Mark III

Owner's Manual

Revised: January 1, 2008
Part No. 7622

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Introduction

Your choice of spa indicates that you are devoted to excellence. We appreciate your patronage and take pride in the tradition of quality spas that our company represents.

In order to get the most out of your spa, we strongly suggest that you take time to read through this manual before you hook up and operate your spa. This will acquaint you with the operating features; hook up procedures, maintenance, and safety procedures, ensuring an enjoyable experience right from the start.

WARNING!! This manual was written to ensure the proper use and installation of your spa. Any modifications to the procedures outlined in this manual may result in your warranty being voided. Please take the time to read this manual to avoid any unnecessary problems with your brand new spa and equipment.

THIS MANUAL AND ITS CONTENTS ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALTHOUGH WE HAVE PREPARED THIS MANUAL TO BE AS ACCURATE AND PRECISE AS POSSIBLE, WE WILL NOT BE LIABLE FOR LOSS, INJURY OR DAMAGES CAUSED BY IMPROPER INSTALLATION OR USE OF SPA (IMPROPER OR OTHERWISE).

This Manual Covers The Following Models:

Millennium – Omni – Solaris – Stratus – LX74 – Tiara

by

Mark III

Date Purchased: _____

Date Installed: _____

Dealer Name: _____

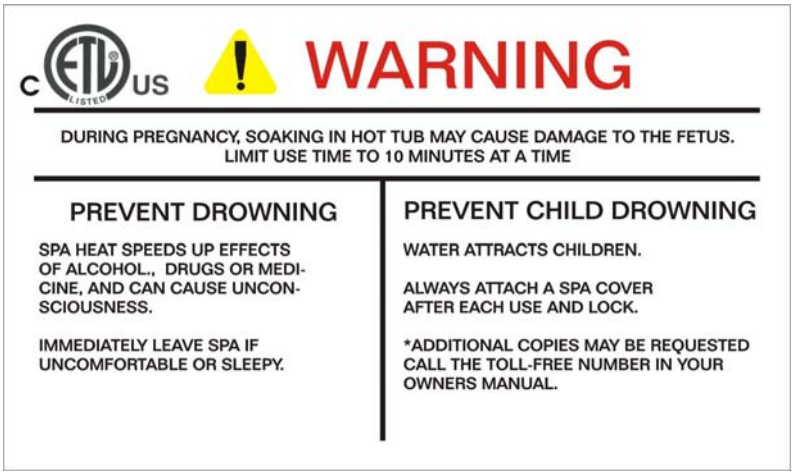
Spa Model and Serial Number: _____/_____

MANUFACTURER RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

IMPORTANT SAFETY INSTRUCTIONS

When installing your spa and using this equipment, basic safety precautions should always be followed. For your safety and the safety of others it is vital that the following be observed:

- **READ AND FOLLOW ALL INSTRUCTIONS!** The following instructions are required by UL 1563 standard to be printed as a condition of their listing this product. They contain important safety information we strongly urge you to read and apply.
- **DANGER - TO REDUCE THE RISK OF INJURY:** Do not permit children to use spa unless they are closely supervised at all times.



WARINING SIGN MUST BE POSTED

The **WARNING** sign (RED) above is packed with your new Mark III Spa. This sign must be posted in a prominent place in close proximity to the spa installation site immediately upon completion of spa installation.

- **WARNING SIGN** - It is extremely important that this sign be permanently placed in clear view of any persons using the spa. Occasional spa users may not be aware of some of the dangers hot water poses to pregnant women, small children, and people under the influence of alcohol. If you did not receive a warning sign or your sign has become damaged, please contact your spa dealer or manufacturer.
- **DANGER** - A wire connector is provided on this unit to connect a minimum No. 6 AWG (8.4mm2) solid copper conductor between unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit, if that item is located within 5 feet (1.5m) of the unit.
- **DANGER - RISK OF ACCIDENTAL DROWNING:** Extreme caution must be exercised at all times, to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use spa unless they are supervised at all times. Cover spa and use safety locks to prevent accidents.
- **DANGER - TO REDUCE THE RISK OF INJURY:** The suction fittings in the spa are sized to match the specific water flow created by the pump/pumps. Should the need arise to replace the suction fittings or the pump/pumps, be sure that the flow rates are compatible.
- **DANGER - RISK OF ELECTRICAL SHOCK:** Install at least 5 feet (1.5m) from all metal surfaces. As an alternative, a spa may be installed within 5 feet (1.5m) of metal surfaces if each metal surface is permanently connected by a minimum No. 6 AWG (8.4mm2) solid copper conductor to the wire connector on the terminal box that is proved for this purpose. Do not permit any electrical appliance, such as a light, telephone, radio or television within 5 feet (1.5m) of the spa, unless factory installed.
- Position spa to provide proper drainage, accessibility of electrical compartments.
- For floor recessed spas, install to permit access for servicing from above or below floor.
- **NEVER USE AN EXTENSION CORD!**
- Consideration should be taken for water splash out. Water can ruin wood floors and some finishes.
- **DO NOT** use a wall switch, ground fault circuit interrupter, circuit breaker, fuse, or plugging and unplugging the spa as a means of turning on or off your spa for normal everyday use.
- **DO NOT** block access door.
- Set the spa on a firm level (flat) surface. DO NOT set spa on blocks as structural damage may occur to spa.
- **WARNING** - To reduce the risk of injury the water in a spa should never exceed 40.0° C (104.0° F). Water temperatures between 38.0° C (100.0° F) and 40.0° C (104.0° F) are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes.

IMPORTANT SAFETY INSTRUCTIONS

- Since excessive water temperatures have a high potential for causing fetal damage during early pregnancy, pregnant or possibly pregnant women should limit water temperatures to 38.0° C (100.0° F). Before entering a spa, the user should test the water temperature with an accurate thermometer. The tolerances of water temperature-regulating devices vary. The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning. Persons suffering from obesity, medical history or heart disease, low/high blood pressure, circulatory system problems, or diabetes, should consult a physician before using a spa. Persons using medication should consult a physician before using a spa because some medications induce drowsiness while others may affect heart rate, blood pressure and circulation.
- Your spa is equipped with audio.
  Caution - Risk of Electric Shock.
  Do not leave audio compartment door and cover open.
  Caution - Risk of Electric Shock
  Replace audio components only with identical components.
  Warning - Prevent Electrocution
  Do not connect any auxiliary components. For example, cable, additional speakers, headphones, etc. to the system.

HYPERTHERMIA
Prolonged immersion in hot water may induce hyperthermia. A description of the causes, symptoms, and effects of hyperthermia are as follows:
Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.60° F (37.0° C). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include:

- Unawareness of impending hazard;
- Failure to perceive heat;
- Failure to recognize the need to exit spa;
- Physical inability to exit spa;
- Fetal damage in pregnant women; and
- Unconsciousness and danger of drowning.

CHOOSING A LOCATION

IMPORTANT: Because of the combined weight of the spa, water and users, it is extremely important that the base upon which the spa rests be smooth, flat, level and capable of uniformly supporting this weight, without shifting or settling, for the entire time the spa is in place. If the spa is placed on a surface, which does not meet these requirements, damage to the skirt and/or the spa shell may result. Damage caused by improper support is not covered under warranty. It is the responsibility of the spa owner to assure the integrity of the support at all times. It is strongly recommended that a qualified, licensed contractor prepare the foundation for your spa. The manufacturer recommends a poured, reinforced concrete slab with a minimum thickness of 4 inches (10cm). Wood decking is also acceptable provided it is constructed so that it meets the requirements outlined above. The spa must be installed in such a manner as to provide drainage away from the spa. Placing the spa in a depression without provisions for proper drainage could allow rain, overflow and other casual water to flood the equipment and create a wet deck. Install so as to permit access to the equipment, and plumbing for servicing. Make certain that there are no obstructions, which would prevent removal of the cabinet side panels and access to the jets components, especially on the side with the equipment bay doors.

