause the pack to fail and the breaker to trip.
- The panels, on all four sides, are removable. Be sure to have access on all four sides.
- Be sure to have easy access to the circuit breaker in the sub panel (240 volt models).
- Never let water into the sub panel (240 volt models), or into the electrical outlet that your spa is plugged in to. Your 240 volt hot tub's sub panel is rain tight when installed correctly with the door closed.

### **3. INSTALLATION - PLACING YOUR SPA**

### **Outdoor and patio installation**

To position the spacorrectly in your backyard is very important. The reason is your hot tub's warranty. The warranty on a spa is voided if the site is not level. If you install your hot tub outdoors, a concrete pad is the best method for a stable and level surface. The concrete pad should be four inches thick. All Divine Hot Tubs Deluxe hot tubs may be installed on a deck, providing the load rating can handle a full spa with people in it.



### Deck installation

When placing the hot tub on a deck, please ensure the maximum load capacity of the deck. Consult a gualified deck builder or structural engineer before you place the hot tub on an elevated deck or indoors. To determine the weight of your hot tub, please refer to the specifications on the website.

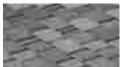
This weight must not exceed the structural weight of the deck.

### Indoor installation

When installing a hot tub indoors, there are some special considerations. The combination of heat and moisture will accumulate on the floor and surrounding the hot tub. The flooring material needs to provide a grip when wet. The location also needs proper drainage to prevent water build-up around the hot tub. When building a room for your hot tub, it is best to have a floor drain installed. The humidity of a room with a spa can become a problem if there is not enough proper ventilation. Otherwise, problems such as dry rot, mildew or other problems may occur.

### Ground preparation

Your hot tub has been engineered to rest on a variety of surfaces. The insulated hot tub floor base gives you the ability to find the perfect place. A concrete slab is the best for long term. There are other options available as long as the surface is level prior to delivery. The alternatives are 5/8 minus crushed packed rock, or a deck that is rated for the load.



Brick pavers



Cement



Packed/crushed gravel: 5/8" minus



Decorative cement, stained



Stone, slate, granite



Decking: wood, synthetic



Marble, travertine



Decorative cement & bricks

When placing a tub on crushed rock, the easiest way to maintain its form is to build a frame and fill it with the crushed packed rock. Remember, if the spa is placed on grass or dirt, debris will get inside the spa as the users enter and exit.

It is incredibly important to the operation and the draining of the tub for the tub to be level once it is installed. Failure to have the spa level prior to adding water can affect the warranty.

### 4. ELECTRICAL HOOK-UP REQUIREMENTS - 240V

### **Removing spa panels**



1. Remove the plastic 'tap-cap' decorative screw head covers from screws on access spa panel.



2. Unscrew the screws from the access spa panel.



3. Remove the spa panel for access to spa components. Reverse these steps to re-attach the spa panel.

### **Electrical connections by licensed personnel**

To ensure you will have an opportunity to use your hot tub soon after delivery, it is very important that the required electrical service has been installed.

**IMPORTANT: Electrical connections must be made by qualified, licensed personnel.** Please contact a licensed residential electrician for these services.

All models require a 50 amp single phase, 240 volt circuit breaker in the main electrical service panel. **NOTE: WE RECOMMEND THAT A SUB PANEL BE USED TO SUPPLY POWER AND PROTECT THE HOT TUB.** All 240 volt Divine Hot Tubs<sup>™</sup> **Deluxe** spas must be wired in accordance with applicable local electrical codes, and all electrical work must be done by a licensed electrician. A licensed electrician should install a four-wire electrical service (two line voltages, one neutral, one ground) from the main electrical service panel to the sub-panel, and from the sub-panel to the spa per the appropriate wiring diagram as illustrated below. The grounding conductor must be at least #6 AWG. Your electrician should mount the sub-panel in the vicinity of the hot tub but it should not be closer than five (5) feet from the hot tub water edge (NEC 680-38 to 41-A-3).

WARNING: Removing or bypassing the GFCI breakers in the sub panel at any time will result in an unsafe spa and will void the warranty.

WIRE SPECIFICATION NOTE: Long electrical runs may require a larger gauge feed wire than stated. We recommend that a maximum voltage drop of 3% be used when calculating the larger wire size.

Refer to the Wiring Diagrams (figure 1-1) for the electrical requirements of the 240 volt models.



() A

The closer you locate the spa to the main service panel, the less money you will have to spend on wire. Wire can become expensive if you run long lengths.

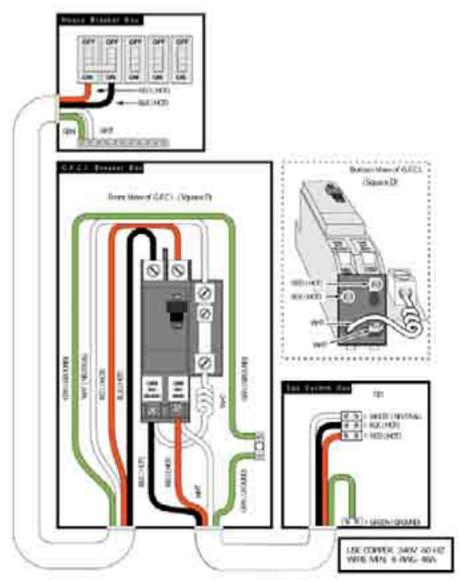


Always shut off power at the source when working with any electrical power!! Failure to do this could result in serious injury or even death!



### ELECTRICAL REQUIREMENTS - 240V (cont.)

**IMPORTANT: Electrical connections must be made by qualified, licensed personnel.** Please contact a licensed residential electrician for these services.





### 5. FILLING YOUR SPA THROUGH THE FILTER CHAMBER

Before you begin to fill your spa, it is advisable to have your water tested for hardness (water rich in calcium and mineral content). Wells usually contain harder water than urban water supplies. Mineral and metal imbalances in your water can shorten the life of the equipment in your spa. Contact for proper water analysis.

We recommend that you purchase a high quality "Water Test Kit" for checking pH and sanitizer levels. Test the water daily until your "user load" is determined.

