



2004
Owner's
Manual

Since 1977



Spa Information

It is very important that you gather the following information on your spa and enter it in the blanks provided below. The **Warranty Card** should also be completed at the same time, and submitted to the address below. This information will be needed if you ever want to purchase additional items for your spa, or if service is ever required. Be sure to consult with your Dealer to ensure the accuracy of this important information.

My Spa

Model Name: _____ Serial Number: _____

Date Purchased: _____ Date Installed: _____

Gallons/Liters: _____

Notes: _____

Dealer Information:

Dealer's Name: _____

Address: _____

City: _____ State, Zip: _____

Telephone: _____ Fax: _____

Table of Contents

IMPORTANT SAFETY INSTRUCTIONS	1
IMPORTANT SAFETY INSTRUCTIONS (CSA SAFETY INFORMATION).....	2
HYPERTHERMIA	5
DO'S AND DON'TS.....	6
WARNING SIGN.....	7
HOT TUB FEATURES.....	8
JET SYSTEM SELECTOR VALVE (COVE MODEL ONLY)	8
NECK JETS (DREAM HP MODEL ONLY)	8
PROGRAMMABLE DIGITAL CONTROL.....	9
TOP SIDE CONTROL.....	9
DIGITAL DISPLAY MESSAGES	11
"OH" – Overheat Protection	11
Flashing LED on the Control Panel.....	11
Erroneous Temperature on the Display	11
USING THE PROGRAMMABLE DIGITAL CONTROLLER	12
Filter Cycle Start Time	12
Filter Cycle Duration.....	12
Number of Filter Cycles.....	12
Temperature Unit Selection.....	12
INITIAL STARTUP	12
CARE FOR YOUR HOT TUB	14
DRAINING YOUR HOT TUB	14
FILTER CLEANING	14
LIGHT BULB REPLACEMENT.....	14
CARE FOR THE HOT TUB SURFACE – PROTECT +™ AND COLORED SHELLS	15
Colored Shells.....	15
DIMENSION ONE "ENVIROTECT" SKIRTS AND VINYL COVERS.....	15
CARE FOR THE WOOD HOT TUB CABINET	16
CARE OF THE HOT TUB COVER.....	16
SPECIAL COLD WEATHER INSTRUCTIONS	16
Items Required for Winterizing.....	16
Procedure for Winterizing.....	17
Spring Time Startup.....	18
WARRANTY SERVICE INFORMATION.....	19
GLOSSARY OF TERMS.....	20
TROUBLESHOOTING GUIDE	21
HEATING SYSTEM.....	21
ELECTRICAL SYSTEM.....	21
WATER SYSTEM.....	21

2004 @Home Hot Tubs
International Owner's Manual

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY

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



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.



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.



Risk of Electric Shock. Install at least 1.5 m (5 FEET), from all metal surfaces. As an alternative, a spa may be installed within 5 feet of metal surfaces if each metal surface is permanently connected by a minimum No. 8 AWG (8.4 mm²) solid copper conductor attached to the wire connector on the grounding lug, inside the equipment compartment on the equipment can.



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



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 1.5 m (5 feet), from the spa water.



Warning

To reduce the risk of injury, do not permit children to use this spa unless they are closely supervised at all times.



Warning

A grounding wire connector is provided on this spa to connect a minimum No. 8 AWG (8.4 mm²) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 1.5 m (5 feet) of the spa.



Warning

To Reduce the Risk of Injury: The water in a spa should never exceed 40° C (104° F). Water temperatures between 38° C (100° F) and 40° C (104° F) 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 38° C (100° F).



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 +/- 2.5° C (5° F).



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.



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.



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.



