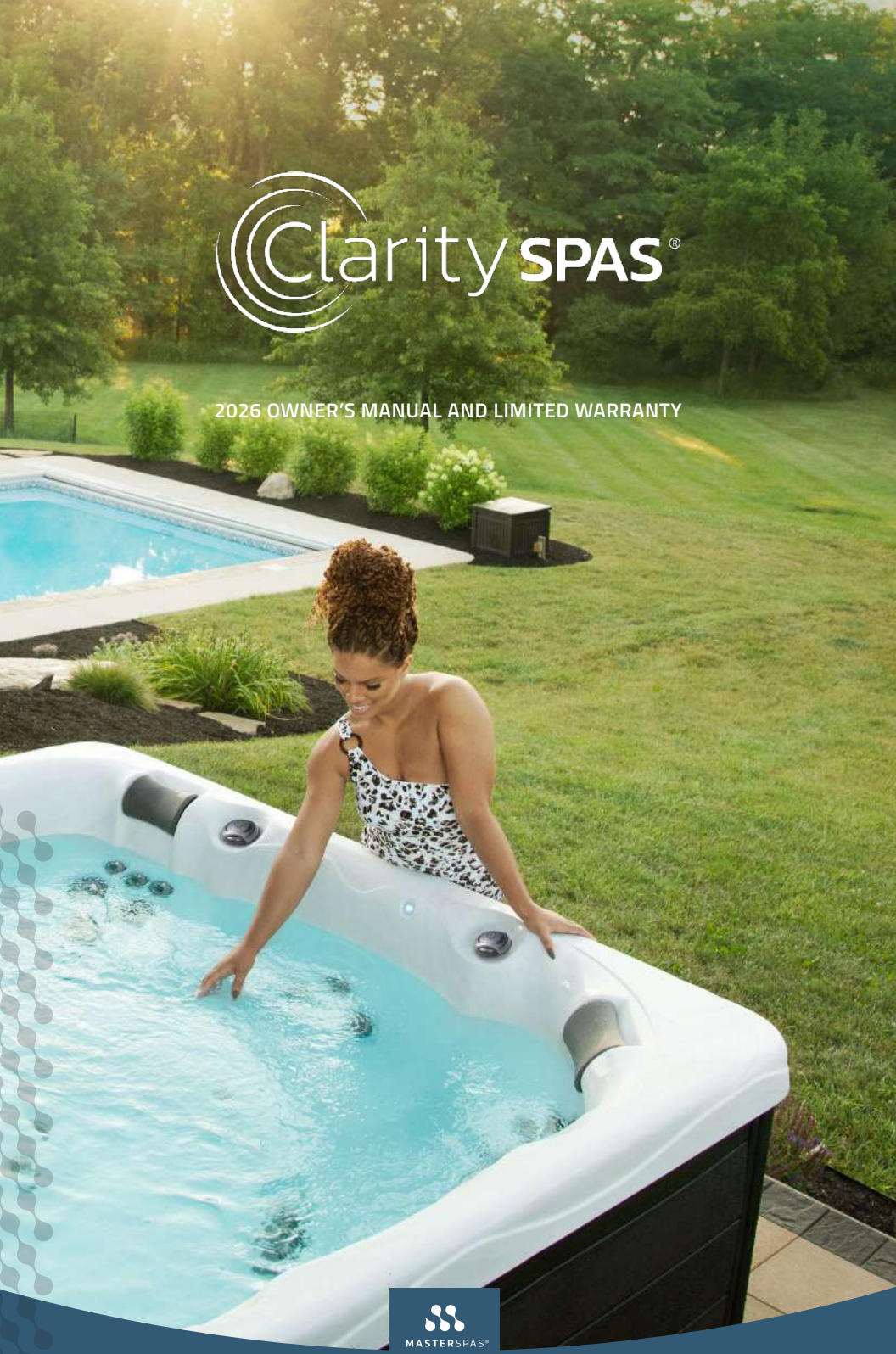

Clarity SPAS®

2026 OWNER'S MANUAL AND LIMITED WARRANTY

MASTERSPAS®

Welcome to the Ultimate in Relaxation!

Thank you for choosing your new spa built by MasterSpas. For how-to videos and helpful tips on operating and maintaining your spa, please visit www.masterspas.com/resources.

Please read the entire Owner's Manual before installing and using your spa. The goal of this manual is to provide you with safety and operational information plus some tips that will help you enjoy your spa to its fullest. At the time of print, this manual is accurate in its information. MasterSpas reserves the right to change or improve its product without prior notice.

REGISTER YOUR SPA

Please be sure to register your spa so we can efficiently assist with any questions you may have. Until your spa has been registered, MasterSpas will not have record of your ownership. To register your spa, visit www.masterspas.com/resources and click on Spa Registration.

SERIAL NUMBER LOCATION

The serial number for your spa is located near the filter area, on the spa system pack, or on the listing plate on the spa frame behind the front skirt panel. It is a seven digit number on most models or an "R" followed by 6 digits. For example, 2612345 or R261234.

RECORD OF OWNERSHIP

Name _____

Address _____

City _____ State _____ Zip_____

Phone Number (_____) _____-_____ Date Purchased _____ /_____ /_____

Model _____ Serial # _____

Dealer Name_____

Service Tech Rep_____

WATCH HOW-TO VIDEOS:
masterspas.com/video-tutorials

MASTERSPAS®

6927 Lincoln Parkway
Fort Wayne, IN 46804
masterspas.com

DO NOT DIVE.

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EN 17125

SAVE THESE INSTRUCTIONS

Included with your new spa is a safety sign. The sign is for you and your guest's protection and is suitable for outdoor use in wet locations. The sign should be placed in a location visible to all users of the spa.

Please take time to point out the physical location of the safety sign and the importance of the safety precautions displayed on the safety sign to all of your guests. Remember, your safety and the safety of anyone who enjoys the use of your spa is our utmost concern.

The sign should be mounted with screws or another type of permanent fastener. Additional or replacement signs can be obtained from your dealer or direct from the factory.

INTRODUCTION

It's time to relax! You now have your very own portable spa by MasterSpas. By fully understanding the operation of each of the features of your new Master Spa, you will be assured of many years of hassle-free, hot water therapy and fun.

Your safety is of paramount importance to the MasterSpas family. We urge you to carefully read, understand, and follow all information in this user manual before installing and using the spa. These warnings, instructions, and safety guidelines address some common risks of water recreation, but they cannot cover all risks and dangers in all cases. Always use caution, common sense, and good judgment when enjoying any water activity. Retain this information for future use.

Through reading and totally understanding the important information in your owner's manual, you will realize that you now own **THE ULTIMATE RELAXATION MACHINE!®**

Safety graphical symbol ISO 7010, M002 – Refer to instruction manual/booklet

NO DIVING **DANGER: DIVING MAY RESULT IN SERIOUS INJURY OR DEATH.**

IMPORTANT SAFETY INSTRUCTIONS

This spa is not intended for public/commercial use.

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

READ AND FOLLOW ALL INSTRUCTIONS

WARNING – To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

A wire conductor is provided on this unit to connect a minimum 10AWG (5.26mm^2) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5m) of the unit.

(For cord-connected/convertible units)

DANGER – Risk of injury.

a) Replace damaged cord immediately.
b) Do not bury cord.
c) Connect to a grounded, grounding type receptacle only.

(For units intended for indoor use only)

WARNING – For indoor use only. This unit is not intended for outdoor use.

(For units intended for outdoor use only)

WARNING – For outdoor use only. This unit is not intended for indoor use.

NO DIVING **DANGER: DIVING MAY RESULT IN SERIOUS INJURY OR DEATH.**

IMPORTANT SAFETY INSTRUCTIONS (CONT.)

(For units with GFCI)
WARNING – This product is provided with a ground-fault circuit interrupter located on the front panel of selected swim spas and on the power cord of 120 volt convertible spas. The GFCI must be tested before each use. With the product operating, open the service door. When the product stops operating, this merely indicates that the door is equipped with an electrical interlock. Next, push the test button on the GFCI and close the service door. The product should not operate. Now open the service door, push the reset button on the GFCI and close the service door. The product should now operate normally. When the product fails to operate in this manner, there is a ground current flowing indicating the possibility of an electric shock. Disconnect the power until the fault has been identified and corrected.

DANGER – Risk of Accidental Drowning. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this spa unless they are supervised at all times.

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 spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.

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 10AWG (5.26mm^2) solid copper conductor to the wire connector on the terminal box that is provided for this purpose. Be sure to review and comply with any overruling local or national applicable regulations.

DANGER – Risk of Electric Shock. Do not permit any electric appliance, such as a light, telephone, radio, or television, within 5 feet (1.5 m) of a spa.

WARNING – To reduce the risk of injury:

a) The water in a spa should never exceed 104˚F (40˚C). Water temperatures between 100˚F (38˚C) and 104˚F (40˚C) are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes. Persons with any medical condition should seek medical advice before using a spa.

NO DIVING **DANGER: DIVING MAY RESULT IN SERIOUS INJURY OR DEATH.**

IMPORTANT SAFETY INSTRUCTIONS (CONT.)

b) Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperatures to 100°F (38°C) and duration of use and should also seek medical advice.

c) Before entering a spa, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature-regulating devices varies.

d) The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning.

e) Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a spa.

f) Persons using medication should consult a physician before using a spa since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.

SAVE THESE INSTRUCTIONS

HYPERTHERMIA

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F (37°C). Prolonged immersion in hot water may induce hyperthermia.

THE SYMPTOMS OF HYPERTHERMIA INCLUDE:

• Dizziness • Fainting • Drowsiness • Lethargy
• Increase in Internal Body Temperature

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 • Unconsciousness Resulting in a Danger of Drowning

WARNING – The use of alcohol, drugs, or medication can greatly increase the risk of hyperthermia.

NO DIVING **DANGER: DIVING MAY RESULT IN SERIOUS INJURY OR DEATH.**

IMPORTANT SAFETY INSTRUCTIONS (CONT.)

DANGER – To reduce the risk of injury to persons, do not remove the suction grate. Suction through drains and skimmers is powerful when the jets in the spa are in use. Damaged covers can be hazardous to small children and adults with long hair. Should any part of the body be drawn into these fittings, turn off the spa immediately. As a precaution, long hair should not be allowed to float in the spa.

WARNING – Install the spa so that water can be easily drained out of the compartment

EN 17125 – Do not put finger in massage jet

containing electrical components so as not to damage equipment. When installing the spa make sure to allow for an adequate drainage system to deal with any overflow water. Please allow for at least 3 feet of clearance around the perimeter of the spa to provide enough room to access for servicing. Contact your local dealer for their specific requirements.

WARNING – The spa should be covered with an approved locking cover when not in use, to prevent unauthorized entry and injuries.

WARNING – People with infections, sores or the like should not use the spa. Warm and hot water temperatures may allow the growth of infectious bacteria if not properly disinfected.

CAUTION – Safe temperatures for swimming or aquatic exercise is around 80˚F (26.7˚C).

CAUTION – Risk of Electrical Shock. Do not leave audio compartment open.
Audio CD controls are not to be operated while inside the spa.

CAUTION – Replace components only with identical components.

WARNING – Risk of Electric Shock. Do not connect any auxiliary components (for example, additional speakers, headphones, additional audio/ video components etc.) to the system. These units are not provided with an outdoor antenna.

Do not service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel. If the power supply cord(s) are damaged, water is entering the speaker, audio compartment, or any other component in the electrical equipment compartment area, the protective shield is showing signs of deterioration, or there are signs of other potentially hazardous damage to the unit, turn off the circuit breaker from the wall and refer servicing to qualified personnel.

NO DIVING **DANGER: DIVING MAY RESULT IN SERIOUS INJURY OR DEATH.**

IMPORTANT SAFETY INSTRUCTIONS (CONT.)

The unit should be subjected to periodic routine maintenance once every quarter to make sure that the it is operating properly.

DANGER – Risk of Electric Shock. A green colored terminal or a terminal marked G, GR, Ground, Grounding or the symbol shown in Figure 14.1 of UL 1563 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 a continuous copper wire equivalent in size to the circuit conductors supplying this equipment.

At least two lugs marked “Bonding Lugs” are provided on the external surface or on the inside of the supply terminal box or compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the spa to these terminals with an insulated or bare copper conductor not smaller than 10AWG.

All field installed metal components such as rails, ladders, drains, or other similar hardware within 10 feet (3m) of the spa shall be bonded to the equipment grounding bus with copper conductors not smaller than 10AWG.

SAVE THESE INSTRUCTIONS

SAFETY INSTRUCTIONS

WARNING: CHILDREN SHOULD NOT USE SPAS OR HOT TUBS WITHOUT ADULT SUPERVISION.

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.

AVERTISSEMENT: POUR ÉVITER QUE LES CHEVEUX OU UNE PARTIE DU CORPS PUISSENT ÊTRE ASPIRES, NE PAS UTILISER UNE CUVE DE RELAXATION SI LES GRILLES DI PRISE D'ASPIRATION NE SONT PAS TOUTES EN PLACE.

WARNING: PEOPLE USING MEDICATIONS AND/OR HAVING AN ADVERSE MEDICAL HISTORY SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA OR HOT TUB.

AVERTISSEMENT: LES PERSONNES QUI PRENNENT DES MÉDICAMENTS OU ONT DES PROBLÉMES 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.

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.

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.

AVERTISSEMENT: POUR ÉVITER L'ÉVANOUISSEMENT ET LA NOYADE ÉVENTUELLE, NE PRENDE 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.

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 38°C MAY BE INJURIOUS TO YOUR HEALTH.

AVERTISSEMENT: IL PEUT ÊTRE DANGEREUX POUR LA SANTÉ DE SE PLONGER DANS DE L'EAU A PLUS DE 38°C.

WARNING: BEFORE ENTERING THE SPA OR HOT TUB MEASURE THE WATER TEMPERATURE WITH AN ACCURATE THERMOMETER.

AVERTISSEMENT: AVANT D'UTILISER UNE CUVE DE RELAXATION MESURER LA TEMPÉRATURE DE L'EAU À L'AIDE D'UN THERMOMÉTRE PRÉCIS.

WARNING: DO NOT USE A SPA OR HOT TUB IMMEDIATELY FOLLOWING STRENUOUS EXERCISE.

AVERTISSEMENT: NE PAS UTILISER UNE CUVE DE RELAXATION IMMÉDIATEMENT APRÉS UN EXERCISE FATIGANT.

WARNING: PROLONGED IMMERSION IN A SPA OR HOT TUB MAY BE INJUROUS TO YOUR HEALTH.

AVERTISSEMENT: L'UTILISATION PROLONGÉE D'UNE CUVE DE RELAXATION PEUT ÊTRE DANGEREUSE POUR LA SANTÉ.

WARNING: DO NOT PERMIT ELECTRIC APPLIANCES (SUCH AS LIGHT, TELEPHONE, RADIO, OR TELEVISION) WITHIN 1.5 M OF THIS SPA OR HOT TUB.

AVERTISSEMENT: NE PAS PLACER D'APPAREIL ÉLECTRIQUE (LUMINAIRE, TÉLÉPHONE, RADIO, TÉLÉVISEUR, ETC) À MOINS DE 1.5 M DE CETTE CUVE DE RELAXATION.

CAUTION: MAINTAIN WATER CHEMISTRY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.

ATTENTION: LA TENEUR DE L'EAU EN MATIÉRES DISSOUTES DOIT ÊTRE CONFORME AUX DIRECTIVES DU FABRICANT.

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6˚F (37˚C). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include:

(a) unawareness of impending hazard;
(b) failure to perceive heat;
(c) failure to recognize the need to exit spa;
(d) physical inability to exit spa;
(e) fetal damage in pregnant women; and
(f) unconsciousness and danger of drowning.

WARNING: THE USE OF ALCOHOL OR DRUGS CAN GREATLY INCREASE THE RISK OF FATAL HYPERTHERMIA IN HOT TUBS AND SPAS.

AVERTISSEMENT: LA CONSOMMATION D'ALCOOL OU DE DROGUE AUGMENTE CONSIDÉRABLEMENT LES RISQUES D'HYPERTHERMIE MORTELLE DANS UNE CUVE DE RELAXATION.

For spas relying on a specific means of egress, such means shall not be removed when the spa is in use.

DANGER – This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

Safety graphical symbol ISO 20712-1, WSM002 – Keep children under supervision in the aquatic environment

DANGER – Risk of Accidental Drowning (especially children under 5 years). Caution shall be exercised to prevent unauthorized access to the spa by children. This can be reached by an adult supervisor securing the means of access or installing a safety protection device to the spa. To avoid accidents during spa use, ensure that children are kept under constant adult supervision).

Avoid putting the head under water at all times.

Avoid swallowing spa water.

DANGER – No Diving.

Safety graphical symbol ISO 20712-1, WSP005 – No Diving

COMPLIANCE

Relax and rest assured that your MasterSpas manufactured spa has been built with safety in mind. We manufacture our self-contained spas to meet a stringent list of industry standards.

Our spas comply with the following industry standards:

- UL 1563 Standard for Electric Spas, Equipment Assemblies and Associated Equipment
- ICC ISPSC International Swimming Pool & Spa Code
- European Standard EN 17125 for Domestic Spas/Whirlpool Spas/Hot Tubs – Safety Requirements and Test Methods
- VGB Virginia Graeme Baker Pool and Spa Safety Act (Certified by IAPMO to UL 1563)
- ANSI/APSP-6 Standard for Portable Spas
- ANSI/APSP/ICC-14 Standard for Portable Spa Energy Efficiency
- CEC Title 20 Appliance Efficiency Regulation
- CSA C22.2 No. 218.1 Spas, Hot Tubs and Associated Equipment
- CE - EN 60335-2-60 Household and Similar Electrical Appliances – Safety: Particular Requirements for Whirlpool Baths and Whirlpool Spas
- CE - EN 60335-1 Household and Similar Electrical Appliances – Safety: General Requirements
- 93/68/EEC CE Marking Directive
- 2014/35/EU Low Voltage Directive
- 2014/30/EU EMC Directive
- AS1926.3-2010 RC2016
- 2014/53/EU Wireless Directive
- UKCA Electromagnetic Compatibility Regulations 2016
- UKCA Electrical Equipment (Safety) Regulations 2016
- UKCA Radio Equipment Regulations 2017
- UKCA The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012
- EU REACH Compliant

VGB 2008:

WARNING

Read and follow all instructions in this manual and on the suction fitting. Failure to follow instructions can cause severe injury and/or death.

Failure to remove pressure test plugs and/or plugs used in winterization of the spa/swim spa from the suction outlets can result in an increased potential for suction entrapment.

Suction outlet components have a finite life. The cover/grate should be inspected frequently and replaced at least every seven years, or if found to be damaged, broken, cracked, missing, or not securely attached.

If the fitting is missing or broken, replace with a fitting of equivalent rating or higher. Use of a lower rated suction fitting could result in entrapment of the body which could result in serious injury including drowning.

Do not use or operate spa/swim spa if this suction fitting is missing, broken or not secured per instructions. The suction fitting is intended to prevent entrapment of the body. Use of the spa/swim spa with a missing, broken or improperly secured suction grate may result in serious personal injury including drowning.

When the spa/swim spa is in operation, suction is created at this fitting. Users of the spa/swim spa must be instructed not to come in contact with this fitting in such a way as to block its orifice. If a user of the spa/swim spa blocks this fitting with his/her body, serious personal injury or drowning may occur.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: SUCTION ENTRAPMENT HAZARD

Suction in suction outlets and/or suction outlet covers which are damaged, broken, cracked, missing, or unsecured can cause severe injury and/or death due to the following entrapment hazards:

Hair Entrapment: Hair can become entangled in suction outlet cover.

Limb Entrapment: A limb inserted into an opening of a suction outlet sump/fitting or suction outlet cover that is damaged, broken, cracked, missing, or not securely attached can result in a mechanical bind or swelling of the limb.

Body Suction Entrapment: A negative pressure applied to a large portion of the body or limbs can result in an entrapment.

Evisceration/Disembowelment Entrapment: A negative pressure applied directly to the intestines through an unprotected suction outlet sump or suction outlet cover which is damaged, broken, cracked, missing, or unsecured can result in evisceration / disembowelment entrapment.

Mechanical Entrapment: There is potential for jewelry, swimsuit, hair decorations, finger, toe, or knuckle to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.

