

# 2002 Owner's Manual

Export  
Version



**DIMENSION ONE SPAS®**  
HOME HYDROTHERAPY



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# IMPORTANT SAFETY INSTRUCTIONS

## READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY

When installing and using this equipment, basic safety precautions should always be followed, including:



Danger

Risk of Accidental Drowning. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this spa unless they are supervised at all times.



Warning

A grounding wire connector is provided on this spa to connect a minimum No. 8 AWG (8.4 mm<sup>2</sup>) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5 m) of the spa.



Danger

Risk of Serious Injury or Death. The suction fittings in this spa are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure that the flow rates are compatible.

Never operate the spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.



Danger

Risk of Electric Shock. Install at least 5 FEET (1.5 m), 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 mm<sup>2</sup>) solid copper conductor attached to the wire connector on the grounding lug, inside the equipment compartment on the equipment can.



Danger

Risk of Electric Shock. Do not permit any electrical appliance, such as a light, telephone, radio, television, etc. within 5 feet (1.5 m) of a spa.



Danger

The electrical supply for this spa must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with section 680-42 of the National Electrical Code, ANSI/NFPA 70-1993. The disconnect must be readily accessible and visible to the spa occupant but installed at least 5 feet (1.5 m), from the spa water.



Warning

**To Reduce the Risk of Injury:** The water in a spa 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 young children and when spa use exceeds 10 minutes.



Warning

**To Reduce the Risk of Injury:**

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 spa water temperatures to 100° F (38° C).



Warning

**To Reduce the Risk of Injury:**

Before entering a spa, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature-regulating devices may vary as much as +/- 5° F (2° C).



Warning

**To Reduce the Risk of Injury:**

The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning.

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Warning

**To Reduce the Risk of Injury:**

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.

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Warning

**To Reduce the Risk of Injury:**

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

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Warning

Do not attempt to remove the light housing cover without lowering the water level below the light housing cover.

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Warning

Do not block air intakes located on the front left corner underneath the hot tub (the front right corner for the Chairman II and Triad II) and under the equipment access panel. Resulting malfunctions are not covered under warranty.

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## Hyperthermia

Prolonged immersion in hot water may induce hyperthermia. A description of the causes, symptoms, and effects of hyperthermia are as follows: Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6° F, or 37° C. The symptoms of hyperthermia include dizziness, drowsiness, lethargy, and fainting. The effects of hyperthermia include:

- Failure to perceive heat,
  - Failure to recognize the need to exit spa,
  - Unawareness of impending hazard,
  - Fetal damage in pregnant women,
  - Physical inability to exit spa,
  - Unconsciousness resulting in the danger of drowning.
- 



Warning

The use of alcohol or drugs can greatly increase the risk of fatal hypothermia in hot tubs and spas.

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Caution

Persons suffering from heart disease, diabetes, high or low blood pressure, any condition requiring medical treatment, pregnant women, the elderly, or infants should consult with a physician before using a spa.

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Caution

The consumer products safety commission has stated that the water temperature in a spa or hot tub should not exceed 104° F (40° C). Immersion in water in excess of 104° F (40° C) can be hazardous to your health.

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Caution

Observe a reasonable time limit when using the spa. Long exposures at higher temperatures can cause high body temperature. Symptoms may include dizziness, nausea, fainting, drowsiness, and reduced awareness. These effects could result in possible drowning.

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Caution

Do not use the spa under the influence of alcohol, narcotics, or other drugs. Use of the spa under these conditions may lead to serious consequences.

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Caution

Always test the hot tub water temperature before entering the spa. Enter and exit the spa slowly. Wet surfaces can be very slippery.

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Caution

Never bring any electrical appliances into or near the spa. Never operate any electrical appliances from inside the spa or when you are wet.

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Caution

Proper chemical maintenance of spa water is necessary to maintain safe water and prevent possible damage to spa components.

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Caution

Use the spa straps and clip tie downs to secure the cover when not in use. This will help to discourage unsupervised children from entering the spa and keep the spa cover secure in high wind conditions. There is no representation that the cover, clip tie downs, or actual locks will prevent access to the spa.

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## Do's and Don'ts

- DO test water temperature with your hand before entering to be sure that it's comfortable.
- DO keep the spa cover closed when the spa is not in use. This is also the key to economical spa operation.
- DO check the operation of the equipment compartment cooling fan monthly, by activating a pump and checking for airflow out of the lower left or right front corner of spa.
- DON'T block the equipment compartment vents. Blockage may cause damage to the spa equipment and will void the warranty.
- DON'T block or sit on the filter recess area.

## Warning Signs

Each spa has been provided with a Warning Sign and an Important Notice label.



This label outlines safety precautions. This sign should be permanently placed in a location that is visible to the spa user. Replacement signs can be obtained from:

Dimension One Spas  
2611 Business Park Drive  
Vista, CA 92083  
(760) 727-7727





## Hot Tub Features

Congratulations! You have purchased one of the finest portable hot tubs available. Take the time to read these instructions carefully. If installed and maintained properly your hot tub will provide many years of enjoyable, trouble-free operation. Read all of the instructions and view your owner's manual video for further reference on hot tub operation. If you have any questions, please contact your local Authorized Dimension One Spas Dealer.

**The following features are included on your hot tub:**

- Built to CE rating
- Completely self-contained with load sharing capabilities
- 100% foam insulated
- All hot tub shells are formed from UltraLife™ high impact thermoplastic or Granitex™ Acrylic
- Designed for indoor or outdoor use
- Top access, easy to clean filter systems using "Standby" mode
- Water level referencing weir skimmer
- Handcrafted cabinets
- Proportional FastFlo™ Heater
- A variety of interchangeable jets
- Multiple jet systems with Selector Valve (except in the Aurora XLT, Aurora HP, Caliente HP, and Triad)
- Exclusive, custom hand-set ceramic tile adds a distinctive touch
- Polyethylene floor completely seals the hot tub, eliminating moisture or insect intrusion
- Built-in, automatic freeze protection
- Automatic high/low speed filtration cycles

### Additional Features for the Chairman, Chairman II, Diplomat, Californian, Nautilus, Aurora XLT, Aurora II, Caliente HP, and Triad II

- Scrolling Message Center with digital display, instructional, and maintenance messages
- Ultra Pure™ Water Management System
- NeckFlex™ Jet Pillow
- Twin, long life, dual speed HydraMax® pumps
- 150 sq. ft. (13.94 m<sup>2</sup>) of filtration

### Additional Features for the Arena, Aurora HP, Caliente, and Triad

- Programmable Digital control with digital display
- CrystalZone™ Water Management System
- Long life, dual speed HydraMax pump
- 75 sq. ft. (6.97 m<sup>2</sup>) of filtration

### Jet System Selector Valve

All hot tubs (except the Aurora HP, Aurora XLT, Caliente HP, and Triad II) are equipped with spa-side Selector Valves, see Figure 1. These valves can be used to divert jet power from one area within the hot tub to another. The valves are adjustable and can be used to suit the bather's taste. The valves may offer some resistance to operation when the hot tub pump is on. This is a normal condition, and is caused by the high rate of water flow and pressure that travels through the valves.



Figure 1. Selector Valve

### NeckFlex Jet Pillow

The NeckFlex Jet Pillow, Figure 2, offers five height adjustable positions to accommodate different body sizes. The standard mini directional jets can be interchanged with rotating jets and are adjustable for water volume. See your local Authorized Dimension One Spas for more information.

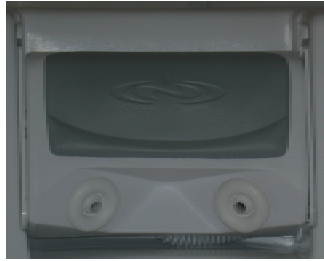


Figure 2. NeckFlex Jet Pillow

### Ultra Pure Water Management System

The Chairman II, Caliente HP, Diplomat, Chairman, Californian, Nautilus, Aurora II, Aurora XLT and Triad II are equipped with a highly advanced hot tub water treatment method, the Ultra Pure Water Management System. Ultra Pure is an integrated water management system with ozone injection, a contact chamber, 100% filtration, and heating on demand.

### CrystalZone Water Management System

Specifically engineered for Dimension One spas, the CrystalZone Water Management System found in the Arena, Triad, Caliente, and optionally on the Aurora HP, provides an integrated ozone purification and filtration for hot tubs. It maintains the pre-set hot tub temperature, without the use of a jet pump. Using a Mazzei-T ozone injector, the CrystalZone Water Management System provides cleaner water at lower operating costs. You'll spend more time enjoying your hot tub and less time maintaining it.

### Vision Systems

Vision Cartridge, an alternative purification system, can be used in conjunction with your Ultra Pure or CrystalZone Water Management Systems. The advantage of Vision over conventional halogens (bromine and chlorine) is that it will, as a result of lower chemical use, provide softer-feeling water. Additionally, low chemical levels can mean fewer dissolved solids, which results in less water chemistry maintenance. Please refer to the Vision instructions for proper installation. Also read Water Care section for more information.