Outdoor Location
In selecting the ideal outdoor location for your spa, we suggest that you take into consideration:

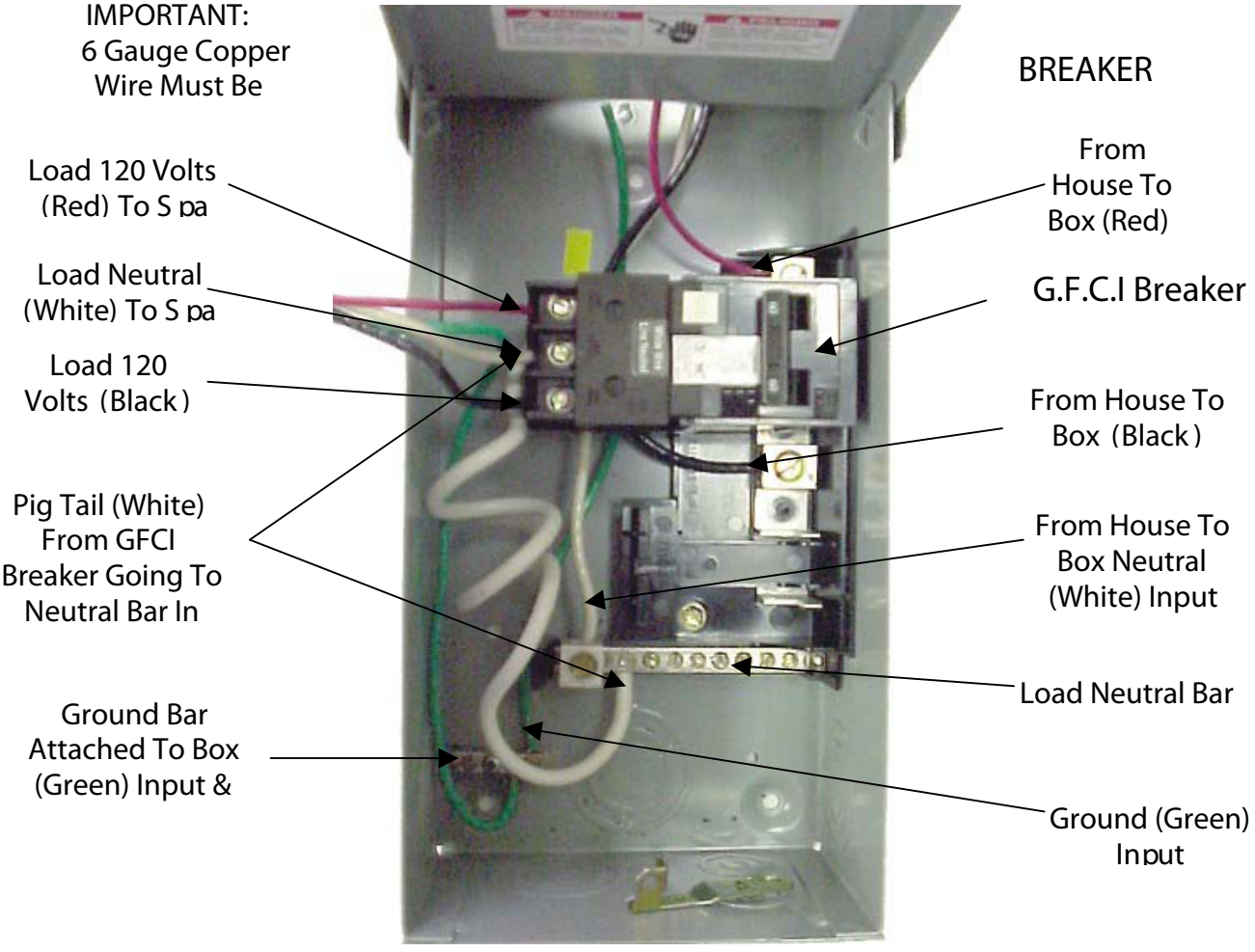
- The proximity to changing area and shelter (especially in colder weather conditions).
- The pathway to and from the spa (free of debris, dirt, leaves as not to be tracked into spa).
- The closeness to trees and shrubbery (leaves and birds could create extra work).
- A sheltered environment (less wind, weather exposure resulting in lowered operation and maintenance costs).
- The overall enhancement of your environment. It is preferable not to place the spa under an unguttered roof overhang since run-off water will shorten the life expectancy of spa cover.

Indoor Location
Be sure your spa will fit into the space you have chosen. Proper access into the home is needed to move the spa into place. Ventilation may be needed because of the humidity from the spa. In most cases, a spa cover is sufficient. Though most homes meet the requirement of 80lbs per square foot, be sure to check the load carrying capabilities of the floor you will be installing your spa on (manufacturer not responsible). Insure you have proper drainage in the event of a leak or water spill due to over load of spa with people causing water damage (manufacturer not responsible.) In case of maintenance problems leave enough room around the spa to work. Choose proper flooring area for spa.

POWER REQUIRMENTS

MODEL	VOLTS	AMP DRAW	FREQ.	CONNECTION	APPLICATION
Millennium	220-240	2x16 or 1x32	50	5 or 3 wire 4 sq mm^2	HSEX2000
Omni	220-240	2x16 or 1x32	50	5 or 3 wire 4 sq mm^2	HSEX2000
Solaris	220-240	2x16 or 1x32	50	5 or 3 wire 4 sq mm^2	HSEX2000
Stratus	220-240	2x16 or 1x32	50	5 or 3 wire 4 sq mm^2	HSEX2000
Tiara	220-240	2x16 or 1x32	50	5 or 3 wire 4 sq mm^2	HSEX2000

Figure 1



NOTE: The White Neutral Wire from the GFCI MUST be connected to an incoming Line Neutral. The internal mechanism of the GFCI requires this Neutral connection. The GFCI WILL NOT WORK WITHOUT IT.

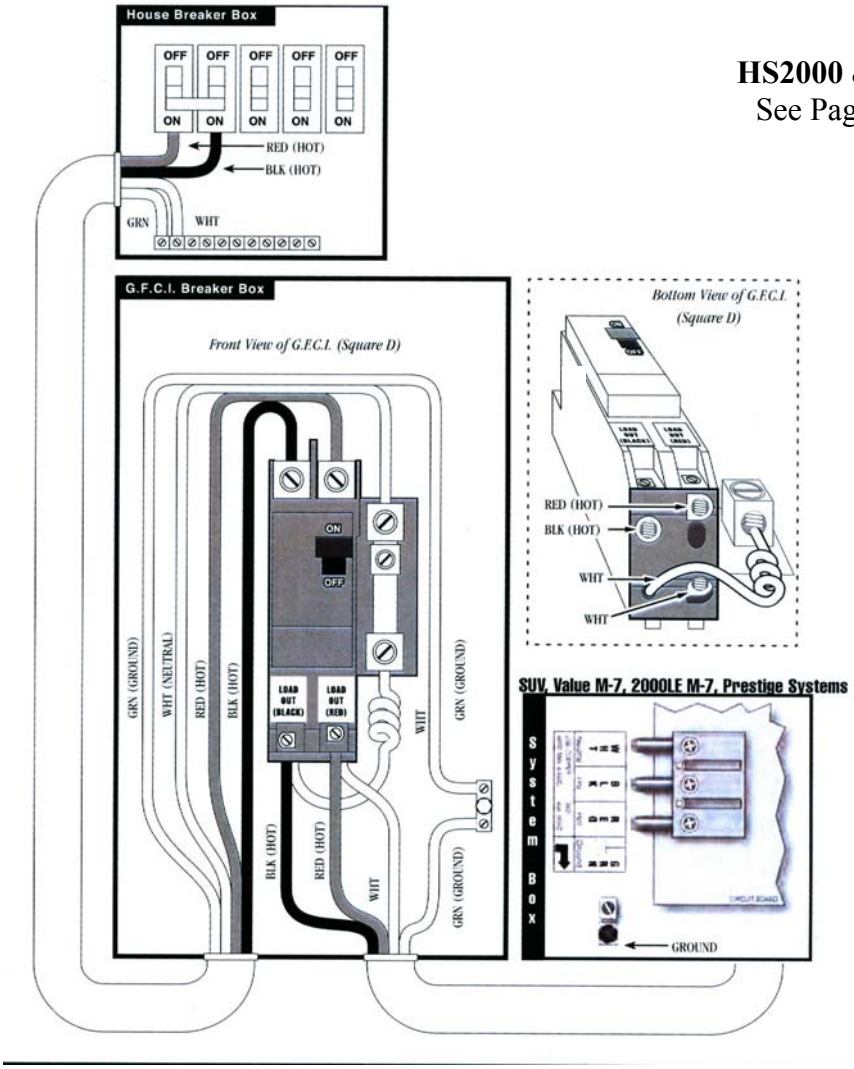
WARNING - ALWAYS USE A CERTIFIED ELECTRICIAN WHEN HOOKING UP YOUR NEW SPA.

