### **IMPORTANT SAFETY INSTRUCTIONS**



**DUET MODEL** 

**OWNER'S MANUAL** 

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This OWNER'S MANUAL has been designed to familiarize you with your Vita Spa operations and general maintenance. We suggest that you take some time to carefully review it. Please keep this manual available for reference.

If you have any questions regarding your Vita Spa set-up, operation, or maintenance, contact your Authorized Vita Spa Dealer.

OWNER'S RECORD	
DATE PURCHASED:  DATE INSTALLED:  DEALER:	
ADDRESS:	
SERIAL #:	

To contact our Customer Service Department, please call 1-800-VITA-SPA, or 1-305-685-5739, during normal business hours, Monday through Friday, 8am to 5pm, E.S.T.

The Serial Number is located within the equipment compartment. Please verify that the serial number is noted on your dealer's purchase contract.

## IMPORTANT SAFETY INSTRUCTIONS

WHEN INSTALLING AND USING THIS ELECTRICAL EQUIPMENT, BASIC SAFETY PRE-CAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING:

#### **READ AND FOLLOW INSTRUCTIONS.**

- **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. DANGER RISK OF ACCIDENTAL DROWNING. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use a hot tub or spa unless they are supervised at all times.
- **3. DANGER** To reduce the risk of injury to persons, DO NOT remove suction fittings. 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.
- **4. Install the spa** so proper drainage is provided for the compartment containing the electrical components.
- 5. DANGER RISK OF ELECTRICAL SHOCK. Install at least 5 feet (1.5 m) from all metal surfaces. (A spa may be installed within 5 feet of a metal surface if each metal surface is permanently connected by a minimum No. 8 AWG (8.42mm2) solid copper conductor attached to the wire connector on the terminal box that is provided for this purpose). National Electrical Code ANSI/NMFP A70-1993.

#### 6. DANGER • RISK OF ELECTRICAL SHOCK.

Do not permit any electrical appliances, such as a light, telephone, radio, or television within 5 feet (1.5 m) of the spa.

## 7. WARNING • TO REDUCE THE RISK OF INJURY:

- A. The water in a spa should never exceed 40 degrees Celsius (104 degrees F). Water temperatures between 38 degrees C (100 F) and 40 degrees C (104 F) are considered safe for a healthy adult. Lower water temperatures are recommended for extended use (exceeding 10 minutes) and for young children.
- B. Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit spa or hot tub temperatures to 38 degrees C (100 F).
- C. Before entering a spa, the user should measure the water temperature with an accurate thermometer, since the tolerances of water temperature regulating devices vary.
- 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, circulation 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.

### DO'S AND DON'TS



Make sure the spa is connected to a Ground Fault Interrupter (GFCI) protected circuit. This GFCI is required by the National Electrical Code (NEC) and must be installed by a licensed electridan. Test GFCI monthly,

Test the water with your hand before entering the spa to be sure it is comfortable.

Remember that wet surfaces can be slippery. Take care when entering and exiting the spa.

Use the thermal cover when the spa is not in use, empty or full.

Take steps to prevent the intrusion of sand and dirt into the spa.



Maintain proper water chemistry.

Clean the filter cartridge weekly.

**DON'T** 

Use the spa for long periods of time at temperatures over 104 F.

**DON'T** 

Operate spa without water. Turn circuit breaker off before emptying the spa and while it is empty.

**DON'T** 

Store chemicals in the spa's equipment compartment.

**DON'T** 

Open the electrical box. There are no user serviceable parts inside.

**DON'T** 

Operate the pump(s) on hi-speed for extended periods of time with the cover on. Extended hi-speed pump operation will cause a slow heat build-up due to water friction, which could trip the spa's hi-limit thermostat.