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

IMPORTANT SAFETY INSTRUCTIONS (CSA SAFETY INFORMATION)

When using this electrical equipment, basic safety precautions should always be followed, including the following:

1. **READ AND FOLLOW ALL INSTRUCTIONS.**
2. A green colored terminal or a terminal marked G, GR, Ground, Grounding, or the symbol * is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying this equipment.
* IEC Publication 417, Symbol 5019.
3. At least two lugs marked "BONDING LUGS" are provided on the external surface or on the inside of the supply terminal box/compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the hot tub or spa to these terminals with an insulated or bare copper conductor not smaller than No. 6 AWG.
4. All field-installed metal components such as rails, ladders, drains or other similar hardware within 3 meters of the spa or hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than No. 6 AWG.

5. SAVE THESE INSTRUCTIONS.



Children should not use spas or hot tubs without adult supervision.



AVERTISSEMENT: NE PAS LAISSER LES ENFANTS UTILISER UNE CUVE DE RELAXATION SANS SURVEILLANCE.



Do not use spas or hot tubs unless all suction guards are installed to prevent body and hair entrapment.



AVERTISSEMENT: POUR ÉVITER QUE LES CHEVEUX OU UNE PARTIE DU CORPS PUISSENT ÊTRE ASPIRÉS, NE PAS UTILISER UNE CUVE DE RELAXATION SI LES GRILLES DE PRISE D'ASPIRATION NE SONT PAS TOUTES EN PLACE.



People using medications and/or having adverse medical history should consult a physician before using a spa or hot tub.



AVERTISSEMENT: LES PERSONNES QUI PRENNENT DES MÉDICAMENTS OU ONT DES PROBLÈMES DE SANTÉ DEVRAIENT CONSULTER UN MÉDECIN AVANT D'UTILISER UNE CUVE DE RELAXATION.



People with infectious diseases should not use a spa or hot tub.



AVERTISSEMENT: LES PERSONNES ATTEINTES DE MALADIES INFECTIEUSES NE DEVRAIENT PAS UTILISER UNE CUVE DE RELAXATION.



To avoid injury, exercise care when entering or exiting the spa or hot tub.



AVERTISSEMENT: POUR ÉVITER DES BLESSURES, USER DE PRUDENCE EN ENTRANT DANS UNE CUVE DE RELAXATION ET EN SORTANT.



Warning

Do not use drugs or alcohol before or during the use of a spa or hot tub to avoid unconsciousness and possible drowning.



Warning

AVERTISSEMENT: POUR ÉVITER L'ÉVANOUISSEMENT ET LA NOYADE EVENTUELLE, NE PRENDRE NI DROGUE NI ALCOOL AVANT D'UTILISER UNE CUVE DE RELAXATION NI QUAND ON S'Y TROUVE.



Warning

Pregnant or possibly pregnant women should consult a physician before using a spa or hot tub.



Warning

AVERTISSEMENT: LES FEMMES ENCEINTES, QUE LEUR GROSSESSE SOIT CONFIRMÉE OU NON, DEVRAIENT CONSULTER UN MÉDECIN AVANT D'UTILISER UNE CUVE DE RELAXATION.



Warning

Water temperature in excess of 38° C may be injurious to your health.



Warning

AVERTISSEMENT: IL PEUT TRE DANGEREUX POUR LA SANTÉ DE SE PLONGER DANS DE L'EAU À PLUS DE 38°C.



Warning

Before entering the spa or hot tub, measure the water temperature with an accurate thermometer.



Warning

AVERTISSEMENT: AVANT D'UTILISER UNE CUVE DE RELAXATION MESURER LA TEMPÉRATURE DE L'EAU À L'AIDE D'UN THERMOMÈTRE PRÉCIS.



Warning

Do not use a spa or hot tub immediately following strenuous exercise.



Warning

AVERTISSEMENT: NE PAS UTILISER UNE CUVE DE RELAXATION IMMEDIATEMENT APRÈS UN EXERCICE SATIGANT.



Warning

Prolonged immersion in a spa or hot tub may be injurious to your health.



Warning

AVERTISSEMENT: L'UTILISATION PROLONGÉE D'UNE CUVE DE RELAXATION PEUT TRE DANGEREUSE POUR LA SANTÉ.



Warning

Do not permit electric appliances (such as a light, telephone, radio, television, etc.) within 1.5 m of this spa or hot tub.



