



2021 Owner's Manual

TABLE OF CONTENTS

• Important Safety Instructions	2
Personal Safety Precautions	4
Installation and Set-Up Instructions	5
Electrical Requirements	5
Wiring Installation (220v)	6
GFCI Wiring Installation (220v)	7
Electrical Specifications	8
• Spa Startup Directions	8
• Plug and Play Cord Location	9
• Operation Instructions	
Topside Control Instructions	10
LED Lighting Feature	11
Spa Jets and Air Controls	12
• Filling Directions	
Stereo Operation	14
Vibrosonic Jet Operation	14
Fill the Spa With Water	14
Skimmer Side Filter	15
Add Start-Up Chemicals	15
• Maintenance	16
Spa Draining	16
Spa Surface Care	17
Long-Term Storage	17
Pillow Maintenance	17
Filter Cleaning	18
Spa Cabinet & Cover Maintenance	20
• Ozonator	20
• Gallon Specifications	20
• Spa Situations & Solutions	21
• Trouble Shooting	22

IMPORTANT SAFETY INSTRUCTIONS

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

READ AND FOLLOW ALL 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. Keep spa cover locked when not in use.
2. A wire connector is provided on this unit to connect a minimum No. 8 AWG (8.4mm²) solid copper conductor between this unit and any metal equipment, metal water pipe or conduit within 5 feet (1.5m) of the unit.
3. **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 fitting.
4. **DANGER:** Risk of Accidental Drowning. Extreme Caution must be exercised to prevent unauthorized access by children. To avoid accidents, insure that children cannot use this spa unless they are supervised at all times.
5. **DANGER:** Risk of Electric Shock. Install at least 5 feet (1.5m) 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 (8.4mm²) solid copper conductor to the wire connector on the terminal box that is provided for this purpose.

6. **DANGER:** Risk of Electric Shock. Do not permit any electrical appliance, such as a light, telephone, radio or television within 5 feet (1.5m) of a spa.
7. **WARNING:** To Reduce the Risk of Injury:
- a) Before using your spa you should check the water temperature with a thermometer that is known to be accurate. The water temperature in a spa should never exceed 104°F (40°C). A water temperature of 104°F is 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 injury during the early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperature to 100°F (38°C).
 - c) The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning.
 - d) 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.
 - e) Persons using medication should consult a physician before using a spa since some medication may induce drowsiness while other medications may affect heart rate, blood pressure and circulation.

8. The causes, symptoms and affects of hyperthermia may be described as follows:

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal temperature of 98.6°F. The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness and fainting.

The effects of hyperthermia include:

- Failure to feel heat
- Failure to recognize the need to exit the spa
- Unawareness of impending hazards

- Fetal injury in pregnant women
 - Physical inability to exit the spa or hot tub
 - Unconsciousness resulting in the potential of drowning
9. **WARNING:** The use of alcohol, drugs or medication can greatly increase the risk of fatal hyperthermia. If you suspect hyperthermia, immediately get medical help, lay the victim on their back with the head slightly elevated for easier breathing, cover the body with a blanket and apply ice packs to the head.
 10. Never touch or come in contact with any electrical accessory when in your spa or when your body is wet.
 11. Prior to performing any service to the spa pack, turn off ALL power to the system at the main power source breaker.

NOTE: A READILY ACCESSIBLE DISCONNECTING MEANS SHALL BE PROVIDED DURING INSTALLATION.

SAVE THESE INSTRUCTIONS

PERSONAL SAFETY PRECAUTIONS

1. Please use the spa when others are present.
2. Children should have spa access only with the permission and supervision of an adult.
3. To reduce the risk of child drowning, keep the spa filter clean and unclogged. Do not modify the suction or filtration systems.
4. Exercise caution when entering or leaving the spa. When moving or changing positions, be sure of your footing before applying your full weight as water refraction can be misleading.
5. Do not stay in the spa for extended periods of time. Set a reasonable time limit after which you leave the spa, cool down, take a shower, relax and then return for another stay in the spa.

INSTALLATION AND SET-UP INSTRUCTIONS

SURFACE AND PAD REQUIREMENTS

- Your new portable spa must be placed on a uniformly firm, flat and level surface. A concrete pad 4 inches thick is best.
- In order to prevent flooding of the electrical equipment, the pad must be such that water will drain away from the spa.
- If your spa is located near sprinklers, adjust or cap them so as not to hit the siding of the spa.

NOTE: Do not put your spa on any soft surface such as sand, grass, crushed rock or dirt. Any settling surface will put an uneven pressure and tension to the spa structure and may void the warranty.

BALCONIES AND DECK REQUIREMENTS

- Decking must be constructed to support 85 pounds per sq. ft.
- Balconies must be constructed to meet current state and local codes.
- Gates must be self-closing and self-latching.