POWER REQUIRMENTS

Figure 2

HS2000 & HS200M7

See Page 5 Figure 4



An illustration showing the proper electrical connections for 240Volt service has been provided for you. (Figure 2) Be sure to follow these and all other instructions carefully. Be sure that all connections are tight before switching on the circuit breaker.
CAUTION! Failure to abide by specification listed may result in damage to equipment and may void the warranty. **IF THE SPA IS WIRED INCORRECTLY, YOUR WARRANTY WILL BE VOID ON ANY BURNED OUT ELECTRICAL EQUIPMENT.**

G.F.C.I (Ground Fault Circuit Interrupter)

IMPORTANT
This service must be single phase. High voltage can seriously injure or kill. **Always use a certified electrician when hooking up your new spa**.

The National Electrical Code states that a service disconnect breaker box (a G.F.C.I. can be used for this purpose) must be located at least 5 feet away from the spa and should be conveniently located near the equipment bay. If it is not in plain sight, keep disconnect padlocked when in the off position.

Remember, high voltage is still accessible in the housebreaker box even though you have turned off the spa breaker.

CONTROLER HS200 M7 - INSIDE VIEW

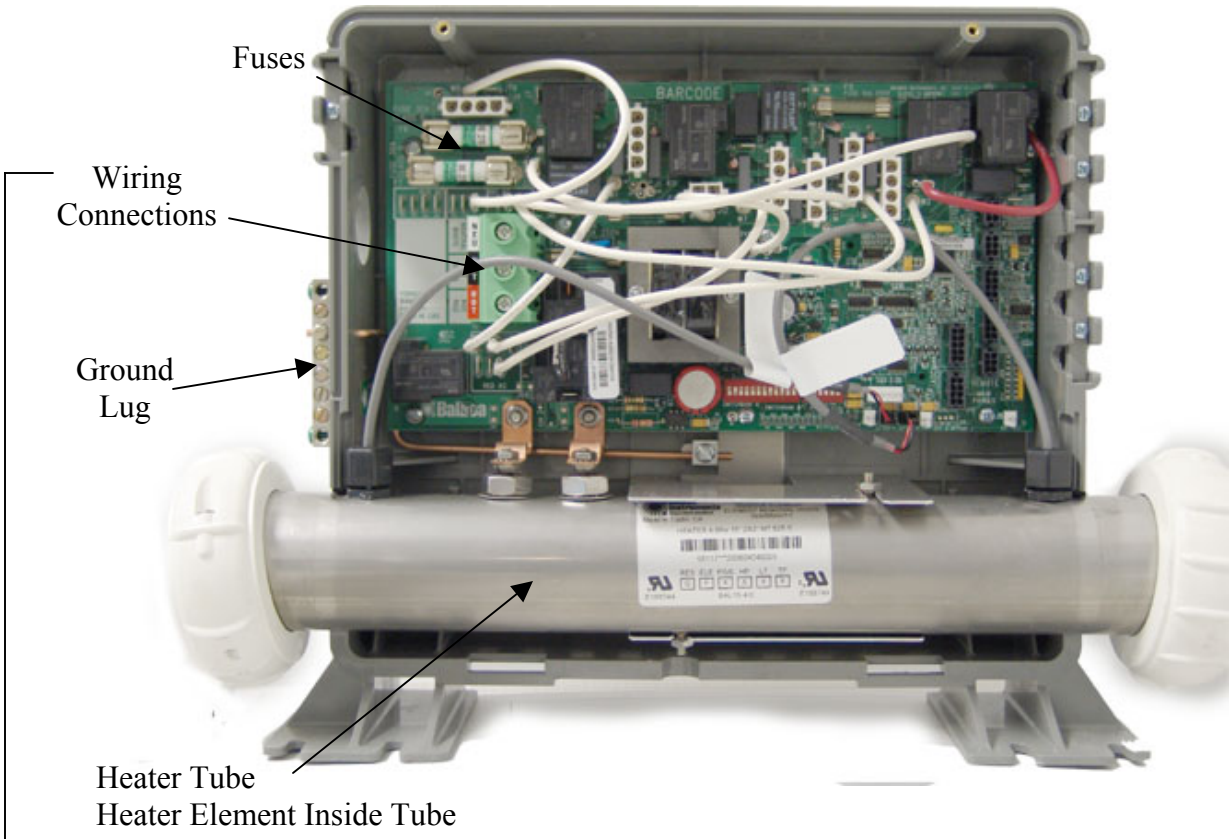


Figure 3

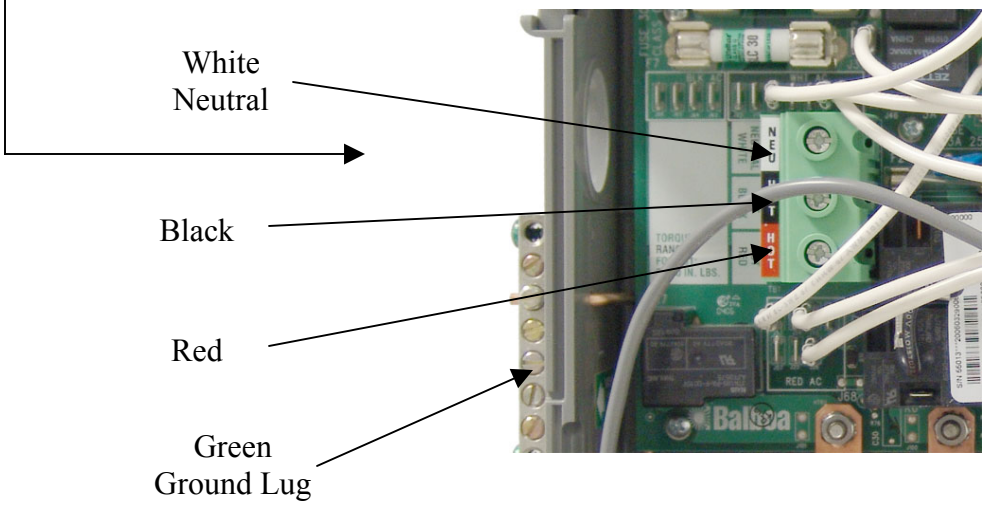
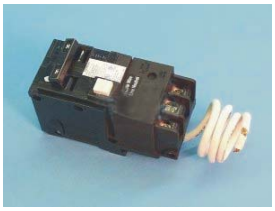


Figure 4

Control Box Wiring (HS200M7)



60 Amp Breaker – Part No. 5363

ELECTRICAL WIRING INSTRUCTIONS

IMPORTANT NOTICE: The electrical wiring of this 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 electrician and approved by a local building/electrical inspection authority.

1. This spa must be permanently connected (hard-wired) to the power supply. No plug-in connections or extension cords are to be used in conjunction with the operation of this spa. Supplying power to the spa, which is not in accordance with these instructions will void both the independent testing agency listing and the manufacturer's warranty.
2. The power supplied to this spa must be a dedicated circuit with no other appliances or lights sharing the power provided by the circuit.
3. To determine the current and voltage and wire size required, refer to section "Power Requirements" (Pages 3, 4).
    - Wire size must be appropriate per NEC and/or local codes.
    - We recommend type THHN wire
    - All wiring must be copper to ensure proper connections. Do not use aluminum wire.
    - When using wire larger than #6 (10mm2), add a junction box near the spa and reduce to short lengths of #6 (10mm2) wire to connect to spa.
4. The electrical supply for this product must include a suitably rated circuit breaker to open all ungrounded supply conductors to comply with Section 422-20 of the National Electrical Code, ANSI/NFPA 70. The disconnecting means shall be accessible, located within sight from spa equipment, and shall be located at least 5 ft (1.52m) horizontally away from the inside walls of the spa.
5. The electrical circuit supplied for the spa must include a suitable ground fault circuit interrupter (GFCI) as required by NEC Article 680-42. **(GFCI NOT INCLUDED)**
6. To gain access to the spa's power terminal block, remove the screws and cabinet panel on the side of the spa under the control panel, and then remove the two screws from the control pack.
7. A cable inlet (grommet) is located on the left and right sides of the spa cabinet approximately 4" - 6" from the front of the spa. Feed the power supply cable through a cable inlet and conduit on the left side of the control box.
8. Connect wires, color to color, on terminal block. TIGHTEN SECURELY! All wires must be hooked up securely or damage could result.
9. Secure the control box door panel with screws, and then re-install the cabinet panel under the control panel. Electrical installation is now completed.