VGB SUCTION SAFETY & MAINTENANCE INSTRUCTIONS

TO REDUCE THE RISK OF ENTRAPMENT HAZARDS:

- Never use a spa/swim spa if any suction outlet component is damaged, broken, cracked, missing, or not securely attached.
- Replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.
- It is recommended that suction components be inspected at least monthly.
- Replace the suction within 7 years from the installation date. Contact your dealer or local service center for quoting and scheduling this required maintenance. This is a mandated regulation and is not part of nor covered by the spa/swim spa warranty.

NOTE: Always review entire safety and maintenance information before beginning maintenance. Contact MasterSpas for Suction Installation information for complete suction assembly replacement.

GLOSSARY OF SPA TERMINOLOGY

Your new spa features a variety of jets. All jets, regardless of style, return the water to the spa. Air is mixed with the water by using the air controls (if equipped) creating a vigorous massage. Water flow is adjusted by simply turning the outer face of most jets. Your spa may have a combination of pulsating, rotating, dual pulsating and directional adjustable jets. Here are some terms and definitions to help get you acquainted with your spa.

1. THERAPY JETS

Located throughout the seats of the spa to offer a variety of therapy combinations.

2. NECK AND SHOULDER JETS (if equipped)

Located above the normal water level to provide massaging action to the back of the neck and shoulders.

3. MASTER BLASTER® FOOT THERAPY JET (if equipped)

Large jet with several fixed nozzles located in the bottom of the spa near the floor to provide excellent massage to the feet.

4. JET DIVERTER VALVE* (if equipped)

Located on the top flange of the spa, this large valve physically diverts the flow of water from one group of jets to another. Be sure that no sand or particles are brought into the spa as they will cause the diverter to seize up. It is best to turn the diverter valve only when the pump is turned off.

5. 3-WAY DIVERTER JET* (if equipped, Getaway Hot Tubs)

This large jet can be turned 180° to 3 different points and diverts the flow of water from one group of jets to another. With the pump turned off, twist the face of this jet 1/4 turn at a time clockwise or counterclockwise to adjust.

6. WATER FEATURE VALVE* (if equipped)

Located on the top flange of the spa, this smaller valve adjusts water flow to the waterfalls and/or water features in your spa.

NOTE: When the spa is not in use, this valve should be turned mostly shut (not completely shut) to prevent the water features from allowing water to hit the cover while it is closed. If left mostly open, water may hit the cover and possibly run out of the spa causing water loss.

7. AIR CONTROL VALVE*

These smaller valves are located around the top of your spa. You may increase or decrease the force of your jets by opening or closing the air control valves. Each air control valve will typically function 1 to 2 groups or seats of jets in the spa. When not in use the air controls should be kept in the closed position as the air being introduced into the water can tend to cool the water and increase the dissipation rate of sanitizer levels.

***NOTE:** See Pump Diagrams in the back of this manual for location of valves, controls, and jets.

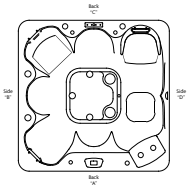
8. TOPSIDE CONTROL PANEL

You may safely control spa functions from inside or outside your spa using the Topside Control Panel. This panel is used to control the water temperature, pumps, the spa light, automatic filtration cycles and other advanced functions. The digital display will give you a constant temperature readout and will notify you in case of certain malfunctions. Several user programmable functions are also available.

9. PERSONAL REMOTE CONTROL/AUXILIARY CONTROL* (if equipped)

Select spa models may have an additional remote or control panel which allows the user to control the jet therapy while remaining in the seat (if applicable). By operating this control panel, you can activate or adjust the associated pump.

10. ACCESS PANELS



These are the skirt panels located around all four sides of the spa. All of the skirt panels are removable should service be required. MasterSpas recommends at least 3 feet of access be provided around the spa.

11. EQUIPMENT ACCESS PANEL

This is the "Front" or "A" side skirt access panel, typically the same side as the Topside Control Panel. This area typically houses the majority of components responsible for the spas operation. These components include the pumps, heater, spa control system, ozonator (if equipped), and LED light system (if equipped). Pump and equipment placement may vary by model.

12. FILTER LID

This lid fits over the filter area and weir gate to cover the filters. Remove filter lid to access filters for maintenance. For models equipped with a telescoping filter housing, simply lift up to remove this floating assembly to access the filter. At low speed water flow or when the filtering/heating pump is off, the telescoping part of the filter assembly will float at or near the waterline. At high speed water flow, it will be drawn downward. See Accessing Filters in the Regular Maintenance Procedures section for detailed instructions on filter assemblies.

13. WEIR GATE

The weir gate is the horizontal door located in front of the filters that helps keep debris trapped in the filter area.

14. SPA CONTROL SYSTEM

This houses the wiring and electrical components necessary to operate the spa.

15. SPA HEATER

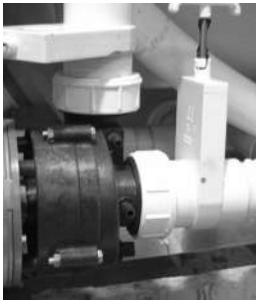
This is an electric heater housed in a stainless steel tube. It is thermostatically controlled and equipped with high-limit temperature safety shut-off sensors.

***NOTE:** See Pump Diagrams in the back of this manual for location of valves, controls, and jets.

16. SLICE VALVES

These valves are used by service personnel to shut off water to the heating system (heater and pump plumbed to the heater) so that the spa water does not need to be drained if the spa requires service to the heating system (varies by model).

NOTE: Slice valves must be completely open during normal operations.



Slice Valve and Pump Union

17. PUMP UNION

This connects the plumping and pump together. These are used to help relieve possible pump air locks or for service personnel to easily service the pumps.

18. HEATER UNION

These are used by service personnel to easily service the heater.

19. MAIN THERAPY PUMP

This produces water flow through the main jets in the spa. The first pump may be operated on two speeds (varies by model). Low speed (if applicable) will produce efficient water circulation during filtration, heating of the spa water, and gentle jet action. High speed provides maximum jet action. The main pump is controlled by the “Jets” or “Jets I” button on the Topside Control Panel.

20. SECONDARY THERAPY PUMP (if equipped)

This produces water flow through 1 to 2 groups or seats of jets in the spa. The second pump operates similar to the main pump and is controlled by the “Jets 2” or “Aux” button on the Topside Control Panel.

21. THIRD THERAPY PUMP (if equipped)

This produces water flow through 1 to 2 groups or seats of jets in the spa. This is controlled by the “Jets 3” button on the Topside Control Panel.

22. CIRCULATION PUMP (if equipped)

This dedicated, smaller, energy efficient pump provides water flow for filtration and heating, instead of utilizing the high powered main therapy pump.

THE ADVANTAGES OF ECOPUR® CHARGE

ECOPUR®
CHARGE
MASTER CORE TECHNOLOGY

The EcoPur® Charge* is made from Master Spa's patented filtration fabric. This fabric is wound tightly into a nautilus master core, creating a catalytic cell. The nautilus fabric cell is encased by a unique "spring core" that allows for maximum flow and water "charging". As water comes in contact with the EcoPur® Charge Master Core, a chemical reaction causes zinc and copper hydroxides to form in controlled amounts. Like Mother Nature, when controlled releases ofcopper and zinc oxides are carried into the filtered water, they kill bacteria and provide hostileconditions for algae and fungal growth. Using EcoPur® Charge helps reduce the amount of chemicals needed, therefore safeguarding the hot tub's plumbing and equipment because pipes are protected against the corrosive effects of chlorine. EcoPur® Charge Master Core Technology is another exclusive design by MasterSpas.

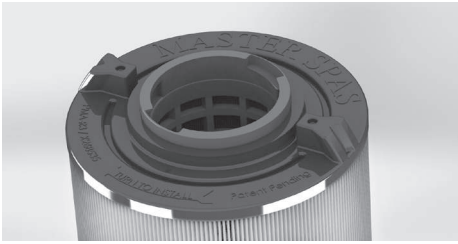
FEATURES

- Releases Sanitizing Copper & Zinc Oxides
- Reduces Water Soluble Heavy Metals
- Controls Scale, Bacteria and Algae
- Safeguards the Spa's Plumbing
- Reduces Use of Chemicals
- Helps Prevent Damage to Swimwear

MADE IN THE USA

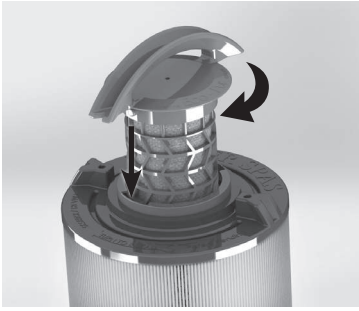
*PATENTS PENDING

ECOPUR® CHARGE INSTALLATION

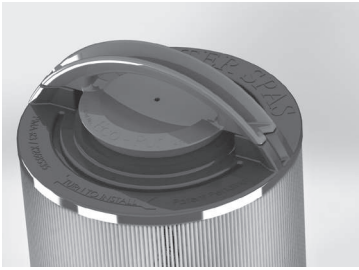


MasterSpas Outer Filter*

EcoPur® Charge*



Turn Clockwise to Lock



STEPS FOR INSTALLATION

1. Insert EcoPur® Charge into outer filter.

2. Twist EcoPur® Charge clockwise to lock in place while holding on to outer filter. When snapped in to locked position, EcoPur® Charge handle aligns with molded points on outer filter.

NOTE: EcoPur® Charge should be replaced every 6 months. Initial snap in fit of inner EcoPur® Charge to outer filter may be tight, especially if both are new.

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WATER CHEMISTRY TERMS YOU SHOULD KNOW

EN 17125

Before jumping into Water Maintenance, here are some terms to help you.

1. **PARTS PER MILLION (PPM):** This is a form of measurement used in most pool or spa chemical readings. Best described as any one million like items of equal size and make up, next to one unlike item, but of equal size. This would be one part per million.
2. **TOTAL ALKALINITY (TA):** Measures substances in your water such as hydroxides, carbonates and bicarbonates. When at the proper levels, these elements keep your water from clouding and growing bacteria, as well as prevent the inner workings of your hot tub from deteriorating or forming scale. TA also helps to stabilize pH. The higher the TA level (as long as it is within the recommended range), the less likely the pH is to change. With low alkalinity, the pH will fluctuate and be harder to control. With high alkalinity, it becomes extremely difficult to change the pH.
3. **PH OR POTENTIAL HYDROGEN:** This indicates the acidity or basicity of the water. The goal is to have a neutral, stable pH to prevent spa damage and unhealthy conditions. Low pH levels can corrode metals, etch or stain fiberglass or acrylic, cause unsanitary conditions that irritate the eyes or skin and destruct the total alkalinity of the water. High pH can cause cloudy water, eye or skin irritation, scale formation and poor chlorine or bromine efficiency. Note that the chemicals you are using to sanitize and clean your hot tub can also lower or raise the pH level in the water. Unfortunately, there are many variables to preventing high pH in your hot tub.
4. **SHOCKING:** By shocking the water in your hot tub, you remove organic compounds from the water, kill bacteria, remove bromamines or chloramines and reactivate the bromides in the spa for cleaner water. When reactivating Bromides in the water, this is essentially reactivating the inert sanitizer in your hot tub when it is available to do so. Oxidizer/non-chlorine shock acts by releasing oxygen in the water, which serves a similar function as chlorine. An advantage to using this type of shock is that the water is safe to enter after 15 minutes of the application and excessive sanitizer (chlorine) levels do not occur. However, an oxidizer/non-chlorine shock doesn't disinfect the water for bacteria. If you use chlorine to shock, you must wait until the total chlorine reading is at a level safe to reenter the water.
5. **SEQUESTERING:** This can be defined as the ability to form a chemical complex which remains in a solution, despite the presence of a precipitating agent (i.e. calcium and metals). This helps control the minerals and metals in the water to help with water quality. If the minerals and metals in water are not sequestered, they can cause a reaction, turning the water brown, red, orange or green depending on the minerals and metals present in your water. It is important to add a sequestering agent when adding water to your spa and even on a regular basis (if bottle instructions recommend doing so). Common names for sequestering chemicals are: minquest, stain and scale control, metal-x, spa defender, spa metal gone, etc.
6. **FILTRATION:** Filters are necessary to remove particles of dust, dirt, algae, etc., that are continuously entering the water. If the spa is not operated long enough each day for the filter to do a proper job, it puts a greater burden on the chemicals, causing extra expense. Filtration time will depend on the water capacity, pump and filter size and, of course, bather load. Spare filter cartridges should be kept on hand to make it easy to frequently clean the cartridge without the need for a long shut down. This will also allow the cartridge to dry out between usages, which may increase the cartridge life span. Replace the cartridge when either cleaning no longer improves filtration or the pleats begin to deterioratet. Cartridge cleaning should be done a minimum of once a month. More often with a heavy bather load. See Cleaning Your Filter Elements in the Regular Maintenance section.
7. **SANITIZERS:** Germs and bacteria enter the water from the environment and the human body; a sanitizer keeps the water balanced and safe to use. Either chlorine or bromine can be used as a sanitizer to create a healthy water environment.

A. Chlorine:

1. Only one type is approved for spa use. Sodium dichlor which is granular, fast dissolving and pH neutral chlorine.
2. Chlorine is an immediate sanitizer and will be added as needed to maintain free chlorine levels.

B. Master Clear Salt System

1. This system uses electrolysis to break down salt to produce hypochlorous which will sanitize the spa and is read like chlorine on a test strip or liquid test kit.
2. The Master Clear Salt System requires its own set of specifications for water maintenance and care. See the Master Clear Salt System manual for more details and instructions.

   WARNING: Do not use other salts systems. Only the Master Clear Salt System is approved for use on the MasterSpas hot tubs. Other systems will result in unwarranted wear or damage to the spa components.
3. The Master Clear Salt System can be installed using 2 different kits.
   - **a.** Activation Kit (MCSS ACT HT) - This kit is designed to be installed on select Master Spa models built as "Salt system ready".
   - **b.** Conversion Kit (MCSS CONV HT) - This kit is designed to be used on any hot tub with a water capacity up to 500 gallons. The Smart Cell is designed to drape over the side and hang down close to the bottom of the spa.

C. Bromine

1. Two types of tablets:
   - **a.** Hydrotech
   - **b.** Lonza
2. Bromine is a slow dissolve chemical and may take a few days to develop a reserve or reading in the water.

   NOTE: Bromine should not be used in combination with sanitizing treatment devices such as ozone, ultra-violet (UV) and ionizer (electrolysis). Disconnect the the ozone generator or UV and ozone sanitation system if you are using bromine as your sanitizer.

   NOTE: Bromine use is not recommended with EcoPur® filters as it can hinder being able to maintain proper reserve/residual levels for maintaining sanitary conditions.

   WARNING: Nonslip, Comfort Floor System mats are not compatible with bromine and will result in unwarranted deterioration of the material. Do not use bromine if your spa is equippped with these mats.

8. **TOTAL DISSOLVED SOLIDS (TDS):** Materials that have been dissolved by the water, i.e. like what happens when you put sugar in coffee or tea.
9. **USEFUL LIFE OF WATER (IN DAYS):** Water should be drained at least once every 180 days. Useful life may vary by usage and bather load.
10. **DEFOAMER:** A chemical used to temporarily reduce foaming. Causes of foaming include body oils, cosmetics, lotions, surface cleaners, high pH or algae, as well as other organic materials. Low levels of calcium or sanitizer can also cause increased foaming. Note that you may need to physically remove the foam and/or drain all or part your water to remove or dilute the causes of the foam.
11. **CALCIUM HARDNESS:** This measurement tells you how much magnesium and calcium are in your water. However, calcium hardness can react with all of the chemicals, bacteria, dirt and other substances that your water dissolves and get thrown out of balance. Just like the other elements, calcium levels must remain balanced and need to be monitored or you run the risk of metal deterioration, water foaming or clouding and scale formation at the surface of your water.

WHY ARE CHEMICALS IMPORTANT IN A SPA

1. **EVAPORATION:**
   As water evaporates, only pure water evaporates, leaving the salts, minerals, metals, and any unused chemicals behind. Adding water adds more salts, minerals, and metals. In time, the water can become saturated with these dissolved solids and can cause stains or scale to form on the walls of the spa or a scale build up inside the equipment. Colored or cloudy water and possible corrosion of plumbing and fittings may also occur.
2. **HEAT:**
   Heat causes much quicker evaporation and also will cause minerals and metals to precipitate out of solution.
3. **AIR:**
   Dust and other airborne contaminants are introduced into the spa.
4. **ENVIRONMENT:**
   The environment surrounding the spa can also impact the water quality. Items such as pollen, grass, sand, dirt, lawn fertilizer, airborne dust, insects, leaves, and pets can all affect the water quality of the spa.
5. **BATHERS:**
   As the spa is used, bathers introduce contaminants to the water. Increased bather load, length of use and frequency will increase the amounts of contaminants added in to the water.

NOTE: The maintenance routines set forth in this manual may need to be adjusted depending on bather load and how much the spa is being used.

WATER CHEMISTRY GUIDE

Before treating your water, refer to the Model Specifications section of this manual for the correct gallons of your spa, to ensure you are adding the correct amount of chemicals. The concentration of active ingredients in spa chemicals varies by manufacturer, so always consult chemical manufacturer's instructions. When adding spa chemicals, always spread them across the surface of the water while the pumps are running. See chart below for recommended ranges.

PARAMETER	VALUE [a]
Water Clarity	Clear view of the bottom
Color of Water	No color should be observed [b]
Total Alkalinity (TA)	80 - 150 ppm
pH Value [c, d]	7.2 - 7.6
Chlorine	2 - 4 ppm
Bromine (in mg/l)	3 - 5 ppm
Calcium Hardness	180- 250 ppm

When using alternative/additional disinfectants other appropriate parameters may be considered.

[a] Consult national regulations and guidelines for any deviations.
[b] Natural water sources may introduce water coloration.
[c] Subject to the flocculant(s) used (if any).
[d] When pH is greater than 7.5 the free active chlorine is less than 50 %.

NOTE: Recommended levels stated in this manual are based on industry standards for permanently installed and portable residential spas. Improper use of chemicals may result in unsanitary and unsafe water conditions as well as unwarranted discoloration, degradation, damage and other imperfections of the spa surface and components.

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START UP STEPS

1. Your spa should be filled with fresh tap water using a Pre-filter, which can be obtained from your local MasterSpas dealer. This Pre-filter will help remove many of the minerals existing in the water, which will make adjusting the water balance easier after a new fill. Never use more then 50% softened water when filling the spa.
2. During the initial filling of the spa, add a sequestering agent to combat suspended minerals in the water. The agents are sold under many different names such as Mineral Clear or Metal Protect. Always follow the instructions listed on the bottle and allow water to circulate and filter for at least 30 minutes (or per bottle recommendations) before adding any other chemicals.
3. Test water for pH, total Alkalinity, and Calcium hardness. There are two different methods you can use to test your water.

   TEST STRIPS: The pads on these thin strips react by changing colors when you dip them in the hot tub water. To avoid faulty test results, use care when removing a testing strip from the packaging. Open the package and shake one strip out into your hand, avoiding contact if possible with the remaining strips. Seal the container immediately so the remaining strips are not exposed to moisture. Dip the test strip into the water and follow the instructions supplied with test strips as instructions may vary. Note the colors on your testing strip and compare these to the key found on the packaging to determine whether elements are neutral, too high or too low.

   TESTING KIT: When using a testing kit, you will be examining an actual water sample from your hot tub, rather than a strip. Be careful to follow the instructions on your kit, filling the container to the appropriate level and then dropping the instructed liquid into the container. Compare the new color of your water to the key provided with the kit to determine how to proceed. Depending on which kit you purchase, it can test for each one of these elements: total alkalinity, pH, chlorine, bromine and calcium hardness.
4. Adjust pH and total Alkalinity (TA) utilizing the directions on the chemical bottles. Wait 15 minutes, test and adjust if necessary.
5. It may be necessary to retest and add additional chemicals to get to the proper levels.
6. Add concentrated chlorinating granules (sodium Dichlor-s-triazinetreone) on initial start up to begin sanitizing the spa water, according to directions on the chemical bottle. Bathers should not enter the spa until the chlorine drops to a safe level, refer to the Water Chemistry Guide in this section. It is important not to add the chlorinating granules until the pH, alkalinity and calcium hardness have been adjusted to their proper levels.

   NOTE: See the Model Specifications section of this manual for the correct gallons of your spa, to ensureyou are adding the correct amount of chemicals. When adding chlorine or non-chlorine shock/oxidizer always spread it across the water while the pumps are running. The concentration of active ingredients in spa chemicals varies by manufacturer.