### Heater and Circulation Pump Control

On all Dimension One Spas, when the water temperature is 1° F (0.55° C) below the set temperature the heater will turn on and remain on until the water temperature rises to 1° F (0.55° C) above the set temperature. To prevent the hot tub from overheating, the circulation pump turns off when the water temperature rises 2° F (1.1° C) above the set temperature. When the water temperature cools down to the set temperature, the circulation pump will turn on.



The circulation pump will run for short periods when the water temperature is 2° F (1.1° C) above set temperature to provide optimum operation. (The circulation pump is optional on the Aurora HP.)

Note

### Smart Heat (Available only on Dimension One Spas)

Smart Heat optimizes heat recovery using the amperage that you have available. Along with computerized load sharing, that automatically recognizes the number of jet pumps in use, compares it with the available power, Smart Heat recognizes the difference between the set temperature and the actual water temperature, and adjusts the heater to optimize the heater output.

## Operation

Operation is divided into two sections: Programming the Digital Control for the Arena, Aurora HP, Caliente, and Triad (following section) and Programming the Scrolling Message Center for the Aurora II, Aurora XLT, Caliente HP, Californian, Chairman, Chairman II, Diplomat, Nautilus, and Triad II (proceed to the [Programming the Scrolling Message Center](#) section).

### Programmable Digital Control for the Arena, Aurora HP, Caliente, and Triad

Advanced microprocessor technology has been utilized to produce the Programmable Digital Control. Easy to use and understand, Dimension One Spas has put every hot tub function within fingertip control. Temperature setting, jet power control, and the hot tub light are all spa-side accessible. That means you don't have to get out of the hot tub to enjoy complete control of all hot tub functions. Safety is assured through design concepts and materials that meet or exceed CE rating.

Digital Control, Figure 3, lets you relax and enjoy everything your hot tub has to offer.



Gain a thorough knowledge of the following information before starting up your spa

Note

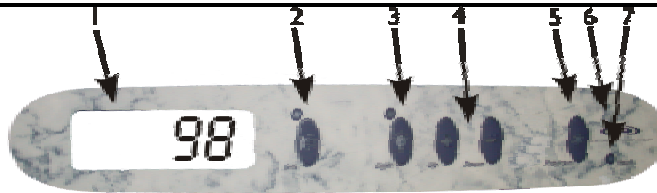


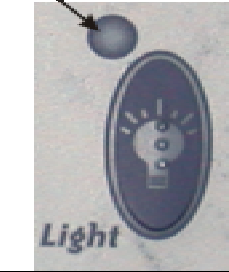
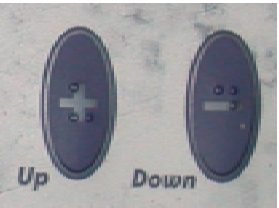





Figure 3. Digital Control

### Top Side Control

Control	Function
<p>1</p> 	<p><b>1. Digital Display</b> The digital display indicates (depending on program mode) temperature in degrees F or C, time, filter cycle start time, filter cycle duration time, and number of filter cycles. For more information see "Digital Display Messages".</p>
<p>2</p> 	<p><b>2. JETS (Low/High Control) Pad</b> When the JETS pad is pushed, the hot tub jet pump is energized and the JETS Status Light (1) will illuminate. Each time the pad is pushed it will activate a 30 minute automatic shut-off cycle. This auto shut-off cycle is a safety device and also allows for convenient filtration immediately after using the hot tub. The first time a pad is pushed the pump is turned on. When the same pad is pushed again, the pump will turn off. <b>NOTE:</b> Pushing the JETS pad will disable any concurrent filter cycle.</p>

Control	Function
<p>3</p> 	<p><b>3. LIGHT Pad and Status Light</b> Push the LIGHT pad once to activate the brightest setting (Status Light will illuminate, 1). A second push will activate the medium setting and a third push will activate the dimmest setting. Push the LIGHT pad a fourth time to turn off the light. The light will automatically turn off after one hour. NOTE: If the Dynamic L.E.D. Light is installed, the low, medium, and high settings are disabled. The Light pad turns the Dynamic L.E.D. Light on and off.</p>
<p>4</p> 	<p><b>4. TEMPERATURE Pads</b> Pushing the UP (+) pad increases the temperature and pushing the DOWN (-) pad decreases the temperature. Push the respective pad one time for each degree of temperature change, or push and hold the pad for rapid adjustment. The actual hot tub water temperature will remain in the Digital Display window until a temperature pad is pushed. When the UP or DOWN pad is pushed the Digital Display will indicate the new temperature setting, with the SET POINT Icon on the right side of the Digital Display. Once the new temperature is set, the actual hot tub water temperature will again be indicated. The hot tub will heat to the pre-set temperature automatically.</p>
<p>5</p> 	<p><b>5. PROGRAM Pad</b> The PROGRAM pad is used for several different functions including: Clock Set, Filter Cycle Start Time, Filter Cycle Duration, Number of Filter Cycles, and Temperature Unit Selection. The paragraphs following this table will explain how these features are set.  To initiate the programming sequence at any time, push and hold the PROGRAM pad for 3 seconds. If, within 60 seconds, you do not proceed with the hot tub programming, the hot tub will automatically exit the programming sequence and revert to the previous settings. To exit the programming sequence at any time, do not press any pad for 10 seconds. Any programming changes made up to that point will be saved.</p>
<p>6</p> 	<p><b>6. Dimension One Spas ICON (Logo)</b> The time of day can be viewed by pushing the Dimension One Spas ICON logo on the far right of the control. If no other pad is pushed within 5 seconds, the display will revert to the hot tub water temperature reading. The pre-set factory default is Fahrenheit. Pressing the logo for 5 seconds will place the spa in the "Standby" mode and allow the spa to be cleaned without turning off the power.</p>
<p>7</p> 	<p><b>7. Heat Status Light</b> This Light is illuminated whenever the heater is on.</p>

## Digital Display Messages

The following messages may appear in the Digital Display:

### “OH” – Overheat Protection

When “OH” is displayed on the control system Digital Display, the hot tub is in a high temperature condition. If such a condition exists, check water temperature and if it is above 104° F (40° C), **DO NOT ENTER THE WATER**. If this happens, remove the hot tub cover and allow the water to cool below 110° F (43.3° C). Reset the power to the spa by resetting the GFCI breaker. If the problem recurs, turn off all power to the hot tub and contact your local Authorized Dimension One Spas Dealer, or authorized service center.

### Flashing LED on the Control Panel

If you see 3 flashing LEDs on the Digital Display, check the water temperature and if it is above 104° F (40°C) **DO NOT ENTER THE WATER**. The system has detected a problem. Check the Digital Display and if it is displaying the “OH” symbol, contact your local Authorized Dimension One Spas Dealer, or authorized service center. If the Digital Display is displaying the temperature, check the water level and clean the filters. If the problem persists, reset the power to the spa by resetting the GFCI breaker. If the error is not resolved after resetting the spa, contact your local Authorized Dimension One Spas Dealer, or authorized service center.

### Flashing Temperature on the Display

If you see a flashing temperature of 34° F (-16.6° C) or 134° F (56.6°C), **DO NOT ENTER THE WATER**. The system has detected a problem. Contact your local Authorized Dimension One Spas Dealer, or authorized service center.

### Summer Mode

The “SUMMER MODE” feature temporarily disables the circulation pump “Cool Off” cycle. During hot weather the spa can experience “Heat Creep”. Heat creep is caused when the spa, during normal maintenance operations, cannot dissipate more heat than is generated. This may cause the spa temperature to exceed the set temperature and cause a “Cool Off” cycle. In order to prevent the water from becoming cloudy due to the circulation pump being turned off by the “Cool Off” cycle, the spa can be set to bypass the “Cool Off” cycle. This is accomplished by setting the spa in the “SUMMER MODE”. To initiate a “SUMMER MODE”, use the Up and Down pads to set the temperature to 59° F (15° C). The Digital Display will indicate “SUMMER MODE”. In this mode the pump will run continuously until the water temperature reaches 107°F (41.67° C) and then turns off. It will remain off until the water temperature reaches 102° F (38.39° C) at which point the pump turns on.

### Standby Mode

The “STANDBY” mode allows the user to clean the filter without turning off power to the spa. This feature disables all automatic and manual functions.

To enter the “STANDBY” mode press and hold the Dimension One Spa’s ICON logo for 5 seconds. To exit the mode, press and hold the logo for 5 seconds. If you do not exit the mode manually, the spa will automatically return to normal functionality after 24 hours.



Note

The “Smart Winter” mode is not affected by the use of the “Standby”: mode.

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## Using the Programmable Digital Controller

To initiate the programming sequence at any time, push and hold the Program Pad for 3 seconds. If, within 10 seconds, you do not proceed with the hot tub programming, the hot tub will automatically exit the programming sequence and revert to the pre-set factory default settings. To exit the programming sequence at any time, do not press any pad for 10 seconds. Any programming changes made up to that point is saved.

