

7/94

IMPORTANT SAFETY INSTRUCTIONS

**VITA<sup>®</sup>**  
**SPA**

**DX SERIES**

**D26 D53**

**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.

<b>OWNER'S RECORD</b>	
DATE PURCHASED:	_____
DATE INSTALLED:	_____
DEALER:	_____
ADDRESS:	_____
	_____
TELEPHONE:	_____
SERIAL #:	_____

The Serial Number is located on the cabinet (Left of Door) or within the equipment compartment. Please verify that the serial number is noted on your dealer's contract purchase.

# IMPORTANT SAFETY INSTRUCTIONS

WHEN INSTALLING AND USING THIS ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS 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. A ground terminal (pressure wire connector) is provided on the control box inside the unit to permit connection of a minimum No. 8 AWG (8.4 mm<sup>2</sup>) solid Copper bonding conductor between this point and any metal equipment, metal water pipe, metal enclosures of electrical equipment, or conduit within five feet (1.5 m) of the unit.
4. **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.
5. Install the spa so proper drainage is provided for the compartment containing the electrical components.
6. **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 (8.42mm<sup>2</sup>) 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.
7. **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.
8. **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'T'S

**DO** 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 electrician. 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.

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

**DO** maintain proper water chemistry.

**DO** 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 HYPERTHERMIA. 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.**

**SAVE THESE INSTRUCTIONS.**

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# 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:** All electrical wiring to the spa must meet the requirements of the National Electrical Code (NEC) and any applicable state or local codes. The electrical circuit must be installed by a qualified, **LICENSED** electrical contractor and approved by a local building/electrical inspection authority.

- 1) The spa must be permanently connected (hard-wired) to the power supply. No extension cords or plug-in type connections are to be used in conjunction with the operation of the spa. Failure to supply power to the spa which is not in accordance with these instructions could create a potential health hazard and will void both the manufacturer's warranty and the independent testing agency listing.
- 2) **THE NATIONAL ELECTRICAL CODE (NEC), REQUIRES THAT THE POWER SUPPLY TO THIS SPA MUST BE A DEDICATED, GROUND FAULT (GFCI) PROTECTED CIRCUIT WITH NO OTHER APPLIANCES OR LIGHTS SHARING POWER OFF THIS CIRCUIT.**
- 3) Refer to the wiring diagram to determine the current, voltage and wire size requirements for this spa.

\*THHN type wire is recommended.

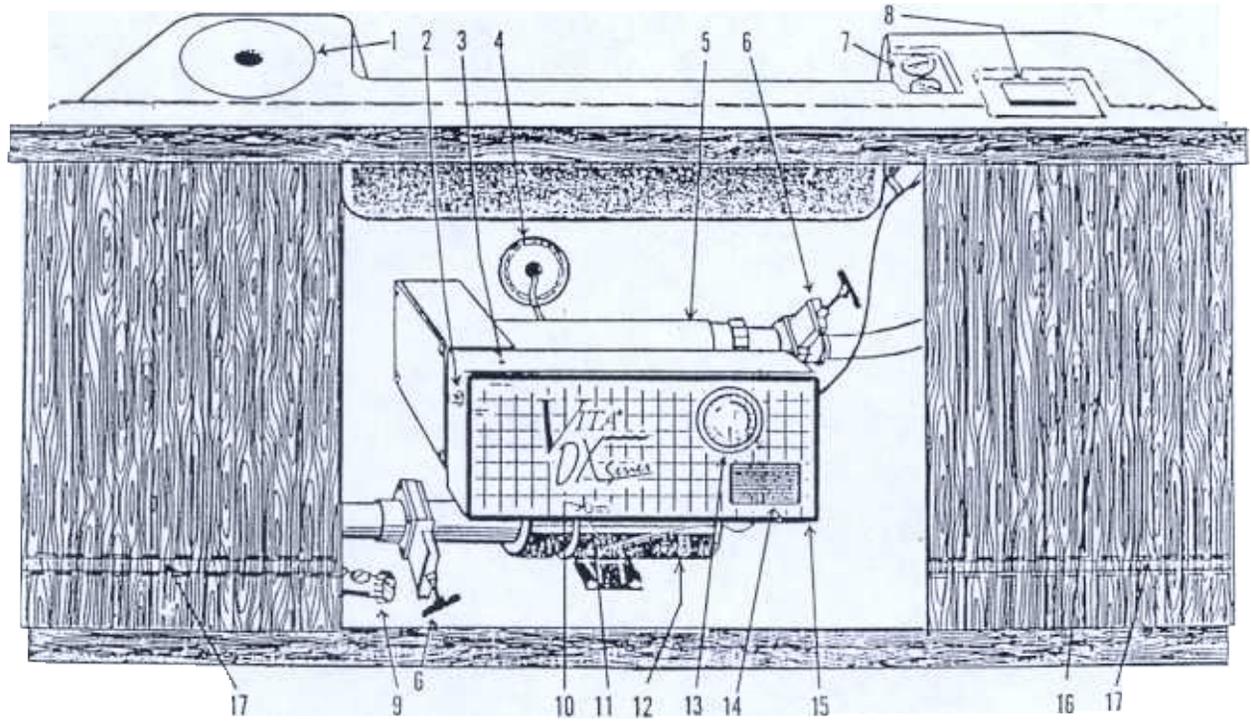
\*Wire size for the distance of the wire run must conform to NEC.