Make sure there is no dirt or sediment at the bottom of the tub and that there is nothing inside the filter compartment before filling with water. **Filling the spa through the filter housing will help to prevent air locks** (trapped pockets of air) **in pumps on start up.** 



1. Place your garden hose into the filter housing. This will ensure that air bubbles are removed from the lines while you fill the spa.



2. Turn the water on so that most of the water enters through the filter chamber.



3. Fill the water to the proper level – half way up the filter housing as shown in picture above.



IMPORTANT! Improperly balanced water may damage your spa and void your warranty!



IMPORTANT! Do not fill your tub with water from your hot water heater!



Figure 1 6-Button topside control panel

### **TOPSIDE CONTROL – TURNING ON YOUR SPA**

### Topside control button reference display

Identify your topside 6-button control (See figure 1).

After you identified your topside control system, and the spa is filled, turn your power on and go to your controller spa operations.



### Power on

IMPORTANT! Do not turn power on until tub is full of water and all valves are open!

It's time to turn on the power. Set the breaker at the main service panel to the on position. Now set the breaker at the service panel or spa disconnect outside the spa to the on position. Then proceed to Initial Start-up referencing your specific control system.

#### Initial start-up

Your spa will enter Priming Mode ('PR') when it is energized. During Priming Mode, press "Jets" button(s) repeatedly and be sure all pumps are free of air. Priming Mode lasts less than 5 minutes. Press "Temp" to exit. After Priming Mode, the spa will run in Standard Mode (see Mode section). Some panels may not have a "Temp" button. On these panels the "Set," "Warm," or "Cool" buttons are used.

#### **Temp control** (80°F-104°F/26°C-40°C)

The last measured water temperature is constantly displayed. The water temperature displayed is current only when the pump has been running for at least 2 minutes.

On panels with a single "Temp" or "Set" button, to display the set temperature, press the button once. To change the set temperature, press the button a second time before the display stops flashing. Each press of the button will continue to either raise or lower the set temperature. If the opposite direction is desired, allow the display to revert to the current water temperature. Press the button to display the set temperature, and again to make the temperature change in the desired direction.

<u>On panels with "Warm" and "Cool" buttons</u>, to display the set temperature, press "Warm" or "Cool" once. To change the set temperature, press a temperature button again before the display stops flashing. Each press of "Warm" or "Cool" will adjust the set temperature. After three seconds, the display will stop flashing and begin to display the current spa temperature.

### Jets 1

Press "Jets 1" to turn pump 1 on or off, and to shift between low and high speeds (if equipped). The low-speed will turn off after 4 hours. High-speed will turn off after 15 minutes. Low-speed may run automatically at times, during which it cannot be deactivated from the panel, but high-speed may be operated.

### 🕲 Jets 2

Press the corresponding button once to turn the device on or off. The device will turn off after 15 minutes. The pump responsible for heating and filtration (pump 1 low-speed on non-circ system, or the circ pump on circ systems) will be referred to simply as the pump.

### 🕲 Light

Press "Light" to operate the spa light. Turns off after 4 hours.

### Mode

Mode is changed by pressing "Warm" or "Cool," then pressing "Mode."

**Standard Mode** maintains set temperature. 'St/STD' will be displayed momentarily when you switch into Standard Mode.

**Economy Mode** heats the spa to the set temperature only during filter cycles. 'Ec/Ecn' will display when water temp is not current, and will alternate with water temp when the pump is running.

**Sleep Mode** heats the spa to within 20°F/10°C of the set temperature only during filter cycles. 'SL/SLP' will display when water temp is not current, and will alternate with water temp when the pump is running.

### Preset filter cycles

The first preset filter cycle begins 6 minutes after the spa is energized. The second preset filter cycle begins 12 hours later. Filter duration is programmable for 2, 4, 6, or 8 hours or for continuous filtration (indicated by 'F ILC'). The default filter time is 2 hours for non-circ systems and 4 hours for circ systems. To program, press "Temp," then "Jets 1." Press "Temp" to adjust. Press "Jets 1" to exit programming.

For non-circ systems, low-speed pump 1 and the ozone generator (if installed) run during filtration.

<u>PLEASE NOTE: For circulation systems</u>, the circ pump and the ozone generator (if installed) run 24 hours. In hot environments, the circ pump may turn off for 30 minute periods, except during filter cycles. At the beginning of each filter cycle all other equipment will run briefly to purge the plumbing.

## Diagnostic messages

MESSAGE	MEANING	ACTION REQUIRED
	No message on display. Power has been cut off to the spa.	The control panel will be disabled until power returns. Settings are preserved until the next power-up.
<b>ОНН)</b>	"Overheat" - The spa has shut down. One of the sensors has detected 118°F (approximately 47.8°C) at the heater.	Remove the spa cover and allow water to cool. Once the heater has cooled, reset by pushing any button. If spa does not reset, shut off the power to the spa and contact customer service for assistance.
<b>0H5</b> (OHS)	"Overheat" - The spa has shut down. One of the sen- sors has detected that the spa water is 110°F (approxi- mately 43.3°C).	DO NOT ENTER THE WATER. Remove the spa cover and allow water to cool. At 107°F (approximately 41.7°C), the spa should automatically reset. If spa does not reset, shut off the power to the spa and contact customer service for assistance.
ILE (ICE)	"lce" - Potential freeze condition detected.	No action required. The pumps and the blower will automatically activate regardless of spa status.
<b>508</b> (SnA)	Spa is shut down. The sensor that is plugged into the Sensor "A" jack is not working.	If the problem persists, contact customer service for assistance (May appear temporarily in an overheat situation and disappear when the heater cools.)
<b>568</b> (SnB)	Spa is shut down. The sensor that is plugged into the Sensor "B" jack is not working.	If the problem persists, contact customer service for assistance. (May appear temporarily in an overheat situation and disappear when the heater cools.)
<b>555</b>	Sensors are out of balance. If this is alternating with the temperature, it may just be a temporary condition. If the display shows only this mes- sage (periodically blinking), the spa is shut down.	If the problem persists, contact customer service for assistance.
<b>HF</b> <u> </u> (HFL)	A substantial difference between the temperature sensors was detected. This could indicate a flow problem.	Check water level in spa. Refill if neces- sary. If the water level is okay make sure the pumps have been primed. If the problem persists, contact cus- tomer service for assistance.