Warning

AVERTISSEMENT: NE PAS PLACER D'APPAREIL ÉLECTRIQUE (LUMINAIRE, TÉLÉPHONE, RADIO, TÉLÉVISEUR, ETC.) À MOINS DE 1.5 M DE CETTE CUVE DE RELAXATION.



Caution

Maintain water chemistry in accordance with manufacturer's instructions.



Caution

ATTENTION: LA TENEUR DE L'EAU EN MATIÈRES DISSOUTES DOIT TRE CONFORME AUX DIRECTIVES DU FABRICANT.

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 37° C, or 98.6° F. 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 hyperthermia in hot tubs and spas.



Warning

AVERTISSEMENT: LA CONSOMMATION D'ALCOOL OU DE DROGUE AUGMENTE CONSIDÉRABLEMENT LES RISQUES D'HYPERTHERMIE MORTELLE DANS UNE CUVE DE RELAXATION.



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.



Caution

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



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.



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.



Caution

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



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.



Caution

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



Caution

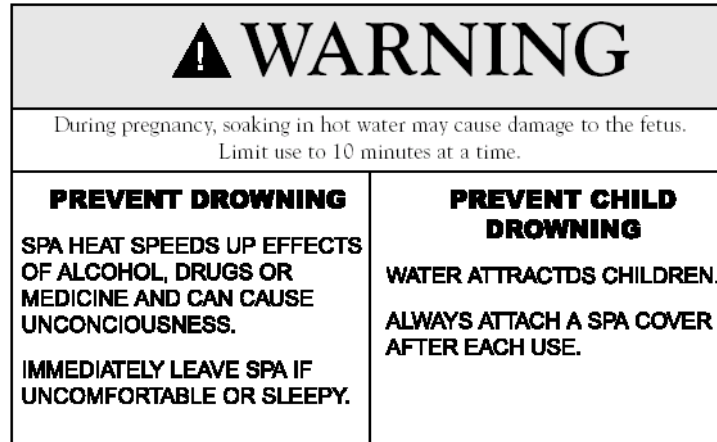
Use the spa straps and clip tie downs to secure the cover when not in use. This will help to discourage unsupervised children from entering the spa and keep the spa cover secure in high wind conditions. There is no representation that the cover, clip tie downs, or actual locks will prevent access to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

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 Sign

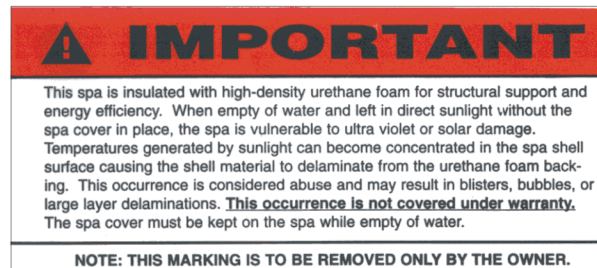
Each spa has been provided with a warning sign and an Important Notice label.



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 92081
(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. If you have any questions, please contact your local Authorized Dimension One Spas Dealer.

The following features are included on your hot tub:

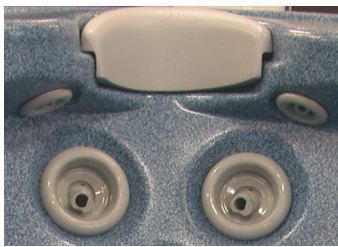
- CE Registered
- Completely self-contained with load sharing capabilities
- 100% foam insulated (optional)
- All hot tub shells are formed from high impact thermoplastic polymer
- Designed for indoor or outdoor use
- Top access, easy to clean filter systems
- Water level referencing Weir skimmer
- Handcrafted cabinets
- A variety of interchangeable jets
- Polyethylene floor completely seals the hot tub, eliminating moisture or insect intrusion
- Built-in, automatic freeze protection
- Automatic high/low speed filtration cycles

Jet System Selector Valve (Cove Model Only)

The Cove hot tub is the only @ Home model equipped with spa-side Selector Valve. The valve can be used to divert jet power from one area within the hot tub to another. The valve is fully adjustable and can be used to suit the bather's taste. The valve 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.