#### WARNINGS

Prolonged immersion in water that is warmer than normal body temperature can result in a dangerous condition known as HYPERTHER-MIA. The causes, symptoms, and effects of hyperthermia may be described as follows: Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6 degrees F. The symptoms of hyperthermia include dizziness, fainting, drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include (1) unawareness of impending hazard, (2) failure to perceive heat, (3) failure to recognize the need to exit the spa, (4) physical inability. to exit the spa, (5) fetal damage in pregnant women, and (6) unconsciousness resulting in a danger of drowning.

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

Persons taking medications which induce drowsiness such as tranquilizers, antihistamines or anticoagulants should not use the spa. Pregnant women and persons with a medical history of heart disease, circulatory problems, diabetes or high blood pressure should consult their physician before using the spa.

Children are especially sensitive to hot water. At no time should children have unsupervised access to the spa. The use of elevated decking may encourage children to climb onto the thermal cover—IT IS NOT DESIGNED AS A SAFETY OR CHILD RESISTANT COVER!

Every Vita Spa comes with a thermal cover which is provided with locking straps. **INSTALL** the locks for your child's safety.

## INSTALLATION INSTRUCTIONS

#### SITE SELECTION/PREPARATION:

The spa must be installed on a structurally strong, solid and reasonably level surface. The site should allow for drainage away from the equipment compartment in which the electrical components are housed. Take into account the following when considering prospective sites:

#### **LOCAL CODES:**

There may be certain restrictions and/or requirements that are particular to your locality.

#### **DELIVERY PASSAGEWAY:**

Doors, halls, stairs, etc. may pose obstructions to deliver the spa to its intended site.

#### **MAINTENANCE:**

Trees, lawn, placement surfaces, etc. can create extra work in keeping your spa and spa area clean and safe.

#### **PRIVACY AND WIND SHIELDING:**

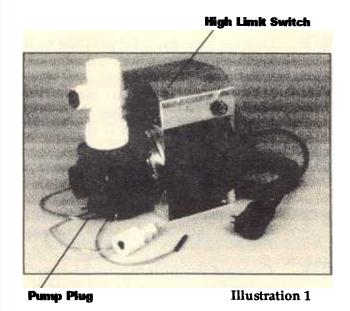
A sheltered environment can result in lower operating and maintenance costs.

Your VITA SPA dealer is your best resource to answer any questions or provide suggestions for your spa installation.

# ELECTRICAL REQUIREMENTS AND INSTALLATION

**IMPORTANT:** Your Duet spa is wired to meet the requirements of the National Electrical Code (NEC). Any modifications required to meet state or local codes must be performed by a qualified, LICENSED electrical contractor and approved by a local building/electrical inspection authority.

- 1) Your Duet spa operates on 110V, and draws approximately 8-10 amps while operating. The Duet comes equipped with a GFCI (ground fault circuit) built into the supplied 15' power cord. Therefore, your Duet must not be plugged into a GFCI protected receptacle.
- 2) You can plug the Duet into any standard, 15 amp., 3 prong "NEMA" female receptacle. Special 20 amp. outlets are not required. Simply feed the cord through the slot located in the equipment area and plug it in. Care should be taken not to overload the receptacle with other appliances. To do so may cause overheating, or the inconvenience of the GFCI tripping.
- 3) The Duet is equipped with a thermo overload for the pump which shuts the pump off if it becomes too hot. The Duet is also equipped with a high limit switch that will trip and shut off the pump if the temperature of the spa reaches 118 degrees. If the high limit trips, open the equipment door and push the red button located on top of the sensor control box.



4) If you have any questions about the operation of your Duet spa, please contact your local dealer.

## OPERATION INSTRUCTIONS

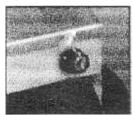
**NOTE:** For best results, read each step carefully and entirely before proceeding to the next.

#### 1) FILL YOUR SPA

Wipe the interior of the spa with a damp, soft cloth to remove any residue that may be on the surface. Fill with a garden hose. As the spa is filling check in the equipment access area for any leaks. On occasion, it may be necessary to hand tighten a union fitting that may have come loose during transit. Also check that the gate valves are pulled out to the open position and that the hose bib is closed. Continue to fill to the water level line.