ELECTRICAL REQUIREMENTS

NOTE: Name badge on rub rail indicates equipment location

15 amp GFCI Rating

Viking 1P 120v, Viking 2P 120v, Aurora P 120v, Aurora P+ 120v, Royale P 120v, Royale P+ 120v, Regal P 120v, Regal P+ 120v

50 amp GFCI Rating

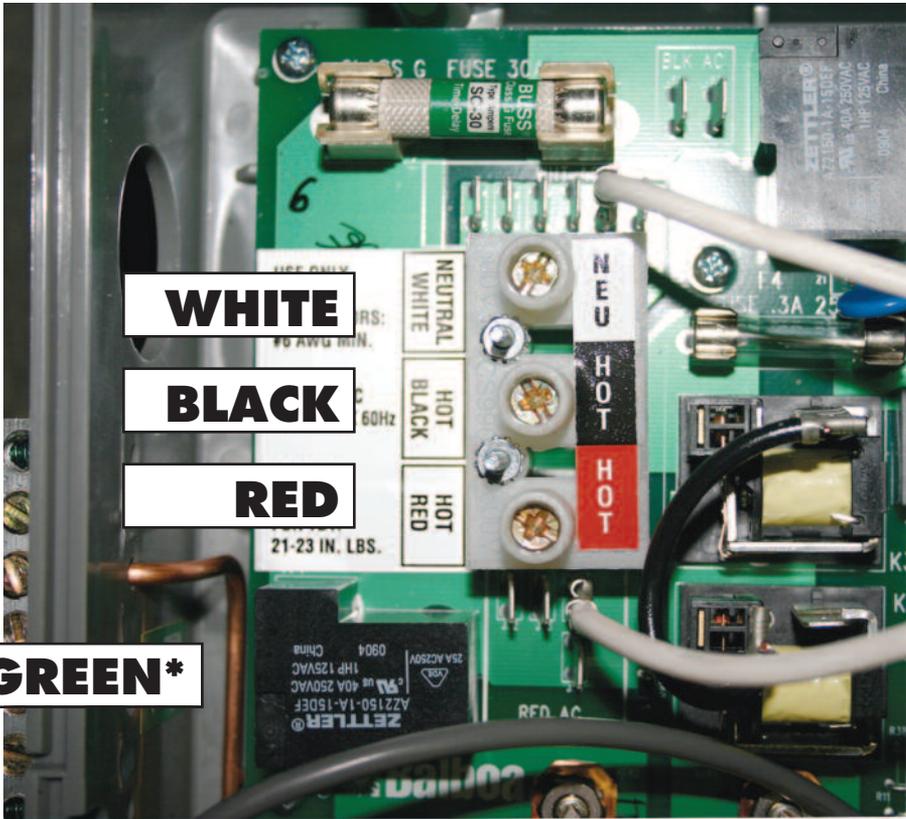
Viking 3, Aurora 3, Royale, Regal, Royale ETS, Regal ETS, Legacy 1 & Legend 1