Warning! Shock Hazard! No User Serviceable Parts. Do not attempt service of this control system. Follow all owner's manual power connection instructions. Installation must be performed by a licensed electrician and all grounding connections must be properly installed. Contact customer service or for assistance.

MESSAGE	MEANING	ACTION REQUIRED
(LF)	Persistent low flow problems. (Displays on the fifth occurrence of "HFL" message within 24 hours.) Heater is shut down, but other spa functions continue to run normally.	Follow action required for "HFL" message. Heating capacity of the spa will not reset automatically; you may press any button to reset. If the problem persists, contact customer service for assistance.
dr (dr)	Inadequate water, detected in the heater.	Check water level in spa. Refill if necessary. If the water level is okay make sure the pumps have been primed. Press any button to reset.
<b>О- У</b> (DrY)	Inadequate water detected in heater. (Displays on third occurrence of "dr" message.) Spa is shut down.	Follow action required for "dr" message. Spa will not automatically reset; you may press any button to reset.
Pr (Pr)	When your spa is first actuated it will go into Priming mode.	The Priming mode will last for up to 4 minutes and then the spa will begin to heat and maintain the water temperature in the Standard mode.
	Temperature not yet known.	This is normal within the first few minutes of the spa power-up.
SE d	The spa is operating in Standard Mode.	Temperature display is current after pump has been running for at least 2 minutes. Press "Temp" followed by "Light" to switch modes.
Ecn (Ecn)	The spa is operating in Standard Mode.	"Ecn" will appear solid on the display when the temperature is not current. "Ecn" will alternate with the temperature when the temperature is current. Press "Temp" followed by "Light" to switch modes.
<b>5E</b> (SE)	The spa is operating Standard-in-Economy Mode.	Operates the same as Standard mode, then reverts to Economy mode after 1 hour. Press "Temp" followed by "Light" to switch directly to Economy mode.
<b>51 P</b> (SLP)	Sleep Mode has been activated by pressing a button combination on the user panel.	Press "Temp" followed by "Light" to switch modes.

### Diagnostic messages (cont.)

MESSAGE	MEANING	ACTION REQUIRED
<b>5555555555555</b>	Standby Mode has been activated by pressing a button combination on the user panel.	Press any button to leave Standby mode and return to normal opera- tion.
	pH is low.	Add pH increaser.
	pH is high.	Add pH decreaser.
SAL	Sanitizer is low.	Add sanitizer.
SAH)	Sanitizer is high.	Remove spa cover and allow sani- tizer to dissipate.

Periodic reminder messages (Press "Temp" button to reset a displayed reminder)

MESSAGE	MEANING	ACTION REQUIRED
<b>,- ,- ,- ,- ,- ,- ,- ,- ,- ,- ,- ,- ,- ,</b>	Every 7 days.	Test and adjust pH chemical levels.
<b>r5</b> A	Every 7 days.	Test and adjust sanitizer chemical levels.
(rCI)	Every 30 days.	Remove, clean and reinstall filter.
(Rt9)	Every 30 days.	Test & reset GFCI per their manufacturer's instructions.
(rdr)	Every 90 days.	Drain and refill spa.
	Every 180 days.	Clean and condition cover.
(rtr)	Every 180 days.	Clean and condition wood cabinet (cedar).
<b>F [ H</b> (Ecn)	Every 365 days.	Install new filter.

### WATER PURITY & FILTRATION

### Keeping the water clean – chemical sanitizers

One of the bigger reasons that people require service on their spa is because they haven't followed a chemical application regiment. Water can accumulate impurities that can worsen the performance or even damage the filtration system if chemicals are not applied on a regular basis. The water can even become unhealthy if chemicals are not used to sanitize the water. Improper pH levels or calcium levels can cause either corrosion of parts or scale build-up.

We recommend that you begin a routine of applying chemicals that you can get comfortable with and follow all the time. If you get into a scheduled regiment, it will be easier to remember when to apply the chemicals.

Your spa comes with an ozonator that will do a very good job at killing bacteria and oxygenating the water, but chlorine or bromine are used to compliment the job of the ozonator.

Finally, the best way to keep the water clean over long periods of time is to change the water four times a year. Connect a hose to the drain valve and open it all the way to allow the tub to drain all the

way. Use a shop-vac to remove any standing water and debris at the bottom of the tub. Refer to the maintenance section for instructions on cleaning the tub before refilling it.

**IMPORTANT!** Always read directions on chemical container thoroughly before using spa chemicals.





### Spa Chemistry 101

The pH scale goes from 0 to 14, with zero being extremely acidic and 14 being extremely base (alkaline). Seven is considered neutral pH. At first, trying to understand spa chemistry can seem like a daunting task to say the least. We intend on helping you understand spa chemicals so that you can maintain the health of your spa at the best level possible.

There are three basic principals to spa water chemistry.

- 1. Sanitize/Disinfect (kill viruses, germs, etc.)
- 2. Oxidize (break down organic compounds like oils and sweat)
- 3. Maintain slightly base (alkaline) water (pH of 7.4 7.6). This
- controls the corrosiveness of the water, prevents excessive scaling (mineral formation on surfaces exposed to water, and insures that the water is comfortable to the skin.

Once you have a good understanding of the chemicals that are used in your spa, you will be able to maintain proper water balance. Water balance is reached when all elements (pH, total alkalinity, calcium hardness and total dissolved solids) are within their proper ranges.