### Clock Set

Push and hold the Program Pad for 3 seconds to engage the time setting mode. The time screen will appear with "hours" (\_\_.00) flashing on and off. Push the Up Pad or Down Pad to increase or decrease the number until the desired hour appears in the Digital Display. When the desired number is displayed, push the Light Pad to accept the selection and change the flashing number to the "ten minute" place (12:\_.0). Adjust the number with the Up or Down Pads in the same manner as the hour number. When the desired number is displayed, push the Light Pad to accept the selection and change the flashing number to the "minute" place (12:1\_). Adjust this number with the Up or Down Pad in the same manner as the hour number. When the desired number is displayed, push the Light Pad to accept the selection and change the flashing number to a flashing AM or PM indicator. Adjust the indicator with the Up and Down Pads. When the desired indicator is displayed, push the Program Pad to accept the selection and enter the Filter Cycle Start Time programming mode.

### Filter Cycle Start Time

To adjust the filter cycle start time, push the Up or Down Pads and Light Pads as done in the Clock Set programming mode to choose a time. Once the desired time is displayed, push the Program Pad to accept the selection and move into the Filter Cycle Duration programming mode.



Note

You will be prompted later to set the filter cycle duration and the number of filter cycles. Be sure to keep this in mind when programming your filter cycle start time. During the filter cycle, JET 1 will activate at high speed for the duration of the filter cycle.

---

### Filter Cycle Duration

To adjust the filter cycle duration, push the Up or Down Pads to cycle through the choices of 60, 90, 120, 150 or 180 minutes (the default is 60). Once the desired time is displayed, push the Program Pad to accept the selection and move into the Number of Filter Cycles programming mode.



Caution

Long and/or numerous filter cycles could cause overheating of the hot tub - especially in hot climates.

---

### Number of Filter Cycles

To adjust the number of filter cycles per day, push the Up or Down Pad to cycle through the number of filter cycles - 1, 2, 3 or 4 (the default is 2). Once the desired number of cycles is displayed, push the Program Pad to accept the selection and move into the Temperature Unit Selection programming mode.

### Temperature Unit Selection

To select temperature units push the Up or Down Pads to toggle between ° F (degrees Fahrenheit) or ° C (degrees Celsius). Once the desired temperature unit is selected push the Program Pad to exit the programming mode.



Note

The time of day can be viewed by pushing the Dimension One Spas logo on the far right of the control. If no pad is pushed within 5 seconds, the display will revert to the hot tub water temperature reading. The pre-set factory default is Fahrenheit.

### Initial Startup

Please proceed to the [Initial Startup](#) section for details on preparing for your initial startup.

## Programming the Scrolling Message Center for the Aurora II, Aurora XLT, Caliente HP, Californian, Chairman, Chairman II, Diplomat Nautilus, and Triad II

Advanced microprocessor technology has been utilized to produce the Scrolling Message Center. The most technologically advanced hot tub control in the world is also the easiest to operate. Dimension One Spas has put every hot tub function within fingertip control. Temperature setting, jet power control, the hot tub light and all other functions are spa-side accessible. That means you don't have to get out of the hot tub to enjoy complete control of all hot tub functions. Safety is assured through design concepts and materials that meet or exceed the most stringent requirements of the CE rating. The Scrolling Message Center lets you relax and enjoy everything your Dimension One spa has to offer.



Note

Gain a thorough knowledge of the following information before starting up your spa

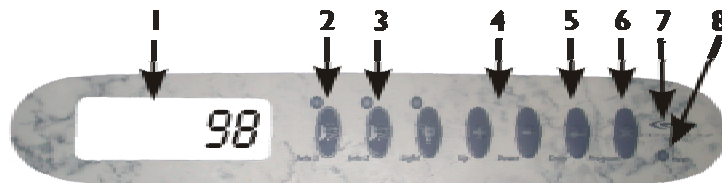

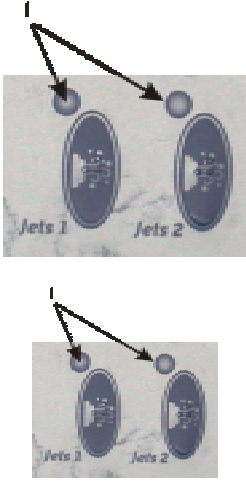

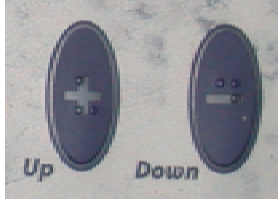






Figure 4. Scrolling Message Center

Top Side Control

Control	Function
<p>1</p> 	<p><b>1. Digital Display (LCD)</b>                      The Digital Display continuously shows the operating status of the hot tub, as well as the various monitoring functions, self-diagnostics, and programming information.</p>
<p>2</p> 	<p><b>JETS 1 and 2 Pads (1)</b>                      When either JETS pad is pushed, the corresponding spa jet pump is energized, the respective Digital Display indicator light will be illuminated, the pump speed will be indicated on the lower left of the Digital Display and a rotating swirl icon will be displayed in the upper left corner of the Digital Display. The rotation speed of the swirl will vary according to the pump's speed. The first time a JETS pad is pushed the respective pump will turn on. When the same pad is pushed again, the pump will turn off.                      Each time a JETS pad is pushed it will activate a programmable, automatic shut-off cycle. The default time is 30 minutes. A progress bar for each pump will indicate the time remaining before the pump will turn off. This auto shut-off cycle is a safety device and also allows for convenient filtration immediately after use of the hot tub</p>
<p>3</p> 	<p><b>3. LIGHT Pad (1)</b>                      Push LIGHT pad once to activate the brightest setting. A second push will activate medium setting and a third push will activate the dimmest setting. A message indicating current light intensity will scroll twice on the bottom left of the Digital Display (i.e. LIGHT HIGH, LIGHT MEDIUM, LIGHT LOW) and an animated icon, with zero, three or six dots around it indicating the light's intensity will be displayed. Push the LIGHT pad a fourth time to turn off the light. The light will automatically turn off after one hour.  <b>NOTE:</b> If the optional Dynamic L.E.D Light is installed, the low, medium and high settings are disabled. The Light pad turns the Dynamic L.E.D Light on and off.</p>
<p>4</p> 	<p><b>4. TEMPERATURE Pad</b>                      When the Up or Down pad is pushed to change the set temperature, the bottom left of the Digital Display will read "SET TEMP TO _ _ ° F". When there is a call for heat, the Heat Status Light and Digital Display will turn on when the heater engages. This is a normal function. The right side of the Digital Display will read the current temperature and the bottom left will read "HEATING TO _ _ ° F" until the hot tub reaches the set temperature. If the water reaches 2° F (-16.6° C) (above the set temperature, the message "COOLING TO _ _ - CIRC PUMP &amp; O3 OFF" will be displayed in the bottom left hand side of the Digital Display and a cooling cycle will start.</p>



Control	Function
<p>5</p>  <p>The image shows a dark, oval-shaped button with a white arrow pointing to the right. Below the button, the word "Enter" is printed in a white, sans-serif font.</p>	<p><b>5. ENTER Pad</b> This pad is used to exit any programming sequence at any time.</p>
<p>6</p>  <p>The image shows a dark, oval-shaped button with a white snowflake-like symbol in the center. Below the button, the word "Program" is printed in a white, sans-serif font.</p>	<p><b>6. PROGRAM Pad</b> This pad is used to initiate the time setting, filter programming, and other programming features. For more information, see the next section, "Programming the Scrolling Message Center."</p>
<p>7</p>  <p>The image shows the Dimension One Spas logo, which consists of a stylized white wave or 'S' shape on a dark background. Below the logo, the text "DIMENSION ONE SPAS®" is printed in a white, sans-serif font.</p>	<p><b>7. Dimension One Spas ICON (Logo)</b> The time of day can be viewed by pushing the Dimension One Spas ICON logo on the far right of the control panel. If no other pad is pushed within 5 seconds, the display will revert to the hot tub water temperature reading. The pre-set factory default is Fahrenheit. Pressing the logo for 5 seconds will place the spa in the "Standby" mode and allow the spa to be cleaned without turning off the power.</p>
<p>8</p>  <p>The image shows a small, dark, circular light indicator. To its right, the word "Heat" is printed in a white, sans-serif font.</p>	<p><b>8. Heat Status Light</b> This Light is illuminated whenever the heater is on.</p>

### Scrolling Message Center (Digital Display) Messages

Because of the advanced programming features of your scrolling display, your hot tub will prompt you when you need to perform routine maintenance. For example:

#### Rinse Filters

Every other month, the top line of your Digital Display will read, "RINSE FILTERS" and the message "REMOVE FILTERS & RINSE WITH HOSE... PUSH AND HOLD ICON PAD MORE THAN 3 SECONDS TO RESET THIS MESSAGE" will scroll from right to left on the bottom line of the display. To reset this message, push and hold the Dimension One Spas ICON (logo) located at the right hand side of the control for 3 seconds.

### Clean Filters

On alternating months, the top line of your Digital Display will read, "DIRTY FILTER" and the message "REMOVE FILTERS & CLEAN IN SOLUTION... PUSH AND HOLD ICON PAD MORE THAN 3 SECONDS TO RESET THIS MESSAGE" will scroll from right to left on the bottom line of the display. To reset this message, push and hold the Dimension One Spas ICON (logo) pad located at the right hand side of the control for 3 seconds.

