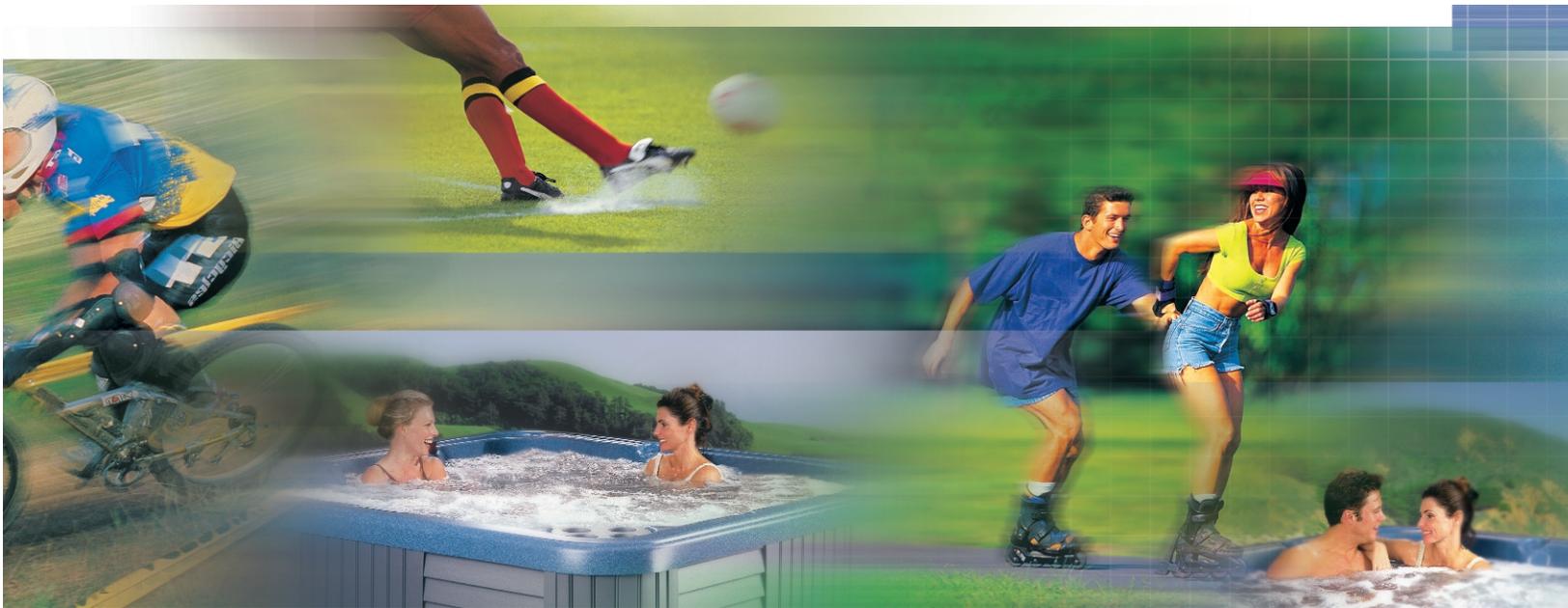




2000 Owner's Manual



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IMPORTANT SAFETY INSTRUCTIONS:

READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY

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

- 1) **WARNING:** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
- 2) **WARNING:** A grounding wire connector is provided on this unit 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 5 feet (1.5 m) of the unit.
- 3) **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.
- 4) **DANGER:** Risk of Injury. 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.
- 5) **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 mm²) solid copper conductor attached to the wire connector on the grounding lug, inside the equipment compartment on the heater mounted to the equipment can.
- 6) **DANGER:** Risk of Electric Shock. Do not permit any electrical appliance, such as a light, telephone, radio, television, etc. within 5 feet of a spa.

- 7) **ELECTRICAL SUPPLY:** 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.
- 8) **DANGER: RISK OF INJURY.** (For spas provided with a power cord)
 - a) Replace damaged cord immediately.
 - b) Never bury cord.
 - c) Connect cord to a grounded, grounding type receptacle only.
 - d) Never connect cord to an extension cord.
- 9) **WARNING:** If this product is provided with a ground-fault circuit-interrupter. The GFCI must be tested before each use. Push the test button on the GFCI located on the end of the power cord. The product should not operate. Push the reset button on the GFCI. The product should now operate normally. If the product fails to operate in this manner, there is a ground current flowing, indicating the possibility of an electric shock. Disconnect the power until the fault has been identified and corrected.
- 10) **WARNING: To Reduce the Risk of Injury:**
 - a) 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.
 - b) Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperatures to 100° F (38° C).
 - c) 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).