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WATER MAINTENANCE – SCHEDULE

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BEFORE EACH USE

Test the spa water for proper pH and sanitation levels. Adjust accordingly to the proper levels outlined in the Water Chemistry Guide, found in the Water Maintenance – Recommended Ranges section. Appropriate levels should be present before use of the spa. Bathers should not enter the spa if the chlorine levels are outside of the safe, recommended ranges.

AFTER EACH USE

Test water and treat accordingly to maintain proper pH and free chlorine levels for continued sanitary conditions after use. The amount of people using the spa (and duration of use) will deplete chlorine levels and can cause free chlorine to test below total chlorine, resulting in a more frequent need to use an oxidizer/non-chlorine shock treatment.

3 TIMES A WEEK

Test the water using chemical test strips. Adjust sanitizer, pH and Alkalinity accordingly, following directions on the chemical manufacturer's bottle. If free chlorine level measures less than total chlorine level, additional non-chlorine shock/oxidizer treatment is necessary.

ONCE A MONTH

Soak your regular filter elements overnight in a container with spa Filter Cleaner and then rinse with clean water. For best results, allow the filter to dry before re-inserting. (The EcoPur® element should never be cleaned in a filter cleaner. Just rinse with water.) When cleaning filters, be sure to never have the pumps (including the circulation pump) running without the filters in place. Failure to do so may result in debris being drawn into the pumps causing unwarranted damage. See Cleaning Your Filter Elements in the Maintenance section of this manual for more information.

EVERY 180 DAYS

Drain and refill your spa with fresh water, install a new EcoPur® element, clean the regular filter, and repeat start up procedure. The regular filter should be replaced at least once every year. Over time and bather use, biofilm buildup can occur. Chemical products are available to help remove biofilm and should be used periodically before draining.

AS NEEDED

If the water looks hazy, make sure pH is in the proper range and treat with chlorinating granules to maintain free chlorine levels. Treat with non-chlorine shock (oxidizer shock) if free chlorine is less than total chlorine. Always refer to the chemical manufacturer's dosage recommendations listed on the container. Free chlorine levels should be maintained per the Water Chemistry Guide.

A defoamer may be used when excessive foaming occurs. Over use of a defoamer will result in cloudy, milky water. These are general recommendations for water maintenance that may vary by usage and bather load. Depending on bather load and frequency of use, drain and refill times may vary as well as the frequency of cleaning your filters.

USE ONLY SPA CHEMICALS

Do not use chemicals designed for use in swimming pools. With a spa you are working with a small volume of hot water compared to a large volume of relatively cool water in a swimming pool. Because of this, chemicals will have a shorted life span and bacteria can grow more quickly than in a swimming pool. A spa is less forgiving then a pool and requires that whatever is put into it have a pH as close to neutral as possible. That is why only chemicals made for spas should be used. Always refer to the chemical manufacturer's dosage recommendations listed on the container.

WATER MAINTENANCE – TROUBLESHOOTING GUIDE

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PROBLEM	POSSIBLE CAUSES	HOW TO FIX IT
CHLORINE ODOR	Excessive chlorine	Shock water with oxidizer/non-chlorine shock treatment
	Low pH	Adjust pH if necessary
WATER ODOR	Low levels of sanitizer	Adjust sanitizer level with chlorinating granules
	pH out of range	Adjust pH if necessary
	Bacteria or algae growth	If sanitizer has already been adjusted, it may be necessary to perform a system flush
CLOUDY WATER	Dirty filters or inadequate filtration	Clean filters with filter cleaner and adjust filtration
	Unbalanced water chemistry	Test and adjust chemistry levels
	Old water	Drain, clean inner shell and refill with filtered water
CLOUDY AND GREEN WATER	Total alkalinity levels are low	Use a pH increaser
	Sanitizer levels are low	Apply oxidizer/non-chlorine shock treatment and adjust sanitizer
CLEAR GREEN WATER	High iron or copper content	Use a sequestering agent
	Sanitizer levels are low	Apply oxidizer/non-chlorine shock treatment
BROWN WATER	High iron or manganese level	Use a sequestering agent
FOAMING	High levels of body oils, lotions, soap, etc.	Add small amount of defoamer, an enzyme product and check water chemistry
	Low calcium hardness	Use a calcium hardness increaser
	Unbalanced water chemistry	Test and adjust chemistry levels
EYE OR SKIN IRRITATION	Unsanitary water	Adjust water chemistry according to testing results
	Total chlorine level above 5 ppm	Apply oxidizer/non-chlorine shock treatment
	Poor sanitizer/pH levels	Adjust pH level as necessary
SCUM DEPOSITS AT WATERLINE	Body oils and dirt	Use multi-purpose cleaner to clean spa surface and add enzyme product to spa water
CHALKY, WHITE SCALE DEPOSITS	Minerals present in the water and lack of sequestering agent use	When tub is drained, use a multi-purpose cleaner or white vinegar and scrub with a soft cloth
PITTING OF METAL FIXTURES	Low pH or total alkalinity	Check water chemistry and adjust

NOTE: Please refer to the Water Maintenance - Recommended Ranges section to review recommended chemical levels.

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NOTE: These maintenance procedures are the responsibility of the spa owner to perform. These procedures are not covered by the spa warranty.

DRAINING YOUR SPA

Before you start draining your spa, be sure all power is turned off to it. Your spa requires periodic draining and cleaning to ensure a safe, healthy environment. It is recommended that you clean your spa at least every 180 days or as necessary. Heavy bather load will require draining and cleaning it more often. Draining times will vary by model when using the equipped internal drain assembly. A sump pump may also be used to expedite the draining of the spa.

NOTE: If your hot tub required multiple electrical services, be sure to turn off breakers for all services powering the spa equipment. See model specifications and appropriate electrical requirements for your model or contact your electrician if you are not familiar with how your electrical was installed. A breaker or power cut off should always be within line of sight.

Caution and careful planning should be taken if draining in freezing temperatures to ensure the process is performed quickly (by use of a submersible pump) and that the water is either refilled quickly again or winterization steps are immediately performed. Try to plan your normal draining maintenance during times when temperatures are above freezing. Excess water in the plumbing can freeze in a short time frame depending on temperatures and conditions. Water freezing within plumbing and components can result in freeze damage which is not warranted.

STEPS FOR USING THE EQUIPPED INTERNAL DRAIN

Figure 1

Figure 1.1

The spas are equipped with a drain assembly which can be located on the front side of the spa behind the skirt (same side as the topside control panel or where most of the spa equipment is located). The drain will be located in the equipment area behind the front skirt panel (Figure 1).

1. Remove the front skirt panel by removing its panel screws. The drain will be located inside the equipment bay (see Figure 1 & Figure 1.1).
2. To start the flow of water with this drain assembly; remove the cap, twist the face counterclockwise and pull out slightly on the face. A garden hose can be attached to the end of the drain assembly, if so desired.

NOTE: With the cap removed from the drain; water may drip or weep from the drain. This is normal. Be sure that the steps are followed in reverse order when draining is finished. Make sure that the drain cap is reattached and the valve is put back to the fully closed position so that there is no water leaking from the drain assembly.

STEPS FOR USING A SUMP PUMP*

1. Carefully lower submersible pump with hose connected into the bottom of spa, taking care not scratch or gouge your spa shell.
2. Run the discharge end of the hose from your submersible pump to a desired location several feet away from your spa, where the water will drain away from foundation that the spa is resting on.
3. Plug in/turn on your submersible pump.

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NOTE: These maintenance procedures are the responsibility of the spa owner to perform. These procedures are not covered by the spa warranty.

4. Turn off/disconnect your submersible pump once it is no longer able to suck up any further water (indicated by a suctioning sound and water no longer coming out of the drainage hose). If you plan to fully wipe down and clean your entire spa shell, a shop vac can be used to remove the remaining small pockets of water in the spa.

   *Sump Pump is not provided with spa.

SPA SURFACE CARE

- During use, always remove debris and pollutants that have settled in the water or built up on the spa surfaces as it occurs. These pollutants can cause growth of bacteria, algae, fungus or biofilm if left on the spa surface and potentially cause stains.
- Clean the spa shell, jets and other controls with a soft cloth and spa shell cleaner to help remove residue and buildup on the shell surface. For any remaining buildup, white vinegar or mild scale remover product may be necessary. Apply to the spa shell and wipe down with a soft cloth. Consult with your local MasterSpas dealer for proper spa cleaning products.
- Rinse the cleaned surfaces with fresh water from your garden hose and wipe with a soft cloth as doing so will help to remove residual cleaning agents (as some may cause foaming to occur in the water once spa is refilled).
- Always use an approved insulating spa cover by MasterSpas to cover your spa when not in use, especially in outdoor installations where the spa is exposed to weather conditions and sun. Constant, prolonged exposure and use of unapproved or non-insulating spa cover can result in damage to spa surface which would not be warranted.

CARE OF YOUR SPA PILLOWS

- Your spa pillows should be rinsed periodically to remove chemical residue. This helps improve pillow lifespan and slows down deterioration of the pillows (i.e. discoloring, becoming stiff and flaking of the material).
- If the spa will not be used for a period of time, the pillows could be removed and rinsed to prolong their life.

NOTE: Do not cover the spa for 15 minutes after adding chemicals as the off gas can cause damage.

CARE OF YOUR SPA CABINET

The spa cabinet is made from a UV resistant material. The cabinet requires only periodic cleaning with a stream of water from a garden hose. If necessary, use mild soap and water with soft cloth to wipe down cabinet surface. Rinse thoroughly.

Occasionally, you may need to clean out the vent mesh on the spa cabinet to help with air flow inside the cabinet. Use a vacuum to clean off any debris stuck to the vent mesh on the cabinet panels. Pay particular attention to the vent mesh nearest the equipment area.

ACCESSING FILTERS

Filter Weir with Top Access

Remove Filter Lid

Turn Filters Counter-clockwise to Remove

NOTE: EcoPur filter set is normally placed in filter port closest to the topside control panel, this is ideal when Mast3rPur circulation system present.

Vane Teleweir Filter Housing

Pull Up to Remove Floater Assembly

Turn Filters Counter-clockwise to Remove

Telescoping Filter Housing

Twist Lock Ring Counter-clockwise to Remove Floater

Remove Basket

Turn Filters Counter-clockwise to Remove

Filter Weir with Slide Off Access

Slide Faceplate Up to Remove

Turn Filters Counter-clockwise to Remove

REGULAR MAINTENANCE PROCEDURES

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NOTE: These maintenance procedures are the responsibility of the spa owner to perform. These procedures are not covered by the spa warranty.

Vane Skimmer Filter Housing

Remove Top Cap by Gently Lifting

Lift Up and Remove Basket

Turn Filters Counter-clockwise to Remove

CLEANING YOUR FILTER ELEMENTS

The filter elements are one of the most important components of your spa. Not only are they essential for clean water; they also extend the life of the spa equipment and help avoid unnecessary water changes and re-heating. Your filter elements should be cleaned on a regular basis, at least once a month on average with normal usage. With heavy use, poor water quality and/or high dissolved solid content in water; the filters may need to be cleaned more often. It is recommended to allow filter elements to fully dry after cleaning. For this reason, it is ideal to have a spare set of filters on hand for filter cleaning intervals.

1. Turn off the spa before servicing filters. Never leave to the spa running when removing the filters. Debris can be pulled into the plumbing system and cause unwarranted damage.
2. Remove filter element(s).
3. With a garden hose, spray each element under pressure. Monthly, the standard filter elements should be soaked in a filter cleaner. Do not soak EcoPur® element in a filter cleaner. The EcoPur® element should only be rinsed with fresh, clean water if necessary. Check with your MasterSpas dealer for details on cleaning and/or filter replacement recommendations.
4. The EcoPur® element should be replaced every 6 months. The standard filter should be cleaned regularly and will typically last approximately 1 year. Bather load, usage and water quality will effect the longevity of the filters and require more frequent cleaning or replacement.

CLEANING JETS

The majority of jets in your spa can individually be turned on/off. If any of these jets become hard to turn, it will be necessary to remove the jet to clean it as grit/sand and mineral deposits may be present. The jets in your spa can be removed for cleaning by turning them counter-clockwise until they release and then pulling out the jet.

TO CLEAN JETS: Place the jet(s) in a container, fully immerse in white vinegar. Let the jet(s) soak overnight and then rinse with water. Reinstall the jet(s). It may be necessary to clean grit and deposits from the white jet body (mounted in the spa shell) by using a small bristled brush.

NOTE: These maintenance procedures are the responsibility of the spa owner to perform. These procedures are not covered by the spa warranty.

CARE OF LAMINAR FLOW JETS:

In order to keep your Laminar Flow Jets operating properly, follow these steps:

1. Turn off Laminar Flow Jets.
2. Remove outer ring by turning face counter-clockwise while pulling on it.

3. Either the whole Laminar Flow Jet Assembly pops out: Rinse it out and inspect it. Or, if only the outer ring comes off: Remove internal Jet insert with a pair of needle nose pliers and inspect it.
4. Clean plastic diffuser at the back of the Jet insert or Laminar Flow Jet Assembly so all holes are free of debris.

OR

5. Reinstall Jet insert or assembly and outer ring by pushing it in and turning it clockwise until it stops.

NOTE: To prevent premature failure of your spa cover and the possibility of water running out of the spa off the bottom of the cover, always turn Laminar Flow Jets down so that they do not hit the cover when the cover is closed. You do not want to completely turn jets off. Doing so may cause a build up of stagnant water in the water line if not used often.

EN 17125, Do not put finger in massage jet

NOTE: These maintenance procedures are the responsibility of the spa owner to perform. These procedures are not covered by the spa warranty.

CLEANING DIVERTER VALVES

Mineral deposits, grit and sand may get into the internal parts of the diverter valves over time. The diverter valves may become difficult to turn or not turn at all.

CAUTION – TURN OFF SPA BEFORE PROCEEDING WITH THIS MAINTENANCE.

FOR THESE STYLES OF HANDLES, FOLLOW THE STEPS BELOW:

1. Remove the handle from the top of diverter valve by grasping the handle and pulling up with a rocking motion.
2. Turn the cap piece counter-clockwise. It may be necessary to put a clean towel over the cap and turn it with a wrench.
3. Once loose, the cap, internal rotor assembly and handle can be pulled up out of the white plumbing fitting.
4. Wipe down the internal rotor assembly that attaches to the cap and handle.
5. Soak the internal rotor assembly in white vinegar.
6. The inner wall of the white plumbing fitting should also be wiped down. If the surface of the white plumbing has become too abrasive, you can take wet, fine sandpaper and smooth it out.
7. Rinse the diverter internals. Inspect O-rings for cracking or swelling and apply silicone lubricant to them. Then reassemble.

REGULAR MAINTENANCE PROCEDURES

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NOTE: These maintenance procedures are the responsibility of the spa owner to perform. These procedures are not covered by the spa warranty.

CARE OF YOUR SPA COVER

Always cover your spa when not in use with an approved insulating spa cover by MasterSpas. Keep the spa cover on to minimize heat loss during heating of the spa between uses (but not while it is being used). This will greatly reduce energy consumption and will cause spa water to heat more rapidly. Water loss and chemical usage will also be reduced.

- Ensure the cover is fitted tightly, as per manufacturer's instructions to maximize insulation.
- Be sure to lock down all straps on the cover after each use.
- Do not allow spa to sit uncovered in direct sunlight. The heat and UV from direct sun exposure can cause damage to exposed shell surfaces of the spa as well as damage or discoloration of the spa controls and fittings.
- See cover manual instructions for detailed instructions on proper cover care. Clean the cover at least once a month using mild soap and water. Rinse thoroughly with fresh water to remove pollutants and soap residue. If mold/mildew staining has occurred (particularly on bottom of the cover), a mixture of bleach and water used with a soft cloth may be necessary. Thoroughly rinse with fresh water after cleaning.
- Keep cover open for 15 minutes after adding chemicals to prevent excessive off gas buildup and damage.
- When the spa is being used, the cover should be placed in a clean, dry area, otherwise it can pick up dirt and bacteria. Covers should not be put on wooden tables or wooden decking because of the risk of bleaching the wood.
- The use of a cover lift accessory or other device ensures the cover will not come into contact with the ground and retains its cleanliness (particularly the surface in close proximity to the spa water surface). The cover should be stored in an appropriate location, where it cannot be damaged, or cause damage.

NOTE: If your spa is going to be left empty for prolonged periods, do not place cover directly on the spa's surface (closed and sealed). Instead, place a 1" block of high density foam between the cover and the spa. This allows for ventilation to help reduce mold and mildew from occurring while the spa is empty.

NOTE: The cover warranty is not part of the limited warranty provided with the spa. It is provided through the cover manufacturer and may not be through MasterSpas. Check the tags and labeling on your cover to verify manufacturer and refer to the manufacturer's care, maintenance and warranty information. Your dealer can help provide you with these details.

NOTE: Always use the water feature diverter to turn down the water flow so that the water features do not hit the cover when the cover is closed. Do not turn them all the way off.

CARE OF YOUR OZONE SYSTEM

The ozone hose and check valve connecting between the ozone generator and ozone injector should be inspected and/or replaced, if necessary, every 12 months. Depending on conditions of the air which is being brought in to the ozone generator, the ozone hose and check valve can wear more rapidly. This regular maintenance is not covered under the spa warranty. We recommend that your MasterSpas Dealer or service organization be contacted to perform this type of maintenance.

REGULAR MAINTENANCE PROCEDURES

▶ **WATCH HOW-TO VIDEOS:** masterspas.com/video-tutorials

NOTE: These maintenance procedures are the responsibility of the spa owner to perform. These procedures are not covered by the spa warranty.

CARE OF STAINLESS STEEL

MasterSpas uses stainless steel in a number of our spas. Its lasting beauty and resistance to corrosion make it an excellent material for handrails and jets faces. With the proper care it will keep its luster for many years. All stainless steel can corrode given the right circumstances so we have provided a guide to help you keep the stainless components in your spa looking nice. Stainless steel derives its ability to resist corrosion by forming a very thin transparent coating on the surface when exposed to oxygen. This coating can be damaged by abrasive materials such as steel wool, sand paper, and other cleaning materials that are abrasive. Chlorine salts, sulfides, or other rusting metals can also erode this thin coating exposing the metal to corrosion. The best defense to combat corrosion on stainless steel components in your spa is make sure that it is kept clean and free of any chemical build up.

Always:

- Clean frequently with fresh, clean water.
- Remove any rust spots as soon as they appear with vinegar or a stainless steel, brass, silver, or chrome cleaner.
- Use a good car cleaning wax for extra protection.
- Leave cover removed for at least 15 minutes after adding chemicals to the spa water

Never:

- Clean with mineral acids or bleaches, steel wool or any other abrasive materials.
- Leave in contact with iron, steel any other metals.
- Close the cover immediately after adding chemicals to the water.

NOTE: Failure to take proper care of the stainless steel could result with them rusting. Rusting is not covered by the warranty.

NOTE: Do not cover the spa for 15 minutes after adding chemicals as the off gas can cause unwarranted damage. Larger dosages can require longer lengths of time to off gas. It is recommended to check spa water more frequently to allow small dosages be added as necessary versus large dosages being added less often.

SPA TROUBLESHOOTING GUIDE

NOTE: For wiring outside of U.S. and Canada, GFCI may be referred to as a RCD (residual current device). Be sure all local electrical codes are followed.

GFCI IS TRIPPING

A ground fault circuit interrupter (GFCI) is required by the National Electrical Code for your protection. The tripping of the GFCI may be caused by a component on the spa or by an electrical problem. Electrical problems include but are not limited to, a faulty GFCI breaker, spa component, power fluctuations, and/or improper wiring. If this is a new electrical service and GFCI installation, an instantly tripping GFCI may likely be caused by improper wiring of the load neutral from the GFCI to the spa. It may be necessary to contact an electrician if your MasterSpas dealer recommends doing so.

NOTHING ON THE SPA OPERATES

1. Check the control panel display for any messages. If there is a message, refer to the diagnostic section on that spa model. There you will find the meaning of the message and what action is to be taken.
2. If there is no message on the control panel and the control panel is completely dark (off), try to reset the GFCI breaker.

The GFCI should be located in a weather proof box close to the spa, but no closer than 5 ft.

If the spa does not respond, or the GFCI breaker continues to trip, contact your MasterSpas dealer or service organization.