### Change Water

Every four months the top line of your Digital Display will read "CHANGE WATER" and the message "TURN POWER OFF, DRAIN & REFILL SPA...PUSH AND HOLD ICON PAD MORE THAN 3 SECONDS TO RESET THIS MESSAGE" will scroll from right to left on the bottom line of the display. To reset this message, push and hold the Dimension One Spas ICON (logo) pad located at the right hand side of the control for 3 seconds.

### Change Vision Cartridge

When "CHANGE VISION CARTRIDGE" is displayed on the LCD, the system is telling you that it is time to replace it. To reset this message, push and hold the Dimension One Spas ICON (logo) pad located at the right hand side of the control for 3 seconds.



Note

If you purchased a Vision cartridge subsequent to the initial start up of your hot tub, please follow the programming instructions for VISION as outlined in the next section (titled, "Vision Cartridge") to set the six-month time frame.

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### Spa Check Up

When "SPA CHECK UP" is displayed on the Digital Display, we recommend that you have your hot tub inspected by your dealer as a preventative maintenance measure. To reset this message, push and hold the Dimension One Spas ICON (logo) pad located at the right hand side of the control for 3 seconds.



Note

The system can dismiss and reset the maintenance messages by pushing and holding the Dimension One Spas ICON (logo), on the right end of the control, for 3 seconds. If you press the Dimension One Spas ICON (logo) for 5 seconds when there is no maintenance message, it will put the spa in the "Standby" mode.

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### Overheat

When "OVERHEAT" is displayed on the control system Digital Display, the hot tub is in a high temperature condition. If such a condition exists, check water temperature and if it is above 104° F (40° C), **DO NOT ENTER THE WATER**. If this happens, remove the hot tub cover and allow the water to cool below 110° F (43.3° C). Reset the power to the spa by resetting the GFCI breaker. If the problem recurs, turn off all power to the hot tub and contact your local Authorized Dimension One Spas Dealer, or authorized service center.

### Flashing Display and/or "Check Water Level"

If you see 3 flashing LEDs (on Digital Display) and/or the message, "CHECK WATER LEVEL -CLEAN FILTER-IF PROBLEM CONTINUES, TURN OFF POWER AND RESTART THE SYSTEM-IF PROBLEM CONTINUES, CALL FOR SERVICE" on the Digital Display, follow the instructions as stated. Check the water temperature and if it is above 104° F (40° C), **DO NOT ENTER THE WATER**.

### Flashing Temperature on the Display

If you see a flashing temperature of 34° F (1.11° C) or 134° F (56.6° C), **DO NOT ENTER THE WATER**. The system has detected a problem. Call your dealer for service.

### Ice

When "ICE CONDITION" and the water temperature are displayed on the Digital Display, the air temperature in the equipment can have gone below a factory-preset level, and the system has activated "Smart Winter Mode." It will then automatically activate the pump(s) to circulate water. This is a normal hot tub function. No corrective action is necessary. This feature protects the spa from freezing.

### Cooling

When "COOLING" and the water temperature are displayed on the Digital Display, the water temperature has reached 2° F (1.1° C) above the set temperature. The circulation pump and ozone generator will turn off to allow the water to cool back to the set temperature. This is a normal hot tub function. No corrective action is necessary.



Note

The circulation pump and ozone generator will be on while either jet pump is on and they will remain on for 30 minutes after the pump(s) turn off regardless of the water temperature.



Note

The Dimension One Spas Scrolling Message Center will keep all programming for 40 years with no power supply and the time of day for 30 days. This battery back up will not provide power to heat or operate the hot tub.

### Summer Mode

The "SUMMER MODE" feature temporarily disables the circulation pump "Cool Off" cycle. During hot weather the spa can experience "Heat Creep". Heat creep is caused when the spa, during normal maintenance operations, cannot dissipate more heat than is generated. This may cause the spa temperature to exceed the set temperature and cause a "Cool Off" cycle. In order to prevent the water from becoming cloudy due to the circulation pump being turned off by the "Cool Off" cycle, the spa can be set to bypass the "Cool Off" cycle. This is accomplished by setting the spa in the "SUMMER MODE". To initiate a "SUMMER MODE", use the Up and Down pads to set the temperature to 59° F (15° C). The Digital Display will indicate "SUMMER MODE". In this mode the pump will run continuously until the water temperature reaches 107°F (41.67° C) and then turns off. It will remain off until the water temperature reaches 102° F (38.39° C) at which point the pump turns on.

### Standby Mode

The "STANDBY" mode allows the user to clean the filter without turning off power to the spa. This feature disables all automatic and manual functions.

To enter the "STANDBY" mode press and hold the Dimension One Spa's ICON logo for 5 seconds. To exit the mode, press and hold the logo for 5 seconds. If you do not exit the mode manually, the spa will automatically return to normal functionality after 24 hours.



Note

The "Smart Winter" mode is not affected by the use of the "Standby": mode.

## Using the Scrolling Message Center

Your Scrolling Message Center is the most advanced in the industry and can virtually walk you through customizing your hot tub to your exact needs. To initiate the programming sequence at any time, push and hold the Program pad for 3 seconds. If, within 10 seconds, you do not proceed with the hot tub programming, the hot tub will automatically exit the programming sequence and revert to the pre-set factory default settings. To exit the programming sequence at any time, push the Enter pad or do not press a pad for 10 seconds. Any programming changes made up to that point are saved.

### Setting the Time

After holding the PROGRAM pad, the top line of the Digital Display will read "SET TIME OF DAY" and the bottom line will read "PUSH UP OR DOWN TO CHANGE - PUSH PROGRAM TO SELECT NEXT FUNCTION - PUSH ENTER TO EXIT ". Push the UP or DOWN pads to engage the time setting mode. The time screen will appear with "hours" (\_ \_00) flashing on and off. Push the UP or DOWN pad to increase or decrease the number until the desired hour appears. When the desired number is displayed, push the LIGHT pad to accept the selection and change the flashing number to the "ten minute" place (12:\_0). Adjust the number with the UP or DOWN pad in the same manner as the hour number. When the desired indicator is displayed, push the LIGHT pad to accept the selection and change the flashing number to the "minute" place (12:1\_). Adjust this number with the UP or DOWN pad in the same manner as the hour number. When the desired number is displayed, push the LIGHT pad to accept the selection and change the flashing number to a flashing AM or PM indicator. Adjust the indicator with the UP or DOWN pads. After reaching the correct time, push the PROGRAM pad to set the time and exit the time setting mode. You will then be prompted to set the filter start time.

### Filter Cycle Start Time

After setting the time-of-day, the top line of the Digital Display will read "SET FILTER CYCLE TIME". Push the UP or DOWN pads in the same manner as setting the clock to select the time you want your filter cycle to start. When your desired filter cycle start time is set in the display, push the PROGRAM pad to continue. The pre-set factory default is 12:00 p.m. to 1:00 p.m. repeating every 12 hours unless the number of filter cycles per day has been changed.



Note

Keep in mind that you will later be prompted to set the filter cycle duration and the number of filter cycles. Be sure to keep this in mind when programming your filter cycle start time.

---

During a filter cycle, the bottom left of the Digital Display will read "SPA FILTERING". During the filter cycle, JETS 1 will activate, the first 5 minutes at high speed and the remainder of the filter cycle time at low speed. JETS 2 will also activate for 1 minute on high speed and then turn off.

### Filter Cycle Duration

After setting the filter cycle start time, the top line of the Digital Display will read "SET CYCLE DURATION". Push the UP or DOWN pads to toggle between 60, 90, 120, 150 and 180 minutes. The first 5 minutes of the filter cycle will be at high speed and the remaining time at low speed. When your desired filter cycle length appears in the Digital Display, push the PROGRAM pad to select it. The pre-set factory default is 60 minutes.

### Number of Filter Cycles

After setting the length of the filter cycle, you will be prompted to set the number of filter cycles. The top line of the Digital Display will read "SET # OF CYCLES". Push the UP or DOWN pad to toggle from 1 to 2 to 3 to 4 cycles per day. When your desired number of cycles appears on the Digital Display, push the PROGRAM pad to select it. The pre-set factory default is 2 cycles per day.



Caution

Long and/or numerous filter cycles could cause overheating of the hot tub - especially in hot climates.

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### **Pump Run Time**

After setting the number of filter cycles, the top line of the Digital Display will read "SET PUMP RUN TIME". Push the UP or DOWN pads to toggle between 30, 45 and 60 minutes. This sets the length of time the pump will run when a jets pad is pushed. For example, if you choose 45 minutes, when you push a jets pad, the pump will run for 45 minutes before shutting down automatically. When your desired pump run time appears on the Digital Display push the PROGRAM pad to select it. The pre-set factory default is 30 minutes.

### **Temperature Unit Selection**

After setting the pump run time, the top line of the Digital Display will read "SET TEMPERATURE UNITS". Push the UP or DOWN pads to toggle from °F to °C. When your desired temperature unit appears in the Digital Display, push the PROGRAM pad to select it. The pre-set factory default is Fahrenheit.