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

IMPORTANT SAFETY INSTRUCTIONS (CSA SAFETY INFORMATION)

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

- a) **READ AND FOLLOW ALL INSTRUCTIONS.**
- b) A green coloured 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.

- c) 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.
- d) All field-installed metal components such as rails, ladders, drains or other similar hardware within 3 M of the spa or hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than No. 6 AWG.

- e) **SAVE THESE INSTRUCTIONS.**

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

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

WARNING: 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.

WARNING: 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.

WARNING: 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.

WARNING: 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.

AVERTISSEMENT: POUR ÉVITER L'ÉVANOUISSEMENT ET LA NOYADE ÉVENTUELLE, 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.

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.

AVERTISSEMENT: IL PEUT ÊTRE 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.

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.

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.

AVERTISSEMENT: L'UTILISATION PROLONGÉE D'UNE CUVE DE RELAXATION PEUT ÊTRE 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.

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.

ATTENTION: LA TENEUR DE L'EAU EN MATIÈRES DISSOUTES DOIT ÊTRE 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 98.6° F, or 37° C. The symptoms of hyperthermia include drowsiness, lethargy, and

an increase in the internal temperature of the body. The effects of hyperthermia include:

- a) Unawareness of impending hazard;
- b) Failure to perceive heat;
- c) Failure to recognize the need to exit spa;
- d) Physical inability to exit spa;
- e) Fetal damage in pregnant women; and
- f) Unconsciousness and danger of drowning.

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

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

SAVE THESE INSTRUCTIONS

CAUTIONS

- 1) 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.
- 2) The consumer products safety commission has stated that the water temperature in a spa or hot tub should not exceed 104° F. Immersion in water in excess of 104° F can be hazardous to your health.
- 3) 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.
- 4) 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.
- 5) Always test the spa water temperature before entering the spa. Enter and exit the spa slowly. Wet surfaces can be very slippery.

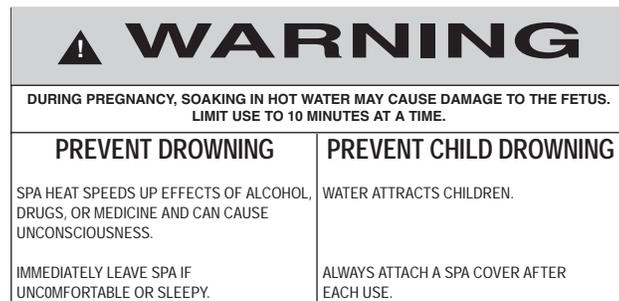
- 6) Never bring any electrical appliances into or near the spa. Never operate any electrical appliances from inside the spa or when you are wet.
- 7) Proper chemical maintenance of spa water is necessary to maintain safe water and prevent possible damage to spa components.
- 8) Use the spa straps and 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 change the water when it becomes sudsy, or shock the water with Renew or an alternative non-chlorine shock.
- 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 which 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

INSTRUCTIONS FOR YOUR SPA

BEFORE ATTEMPTING TO HOOK-UP OR USE YOUR SPA, PLEASE READ THROUGH THESE INSTRUCTIONS.

POSITIONING YOUR SPA:

Because your spa is completely self-contained, you can locate it just about anywhere you wish... on a deck, patio or even indoors. Just be sure to position it above ground, in an area with good drainage, and on a level, continuous surface that contacts the bottom of the spa fully. A concrete slab is best but not required. Locate your spa so that the equipment is above grade and not subject to flooding. **WATER SHOULD ALWAYS DRAIN AWAY FROM THE SPA.**

SAFETY DEVICES:

Your spa is equipped with the following safety features:

- 1) A water flow sensor that prevents the heater from activating unless there is sufficient water flow, thus preventing "dry firing" of the heater.
- 2) Automatic spa shutdown timers that shut off the spa jet pump after 30 minutes of operation. The spa light automatically shuts off after 1 hour.
- 3) An electronic high limit switch that automatically shuts off the heater if the spa temperature exceeds 112° F.
- 4) An automatic freeze sensor which turns on the spa pump and heater if the ambient air temperature in the pack reaches a factory pre-set level. When the pump is running because of this protective feature, the filter cycle LED indicator will blink.