Neck Jets (Dream HP Model Only)



The Dream HP has two VCR Mini Directional Jets in the 1 o'clock seat of the spa that act as neck jets.

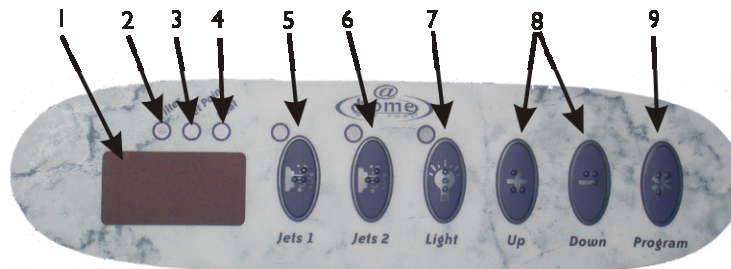
Programmable Digital Control

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 the most stringent requirements of CE registration.

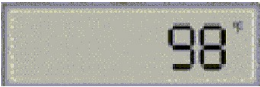


Digital Control lets you relax and enjoy everything your hot tub has to offer.



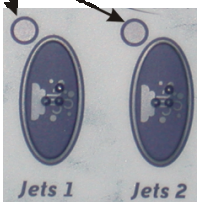



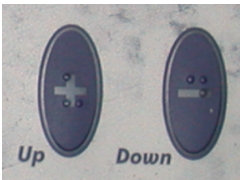

Gain a thorough knowledge of the following information before starting up your spa



Top Side Control

Control	Function
1 	1. Digital Display The digital display indicates (depending on program mode) temperature in degrees C or F, time, filter cycle start time, filter cycle duration time, and number of filter cycles. For more information see "Digital Display Messages".
2 	2. FILTER Indicator Light This light will illuminate when an active filtration cycle is in progress.
3 	3. SETPOINT Indicator Light This light will illuminate when the spa water has reached the temperature selected by the Temperature Buttons

Control	Function
<p>4</p> 	<p>4. HEAT Indicator Light This Light is illuminated when the heater is on.</p>
<p>5</p> <p>Jets Status Light</p> 	<p>5. JETS 1 Button and Status Light When the JETS 1 control button is pushed the first time, the primary pump will turn on in low speed. When the JETS 1 button is pressed a second time, the primary pump will switch to high speed. Push the JETS 1 button a third time and the primary pump will be turned off.</p> <p>NOTE: The Dream HP, Sojourn HP and Cove HP are dual pump spas. The upper control panel will have two jet buttons (JETS 1 and JETS 2). The primary pump (JETS 1) is a two-speed pump with a High and Low speed setting. The secondary pump (JETS 2) is a single speed pump with only one high-speed setting. All other @Home Hot Tubs have one two-speed jet pump and therefore have only one jet button. If the spa is heating, pump one will run continuously at low speed until the pre-set temperature is reached. The set point light indicator will be on when the display is showing the water temperature set point. It will be off when the display is showing the actual water temperature.</p> <p>NOTE: When a bather turns on a pump by pressing either JETS 1 or JETS 2, it will run for 30 minutes and then turn off. A new 30-minute cycle begins for each pump when its respective JETS button is pushed. This auto shut-off cycle is a safety feature and also allows for convenient filtration, immediately after use of the spa.</p>
<p>6</p> <p>Jets Status Lights</p> 	<p>6. JETS 2 Button If your hot tub is equipped with a secondary pump (Dream HP, Sojourn HP and Cove HP) then you will have a JETS 2 button. The first time the JETS 2 button is pushed it will start the secondary (single speed pump) and when pushed a second time it will stop the secondary pump.</p>
<p>7</p> <p>Light Status Light</p> 	<p>7. LIGHT Button and Status Light Push the LIGHT control button once to turn the light on. Push the LIGHT control button a second time to turn off the light. The light LED is on or off according to the light's current state. The light will automatically turn off after 1 hour of continuous operation.</p> <p>NOTE: If the Dynamic L.E.D. is installed, the low, medium, and high settings are disabled. The Light button turns the Dynamic L.E.D. on and off. Instructions on controlling the Dynamic L.E.D. settings are included with the light.</p>