SPA NOT HEATING

If the spa's heater has failed, the majority of the time it will trip the GFCI breaker. If the spa is not heating and has not tripped the breaker, please follow these steps:

1. Check set water temperature at control panel to make sure it is set to desired temperature and above the current water temperature.
2. Check the "Heat Mode" that the spa is set in. The spa should be set in the Standard Mode or Ready Mode depending on the model. If placed in an Economy or Rest type mode, it changes the way the system heats and will primarily only heat during user programmed durations. See Spa Control section for further details.
3. Check the control panel for heat indicator. If heat indicator is on, wait a reasonable amount of time (at least 1 hour for 240V systems or 3-4 hours for 120V systems) to see if the water temperature is rising.
4. If heat indicator does not remain on, the system should be displaying a message indicating why it can't heat. Check the control panel for diagnostic messages. Refer to Spa Control Section titled System Related Messages. Follow steps to alleviate the message.
5. Reset power to the spa at GFCI breaker.
6. If spa is still not heating, contact your MasterSpas dealer or service organization.

WATER TEMPERATURE IS ABOVE SET TEMPERATURE (HEAT CREEP)

Because MasterSpas hot tubs are well insulated and built to meet stringent energy standards, heat creep can occur. This means that the measured temperature of the water in your spa is creeping up higher than the set temperature on your control panel. Heat creep can occur as outdoor temperatures become moderate to warm or when your filter cycle durations have been adjusted above the default settings. To help manage heat creep:

1. **Vent your cover.** This means placing a folded cloth about ¾ inches (2 cm) thick under all four corners of the cover before you lock the cover down.
2. **Open your cover.** Opening the cover at night will also quickly cool the water down if desired.

   NOTE: Never leave a spa cover open and unsupervised.
3. **Open all air controls.** Temporarily leave the air controls open during cooler times of the day or night. Set your filtration cycles to run during this time as well.

   NOTE: If the heat creep issue has been resolved, close the air controls when not using the spa to reduce energy and chemical maintenance.
4. **Reduce the length of your filter cycles.** The default duration is generally 4-4.5 hours of filtering per day (either a duration of 2 hours that occurs twice per day or one 4.5-hour filter duration based on time of day).
5. **Visit your local MasterSpas dealer for additional guidance.** Heat creep can happen on well-insulated hot tubs, and is related to the environment where the spa is installed and equipment runtimes such as extended filter cycle durations (especially on systems using Therapy Pump 1 low speed for filtering and heating). This is not indicative that there is a problem with the spa.

PUMP(S) DO NOT OPERATE

1. Press the “Jets” button on your control panel.

   If you hear the pumps trying to operate:
   A. Check that all the slice valves are open.
   B. Pump may be air locked and needs to be primed.
   Refer to Installation Instructions section. If you do not hear anything from the pump, contact your MasterSpas dealer or service organization.

NOTE: If the pump(s) had been operating for 15 minutes or longer prior to ceasing operation, it may be normal and simply related to mild or warmer temperature conditions and excessive internal temperatures occurring from prolonged pump run-times. The spas are built to meet stringent energy efficiency standards and to run at full capacity during the 15 minute safety timeout periods. Operating pumps at high speed repeatedly beyond the 15 minute timeout can result in the pump motor getting too warm and shutting itself off to cool down. This would be seen by the control indicating the pump should be on still, but the pump has shut itself off internally. If this thermal cutout occurs, the pump will remain off for several minutes to cool. Once the equipment area and motor cool down, it would begin operating again.

POOR JET PERFORMANCE

1. Make sure pump is operating.
2. Check that the water level is adequate (up to minimum safe water level on sticker located near filter or at least 1” above the filters or filter housing opening).
3. Make sure the jets are open and the air controls are open. Refer to Glossary of Spa Terminology section.

WINTERIZING YOUR SPA

Your spa is designed to be used year round in any type of climate.

However, if you decide you don't want to use your spa in the winter, you must drain it and follow the winterizing steps listed below.*

DISCLAIMER: MasterSpas does not recommend winterizing your spa. If you choose to do so, any damage that may result is not covered under the spa warranty.

1. Drain your spa completely using the drain valve (if so equipped) or use an inexpensive submersible pump that you can buy from your local hardware store.
2. Use a shop vac to get all standing water out of your unit.
3. Remove access panels from equipment area.
4. Loosen all pump unions.
5. Remove winterizing plug from face of the pump(s) where applicable.
6. Using your shop vac in a blowing mode, insert the hose into the nozzle of each jet and blow the trapped water from the lines into the interior of the spa.
7. A non-toxic, RV water line type antifreeze can be used and added to jets in each seat around your spa to help prevent freeze damage from occurring.

   NOTE: If antifreeze was used, be sure to thoroughly flush the system before startup.
8. After this is completed, use the shop vac to remove any standing water in the spa and in the equipment area.
9. Clean the spa with a soft cloth and a non-abrasive spa surface cleaner.
10. Replace access panels.
11. Cover the spa to prevent water from entering it and check the spa periodically to be sure no water is entering and accumulating. Spa covers are a great insulator but will allow some precipitation to enter the spa. For this reason, it is highly advised to also cover the spa with a water tight tarp while winterized. It is beneficial to keep the spa cover slightly gapped off the acrylic shell while winterized to allow air flow in to the shell area to reduce mildew/mold buildup caused by trapped moisture.

* If you decide to winterize your spa, we recommend that you periodically check the spa throughout the winter to assure water is not entering the spa through or around the spa cover.

STORING YOUR SPA

The spa shell should never be left unprotected and uninsulated while being stored. Clear plastic wrap or similar material should never be used to cover/protect the spa.

Prolonged, direct sun heat can damage the surfaces of the spa along with any components on the spa's surface. Always keep the spa covered and protected with an insulating spa cover. Resulting damage such as cracking in the shell surface, warping or discolored components on the spa would not be warranted.

An empty spa should never be exposed to temperatures below 0°F (-18°C) after delivery as extreme cold can cause shell damage. This includes storage and draining (winterizing). If your spa will be exposed to these temperatures, keep the unit filled and running. If you do not plan to use your spa, you can set the spa to the lowest temperature setting allowed by the control system while in Standard/Ready Mode.

Failure to adhere to these guidelines may result in unwarranted damage caused to the spa.

MODEL SPECIFICATIONS

MODEL	LISTING NUMBER	SPA DIMENSIONS (in./cm)	ELECTRICAL REQUIREMENTS[1]	CONVERTIBLE POWER*	SEATING CAPACITY[2]	WATER CAPACITY (gallons/m)[3]	DRY WEIGHT (lbs./kilos)[4]	FULL WEIGHT (lbs./kilos)[3,4]	THERAPY PUMPS	CONTROL PANEL	CONTROL SYSTEM
CLS BALANCE 6 CS	9951	78"x 78"x 34" 198 x 198 x 86	Configuration # 1 120V, 15A Service	Yes	5	300 / 1.13	670 / 304	4100 / 1860	1	MP406U	MS300AVU
CLS BALANCE 6	9950	78"x 78"x 34" 198 x 198 x 86	Configuration # 2 240V, 50A GFCI	No	5	300 / 1.13	670 / 304	4100 / 1860	1	TP500	MS50U / MS90U
CLS BALANCE 7	1590	84"x 84"x 36" 214 x 214 x 92	Configuration # 2 240V, 50A GFCI	No	5-6	390 / 1.48	815 / 370	5180 / 2350	2	TP500	MS50U / MS90U
CLS BALANCE 8	1610	94"x 94"x 36" 239 x 239 x 92	Configuration # 2 240V, 50A GFCI	No	6	465 / 1.76	900 / 408	5890 / 2672	2	TP500	MS50U / MS90U
CLS BALANCE 9	9925	94"x 108"x 38" 239 x 275 x 97	Configuration # 2 240V, 50A GFCI	No	8	615 / 2.33	1215 / 551	7825 / 3550	2	TP500	MS50U / MS90U
CLS PRECISION 7	1570	84"x 84"x 36" 214 x 214 x 92	Configuration # 2 240V, 50A GFCI	No	7	400 / 1.51	770 / 349	5405 / 2452	2	TP500	MS50U / MS90U
CLS PRECISION 8	1580	94"x 94"x 36" 239 x 239 x 92	Configuration # 2 240V, 50A GFCI	No	7	515 / 1.95	880 / 399	6475 / 2937	2	TP500	MS50U / MS90U

[1]As configured from factory. See appropriate Electrical Requirements section for further details.

[2]Total bather capacity in spa. The number of bathers in spa should never exceed indicated seating capacity. Depending on spa size, water level and bather displacement; full seating capacity may not be achievable. Do not allow additional bathers to enter if bather displacement results in water levels overflowing or reaching the spa controls (air controls, diverters, spa topside control and etc.) as this will result in water leaking out of the spa shell and potentially in to the equipment area.

[3]Full weight based on dry weight of spa, max seating capacity of spa, assumed average weight per person of 185 pounds and estimated water weight of 8.34 pounds per gallon. Rounded up in increments of 5.

[4]Manufacturing tolerances along with other factors can result in variance in actual spa weight. If weight is a critical figure necessary for delivery, or final installation, we suggest a minimum of 15% be added to the listed weight when planning delivery or installation.

SITE PREPARATION/GENERAL GUIDELINES

EN 17125

Portable spa installation is simple when properly planned. It is important that you read the following information carefully and consult with your MasterSpas dealer.

1. **ACCESS:** The actual dimensions of your new spa will determine the amount of space that is needed in moving the spa from curbside to its final installation area. Be sure to consider and measure side yard dimensions, gates, doors, overall room dimensions and vertical obstructions such as ceilings, roof overhangs, balconies and overhead cables. Any other space limiting obstacles such as stairs, trees, and shrubs must also be evaluated. Consideration should also be taken to ensure there is convenient water supply for filling your spa (review national and local regulations). The desired location for the spa might require the use of a crane or other equipment. Please be sure to contact and review these site and installation plans with your MasterSpas dealer prior to delivery. It is also good to consider these access requirements for ease of removing the spa from the premises in the event it is necessary to do so.
2. **SURFACE/PAD REQUIREMENTS:** When your new spa is filled with water and bathers, it may weigh as much as several tons. It is imperative that the base beneath the spa can support the entire weight. The spa must be on a uniformly firm, continuous, and level surface. The recommended foundation is a concrete pad with a minimum thickness of four inches with steel reinforcement bars crossed throughout the pad.
3. **ENVIRONMENT:** Consider the location of your spa in relation to nearby structures or planned additions to your yard. Reflective surfaces such as windows, glass doors, or clear-roofed structures can reflect and intensify sunlight, magnifying surface temperature of the spa cabinet, cover, or accessories. This concentrated heat can cause warping, melting, or discoloration of spa components and materials.

   Independent heat sources such as fire pits, outdoor heaters, or grills can also raise temperatures around the spa and cause similar damage. Whenever possible, maintain a safe distance from reflective surfaces or heat sources, ideally 20’ or more, to prevent heat-related issues.

   NOTICE: Damage caused by heat or reflections from nearby structures, windows, or other external sources is considered environmental and is not covered under warranty.

IMPORTANT

Consult experts and/or local authorities to review and comply with all local and national laws and regulations relating to childproofing, safety barriers, lighting and any other safety requirements at site. When installing your spa indoors, on a wood deck, roof or balcony, load requirements need to be evaluated before installation. It is also good to consider location and position of spa as well as surfaces and foundation to minimize noise disturbance as much as possible. You should speak with a qualified contractor or your local building department to confirm that your surface is adequate for supporting the spa and conforms to these guidelines.

All sides of the spa must be accessible for regular maintenance or in the event that service is needed. Periodical maintenance checks require entry into the equipment bay. When possible, it is wise planning for the future to leave 3 feet of access to all sides of the spa in the event your spa requires maintenance. Your spa warranty does not cover the cost of providing access for service.

GENERAL CONSIDERATIONS FOR OUTDOOR INSTALLATION

Again, proper planning will increase your total enjoyment factor with your new spa. Listed below are some additional items to consider when planning your installation.

- Local building codes (if applicable)
- Power cable
- Appropriate materials and drainage around the spa to handle water presence and runoff

SITE PREPARATION/GENERAL GUIDELINES

- Consider local environmental conditions, such as ground water and risk of frost
- In cold climates, an insulating ground cloth can be installed between foundation and spa to minimize heat loss
- How spa will complement landscaping and vice versa
- View from inside spa and view of spa from inside of home
- Exposure to sunlight and shading from trees

GENERAL CONSIDERATIONS FOR INDOOR INSTALLATION

Installing your spa indoors creates an entirely different set of considerations.

- Privacy
- Getting to spa from the house and back
- Proximity to dressing rooms and bathrooms
- Storage for spa chemicals
- Work with your MasterSpas dealer and contractor to insure all local building, electrical and plumbing codes are met
- Plan for proper flooring and floor drains around your spa to drain off excess water runoff that will occur during normal use and for draining and cleaning your spa
- Proper room ventilation and dehumidification
- Finished materials in your spa room should also be capable of withstanding increased humidity and moisture

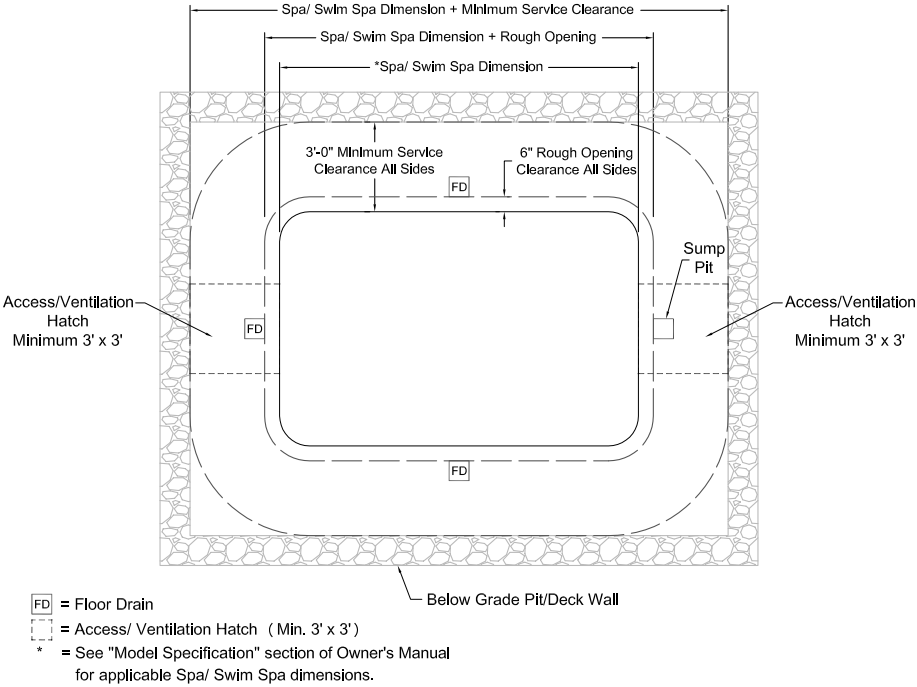
GUIDELINES FOR PARTIALLY OR FULLY RECESSED INSTALLATION

Spas manufactured by MasterSpas are designed to be installed in a variety of settings. One of which is installing below grade. Should a spa be installed below the level of the site drainage system (below grade), a system for preventing water collecting and pooling must be designed based on the requirements of the local authority having jurisdiction. The drainage system must be designed based on things such as rainfall, water runoff, splashing, draining the spa, etc., that could potentially fill the below grade area with water. When located in designated floodways, additional attention to maximum water load entering the area below grade must be addressed to prevent water from accumulating below grade at all times. It is generally recommended that the spa be installed above grade because the spa is not designed to be submerged in water. When a proper drainage system is designed and proper ventilation is planned based on the characteristics of the site, installing the spa below grade is an accepted method of installation.

- The unit is self-supporting when placed on a surface designed to support the full load of the spa (see Surface/Pad Requirements). Do not backfill with sand, gravel, or earth. Doing so will void the warranty.
- Plan for complete drainage so that water accumulation drains away from the spa perimeter and standing water never reaches the electrical equipment.
- Plan for appropriate ventilation to remove moisture accumulation and to prevent equipment from overheating.
- Provide a minimum of 3 feet service area around the perimeter of the unit. Site access issues are not covered by the product warranty.
- The unit is not designed to be submerged in water. Water entering the equipment area creates many hazards and resulting damage will not be covered by the product warranty.
- Make sure that the surroundings do not create any additional hazards.
- Surfaces placed around the unit should also be evaluated for walking/slipping hazards from standing water. Proper drainage is vital to the installation of a below grade installation.

SITE PREPARATION/GENERAL GUIDELINES

- Check all building, electrical, and plumbing codes with the authority having jurisdiction to ensure that your installation is in compliance with all local codes.
- Additional consideration needs to be made when installing unit in designed floodways.
- Verify that site specific drainage systems such as down spouts are not going to feed the area below grade.
- Below grade drainage system needs to be evaluated based on area specific rainfall. One size does not fit all so an analysis by a qualified, local engineer to ensure proper drainage of all sources of water is a must when installing below grade.



ELECTRICAL REQUIREMENTS

CONFIGURATION 1 - 120V, 15A SERVICE

NOTE: Electrical requirements by model is shown in Model Specifications. Only electrical configurations pertaining to the models referenced in this manual are shown.

ELECTRICAL REQUIREMENTS

HAVE YOUR ELECTRICIAN READ THE FOLLOWING INFORMATION BEFORE INSTALLATION BEGINS

Electrical connections made improperly, or the use of wire gauge sizes for incurring power which are too small, may continually blow fuses in the electrical equipment box, may damage the internal electrical controls and components, may be unsafe and in any case will void your warranty.

It is the responsibility of the spa owner to ensure that electrical connections are made by a qualified electrician in accordance with the National Electrical Code and any local and state electrical codes in force at the time of installation. Due to product being built to comply with varying countries, regions and related standards, there may be labels on the product with specifications for installation/wiring that may not apply to your country or local standards. Refer to local, applicable standards.

These connections must be made in accordance with the wiring diagrams found inside the control box. This equipment has been designed to operate on 60Hz. alternating current only, 120 volts are required. Make sure that power is not applied while performing any electrical installation. A copper bonding lug has been provided on the electrical equipment pack to allow connection to local ground points. The ground wire must be at least 14 AWG copper wire (unless local or state codes require a heavier gauge wire) and must be connected securely to a grounded metal structure such as a metallic cold water pipe. Be sure to have a licensed electrician examine and ensure proper grounding is provided. All equipment packs are wired for 120 VAC only. The only electrical supply for your spa must include a 15 AMP switch or circuit breaker to open all non-grounded supply conductors to comply with section 422-20 of the National Electrical Code. The disconnect must be readily accessible to the spa occupants, but installed at least five feet from the spa. A Ground-Fault Circuit Interrupter (GFCI), (provided with the spa), must be used to comply with section 680-42 of the National Electrical Code. A ground fault is a current leak from any one of the supply conductors to ground. A GFCI is designed to automatically shut off power to a piece of equipment when a ground fault is detected.

Service to the spa must be dedicated 120V, 15A 2 wire plus ground (14 AWG copper).