60 amp GFCI Rating

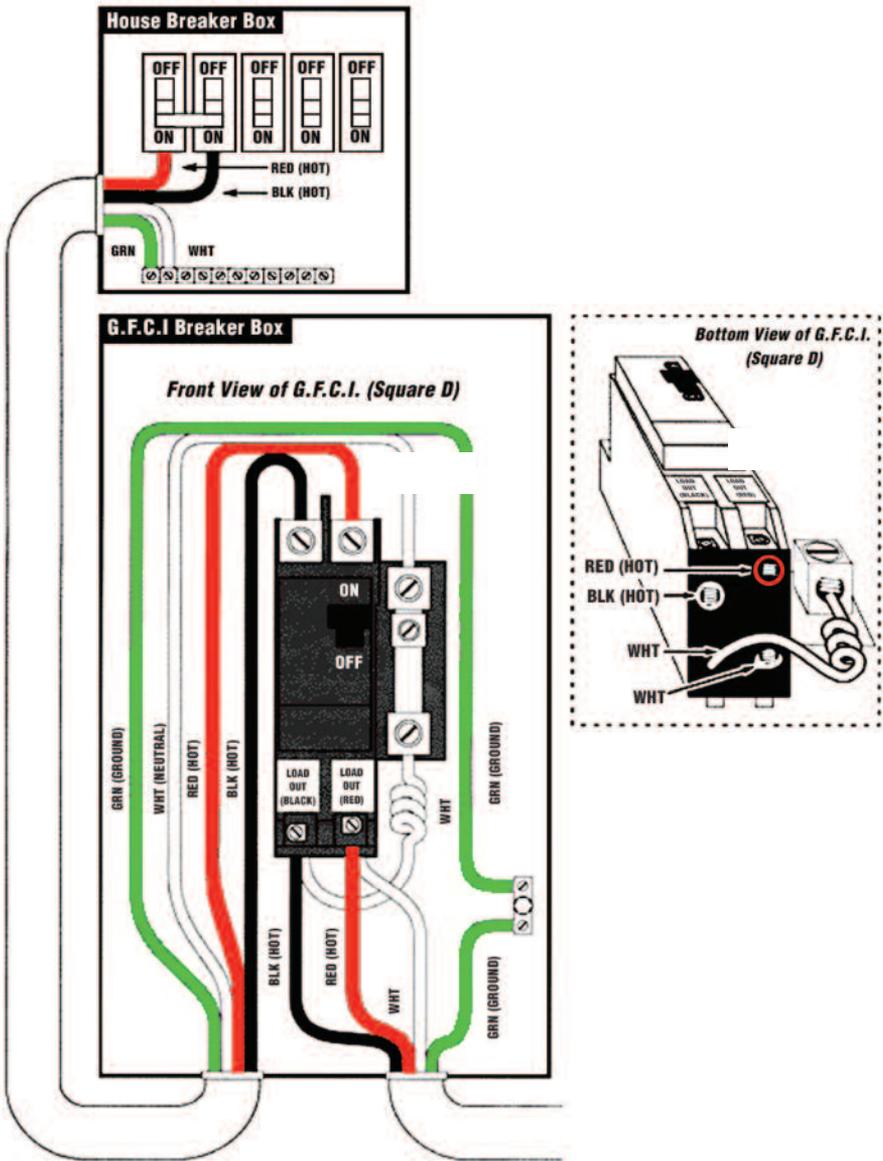
Legacy 2, Legend 2, Heritage 1 & 2, Tradition 1 & 2,

- Your 110-volt or 220-volt spa pack is designed to be "PERMANENTLY CONNECTED".
- **It is the customer's responsibility to acquire necessary permits and to arrange for installation and hook up of the electrical power.**

220-VOLT



*Green ground connection located on left side of control panel.



GFCI WIRING INSTALLATION (220V)

ELECTRICAL SPECIFICATIONS

GENERAL

NOTICE: All spa electrical wiring must be performed by a qualified, licensed electrician in order to meet NEC (National Electrical Code) state and local codes.

1. The lines carrying power to the spa must be dedicated to the spa and should not be shared with any other appliance(s).
2. All electrical wiring lines must originate from the electrical panel and terminate, hard wired, into the electrical wiring compartment. The use of extension cords or improper plug type termination is expressly prohibited and voids the warranty.
3. Do not use aluminum wiring. **Use only copper conductive wiring.**
4. **Wire gauge must be in accordance with NEC requirements** for the distance from current source to spa and the current rating as stated on the ID label that is attached to the equipment control enclosure.
5. All wiring installed in conduit must be approved for usage by state and local codes. The conduit must terminate at the electrical access compartment either from the bottom of the spa or through a hole in the side panel of the spa.

SPA STARTUP DIRECTIONS

All Viking Spas require a solid, flat surface.* This is to ensure that the spa cabinet is not exposed to a pressure stress condition that may result in cabinet damage and shell cracking. **A concrete pad is the best example of a solid, flat surface, however, wood decking is suitable, provided it can withstand 85# per sq. ft. without deflection.**

*** FAILURE TO PROVIDE A PROPER, SOLID, FLAT SURFACE MAY DAMAGE YOUR SPA AND VOID YOUR WARRANTY.**

Please check with a licensed contractor and local codes prior to any construction.

Plug & Play Cord Location

For square plug and play spas, the GFCI cord can be accessed through the notched corner knockout as shown to the right. You may have to remove the equipment access panel and route the cord through the opening.

For the round Viking 1P or 2P spas, you will need to remove the panel with the cord cutout in the lower left hand section of the panel to access the GFCI cord. Attach the panel back onto the spa with the cord routed through the notch section of the panel.



Receptacle where cord is located on square plug and play spas

POWER CORD ACCESS LOCATION

Viking Spas has provided three access points located in the bottom corner to assist in running the electrical conduit to the power system. Simply remove the plug to access the opening.



Balboa 500Z-Series Operation Guide

Initial Start-up

Your spa will enter Priming Mode (*Pr*) when it is energized. During Priming Mode, press “Jets” button(s) repeatedly and be sure all pumps are free of air. Priming Mode lasts less than 5 minutes. Press “Temp” to exit. After Priming Mode, the spa will run in Standard Mode (see Mode section). Some panels may not have a “Temp” button. On these panels the “Set,” “Warm,” or “Cool” buttons are used.

The pump responsible for heating and filtration (pump 1 low-speed on non-circ system, or the circ pump on circ systems) will be referred to simply as the pump.