ELECTRICAL REQUIREMENTS AND HOOK-UP INSTRUCTIONS

NOTE: DO NOT TURN ON ELECTRICAL POWER TO YOUR SPA UNTIL TOLD TO DO SO LATER IN THIS MANUAL.

Have a licensed electrician run the required 240 volt power line to the spa installation site. The power inlet connection is located in the pedestal on the left side of the spa, approximately 24" from the front. This connection is designed to mate with a Carlon 1" conduit body Type LB Access Fitting E986F or 1" female PVC conduit fitting.

The manufacturer's label lists the power requirements for your spa. We recommend that only a licensed and bonded electrician do the initial spa hook-up.

NOTE: This unit requires a GFCI (Ground Fault Circuit Interrupter). We have enclosed an instructional flyer for a licensed electrician. A disconnect must be located where visible, not less than 5 feet from the spa and not to exceed 50 feet from the spa. This requirement may be filled with the GFCI sub-panel.

ELECTRICAL REQUIREMENT CHART

Model	Power	Branch Cir.	Branch Cir. Protection	Gauge
Dream	240V, 24A	3 Wire + ground	30A	#8 AWG
Dream HP	240V, 32A	3 Wire + ground	40A	#6 AWG
Sojourn	240V, 24A	3 Wire + ground	30A	#8 AWG
Sojourn HP	240V, 32A	3 Wire + ground	40A	#6 AWG
Cove	120V/12A, 240V/29A	2 Wire + ground 3 Wire + ground	15A 40A	#12 AWG #6 AWG
Cove HP	240V, 32A	3 Wire + ground	40A	#6 AWG
Departure	240V, 30A	3 Wire + ground	30A	#8 AWG
Companion	120V/12A, 240V/29A	2 Wire + ground 3 Wire + ground	15A 40A	#12 AWG #6 AWG

To hook-up your spa, follow these instructions:

- 1) Remove the two screws holding the equipment access panel to the front of the spa cabinet and set the panel aside.
- 2) Loosen the two screws located on the front of the black equipment control can and rotate the door of the can up to allow access to the four wire connection terminal block.
- 3) Attach 1" rigid non-metallic conduit to the nipple located in the pedestal on the side of the spa and run required conductors through the conduit to the equipment can.
- 4) Connect the four wires to the equipment system terminal block as indicated on the wiring diagram in the back of this manual. Close the equipment can and re-tighten the securing screws.
- 5) Electrical hook-up is now complete. Do not replace the equipment access panel yet.

INITIAL START-UP

- 1) Before filling your spa, install the black plastic hose bib that is included in the owner's manual packet, and screw it onto the male fitting at the bottom of the spa on the pedestal, to the lower right of the equipment compartment. Close the valve and screw the cap onto the end of the bib. Check the pump unions and bleeder valves to be sure that they are tight to prevent the possibility of leakage in the equipment compartment.
- 2) Fill your spa with water up to 6" below the lip of the spa.
- 3) 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.
- 4) 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 an active filter cycle.
- 5) Your spa operates in the thermostat mode. 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 pad 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 104°F.

NOTE: On initial start-up, you can confirm that the heater is on by looking to see that the HEAT LED indicator light located above the temperature display on the control panel is illuminated. Once you

have verified that the heater is functioning, you can reinstall the equipment access panel.

- 6) Heating will occur at the rate of 1-8° F per hour.
- 7) After completing the above steps, it is necessary to ensure proper water chemistry. See the Water Chemistry Section in this manual for the easy steps to maintaining clean and safe water. The schedule shown may require more frequent adjustment depending on the bather load.
- 8) Place the thermal cover on the spa to conserve energy and to keep it ready for use.

THE SPASIDE CONTROL CENTER:

Advanced microprocessor technology has been utilized to produce the Spaside Control Center. Technologically sophisticated, yet easy to use and understand, we have put every spa function within fingertip control.