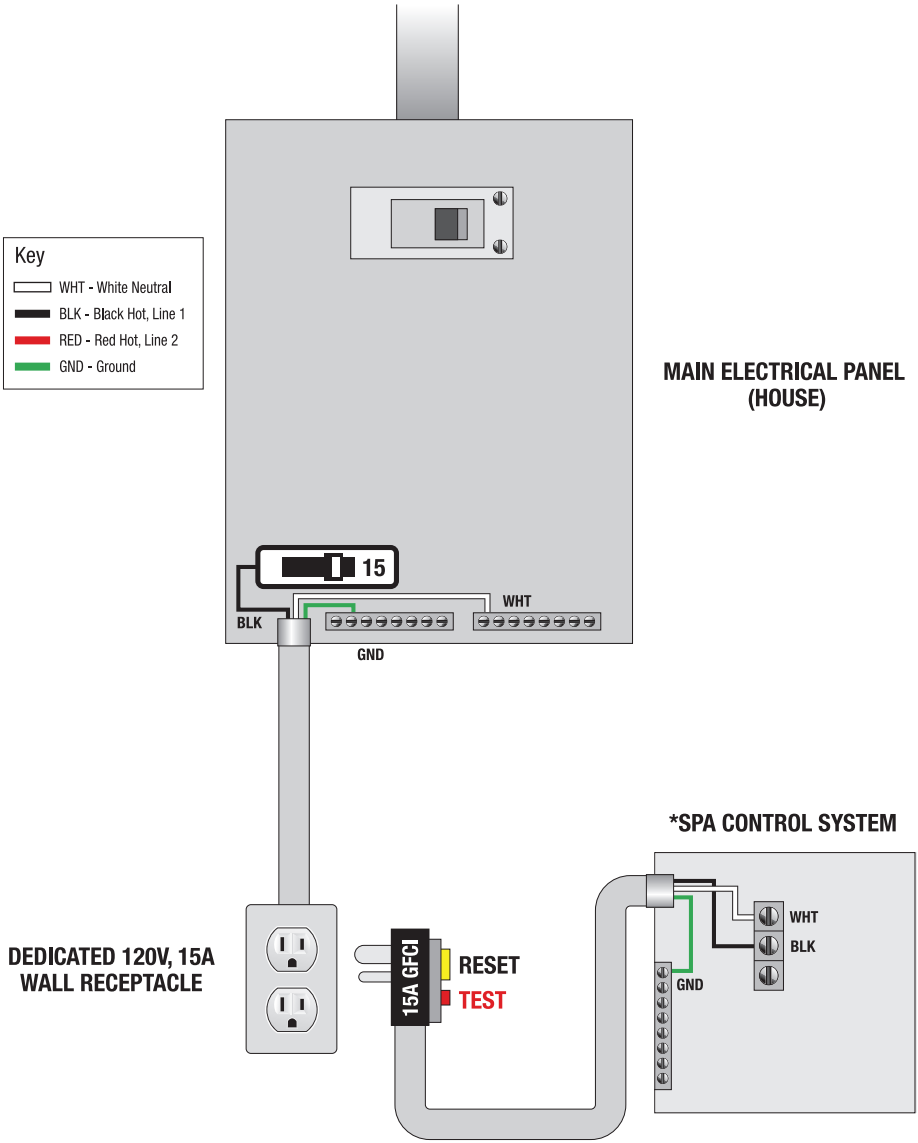
Route supplied cord or service into the equipment area for final hook-up to terminals inside the spa control system. The spa must be hooked up to a “dedicated” 120 volt, 15 amp. The term “dedicated” means the electrical circuit for the spa is not being used for any other electrical items (patio lights, appliances, garage circuits, etc.). If the spa is connected to a non-dedicated circuit, overloading will result in “nuisance tripping”which requires resetting of the breaker switch at the house electrical panel.

202412

Permanently Connected Equipment Assembly with Pump (s), Heaters, Luminaine, Ozone, Spa Side Control(s), Pump shut off device, and Audio/Video Components.

NOTE: Some of the above components may be optional or not available with every spa model.

CONFIGURATION 1 - 120V, 15A SERVICE



CONFIGURATION 1 120V, 15A SERVICE (DEDICATED)

* Refer to wiring diagram inside spa control system for proper power connection to terminals. Only black hot (L1), white neutral (N) and ground will be connected to the spa control system terminals for this 120V configuration.

ELECTRICAL REQUIREMENTS

CONFIGURATION 2 - 240V, 50A GFCI

NOTE: Electrical requirements by model is shown in Model Specifications. Only electrical configurations pertaining to the models referenced in this manual are shown.

ELECTRICAL REQUIREMENTS

HAVE YOUR ELECTRICIAN READ THE FOLLOWING INFORMATION BEFORE INSTALLATION BEGINS

Electrical connections made improperly, or the use of wire gauge sizes for incoming power which are too small, may continually trip breakers, blow fuses in the electrical equipment box, damage the internal electrical controls and components, be unsafe and, in any case, will void your warranty.

It is the responsibility of the spa owner to ensure that electrical installation supplying, and connecting to the spa, is performed by a properly qualified, licensed electrician in accordance with the with all applicable local, regional, state requirements, and current effective edition of the National Electrical Code at the time of installation. Due to product being built to comply with varying countries, regions and related standards, there may be labels on the product with specifications for installation/wiring that may not apply to your country or local standards. Refer to local, applicable standards.

These connections must be made in accordance with the wiring diagrams found inside the control box. This equipment has been designed to operate on 60Hz. alternating current only, 120/240 volts are required. Make sure that power is not applied while performing any electrical installation. A bonding lug has been provided on the electrical equipment pack to allow equipotential bonding connection for bonding conductors. The bonding conductor shall be at least 10 AWG copper and must be connected according to the current effective and applicable local, regional, state and edition of the National Electrical Code. The spa requires a 50-amp, single phase, 120/240 volt, four wire supply (two ungrounded line conductors, one grounded neutral conductor and one grounding conductor). The disconnect must be readily accessible to the spa occupants but installed at least five feet from the spa. A Ground-Fault Circuit Interrupter (GFCI) must be used to comply with section 680-42 of the National Electrical Code. A ground fault is a current leak from any one of the supply conductors to ground. A GFCI is designed to automatically shut off power to a piece of equipment when a ground fault is detected, and, its operation, should be tested frequently before use.

The electrical supply to the spa must be an individual branch circuit 120/240V, 50A, 4 wire, with ground (#6 AWG copper with minimum #10 AWG copper ground).

Route the electrical supply into the equipment area, by cutting an appropriate opening either through the bottom or side cabinet, for final hook-up to terminals inside the spa control system. The spa must be connected to an “individual - dedicated” 120/240-volt, 50-amp breaker and GFCI. The term “individual - dedicated” means the electrical branch circuit for the spa is not being used for any other electrical loads (i.e. patio lighting, appliances, garage circuits, etc.). If the spa is not connected to an individual-dedicated branch circuit, overloading may result in “nuisance tripping” which will require resetting of the breaker at the house electrical panel.

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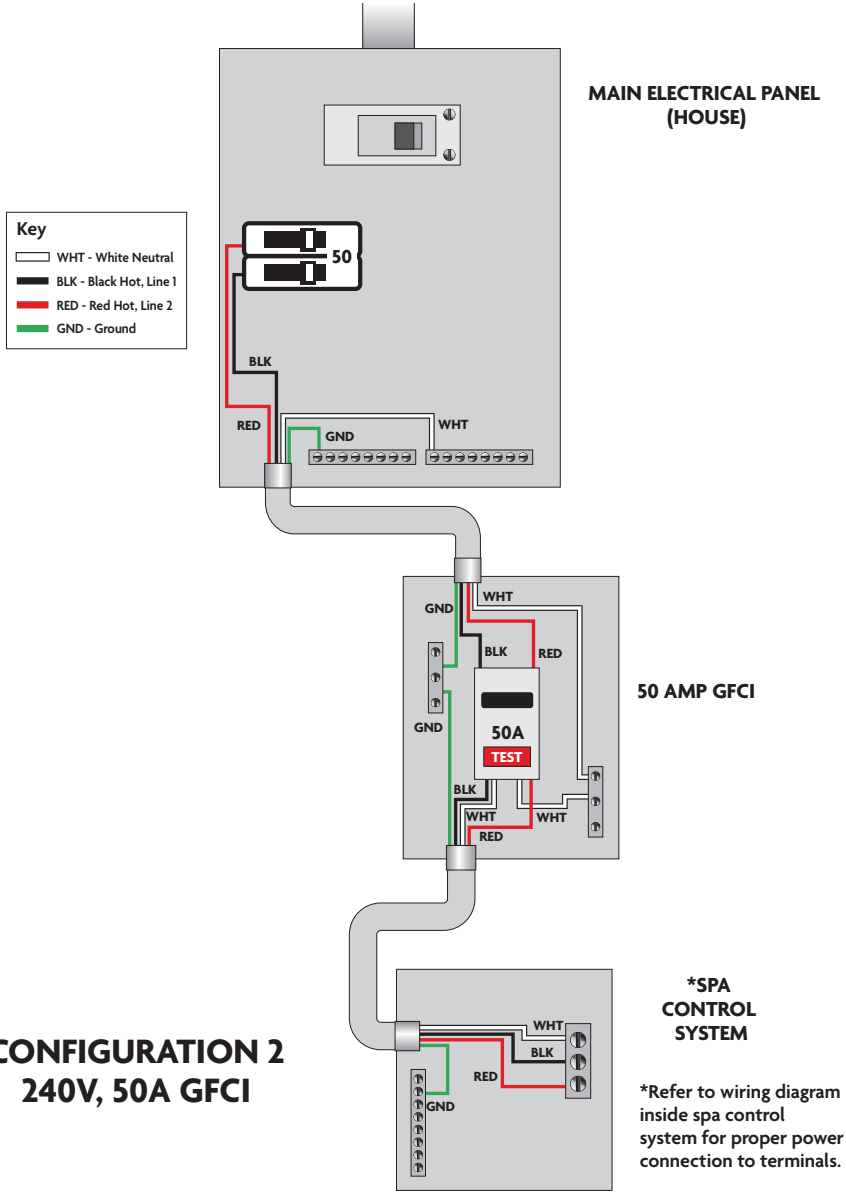
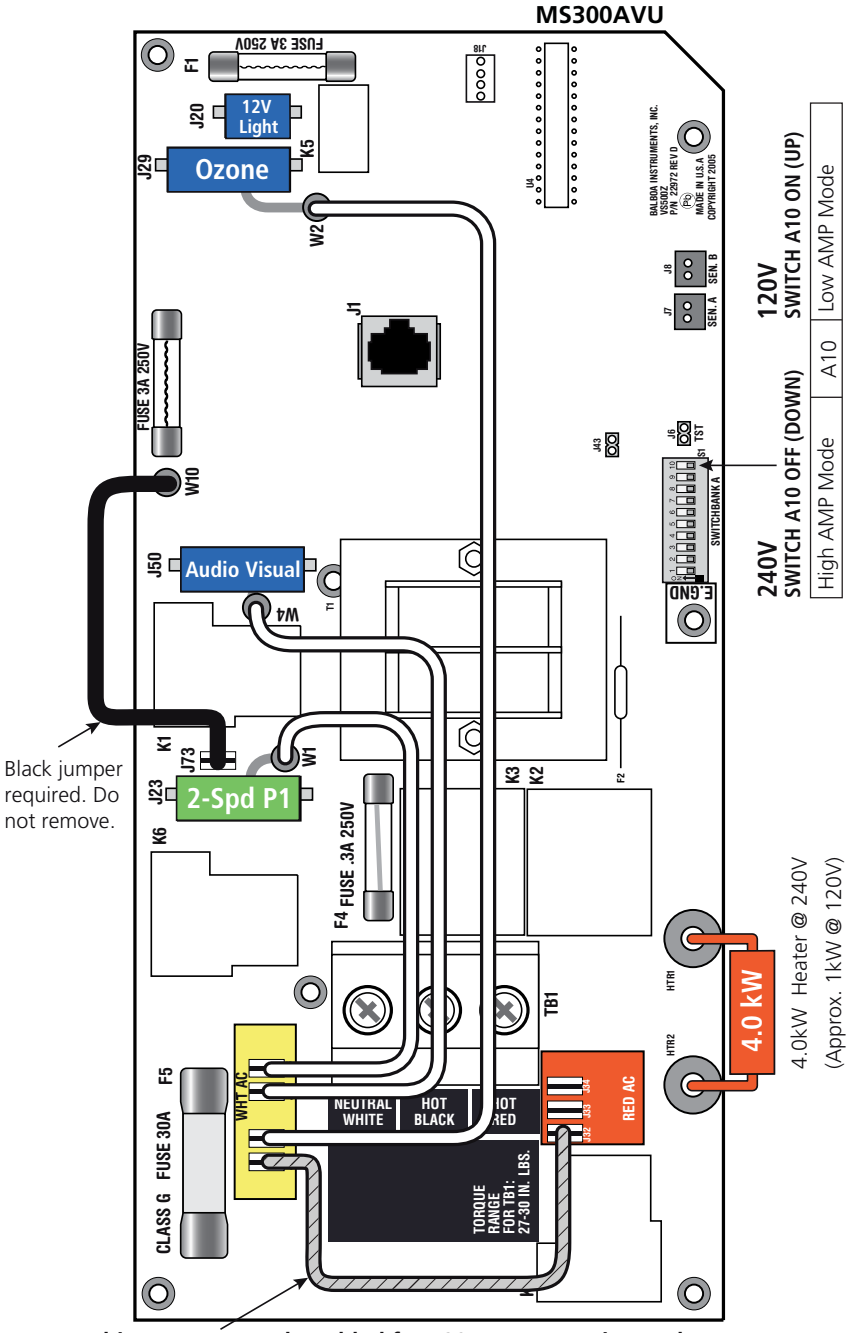
CONFIGURATION 2 - 240V, 50A GFCI



CONFIGURATION 2
240V, 50A GFCI



This Jumper must be added for 120V power option and DIP A10 must be ON. Remove Jumper for 240V hookup.

120V TO 240V CONVERSION INSTRUCTIONS

NOTE: Conversion must be performed by a qualified licensed electrician.

These instructions are only applicable if the spa model specifications page indicates Configuration #1 120V, 15A electrical requirements but also indicates Convertible Power, Yes. Following these simple steps will allow conversion from Configuration #1 120V, 15A to wiring Configuration #2 240V, 50A for increased heating performance.

STEPS TO CONVERT THE SPA CONTROL BOARD FROM 120V HOOKUP TO 240V:

1. Remove jumper wire that has been installed from factory connecting between White AC (WHT AC) common points (i.e. J11 above main power terminals TB1) and Red AC common points (i.e. J32, below the main power terminals TB1). Also see wiring diagram on backside of control system lid.

2. Inspect and, as needed, move white equipment jumpers for Pump 1 (W1), Ozone (if equipped, W4) and AV (if stereo equipped, W2) to White AC (WHT AC) common points on the control board (i.e. J11, J15, J25 and J63). The spa pump, ozone and AV must remain 120V but the conversion will now provide full 240V heating capacity.

3. Set switch bank A10 to OFF / DOWN position.

4. Refer to wiring Configuration #2 240V, 50A Service requirements section and install wiring White/Neutral (N), Black/Line 1 (L1), Red/Line 2 (L2) and Ground to appropriate spa control system terminals (see wiring diagram on backside of spa control system lid).

   Refer to diagram on the first page of this section.

240 TO 120V CONVERSION INSTRUCTIONS

NOTE: Conversion must be performed by a qualified licensed electrician.

These instructions are only applicable if the spa model specifications page indicates Configuration #2 240V, 50A electrical requirements but also indicates Convertible Power, Yes. Following these simple steps will allow conversion from Configuration #2 240V, 50A to wiring Configuration #1 120V, 15A.

STEPS TO CONVERT THE SPA CONTROL BOARD FROM 240V HOOKUP TO 120V:

1. If already installed and wired prior to conversion, disconnect power and remove existing supply power wiring.

2. Install a jumper wire (minimum 12 gauge stranded copper with female spade connections crimped on each end) to male spade connection on spa control board connecting between White AC (WHT AC) common points (i.e. J11 above main power terminals TB1) and Red AC common points (i.e. J32, below the main power terminals TB1). Also see wiring diagram on back side of control system lid.

3. Inspect and, as needed, move white equipment jumpers for Pump 1 (W1), Ozone (if equipped, W4) and AV (if stereo equipped, W2) to White AC (WHT AC) common points on the control board (i.e. J11, J15, J25 and J63). The factory equipped spa pump, ozone and AV must remain 120V.

4. Set switch bank A10 to ON/UP position.

5. Refer to Configuration #1 120V, 15A Service requirements section and install White/Neutral (N), Black/Line 1 (L1) and Ground to appropriate spa control system terminals (see wiring diagram on back side of control system lid).

   Refer to diagram on the first page of this section.

EN 17125

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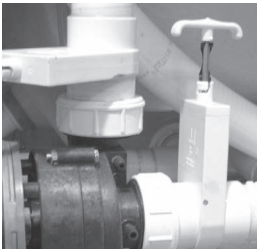
SETUP STEPS

1. Put spa in final position that allows for access to equipment and spa components. MasterSpas recommends that at least 3 feet of space be provided around all sides of the spa for access. This provides adequate space for regular maintenance and service.

2. Remove front skirt panel (this is the side where the topside control panel is located) so electrical can be hooked up to the spa control system. This panel is removed by unscrewing the screws securing the skirt corners and the front skirt panel.

3. With the front skirt panels removed allowing access to the equipment, be sure all pump and heater unions are secure. Each pump has 2 unions and the heater has 2 unions. A newly delivered spa may have loose unions caused in transporting the spa. Check that all slice valves are open, in the up position. The slice valves may become closed during transportation of the spa.

4. 

Slice Valve and Pump Union

Fill spa to minimum water level label indication located on the spa shell near the filter area or at least 1' above the filters or filter housing opening. We recommend filling the spa through the filter area to help reduce air locks from occurring in the filter and heating pump. When filling or topping off water, do not exceed the maximum fill level indication on the water level label.

NOTE: In below freezing temperatures, caution should be taken when planning to install a spa and fill it with water. As it takes time for the water to fill the spa and reach the proper minimum water level, the water entering the various plumbing lines and equipment may begin to freeze up when done in winter weather conditions. This could result in pumps being seized until thawed or other potentially worse freeze damage occurring to the equipment and plumbing lines.

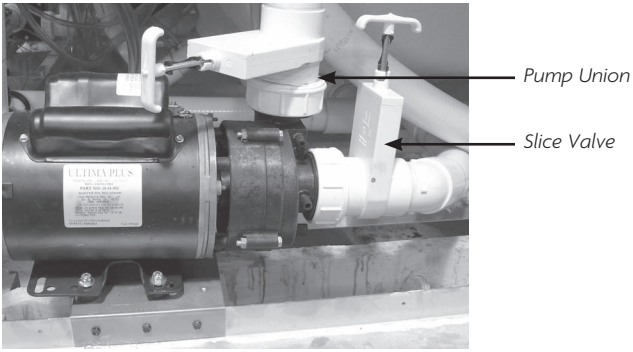
5. Turn the power on to the spa. Once the system and control panel loads to operational state, activate each jet pump to ensure they are not air locked before the system continues normal heating and filtering operations. See the spa controls section of this manual for additional instructions on control startup.

6. Be sure the adjustable jets in your spa are open by turning the face of the jet. Most of the jets in your spa are adjustable and removable by turning the face of the jet.

7. It may be necessary to bleed air from the pump(s) in your spa if, after start up, your spa pumps are turning on and off but you do not have water flow from the jets in your spa.

Due to the nature of water flow and hydro-therapy pumps, please be advised that air locking of pumps may occur. MasterSpas has taken measures to reduce the possibility of this, but it still may occur, especially after refilling a spa. This is not a service covered under warranty and service charges may apply.

To relieve an airlock situation, loosen the pump union on the discharge of the pump as it tries to prime. This pump union is indicated by an arrow in the picture below. Water should leak out of the union once the air has been removed. Tighten the union and test the pump for proper operation. Repeat this process if needed.



Airlock

8. Adjust water chemistry according to the instructions provided in the Water Maintenance section.

9. *Your spa water will heat approximately 3 to 4 degrees Fahrenheit per hour (1 to 2 degrees Celsius) with the cover placed on the spa. This varies depending on the size of the spa and ambient temperatures.

10. Step into the soothing waters of your Master Spa!

Relax and enjoy.

*240V systems only. 120V spa models increase at approximately 1°F per hour (can vary depending on model and temperature conditions).

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INITIAL START-UP

When your spa is first turned on, it will go into Priming mode, indicated by “Pr”. 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).

The pump responsible for heating and filtration (Pump 1 low-speed on non-circulation system, or the circulation pump on circulation 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.

TEMP CONTROL (80°F - 104°F/26°C - 40°C)

The last measured water temperature is constantly displayed when in standard mode. 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 or repeatedly to get to the desired setting 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.

After three seconds, the display will stop flashing and begin to display the current spa temperature. Consider that the comfortable temperature range during use may be lower than the maximum safe temperature. Check the set water temperature and consider lowering it for the times when the spa will typically not be in use.

JETS/PUMP 1

Press **Jets 1** to turn Pump 1 on or off, and to shift between low and high speeds (if equipped). High-speed will turn off after 15 minutes. Low-speed may run automatically at times for temperature polling, heating and filtering (during which it cannot be turned off using the control panel) but high-speed may be operated during this time.

AUX/PUMP 2 (IF EQUIPPED)

Press the corresponding button once to turn the device on or off. The device will turn off after 15 minutes.

LIGHT

Press the **Light** button to turn the light on and off. If left on, the light automatically turns off after 4 hours.

LED LIGHT (IF EQUIPPED)

Press the **Light** button to turn the LED lighting on and off. Most LED lighting will offer multiple color modes. If you wish to change the color mode of the LED lighting, turn the lights on and off repeatedly within a couple of seconds to rotate through available color schemes.