### **Vision Cartridge**

After setting the temperature units, the top line of the Digital Display will read "SET VISION CARTRIDGE". Push the UP or DOWN pads to toggle between "Yes" and "No". If you are currently using a Vision Cartridge select yes, if not, select no. Selecting "yes" will prompt the control to notify you when your cartridge needs replacement. When your desired selection appears in the Digital Display, push the PROGRAM pad to select it. The pre-set factory default is "No."

### **Digital Display (LCD) Invert**

The invert feature will flip the text on the Digital Display so it can be easily read from both inside and outside the hot tub. To invert the text, simply push the "ENTER" pad three times. To return the text to its original position, repeat this process - push the "ENTER" pad three times.

### **Control Panel Lock**

To help prevent unauthorized use of the hot tub, the control panel may be locked. When the control panel lock is engaged, all programmed or default hot tub functions will operate normally but all control pads will not operate. When the panel is locked, the Digital Display will display this message: "ALL SPA FUNCTIONS LOCKED."

To lock the panel all the following pads must be pushed within 3 seconds:

1. Push the Dimension One Spas ICON (logo) pad.
2. Push the Dimension One Spas ICON (logo) pad.
3. Push the ENTER pad.

### **Control Panel Unlock**

To unlock the panel: All the following pads must be pushed within 3 seconds:

1. Push the ENTER pad.
2. Push the ENTER pad.
3. Push the Dimension One Spas ICON (logo) pad.

When the last pad is pushed all pads will be active.

### **Programming Lock**

The programming lock is to prevent unauthorized programming and water temperature adjustments. When the programming lock is engaged, all programmed or default functions will operate normally. Also, the hot tub user may operate the pumps, the hot tub light or view the time-of-day, but no programming changes may be made. When the programming lock is enabled, the Digital Display will scroll "PROGRAMMING LOCKED" twice on the lower left side of the display, then a lock icon will be displayed on the right side of the Digital Display To enable the programming lock, all the following pads must be pushed within 3 seconds:

1. Push the Dimension One Spas ICON (logo) pad.
2. Push the Dimension One Spas ICON (logo) pad.
3. Push the PROGRAM pad.

### Programming Unlock

To unlock the Panel: The following pads must be pushed within 3 seconds:

1. Push the ENTER pad.
  2. Push the ENTER pad.
  3. Push the Dimension One Spas ICON (logo) pad.
- When the last pad is pushed all pads will be active.

### Control Panel Reset

This function is used to completely reset the clock and all other system variables to the factory defaults. Please keep in mind that this resets all maintenance messages (clean filters, change water, etc.) as if the hot tub is being installed the day of the panel reset. To reset the control system all of the following pads must be pushed within 3 seconds:

1. Push the ICON (logo) pad
  2. Push the ENTER pad
  3. Push the PROGRAM pad
- The top line of the Digital Display will read "RESET PROGRAMMING?"  
The bottom line of the Digital Display will read "IF SO, PUSH ICON"
4. Push the Dimension One ICON pad to reset the entire control system to factory defaults or do not touch a pad for 10 seconds to exit.

If you do not have an Aurora XLT, Chairman II, or the Triad II, proceed to the [Initial Startup](#) section.

### Dynamic Message Sequencer™ for the Aurora XLT, Chairman II and the Triad II

The Dynamic Message Sequencer, Figure 5, is located in the Ultra Lounge of the models mentioned above. The sequencer directs a succession of 14 jets to six separate muscle groups.

When a sequence is chosen, a human figure with LED's defining each zone, will light, showing the active zones in that sequence. This allows you to preview the zones in the sequence before a selection is confirmed.

### Control Panel Description

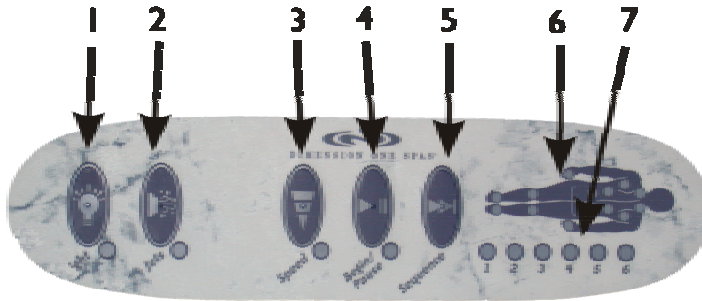





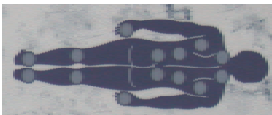
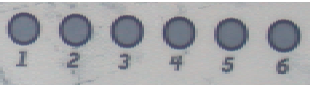


Figure 5. Dynamic Message Control

Control	Function
<p>1</p> 	<p><b>1. LIGHT Pad</b> The LIGHT pad controls the spa light. Status light illuminates when light is on.</p>

Control	Function
<p>2</p> 	<p><b>2. JETS Pad</b> Operates the jet pump associated with the Massage Sequencer. Status Light illuminates when pump is on.</p>
<p>3</p> 	<p><b>3. SPEED Pad</b> The SPEED pad is used to change the time between each step in all sequences. The default time is factory programmed for 5 second intervals. The first push of the SPEED pad will change the step interval time to 15 seconds, the second push will change the intervals to 30 seconds and the third push will reset the speed to 5 second intervals. The LED indicator below the SPEED pad will blink at the speed at which the system is operating. During a Pause condition the Speed LED indicator will be OFF</p>
<p>4</p> 	<p><b>4.BEGIN/PAUSE Pad</b> The BEGIN/PAUSE pad is used to interrupt the massage sequence and to start a particular sequence. For example, if the user likes the jet massage at a particular moment during the sequence, and wants to keep it for an extended period of time, the user may press the Begin/Pause pad and the system will remain in the specific configuration until the pad is pushed again. The Begin/Pause status light will be on when the system is in the Pause mode. During this mode, the matrix of LED's will preview the sequence and the user may also push the SEQUENCE pad to preview another sequence</p>
<p>5</p> 	<p><b>5.SEQUENCE Pad</b> The SEQUENCE pad is used to toggle between selected massage sequences. When a sequence has been selected, the corresponding LED indicator 1-6 will light. The default mode (all jets in the lounge operating) will not be indicated by a light</p>
<p>6</p> 	<p><b>6.Massage Zone Indicator Lights (Human Figure)</b> When a sequence is chosen, one or more LED in the figure will illuminate showing the active zones in that sequence.</p>
<p>7</p> 	<p><b>7.SEQUENCE Indicator Lights (1 through 6)</b> When a sequence has been chosen the corresponding light will illuminate. When the default mode (all jets in the lounge operating) is selected, no light will be illuminated.</p>

### Massage Zone Description

The Dimension One Spas Dynamic Massage Sequencer lets you enjoy a wide variety of massage patterns on the most critical muscle groups of your body. You can choose six automatic jetting sequences, with six different zones, for a completely personalized hydrotherapy, see Figure 6.

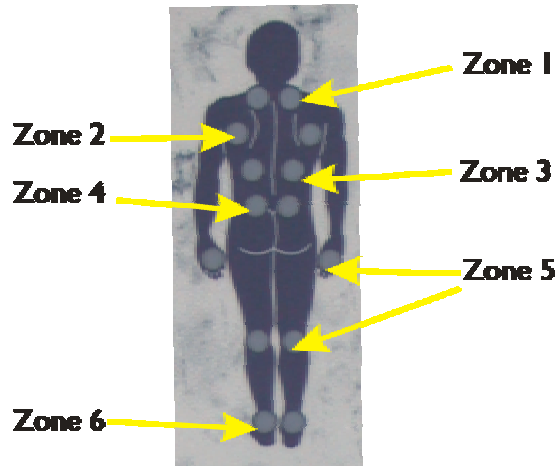


Figure 6. Massage Zones

#### Zone 1

This zone is designed to massage neck and deltoid muscle groups with the NeckFlex Jet Pillow. There are two directional mini jets on the NeckFlex Jet Pillow carrier, which can be adjusted to five different heights in order to accommodate a variety of body sizes. The mini jets are water volume controllable, interchangeable with rotating jets and provide a narrowly focused massage pattern.

#### Zone 2

This zone is designed to massage the upper back, shoulders and thoracic muscle groups. There are two Variable Circulation Rotating jets (VCR) which are water volume controllable and interchangeable with directional jets. These jets can be adjusted to change the area of coverage and the speed of the rotational pattern.

#### Zone 3

This zone is designed to massage the middle back. There are two VCR jets that are water volume controllable and interchangeable with directional jets. These jets provide a high speed, pulsating feel and are excellent therapy for back muscles.

#### Zone 4

This zone is designed to massage the lower back and lumbar muscle groups. There are two directional VCR Jets that are water volume controllable and interchangeable with rotating jets. The directional HydraFlex jet also provides an adjustable nozzle that can eliminate air induction. This adjustment allows the user to control the water velocity or the intensity of the massage at each individual jet, without the need for cumbersome valves that also control jets in other areas of the spa.

