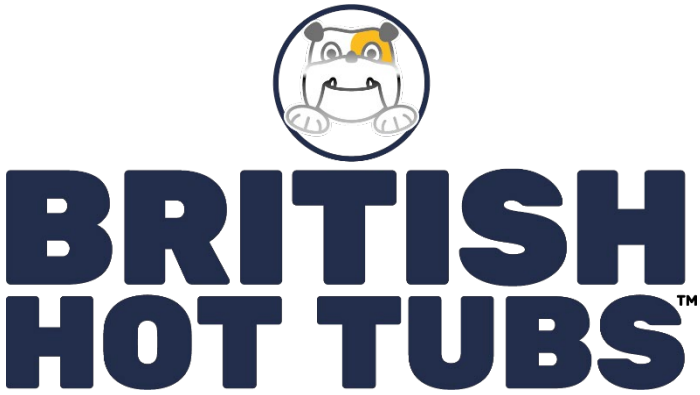

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OWNER'S MANUAL

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CONGRATULATIONS!

YOU'RE ALMOST READY TO ENJOY YOUR NEW SPA!

PLEASE READ YOUR ENTIRE OWNER'S MANUAL BEFORE SPA OPERATION !

Basic Information

--- Water Care ---

IMPORTANT: Caring for your water by ensuring proper chemical usage is the single most important thing you can do to keep your hot tub in good condition.

WARNING: Improper chemical usage and maintenance will quickly lead to severe issues with your spa and can affect the spas equipment, jets, pumps and all other components in contact with the spa water. **All hot tubs and swim spas are susceptible to damage from unbalanced spa water.**

Always maintain your spa's water chemistry within the following parameters:

pH	**7.2- 7.8**
Chlorine	**1.0- 3.0ppm**
Bromine	**2.0-6.0 ppm**
Total Alkalinity	**80-120 ppm**
Calcium Hardness	**200-400 ppm**

Electrical

All self-contained spas use 240VAC 50Hz electrical spa packs.

The electrical circuit must be installed by a certified electrician or approved by a local council building or electrical inspector.

240VAC 50Hz: *Depending on the model of spa, it will require either a 13, 16 or 32 Amp dedicated circuit breaker with the proper cable size (gauge) based on the length of the run.*

Surface

Your new spa must be placed on a firm, flat and level surface, so the spa weight is supported uniformly. We recommend no less than a 3" (76 mm) thick concrete slab. Wood decking or balconies must be constructed to support 150 pounds per square foot (730 kg/m^2). Refer to local and current building codes in your area. Consult an engineer for live loads in your area. Should your new spa need to go through a gate or space-restrictive area, ensure you've communicated those limitations with your dealer to avoid delivery complications.

NOTE: Damage caused by alternate decking methods may avoid the spa warranty. Contact your dealer if you have any questions regarding spa location or placement.

Transport

Your new spa has left the factory cleaned and polished and ready to begin operation after passing our many quality and operational tests. However, depending on your location in the world, your spa may have spent weeks in transit before arriving at your home. Please ensure that before filling or operating your hot tub that you check all electrical and plumbing connections are securely connected in the equipment area as they might have loosened during shipping. If any dirt has accumulated, you will want to remove with a clean cloth or sponge using warm water.

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY

DANGER: Risk of Injury. The suction fittings in this hot tub are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure that the flow rates are compatible. Never operate the hot tub 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 Accidental Drowning. Do not allow children to be in or around the spa without adult supervision. Keep the spa cover on and locked when not in use. See instructions enclosed with the cover for locking procedures.

DANGER: Risk of Electrical Shock. The electrical supply for this product must include a suitably rated switch or circuit breaker to open all un-grounded supply conductors to comply with BS-7671 IEE/IET. The disconnect must be readily accessible and visible to the hot tub occupant but installed at least 5 feet (1.5 m) from the hot tub water.

READ, FOLLOW AND SAVE THESE INSTRUCTIONS

a) A green coloured terminal or a terminal marked G, Gr, Ground, Grounding or the symbol * is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors that supply this equipment.

b) At least two lugs marked "Bonding Lugs" are provided on the external surface or on the inside of the supply terminal box compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the hot tub to these terminals with an insulated or bare copper conductor.

c) All field-installed metal components such as rails, ladders, drains or other similar hardware within 5 feet (1.5 m) of the hot tub shall be bonded to the equipment grounding buss with copper conductors.