MODE

Mode is changed by pressing **Temp,** then **Light** (repeat this button sequence to continue rotating through the modes).

Standard Mode is programmed to continuously maintain the desired temperature. Note that the last measured spa temperature displayed is current only when the low speed of Pump 1 has been running for at least 1-2 minutes. "St" 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. Using Economy Mode is not recommended in below freezing temperatures.

Sleep Mode If the spa is not going to be used for prolonged period of time, consider using this mode, which heats the spa to within 20°F/10°C of the set temperature only during filter cycles. "SL" will display when water temp is not current and will alternate with water temp when the pump is running. Using Sleep Mode is not recommended in below freezing temperatures.

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 "F1, F2, F3, F4, FC"). The default filter time is 2 hours for non-circulation systems and 4 hours for circulation systems.

To program, press **Temp,** then **Jets.** Press **Temp** to adjust. Press **Jets** to exit programming.

SPA BEHAVIOR

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

For circulation systems, the circulation pump and the ozone generator (if installed) runs with the exception of turning off for 30 minutes at a time when the water temperature reaches 3°F (1.5°C) above the set temperature (most likely to happen in warm climates or if set temperature is lowered/set below the current water temperature).

Purge Cycles In order to maintain sanitary conditions, as well as protect against freezing, all pumps will purge water from their respective plumbing by running briefly at the beginning of each filter cycle. It is best that all jets be left in their open position and water diverters in their centered positions when done using the spa so all jets get water flow during purge cycles.

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 is turned on, and whenever the set temperature is raised.

FREEZE PROTECTION

If the temperature sensors detect a drop to below 44°F (6.7°C) within the heater, the pump will automatically activate to provide freeze protection. The equipment stays on until 4 minutes after the sensors detect that the spa temperature has risen to 45°F (7.2°C) or higher. During freeze protection the heater may not be activated.

SPA DIAGNOTSTIC 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.
- -	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	Heater Flow Loss: There may not be enough water flow through the heater to carry the heat away from the heating element. Heater start up will try again after about 1 min.	If the water level is normal, make sure all pumps have been primed. If problem persists, contact your dealer or service organization.
LF	Heater Flow Fail: Several "Heater Flow Losses" have occurred within 24 hours indicating confirmed low flow or complete flow loss. There is not enough water flow being constantly maintained through the heater to carry the heat away from the heating element and the heater has been disabled. (Displays on the fifth occurrence of "HL" message within 24 hours.)	Note the 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	Heater May Be Dry: Possible dry heater, not enough water in or flowing to the heater to start it. The spa is shut down for 15 minutes but will retry (up to 3 times).	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	Heater Is Dry: Consecutive "Heater May Be Dry" errors have occurred. There is a flow restriction, no flow or air lock in system preventing proper water flow for heater operation. The spa is shut down. (Displays on third occurrence of "dr" message.)*	Follow action required for "dr" message above. Spa will not automatically reset. Press any button to reset manually.
IC	Ice: Potential freeze condition detected.	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.

*Even when spa is shut down, some equipment will turn on if freeze protection is needed.

MAIN MENUS

EN 17125

DISPLAY ICONS

A - Heat
B - Ready Mode
C - Rest Mode
D - bba™2 On
E - WiFi (Cloud Connection)
F - Light
G - Cleanup Cycle
H - Jets 1
I - Jets 2
J - Blower
K - Auxiliary (Jets 3)
L - Temperature Range (High/Low)
M - Set (Programming)
N - Filter Cycle (1 or 1 or Both)
O - AM or PM (Time)

*Some icons may not apply. Equipment and accessories will vary by manufacturer and model.
*D - if equipped, options vary by model
*E - If equipped, aftermarket accessory
*G - Does not apply to all systems
*I - If equipped, option vary by model
*K - if equipped, options vary by model
*J - Not applicable

NAVIGATION

Navigating the entire menu structure is done with 2 or 3 buttons on the control panel. The up, **WARM**, and down, **COOL**, buttons are used to navigate the menu options.

The **MENU** Button is used to choose the various menus and navigate each section.

Typical use of the Temperature button(s) allows changing the Set Temperature while the numbers are flashing the LCD. The menus can be exited with certain button presses. Simply waiting for a few seconds will return the panel operation to normal.

POWER-UP SCREENS

Each time the System powers up, a series of numbers displayed. After the startup sequence of numbers, the system will enter Priming Mode.

Key

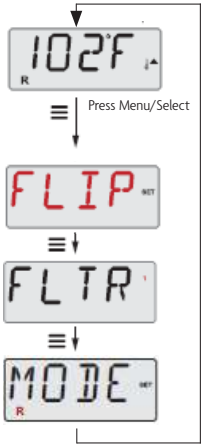
Indicates Flashing or Changing Segment

Indicates Alternating or Progressive Message - every 1/2 second

A temperature button, used for "Action"

Waiting time that keeps the last change to a menu item.

***** Waiting time (depends on menu item) that reverts to original setting and ignores any change to that menu item.



INITIAL START-UP

PREPARATION AND FILING

Fill the swim spa to its correct operating level. Be sure to open all valves and jets in the plumbing system before filling to allow as much air as possible to escape from the plumbing and the control system during the filling process. It is always best practice to fill the spa at the filter area. After turning the power on at the main power panel, the top-side control panel display will go through specific sequences. These sequences are normal and display a variety of information regarding the configuration of the hot tub control.

PRIMING MODE

This mode will last for 4-5 minutes or you can manually exit the Priming Mode after the pump(s) have primed, by pressing the **WARM** or button.

Regardless of whether the priming mode ends automatically, or you manually end the priming mode, the system will begin normal heating and filtering operations when Priming Mode ends. During the Priming Mode, the normal system's programming and heating is disabled to allow the priming process to be completed by the user without the possibility of turning on the heater under low-flow or no-flow conditions. Nothing comes on automatically, but the pump(s) can be energized by pushing the JETS button. If the spa has a dedicated Circulation Pump, it can be activated by pressing the LIGHT button during Priming Mode.

PRIMING THE PUMPS

As soon as the Priming Mode screen appears on the panel, select the “Jets 1” button once to start Pump 1 in low-speed (if applicable) and then again to switch to high-speed. If the pump is operating but there is no water flow after 10 seconds of running, shut the pump off for 5-10 seconds and then back on for 5-10 seconds. Repeat until water begins flowing, this means the pump is primed. Also select the other pumps to turn them on and perform this priming process if necessary. If the pumps have not primed after 4-5 minutes, and water is not flowing from the jets in the spa, do not allow the pumps to continue to run. Turn the spa off, then back on and repeat the process.

NOTE: Turning the power off and back on again will initiate a new pump priming session. Do not do this more than 5 times. If the pump(s) will not prime, shut off the power to the spa and see instructions for relieving an air lock in the Initial Spa Setup section.

IMPORTANT: A pump should not be allowed to run continuously without priming for more than 2 minutes. Under NO circumstances should a pump be allowed to run without priming beyond the end of the 4-5 minute priming mode. Doing so may cause damage to the pump and cause the system to energize the heater and go into an overheat condition.

EXITING PRIMING MODE

You can manually exit Priming Mode by pressing a Temperature button, **WARM** (Up) or **COOL** (Down). Note that if you do not manually exit the priming mode as described above, the Priming Mode will be automatically terminated after 4-5 minutes. Be sure that the pump(s) have been primed by this time. Once the system has exited Priming Mode, the top-side control panel will momentarily display the set temperature but the display will not show the temperature, yet, as shown below. This is because the system requires approximately 1 minute of water flowing through the heater to determine the water temperature and display it.

SPA BEHAVIOR

PUMPS

Press **JETS 1** or **JETS 2** button once to turn the pump on or off, and to shift between low and high speeds if equipped. If left running, the pump will turn off after a time-out period.

NON-CIRCULATION SYSTEMS

To monitor current water temperature, the system will automatically activate Pump 1 at the low-speed setting as needed. If the spa is in Ready Mode, Pump 1 low may activate for at least 1 minute every 30 minutes to monitor the spa water temperature (known as polling) and begin to heat if water temperature has dropped below the set temperature. If the water temperature remains consistent over long periods, and does not decrease, the M8 technology in your spa will actively adapt these polling intervals to be less frequent. If the water temperature conditions are very stable, M8 will gradually increase time between the intervals, up to 2 hours. If the water temperature starts dropping significantly, the system will check the water temperature (poll) more frequently, reverting the interval back to every 30 minutes. It will also reset the intervals back to 30 minutes whenever the user interacts with the system (such as activating equipment, changing heating modes and modifying the set temperature).

Pump 1 runs automatically, at the low-speed setting, when any other pump is turned on (if equipped) so that the system can monitor the spa water temperature.

When the low-speed of Pump 1 turns on automatically for either temperature polling, heating or filter cycles, it cannot be turned off at the control panel. However, the high speed setting on the pump can be turned on.

CIRCULATION PUMP

If the system is equipped with a circulation pump, it will be configured to work in one of two different ways depending on the control system software. The circulation pump mode cannot be changed.

1. Most circulation pumps operate continuously (24 hours) with the exception of turning off for 30 minutes at a time when the water temperature reaches 3°F (1.5°C) above the set temperature (most likely to happen in warm climates or if set temperature is lowered/set below the current water temperature). This is the typical mode for most spas with a dedicated circulation pump.

2. A programmable circulation pump will come on when the system is checking temperature (polling), during filter cycles, during freeze conditions, or when another pump is on.

FILTRATION AND OZONE

On non-circulation systems, Pump 1 low and the ozone generator will run during filtration. With dedicated circulation pump systems, the ozone will run with the in combination with the circulation pump.

The system is factory-programmed with a single filter cycle that will run 5-10 minutes after power-up. The filter duration is programmable.

At the start of the filter cycle, Pump 2 (if there is one) will run briefly to purge its plumbing to maintain good water quality.

FREEZE PROTECTION

If the temperature sensors within the heater detect a low enough temperature, then the pump(s) automatically activate to provide freeze protection. The pump(s) will run either continuously or periodically depending on conditions. If the temperature sensors detect a drop to below 44°F (6.7°C) within the heater, the pump will automatically activate to provide freeze protection. The equipment stays on until 4 minutes after the sensors detect that the spa temperature has risen to 45°F (7.2°C) or higher. During freeze protection the heater will not be activated.

ADJUSTING THE SET TEMPERATURE

When using a panel with Up and Down buttons (Temperature buttons), pressing UP or DOWN will cause the temperature to flash. Pressing a temperature button again will adjust the set temperature in the direction indicated on the button. When the LCD stops flashing, the spa will heat to the new set temperature when required.

The water temperature can be set between 80°F (27°C) and 99°F (37°C). Consider that the comfortable temperature range during use may be lower than the maximum safe temperature. Check the set water temperature and consider lowering it for the times when the spa will typically not be in use.

PRESS-AND-HOLD

If a temperature button is pressed, **WARM** (Up), **COOL** (Down) or single **TEMP**; and held when the temperature is flashing, the temperature will continue to change until the button is released. On one Temperature button spa models, if the limit of the Temperature Range is reached when the button is being held, the progression will reverse direction.

MODE - READY & REST

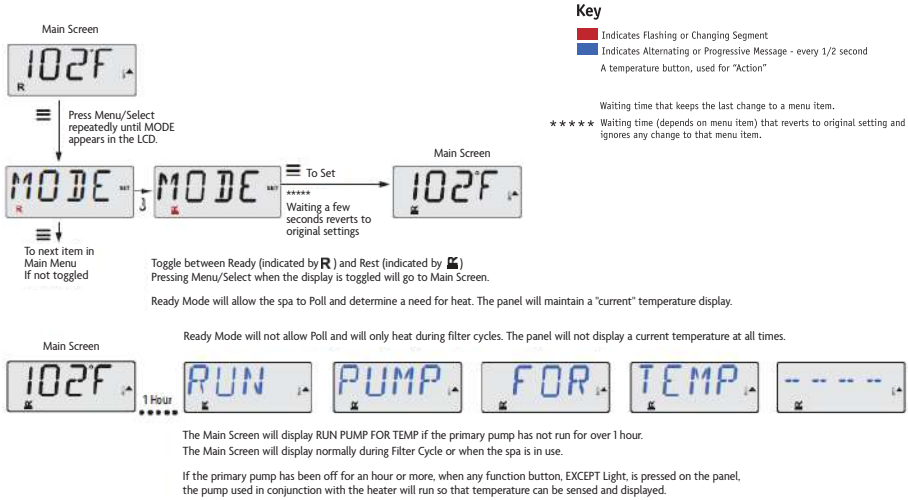
In order for the spa to heat, a pump needs to circulate water through the heater. The pump that performs this function is known as the “heater pump.”

The heater pump can be either a 2-Speed Pump 1 or a circulation pump.

If the heater pump is a 2-Speed Pump 1, **Ready Mode** (indicated by R) will circulate water periodically, using Pump 1 Low, in order to maintain a constant water temperature, heat as needed, and refresh the temperature display. This is known as “polling.”

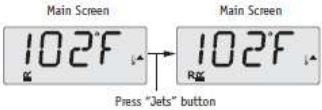
REST MODE

Rest Mode (indicated by) 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 minute or two. Using rest mode is not recommended in below freezing temperatures



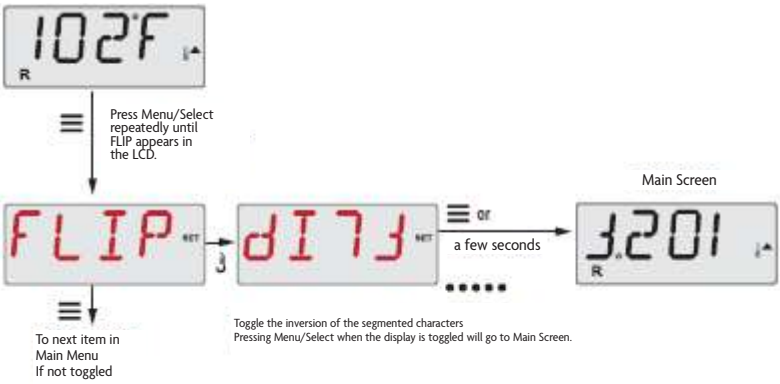
READY-IN-REST MODE

READY/REST R appears in the display if the spa is in Rest Mode and “Jets” is pressed. It is assumed that the spa is being used and will heat to the set temperature. The primary pump will run until set temperature is reached, or 1 hour has passed. After 1 hour, the System will revert to Rest Mode. This mode can also be reset by entering the Mode Menu and changing the Mode.



SPA CONTROLS - TP500S CONTROL PANEL

FLIP (INVERT DISPLAY)



ADJUSTING FILTRATION

MAIN FILTRATION

Filter cycle is set using a duration. The time frame setting can be adjusted in 1 hour increments. The default time is 4:30. The filter cycle will start a few minutes after the spa is powered up.

Key

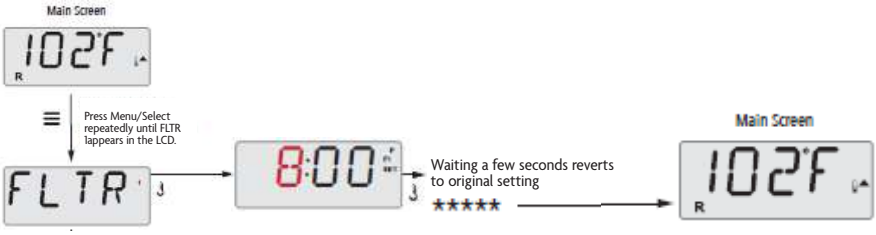
Indicates Flashing or Changing Segment

Indicates Alternating or Progressive Message - every 1/2 second

A temperature button, used for "Action"

Waiting time that keeps the last change to a menu item.

***** Waiting time (depends on menu item) that reverts to original setting and ignores any change to that menu item.



PURGE CYCLES

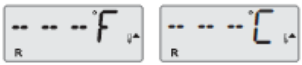
In order to maintain sanitary conditions, secondary Pumps will purge water from their respective plumbing by running briefly at the beginning of the filter cycle.

GENERAL MESSAGES

PRIMING MODE

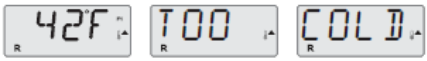
Each time the spa is powered up, it will enter Priming Mode. The purpose of Priming Mode is to allow the user to run each pump and manually verify that the pumps are primed (air is purged) and water is flowing. This typically requires observing the output of each pump separately and is generally not possible in normal operation. The Priming Mode lasts 4 minutes, but you can exit it earlier by pressing any Temp button. The heater is not allowed to run during Priming Mode.

NOTE: If your spa has a dedicated Circulation Pump, it will turn on with Jets 1 in Priming Mode. The dedicated Circulation Pump will run by itself when Priming Mode is exited.



WATER TEMPERATURE IS UNKNOWN

After the pump has been running for 1 minute, the temperature will be displayed.



TOO COLD - FREEZE PROTECTION

A potential freeze condition has been detected, or the Aux Freeze Switch has closed, and all pumps and blower are activated, either one at a time, or all at once, depending on how your system was built. All pumps and blower are ON for at least 4 minutes after the potential freeze condition has ended, or when the aux freeze switch opens.

In some cases, pumps may turn on and off and the heater may operate during Freeze Protection.

This is an operational message, not an error indication.

WATER IS TOO HOT

One of the water temp sensors has detected spa water temp 110°F (43.3°C) and spa functions are disabled. System will auto reset when the spa water temp is below 108°F (42.2°C). Check for extended pump operation or high ambient temp.

J29 WARNING

J29 is typically used as a Heater Disable input. As such, it should not typically be shorted at power-up. This message appears if J29 is shorted at power-up.

HEATER RELATED MESSAGES

HEATER FLOW IS REDUCED (HFL)

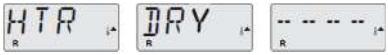
There may not be enough water flow through the heater to carry the heat away from the heating element. Heater start-up will begin again after about 1 min. See “Flow Related Checks” below.

HEATER FLOW IS REDUCED (LF) *

There is not enough water flow through the heater to carry the heat away from the heating element and the heater has been disabled. See “Flow Related Checks” below. After the problem has been resolved, you must press any button to reset and begin heater start up.

HEATER MAY BE DRY (DR)*

Possible dry heater, or not enough water in the heater to start it. The spa is shut down for 15 min. Press any button to reset the heater start-up. See “Flow Related Checks” below.

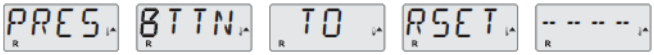


HEATER IS DRY*

There is not enough water in the heater to start it. The spa is shut down. After the problem has been resolved, you must press any button to reset and restart heater start up. See “Flow Related Checks” below.

HEATER IS TOO HOT (OHH)*

One of the water temp sensors has detected 118°f (47.8°C) in the heater and the spa is shut down. You must press any button to reset when water is below 108°f (42.2°C). See “Flow Related Checks” below.



A RESET MESSAGE MAY APPEAR WITH OTHER MESSAGES

Some errors may require power to be removed and restored.

FLOW-RELATED CHECKS

Check filters for possible blockage. Try cleaning or replacing filters (especially if the spa is equipped with 24-hour circulation pump). Check for low water level, suction flow restrictions (i.e. any leaves or debris pulled against suction fittings in bottom of spa shell), closed valves, too many closed jets and pump prime/air locked pump (see Initial Spa Setup section for instructions on relieving pump air lock). On some systems, even when the spa is shut down by an error condition, some equipment may occasionally turn on to continue monitoring the temperature or if freeze protection is needed.

* This message can be reset from the topside control panel by pressing any button.

SENSOR RELATED MESSAGES

102°F SNSR BAL-- ANCE

SENSOR BALANCE IS POOR
The temperature sensors MAY be out of sync by 2°F or 3°F. Contact your Master Spas dealer or service organization.

SNSR SYNC ------ CALL FOR SRVC ------

SENSOR BALANCE IS POOR*
The temperature sensors failed to balance and have remained out of sync for more than 1 hour. Contact your Master Spas dealer or service organization.

SNSR A ------ CALL FOR SRVC ------

B

SENSOR FAILURE - SENSOR A, SENSOR B
A temperature sensor or sensor circuit has failed. Contact your Master Spas dealer or service organization.

MISCELLANEOUS MESSAGES

NO COMM

NO COMMUNICATIONS
The control panel is not receiving communication from the System. Contact your Master Spas dealer or service organization.

102°T

°F OR °C IS REPLACED BY °T
The Control System is in Test Mode. Contact your Master Spas dealer or service organization.