IMPORTANT CANADA SAFETY INSTRUCTIONS

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

1. Read and follow all instructions
2. A green colored terminal or terminal marked G, Gr, Ground, Grounding or the ground symbol is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with continuous copper wire equivalent in size to the circuit conductors that supply this equipment.
3. At least two lugs marked "Bonding Lugs" are provided on the external surface or on the inside of the supply terminal box/compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the hot tub to these terminals with an insulated or bare copper conductor not smaller than No. 6 AWG.
4. All field-installed metal components such as rails, ladders, drains or other similar hardware within 10 feet (3m) of the hot tub shall be bonded to the equipment grounding buss with copper conductors not smaller than No. 6 AWG.

Pool & Spa Buster – Part No. 7113

By-WaterTech Hoseless battery powered hand vacuum cleaner for all pools spas and hot tubs Extraordinary Power for thorough clean-ups of virtually any water applications kiddie/wading pools spas hot tubs and fountains A great spot cleaner for traditional above ground and inground pools This powerful cleaner uses 5 standard D-Cell batteries providing up to 3 hours of cleaning time on average a set of batteries will last almost an entire season.

START-UP INSTRUCTIONS

FOR BEST RESULTS, READ EACH STEP IN IT'S ENTIRELY BEFORE PROCEEDING WITH STEP.

FILLING THE SPA

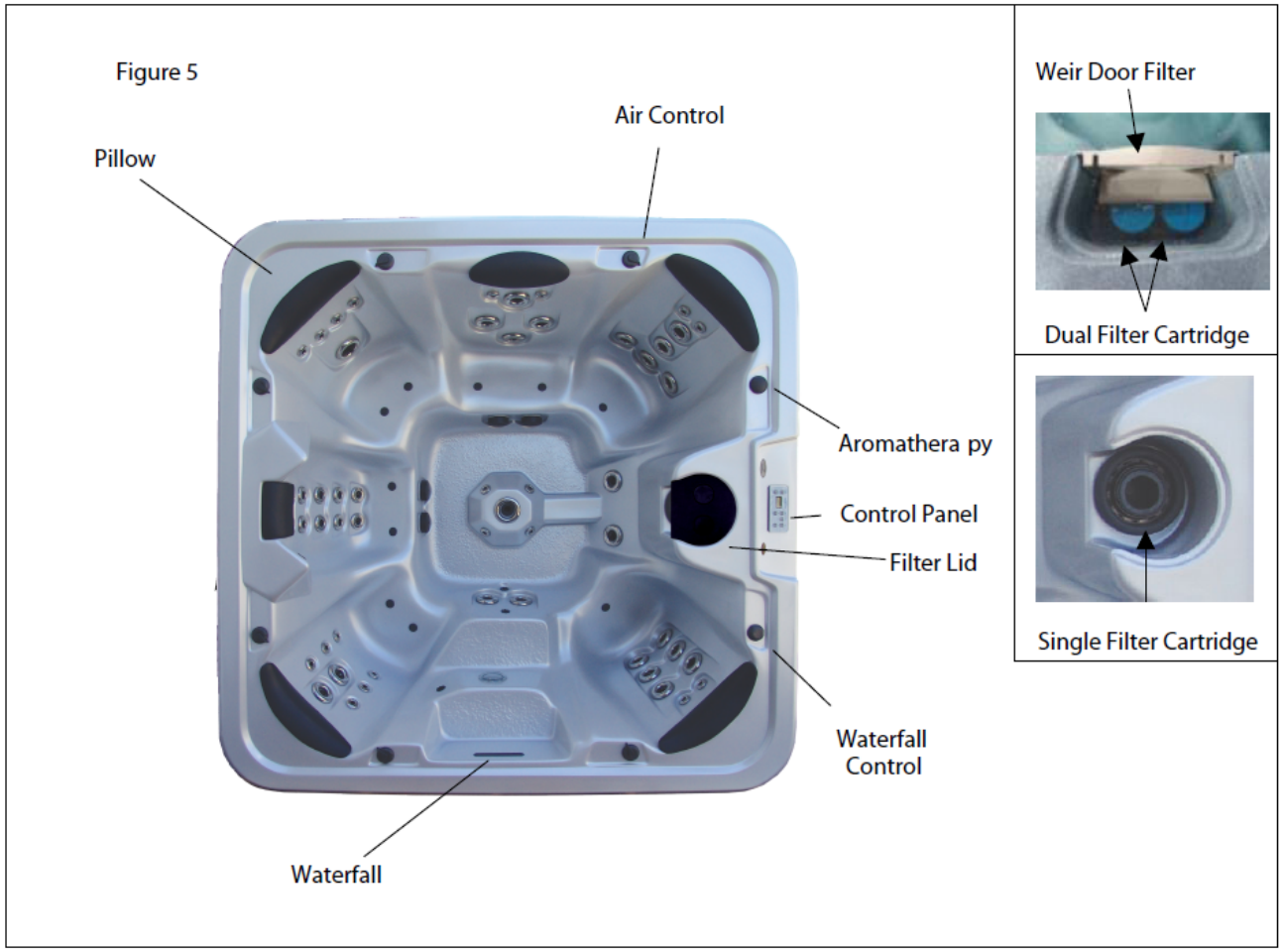
Clear all debris from inside the spa. At the factory your spa shell was cleaned and polished, but you may want to treat it with a specially formulated spa cleaner available by phone **1-877-530-PARTS**. Make sure the spa has been installed correctly, including electrical wiring connections as specified in the wiring diagram, and the spa is level.

Do Not Over Fill. Never fill your spa with water from a water softener, or use hot water while filling. Ensure that your spa drain is shut off. Remove your filter lid. Place your garden hose into the filter housing and begin filling with clean water. Continue filling spa until the water level is 2 inches above the highest water jet. Remember every person entering a spa displaces a given volume of water, so adjust water level to number of people who will be entering spa. If your water is extremely "hard", it is preferable to fill halfway with hard water and the rest of the way with softened water. Or, you may fill the entire spa with hard water if you use a special water additive available by phone **1-877-530-PARTS**.

Always refill spa through one filter housing to purge any trapped air from pump intakes. Failure to do so may cause air to be trapped in the circulation pumps intake creating an air lock, preventing the pumps from circulating water. Ensure both side valves are fully open. Make sure filter cartridge is clean before installing. See "Cleaning the Filter" for specific cleaning procedures (see page 13). Remove the hose and re-install filter lid. (Figure 5)

SPA DIAGRAM

Figure 5



START-UP INSTRUCTIONS

- Turn on power to hot tub at the home circuit breaker. The GFCI circuit breaker must be tested before each use of the spa. Press the "Test" button on the breaker and the circuit breaker should go to the tripped position. Reset the GFCI and ensure it stays on. The Display goes through specific sequences. At first the Display will show a series of four numbers. The first three numbers in combination are called the software ID. Following the software ID will be either 12 or 24, indicating the heater wattage the software is configured for. After any power-up, the spa first goes into priming mode indicated by "Pr". During this mode heating is disabled. All pumps can be turned on to any available speeds (as needed for priming) from the front panel. To exit Priming mode and begin normal spa operation, press any set temperature button Up/Down). The circulation pump will automatically activate. Circ pump is turned on and doesn't turn off unless detected temperature gets 3 degrees above set temperature (outside filter cycle only; never turns off inside filter cycle). As soon as "Pr" is indicated on the top side panel, push Jets 1, Jets 2 buttons to start the pumps. Push buttons until both pumps (if equipped) is on high speed. If the pumps have not primed after two minutes, and water is not flowing from jets in the spa, do not allow the pumps to continue to run. Turn the power off at main panel and vent air from the pumps. Do this loosening the union nuts on the discharge side of pumps. Turn the power back on at main panel. This will initiate a new pump priming mode. Sometimes momentarily turning pump off and on will help to prime. Do not do this more than five times. Check and adjust if necessary the water and air flow of every jet. See Air Volume control and Adjusting Jets sections for details. Priming mode will time out after 4 minutes. The circulation pump and ozone generator will automatically turn on. After 6 minutes the actual water temperature will be displayed and heater will turn on if heat is required. The blower (if equipped) purges all air lines for 30 seconds and pump 1 (low) and pump 2 (high) purge all water lines for 5 minutes.
- Set Hot Tub To Heat - To warm hot water tub to a comfortable temperature, follow these steps: To adjust your spa water temperature press the WARM or COOL button pad. Default setting is 100F. The set temperature advances or decreases by one degree each time one of these buttons is pressed. The heater will turn off when the temperature corresponding to the thermostat setting is achieved. The heater will reactivate after the water cools, to approximately 1F below the set temperature. Setting the thermostat at maximum position will not accelerate the heating process. This will only result in a higher ultimate temperature. Heat icon light is on when the heater is activated.