WARNING: To Reduce the Risk of Injury: The water in a hot tub 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 hot tub use exceeds 10 minutes. 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 hot tub water temperatures to 100 °F (38 °C). If pregnant, please consult your physician before using a hot tub. Before entering the hot tub, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature regulating devices may vary as much as +/- 5 °F (2 °C). Persons suffering from obesity or a medical history of heart disease, low or high blood pressure, circulatory system problems or diabetes should consult a physician before using a hot tub.

CAUTION: Risk of 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). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. Prolonged immersion in hot water may induce hyperthermia. A description of the symptoms, and effects of hyperthermia are as follows:

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

WARNING: Children should not use hot tubs without adult supervision.

WARNING: Do not use hot tubs unless all suction guards are installed to prevent body and hair entrapment.

WARNING: People with infectious diseases should not use a hot tub.

WARNING: To avoid injury, exercise care when entering or exiting the hot tub.

WARNING: Do not use drugs or alcohol before or during the use of a hot tub to avoid unconsciousness and possible drowning. The use of alcohol or drugs can greatly increase the risk of fatal hyperthermia in hot tubs.

WARNING: Pregnant or possibly pregnant women should consult a physician before using a hot tub.

WARNING: Water temperature in excess of 38 °C (100 °F) may be injurious to your health. Before entering the hot tub, measure the water temperature with an accurate thermometer.

WARNING: Do not use a hot tub immediately following strenuous exercise.

WARNING: Prolonged immersion in a hot tub may be injurious to your health.

WARNING: Do not permit electric appliances (such as lights, radio, television, etc.) within 5 feet (1.5m) of this hot tub unless such appliances are built-in by the manufacturer.

WARNING: People using medication and/or having an adverse medical history should consult a physician before using a spa or hot tub.

CAUTION: Observe a reasonable time limit when using the hot tub. Long exposures at higher temperatures can cause high body temperature. Symptoms may include dizziness, nausea, fainting, drowsiness, and reduced awareness. These effects could possibly result in drowning.

CAUTION: Enter and exit the hot tub slowly. Wet surfaces can be very slippery.

CAUTION: Proper chemical maintenance of hot tub water is necessary to maintain safe water and prevent possible damage to hot tub components. Maintain water chemistry in accordance with manufacturer's instructions.

CAUTION: Use the straps and clip tie downs to secure the cover when not in use. This will help to discourage unsupervised children from entering the hot tub and keep the hot tub cover secure in high-wind conditions. There is no representation that the cover, clip tie-downs, or actual locks will prevent access to the hot tub.

CAUTION: For exercise, the water should not exceed 90 °F (32 °C).

CAUTION: When using this electrical equipment, basic safety precautions should always be followed.

PREPARATION AND SET-UP FOR YOUR NEW SPA

LOCATION FOR YOUR NEW SPA:

- You want to keep in mind how you intend to use the spa and plan the location accordingly.
- How close is the spa from the exit or entrance to your house? (consider the cold weather)
- Is the path to your spa clean of debris, sand, grass? (so as not to track into the spa)
- Is there protection from wind, inclement weather?
- Can neighbours or passersby see the spa?

NOTE: *Allow for service access:* Many spa owners enjoy placing their spa in a decorative enclosure or a deck. Keep in mind that you need to have access to the equipment for maintenance and the spa should be able to be moved or lifted without destroying the special enclosure or its surroundings. You should discuss this with your dealer when designing the location. Extension cords are not to be used in conjunction with the operations of the spa. Low voltage damage could result, and this is not covered by warranty.

ELECTRICAL REQUIREMENTS

240VAC 50Hz: Depending on the model of spa, it will require either a 16 Amp or 32 Amp dedicated circuit breaker, GFCI, with the proper wire size based on the length of the run. The electrical circuit must be installed by a certified electrician or approved by a local council building or electrical inspector.

SURFACE AND PAD REQUIREMENTS

Your new spa must be placed on a firm, flat and level surface, so the spa weight is supported uniformly. We recommend no less than a 3" (76 mm) thick concrete slab. Wood decking or balconies must be constructed to support 150 pounds per square foot (730 kg/m²). Refer to local and current building codes in your area. Consult an engineer for live loads in your area. Should your new spa need to go through a gate, the opening should be a minimum of 46 inches and up to 8.5' overhead clearance depending on the size of the unit.

NOTE: Damage caused by alternate decking methods may avoid the spa warranty. Contact your local dealer if you have any questions regarding spa location or placement.

