



OWNER'S MANUAL

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INSTALLATION

SURFACE AND PAD REQUIREMENTS

All spas 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 uneven pressure on the spa structure and may damage your spa.

***INSTALLATION ON ANY SOFT SURFACE
WILL VOID YOUR SPA WARRANTY***

BALCONIES AND DECK REQUIREMENTS

Decking and balconies must be constructed to meet current state and local codes. Gates must be self-closing and self-latching. Please check with a licensed contractor prior to any construction.

INSTALLATION

ELECTRICAL REQUIREMENTS

NOTE: Name badge on serial plate indicates equipment location (See Page 19).

40 amp GFCI Rating

Manistee 3, Sturgeon 3, Sturgeon 4

60 amp GFCI Rating

Muskegon 1 & 2, Boardman 1& 2

All spa packs are 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.

EXTENSION CORDS SHOULD NOT BE USED UNDER ANY CIRCUMSTANCES

GALLON SPECIFICATIONS

Manistee 1 & 2	250 Gallons
Sturgeon 2, 3, & 4	270 Gallons
Muskegon 1 & 2	300 Gallons
Boardman 1 & 2	450 Gallons

INSTALLATION

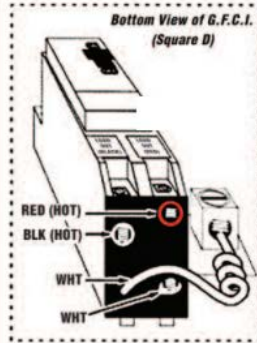
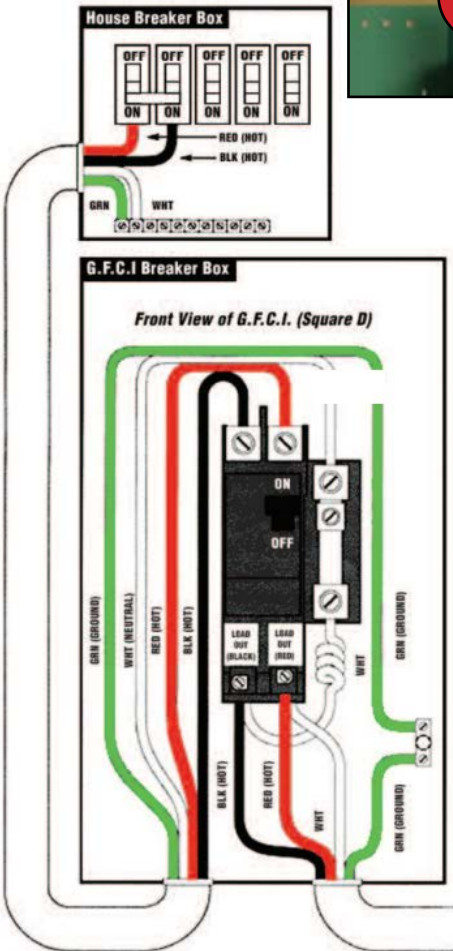
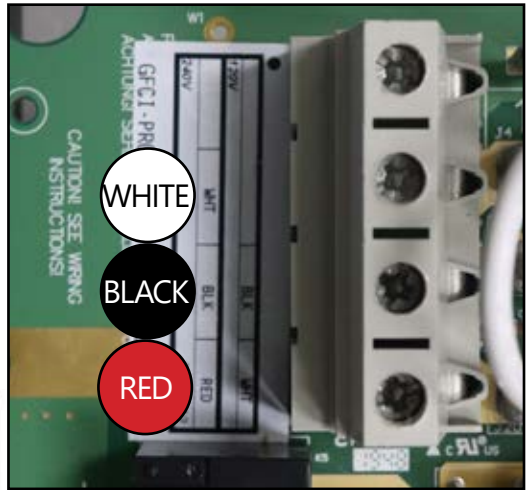
GFCI WIRING INSTALLATION (220V)

NOTE: 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, through a hole in the side panel of the spa or the corner knockouts.

***240V SPAS NOT INSTALLED BY A LICENSED ELECTRICIAN
ARE NOT UNDER WARRANTY***

INSTALLATION



INSTALLATION

FILLING DIRECTIONS

NOTE: We do NOT recommend the use of softened water due to the potential of equipment damage.