**NOTE:** If your water is extremely hard, it is preferable to fill the spa halfway with hard water and the rest with softened water. Never fill the spa entirely with softened water.

#### 2) TURNING POWER ON



Before turning the power to the spa on, rotate the thermostat knob to the off position.

Illustration 2

#### 3) TO ACTIVATE AND OPERATE PUMP



Depress the pneumatic on/off activator at the spa's control center. Illustration 3

#### 4) HEATING YOUR SPA

The Duet has a unique coiled heat recovery system which utilizes the heat generated from the pump to heat the spa. The spa has a heat demand function, which means that if the temperature of the spa is less than the position set on the thermostat (see knob on side of sensor control box), the spa will run until it reaches set temperature. Once the temperature has achieved the desired

level, the spa will automatically turn off. If the spa is in the off position (at heat desired), you can override the heat and operate the spa simply by depressing the on/off activator button.

#### 5) FREEZE PROTECTION

Freeze protection is provided by setting the thermostat at an adequate temperature level.

#### 6) ADD START UP CHEMICALS

Carefully follow the directions and add the startup chemicals recommended to you by your dealer. Contact your dealer to clarify any questions you may have.

#### 7) LIGHT OPERATION

The mood light will automatically come on whenever the pump is activated.

### 8) DIRECTIONAL & ROTATIONAL MASSAGE JETS

The water flow direction is adjustable by rotating the directional jet nozzle. The amount of pressure can be adjusted by rotating the outer rim of the jet(s): clockwise for minimum pressure, and counter clockwise for maximum pressure. Pressure may also be varied by the use of the air control.





Illustration 4

#### 9) AIR CONTROL

The air control is used to introduce air into the water jet stream. This control allows the user to increase (open) jet pressure or decrease (close) jet pressure as desired.

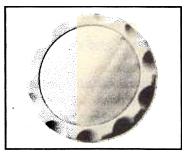


Illustration 5

### **SPA MAINTENANCE**

Your VITA SPA is manufactured with the highest quality and most durable materials available. A spa care and maintenance program is recommended to increase your comfort, maintain the spa's reliability and protect your investment.

#### 1) DRAINING YOUR SPA

Detergent residues from bathing suits as well as soap film from your body may gradually accumulate in the water. Foam inhibitors will suppress the foam but will not remove the soap from the water. Eventually, the soap build-up in the water will concentrate enough to leave an unclean feeling on the user's skin, cause sudsing and make the water impossible to clarify. Depending on the amount of soap input, the spa water should last between two and three months.

#### To drain your Spa:

- A. Unplug Spa.
- B. Attach a garden hose to the yellow hose bib located under the filter housing inside the equipment area, and route the outlet of the hose to an appropriate draining area. The spa will empty by gravity. Siphon or scoop out the balance of the water.

IMPORTANT: Spa water with a high sanitizer level may harm plants and grass.

If you are draining your spa for the winter, be sure to fully drain water from the pipe by disconnecting the two unions at the gate valves. Drain the water pump by removing the pump plug. Then reinstall the valves and pump plug.

- C. Remove the filter and clean as required.
- D. Inspect the spa shell and clean as required.
- E. Refill the spa BEFORE restoring power to it.

#### 2) WINTERIZING YOUR SPA

Your VITA SPA has been designed and engineered for year-round use in any climate.

- A. If the spa will not be used, drain it completely following the instructions on "DRAINING THE SPA."
- B. If you intend to use the spa during the winter, keep the spa warm and set the thermostat to periodically bring the pump on. Note that accidental freezing could result due to prolonged power failures.

#### 3) FILTER MAINTENANCE

Vita Spas are designed with the most efficient top loading filtration system in the industry. Filter maintenance is the most critical factor in keeping your spa water clean.