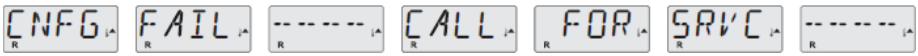
* This message can be reset from the topside control panel by pressing any button.

SYSTEM RELATED MESSAGES

MEMORY FAILURE - CHECKSUM ERROR*
At power up, the system has failed the Program Checksum Test. This indicates a problem with the firmware (operation program). Contact your Master Spas dealer or service organization.

MEMORY WARNING - PERSISTENT MEMORY RESET*
Appears after any system setup change. Contact your Master Spas dealer or service organization if this message appears on more than one power up, or if it appears after the system has been running normally for a period of time.

MEMORY FAILURE - CLOCK ERROR*
Contact your Master Spas dealer or service organization.



CONFIGURATION ERROR – SPA WILL NOT START UP
Contact your Master Spas dealer or service organization.

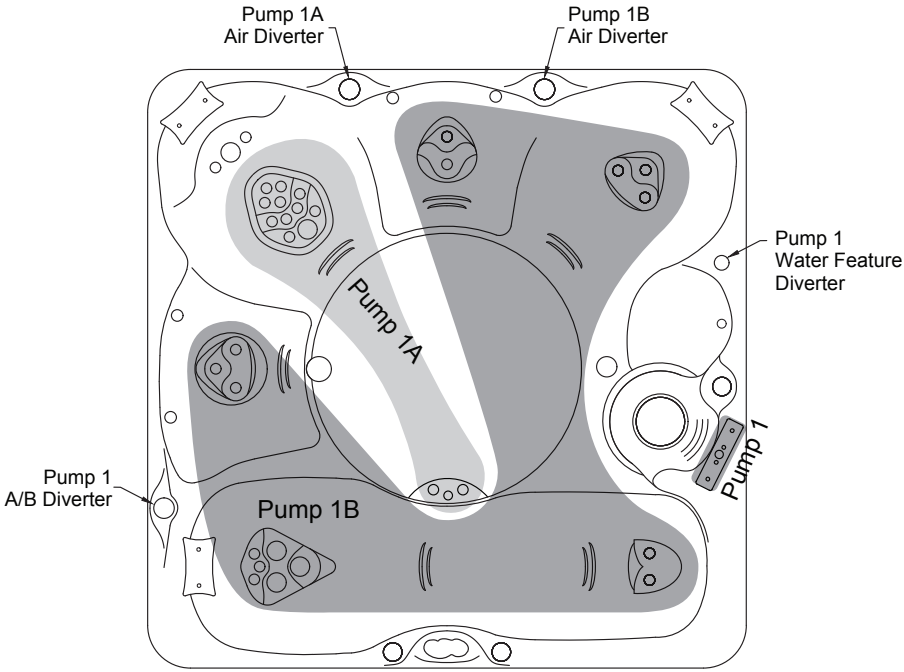
GFCI FAILURE - SYSTEM COULD NOT TEST/TRIP THE GFCI
NORTH AMERICA ONLY. May indicate an unsafe installation. Contact your dealer, service organization, or electrician.

A PUMP APPEARS TO BE STUCK ON
Water may be overheated. POWER DOWN THE SPA. DO NOT ENTER THE WATER. Contact your Master Spas dealer or service organization.

A PUMP APPEARS TO HAVE BEEN STUCK ON WHEN SPA WAS LAST POWERED
POWER DOWN THE SPA. DO NOT ENTER THE WATER.
Contact your Master as dealer or service organization.

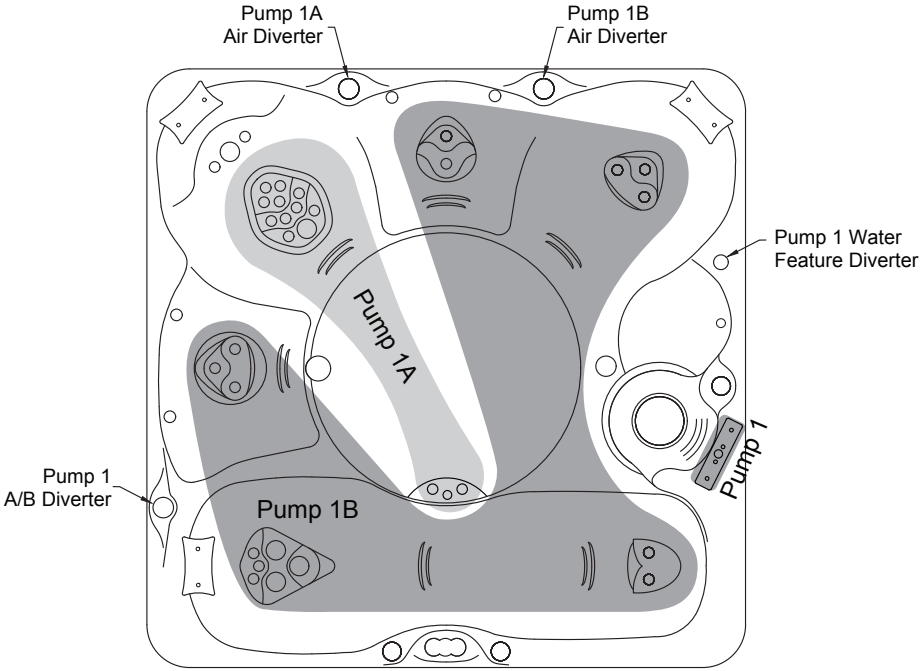
THE WATER LEVEL IS TOO LOW
Some systems have a water level detect, and this message appears if it detects that the water level is too low.

CLS BALANCE 6 CS

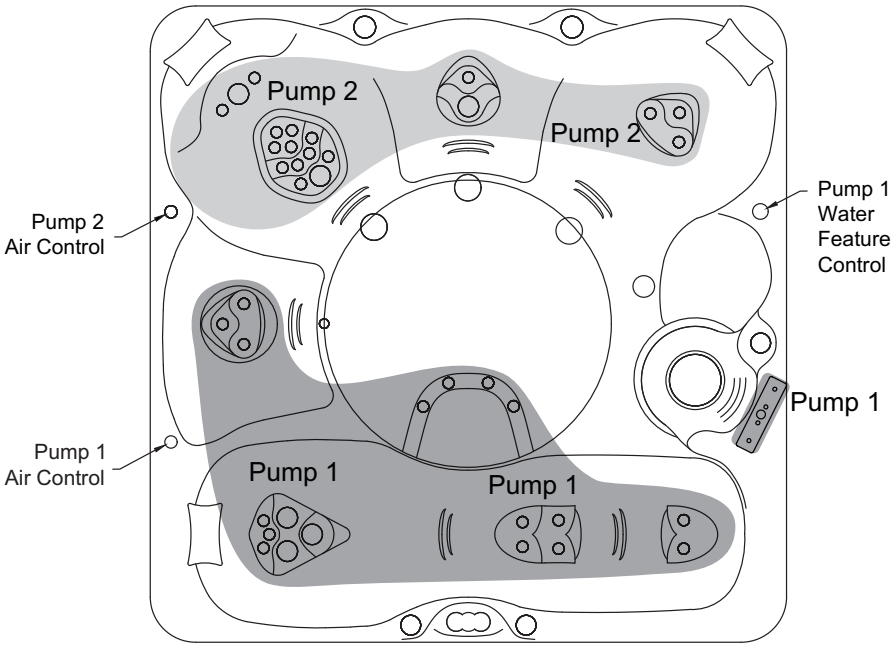


REV. 012023

CLS BALANCE 6

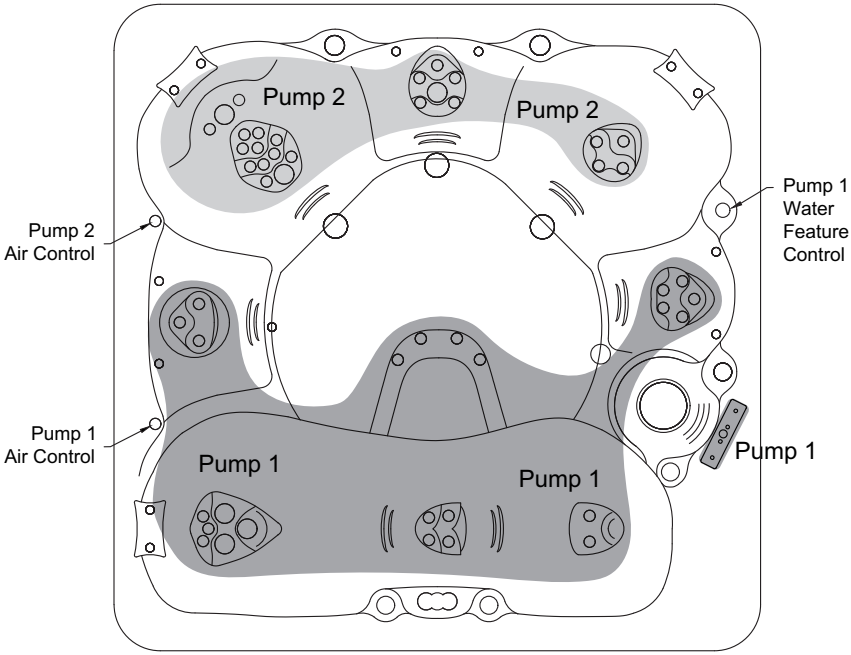


CLS BALANCE 7



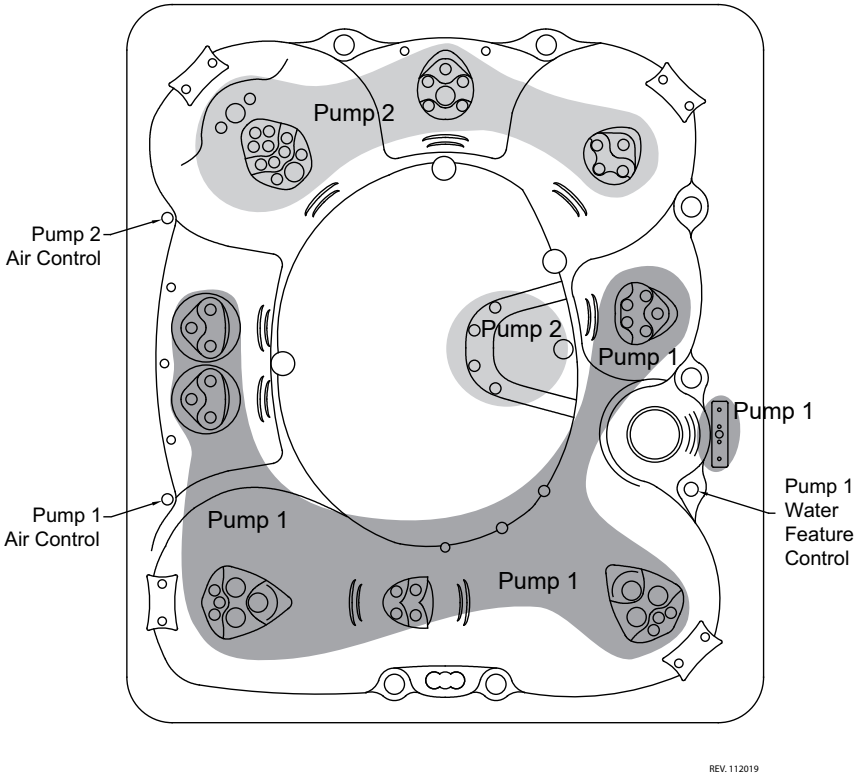
REV. 112019

CLS BALANCE 8

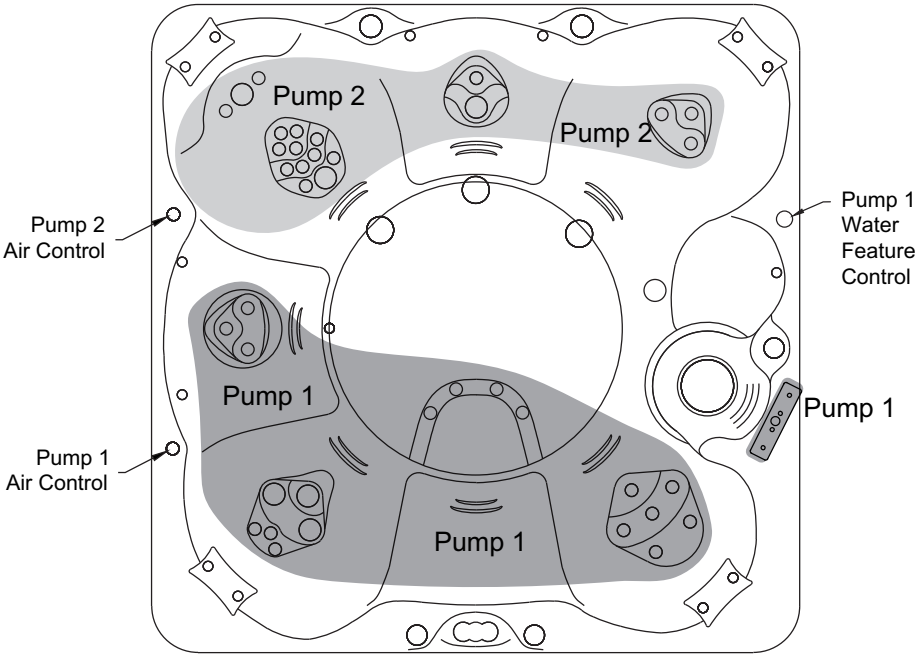


REV. 112019

CLS BALANCE 9

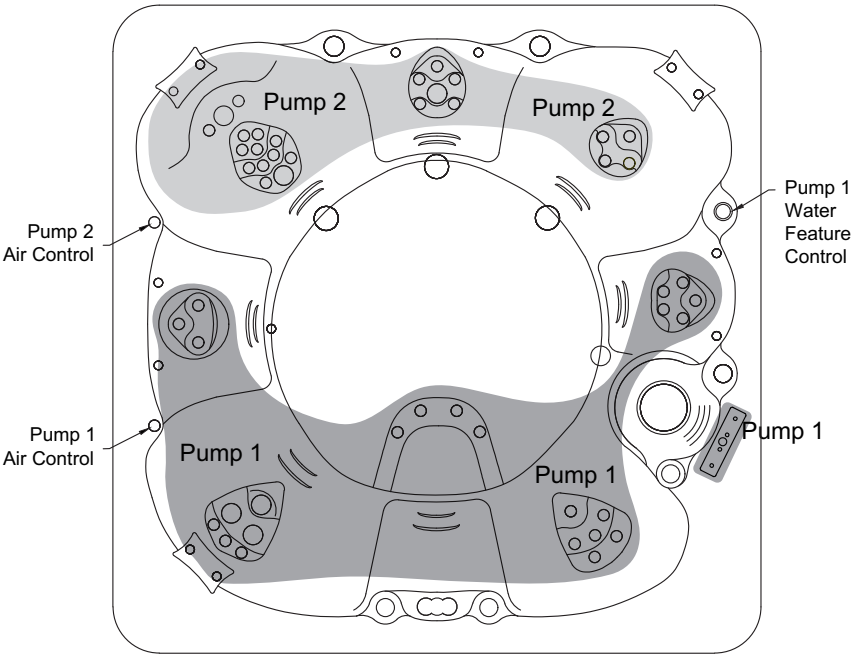


CLS PRECISION 7



REV. 112019

CLS PRECISION 8



REV. 112019

MASTER CLEAR SALT SYSTEM "READY" & FACTORY INSTALLED (AVAILABLE FOR SELECT MODELS)

The Master Clear Salt System makes maintaining crystal-clear water easier than ever! The system uses a Smart Cell to automatically create chlorine in your spa from highly purified salt that has been dissolved in the water. The salt concentration is much lower than other systems on the market, while still providing the luxurious soaking experience that comes from relaxing in salt water. The Master Clear Salt System allows you to spend more time enjoying your spa and less time maintaining it.

Master Clear Salt System "Ready"
(For Simple Activation Kit Installation)

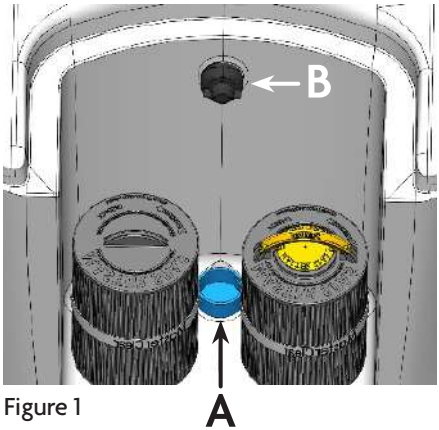


Figure 1

Factory Installed

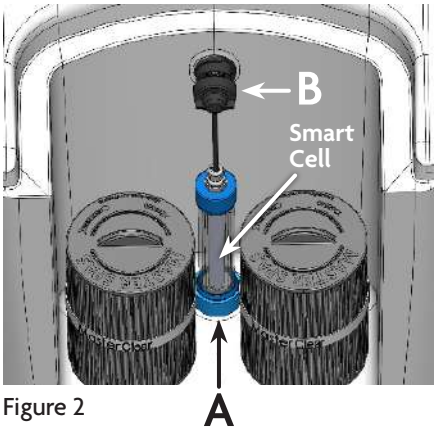


Figure 2

FEATURES:

Items included for both Master Clear Salt System "Ready" and Factory Installed option:

- Smart Cell Base Connection fitting (Figure 1, A) – Located in the bottom of filter housing, this fitting secures the base of the Smart Cell and allows it to twist on/off for easy install, removal and replacement purposes.
- Smart Cell Wall Connection fitting (Figure 1, B) – Located at the top of the filter housing, this electrical connection twists on/off for installation, removal and replacement of the Smart Cell generator. If the spa did not have the Master Clear Salt System option selected when built, then the preinstalled wall fitting includes an 18" wire harness, found inside the equipment cabinet area, to allow the spa to be "Ready" for simple aftermarket Master Clear Salt System Activation Kit installation.

For additional information on Master Clear Salt System, operating instructions, water care and aftermarket installation (Master Clear Salt System "Ready" Activation Kit), scan the QR codes:

Master Clear Salt System Overview/Website

Master Clear Salt System Installation & Operation Manual

*Master Clear Salt System Quick Start Guide

*Always review entire Master Clear Salt System Installation & Operation Manual for complete safety instructions and operating guidelines before use. Quick Start Guide is intended for convenient reference to key steps for startup but does not replace the need to review the full installation and operating instructions, for safe and proper use.

Removing or Replacing Smart Cell

1. Twist Smart Cell Wall Connection Fitting (Figure 3, A) counterclockwise to disengage.
2. Twist Smart Cell (Figure 3, B) counterclockwise to disengage and remove.
3. To reinstall Smart Cell, reverse these steps.

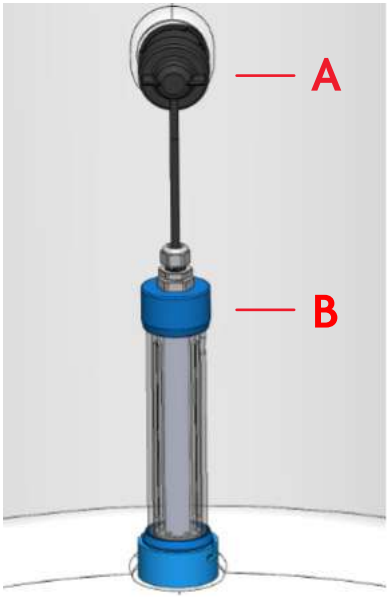
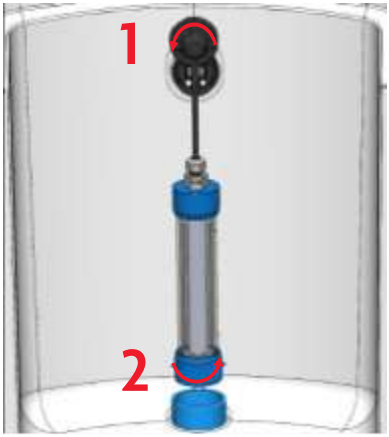
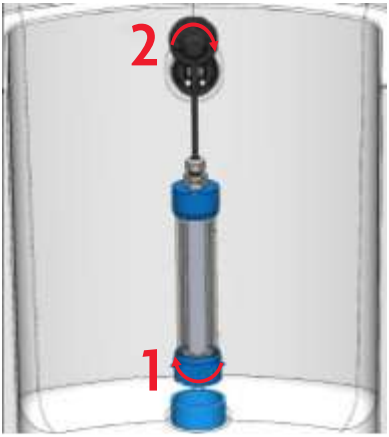


Figure 3



Removing Smart Cell



Connecting Smart Cell

REMOTE CONTROL POWER & SYNCING

WARNING – Never remain in your spa longer than 15 minutes per session when the water temperature is above 98˚F. If you wish to spend more time in your spa, whether enjoying music, or just lounging, be sure to keep the spa water at or below body temperature (98.6˚F).