The following definitions for chemicals will help you understand what the chemical is and what it is used for:

#### Sanitizers

**CHLORINE** - Chlorine is widely used as a sanitizer or disinfectant in pool and spa water to kill bacteria, viruses and algae, and oxidizes ammonia and nitrogen compounds such as swimmer waste. Its formal name is Sodium Dichlor and is referred to as a chlorinated concentrate. Sodium Dichlor is a fast-dissolving, granular, stabilized organic chlorine compound providing either 56% or 63% available chlorine. Cyanuric acid and/or stabilizers are added to prevent U.V. light destruction of the chlorine by the sun.

Chlorinated concentrate produces chlorides and chloramines, which are formed when chlorine has combined with ammonia and nitrogen in pool and spa water. Chloramines exude a foul, "chlorine" odor and causes skin and eye irritation.

**BROMINE** – Bromine is the other commonly used sanitizer or disinfectant in pool and spa water to kill bacteria and algae, and oxidizes ammonia and nitrogen compounds such as swimmer waste. This chemical does not eliminate swimmer waste unless it is combined with an oxidizer (non-chlorine shock). It is very susceptible to direct sunlight, therefore is not efficient in outdoor pools. Bromine is sometimes used as an alternative for people whom are allergic or sensitive to chlorine products.

Bromine products are available as sodium bromide and bromine tablets. The bromide ion has no effective disinfectant or sanitizing capabilities without the use of nonchlorine shock (potassium monopersulfate). Potassium monopersulfate is added to oxidize, or activate, bromide ion to bromine, which rapidly forms the active sanitizer - hypobromous acid - in spa water. Upon reaction with bacteria and other spa contaminants, hypobromous acid is reduced back to bromide ion, ready to be activated again by the next dose of potassium monopersulfate. Potassium monopersulfate begins to produce bromine immediately and continues to do so for several hours, providing sufficient time for oxidation of bather waste and other organic contamination such as ammonia and nitrogen.

NON-CHLORINE SHOCK (Potassium Monopersulfate) – Also known

as "Oxy-Shock", is an important chemical used in the process of disinfecting and sanitizing the spa water. Non-chlorine shock is used as an oxidation agent to oxidize and eliminate organic contaminants, dead algae and debris, and will also convert the chlorine by-products (chlorides and chloramines) back into free available chlorine.

When used with bromine products, non-chlorine shock is used with sodium bromide in a two-part disinfection system. Potassium monopersulfate (non- chlorine shock) is added to oxidize, or activate, bromide ion to bromine which rapidly forms the active sanitizer - hypobromous acid - in spa water. Upon reaction with bacteria and other spa contaminants, hypobromous acid is reduced back to bromide ion, ready to be activated again by the next dose of potassium monopersulfate.

Most non-chlorine shock products have buffers that reduce pH instability, and corrosion inhibitors that help protect the heater and other metal surfaces.

**OZONE** – Ozone is a powerful gas that is used as a sanitizer and an oxidant to keep the spa water clean and disinfected. Although ozone is about 3000 times more powerful than chlorine, it has a tendency to dissipate quickly and does not create any sanitizer residual. By using an ozonator for your spa, you can cut maintenance time and chemical costs by as much as 60%. Ozone is manufactured by an ozonator (ozone generator) and is dispensed during the filtration mode.

#### pH Controllers

**SODIUM BICARBONATE** - Commonly used to increase pH and total alkalinity of spa water. Sodium bicarbonate is also known as natural baking soda.

**SODIUM CARBONATE** – Also known as soda ash, is a substance used to raise pH and total alkalinity.

**SODIUM BISULFATE** – Also known as dry acid, the chemical used to lower pH and total alkalinity of spa water.

**MURIATIC ACID** – A liquid acid that is most commonly used to reduce pH and total alkalinity levels. It tends to be very strong and is not recommended for use in spas.

#### Water Conditioners

**FLOCCULENT** – A compound which clarifies spa water by gathering oils, dirt, scum, metal deposits and small contaminant particles into larger globules, which then can be easily trapped in the filtering system allowing the filtering system to work more effectively.

**CLARIFIER** – A compound used to remove dissolved solids, metals, dirt, oils, or other contaminants from spa and pool water.

**SCUM BALL™** – A softball sized ball that is kept in the water. The ball is chemically treated so that it attracts contaminants that would normally be trapped in the filter.

**SEQUESTERING AGENT** – Stain & scale preventing compounds that sequester dissolved metals to prevent water discoloration.

**CALCIUM CHLORIDE** – A soluble white compound used to raise the calcium hardness of spa & pool water, to protect equipment from corrosion.

**ALGAECIDE** – A chemical used to kill algae and prevent it from growing back.

**DEFOAMER** – A compound used to reduce or eliminate foaming in spa water. Products containing Chitin do this naturally.

**CHITIN** – A naturally occurring polymer (pronounced KY-tin) found in crab and lobster shells. As a spa clarifier, it is the best flocculating agent available. Removes oils, dirt, scum, and metal deposits and allows the filtering system to work more effectively.

### How To Use The Chemicals

Now that you have some knowledge about spa chemicals, you will learn how to use those chemicals to maintain balanced water in your spa. This section will explain how to apply chemicals, how much to use, and when to use them.

### **Usage Definitions**

Before getting into how much and when, it is important to understand some of the terminology that is used to describe how the chemicals are applied:

**P.P.M.** – Parts Per Million. Expressed as a ratio of number out of 1 million.

**SHOCK** – Addition of an oxidizer (OXY SHOCK) or superchlorinator to the water to break-down the organic contaminates on which bacteria feed and to destroy ammonia and nitrogen compounds (oxidize only).

**SUPERCHLORINATION** – Means the addition of enough chlorine in the water to kill all living things (sanitize) and destroy any organic wastes present in the water (oxidize). Usually this means about double your normal dose of chlorine. Superchlorination can be done once a day for heavy bather loads or as infrequent as once a week for a moderately used spa.

CHLORINATION - To add chlorine to your spa on a regular basis to disinfect

and oxidize your spa water.

**BREAK POINT CHLORINATION** – The process of shocking the water with significant quantities of chlorine to oxidize all contaminants and organic wastes and leave all remaining chlorine as free chlorine.