Temperature setting, jet power control, and the spa light are all spaside accessible. That means you don't have to get out of the spa to enjoy complete control of all spa functions. Safety is assured through design concepts and materials which meet or exceed the most stringent requirements of Underwriters Laboratories (UL) and the Canadian Standards Association (CSA). The Spaside Control Center lets you relax and enjoy everything your spa has to offer.

HOW TO USE THE SPASIDE CONTROL CENTER:

- 1) **JETS 1 CONTROL PAD:** When the JETS 1 control pad is pushed the first time, the low speed of the spa jet pump is engaged. When the JETS 1 control pad is pushed a second time, the high speed of the spa jet pump is engaged. Push the JETS 1 control pad a third time to turn the spa pump off. The spa jet pump can only run in a single mode. The JETS 1 pad will activate a 30 minute automatic shut-off cycle (unless the spa is heating). 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.

A new 30 minute cycle begins each time the JETS 1 pad is pushed.

This auto shut-off cycle is a safety device and also allows for convenient filtration, immediately after use of the spa.

- 2) **JETS 2 CONTROL PAD (DREAM HP, SOJOURN HP AND COVE HP ONLY):** Push the JETS 2 pad once to activate the high speed pump. Push the pad a second time to turn the pump off. The JETS 2 pad will activate a 30 minute automatic shut-off.
- 3) **LIGHT:** Push the LIGHT control pad once to turn the light on. Push the LIGHT control pad 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.
- 4) **SET TEMPERATURE PADS:** 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 hold down the pad, to adjust the temperature rapidly. The existing spa 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 readout will indicate the new temperature setting. Once set, the spa water temperature will, again, be indicated. The spa will heat to the pre-set temperature.
- 5) **PROGRAM PAD:** Pushing and holding the PROGRAM pad will enter the programming mode.

SPASIDE CONTROL CENTER MESSAGES:

- 1) **"OH" - OVERHEAT PROTECTION:** When "OH" is displayed on the control system digital display, the spa is in a high limit condition. In such a condition, DO NOT ENTER THE WATER. Contact your Authorized Dimension One Spas Dealer.
- 2) **"FLO"- FLOW SWITCH:** When "FLO" is displayed, check the water level to see if it is too low. If the water level is too low, fill the spa to 6" below the lip of the spa. Check the filter to make sure that it is clean.
- 3) **HL - HIGH LIMIT:** The high limit will shut the heater off if the temperature of the water at the High-Limit sensor reaches 119°F. Should this occur, the display will show "HL" but the pump will still be allowed to work. Only the heater will remain off until somebody pushes a key on the keypad to reset the circuit. Contact your Authorized Dimension One Spas Dealer.

- 4) **“FLC” - FLOW SWITCH:** When “FLC” is displayed, a flow switch has malfunctioned. The spa will operate but the heater will not activate. Contact your Authorized Dimension One Spas Dealer.
- 5) **“Prr” - OPEN SENSOR:** When “Prr” is displayed, the high limit sensor or water temperature sensor is non-functional. The spa will operate but to prevent any further damage, contact your Authorized Dimension One Spas Dealer.

FILTRATION:

Your spa will automatically filter itself twice each day. At the beginning of each filtration cycle (and when the power to the spa is first initiated), pump one will run at high speed for 5 minutes and then at low-speed for the remaining time of the filter cycle. Pump 2 (if provided) will run at high speed for 1 minute and then turn off to cycle water through the plumbing system of Pump 2. 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, turning the breaker off, and then turning it back on. This resets the filtration cycle to start one minute later. The filter cycle LED indicator will be on when there is an active filter cycle.

PROGRAMMING THE DIGITAL CONTROL

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 spa programming, the spa 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 push any pad for 10 seconds. Any programming changes made up to that point will be saved.

FILTER CYCLE DURATION:

Push and hold the PROGRAM pad for 3 seconds to engage the programming mode. Then, push the UP or DOWN pad to cycle through the choices of 60, 90, 120, 150 or 180 minutes (the factory default is 60). Once the desired duration is displayed, push the PROGRAM pad again to accept the selection and move to programming the Filter Cycle Frequency.

FILTER CYCLE FREQUENCY:

To adjust the number of filter cycles per day, push the the UP or DOWN pad to cycle through the number of filter cycles - 1, 2, 3 or 4 (the factory default is 2). Once the desired number of cycles is displayed, push the PROGRAM pad again to move to setting the temperature units.