\*Use copper conductor only to ensure proper connections. **DO NOT USE ALUMINUM WIRE.**

- 4) To obtain access to the spas power terminal strip, unlock equipment access door and remove the control box cover (Ill. 1 No 15).
- 5) Feed supply conductors through power supply tubes provided on spa (Ill. 1 No. 17) and install into control box.
- 6) Connect wires to terminal block (TBI) color for color. All wires must be connected or damage may result. **TIGHTEN SECURELY!**
- 7) A separate #8 (\*.4mm<sup>2</sup>) solid copper ground wire should be connected between the spa grounding lug (Ill. 1 No. 11) and a recognized grounding rod that is fully driven into the ground. **NOTE:** Do not turn power on to the spa until the start-up instructions have been followed.

# ILLUSTRATION 1

(III. 1)



- |                             |                              |
|-----------------------------|------------------------------|
| 1. Filter                   | 10. System Hi-Limit Reset    |
| 2. 20A System Breaker       | 11. Ground Lug               |
| 3. Power Light              | 12. 2 Speed Pump             |
| 4. Spa Light                | 13. Time Clock               |
| 5. Heater                   | 14. Safety Warning           |
| 6. Push-Pull Gate Valve     | 15. Control Enclosure        |
| 7. Air Control Knob         | 16. Air Blower (Pump #2 D53) |
| 8. Control Panel (Spa Side) | 17. Wire Conduit             |
| 9. Drainage Hose Bib        |                              |

# 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 (Ill. 1 No. 6) are pulled out to the open position and that the hose bib (Ill. 1 No. 9) 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 and place the timer selection switch to the manual (down) position. (Ill. 1 No. 8) Close the equipment access door and turn the power on.

## 3) FUNCTION SELECTION

Before activating the heater, depress the selection buttons on the spa side control (Ill. 1 No. 8) to engage the various functions as follows:

(A) JETS button: This controls the main pump functions. Depress once the hi-speed jet pump comes on, depress again it will switch back to low-speed pump.

(B) BLOWER button: This controls the air blower on/off function.

(C) LIGHT button: This controls the on/off function of the light.

(D) AUXILIARY button: This controls the on/off function of the auxiliary pump on the **2 Pump D53 equipped spas only.**

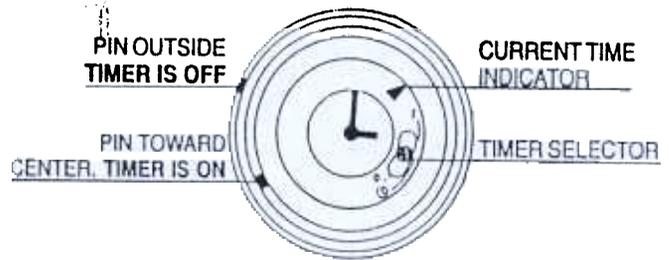
## 4) HEATING YOUR SPA

After engaging the various functions and returning to the low speed pump function, turn the thermostat knob to the hot position. The spa temperature will rise seven to ten degrees per hour. When the desired temperature is reached, place the timer selection switch to the center position and set the time of day and the amount of run time (See Timer Operation).

NOTE: While heating the spa or when the spa is not being used, keep the air controls closed.

## 5) TIMER OPERATION

ILLUSTRATION 2  
(Ill.2)



The timer which is located on the front panel of the control box (Ill. 1 No. 13), controls the low speed pump only. All other functions of the spa are accessible regardless of the timer setting.