#### To clean the filter:

(NOTE: Never run spa without filter)

- A. Remove the cartridge and spray it with a garden hose. It will be necessary to rotate the cartridge while spraying so as to thoroughly remove the debris lodged between the filter pleats.
- B. After allowing to dry, inspect the cartridge for calcium deposit (scaling) or an oil film. Rapid mineral build-up from hard water, or oil build up from the use of oil-based water scent or body oil may coat the filter cartridge. A filter cleaner to soak the cartridge is available from your VITA SPA dealer and should be used as part of your spa maintenance.
- C. Use a rag to remove any debris at the bottom of the filter housing. Replace the cartridge.
- D. We recommend the use of a spare filter. This way one can be soaking and cleaning while you continue to enjoy the use of your spa.

#### 4) MARINE VINYL COVER AND SKIRT

Your cover is manufactured from a durable marine grade, U.V. resistant material. Even so, monthly cleaning and periodic conditioning is recommended to maintain its beauty. To clean and condition the vinyl cover:



Lightly spray the cover with a garden hose to rinse it and remove the debris.

- B. Using a large sponge or soft cloth and a mild soap solution (1 teaspoon dish washing liquid with 2 gallons of water), scrub lightly in circular motion. Then rinse it thoroughly with plenty of water.
- C. Condition the vinyl after cleaning by applying a thin film of vinyl conditioner such as ArmorAll. NOTE: To remove tree saps, use lighter fluid (not charcoal lighter, but the kind used in cigarette lighters). Use sparingly and rinse with mild soap solution afterwards. Wipe dry.

## WATER QUALITY AND MAINTENANCE

## GENERAL GUIDELINES FOR WATER QUALITY MAINTENANCE

Maintaining water quality within specific limits will enhance your enjoyment and prolong the life of the spa. Safe, comfortable, and clean spa water is a fairly simple task to achieve, but it does require regular attention because of the numerous factors that can alter it. There is no one formula to be followed because of the variables, i.e. quality of the water used to fill the spa, water temperature, user load, etc. For specific guidelines for water quality maintenance, consult your VITA SPA dealer who can assist you to develop a program based on your specific needs. Disregard for water maintenance will result in poor soaking conditions, damage your spa investment and possibly void your warranty.

pa water maintenance consists of three separate, easily developed programs:

- 1. Sanitizing and maintaining a safe level of sanitizer in the spa water.
- 2. Balancing the pH and maintaining the recommended mineral content level.
- 3. Achieving and maintaining water clarity.

#### SANITIZING

To destroy bacteria and organic compounds in the spa water, a sanitizer must be used regularly. The use of a bromine floater is recommended. By regulating the amount of tablets, the amount the floater is open, and the length of the filtration cycles, you can control the amount of bromine in your spa. A bromine residual of 2 to 3 ppm is generally considered desirable. A two-part bromine system or granular chlorine (dichlor) are also acceptable sanitizers.

#### pH CONTROL

pH is a measure of acidity and alkalinity of the spa water. The recommended pH for spa water is 7.4 to 7.6 ppm. Below 7.0 (considered neutral), the spa water is acidic and can cause damage to the heating system. Above 7.8 the water is too alkaline and can result in cloudy water and scale formation on the spa shell, heater and cover.

## IMPORTANT: NEVER USE CHLORINE TABLETS (TRICHLOR) IN YOUR SPA.

This chemical can have an extremely corrosive effect on certain materials in the spa. Also, the use of liquids, chlorine or acid, are not recommended. Damage caused by use of these chemicals, or improper use of any chemical, is not covered under the spa warranty.

## OPTIONAL VITAZONE WATER PURIFICATION SYSTEM

If you have elected to equip your spa with the optional VITAZONE ozone water purification system, you will find that your water stays fresh and clean with significantly less usage of chemical sanitizer and you will also be able to go longer between spa draining. Read and follow the instructions included with your VITAZONE ozone water purification system to determine how to adjust your chemical usage and filter cycles.