1. Clear all debris from your spa.
2. Remove filter element.
3. It may be necessary to tighten loose unions and/or fittings before filling your spa with water. Make sure T-Handled gate valves at pump and heater are in the open or up position, and the valve handle retaining clips are in the fully extended up position (Figure 6.1).



Figure 6.1

4. Using a garden hose, place hose in filter chamber for filling. It is very important to make sure that the spa is filled at least 1/2 way up the skimmer opening (Figure 6.2). Do not fill higher than three quarters of the way up the skimmer opening.



Figure 6.2

WARNING: Do not run spa with gate valves closed or run pump with no water circulating in spa for long periods. Damage could occur to the spa equipment.

TOPSIDE NAVIGATION



Scan this
code for our
full topside
navigation
manual!

JETS

Press the “Jets” button once to turn Pump 1 on or off, and to shift between low and high speeds. If left running, the pump will turn off after a time-out period.

In order for the spa to heat, a pump needs to circulate water through the heater. The pump that performs this function is known as the “primary pump” or Pump 1. It is a 2-Speed pump.

The low-speed of Pump 1 runs when any pump is on. Pump 1 may also activate periodically for at least 1 minute to circulate water and detect the spa temperature. This is known as “polling.” When the low-speed turns on automatically, it cannot be deactivated from the panel, however the high speed may be started.

TOPSIDE NAVIGATION

LIGHTS

Press the "Light" button to turn the lights on and off. If left on, the lights automatically turn off after 4 hours. Press the light button consecutively to change the color sequencing.

MODES

Press Menu repeatedly until MODE appears. Press the Warm and Cold Temperature buttons to toggle between modes.



Ready Mode will circulate water periodically, using Pump 1, in order to maintain a constant water temperature, heat as needed, and refresh the temperature display.



Rest Mode will only allow heating during programmed filter cycles. Since polling does not occur, the temperature display may not show a current temperature until the primary pump has been running for a few minutes. In Rest Mode, the spa will only heat to set temperature during programmed filter times.



Ready-in-Rest Mode appears on the display if the spa is in Rest Mode and the "Jets" button is pressed. It is assumed that the spa is being used and will heat to set temperature. The primary pump will run until set temperature is reached, or 1 hour has passed. Then, the System will automatically revert to Rest Mode.

TOPSIDE NAVIGATION

ADJUSTING THE SET TEMPERATURE

Pressing the Warm or Cold Temperature buttons will cause the temperature to flash. Pressing an arrow button again will adjust the set temperature in the indicated direction. When the LCD stops flashing, the spa will heat to the new set temperature.

If a temperature button is pressed and held when the temperature is flashing, the temperature will continue to change until the button is released.

DUAL TEMPERATURE RANGES

This system incorporates two temperature range settings. When a range is chosen, the spa will heat to the set temperature associated with that range.

Press Menu repeatedly until TEMP appears on the screen. Then press a Temperature button to cycle between High and Low Range.

For example:

High Range can be set between 80°F and 104°F.

Low Range can be set between 50°F and 99°F



High Range is designated in the display by a thermometer and an “up” arrow.



Low Range is designated in the display by a thermometer and “down” arrow.

Freeze Protection is active in either range.

INITIAL STARTUP

ADD START-UP CHEMICALS

Make sure cover is open to allow venting when adding chemicals. Ask a local spa retailer to help you set up a chemical maintenance program. They may test a water sample to provide a personalized water care routine.

PLUG & PLAY POWER ACCESS LOCATION

You may have to remove the equipment access panel and route the cord through the opening.



SKIMMER SIDE FILTER

Your spa has 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. Let a small amount of water drain from that connection while the pump is running. Once the water begins to flow out of the jets, tighten the union. Make sure the T-Handled gate valve is in the “open” position and the valve handle retaining clips are snapped into place (Figure 6.1).

MAINTENANCE

DRAINING DIRECTIONS

Every 90 days, it is recommended you renew the spa water. To drain your spa, power must be disconnected.

1. Locate the drain faucet inside the spa cabinet (round spas only) or the corner (Figure 11.1).
2. Pull the drain out to Position 1 to allow water to drain. Pull once more to Position 2 to restrict water flow.