In multi-button sequences, if the buttons are pressed too quickly in sequence, they may not register.



Button shapes and labels may vary.

Temp Control (80°F - 104°F / 26°C - 40°C)

The last measured water temperature is constantly displayed.

The water temperature displayed is current only when the pump has been running for at least 2 minutes.

On panels with a single “Temp” or “Set” button, to display the set temperature, press the button once. To change the set temperature, press the button a second time before the display stops flashing. Each press of the button will continue to either raise or lower the set temperature. If the opposite direction is desired, allow the display to revert to the current water temperature. Press the button to display the set temperature, and again to make the temperature change in the desired direction.

On panels with “Warm” and “Cool” buttons, to display the set temperature, press “Warm” or “Cool” once. To change the set temperature, press a temperature button again before the display stops flashing. Each press of “Warm” or “Cool” will adjust the set temperature.

After three seconds, the display will stop flashing and begin to display the current spa temperature.

Jets 1

Press “Jets 1” to turn pump 1 on or off, and to shift between low and high speeds (if equipped). The low-speed will turn off after 4 hours. High-speed will turn off after 15 minutes. Low-speed may run automatically at times, during which it cannot be deactivated from the panel, but high-speed may be operated.

Jets 2/Jets 3/Blower (If equipped)

Press the corresponding button once to turn the device on or off. The device will turn off after 15 minutes. Pump 2 may be two-speed on some systems.

Some systems use this one button to control two devices. The first button press will activate one device. Press again to have both devices active. Press again to turn off the first device only. Press one more time to turn both devices off.



This document covers VS and GS systems 500Z through 521Z with Balboa Panels VL200 through VL406.
<http://www.balboawatergroup.com/>

Light

Press “Light” to operate the spa light. Turns off after 4 hours.

Mode

Depending on system configuration, mode changing may not be available and will be locked in Standard Mode.

Mode is changed by pressing “Temp,” then “Light”.

Standard Mode maintains set temperature. *5E* will be displayed momentarily when you switch into Standard Mode.

Economy Mode heats the spa to the set temperature only during filter cycles. *EC* will display when water temp is not current, and will alternate with water temp when the pump is running.

Sleep Mode heats the spa to within 20°F/10°C of the set temperature only during filter cycles. *5L* will display when water temp is not current, and will alternate with water temp when the pump is running.

Preset Filter Cycles

The first preset filter cycle begins 6 minutes after the spa is energized. The second preset filter cycle begins 12 hours later. Filter duration is programmable for 2, 4, 6, or 8 hours or for continuous filtration (indicated by *FL*). The default filter time is 2 hours for non-circ systems and 4 hours for circ systems.

To program, press “Temp,” then “Jets 1.” Press “Temp” to adjust. Press “Jets 1” to exit programming.

For non-circ systems, low-speed pump 1 and the ozone generator (if installed) run during filtration.

For 24 hour circulation systems, the circ pump and the ozone generator (if installed) run 24 hours. In hot environments, the circ pump may turn off for 30 minute periods, except during filter cycles.

For non-24 hour circulation systems, the circ pump and ozone generator (if installed) run during filtration (and may also run automatically at other times).

At the beginning of each filter cycle all other equipment will run briefly to purge the plumbing.

Automatic polling (in Standard Mode only)

The pump will activate for 1 to 2 minutes to check the temperature:

- every 30 minutes
- whenever any other pump or blower is turned on
- whenever the set temperature is raised