**CALCIUM HARDNESS** – A measure of the amount of calcium dissolved in water. Water with low hardness can lead to corrosion of metal parts. Water with high level of hardness can cause scale (calcium crust) build up on spa surfaces and clog filters, heaters and pumps.

**WATER BALANCE** – Water balance is reached when all elements (pH, total alkalinity, calcium hardness and total dissolved solids) are within their proper ranges.

**ENZYMES** – Biodegradable proteins which breakdown oils, films and digest scum in spa water.

**FREE CHLORINE** – The amount of chlorine available to kill bacteria or algae. Also known as "Available Chlorine".

**COMBINED CHLORINE** – The portion of the total chlorine in water in chemical combination with ammonia, organics, and nitrogen, most of which are chloramines.

**TOTAL ALKALINITY (TA)** – The measure in PPM of all the dissolved base/alkaline material in the water. The acid-neutralizing capacity of water which indicates its buffering ability, or resistance to fluctuations in pH.

**TOTAL DISSOLVED SOLIDS (TDS)** – The total amount of dissolved materials in pool or spa water. The ideal range is from 1,000 to 2,000 ppm in pools and 1,500 ppm above the start-up TDS in spas.

### Starting A Chemical Maintenance Program

Ultimately, in a chemical maintenance program, the goal is to maintain water balance. If you apply chemicals and test your water on a regular basis, water balance is easy to maintain and your spa water will stay clear and healthy. Although test strips are fairly accurate, test kits are also available that are very accurate and will test everything that you will need to monitor your water chemistry.



WATER BALANCE

is reached when all elements (free chlorine, pH, total alkalinity, calcium hardness and total dissolved solids) are within their proper ranges.



read the entire label on a chemical container before using. Read all safety precautions on the container. Three main parameters should be tracked closely:

#### 1. pH

2. Free chlorine

#### 3. Alkalinity

T.D.S. (Total Dissolved Solids) and calcium hardness should be checked after the first three are in the correct range. Test strips and test kits come with instructions on how to diagnose readings to determine whether the chemicals are in the right range. Table 2-1 shows how to dispense chemicals and how often to do it.

In the beginning, it is a good idea to test your water daily to learn how the water changes with the addition of chemicals. By keeping a log, you will be able to keep better track of your water condition.

When adding water to your spa for the first time or changing the water, you should superchlorinate the water by doubling (1 tbsp. Per 100 gallons) the regular dose of chlorine. It is a good idea to wait for 8 hours before entering your spa after superchlorinating the water.

Remember that keeping your spa water healthy keeps you, your family, and your guests healthy too. Most service calls for spa repairs are related to problems caused by not maintaining balanced spa water.

PARAMETER	INDICATION	SCHEDULE	ACTION
рН	< 7.2 pH	Check bi-weekly or	Add Spa Up™
рп	< 7.2 pm	more for heavy use	
На	> 7.8 pH	Check bi-weekly or	Add Spa Down™
рп	× 7.0 pm	more for heavy use	
Chlorine/Bromine	3 – 5 ppm	Check bi-weekly or	Add Chlorine or
chionne/ bronnie	5 – 5 ppm	more for heavy use	Bromine
Alkalinity	80 – 120 ppm	Check bi-weekly or	Add Alkalinity
Airtaininty	00 - 120 ppm	more for heavy use	Increaser
TDS	< 3000 ppm	Check monthly	Drain and refill if
100			> 3000 ppm
Oxy-Shock		Add bi-weekly or	Add Oxy-Shock
ONY ONDER		more for heavy use	
		Check monthly or	Add calcium
Hardness	150 – 400 ppm	with new water	increaser if < 200
Tharancess	100 400 ppm		ppm. Drain and refill
			if >400 ppm
Ozone		Ozonator runs on	
020110		FILTER CYCLES	

#### Figure 2-1: Spa water care



### Filtration

CAUTION! Turn off the power to the spa before removing the filter!



For the best performance possible, clean the filter weekly. Your spa is pre-programmed to run a 2-hour filter cycle twice a day. For the system to work properly, the filters must be hosed off at least once a week and thoroughly cleaned once a month with a filter degreaser. A dirty filter will restrict water flow and will prohibit the filtering system from keeping your spa clean. If the filters are not cleaned for extended periods, it could possibly damage the pumps.

If you have a problem with floating contaminants, you may want to purchase a skimmer net to easily remove bugs, leaves, etc...

Details on cleaning the filters are included in the maintenance section, but as a reminder, it is important to first turn off the power to the spa. Leaving the power on while changing the filters could allow objects to be drawn into the heater and/or pump and may damage your equipment.

#### To remove filters, double cartridge (50 sq/ft per filter):



Slide door face upwards.



Remove door face.



Pull out leaf / skimmer basket.\*

housina.



Gently unscrew and remove both filters.

\* Ensure that the leaf / skimmer basket flange is alligned in the grooves when returning leaf / skimmer to athe



Clean or replace filters.



Note: be sure not to over tighten filters when replacing.

### **Ozone Generator**

Divine Hot Tubs<sup>™</sup> Deluxe has an Ozonator made to our specifications. Ozonators supply the spa water with ozone, which is an extremely effective oxidant that will kill bacteria and microorganisms. The Ozonator will distribute ozone into your spa automatically during the filter cycles and will keep your spa and water sparkling clean. Even though ozone is effective at keeping your water clean, it cannot replace the use of an effective sanitizer. Refer to the chemical section for more information.

No maintenance is necessary on the ozonator. The ozonator works during the filter cycles set by the controller only.

### **Types of Jets**

Your Divine Hot Tubs<sup>™</sup> Deluxe spa comes with different types of jets and jet configurations. All jets with the exception of the fixed jets in the foot well by the light are adjustable and can be turned on or off. They all combine to create a luxurious and invigorating hydrotherapy environment that can't be beat.

Most of the jets are removable for easy cleaning. It is not uncommon for particulates to get caught in the jets causing them to stop rotating, especially in environments where there are trees overhead or nearby. Refer to the next section for jet cleaning instructions. Most of the jets are easiest to adjust or remove when the pumps are off.