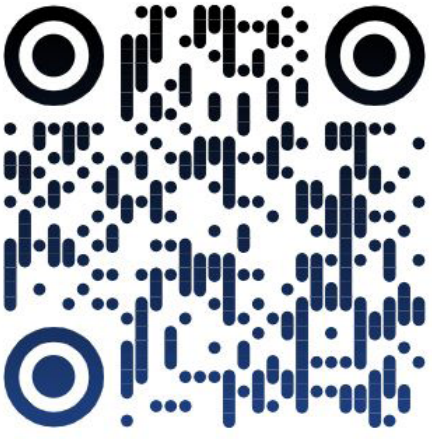


Figure 11.1

3. Twist cap off and attach a garden hose to the opening to direct water-flow.
4. Push back to Position 1 and drain the spa.
5. Reverse this procedure to shut the water off.

NOTE: The drain will not totally empty the spa of water, some must be removed manually.

MAINTENANCE



Scan this code
for a video
demonstration
on how to drain
your spa!

OZONATOR

The ozonator is factory set to filter during filter cycles only. We recommend 4 hours of filtration in a 12 hour window to provide adequate ozonation.

NOTE: Please do not attempt to disassemble ozonator if it becomes inoperable. Ozonators contain no user serviceable parts. Please contact customer service for assistance.

FILTER CLEANING

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. The filter should be checked every week. If the filter looks dirty, remove it and spray clean. The filter should be replaced at least 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.

MAINTENANCE

SEASONAL STORAGE

Water left in the spa during long-term storage may cause freeze damage which is not covered under your warranty. We strongly urge you to contact a local spa dealer to winterize your spa.

If you are not going to use your spa for an extended period of time, drain it as described on Page 11. You will also have to drain the pump.

1. 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.
2. Remove the piping assembly between the pump and the heater by loosening the union at the pump and the union at the heater.
3. Once the piping is removed, use a wet/dry shop vac to vacuum water from both the pump side and the heater side openings.
4. Once all water is removed from these lines, place the vacuum over each jet and the suction fittings to vacuum out any remaining water that may be trapped in these lines.
5. You may now reinstall the piping assembly that was removed earlier and reinstall the pump plug.

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

MAINTENANCE

SPA JETS

Adjustable Spa Jets may be turned off and on by rotating jet faceplate clockwise or counter-clockwise.

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.

WARNING: Do not turn all spa jets off all the same time as this may cause damage to the spa.

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.



MAINTENANCE

VOLCANO JET (Only on select models)

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

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.

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



MAINTENANCE

SPA COVER MAINTENANCE

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

SPA CABINET MAINTENANCE

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

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. Pillows are not designed to be submerged in water. Spa water level should not be reaching the pillows. 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: Your spa pillows are not covered under your warranty.

TROUBLESHOOTING

SITUATION	SOLUTION
Spa will not heat	<p>Check for air lock</p> <p>Make sure both T-Handled gate valves are open and the filter is clean</p> <p>Verify settings</p>
Pump will not function	<p>Gate valves closed</p> <p>Improper wiring to spa</p> <p>Water level in spa too low</p>
Water at Base of the spa	<p>Verify water is not leaking through pillow holes</p> <p>Check for condensation from the spa cover</p> <p>Wait and see if the moisture dries out</p> <p>Remove Cabinet panel where the power system is located and check union connection</p>
You have identified a potential spa leak	<p>If union connection is leaking this can be remedied by re-tightening the union</p> <p>If you have a leak from a jet body or plumbing contact your dealer</p>

SERIAL NUMBER PLATE

SERIAL PLATE LOCATION

Be sure to have the serial number of your Viking Spa handy when contacting our customer service team. This helps with timely assistance and service clarity. The serial plate is located on the bottom frame of your spa, near the drain.



SERIAL PLATE FOUND NEAR DRAIN



SAFETY WARNINGS

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:

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

The effects of hypothermia 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 hypothermia. If you suspect hypothermia, 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

Please use the spa when others are present. Children should have spa access only with the permission and supervision of an adult.

To reduce the risk of child drowning, keep the spa filter clean and unclogged. Do not modify the suction or filtration systems.

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.

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.

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 sans de l'eau a 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 a 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*