NOTE: If the PROGRAM pad is pushed again the filter cycle will start and will be set to start at that time.

TEMPERATURE UNITS

To adjust the temperature units from Fahrenheit to Celcius, push the UP or DOWN key. When the desired unit is on the display, push the PROGRAM key to exit the programming sequence.

NOTE: After a power-up, the display will blink until you push a pad on the digital display. This feature is to alert you that a power failure has occurred and that the programming features have reverted to their defaults.

WATER CHEMISTRY

Maintaining proper water chemistry is imperative to maintaining safe water and preventing possible damage to your spa components.

START-UP PROCEDURES

- 1) Add stain and scale control, or a similar sequestering agent, such as Metal Gon.
- 2) Test and adjust total alkalinity. Run the pump for 1/2 hour at high speed.
- 3) Test and adjust pH. Run the pump for 1/2 hour at high speed.
- 4) Add Chlorine with jets running.
- 5) Fill and set Bromine floater or Adjustable Bromine Feeder and place in the spa water.
- 6) Shock water with Potassium Peroxymonosulfate with jets running.
- 7) Add clarifier (you may wish to add clarifier the following day, as the introduction of stain and scale control with water clarifier may temporarily cloud the water).
- 8) Run the pump for 1 hour at high speed.

WATER QUALITY:

Your spa is equipped with a cartridge filter system. Filtering the water helps maintain water cleanliness and clarity. While the filter traps most solid materials, it is still necessary to add a sanitizer such as chlorine or bromine to the water in order to control bacteria, algae, and to oxidize any organic materials in the water.

We strongly recommend that you buy your chemicals from your Authorized Dimension One Spas Dealer. Your Authorized Dimension One Spas Dealer can also advise you on alternative methods for water sanitation. Discount store chemicals, while sometimes less expensive, are not always the proper strength or type for your spa. Use of the wrong chemicals can be dangerous and may void the warranty on your spa.

WATER TESTING:

It is recommended that you test your spa water regularly with an accurate test kit or test strips. These are available from your Authorized Dimension One Spas Dealer. Also, be sure to follow manufacturer's instructions for chemical use.

PH CONTROL:

All water solutions have pH, which is a measure of the acid to base relationship. While a pH reading of 7.0 is considered neutral, a lower reading is considered acidic and a higher reading is basic. The proper pH for spa water is between 7.4 and 7.6. High pH (above 7.6) can reduce sanitizer efficiency, cloud the water, promote scale formation on surfaces and equipment, and interfere with filter operations. When pH is too high, add a pH decreaser. Low pH (below 7.2) is equally damaging and can cause equipment corrosion, water that is irritating, and rapid sanitizer dissipation. Add pH increaser to adjust the level.

NOTE: Never add more than 3 teaspoons of pH adjuster per 250 gallons of water. Always add adjuster with jets operating and circulate all chemicals for at least 30 minutes. Remember that good pH control and sanitization are absolutely essential for proper spa water treatment.

SANITIZER:

The importance of maintaining an adequate level of sanitizer in your spa cannot be overemphasized. Warm water presents a fertile environment for the growth of bacteria and virus. This growth is prevented when adequate sanitizer levels are continuously maintained.

*****WARNING*****

Sanitizers such as Tri-chlor (tablets or sticks), calcium hypochlorite, sodium hypochlorite, and any chemical which dissolves on or remains undissolved in contact with the spa surface will damage your spa and will void the warranty completely.

BROMINE:

Bromine is the most common sanitizer used in spas. Bacteria can be controlled by maintaining a proper total bromine level of 3.0 to 5.0 ppm. Brominating tablets are a convenient and effective source of bromine for

your spa. Do not drop bromine tablets directly into the water as this may damage the spa surface. A bromine “floater” will safely and properly dispense the tablets for you. When used properly, brominating tablets will keep your water clean, clear, and odor free. To ensure maximum effectiveness, add a 1/2 ounce of sodium bromide per 100 gallons of water every time you fill your spa. This will establish a bromine reserve.

CHLORINE:

Chlorine can also be used as a water sanitizer, however, it is highly sensitive to pH. To be effective, you must have a spa range of 7.4 - 7.6. Any reading outside this range will greatly reduce the chlorine's effectiveness.