Diagnostic Messages

Message	Meaning	Action Required
--	No message on display. Power has been cut off to the spa.	The control panel will be disabled until power returns. Spa settings will be preserved until next power up.
HH	Temperature unknown.	After the pump has been running for 2 minutes, the current water temperature will be displayed.
HH	“Overheat” - The spa has shut down.* One of the sensors has detected 118°F/47.8°C at the heater.	DO NOT ENTER THE WATER. Remove the spa cover and allow water to cool. Once the heater has cooled, reset by pushing any button. If spa does not reset, shut off the power to the spa and call your dealer or service organization.
OH	“Overheat” - The spa has shut down.* One of the sensors has detected that the spa water is 110°F/43.5°C.	DO NOT ENTER THE WATER. Remove the spa cover and allow water to cool. At 107°F/41.7°C, the spa should automatically reset. If spa does not reset, shut off the power to the spa and call your dealer or service organization.
SA	Spa is shut down.* The sensor that is plugged into the Sensor “A” jack is not working.	If the problem persists, contact your dealer or service organization. (May appear temporarily in an overheat condition.)
Sb	Spa is shut down.* The sensor that is plugged into the Sensor “B” jack is not working.	If the problem persists, contact your dealer or service organization. (May appear temporarily in an overheat condition.)
Sn	Sensors are out of balance. If alternating with spa temperature, it may just be a temporary condition. If flashing by itself, spa is shut down.*	If the problem persists, contact your dealer or service organization.
HL	A significant difference between temperature sensors has been detected. This could indicate a flow problem.	If the water level is normal, make sure all pumps have been primed. If problem persists, contact your dealer or service organization.
LF	Persistent low flow problems. (Displays on the fifth occurrence of HL message within 24 hours.) Heater is shut down, but other spa functions continue to run normally.	Follow action required for HL message. Heating capability of the spa will not reset automatically; you may press any button to reset.
dr	Possible inadequate water, poor flow, or air bubbles in detected in the heater. Spa is shut down for 15 minutes.	If water level is normal, make sure all pumps have been primed. Press any button to reset. This message will reset within 15 minutes. If problem persists, contact your dealer or service organization.
dy	Inadequate water detected in heater. (Displays on third occurrence of dr message.) Spa is shut down.*	Follow action required for dr message. Spa will not automatically reset. Press any button to reset manually.
IC	“Ice” - Potential freeze condition detected. * - Even when spa is shut down, some equipment will turn on if freeze protection is needed.	No action required. All equipment will automatically activate regardless of spa status. The equipment stays on 4 minutes after the sensors detect that the spa temperature has risen to 45°F/7.2°C or higher. An optional freeze sensor may be added to protect against extraordinary freeze conditions. Auxiliary freeze sensor protection is advisable in colder climates. See your dealer for details.

Warning! Shock Hazard! No User Serviceable Parts.

Do not attempt service of this control system. Contact your dealer or service organization for assistance. Follow all owner's manual power connection instructions. Installation must be performed by a licensed electrician and all grounding connections must be properly installed.

P/N 40789_G 09/27/2011

BALBOA
water group

LED LIGHTING FEATURE

The Aurora P+, Royale P+, Regal P+, Viking 3, Aurora 3, Royale, Royale ETS, Regal, Regal ETS, Legacy, Legend, Heritage & Tradition Series models are also equipped with an LED light system. This lighting, which encompasses the interior of the spa, is also incorporated into the light in the foot well of these models. The LED Lighting system consists of a 7 position controller. The first time the light is turned on, it will begin to display all 7 colors available in an automatic rotating sequence. Each time you sequence the light on/off, all colors will be displayed individually. It may be necessary to wait 1-2 seconds between cycling the lights on and off in order to get to the next color sequence.



NOTE: Close air controls when not in use.

SPA JETS AND AIR CONTROLS

SPA JETS

Adjustable Spa Jets may be turned off and on by rotating jet faceplate left or right.

Note: DO NOT TURN ALL SPA JETS OFF AT THE SAME TIME. THIS MAY CAUSE DAMAGE TO THE PUMP AND MOTOR.



Directional &
Rotational Cluster



Directional & Roto Poly



Rotational and Directional
Mini



Twin Adjustable Roto

Note: To remove jet insert, turn jet face counter-clockwise to the shut off point. Continue turning until the jet unscrews from body. To reinstall the jet, insert jet into body and turn clockwise until the jet stops.

AirX Jet Option

If installed these red jets will be controlled using the red matching air control pictured.



TURBO/WHIRLPOOL JET (Viking 2P & 3 only) VOLCANO Jet (Heritage & Tradition only)

The Turbo jet is located on the filter cavity wall is the Turbo jet. This jet is a combination valve and high capacity jet. To turn the Turbo jet on, simply turn the face counter-clockwise to the first stop position. To turn the Turbo jet off, turn the face clockwise to bring the main jets back to full power.*

The Volcano Jet operates on a valve located in the middle of the lounger. Turn the valve to activate the jet. Note: this valve directs one of the pumps and will effect the flow this pump used to power other jets in the spa.



* Due to the substantial amount of water pressure when the Turbo Jet is operating, you must turn the pump to the off or low speed cycle position before attempting to rotate the jet face.

AIR CONTROLS

Air controls are adjusted by rotating the topside dial. These controls serve to regulate the amount of air mixed with water when the whirlpool or hydrotherapy jets are operating in the **high pump mode**.



Viking 1P, 2P & 3 only



All other models (See illustration on page 14)

STEREO INFORMATION

If your spa is equipped with a bluetooth stereo you will find the operating instructions in the warranty package.

VIBROSONIC JET SYSTEM

If your spa is equipped with a Vibrosonic system you will find the operating instructions in the warranty package.