WARNING – Prevent Electrocution. Do not connect any auxiliary/external components to the system (i.e. cables, additional speakers, headphones, additional Audio/Video components, etc.).

HANDHELD REMOTE CONTROL CHARGING

The remote has a built-in Polymer Lithium rechargeable battery and comes with a charging cable. Connect one end of the charging cable to the charging connection on remote control and connect the USB end of the charging cable to any USB charger (5V DC) for charging. Be sure charging connection is dry or allowed to dry before connecting to charge.

Make sure the remote has been charged before used. Do not leave remote under spa cover when not in use. Always store remote in dry location when not it in use.

HANDHELD REMOTE CONTROL SYNCHRONIZING

The remote should already be paired from the factory, but if you need to synchronize the remote, follow the steps below:

1. Make sure BlueCube+ Media Player is powered ON (red LED).
2. Put the remote within 20 inches (0.5 meter) of the BlueCube+ Media Player.
3. Press and hold MODE PAIR MODE on remote control untiI the LCD shows “Pairing in Progress”. Release the button.
4. Within 2 seconds, the LCD will show “Paired”. If it fails to pair, the LCD will show “Retry again”. If this happens, wait 5 seconds and repeat steps above.

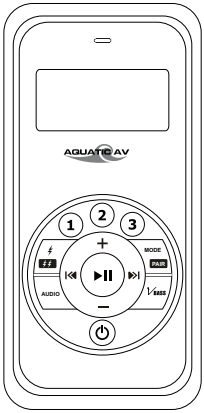
For any additional remote controls, you will also need to synchronize those remote controls to the BlueCube+ Media Player.

i If the pairing process is not successful, try again to put your remote close to the remote receiver or charge the remote control if the battery is low.

i Depending on the frequency of usage, the remote may drain its battery. Please charge the remote before use. If the LCD shows nothing, the battery has been drained and will need charging.

i If you have lost or damaged your remote control and buy a new remote control, follow the above steps to pair the new remote control.

EXPLANATION OF CONTROLS



STEREO OUTPUTS

Internal stereo module has capabilities for Bluetooth, FM Radio, AUX and USB. There is no external capabilities for AUX and USB. For this reason, these inputs will not be applicable when seen on remote. Simply use Mode to rotate back to either Bluetooth input or FM.

REMOTE CONTROL

BUTTONS		BLUETOOTH	FM RADIO MODE
Power	⏻	Press once: Toggle from Operation mode to Standby mode or vice-versa. Press and hold: No function.	
Mode/Pair	MODE PAIR	Press once: Change mode. Press and hold: Synchronize remote control.	
Volume Up	+	Press once: Volume up Press and hold: Fast volume up	
Volume Down	—	Press once: Volume down Press and hold: Fast volume down	
Fast Forward	⏭	Press once: Next track Press and hold: Fast forward	Press once: +0.05kHz Press and hold: Scan up
Fast Rewind	⏮	Press once: Previous track Press and hold: Fast rewind	Press once: -0.05kHz Press and hold: Scan down
Play/Pause	⏯	Press once: Play/Pause Press and hold: No function	Press once: Toggle mute Press and hold: No function
1	1	Press once: No function Press and hold: No function	Press once: Listen to FM preset station 1 Press and hold: Set preset FM station 1
2	2	Press once: No function Press and hold: No function	Press once: Listen to FM preset station 2 Press and hold: Set preset FM station 2
3	3	Press once: No function Press and hold: No function	Press once: Listen to FM preset station 3 Press and hold: Set preset FM station 3
EXT Trigger	ϟ ϟϟ	Press once: No function Press and hold: No function	Press once: No function Press and hold: No function
Audio	AUDIO	Press once: Enter Audio Menu Press and hold: Save & Exit Audio Menu	
VBass	VBASS	Press once: Toggle VBass on/off Press and hold: No function	

FUSION AIR SOUND SYSTEM (IF EQUIPPED)

LISTENING TO DEVICES

PAIR WITH BLUETOOTH DEVICE

1. Switch on your Bluetooth device.
2. Select 'AQUATIC AV' from the list of available devices to pair (no password is needed).

LISTENING VIA BLUETOOTH DEVICE

1. Bluetooth mode will be activated once a Bluetooth device is paired in any mode. Use MODE PAIR (MODE) to change to the Bluetooth mode to listen to music.
2. Play the song from device and the sound will play through the BlueCube+ Media Player.
3. Press ▶II (PLAY/PAUSE) to play/pause the song.
4. Press ⏮ / ⏭ (FAST REWIND/FAST FORWARD) buttons to play previous/next song file.
5. Press and hold ⏮ / ⏭ (FAST REWIND/FAST FORWARD) buttons to fast forward/fast rewind the song file.
6. Previous/next track and volume up/down can be controlled directly from your Bluetooth device or directly from the BlueCube+ Media Player remote control.

BLUETOOTH MULTI-LINK

A second Bluetooth device can pair to the BlueCube+ Media Player even when it has been paired to another Bluetooth device. The second Bluetooth device will be able to play once the first device has stopped playing.

ADJUST VOLUME LEVEL

1. Press + (VOLUME UP) once to increase the volume.
2. Press — (VOLUME DOWN) once to reduce the volume.
3. Press and hold either + or — (VOLUME UP or VOLUME DOWN) to increase or decrease audio volume continuously.

LISTENING TO DEVICES

ENTER FM RADIO MODE

1. Press MODE PAIR (MODE) on the remote control to switch to FM radio mode.
2. Press ▶II (PLAY/PAUSE) to mute or unmute the audio.

i If this is the first time you listen to FM radio, the default frequency will be 87.5MHz, as shown on the remote LCD.

i FM radio is only available when you are in FM Radio mode. Scan or seek FM radio Channels.

SCAN OR SEEK FM RADIO CHANNELS

1. Press ⏮ / ⏭ (FAST REWIND/FAST FORWARD) to seek another station.
2. Press once ⏮ / ⏭ (FAST REWIND/FAST FORWARD) to -0.05kHz or +0.05kHz to the frequency.

SAVING RADIO CHANNEL TO MEMORY

To save the current frequency to memory, press and hold the ①, ② or ③ for more than 2 seconds. The station will be stored into relevant button.

LISTENING TO SAVED RADIO MEMORY

Press the ①, ② or ③ preset button once to listen to the station stored in that button.

ADJUST VOLUME LEVEL

1. Press + (VOLUME UP) once to increase the volume.
2. Press — (VOLUME DOWN) once to reduce the volume.
3. Press and hold either + or — (VOLUME UP or VOLUME DOWN) to increase or decrease audio volume continuously.

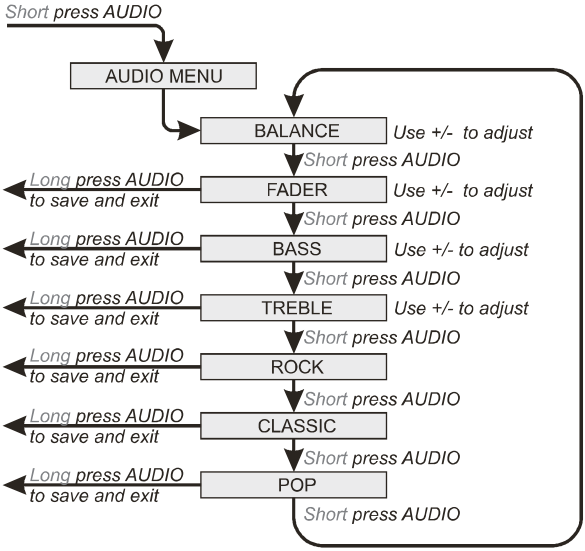
ADDITIONAL FEATURES

AUDIO MENU

The BlueCube+ Media Player is equipped with an audio DSP (Digital Signal Processor) to provide preset listening experiences for different music types.

1. To enter audio menu, press AUDIO (AUDIO) button once on the remote control.
2. Each press of AUDIO (AUDIO) button will advance to the next audio setting as described on the right.
3. In the audio menu, press and hold AUDIO (AUDIO) to save and exit the audio menu back to the original mode.

If you have chosen preset equalizer (Rock, Classic, or Pop), the previous Bass & Treble settings will be overridden.



VIRTUAL BASS (VBASS)

Virtual Bass (VBass) boosts the bass of the audio signal using the latest DSP technology and is particularly useful when used with very small speakers to create perceived bass frequencies of a much larger speaker.

Press VBASS (VBASS) once on the remote control to toggle it on or off.

LIMITED WARRANTY

CLARITY SPAS

NOTE: This Standard Limited Warranty applies to residential use within the United States and Canada. If you purchased or acquired an Extended Limited Warranty, please see the Extended Limited Warranty either included with the owner's manual packet or provided by your retailer.

5 YEARS - SPA STRUCTURE

MasterSpas warrants to the original retail purchaser the structural integrity of the spa against water loss from the spa due to defects in material or workmanship, in the spa structure for a period of 5 years from the date of the original retail purchase. MasterSpas will either repair, including the parts and labor to repair the spa structure, or replace the nonconforming Spa Structure. In the event of replacement, the cost of labor and equipment for removal and replacement of the unit is the sole responsibility of the Purchaser.

5 YEARS - SHELL SURFACE

MasterSpas warrants to the original retail purchaser that the acrylic finish will not blister, crack or delaminate for a period of 5 years from the date of original retail purchase as a result of defects in material or workmanship. MasterSpas will either repair, including the parts and labor to repair the shell surface, or replace the nonconforming shell. In the event of replacement, the cost of labor and equipment for removal and replacement of the unit is the sole responsibility of the Purchaser. There is no Shell Surface Warranty on blemished units.

3 YEARS - EQUIPMENT

MasterSpas warrants to the original retail purchaser the spa equipment (pumps, heater and control system) should a component of the Equipment Pack fail or malfunction due to defects in material and workmanship, for a period of 3 years from the date of the original retail purchase. MasterSpas will either repair or replace the applicable component, including replacement parts and labor to install them (parts and labor).

3 YEARS - PLUMBING

MasterSpas warrants to the original retail purchaser for a period of 3 years from the date of original retail purchase that the plumbing of the spa will not leak due to defects in material and workmanship (MasterSpas will provide replacement parts and labor to repair or replace the applicable components).

3 YEARS - JETS (Parts)

Jet internals are warranted against malfunctions due to defects in material for a period of 3 years from the date of original retail purchase (MasterSpas will provide replacement jet internal parts only). The cost of shipping and installation of any jet internals is the sole responsibility of the purchaser. After initial delivery and startup, discoloring or fading of the plastics, corrosion of any stainless steel components and sticking/seizing of the adjustable jet internals or their spinning nozzles are specifically excluded from these warranty terms.

LIFETIME - DuraMaster Polymer™ Skirting* (Parts)

MasterSpas warrants to the original retail purchaser that the optional DuraMaster Polymer™ skirting* (parts only) will not crack or rip due to defects in material for the lifetime of the product. MasterSpas warrants to the original retail purchaser only that the DuraMaster Polymer™ skirting will not crack or rip for the life of the spa. Bowing that can occur under some conditions is considered normal and excluded by this limited warranty. Normal wear and weathering that occur overtime are not defects. If the skirting on the spa fails due to defects in materials or workmanship, MasterSpas will replace the applicable skirting components (parts only). The cost of shipping and installation of any replacement skirting is the sole responsibility of purchaser.

*If equipped. Options vary by model.

LIMITED WARRANTY

CLARITY SPAS

NOTE: This Standard Limited Warranty applies to residential use within the United States and Canada. If you purchased or acquired an Extended Limited Warranty, please see the Extended Limited Warranty either included with the owner's manual packet or provided by your retailer.

1 YEAR - LED LIGHT SYSTEM*

MasterSpas warrants to the original retail purchaser, for a period of 1 year from the date of original retail purchase that the optional, factory installed LED light system will not malfunction due to defects in workmanship and materials (parts and labor). If the LED light system or any component thereof fails due to defects in material or workmanship, MasterSpas will either repair or replace the applicable components.

1 YEAR - DREAM LIGHTING*

MasterSpas warrants to the original retail purchaser, for a period of 1 year from the date of original retail purchase, that the optional, factory installed Dream Lighting system in the spa skirt will not malfunction due to defects in workmanship and materials. If the Dream Lighting system or any of its components thereof has malfunctioned due to defects in workmanship or materials, MasterSpas will either repair or replace the applicable components of the Dream Lighting system (parts and labor).

1 YEAR - OZONATOR*

MasterSpas warrants to the original retail purchaser that the factory installed ozonator system (ozone generator, check valve, hose, injector and gas re-mixer, if applicable) will not malfunction due to defects in materials or workmanship for a period of 1 year from the date of original retail purchase. If the ozonator system malfunctions due to a defect in materials or workmanship, MasterSpas will either repair or replace the applicable components including parts and labor.

1 YEAR/90 DAYS LABOR - AUDIO EQUIPMENT*

MasterSpas warrants to the original retail purchaser, the optional stereo and enclosure components within the audio system against malfunctions due to defects in material and workmanship for a period of 1 year (parts). This limited warranty on all optional Audio Equipment covers labor for a period of 90 days from the date of original retail purchase. After 90 days, the purchaser is solely responsible for any labor costs associated with the repair or replacement of any applicable audio components. MasterSpas shall not be responsible for any damages or losses to any accessories (not supplied by MasterSpas), including but not limited to iPods or similar systems, caused by a defect or malfunction of any MasterSpas supplied component.

*If equipped. Options vary by model.

EXCLUSIONS

This limited warranty is enforceable only by the original retail purchaser from the date of original retail purchase but is voidable if the entire purchase price has not been paid to the retail dealer. Light bulbs, light lenses, fuses, overlays/labels, covers, spa pillows or any dealer installed accessories are specifically excluded from this limited warranty. All warranties are void if the spa is placed in commercial service. Any spa in service at a residential rental property, the warranty periods are reduced as follows: any warranty period of 4 years or more, are reduced to 2 years; any warranty period of 2 to 3 years, are reduced to 1 year; any warranty periods of 1 year or less, remain the same. Normal wear and weathering of finishes and components are not defects and specifically excluded from this limited warranty. In the event it is necessary to remove the spa from the residential premises to repair or replace any warrantable item, any and all cost of spa removal and replacement including but not limited to removal of the original spa and transportation of the replacement spa, damages to landscaping, decking, fencing or other structural alteration, or any cost related to obtaining access to the spa are the sole responsibility of the purchaser. Spa covers are not included or covered by this spa warranty.

LIMITATIONS

This limited warranty is voidable if the spa has been subject to misuse, alteration or attempted alteration, repairs or attempted repairs by a non-approved service center or if a failure or malfunction is due to improper installation, improper water chemistry, improper maintenance or lack of normal maintenance as prescribed in the MasterSpas Owner's Manual, an act of God, weather conditions, animals, rodents, pests or any damage from causes beyond the control of MasterSpas. Misuse or abuse shall mean operation of the spa other than in conformity with the MasterSpas Owner's Manual. Such misuse and abuse shall include but not be limited to the following:

- Damage of the spa surface and components caused by leaving the spa uncovered or due to covering the spa with plastic film of any kind.
- Damage to the spa surface and components caused by use of a non-insulating cover or an unapproved cover not manufactured by MasterSpas when the spa is subject to weather conditions and sun.
- Damage to the spa surface and components caused by contact with unapproved cleaners or solvents.
- Damage caused by operation of the spa at water temperatures outside the range of 34° F -104° F.
- Freeze damage.
- Damage caused by unapproved sanitizers such as calcium hypochlorite, sodium hydroxide, "tri-chlor" type chlorines or any sanitizing chemical that may remain undissolved on the spa surface.
- Damages or malfunction due to a dirty, clogged, calcified filters or use of an unapproved filter cartridge.
- Damages or malfunction caused by failure to provide even, proper support for the spa.
- Damages or malfunction caused during installation of the spa.
- Damages or malfunction caused by use of unapproved filter cartridges.

LIMITED WARRANTY

EXCLUSIONS AND LIMITATIONS

WARRANTY REGISTRATION AND WARRANTY CLAIM PROCEDURE

The original retail purchaser should register their spa purchase within 10 days from the date of original retail purchase to establish proof of purchase with MasterSpas. Failure to register does not void this limited warranty but, upon any warranty claim, proof of purchase must first be provided to confirm original retail purchase date to the original retail purchaser. Spa Registration can be submitted online at www.masterspas.com/resources. In the event of a warranty claim of a defect or malfunction covered under the provisions of this limited warranty, the original retail purchaser must first notify in writing the retail dealer who sold the spa within ten (10) days of the initial malfunction or discovery of defect. If the retail dealer does not provide service, then the purchaser should contact MasterSpas customer service department, via the website, or provide written notice of the malfunction or defect at the address below. Upon notice of the warranty claim, the retail dealer or an approved independent service center representative will arrange inspection of the spa with the retail purchaser to determine if the claimed malfunction or defect is a covered malfunction or defect under this limited warranty. If it is determined that the malfunction is not covered by this limited warranty, the cost of the service call is the sole responsibility of the purchaser. If it is determined that the malfunction or defect is covered under this limited warranty, MasterSpas through the retail dealer, or approved independent service center will repair or replace the covered item. In the event of spa replacement, the replacement spa will carry the balance of the original spa warranty from the original retail purchase date. MasterSpas reserves the right for its dealers or approved service centers to collect from the retail purchaser reasonable travel expenses. In addition, access charges will be assessed if the spa is not reasonably accessible for inspection, repair or replacement. This limited warranty is extended only to the original retail purchaser and is not transferable. This limited warranty becomes void upon the transfer of ownership of the spa or moving of the spa to a different location.

DISCLAIMERS

MASTERSPAS LLC, NEITHER ASSUMES NOR DO WE AUTHORIZE ANY OTHER PERSON TO ASSUME FOR US, ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF SPAS MANUFACTURED BY MASTERSPAS. THIS LIMITED WARRANTY SHALL BE THE EXCLUSIVE REMEDY AVAILABLE TO A PURCHASER AND MASTERSPAS SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM MISUSE OF THE SPA OR CAUSED BY ANY DEFECT, FAILURE OR MALFUNCTION OF THE SPA, WHETHER A CLAIM IS BASED UPON WARRANTY, CONTRACT, NEGLIGENCE OR OTHERWISE. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION MAY NOT APPLY TO YOU.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, THIS LIMITED WARRANTY SPECIFICALLY EXCLUDES ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE, OTHERWISE ALL IMPLIED WARRANTIES ARE LIMITED IN DURATION TO TWO (2) YEARS FROM THE ORIGINAL DATE OF RETAIL PURCHASE. SOME STATES DO NOT ALLOW THE LIMITATION OF THE DURATION OF IMPLIED WARRANTIES, SO THIS LIMITATION MAY NOT APPLY TO YOU. THERE ARE NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF ANY KIND OR NATURE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. SOME STATES DO NOT ALLOW THE LIMITATIONS OF REMEDIES SO THESE LIMITATIONS MAY NOT APPLY TO YOU.

If your spa is designated by MasterSpas as a “Blem” or as “Blemished”, the Shell Surface is not warranted and the spa is purchased “As Is” regarding any cosmetic blemishes.

MASTERSPAS®

6927 Lincoln Parkway, Fort Wayne IN 46804
800 860 7727 masterspas.com

MAINTENANCE AVERAGE TIMETABLES

Below is a list of routine maintenance and the guidelines on how often they should be done. The frequency in which these actions should be performed may vary depending on bather load and how often you use your spa.

- Test GFCI - Before each use
- Clean Filter Cartridge - at least once a month
- Clean and Condition Spa Cover - twice a month
- Drain and Clean Spa - every 6 months

MAINTENANCE LOG

Use the following lines to document your spa care and maintenance.

MAINTENANCE PERFORMED	DATE	DATE	DATE

SPA CARE AND MAINTENANCE RECORD

MAINTENANCE PERFORMED	DATE	DATE	DATE

SPA CARE AND MAINTENANCE RECORD

MAINTENANCE PERFORMED	DATE	DATE	DATE

MASTERSPAS.COM

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6927 Lincoln Parkway, Fort Wayne, IN 46804
800.860.7727 CustomerService@MasterSpas.com

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