Control	Function
<p>8</p> 	<p>8. TEMPERATURE Buttons</p> <p>Pushing the UP (+) button increases the temperature and pushing the DOWN (-) button decreases the temperature. Push the respective button one time for each degree of temperature change, or push and hold the button for rapid adjustment. The actual hot tub water temperature will remain in the Digital Display window until a temperature button is pushed. When the UP or DOWN button is pushed the Digital Display will indicate the new temperature setting, with the SET POINT Indicator Light above 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>9</p> 	<p>9. PROGRAM Button</p> <p>The PROGRAM button is used for several different functions including: Filter Cycle Duration, Filter Cycles Frequency, and Temperature Unit selection. The paragraphs following this table will explain how these features are set.</p> <p>To initiate the programming sequence at any time, push and hold the PROGRAM button 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 button for 10 seconds. Any programming changes made up to that point are saved.</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, **DO NOT ENTER THE WATER**. If this happens, remove the hot tub cover and allow the water to cool below 43° C (110° F). 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, **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.

Erroneous Temperature on the Display

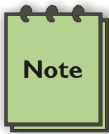
If you see a temperature of 0° C (32° F) or 55.5° C (132° F), **DO NOT ENTER THE WATER**. The system has detected a problem. Contact your local Authorized Dimension One Spas Dealer, or authorized service center.

Using the Programmable Digital Controller

To initiate the programming sequence at any time, push and hold the PROGRAM button for 3 seconds. If you do not proceed with the hot tub programming within 10 seconds, 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 button for 10 seconds. Any programming changes made up to that point will be saved.

Filter Cycle Start Time

To adjust the filter cycle start time, push the UP or DOWN buttons and LIGHT button as done in the Clock Set programming mode to choose a time. Once the desired time is displayed, push the PROGRAM button to accept the selection and move into the Filter Cycle Duration programming mode.



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 the first 5 minutes and the remainder of the filter cycle time at low speed.

Filter Cycle Duration

To adjust the filter cycle duration, push the UP or DOWN buttons 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 button to accept the selection and move into the Number of Filter Cycles programming mode.



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 buttons 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 button to accept the selection and move into the Temperature Unit Selection programming mode.

Temperature Unit Selection

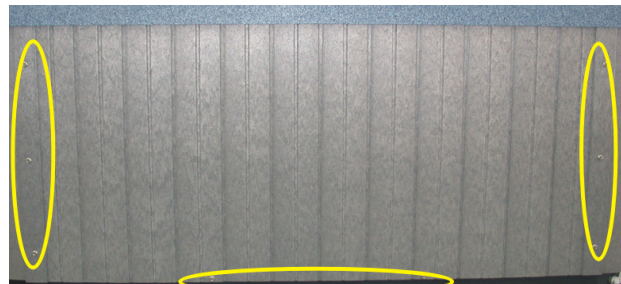
To select temperature units push the UP or DOWN buttons to toggle between ° C (degrees Celsius) and ° F (degrees Fahrenheit). Once the desired temperature unit is selected push the PROGRAM button to exit the programming mode.

Initial Startup

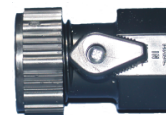
1. Locate the Top Side Control. Directly below this control is the equipment compartment.
2. Use screwdriver to remove the spa panel screws.



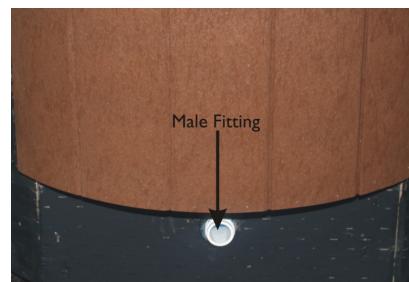
The number of screws to be removed will depend on the make and model of spa.