Use your chlorine test kit or test strips to maintain a reading of 1.0 - 3.0 parts per million (ppm) of free chlorine. If the reading is below 1 ppm, the level should be raised before the spa is used. If the reading is above 3 ppm, it should be allowed to drop to the proper range before use. Read the instructions on your chlorine container carefully, or consult your Authorized Dimension One Spas Dealer if you are having difficulty adjusting your chlorine level.

The best chlorine for your spa is a granular “Dichlor” compound. It dissolves quickly in moving water and has a nearly neutral pH. Add chlorine while the jets are running and let the jet system run for 1/2 hour. Generally, heavily contaminated water can be disinfected using large chlorine doses, in the range of 8 - 10 ppm, but a more practical method is to drain the spa and refill it with fresh water.

The effectiveness of chlorine is decreased when the cover is left off the spa for two reasons: (1) sunlight decays chlorine rapidly and (2) organic debris blown into the spa taxes the effectiveness of the chlorine. In addition, the higher the water temperature, the faster chlorine will decay.

NOTE: Two individuals in a spa may use as much as 3 ppm of chlorine in 20 minutes.

SHOCK TREATMENT (POTASSIUM PEROXYMONOSULFATE):

Even with regular sanitization, shock treatment may be necessary on occasion. Shock treatment is recommended over Super Chlorination because it does not add additional sanitizer to the water. It is also effective in oxidizing wastes and will reduce chloramines or bromamines. Follow the manufacturer's instructions listed on the label.

SUPER CHLORINATION:

Super chlorination (or chlorine shock treatment), quickly oxidizes the spa water to burn out wastes such as perspiration, hair spray, lotions, etc. that cannot be removed by the spa filter. This waste build up reduces the power of the sanitizer, making the water dull and irritating to the eyes and skin. It may also produce an odor. When this occurs, the “free” chlorine has become a “chloramine” which is ineffective for sanitizing. This can be eliminated by super chlorinating as needed. An application of 5 times the normal chlorine dosage will act as an adequate treatment.

WATER CLARIFIERS (FLOCCULATING AGENTS):

Some wastes left in the spa water may not be filterable and can result in cloudy, dull water. Using a water clarifier whenever you fill your spa and then weekly thereafter will help keep your water clear. A flocculating agent will attract small particles and form larger ones which will become big enough to get trapped in the filter.

NOTE: Cloudy water may also be caused by high pH.

STAIN AND SCALE INHIBITOR (SEQUESTERING AGENTS FOR CONTROLLING STAINS AND SCALE):

Staining and scaling are common problems in spas. Because the water is hot, scale is deposited more rapidly. The circulation of water can cause the erosion of metals from spa equipment which can then stain interior surfaces. A weekly dose of a stain and scale fighter will help control these problems.

A sequestering agent, such as Metal Gon, should always be added to the spa water when filling a spa (for the first time or when draining and refilling). This will eliminate any metals in your water and increase the life of your spa equipment.

TOTAL ALKALINITY:

Total alkalinity is the amount of Carbonate, Bicarbonate and Hydroxyl ions in the water. TA (total alkalinity) affects and buffers the pH of the water. With high TA above 160, pH resists adjustment. With low TA below 130, pH is unstable and difficult to keep in the ideal range. Proper TA levels allow other chemicals to work at their optimum.

FOAM INHIBITOR:

Soap residue from a bather's body, hair, and swimsuit combined with rapid circulation of spa water may eventually cause foaming in your spa. Foam inhibitors will suppress foam but cannot remove soap from water. When foaming occurs, a shock treatment can oxidize the soap in your water and help prevent this condition. If foam remains a problem, change the water.

CARE FOR YOUR SPA

DRAINING YOUR SPA:

Your spa is gravity drained. Do not drain water onto your lawn or plants unless all of the bromine or chlorine has dissipated from the spa water. The sanitizer in your spa water can be dissipated very quickly by leaving the spa cover off and exposing the water to direct sunlight. Drain and replace your spa water every three to four months. For heavy spa use, you may wish to change the water more frequently.

To drain your spa:

- 1) Turn off all power to the spa.
- 2) Before draining the spa, make sure the valve on the hose bib is positioned perpendicular to the hose bib opening, in the closed position. Attach a hose to the hose bib at the bottom of the spa on the pedestal to the right of the equipment compartment. Open the valve and allow the water to drain away from the spa. As an option, the spa can be drained by placing a hose directly into the spa, using the siphon method.
- 3) Clean the spa surface (see CARE FOR THE SPA SURFACE).
- 4) Close the drain valve, replace the cap, refill the spa and restore power. Follow the Initial Start-up procedures to reheat the spa.