#### Many of our jets are illuminated by our multi-colored LED mood lighting to illuminate your spirit.



#### 2.25" Adjustable & directional

Target areas: Leg, back, wrist. This jet allows strategic placement to group multiple jets together in a small area. These jet groupings allow the hydrotherapy to be maximized in leg, back and wrist areas for your ultimate comfort.



#### 3.25" Adjustable & directional

Target areas: Leg, foot, neck, shoulder, back. This jet can be directed to maximize your ultimate comfort, as it is fully adjustable.



#### 5.25" Massage with 14 flow nozzles

This massage jet delivers an extreme massage action through fourteen concentrated jets. These jets provide unbelievable hydro therapeutic relief to your body at the end of a hard day.



#### 5.25" Deep tissue, adjustable & directional

This adjustable jet provides a high water flow for a deep tissue massage to loosen the extremely tight muscle groups.



5.25" Single nozzle, deep tissue, power rotating This single nozzle jet rotates an extravagant swirl of water and air bubbles emulating a 'kneading' deep tissue massage.



# 5.25" Dual nozzle, deep tissue, power rotating

This dual nozzle jet rotates two extravagant swirls of water and air bubbles emulating a 'kneading' deep tissue massage.

### Jet, air and waterfall controls



#### Jet Controls

The button 'JETS 1' turns on and off the pump/jets for the lounge. The button 'JETS 2' turns on and off the pumps/jets for all the seating area.

#### Waterfall Control

Soothing triple waterfall arches are a featured item and are a focal point of beauty and fun. A handy turn of the knob control allows for complete adjustable flow to match your every mood.





#### **Air Controls**



These valves, which are located on the topside, are used to control the air that flows through the jets. By introducing air into the jets, they effectively double their power. Because there are so many tub models, it would be impractical to describe which air controls correspond with what jets. Experiment by opening all the

jets and turn on one motor at a time. Turn the air controls one at a time and take note as to what jets are affected. Air controls will only affect the jets that are operating.

#### **Cleaning The Rotating Jets**

Occasionally debris will get caught in the housing of the rotating jets causing the jet to either slow down the rotation or stop rotating altogether. This can easily be fixed by removing the jet and cleaning it. Always turn pumps off before removing jets. After removing the jet, they can easily be cleaned by vigorously shaking the jet while in the water. If the jet nozzle does not spin freely after doing this, move the nozzle to the outside rotating position and turn the nozzle in the rotating pattern until it starts to bind. Move the nozzle back and forth over the binding spot until it starts to free up. Shake the jet in the water again and check for free rotation.

#### Jet Removal

To remove jets simply turn the outside ring of the jet counterclockwise approximately one quarter turn and pull jet out (Figure 3-1). To replace the jet, simply place the jet in the shell and turn the jet until the slots line up, then turn jet one quarter turn clockwise until secured. The jet will easily push into place and "snap" when it is locked.



#### clean and protected. Spa covers exposed to the outdoors take a beating from the elements. Use a vinyl protectant to discourage deterioration caused by

Once a month, take the cover off the spa and use a sponge and dish soap to scrub the cover clean. Keeping the cover free of dirt and debris is the most important maintenance task for the cover. Be sure to clean the seams extra well.

If you purchased a cover with your spa, you will want to be sure to keep it

Your cover comes with screws that are used to fasten the receiving end of the strap locks. Simply align the cover on the spa and stretch out the straps until they are tight. Mark the location of the strap receptacles, then fasten them to the spa skirt with the screws supplied.

### MAINTENANCE

### Pillows

Your spa is equipped with high quality polyurethane foam pillows. These pillows can be removed by simply pulling them off. To replace them, line the receptacle holes up with the buttons on the spa.

### Spa Skirt

Divine Hot Tubs<sup>™</sup> Deluxe uses a weather-resistant and impact-resistant material for their exterior cabinetry. This material offers the beautiful look of tongue and groove wood cabinetry and comes pre-stained in the color selections provided by Divine Hot Tubs<sup>™</sup> Deluxe.

If access to the plumbing, motors or the controller is required, remove the screws on the service panels using a screwdriver. Panels can then be easily removed by pulling the panel away from the spa.

### The Shell

Spa Cover

Your Spa is constructed with a high quality, impact resistant, thermoplastic shell that requires very little maintenance. Make sure that when you drain and clean your spa that you use a mild, nonabrasive cleaner and cleaning pads. We recommend that you use a cleaner made specifically for cleaning spas. They tend to be nonabrasive and easy to rinse off completely.

the UV rays from the sun. This will also minimize rain penetration.

#### Do not sand quarite finishes.

WARNING!

### Winterizing

If you live in a climate where winter temperatures are below freezing and power to the spa will be disconnected, follow these procedures for draining:



1. Add an algaecide to the water and run pumps for half an hour to evenly disperse algaecide.

WARNING! Damage caused by freezing is not covered under warranty.

- 2. Turn off power to the unit at the circuit breaker.
- 3. Drain the spa by attaching a garden hose to the open end of the drain valve (See section on 'Draining your spa'). After the spa is empty, remove the hose and leave the drain valve open.
- 4. For freeze protection Access motor area by removing the outer front panels to the right and left of the controller panel and unscrew the plumbing collars from the pumps. Leave union couplings disconnected. Vacuum out lines with a wet/dry shop vacuum.
- 5. Soak up any excess water that drains from motors and associated plumbing with a towel. Keep water and debris out by covering with a rigid spa cover.
- 6. Before using the spa again, reattach pump couplings, close drain valve, and review startup instructions.

If the spa is to be used during the winter, save energy by turning the temperature down and keeping the spa covered. If the spa reaches freezing temperatures, the main pumps will automatically turn on to circulate the water.



### Draining the spa

We recommend that you drain and clean your spa no less than 3 or 4 times per year, depending on how frequently you use it and how well you maintain your water. In most cases this simple process will only take about an hour to accomplish.



Detail of drain



**Drain Location:** The drain is located in the center of the floor directly under the topside control panel. This is the innermost closed position.