#### Zone 5

This zone is designed to massage the back of the legs at the knee area, lower thighs, upper calves, and hands. There are four mini VCR jets that are water volume controllable, interchangeable and provide a narrowly focused massage pattern.



### Zone 6

This zone is designed to massage the feet. There are two directional mini VCR jets that are water volume controllable, interchangeable with rotating jets and provide a narrowly focused massage pattern.

### Operating the Dynamic Massage Sequencer

1. Push the JETS pad to turn on the spa pump.
2. Using the SEQUENCE pad toggle between the selected massage sequences. Select the sequences by pressing the BEGIN/PAUSE pad. A selected sequence is indicated by an illuminated SEQUENCE Indicator Light (1 through 6).



If the time between sequence changes is too fast or too slow, you can push the SPEED pad to increase or decrease the time between sequence changes. Five seconds is default. Other speeds available are 15 and 30 seconds.

**Note**

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### Initial Startup

1. Locate the Top Side Control. Directly below this control is the equipment compartment..
2. Use screwdriver to remove the spa panel screws, Figure 7.



**Figure 7. Panel Screws**



The number of screws to be removed will depend on the make and model of spa.

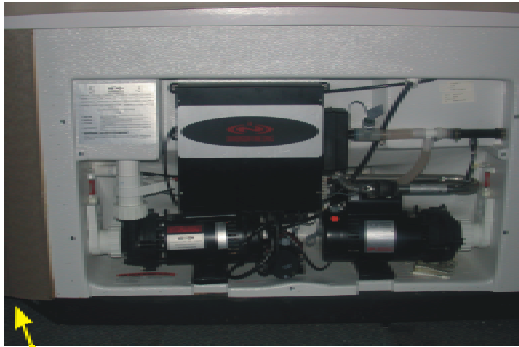
**Note**

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3. Locate the hose bib, Figure 8, that is included in the owner's manual packet (located in the equipment compartment.).



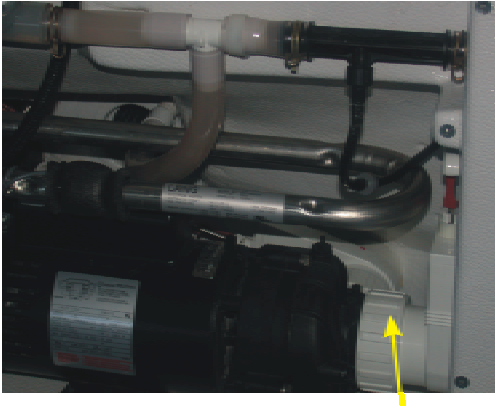
**Figure 8. Hose Bib**



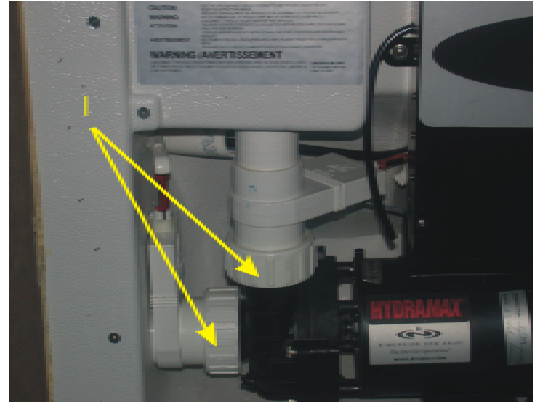
1  
1. Location of Male Hose Fitting  
**Figure 9 Male Hose Fitting**

4. Screw the hose bib onto the male fitting located at the bottom of the hot tub on the pedestal, Figure 9, to the lower left of the equipment compartment.

5. Close the valve on the side of the hose bib and screw the cap onto the end of the hose bib.
6. Check the pump unions, Figures 10 and 11, to be sure that they are tight to prevent the possibility of leakage in the equipment compartment.

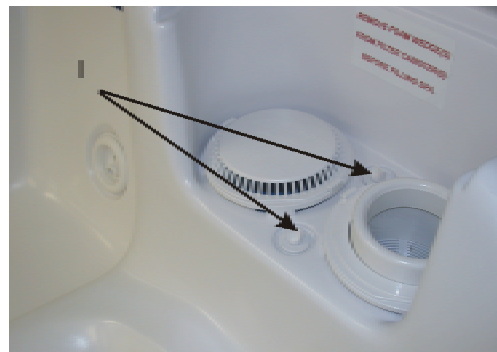


1  
1. Typical Location of Pump Union  
**Figure 10. Typical Location of Pump Union**



1  
1. Typical Location of Pump Unions  
**Figure 11. Typical Location of Pump Unions**

7. Also, open the bleeder valve(s) located next to the sidewall of the skimmer area, Figure 12, to allow air to escape from the pump(s).



1  
1. Bleeder Valves  
**Figure 12. Bleeder Valves**

8. Remove the filter and fill your hot tub with a hose through the empty filter compartment to a level of one to two inches above the bottom of the tile line.
9. Remove the two shipping bolts located on the front of the pump mount and ensure that the gate valves on the pump(s) are in the open position (handles fully extended).
10. Turn on the circuit breaker (not supplied by Dimension One Spas). Flashing dashed lines will appear for 30 seconds on the Digital Display followed by the current water temperature (flashing).
11. Push the JETS 1 and 2 pads to turn both pumps onto high speed. Let the system run for 30 to 45 seconds to prime the pumps. If there is no jet action, then the water level is too low or there is air trapped in the plumbing lines. To eliminate the trapped air, turn the pumps on and off several times to force the trapped air through the pumps. If there is still no jet action, and the bleeder valves have been open for some time, turn off the pumps and loosen the top pump unions slightly to let any trapped air escape. Re-tighten the pump unions and turn the pumps on again. Turn the pumps on and off several times until jets function properly.



Ozone bubbles will continue to release from the skimmer recess Ultra Pure bleeder valve as long as the valve remains open. Once the pumps are primed, be sure that the bleeder is closed tightly.

**Note**

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12. When the jets are in full operation, close the bleeder valves and push the UP pad until the desired hot tub temperature is indicated on the display screen. The screen will then read 100° F (38° C) for thirty seconds to allow the thermostat time to read the correct current water temperature. Then, the screen will display the current hot tub water temperature.
13. Once you have verified that the heater is functioning, you can reinstall the equipment compartment panel removed in Step 1.



While setting the temperature, the Digital Display will read out the temperature up to 104° F (40° C). **Water temperatures in excess of 104° F (40° C) should be used with extreme caution.**

**Warning**

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Depending upon the size of the hot tub and the size of the circuit breaker used, heating will occur at the rate of 3° F (1.65° C) to 10° F (5.5° C) per hour.

**Note**

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14. After completing the above steps, it is necessary to ensure proper water chemistry. See the Water Care Guide accompanying this manual for instructions on maintaining clean and safe water. The schedule shown may require more frequent adjustment depending on the bather load.
15. Place the thermal cover on the hot tub to conserve energy and to keep it ready for use.

## Routine Equipment Maintenance

### Draining Your Equipment



Danger

Risk of Accidental Drowning. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this system unless they are supervised at all times.

All models are gravity drained. Do not drain water onto your lawn or plants unless all of the bromine or chlorine has dissipated from the water. The sanitizer in your water will dissipate quickly by leaving the cover off and exposing the water to direct sunlight. Drain and replace your water every six months. For heavy water use, you may wish to change the water more frequently.



Feature

You may purchase an optional submersible pump from your dealer or from our Virtual Showroom at [www.d1spas.com](http://www.d1spas.com) to provide quicker drainage.

### Filter Cleaning

Before cleaning the filter element(s) place the spa in the "Standby" mode by pressing the Dimension One Spas ICON logo for 5 seconds. Your system is equipped with one or two top access filter cartridges. We recommend that you clean the filters every month as preventative maintenance.

To clean the skimmer filter cartridge, remove the access lid covering the filter area. Lift the center float of the skimmer assembly until it is fully extended. Hold the centerpiece of the assembly and turn it counterclockwise until the flats of the basket are aligned with the securing tabs. Then pull the basket assembly straight up to remove. Next, remove the E-Z Lock Filter cartridge by twisting the cartridge 1/4 turn counterclockwise to its stop. (Be careful not to overturn the filter) Then lift the filter out of its canister. Clean the cartridge with a high-pressure garden hose. Every other cleaning, soak the cartridges in a filter-cleaning solution, rinse it thoroughly, and reinstall. Replace the skimmer basket assembly and the access lid or cover. Exit the "Standby" mode by pressing Dimension Spas ICON logo for 5 seconds. After cleaning, run the pump for a few minutes at high speed, then return to the heating mode.

To clean the **Ultra Pure™** filter cartridge for those hot tubs with **Ultra Pure**, remove the access lid and remove the E-Z Lock Filter cartridge by twisting the cartridge 1/4 turn counterclockwise to its stop. Then lift the filter out of its canister. Clean the cartridge with a high-pressure garden hose. Every other cleaning, soak the cartridge in Dimension One Spas' **Cartridge Cleaner**, then rinse it thoroughly, and reinstall. Replace the access lid or cover. Exit the "Standby" mode by pressing Dimension Spas ICON logo for 5 seconds.