3. Locate the owner's packet inside in equipment compartment (plastic bag with parts and manual). Inside the bag is a plastic hose bib.

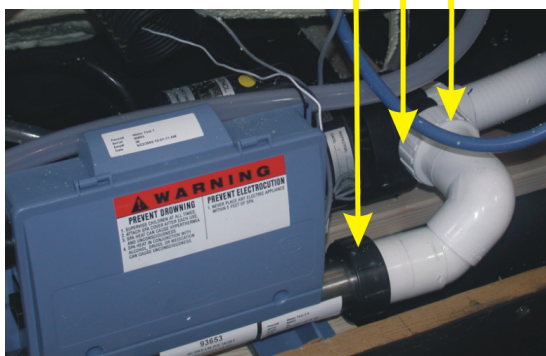


4. Screw the hose bib onto the male fitting located at the bottom of the hot tub on the pedestal, to the lower right of the equipment compartment.
5. Close the valve on the side of the hose bib and screw the cap onto the end of the hose bib.

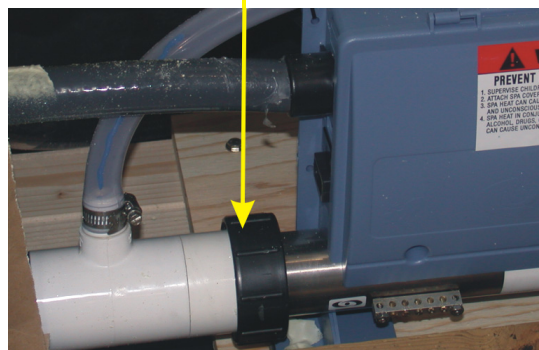


6. Check the pump unions to be sure that they are tight to prevent the possibility of leakage in the equipment compartment.

Typical Pipe Unions



Typical Pipe Union



7. Fill your spa with water up to 15.24 cm (6 inches) below the lip of the spa.
8. Turn on the circuit breaker. One minute after the power is turned on, the spa will automatically begin its first one-hour filtration cycle. Let the system run for 30 to 45 seconds to prime the pump. On two pump models, Pump 2 will operate on high speed for the first minute of each filter cycle. 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 off the pump(s) and loosen the top pump union slightly to let the air escape. Re-tighten the pump union and turn on the pump again.
9. Your spa will automatically filter itself twice each day. At the beginning of each filtration cycle, the pump will run on high speed for 5 minutes and then on low-speed for the remainder of the filter cycle. The second filtration cycle will begin twelve hours after the start of the first. To reset the start of these cycles, simply turn off power to the spa by opening the circuit breaker box, turn the breaker off, and then turn it back on. This resets the filtration cycle to start one minute later. Or follow the procedure outlined in "Number of Filter Cycles" and "Filter Cycle Duration". The filter cycle LED indicator will be on when there is a filter cycle is running.
10. A thermostat controls the spa temperature. Whenever there is a call for heat, your spa will turn on the heater and the pump will run at low speed as necessary to maintain the temperature. Push the UP button until the desired temperature is indicated on the display screen. In a few seconds, the screen will start displaying the current spa water temperature again. The maximum temperature that can be set is 40° C (104°F). Heating will occur at the rate of 0.5°C (1° F) to 4.0° C (8° F) per hour.



On initial start-up, you can confirm that the heater is on by looking to see that the HEAT Indicator Light, located above the Digital Display on the control panel, is illuminated. Once you have verified that the heater is functioning, you can reinstall the equipment door.

11. After completing the above steps, it is necessary to ensure proper water chemistry. See the **Water Care Guide** for the easy steps to maintaining clean and safe water. The schedule shown may require more frequent adjustment depending on the bather load.
12. Place the thermal cover on the spa to conserve energy and to keep it ready for use.

Care for Your Hot Tub



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.