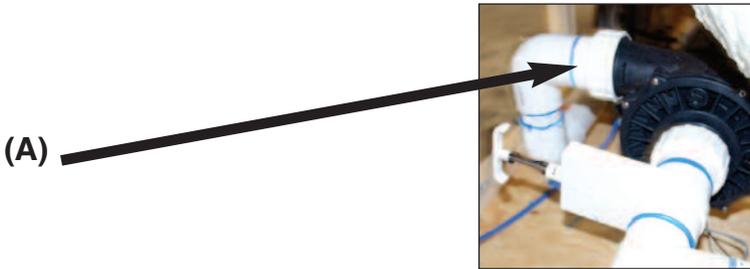
FILL THE SPA WITH WATER

- a. Clear all debris from your spa.
- b. Remove filter element
- c. Using a garden hose, place hose in filter chamber for filling. Do not fill higher than three quarters of the way up the skimmer opening
- d. **We DO NOT recommend the use of softened water due to the potential harm of damaging equipment.**
- e. As water level rises, check inside equipment compartments for water leaks. It may be necessary to tighten loose unions and/or fittings.
- f. Make sure T-Handled Gate VALVES at pump and heater are open, and the valve handle retaining clips are in place. (Fully extended up position).

SKIMMER SIDE FILTER

All Viking spas have a skimmer side filter that does not require “air bleeding” on initial startup. If an air lock develops, loosen the union on return side of pump. See Diagram (A) below. Let small amount of water drain from connection while the pump is running. Once the water begins to flow out of the jets retighten the union. Make sure Gate Valve is in the “open” position and the black retainer clip is snapped into place.

Clean spa filters are critical for proper operation. Dirty filters cause water restriction to the pump, which in turn may cause erratic heating of the spa. A starving pump will degrade performance, result in dirty or murky water and may cause the heater to malfunction.



ADD START-UP CHEMICALS

Ask your spa retailer to HELP you set up a chemical maintenance program.

The importance of chemical balance in your spa cannot be overemphasized.

SANITIZING: Please refer to your dealer supplied sanitizing recommendations for your start up procedures.

NOTE: If you live in an area where city water is not available, or your spa water shows signs of calcium content, you will need to add a “stain n scale” chemical on initial fill and then once a week, thereafter.

*** Staining of shell due to improper use of chemicals (as recommended by chemical manufacturer) will not be considered a warranty defect by Viking Spas.**

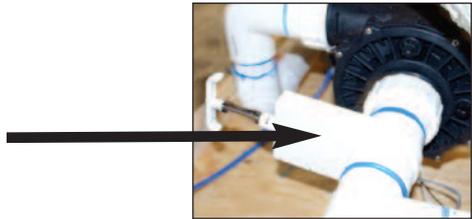
MAINTENANCE

SPA DRAINING

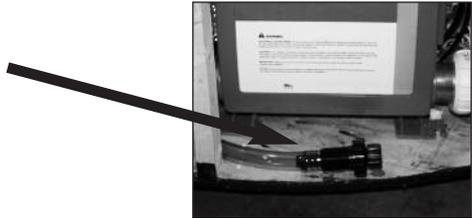
Every 90 days, depending upon water condition, you may need to renew the spa water. To drain your spa, power must be disconnected at the circuit breaker. Locate the drain faucet inside the spa cabinet (for Viking IP, 2P & 3 models) or on the corner near the bottom of the side panel next to the equipment (for all other models). 1. Twist cap off and attach a garden hose to the opening. 2. Turn the outside body counter clockwise until it stops. 3. Pull on the drain that the hose is connected to until you hear a pop. 4. Drain the spa. 5. Reverse this procedure to shut the water off. Note: the drain will not remove all of the water in the spa. You may have to remove a small amount of water by hand.

DRAIN LOCATIONS

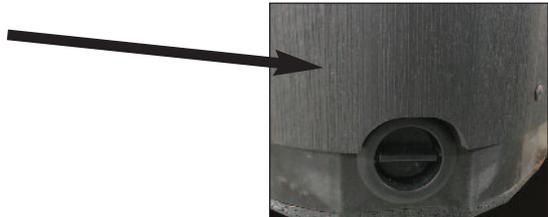
Water Gate Valve



**Drain for Viking IP, 2P
& Viking 3 Models**



**Drain for all
other Models**



Operation instructions are virtually the same for all of our models.

SPA SURFACE CARE

Do not use abrasive solvents or cleaners to clean spa surfaces. Only use the following: Lemon Juice, Amonia, Vinegar or Soap and Water.

LONG-TERM STORAGE (90 days or more)

We strongly urge you to contact your dealer to winterize your spa. If you are not going to use your spa for an extended period of time, drain it as described above. You will also have to drain the pump. Water left in the spa during long-term storage may cause freeze damage.*

To drain the pump, remove the drain plug from the face of the pump. Additional water removal is required to prevent freeze damage to the spa plumbing assembly. Remove the piping assembly between the pump and the heater by loosening the union at the pump and the union at the heater. Once the piping is removed, use a wet/dry shop vac to vacuum water from both the pump side and the heater side openings. Once all water is removed from these lines, we also recommend that you place the vacuum over each jet and the suction fittings and vacuum any remaining water that may be trapped in these lines. You may now reinstall the piping assembly that was removed earlier and reinstall the pump plug.