**Step 1: Remove Cap** Using your hand, unscrew the cap to the drain.



Step 2: Attach Hose Screw on a garden hose. Place the other end of the hose in the area you want the water to drain to.

.....



Step 3: Open Drain With the hose attached, turn the round portion of the drain <u>counterclockwise</u> until it stops, then gently pull the round portion (with hose attached) <u>out</u> until you hear a click (approx 1/4").



**Step 4: Close Drain** When you are done draining your spa, reverse these steps to close the drain (step 3), remove the hose (step 2), screw on the cap (step 1).

### **Quality, Energy Efficient Spas**



#### energy efficient spas engineered with





# Our environmental footprint is green

#### Providing a greener spa.

Divine Hot Tubs<sup>™</sup> Deluxe is strongly committed to protecting the health of our environment and manufacturing energy efficient hot tubs that help to conserve our natural resources.

#### **Eco-Effect Technology.**

This technology is built into every hot tub to help save you money in electricity. From the floor to the top cover, every hot tub is thermally insulated with 2" of rigid EPS insulation and lined with a reflective layer to further capture heat and prevent it from escaping. Each hot tub's insulation rating is an R-20 value and our covers are rated with an R-18 value. These ratings are similar to the insulation standards in new home construction

#### **Recycling.**

Divine Hot Tubs<sup>™</sup> Deluxe takes pride in using 100% recycled ABS to fabricate our flooring systems on all of our spas. We also recycle 100% of our wood, plastic and cardboard waste.

**Troubleshooting** For error message on your topside control, see control reference from the Initial Start-up.

PROBLEM	PROBABLE CAUSE	REMEDY
GFCI trips (on startup)	Improper or defective wiring.	Electrician should inspect for wiring mistakes.
GFCI trips	A) Ozone generator defective.	Unplug from controller and reset breaker to verify problem.
	B) Unknown cause.	Unplug all components, then plug in one at a time until problem is identified.
	C) Heater element burned out.	No action required. The pumps and the blower will automati- cally activate regardless of spa status.
System not operating	A) System lockup.	Reset power source or GFCI.
	B) Improper or defective wiring.	Electrician should inspect for wiring mistakes.
	C) House circuit breaker tripped to off position.	Reset circuit breaker.
	GFCI tripped to off position.	Reset GFCI. If still tripping, Check installation guide for proper wiring.

### Controls

PROBLEM	PROBABLE CAUSE	REMEDY
System overheating, shutdown	A) Restricted filter.	Clean filter overnight with filter degreaser.
	B) Water too low.	Fill water to fill line on filter door.
Control response poor	A) Low water level.	Fill water to fill line on filter door.
	B) Dirty filter.	Clean filter overnight with filter degreaser.
	C) Closed slice valves.	Remove service panels and open slice valves.
Water won't heat	<ul> <li>A) Same suggestions as system overheating and poor control response.</li> </ul>	If problem persists, contact customer service.
	B) Improper or defective wiring.	Electrician should inspect for wiring mistakes.

### Pumps

PROBLEM	PROBABLE CAUSE	REMEDY
Noisy pump or motor	A) Clogged filter or pump inlets.	Clean filter, filter basket and pump inlets
	B) Low water level.	Fill water to fill line on filter door.
	C) Slice valves not open.	Remove service panels and open slice valves.
	D) Debris in pump(s).	Contact customer service.
	E) Damaged or worn motor bearings.	Contact customer service.
Motor not functioning	A) Cord unplugged or damaged.	Check wiring to controller. Contact customer service.
	B) Motor overloaded.	Let motor cool for one hour, open all jets. Motor will reset automatically.
	C) Defective start switch.	Contact customer service.
	D) Blockage in line.	Contact customer service.
	E) Kink in hose.	Remove service panels and check for a kinked hose.
	F) Slice valves not open.	Remove service panels and open slice valves.

### Jets

PROBLEM	PROBABLE CAUSE	REMEDY
Rotating jets won't rotate	Debris in jet housing.	See 'Cleaning the rotating jets' section of the JETS chapter.

### Water

PROBLEM	PROBABLE CAUSE	REMEDY
Water leak	A) Compression fittings (unions) have loosened.	Tighten fittings.
	B) Leak at barbed fitting.	Cut off hose clamp through the raised ear portion and reseat hose. Reconnect with a new hose clamp or a 'worm drive clamp'.

### Water (Continued)

PROBLEM	PROBABLE CAUSE	REMEDY
Cloudy water	A) Clogged or blocked filter fitting.	Remove filter and clean fitting.
	B) Dirty filter.	Clean filter.
	C) Poor water chemistry.	Balance water.
	D) Insufficient filter time.	Increase filter time to a mini- mum 4 hours per filter cycle.
	E) Particles too small for filter.	Add flocculent and clarifier.
	F) High pH and / or alkalinity.	Adjust pH with pH Down.
	G) Trace metals in water.	Use metal remover.
	H) Too much clarifier used.	Wait to be filtered out.
Green water	A) Algae.	Add algaecide, superchlorinate and add Oxy Shock. Check ozonator.
	<ul> <li>B) Metal corrosion in equipment.</li> </ul>	PH too low, adjust to 7.2 to 7.6 with pH Up.
Brown water	Iron present in water.	Superchlorinate and add Oxy Shock. Add metal remover.
Blue-green water	Copper present in water. Usually only found in spas with gas heaters.	PH too low, adjust to 7.2 to 7.6 with pH Up.

### Frequently asked questions

#### Q: Why is my spa not heating?

- A: Check which mode you are in: standard, sleep or economy. See 'Topside Control' section on pages 14 – 18. Standard and Economy mode will allow temperature to drop 10 degrees. Sleep mode will allow temperature to drop 20 degrees.
- Q: The system is receiving proper voltage, why doesn't anything function?
- A: 1. Check for blown fuses, burn marks or signs of tampering in the box.
  - 2. Power down the spa, and reset the GFCI. If problem persists, contact customer service for tech support.

#### Q: What does the ozone generator do?

A: An ozonator purifies naturally. It produces an active oxygen that attacks bacteria at microscopic levels reducing the amount of chemicals needed for perfect water. Ozone is also useful in coagulation of metals an other contaminants found in some areas.