### Light Bulb Replacement

All systems are equipped with a 12 volt light using a GE912 bulb. To change the bulb:

1. Turn the power off and drain the system below the level of the light.
2. Using the special tool provided in the owner's manual packet, unscrew the cover for the light housing.
3. Remove the old bulb and install the new bulb.
4. Use the special tool to replace the cover for the light housing.
5. Check to ensure proper operation of the new bulb before refilling the system.





Warning

Do not attempt to remove the light housing cover without lowering the water level below the light housing cover.

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Note

Do not attempt to remove the light housing cover without the special tool. If you are not able to locate it, contact the Dimension One Spas' Service Department to have one sent.

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Note

Be sure the O-ring is not damaged and is properly in place when replacing the lens. Contact Dimension One Spas if a replacement O-ring is needed.

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Feature

A **Dynamic L.E.D. Light** is available as an optional accessory for many models. This light is preprogrammed with 13 different light shows. This light is also replaced in the same manner as described in the previous paragraph. Contact your dealer or visit our Virtual Showroom at <http://d1spas.com> to see if it is available for your model.

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## Surface Care – Ultralife and Granitex

Your equipment has a very high quality finish. Stains and dirt will generally not adhere to the surface. We recommend cleaning the entire shell surface with Dimension One Spas' **Water Line Cleaner**. You may also use Dimension One Spas' **ph/Alkalinity Increaser** or mild cleaners like Soft Scrub. Be sure to thoroughly rinse the shell. After cleaning, you will want to restore your hot tub shell's original luster by using Dimension One Spas' **Poli-Gloss**.



Caution

Do not use "409" type cleaners or other caustic solutions as they may damage the hot tub shell surface and void the warranty. If you are using baking soda to clean your hot tub shell, be careful not to get it on the skirt. It may bleach the wood.

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Caution

Do not use citrus-based cleaners on the shell surface.

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## Granitex™/Quarite Plus®

If your spa is equipped with this material you must keep the spa covered when it is empty. When the spa is empty and the cover is not in place, and the spa is exposed to direct sunlight, it is vulnerable to ultraviolet light or solar damage. Temperatures generated by sunlight can become concentrated in the shell surface causing the shell material to delaminate from the urethane backing.

## Dimension One "EnviroTect" Skirts and Vinyl Covers

The Dimension One **EnviroTect** skirts are unaffected by most corrosive substances, and will not absorb moisture. To maintain the original finish, clean with soap and water. No sealing or painting is required. To maintain a "nearly original" appearance we recommend applying **303 Protectant** at least once a month on the Dimension One **EnviroTect** skirts and on the vinyl covers if they are exposed to direct sunlight. **303 Protectant** is rated at 40 SPF (Sun Protection Factor).

## Care for the Wood Spa Cabinet

When properly cared for, the wood cabinet of your hot tub will maintain its beauty for many years. All woods react differently to the elements by expanding and contracting. To protect your beautiful wood finish, re-stain it every 3-6 months with Dimension One Spas' **Redwood** or **Coastal Gray Stain**, which serves as a good sealing agent for the wood. Please note that the cabinet is not warranted against reaction to natural weather conditions. The wood must be properly maintained. Should your hot tub cabinet require re-conditioning, try Dimension One Spas' **Wood Refurbishing Kit**.

## Special Cold Weather Instructions

Slipping into your steamy water on a snowy, winter night is a refreshing experience. Many times, people who could never imagine being outside in winter weather, find themselves spending their winter nights doing just that, while relaxing in their hot tub with family and friends. Therefore, the best winterizing tips of all are to enjoy use of your system year-round.

All systems manufactured by Dimension One Spas are designed for rigorous winter use. They are insulated to keep operating costs down and to protect plumbing and equipment whenever the products are operational. Each product line incorporates freeze protection mode to maintain water circulation during freezing conditions whenever the system has proper electrical power and water level. Therefore, a fully operational system is your number one defense against freeze damage.

If you find it completely necessary to drain your water during the winter months, in an area where freezing conditions may exist, please adhere to all of the instructions in this section to minimize the risk of freeze damage. Failure to complete any of the steps satisfactorily will increase the chance of freeze damage, as small amounts of water trapped in pipes will expand as it freezes, and may result in damaged plumbing lines or fittings.



Caution

Dimension One Spas does not recommend that you drain your system for the winter. Freeze damage caused by winterizing your system is specifically not covered by Your Warranty.

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## Items Required for Winterizing

- Phillips head screwdriver
- 16" (40.6 cm) Channel-lock pliers
- High pressure air blower
- Commercial grade wet-vacuum
- 3 gallons (11.37 liters) to 6 gallons (22.74 liters) of Non-Toxic Antifreeze
- Strong, able-bodied people capable of lifting system into upright position
- Enough time (and patience) to perform all steps.

## Procedure for Winterizing

1. Shut the power off to the system and make sure that it cannot be accidentally turned back on.
2. Remove filter elements from filter assembly.
3. Drain water from the system using the drain fitting and garden hose or you may use a submersible pump for faster draining.
4. Open the equipment compartment and locate pumps and heater.
5. Remove all of the drain plugs from each pump.
6. Loosen unions on both sides of each pump, and the heater if applicable.

7. If your system has a Dynamic Jet Sequencer, please remove that access panel as well and loosen all unions on each of the sequencer valves. There are 6 sequencer valves, that means that you will have to loosen 12 unions.
8. Tip the system onto one side. (The system will have some water remaining, which will add to the weight). Be sure to have enough people available to safely lift the weight of your system. Do not tip system onto equipment bay side.
9. Close all jets, by turning jet faces counter clockwise.
10. Put on your protective goggles in order to protect eyes from air, water, antifreeze or debris exiting the jets or drains.
11. Insert the hose of a high-pressure air blower into the filter element fitting. Some models may have 2 filters. Begin with the left-hand filter fitting, which will help evacuate water from the circulation pump system. Then proceed to the right-hand filter fitting. When using air blower on single-filter systems or the right-hand fitting on dual filter systems, rotate each of the jet faces clockwise to open and counter-clockwise to close again. Do this to each jet face, one jet at a time. Be careful, as water will be coming out of each jet fitting as you perform this maneuver. Perform this operation, until no more water is coming from the jets.
12. Remove jet faces and insert the hose of a high-pressure air blower into each jet fitting. Continue this process, until no more water comes out of any jet fitting or drain fitting and you no longer hear water gurgling within the plumbing. Place all jet faces in a plastic bag and set aside until you are ready to use your system again.
13. Remove both bleeder valves from the top of the filter canister area. Place hose of a high-pressure air blower into the rear-most bleeder fitting first. Confirm that water mist is blowing from one or both of the circulation system return jets in the footwell of the system. You may also get some water mist blowing from the filter canister. Repeat this process with the front-most bleeder fitting. Confirm that water mist is blowing from the drain fittings of the jet pumps.
14. Place the hose of a commercial grade, wet-vacuum over each jet fitting, bleeder valve fitting, and drain fitting to draw out as much remaining standing water as possible.
15. Remove drain hose bib assembly from the outside bottom of the system.
16. Use the wet-vacuum to remove standing water from the pumps and any other fittings within the equipment compartment.
17. Once you are sure that all water is evacuated from the plumbing and equipment of the system, put the system back down in its normal position and repeat Step 10 and Step 11
18. Read all Directions and Safety Precautions on the Swimming Pool or Recreational Vehicle antifreeze bottle before opening and using. Ensure that it is non-toxic and safe for this use. Beware of and follow all safety precautions.
19. Using a long funnel, begin pouring non-toxic swimming pool or recreational vehicle water system antifreeze into the filter canister fittings, bleeder valve fittings and jet fittings of your system. Continue adding antifreeze until it comes out of the drain fittings or from the opening you are pouring it into. You must complete this task for every jet fitting in the system. Some of the antifreeze will seep into the system from the drain or jet fittings, which is okay, the goal is to have anti-freeze collect in the areas of the plumbing that would normally trap water. Use the funnel to also place antifreeze into the pump housing(s).



Note

When pouring antifreeze into the rear-most bleeder valve fitting, you may see antifreeze pouring from one or both of the circulation system return fittings.

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Danger

DO NOT USE AUTOMOTIVE COOLING SYSTEM ANTIFREEZE IN YOUR SYSTEM. IT IS TOXIC AND HARMFUL TO HUMANS AND ANIMALS. CHECK WITH YOUR LOCAL SPA DEALER OR RV DEALER TO PURCHASE NON TOXIC ANTIFREEZE THAT IS COMPATIBLE WITH DRINKING WATER SYSTEMS!

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20. Replace all equipment access panels onto the system.
21. Replace thermal cover and secure locking tabs. If your system is located in an area of high snowfall, you may want to take one more extra precaution to safeguard the life of your system cover. Span the cover with (2 or more) 2x4's cut to length to reach the outside edges of your cover. Place a sheet of plywood, cut to fit each half of the cover, over the 2x4's; this will carry the load of a heavy snow load and prevent the cover from warping or breaking. You can even tarp the system at this point for maximum protection.

### Spring Time Startup

In the spring, or when your ready to start the system back up, follow these instructions.