Add Start-Up Chemical as recommended by your dealer. Refer to Page 15-17 for general guidance.

- Place Spa Cover On Hot Tub
- Keeping the insulating cover in place anytime the hot tub is not in use will reduce the time for heating, thereby minimizing operating costs.
- The time required for initial heat-up will vary depending on the starting water temperature and ambient condition.

Your spa is equipped with a Topside control panel, air control knobs, on-off waterfall valve, aromatherapy canister and diverter valve. All controls are located on the top rail of the spa. These controls let you operate many of the special features on your spa. The main control panel controls all of the spa functions and uses indicator LED light, LCD display to aid the user to determining the status of the spa. By familiarizing yourself with following information, you will be able to gain the full benefit afforded by the various functions of your spa.

TOP SIDES

OPERATING INSTRUCTIONS

Warm/Cool
Press the “Warm” or “Cool” buttons once to display the set temperature. Each time either button is pressed again, the set temperature will increase or decrease depending on which button is pressed. After three seconds, the LCD display will automatically display the current temperature the spa water.

Standby Mode
Pressing “Warm” or “Cool” then “Jets2” button will turn off all spa functions temporarily. This is helpful when changing filter cartridges. Press any button to exit Standby mode.

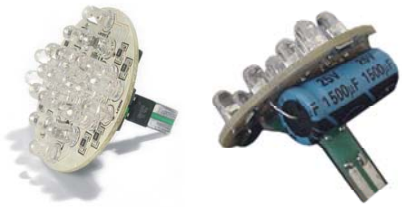
Jets 1
Press the “Jets 1” button once to turn pump 1 on or off, and to shift between low and high speeds. If left running, the low speed turns off after two hours and high speed turns off after 15 minutes.

Jets 2 (if equipped)
Press the “Jets 2” button once to turn pump 2 on or off. If left running, the pump 2 turns off after 15 minutes.

Blower (if equipped)
Press the “Aux” button once to turn blower on or off. If left running, the blower turns off after 15 minutes.

LED Light
Press the “Light” button to turn the spa light system on and off. LED light system preprogrammed with assortment of lighting effects. When you turn Light off and turn on again within five (5) seconds it advances to the next effect. When you turn Light off for more than five (5) seconds, it remembers that last effect you selected. The next time you turn on the Light will display the same effect. The Light will automatically turn off after approximately four (4) hours.
For spas equipped with LED light system and music module the following sequence effects can be selected via on-off Light button:
1) Color wheel; 2) Music modulated mode; 3-8) Different colors; 9) Flashing through the color sequence

Setting the Time (If equipped)
Once your spa has been properly connected the first time the “Time” icon appearing on the screen and flashing. Press “Time” pad, then “Mode/Prog.”. Select the hour by pressing “Warm” or “Cool” (each press changes time by 1 hour). Press “ Mode/Prog.” pad again and select minutes by pressing “Warm” or “Cool” (each press changes time by 1minute). Press “ Mode/Prog.” pad to exit the time setting procedure and enter the optional filter cycle programming. Press “Time” pad to exit programming. Time setting on HS2000 system is not preserved in the event of power loss; time will have to reprogram upon each power up.



Light LED Digital – Part No. 7096

OPERATING INSTRUCTIONS

Circulation Pump
Your system equipped with the circulation pump. The circulation pump provides 24 hour continuous water circulation and filtration. The circulation pump turns over the entire spa water capacity at a minimum of 5-9 times every hour (small number for larger water capacity spas). It works like this: a dedicated, energy efficient circulation pump constantly draws water from the spa, runs it through the filter and the heater (heating only when necessary), then back to the spa. The ozone output is on whenever the circulation pump is running except when the jet pump(s) or blower is (are) activated by the user. The ozone generator will turn off for one (1) hour any time a function button (Jets 1, Jets 2 or Aux.) is pressed. The Circulation pump will turn off for 30 minutes at a time when the water temperature reaches 3°F (1.5°C) above the set temperature (most likely this will happen in a very hot climate or during summer).

Heater
Your spa is equipped with an electrical heater. By setting your thermostat to the desired temperature, your heater will automatically turn on and off as needed. The temperature set point (set temperature) can be adjusted from 80°F to 104°F/26°C-40°C. To raise the set temperature press the "Warm" button. To lower the set temperature, press the "Cool" button. The start up temperature is set at 100°F/37.5°C. The last measured temperature is constantly displayed on the LCD.
In Economy mode the heater heats the spa water only during filter cycles.
In sleep mode the heater heats the spa water to within 20°F (11°C) of set temperature only during filter cycles.

Ozone water maintenance system
Your spa is equipped with ozone purification system. You will find that your spa water stays fresh and clear with significantly less chemical sanitizer usage. You will be able to go longer between complete spa draining. The ozone generator operates in conjunction with the circulation pump. Ozone generator is on any time the circulation pump is running. Ozone generator will turn off for one (1) hour any time a function button (Jets 1, Jets 2, Aux.) is pressed.

Spa Chemicals - **1-877-530-PARTS**

CitraBright – Part No. 7303
Featuring the natural cleaning power of citrus, this spray-and-wipe formula cleans and degreases almost any surface — from spas and hot tubs to swimming pools, patio furniture and more. It goes to work on the toughest grease and grime quickly and easily, leaving behind nothing but a pleasant citrus scent.

Cover Care & Conditioner – Part No. 7255
Cleans, restores and protects spa covers from weathering, fading and discoloration. Specially formulated with a UV protectant.

Filter Clean New – Part No. 7221
Concentrated formula deep cleans filter to remove dirt, oil, grease and scale.

Enzyme (Scum Gon) – Part No. 7223
A blend of natural enzymes that breaks down oil, lotion, and organics that cause unsightly scum lines and odors in spa water. Helps reduce the need for maintenance of filters and spa surfaces. Works with all types of sanitizers.

Spa Minerals – Part No. 7172

Easy-to-use cartridge containing an EPA-registered mineral formula that destroys bacteria while reducing chlorine or bromine use up to 50%.

Features:

* Simplifies water care by reducing sanitizer demand
* Improves filter efficiency
* Formulated for use with bromine, chlorine, ozone and non-chlorine shock
* Lasts up to four months in spas up to 600 gallons

OPERATING INSTRUCTIONS

Freeze Protection
If the temperature sensor detects a temperature drop to 44°F (6.7°C) within the heater, then the pump automatically activates to provide freeze protection. The equipment stays on until four (4) minutes after the sensors detect that the spa water temperature has risen to 45°F(7.2°C) or higher. In colder climates, an optional additional freeze sensor may be added to protect against freeze condition that may not be sensed by the standard sensors. Auxiliary Freeze sensor protection acts similarly except with the temperature thresholds determined by the switch and without a four (4) minute delay in turnoff. See your dealer for details.

Locking the panel
Press "Time", "Jets 1" then "Warm" buttons within three (3) seconds. When locked, the "PL" indicator light will light. All buttons are frozen except the "Time" button. To unlock the panel, press "Time", "Jets 1" then "Cool".

Air Volume Control
Your spa is equipped with Air Volume Controls. Each jet system has its own air control. These controls allow you to regulate the amount of air, which is mixed with the water entering through the jets. Counterclockwise rotation adds more air and clockwise rotation reduces airflow. To minimize heat loss, these controls should be closed when the hot tub is not in use.

Waterfall control
Turn the waterfall valve clockwise to decrease or turn off waterfall output. It takes four full revolutions to change the waterfall from full off to a full on flow rate.