Draining Your Hot Tub

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

Filter Cleaning

Always turn off the power to the hot tub before cleaning the filter elements. Your hot tub 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 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 counter clockwise 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 cartridge in a filter cleaning solution, rinse it thoroughly, and reinstall. Replace the skimmer basket assembly and the access lid or cover. After cleaning, run the pump for a few minutes at high speed, then return to the heating mode.

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.



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

Warning



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.



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.



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.

Care for the Hot Tub Surface - Protect +™ and Colored Shells

Your hot tub 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 a 50/50 solution of denatured alcohol and water. 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**.



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.



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

Colored Shells

If your spa is equipped with a colored shell, you must keep the spa covered when it is empty. When the spa is empty, not covered, and 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 spa covers if they are exposed to direct sunlight. **303 Protectant** is rated at 40 SPF (Sun Protection Factor).

Care for the Wood Hot Tub 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. Re-stain your cabinet every 3-6 months to protect your beautiful wood finish. Please note that the cabinet is not warranted against reaction to natural weather conditions. The wood must be properly maintained.

Care of the Hot Tub Cover

The thermal cover for your hot tub is an extremely durable foam insulated product. See the manufacturer's literature for proper cleaning instructions. When the hot tub is not in use, it is recommended that the cover tie downs always be utilized to discourage unsupervised children and minimize heat loss. Small locks are also available for the cover tie downs. In either case, these locking methods are not considered adequate to keep unauthorized people from entering the hot tub.

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 hot tub year-round.

All hot tubs 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 hot tub 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

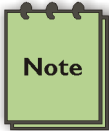
Dimension One Spas does not recommend that you drain your system for the winter. Freeze damage caused by winterizing your system is specifically not covered by Your Warranty.

Items Required for Winterizing

- Phillips head screwdriver
- 40.6 cm (16 inches) Channel-lock pliers
- High pressure air blower
- Commercial grade wet-vacuum
- 11.37 liters (3 gallons) to 22.74 liters (6 gallons) 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, which 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 then 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).



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.



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!

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.



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.

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 40° C (104° F).
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.



Colored Shell 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.

Glossary of Terms

Term	Definition
Dry Firing	Turning the heater element on when there is no water in the heater.
Equipment Access Panel	Provides access to your spa's equipment for a qualified service technician.
Filter Cartridge	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.
Floating Skimmer	Removes floating debris from the water surface. This inlet provides a water return path to your spa's equipment and flow through the filter element.
GFCI-Ground Fault Circuit Interrupter	A type of Circuit Breaker that automatically disconnects power to the spa when there is an electrical power leakage to ground.
Gravity Drain Valve	Used to drain your spa
Halogens	Free chlorine, bromine or iodine ions that are very strong oxidizers used to sanitize water.
Jets	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
Light	Illuminates the spa
Lower Control System	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 settings, 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.
Pressure Switch	Safety device that sends a signal to the electronic control system that there is adequate water flow to turn the heater on.
Pump	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" button on the topside control panel which will allow you to choose between two speeds Low speed for efficient water circulation during heating and filtration modes, and for gentle jet resistance or massage action. <ul style="list-style-type: none"> • High speed for maximum jet action.
Selector Valve (Cove model only)	Located on the top edge of the spa, it diverts jet power from one area of the spa to another.
Serial Number	Please use the serial number (located on right corner of the pedestal) in communication with your dealer.
Temperature Sensor	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.
Top Side Control Panel	Used to control temperature, pumps for jets, spa light, system clock, automatic filtration cycles, and other advanced functions.
Unions	Connect the spa plumbing to the equipment. The unions allow a service technician to remove equipment without cutting plumbing.
Venturi	A device used to inject air into 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. Pressure 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 or 134°F appears on the display	Possible temperature sensor failure	Call for service
Hot Tub Temperature erratic	Water level	Fill hot tub to 15.5 cm (6 inches) below lip of spa

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 button 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 button 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"(5.08cm) above bottom of the tile line
No Jet Action, or action is poor	1. Jets are turned off	1. Turn jet face clockwise to open
	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



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