FILTER CLEANING:

Always turn the spa off before cleaning the filter element. Your spa is equipped with one top access filter cartridge. We recommend that you clean the filter every month, as preventative maintenance.

To clean the skimmer filter cartridge, line the flats of the basket with the securing tabs. Hold all the pieces of the assembly and lift it straight up to remove it. Next, pull the filter element out by twisting the molded handle until the filter is loosened. Clean the element with a high pressure garden hose. Every other cleaning, soak the element in a filter cleaning solution, then rinse it thoroughly, and reinstall. Replace the skimmer basket assembly. After cleaning, run the spa for a few minutes at high speed, then return to the heating mode.

LIGHT BULB REPLACEMENT:

All spas are equipped with a 12 volt light using a GE912 bulb. To change the bulb, turn the power off and drain the spa below the level of

the spa light. Using the special tool provided in the owner's manual packet, unscrew the cover for the light housing. Remove the old bulb and install the new bulb. Screw the cover for the light housing back into the female receptacle. Check to ensure proper operation of the new bulb before refilling the spa.

NOTE: 1) Do not attempt to remove the light housing cover without the special tool. If you are not able to locate it, contact your Authorized Dimension One Spas Dealer to have one sent.

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

CARE FOR THE SPA SURFACE AND VINYL SKIRT:

Your spa has a very high quality finish. Stains and dirt will generally not adhere to the surface or skirt. Cleaning of the spa surface or vinyl skirt should be done with a product recommended by your authorized dealer. Be careful when using detergents not to leave soap residue on the spa shell as this will cause suds build up in the spa water and you'll find yourself changing the water more frequently than should be necessary.

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

CARE FOR THE SPA CABINET (WOOD CABINETS):

When properly cared for, the wood cabinet of your spa will maintain its beauty for many years. All woods react to the elements differently by expanding and contracting. Re-stain the wood every 3-6 months, to thoroughly protect it. 'Cuprinol' manufactured by Sherwin Williams, 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.

CARE FOR THE SPA COVER:

The thermo cover for your spa is an extremely durable foam insulated product. See the manufacturer's literature for proper cleaning instructions. When the spa 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 spa.

SPECIAL COLD WEATHER INSTRUCTIONS:

Winter is one of the best times of the year to enjoy the warmth of your spa. Your spa is foam insulated and will not cost significantly more to operate in the winter than any other time of year. Because it is very difficult to get the water out of all of the plumbing lines, we do not recommend draining your spa for the winter. However, if you don't plan to use your spa during the winter, we recommend you winterize it as follows:

- If you decide to drain the spa, drain it as completely as possible. You may wish to tilt the spa on edge and use a wet-vac or high pushure blower to evacuate as much water as possible. This will require additional people. Try to get as much water out of the plumbing lines and equipment as possible. If you want to use the spa water on surrounding vegetation, make sure that it is free of sanitizers.
- When the spa is completely drained, leave the hose bib open and open the pump drain valve located on the bottom front side of the pump. Also, loosen all pump unions and fittings to allow air and water to expand freely within the system. This should prevent water freezing expansion from damaging pipes and fittings. The key is to eliminate any sealed areas in the systems that may contain water.

If you receive heavy snowfall during winter months, you may want to build a cover cap for the spa cover. This can be done with a .5" to .75" thick piece of plywood and a few supporting 2" X 4" cross members.

CAUTION: Your spa is equipped with automatic freeze protection. However, power outages can cause your spa equipment system to freeze quickly. During freezing conditions, check your spa frequently to ensure proper operation. Always check your spa after any power failure to ensure that it is operational.

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

WARRANTY SERVICE INFORMATION:

Your spa warranty gives you specific coverages. Be sure to read the enclosed warranty sheet carefully.