Adjusting Jets
All jets in your new spa can be adjusted for high and low impact massage, providing an ultimate massage. Each jet has its own water volume and directional or oscillating flow adjustment.
To adjust jets: Turn outer dial counterclockwise to increase water volume. Turn outer dial clockwise to decrease water volume or to shut jet off. For adjustment of the directional jets move the nozzle of jet to any angle.

Aromatherapy
Simply remove the Aromatherapy injector cap, drop in the injector basket of your favorite scented beads. When the Pump 1 is activated, the scent will be released into the spa vapor through the water jets. See your dealer for replacement of scented beads.

Diverter Valve – (for models equipped with diverter valve)
This control allows you to regulate the amount of water distributed by pump 2 from seat to seat.

Audio System
Spas equipped with audio systems offer enhanced spa enjoyment. This model includes a high quality AM/FM/CD/MP3 stereo receiver with two high quality speakers and a sub woofer for unsurpassed sound quality and long life.
Two speakers located on spa lip or corners are designed for manual exposure and retraction. To expose each speaker for audio playback, simply press download on each enclosure to unlatch its pop-up mechanism, then release. To retract each speaker before covering spa, gently press downward on each enclosure you will feel a slight "click", then release. Sub woofer is located inside cabinet in right corner of the spa excess panel. Audio system is equipped with remote control panel for safe and easy operation from within the spa.

Caution: Never step or sit on speaker enclosure. Always retract speakers prior to covering spa.
For details see Stereo Receiver Operational Manual.

Hydro Therapy Soak
Inspiration Hydro Therapy Soak, offers a extensive line of spa fragrance to enhance your soaking experience. From relaxing scents like Camille, Coconut, Green Tea, Lavender, Mandarin, Vanilla and Rose.

Camille - Part No. 7950
Coconut - Part No. 7951
Green Tea - Part No. 7952
Lavender - Part No. 7953
Mandarin - Part No. 7954
Vanilla - Part No. 7955
Rose - Part No. 7956

Message	Meaning	Action Required
	No message on display. Power has been cut off to spa.	The control panel will be disabled until power returns. The system reset the time of day on each power up. Spa settings are preserved.
OHH	Overheat"- The spa has shut down. One of the sensors detected 118egree F (approximately 47.8 degree C) at the heater.	Do not enter the water. Remove the spa cover and allow the water to cool. Once the heater has cooled, reset by pushing any button. If the spa does not reset, shut off the power to the spa and call your dealer or service.
OHS	Overheat"- The spa has shut down. One of the sensors detected that the spa water is 110egree F (approximately 43.3 degree C).	Do not enter the water. Remove the spa cover and allow the water to cool. At 107 degree F (approximately 41.7 degree F), the spa should automatically reset. If the spa does not reset, shut off the power to the spa and call your dealer for service.
ICE	Ice" - Potential freeze condition detected.	No action required. The pumps and the blower will automatically activate regardless of the spa status.
SnA	Spa is shut down. The sensor that is plugged into the "Sensor B" jack is not working correctly.	Check the sensor "B" plug connection to circuit board. If the problem persists, contact your dealer or service. (The problem may appear temporarily in an overheat situation and disappear when the heater cools).
Sns	Sensors are out of balance. If this is alternating with temperature, it may just be temporary condition. If the display shows only this message (periodically blinking), the spa is shut down.	If the problem persists, contact your dealer or service.
HFL	A substantial difference between sensors was detected. This could indicate a flow problem.	Check water level in spa. Add water if necessary. Be sure that slide-valves are open. Make sure the circulation pump have been primed and has power.
LF	Persistent low flow problems. Displays on the fifth occurrence of the "HFL" message within 24 hours. Heater is shut down, but other spa functions to run normally.	Follow actions required for "HFL" message. Heating capacity of the spa will not reset automatically; you may press any button to reset or cycle the power off and on.
Dr	Inadequate water detected in heater. Displays on third occurrence of "dr" message. Spa is shut down for 15 minutes.	Check water level in spa. Add water if necessary. Be sure that slide-valves are open. Make sure the circulation pump have been primed and has power. On the third consecutive occurrence of the dr message (without a successful heating cycle in between) the panel will display dr4.
Dr4	Inadequate water detected in heater. Displays on third occurrence of "dr" message. Spa is shut down and will not reset in 15 minutes.	Check water level in spa. Add water if necessary. Be sure that slide-valves are open. Make sure the circulation pump have been primed and has power. Press any button to reset.
Pr	When your spa is first activated, it will go into Priming mode.	See the 24 hour circulation pump operation. The Priming mode will last for up to four minutes & then the spa will begin to heat and maintain the water temperature in Standard mode.
- F - C	Temperature unknown Temperature unknown	After 6minutes Pr mode, the temperature will be displayed. After 6minutes Pr mode, the temperature will be displayed

SPA CARE AND MAINTENANCE

Draining and Refilling your spa

WARNING!
To prevent damage to spa's components, turn off power before draining it. Do not turn the power back on until your spa has been refilled. Depending on your spa model, the drain valve is located on the left or right side of the spa (see page 8). The drain valve is flush mounted to the spa frame. To drain spa, pull the spout out, (approximately 2"), leaving the exterior end cap on. Once extracted the drain valve will stay in the closed position. Remove the end cap and attach garden hose to exposed threads. After the garden hose is installed, push the spout back in halfway to actuate the drain. Drain valve will drain approximately 5 gallons of water per minute.

Filter cleaning and Cartridge Replacement.
Press "warm" or "cool" button then "Jets 2" button. It will temporarily turn off all spa functions and put the spa in standby mode.
The Filter cartridges should be checked periodically. In normal use, check them at least once a month. Keep them clean. An obstructed filter cartridge reduces water quality and inhibits proper system performance.
Removable filter cartridges are located inside the filter well. To remove them lift the filter lid, then rotate each filter cartridge counterclockwise to unthread from mating wall fitting.
Remove both cartridges from filter well.
Use a garden hose with straight flow nozzle to wash down the filter element. Work from the top down, holding the nozzle at 45degree angle, and wash all the pleats with emphasis between pleats.
Rinse until all dirt and debris is gone.
Re-install filter. Press any button to exit standby mode.
Replacement cartridges may be purchased - Part No. 6136 (Eminence, Olympia, Everest, & Cascade)
Replacement cartridges may be purchased - Part No. 5460 (Meridian, Summit & Venus)

Filter Cartridge

Care Of The Exterior

Spa Shell
Your spa shell is made of acrylic. Stains and dirt generally will not adhere to the surface. Use of a soft rag or a nylon scrubber should easily remove most dirt. Most household chemicals are harmful to your spa's shell. See your dealer for the best product to use. The only products, which have passed the manufacturer's test, are Soft Towel and Windex. Sodium bicarbonate (baking soda) can also be used for minor surface cleaning. Always thoroughly rinse off any spa shell cleaning agent with fresh water not to damage surface area.
NOTES: Iron and copper in the water can stain the spa shell if allowed to go unchecked. Ask your Mark III Spa dealer about a stain and scale inhibitor to use if your spa water has a high concentration of dissolved minerals.

The use of alcohol or any household cleaners other than those listed to clean the spa shell surface is **NOT** recommended. **DO NOT** use any cleaning products containing abrasives or solvents since they may damage the shell surface. **NEVER USE HARSH CHEMICALS**! Damage to the shell by the use of harsh chemicals is not covered under the warranty.

IMPORTANT: Some surface cleaners contain eye and skin irritants. Keep all cleaners out of the reach of children and use care when applying.

Maintenance Free Cabinet
The spa consists of a rigid polymer that combines the durability of plastic with the beauty of a redwood looking cabinet. The cabinet will not crack, peel, blister or delaminate. Cleaning consists of simply spraying the cabinet with a mild soap and water solution to remove any stains and residue.

Pillow care
Remove and clean the headrest pillows as needed with soapy water using a cloth or soft-bristle brush. Always remove the pillows when adding chemical shock treatment to the spa water. The pillows can be returned to the spa when sanitizer reading drops below 5ppm. Never attempt to remove the pillows by pulling on them. Grasp pillow with fingertips and gently pry outward from spa shell.