NOTE: We also recommend vacuuming each jet opening to ensure that all of the water is out of the plumbing lines.

*** FREEZE DAMAGE TO THE SPA PLUMBING IS NOT COVERED UNDER THE WARRANTY.**

SPA PILLOW MAINTENANCE

- Your spa pillows need to be washed and rinsed periodically to remove any chemical residue. This should help to eliminate pillows becoming stiff and discolored. Note: Your spa pillows are not covered under your warranty.
- If the spa is not to be used for a period of time, pillows should be removed. This will extend the life of the pillow.

- Always leave the cover open for 15 minutes every 30 days to prevent off gas from damaging your spa pillows, cover and other critical components. Signs of off gas damage include but are not limited to pillow peeling and bubbling, discoloration, cover failing prematurely, plastics or jet inserts failing. Note: These types of failures are not covered under your warranty.

FILTER CLEANING

(Viking 1P, Viking 2P & Viking 3)

Your filter should be replaced once a year. When filters are removed from the spa, make sure that no objects fall into the filter cavity. They can cause obstruction to water movement. Remove filter cartridges as shown in figures below.

The filter must be cleaned every month, more often with heavy use, to get rid of objects and particles that are lodged in the filter pleats. Using a garden hose with a pressurized nozzle, push water from the inside to the outside of the filter pleats forcing all trapped particles out. If the filter is too dirty to be cleaned as described above, obtain filter cleaner material from your Viking Spa Retailer. Soak the filter overnight; then hose it down.



A. Locate skimmer.



B. Pull weir door open.



C. Remove basket.



D. Remove the two separate filters and follow cleaning instructions above.

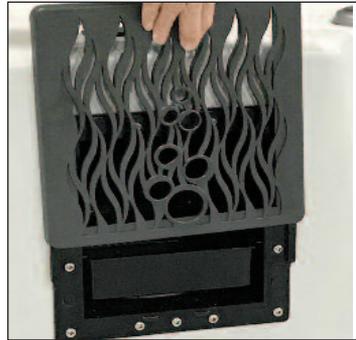
FILTER CLEANING

(ALL SPAS except Viking 1P, Viking 2P & Viking 3)

Remove filter face cover by pulling straight up and slightly toward the spa on front plate/face cover. (As shown below.) Remove access basket and unscrew filter cartridge(s) from housing. To reinstall weir door assembly, door must be placed through throat of skimmer prior to sliding assembly into place. Refer to filter cleaning procedure for Viking 1P, Viking 2P & Viking 3 on previous page. Note: Spas with this filter utilize 50 sq. ft. cartridge filters.



A. Locate skimmer.



B. Remove front plate.



C. Remove basket & filters.



D. Clean per instructions.

FILTER CARTRIDGE REPLACEMENT

For round spas use Pleatco™ replacement filter: PWW10 (2 filters) OR Unicel™ replacement filter: C-4310 (2 filters)

For ALL square spas use Pleatco™ replacement filter: PWW50P3 OR Unicel™ replacement filter: 6CH940

SPA CABINET MAINTENANCE

Your Viking spa cabinet is designed to be maintenance free. However, if dirt or grime should appear simply use a mild soap solution and clean with a rag.

SPA COVER MAINTENANCE

Please refer to the cover manufacturer's care and maintenance form included in the cover box. For proper installation of the cover the tie-down hardware must be installed.

OZONATOR

If your spa is equipped with an ozonator, it is factory set to filter during the filter cycles only. We recommend the F4 setting which means your spa will filter a total of 8 hours (4 hours twice a day). This should provide adequate ozonation, provided there is proper chemical balance in the spa.

NOTE: Please **Do Not** attempt to disassemble ozonator if it becomes inoperable. Ozonators contain no user serviceable parts. Please contact your spa retailer or service organization.

GALLON SPECIFICATIONS

<u>Model</u>	<u>Gallons</u>
Viking 1P	240 Gallons
Viking 2P & Viking 3	250 Gallons
Aurora P, P+ & 3	210 Gallons
Royale P, P+, Royale & ETS	270 Gallons
Regal P, P+, Regal & ETS	290 Gallons
Legacy	320 Gallons
Legend	300 Gallons
Heritage	370 Gallons
Tradition	390 Gallons