- Make sure o-rings for pumps are in place and undamaged.
- Make sure all the fittings that you had to loosen are tightened.
- Replace all jet fittings, pump drain plugs, hose bib drains and bleeder valves
- Fill the system up, as you would normally do.
- Turn the power back on.
- Run the jets on high speed for about 15 minutes.
- Drain the water.
- Put your filter(s) back in.
- Refill and treat chemically like you would during a normal water change.



Caution

Your system is equipped with automatic freeze protection. However, power outages can cause your system equipment to freeze quickly. During freezing conditions, check your system frequently to ensure proper operation. Always check your system after any power failure to ensure that it is operational. Draining and not operating your system disables this feature.

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For additional information about winterizing your spa, please contact your local Authorized Dimension One Spas dealer.



## Warranty Service Information

Your hot tub warranty gives you specific coverage. Be sure to read the enclosed warranty sheet carefully.

The warranty does not cover problems arising from misuse, abuse, or neglect, and it does not cover problems caused by improper installation or "perceived" problems caused by failure to read the hot tub owner's manual. A service charge will be made if a service call is made for any of the following:

1. Equipment failure due to improper/inadequate electrical service. All systems require dedicated circuits as described in this manual. Low voltage can cause equipment failure and seriously shorten equipment life. It is the owner's responsibility to ensure proper electrical service is available.
2. Failure of hot tub to reach desired temperature because the set temperature is not turned up high enough. Maximum thermostat setting is approximately 104° F (40° C).
3. Burned out hot tub light. Bulbs are not covered.
4. Hot tub water chemistry is the responsibility of the hot tub owner. Cloudy, dirty or chemically unbalanced water and cleaning of the hot tub filter are also the responsibility of the hot tub owner.
5. Hot tub shell or equipment damage caused by improper water maintenance. Serious damage can be caused if your hot tub water is not maintained carefully and correctly.
6. Poor jet action because the jet Selector valve is in the middle position. For full performance, turn the jet Selector valve to either the full clockwise or full counterclockwise position.



Warning

Do not block air intakes located on the front left corner underneath the hot tub (the front right corner for the Chairman II and Triad II) and under the equipment access panel. Resulting malfunctions are not covered under warranty.



Caution

### **Granitex™/Quarite Plus® Disclaimer**

This spa is insulated with high-density urethane foam for structural support and energy efficiency. When empty of water and left in the direct sunlight without the spa cover in place, the spa is vulnerable to ultra violet light or solar damage. Temperatures generated by sunlight can become concentrated in the shell surface causing the shell material to delaminate from the urethane foam packing. This occurrence is not covered under warranty. The spa cover must be kept on the spa while empty of water.

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## Glossary of Terms

Term	Definition
<b>Bleeder Valve</b>	A small valve used to relieve or expel air from the spa's plumbing or pump.
<b>Circulation Pump</b>	A pump that circulates the water in the spa continuously.
<b>Dry Firing</b>	Turning the heater element on when there is no water in the heater.
<b>Equipment Access Panel</b>	Provides access to your spa's equipment for a qualified service technician.
<b>Filter Cartridge</b>	Your spa's filters have been designed so that you may repeatedly clean and maintain the filter element as needed. The element is constructed of woven polyester rather than paper to ensure long life and proper filtration.
<b>GFCI-Ground Fault Circuit Interrupter</b>	A type of Circuit Breaker that automatically disconnects power to the spa when there is an electrical power leakage to ground.
<b>Gravity Drain Valve</b>	Used to drain your spa
<b>Halogens</b>	Free chlorine, bromine or iodine ions that are very strong oxidizers used to sanitize water.
<b>ICON Pad</b>	This is a pad accessed by pressing the Dimension One Spas Logo on the far right of the Top Side Control Panel.
<b>Jets</b>	Return the water into the spa from the equipment. The jets produce a turbulent flow of water mixed with air to provide a concentrated body massage
<b>Light</b>	Illuminates the spa
<b>Load Sharing</b>	When the circuit breaker size is smaller than the total power needed to operate both the heater and the jet pump at the same time, load sharing automatically turns off the heater when a jet pump is turned onto high speed.
<b>Lower Control System</b>	The electronic control system that governs all of the electrically operated components of your spa utilizes an advanced microprocessor and solid-state electronic devices to activate all user and maintenance options. A backlit, highly reliable liquid crystal display gives you a complete update of the spa status at any time of the day or night. Temperature setting, as well as control of the light, jets, filtration, and time of day display, are all instantly available from, and controllable at, the topside control panel.
<b>Ozone Generator</b>	A specialized ultraviolet light that changes oxygen into ozone for use in the water sanitation process.
<b>Flow Switch</b>	Safety device(s) that sends a signal to the electronic control system that there is adequate water flow to turn the heater on.
<b>Pump</b>	Produces water flow through the heater, filter, sanitation system and the main jets in the spa. The pump will operate automatically during filtration and heat cycles. This pump can also be operated manually by depressing the "jets" pad on the topside control panel which will allow you to choose between two speeds <ul style="list-style-type: none"> <li>• Low speed for efficient water circulation during heating and filtration modes, and for gentle jet resistance or massage action.</li> <li>• High speed for maximum jet action.</li> </ul>
<b>Selector Valve</b>	Located on the top edge of the spa, it diverts jet power from one area of the spa to another.
<b>Serial Number</b>	Please use the serial number (located on the left corner pedestal) in communication with your dealer.
<b>Slice Valves / Shutoff Valves</b>	Valves located within the spa's internal plumbing, which are used by service personnel to shut off water flow to the heater and pumps. All valves must be

Term	Definition
	completely open during normal operations.
<b>Smart Heat</b>	(Available on Dimension One Spas only) Smart Heat optimizes heat recovery using the amperage that you have available. Along with computerized load sharing, that automatically recognizes the number of jet pumps in use, compares it with the available power, Smart Heat recognizes the difference between the set temperature and the actual water temperature, and adjusts the heater to optimize the heater output.
<b>Temperature Sensor</b>	Measures the temperature of the water inside the spa. This temperature sensor is used to control the spa heater and the temperature is displayed on the spa side control panel.
<b>Top Side Control Panel</b>	Used to control temperature, pumps for jets, spa light, system clock, automatic filtration cycles, and other advanced functions.
<b>Unions</b>	Connects the spa plumbing to the equipment. The unions allow a service technician to remove equipment without cutting plumbing.
<b>Venturi</b>	A device used to inject air into the water.
<b>Vision Cartridge</b>	A safe, water sanitizer that can be used in place of chlorine.
<b>Water Return Fittings</b>	In addition to the skimmer, the water return fittings provide water inlets to your spa pumps. DANGER – Never Block Or Remove Any Of The Water Return Fittings.
<b>Weir Skimmer</b>	A floating water referencing device that skims debris from the surface of the water.

# Troubleshooting Guide

## Heating System

Symptom	Problem	Corrective Action
Does not heat	1. Temperature setting is too low	1. Turn up the thermostat
	2. Dirty filter	2. Clean filter
	3. Flow switch malfunction	3. Call for service
Too hot	1. Temperature setting is too high	1. Turn down the thermostat
	2. High limit tripped	2. Call for service
Flashing temperature of 34°F (-16.6° C) or 134°F (56.6° C) appears on the display	Possible temperature sensor failure	Call for service
Hot Tub Temperature erratic	Water level	Fill hot tub to 1" (2.54 cm) to 2" (5.08 cm) above bottom of the tile line

## Electrical System

Symptom	Problem	Corrective Action
Will not turn on - in any mode	No power	Check circuit breaker and/or GFCI
Turns on by itself	Normal automatic daily power filtration, or anti-freeze cycle	No action required
Light is out	Burned out bulb	Replace bulb
Pump shuts down unexpectedly while in use	1. Automatic timer has shut pump off	1. Push JETS pad again to start another cycle
	2. Motor over-heated and automatic protective device has shut down pump(s)	2. If pump(s) will not restart when JETS pad is pushed, call for service  Make sure that the equipment panel vent area is not blocked. Vent blockage can cause serious damage to your equipment.
3 flashing LEDs appear on the Top Side Control	Possible sensor errors	1. Check water level
		2. Clean filter
		If problem persists:
		1. Turn off power
		2. Restart the system
		If problem persists:  Call for service

## Water System

Symptom	Problem	Corrective Action
Pulsating jets	Water level too low	Fill with water to 1" (2.54 cm) to 2" (5.08 cm) above bottom of the tile line
No Jet Action, or action is poor	1. Jets are turned off	1. Turn jets on by turning jet face clockwise
	2. Diverter Valve turned	2. Turn the Diverter Valve clockwise or counter clockwise
	3. Dirty Filter	3. Clean Filter
	4. Air lock	4. Loosen pump union to allow air to bleed
	5. Gate valve closed	5. Open gate valve
The "Check Water Level....." scrolling message and /or 3 flashing L.E.D.s appear on the display.	1. Possible sensor errors	1. Check water level 2. Clean filter 3. If problem continues: a. Turn off power b. Restart the spa 4. If problem persists: a. Call your dealer for service







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