SPA CARE AND MAINTENANCE

Care Of Spa Cover

To clean and condition the vinyl cover:

- Remove the cover from the spa and gently lean it up against a wall or fence.
- Using a garden hose, spray the cover to loosen and rinse away any dirt or debris.
- Using a sponge and/or a soft bristle brush, and using a very mild soap solution (one teaspoon dishwashing liquid with two gallons of water), or baking soda (sodium bicarbonate) scrub, the vinyl top in a circular motion. Do not let the vinyl dry with a soap film on it before it can be rinsed clean.
- Scrub the cover's perimeter and side flaps. Rinse clean with water.
- Rinse off the underside of the cover with water only (use no soap), and wipe it clean with a dry rag.
- To condition the cover after cleaning, apply a thin film of vinyl cleaner to the surface and buff to a high luster.

Important reminders:

- **DO** remove snow buildup to avoid breakage of the foam core from the additional weight of the snow.
- **DO** lock cover locking straps to secure the cover when the spa is not in use.
- **DO NOT** walk or stand on top of cover (unless you own a "walk-on-cover".
- **DO NOT** drag or lift the spa cover using either of the flaps, or the cover lock straps.

Vacation Care Of Spa

Follow these instructions to ensure that the water quality of your spa is maintained:

For Short Periods (3 to 5 days)

- Adjust the pH
- Sanitize the water
- Lock cover for safety

For Long Periods (5 to 14 days)

- Set temperature to its lowest level approximate water temperature of 80.0F.
- Adjust the pH
- Sanitize the water
- Lock cover for safety

Return Procedures

- Sanitize the water following shock procedures
- Return water temperature to original setting
- Insure chlorine level had dropped below 5.0 ppm

NOTE: If you plan on not using your spa for periods exceeding 14 days, you may ask a family member or neighbor to assist with your spa maintenance, and if not available you will need to drain or winterize spa.

Winterizing Your Spa

During the cold weather you may not wish to use your spa outside. In this case you may move it to a heated area, or leave it until the weather warms up.

WARNING: Allowing your spa water to freeze will cause severe damage to the spa shell, equipment, and plumbing and WILL VOID WARRANTY.

The following steps should protect your spa from freezing:

- Disconnect the spa from the power supply.
- Remove the screws holding your spa excess panel door.
- Open the drain valve, then open the pumps plugs, and the spa will drain by gravity flow.
- Remove the filter cartridge, then clean and store in a dry place.
- Attach a wet/dry shop vac (capable of blowing air as well as vacuuming) into the filter housing.
- Turn blower on and allow it to blow out any water remaining in the plumbing lines. (Should take no more than 5 minutes).
- Reinstall the filter housing.
- Use the shop vac to remove water inside spa blown through jets.
- Use a shop vac and clean towel and remove any remaining water from bottom of spa until dry.
- Leave the drain open.
- Close the spa cover and fasten with tie down safety locks.

WATER QUALITY AND MAINTENANCE

Water Quality In Your Spa
The quality of the water in your spa is important and must be kept clean. Your program will vary depending on your water's mineral content, and how often you use your spa, and the amount of people using it.

Here are our suggested step-by-step procedures:

General Information - The three fundamental areas of water maintenance.
* Water Filtration * Chemical Balance/pH Control * Water Sanitation

Water sanitation is the owner's responsibility of maintaining clean quality water in your spa, and is achieved through the regular and periodic (daily), addition of an approved sanitizer if necessary. The sanitizer will chemically control the bacteria and viruses present in the fill water or introduced during the use of the spa. Bacteria and viruses can grow quickly in under sanitized spa water.

The water's chemical balance and pH control are also your responsibility. You will have to add chemicals to maintain proper levels of Total Alkalinity (TA), Calcium Hardness (CH) and pH. Proper water balance and pH control will minimize scale buildup and corrosion of metals, extend the life of the spa, and allow the sanitizer to work at maximum efficiency.

Methods For Testing Spa Water
Accurate water testing and analysis are an important part of effectively maintaining your spa water. You must have the ability to test for:
- Total Alkalinity (TA)
- pH
- Calcium Hardness (CH)
- Sanitizer

Two types of testing methods are recognized and recommended:
- Reagent Test Kit is a method which provides a high level of accuracy. They come in either liquid or tablet form.
- Test Strips are a convenient testing method used by many spa owners. Keep in mind that test strips are susceptible to heat and moisture.

Basic Chemical Safety
When using chemicals, always read the labels carefully and follow directions. Though chemicals protect you and your spa when used correctly, they can be hazardous in concentrated form. Observe the following guidelines:
- Allow only a responsible person to handle spa chemicals **KEEP OUT OF THE REACH OF CHILDREN.**
- Accurately measure the exact quantities specified, never more. Do not overdose your spa.
- Handle all containers with care. Store in a cool, dry well ventilated place.
- Always keep chemical containers closed when not in use. Replace caps on their proper containers.
- Don't inhale fumes, or allow chemicals to come in contact with your eyes, nose, or mouth. Wash your hands immediately after each use.
- Follow the emergency advice on the product label in case of accidental contact, or if the chemical is swallowed. Call a doctor or the local Poison Control Center. If a doctor is needed, take the product container along with you so that the substance can be identified.
- Don't let chemicals get on surrounding surfaces or landscaping. Rinse off with fresh water if spilled.
- Never smoke around chemicals. Some of the fumes can be highly flammable.

Adding Spa Chemicals:
- Fold back the spa cover. Carefully remove and set aside the filter lid.
- Push the **JETS1** button to turn on the pump 1 to provide high water flow.
- Carefully measure the recommended amount of chemical and slowly pour it into the filter compartment. Use care not to splash chemicals on your hands, eyes, or on the spa shell surface or cabinet.
- Replace filter lid and run spa for 10 minutes on high speed. Re-install spa cover.

IMPORTANT: Super Cholorination/Non-Chlorine Shock Treatment - **NOTE:** After administering a super chlorination treatment or non-chlorine shock to your spa, leave the cover open for a minimum of 20 minutes to allow the oxidizer gas to vent. A high concentration of trapped oxidizer gas which, may exist as a result of the shock treatment (not daily sanitation) may eventually cause discoloration or vinyl degradation to the bottom of the cover. This type of damage is considered chemical abuse and is not covered under the warranty.

WATER QUALITY AND MAINTENANCE

Balancing Total Alkalinity (TA)

- The recommended Total Alkalinity (TA) for your spa water is 125-150 ppm.
- Total Alkalinity is measure of the total levels of carbonates, bicarbonates, hydroxides, and other alkaline substances in the water. TA is referred to as the water's "pH buffer". It's a measure of the ability of the water to resist changes in pH level.
- If the TA is too low, the pH level will fluctuate widely from high to low. Fluctuations in pH can cause corrosion or scaling of spa components. Low TA can be corrected by adding pH/Alkalinity UP (sodium hydrogen carbonate).
- If the TA is too high, the pH level will tend to be high and may be difficult to bring down. It can be lowered by adding pH/Alkalinity down (sodium bisulfate).
- Once the TA is balanced, it normally remains stable, although the addition of more water with a high or low alkalinity will raise or lower the TA reading of the water.
- When the Total Alkalinity is within the recommended range, proceed.

Balancing Calcium Hardness (CH)

- The recommended Calcium Hardness (CH) level for your spa is 150-200ppm.
- Calcium Hardness is a measure of the total amount of dissolved calcium in the water. Calcium helps control the corrosive nature of the spa's water. That's why calcium-low water (commonly know as "soft" water) is not recommended. It is very corrosive to the equipment, and can cause staining of the spa shell. If the calcium level is too low, we recommend using Calcium Increaser to bring the calcium hardness level to within the recommended range.
- If the CH is too high (commonly know as "hard" water), formation of scale on the spa's shell surface and equipment can result. CH can be decreased by dilution - a mixture of 75% hard and 25% soft water will be a good starting point. If soft water is not available, or practical for you, a stain and scale control such as Scale Defense should be added to the spa water, according to instructions on its label.
- Once the CH is balanced, it normally remains stable, although the addition of more water with a high or low calcium content will raise or lower the CH reading of the water.
- When the Calcium Hardness is within the recommended range, proceed.

Balancing The pH

- The recommended pH level for your spa water is 7.4-7.6.
- The pH level is the measure of acidity and alkalinity. Values above 7 are alkaline; those below 7 are acidic.

Maintaining the proper pH level is extremely important:

- Optimizing the effectiveness of the sanitizer.
- Maintaining water that is comfortable for the user.
- Preventing equipment deterioration.

If the spa water's pH level is too low, the following may result:

- The sanitizer will dissipate rapidly.
- The water may become irritating to spa users.
- The spa's equipment may corrode.