### SETTING THE TIME OF DAY

Rotate the outer ring of the timer clockwise until present time of day (AM/PM) is aligned with time indicator arrow. NOTE: The center dial will also turn as the outer ring is rotated and will correspond to the time of day setting.

### TIMER SELECTION SWITCH

This switch has three positions for the various operations of low speed. In the upper position the low speed is permanently off. In the center position (TIMER MODE), the low speed will turn on and off as selected with the position of the timer pins. In the down position, which is used when **initially heating the spa** and also **for cold climate freeze protection**, the low speed pump will run constantly regardless of the position of the timer pins.

### SETTING THE RUN TIME

The outer ring of the timer is comprised of a series of pins that will slide in toward the center or out toward the edge of the timer. Each pin represents fifteen minutes. When the pins are slid in towards the center of the timer the low speed pump will run. When they are slid to the outer edge the low speed is off. The minimal amount of run time recommended per day is four hours. The low speed pump is used for filtration and maintaining the desired water temperature in your spa. The amount of run time will vary depending on the chosen temperature, supply voltage and the external temperature. When selecting the run time, all the pins between the time selected must be slid in towards the center.

NOTE: When using a VITAZONE water purification system, the minimal amount of run time will increase. Refer to the VITAZONE owners manual for instructions.

6) **FREEZE PROTECTION**

Freeze protection is provided by setting the thermostat at an adequate temperature level and **by setting the Timer Selection Switch (Ill. 2) to the ON (down) position.**

7) **ADD START-UP CHEMICALS**

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

8) **LIGHT OPERATION**

The light button is located on the spa side control. Depress the button once for the light to come on and again to go off. There are two mood setting colored lenses included with your spa which may be placed over the light lens in the spa.

9) **JET OPERATION**

Your Vita Spa is designed with a unique jet system which allows you to select a wide variety of massage patterns. The following is a description of the various types of jets and their operation you may use to tailor your spa to your specific massage needs.

**TURBO MASSAGE JET**

All the water entering the spa passes through the turbo massage jet first. The water will be delivered either through the turbo jet itself or the other hydrotherapy jets depending on its position. When the turbo jet is on (clockwise), the water is delivered through itself. When the turbo jet is in the off (counter clockwise) position, the water is delivered through the other hydrotherapy jets. The ON/OFF position of the turbo massage jet is adjusted by rotating the outer rim of the jet. NOTE: For ease of operation, rotate the jet when the pump is either off or in the low speed mode. When the turbo jet is on, the water flow direction can be adjusted by rotating the jet nozzle. The pressure may also be varied by using the air control.

**DIRECTIONAL & ROTATIONAL MASSAGE JETS**

When the pump is on and the turbo massage jet is in the off position, the directional & rotational massage jets will be operational. 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.

**EURO MASSAGE JET**

These tiny Euro jets are used in various models for various purposes. In cluster configuration for back and neck massage and for ozone injection, they deliver a firm pinpoint jet stream of massaging action. The Euro jet is not directional nor adjustable, but can be pressure controlled by adjusting the air control.

**AIR CONTROLS**

The air controls (Ill. 1 No.7) are used to introduce air into the water jet stream. Marked with arrows for open or closed position, these controls allow the user to increase (open) jet pressure or decrease (close) jet pressure as desired.

# SPA MAINTENANCE

Your VITA SPA is manufactured with the highest 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. Turn the power off at the GFCI breaker.
- B. Attach a garden hose to the yellow hose bib (Ill. 1 No. 9) located under the filter housing inside the equipment 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 (Ill. 1 N. 6). 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 timer to bring the pump on at night and a couple hours during the day. It is recommended to set the timer to FREEZE PROTECTION (See pg. 7) when the temperature drops below 30 F. This will keep the low-speed pump running 24 hours per day and protect against potential freezing of pipes. 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:

- 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. REDWOOD CABINET MAINTENANCE

Your VITA SPA cabinet is made with a high quality redwood. It is factory stained and sealed. Depending on the location and exposure of the spa to the rain and sun, it is recommended to seal the redwood cabinet once or twice a year with a wood sealant. Vita's specially formulated Redwood sealer is available at your VITA SPA dealer.

## 5. MARINE VINYL COVER

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

- A. Lightly spray the cover with a garden hose to rinse it and remove the debris.
- B. Using a large sponge or soft cloth, and using a mild soap solution (1 teaspoon dishwashing 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.

Spa 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. And 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.