SPA SITUATIONS & SOLUTIONS

Situation	Cause or Result	Product to use	Solution
Calcium deposits on surfaces of heater, fittings or plumbing	Hard water pH/total alkalinity out of adjustment	Stain n Scale pH Up pH Down	Add 1oz. of Stain n Scale Test water - adjust with pH Up or pH Down. For preventative maintenance add Stain n Scale weekly. (1oz. up to 300 gals.)
Cloudy or murky water	pH/total alkalinity out of balance Plugged filter No sanitizer residual Oils, soap, foreign matter & other contaminants Too many conflicting chemicals	pH Up pH Down Spa Cartridge Filter Cleaner Chlorinating Granules Spa See Clear	Test water - add pH Up or pH Down as needed Use Spa Cartridge Filter Cleaner (min. once/month) Add Chlorinating or Brominating Granules (no more than 2oz. per treatment). Treat water with Spa See Clear twice a week (1oz. up to 300 gals.) Drain & refill if water is older than 60 days
Eye & skin irritation, rashes allergies	Water balance needs to be corrected (pH/total alkalinity) Excessive chlorine or bromine	pH Up pH Down Total "A"	Test water, add pH Up, pH Down or Total "A" as needed Add fresh water and/or wait a day & re-test sanitizer level
Excessive foam	Build up of body oils, cosmetics and contaminants pH/Total Alkalinity not in balance or calcium level too low	Spa Foam Away Spa See Clear Spa See Clear Spa Stain n Scale	Add Spa Foam Away to foamy area, then add 1oz. Spa See Clear Add Spa See Clear or Spa Stain n Scale to help remove oils and contaminants
Soft water			Drain and refill.
Blue water	Copper metals in spa being eroded	Cop-Out pH Up pH Down Total "A"	Use Cop-Out as per instructions. Test and restore alkalinity and pH to proper levels.

NOTE: Most water chemistry problems can be resolved by the recommended solutions above. Extreme chemical conditions may warrant draining and refilling the spa. Stains or calcium deposits on the spa may require attention prior to refilling. **Please contact your dealer if you have further questions.**

TROUBLE SHOOTING

Caution: Viking Spas have slide type water shut off valves referred to as Gate Valves. The spa should never be operated with the Gate Valves in the closed position, as this will cause severe damage to the pump and/or heater.

Spa Will Not Heat

Check For Air Lock

- Is this a new installation with trapped air?

Solution; Open bleed plug on face of pump and cycle pump to high speed for approximately 30 seconds.

- If not, has the spa been drained and refilled?

Solution; Make sure water level three quarters of the way on the skimmer opening.

- Is there proper water flow?

Solution: Make sure both Gate Valves are open and filter is clean.

Pump Will Not Prime or Function

Solution: Gate Valves Closed

Improper wiring to spa

Water level in spa too low

Contact Your Authorized Spa Retailer for Service.

“Warning: Children should not use spas or hot tubs without adult supervision” and “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” and “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 medication and/or having an adverse medical history should consult a physician before using a spa or hot tub” and “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” and “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” and “Avertissement: Pour éviter des blessures, user de prudence en entrant dans une cuve de relaxation et en sortant”

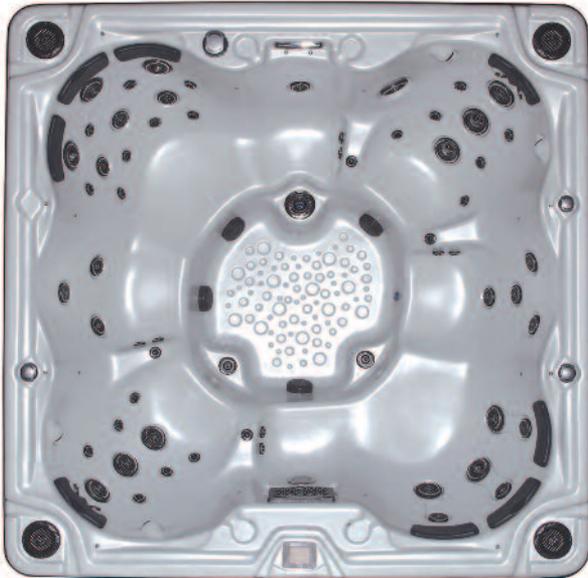
“Warning: Do not use drugs or alcohol before or during the use of a spa or hot tub to avoid unconsciousness and possible drowning” and “Avertissement: Pour éviter l’évanouissement et la noyade éventuelle, ne prendre ni drogue ni alcool avant d’utiliser une cuve de relaxation ni quand on s’y trouve”

“Warning: Pregnant or possibly pregnant women should consult a physician before using a spa or hot tub” and “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 40°C may be injurious to your health” and “Il peut être dangereux pour la santé de se plonger dans de l’eau à plus de 40°C”

“Warning: Before entering the spa or hot tub measure the water temperature with an accurate thermometer” and “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” and “Avertissement: Ne pas utiliser une cuve de relaxation immédiatement après un exercice fatigant”



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