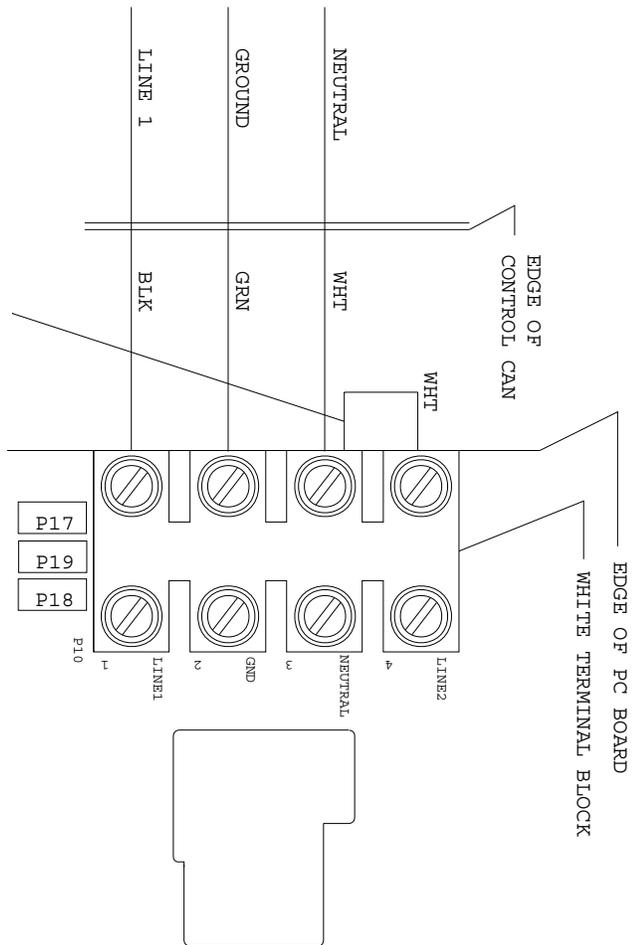
The warranty does not cover problems arising from misuse, abuse, or neglect, and it does not cover problems caused by improper installation or “perceived” problems caused by failure to read the spa owner’s manual. A service charge will be made if a service call is made for any of the following:

- 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 spa to reach desired temperature because the thermostat is not turned up high enough. Maximum thermostat setting is approximately 104° F.
- 3) Burned out spa light. Bulbs are not covered.
- 4) Spa water chemistry is the responsibility of the spa owner. Cloudy, dirty or chemically unbalanced water and cleaning of the spa filter are also the responsibility of the spa owner.
- 5) Spa shell or equipment damage caused by improper water maintenance. Serious damage can be caused if your spa water is not maintained carefully and correctly.

WARNING: Do not block the equipment door. Resulting malfunctions are not covered under warranty.

PROBLEM	DIAGNOSIS	ACTION
1. Spa will not come on in any mode	a. No power to spa	a. Check circuit breaker
2. Spa does not heat	a. Temperature setting is too low b. Dirty filter c. Flow switch out of adjustment d. High limit tripped	a. Turn up thermostat b. Clean filter c. Call for service d. Reset high limit
3. Pulsating jets	a. Water level too low	a. Fill spa to 6" below the lip of the spa
4. Poor jet action or no jet action	a. Dirty filter b. Selector valve in middle c. Air lock d. Gate valve closed	a. Clean filter b. Move valve clockwise or counterclockwise c. Loosen pump union to allow air to escape d. Open gate valve
5. Spa temperature erratic	a. Water level	a. Fill spa to 6" below the lip of the spa
6. Spa light out	a. Burned out bulb	a. Replace bulb
7. Spa comes on by itself	a. Normal automatic daily power filtration or anti-freeze cycle	a. No action required
8. Pump shuts down unexpectedly while in use	a. Automatic 30 minute timer has shut pump off b. Spa motor overheated and automatic protective device has shut down pump(s)	a. Push JETS pad again to start another 30 minute cycle b. Normal function Make sure that the equipment panel vent area is not blocked. Vent blockage can cause serious damage to your spa equipment

GECKO SSPA ELECTRICAL HOOK-UP DIAGRAM FOR 120 VAC,
60 HZ APPLICATIONS (COVE & COMPANION)



NOTE: FOR 120 VOLT CONFIGURATION,
BE SURE TO USE THE WHITE JUMPER
WIRE SUPPLIED IN BAG INSIDE CONTROL
CAN & SECURE IT BETWEEN THE NEUTRAL
& LINE 2 CONNECTIONS ON THE TERMINAL
BLOCK.