If the pH level is too low, it can be increased by adding pH/Alkalinity Up (sodium hydrogen carbonate) to the spa water.

If the pH level is too high, the following may result:

- The sanitizer is less effective.
- Scale will form on the spa shell surface and the equipment.
- The water may become cloudy.
- The filter cartridge pores may become obstructed.

If the pH is too high, it can be decreased by adding pH/Alkalinity Down (Sodium bisulfate) to the spa water.

NOTE: After adding pH/Alkalinity Up (sodium hydrogen carbonate) or pH/Alkalinity Down (sodium bisulfate), wait at least two hours before testing the water for pH. Measurements taken too soon may not be accurate.

- It is important to check the pH on a regular basis. The pH will be affected by the bather load, the addition of new water, the addition of various chemicals, and the type of sanitizer used.
- When the pH is within the recommended range, proceed.

WATER QUALITY AND MAINTENANCE

Maintaining Sanitizer Level

- Sanitizer is extremely important for killing algae, bacteria and viruses, and preventing unwanted organisms from growing in the spa. At the same time, you don't want too high a sanitizer level, or it can irritate your skin, lungs, and eyes.
- Always maintain the sanitizer level in your spa at the recommended level for each type of sanitizer.

Ozone

Premium Leisure LLC Ozonation System drastically reduces the use of chemicals in the water. This aids in maintenance because the amount of harsh chemicals and frequency with which they are used is lowered.

Replacement Of Ozone Tubing and Ozonator

Call your manufacture to provide you with maintenance service if replacement of ozonator or tubing is required. Remove door panel screws and set door panel aside. The Ozone generator is located above the Control Electrical Equipment Pack shown below or in area. The ozonator plugs into the Control Electrical Equipment Pack. Tubing is mounted above the ozonator and has a Harford Loop as shown below.

Water Terminology:

Bromamines: Compounds formed when bromine combines with nitrogen from body oils, perspiration, etc. Unlike chloramines, bromamines have no pungent odor, and are effective sanitizers.
Bromine: A halogen sanitizer (in the same chemical family as chlorine). Bromine is commonly used in stick, tablet, or granular form.
Calcium Hardness: The amount of dissolved calcium in the spa water. This should be approximately 150-220 ppm. High levels of calcium can cause cloudy water and scaling. Low levels can cause harm to the spa equipment.
Chloramines: Compounds formed when chlorine combines with nitrogen from body oils, urine, perspiration, etc. Chloramines can cause eye irritation as well as having a strong odor. Unlike bromamines, chloramines are weaker, slower sanitizers.
Chlorine: An efficient sanitizing chemical for spas.
Chlorine (or Bromine) Residual: The amount of chlorine or bromine remaining after chlorine or bromine demand has been satisfied. The residual is therefore the amount of sanitizer, which is chemically available to kill bacteria, virii and algae.
Corrosion: The gradual wearing away of metal spa parts, is usually caused by chemical action. Generally, corrosion is caused by low pH or by water with levels of TA, CH, pH or sanitizer, which are outside the recommended ranges.
DPD: The preferred reagent used in test kits to measure the Free Available Chlorine.
Halogen: Any one of these five elements: fluorine, chlorine, bromine, iodine, and astatine.
MPS: Monopersulfate is the non-chlorine oxidizer used with the purification system.
Nitric Acid: The formulation of nitric acid, a highly corrosive chemical, is a byproduct of the ozone generating process. Nitric acid is produced in very small quantities and is readily dissolved in the water stream with ozone.
Oxidizer: The use of an oxidizing chemical is to prevent the buildup of contaminants, maximize sanitizer efficiency, minimize combined chlorine and improve water clarity.
Ozone: Ozone is a powerful oxidizing agent which is produced in nature and artificially by man. Ozone forms no byproducts of chloramines (ozone actually oxidizes chloramines) and will not alter the water's pH.
Pathogen: A microorganism such as bacterium that cause disease.
pH: The measure of the spa water's acidity and alkalinity. The recommended pH for the spa water is 7.4 to 7.6. Below 7.0 (considered neutral), the spa water is too acidic and can damage the heating system. Above 7.8, the water is too alkaline and can result in cloudy water, and scale formation on the shell and heater.

Corona Delzone Ozonator 240V – Part No. 5048

Complete Spa Care Kit - Bromine – Part No. 7171
This best-selling kit contains the essential products needed for spa start-up and maintenance including sanitizer, shock, sequestering agent, defoamer, test strips, clarifier and balancers. The kit also contains the Simple Spa Care® video and Spa Care Guide outlining the NEW Simple Spa Care Program.

WATER QUALITY AND MAINTENANCE

Reagent: A chemical material in liquid, powder, or tablet form for use in chemical testing.
Sanitizer: Sanitizers are added and maintained at recommended residuals to protect bathers against pathogenic organisms, which can cause disease and infection in spa water.
Scale: Rough calcium-bearing deposits that can coat spa surfaces, heaters, and plumbing lines, and clog filters. Generally, scaling is caused by mineral content combined with high pH. Additionally, scale forms more readily at higher water temperatures.

SPA WATER MAINTENANCE & TROUBLESHOOTING		
Problem	Probable Causes	Solutions
Cloudy Water	Dirty Filter/s Excess oils / organic matter Improper sanitization Suspended particles / organic matter Overused or old water	Clean filter or replace. Shock spa with sanitizer. Add sanitizer. Adjust pH and/or alkalinity. Run jet pump(s) and clean filter. Drain and refill spa.
Water Odor	Excessive organics in water Improper sanitization Low pH	Shock spa with sanitizer. Add sanitizer. Adjust pH to recommended range.
Chlorine Odor	Chloramine level too high Low pH	Shock spa with sanitizer Adjust pH to recommended range.
Musty Odor	Bacteria or algae growth	Shock spa with sanitizer - if problem is visible or persistent, drain, clean and refill spa.
Organic buildup / scum ring around spa	Build-up of oils and dirt	Wipe off scum with clean rag - if severe, drain the spa, use a spa surface and tile cleaner to remove the scum, and refill spa.
Algae Growth	High pH Low sanitizer level	Adjust pH. Shock spa with sanitizer and maintain sanitizer level.
Eye Irritation	High pH Low sanitizer level	Adjust pH. Shock spa with sanitizer and maintain sanitizer level.
Skin Irritation / Rash	Unsanitary water Free chlorine level above 5 ppm	Shock spa with sanitizer and maintain sanitizer level. Allow free chlorine level to drop below 5ppm.
Stains	Total alkalinity and/or pH too low High iron or copper in source water	Adjust total alkalinity and/or pH. Use a metal deposit inhibitor.
Scale	High calcium content in water – total alkalinity and pH too high.	Adjust total alkalinity and pH – If scale requires removal, drain the spa, scrub off the scale, refill the spa and balance the water.

SPA CARE AND MAINTENANCE RECORD

Date	Drain & Clean Spa	Spray Clean or Soak Filter Element	Replace Filter Element	Winterize Spa	Clean & Condition Vinyl Cover	Clean Cabineet	Service

NOTES: _____

SPA PARTS & ACCESSORIES

Handi-Step Straight and Curved Color Brown – Part No. 7077
Reversible Step can be used as straight or curved.

Handi-Step Straight and Curved Color Gray – Part No. 7545
Reversible Step can be used as straight or curved.

Cover Lifter
Are you tired of lifting a heavy spa cover? Ever thought of making your life a little easier? The use of one of these spa cover lifters may just be what you are looking for.

Part No. 7315
Part No. 3049 (Power Coated Aluminum)
Part No. 3050 (Deluxe Premium Cover Lifter)

Cover Lifter – Part No. 7240
Easy to install. No hardware to install! Just side under spa for support getting in or out of spa.
Color Black

Spa Remote
Part No. 52706 - Dolphin Floating Remote
Part No. 52738 - IR/RF Command Center
Part No. 52871 - IR Receiver HS200

Spa Hammock Pillow – Part No. 7771

Spa Hammock – Part No. 7770
Whether sitting upright or laying flat, the Spa-Swing allows you to be totally relaxed in your spa. Suspending you in your spa, it easily adjusts so you can lower yourself to the depth that allows you to maximize the full benefit of the jets and bubbles. You can raise the hammock, as you get hotter to control your body temperature. 30” x 96” - Comes with a 1-Year Manufacturer Warranty.

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