#### Q: How do I know if my ozonator is working?

A: During a filter cycle, a green LED light on the ozonator will light and bubbles will move through the clear water line that connects to the ozonator.

#### Q: How do I fill the spa with water?

- A: 1. Place your garden hose into the filter housing. This will ensure that air bubbles are removed from the lines while you fill the spa.
  - 2. Turn the water on so that most of the water enters through the filter chamber.
  - 3. Fill the water to the proper level half way up the filter housing as shown in picture above.

#### Q: How do I drain the spa?

- A: See instructions on page 30.
  - > Drain Location: The drain is located in the center of the floor directly under the topside control panel. This is the innermost closed position.
  - 1. Remove Cap. Using your hand, unscrew the cap to the drain.
  - 2. Attach Hose. Screw on a garden hose. Place the other end of the hose in the area you want the water to drain to.
  - 3. Open Drain. With the hose attached, turn the round portion of the drain counterclockwise until it stops, then gently pull the round portion (with hose attached) out until you hear a click (approx 1/4").
  - 4. Close Drain. When you are done draining your spa, reverse these steps to close the drain (step 3), remove the hose (step 2), screw on the cap (step 1).

## 4-11-11 Divine Hot Tubs™ Deluxe

Every Divine Hot Tubs<sup>™</sup> Deluxe spa is manufactured to our exacting standards and requirements. Your long-term enjoyment of your hot tub is our ultimate goal. Therefore, we are proud to provide these comprehensive warranties with our products.



#### 5-YEAR SPA STRUCTURAL

Divine Hot Tubs<sup>™</sup> Deluxe structural system (shell surface, cabinet integrity<sup>\*</sup>, pillar supports and floor base) are warranted against water loss occurring from defects in material or workmanship for five years from the original purchase date. Divine Hot Tubs<sup>™</sup> Deluxe also warrants their spa shell interior surface against blistering, cracking and delamination for five years from the original purchase date.

#### 2-YEAR EQUIPMENT

Divine Hot Tubs<sup>™</sup> Deluxe warrants the operating plumbing and equipment against defects in workmanship for two years from the original purchase date. This includes two year warranty for authorized labor.

#### **1-YEAR INSULATED HARDCOVER**

Divine Hot Tubs<sup>™</sup> Deluxe warrants the insulated hardcover against defects in workmanship for one year from the original purchase date.



live better | feel better

"We reserve the right to improve our product without notice"

\* Does not include the surface color finish (stain or paint).

### LIMITED WARRANTY DETAILS

Structural System:	<b>5-Year Warranty</b> (shell surface, cabinet integrity*, pillar supports and floor base)
Plumbing & Equipment:	2-Year Warranty
Authorized Labor:	2-Year Warranty
Hardcover:	1-Year Warranty

#### HOW THE WARRANTY WORKS

In the event of a covered defect under this Limited Warranty, Divine Hot Tubs<sup>™</sup> Deluxe Series or its agent will make repair in accordance with conditions contained in this Limited Warranty. The homeowner is required to provide full access to the cabinet's entire service side panels, without any obstructions, to service all internal components. There will be no charge for parts or labor to repair the spa. There may be repair person travel costs if the spa is located outside the normal service area. If the covered defect cannot be repaired, as determined by Divine Hot Tubs<sup>™</sup> Deluxe Series, we reserve the right to provide a replacement exchange spa of equal value. The spa owner will be responsible for the cost of the removal and installation of the replacement spa. Divine Hot Tubs<sup>™</sup> Deluxe Series must be contacted in advance for packaging and shipping instructions. The liability of Divine Hot Tubs<sup>™</sup> Deluxe Series under this Limited Warranty, if any, shall not exceed the original amount paid for the defective product. It is the responsibility of the spa owner to notify the factory in writing immediately upon discovery of a warranty claim. Neglecting this notification may void your claim.

#### LIABILITY LIMITATIONS

This warranty does not cover any defects, malfunctions or damages that result from improper installation, commercial use or improper maintenance. The spa shell is made of high quality impact resistant thermoplastic. The spa surface cannot be subjected to periods of direct sunlight without being filled with water. Exposure to direct sun can cause deformation of the spa surface. Such exposure will void the warranty. This Limited Warranty is limited to the original owner, installed at the original site. Any requests for change of site location must first be approved in writing by Divine Hot Tubs<sup>™</sup> Deluxe Series. This Limited Warranty is void if the spa has been altered, neglected, abused or misused or if any repairs have been made by an unauthorized agent. Misuse and abuse include any installation, maintenance or operation not in accordance with the owner's operations manual. Divine Hot Tubs<sup>™</sup> Deluxe Series is not responsible for incidental or consequential damages of any nature, acts of God or other causes beyond the control of Divine Hot Tubs™ Deluxe Series. All warranties, implied or otherwise, including implied warranties for merchantability and fitness for a particular purpose, are limited to the terms set forth in this warranty. Exterior structural integrity of the cabinet is warranted to be free of defects at time of delivery and for five years thereafter\*. No representative of Divine Hot Tubs<sup>™</sup> Deluxe Series, not its agents, distributors or dealers, has any authority to alter in any manner the terms of this Limited Warranty and Divine Hot Tubs™ Deluxe Series is not responsible for any undertaking, representation of warranty made by any other person beyond those expressly set forth in this warranty. Exclusions: Fuses, light bulbs, spa pillows and filter cartridges.

\* Does not include the surface color finish (stain or paint).

## NOTES

 •••••

## NOTES

 •••••



### SAVE ENERGY | SAVE MONEY | SAVE OUR PLANET

### **Customer Service Center**

www.divinehottubsdeluxe.com Toll Free 1-877-483-1606 Email: customerservice@divinehottubsdeluxe.com Customer Service Hours: Mon - Fri 8:00 am - 5:00 pm PST



live better | feel better

P.O. Box 2140 | Woodinville, WA 98072 | www.divinehottubsdeluxe.com