DRAINING YOUR SPA

After a period of 3-4 months, detergent residues from bathing suits and soap film will build up in your spa water. Once this happens, your spa water will appear cloudy and should probably be replaced.

- Turn power OFF at the breaker.
- Locate the drain valve (usually on the external front right hand corner).
- Remove the safety cap and attach a garden hose.
- Drain water to a convenient area. (Spa water may harm grass or plants if sanitizer levels are high.)
- When water begins to flow out of the hose open the air relief valve located on filter lid.
- Your spa will drain except for a small portion left in the foot well. This can be removed with a sponge and bucket or a wet vac.
- Once empty, clean as required.
- To finish, remove garden hose and attach safety cap.

WINTERISING YOUR SPA

In many areas of the world the temperature may drop below 32°F (0°C). We recommend the spa is always filled with water and running at normal spa temperatures. By doing this you will minimize the risk of freezing within your spa. If it is necessary to leave your spa unattended
for long periods of time during cold weather conditions, you should drain your spa to avoid accidental freezing caused by power outages.
Your local dealer can perform the following winterizing procedures, if you are not completely comfortable with them.

- Ensure that you have fully drained the spa (Refer to the DRAINING YOUR SPA section)
- After draining, your spa may still have water remaining in the equipment and plumbing fittings. Disconnect the hand-tightened union fittings going to and from the jet pumps. Be careful not to lose the O-rings between the unions and pump housing.
- Leave drain valve in the open position and safety cap off.

To completely drain the plumbing lines, a wet/dry shop vacuum can be used to draw out any remaining water. Place the vacuum hose over the jet fittings in the spa as well as the plumbing lines in the equipment area
Remove the filter cartridge, clean it and store in a warm, dry area.
Clean the spa shell and place spa cover on spa. Be sure to lock the cover in place in case of high winds or rain.

WARNING: The instructions above should be followed accordingly when winterizing your spa however they are guidelines and potential freeze damage may still occur. All freeze damage is the sole responsibility of the spa owner and will not be covered by the warranty should it occur.

EMERGENCY SITUATIONS: To eliminate freezing in the event of equipment failure, use a 100-watt light bulb or small heater via extension cord and place it in the equipment area, keeping it away from plumbing lines. This will help for a short period of time until proper service can be rendered.

FILTER MAINTENANCE

The spa filter is one of the most important maintenance items of a hot tub. The filter is there to remove debris from the water and needs to be cleaned on a regular basis. Failure to do so may result in poor performance, poor water clarity and could prevent the spa from heating. Filtration starts as soon as flow is steady through the filter. As the filter cartridge removes the debris from the spa water, the accumulated debris causes flow resistance.

CLEANING AND REPLACING FILTER CARTRIDGE

Your spa filter has been designed for quick and easy maintenance. The filter cartridge should be rinsed by hose once a week and cleaned with a cartridge cleaner once a month. A second filter cartridge is recommended and will speed up this process. This can be purchased from your local dealer.

TOP LOAD FILTERS

- Turn power OFF at the breaker.
- Loosen air relief valve, then remove retainer ring.
- Pull filter lid straight up to remove.
- Do not twist or pull the filter lid up on an angle. This could cause damage to the filter canister, especially in freezing conditions.
- Remove filter cartridge and clean with a garden hose and a high-pressure nozzle. Periodically you may need to soak your filter in a "cartridge filter cleaner" to remove excess minerals and/or oils.
- Rinse filter thoroughly before installing. Clean O-ring on filter lid and apply a light film of silicone lubricant to the O-ring. Do not use a petroleum-based lubricant as it could damage the O-ring. Consult your dealer to purchase suitable lubricant.
- Place clean Cartridge in filter canister.

Replace filter lid and re-tighten retaining ring (finger tight only)

NOTE: Make sure the O-ring is on the air relief valve and is finger tight prior to starting the pump. This O-ring should periodically be lubricated with a silicone lubricant.

- There is a 3/8" clear line coming from the filter area and this goes to the bottom corner of the spa. This drains all the water from around the filter canister.
- This is a good time to check the skimmer basket. Remove the skimmer door (weir) and unscrew the basket. Clean out debris and reinstall.

WATER QUALITY MAINTENANCE

Maintaining the quality of the water within the specified limits will serve to enhance your enjoyment and prolong the life of the hot tub's equipment. It is a simple task, but it requires regular attention because the water chemistry involved is a balance of several factors. There is no simple formula, and there is no avoiding it. An indifferent approach to water maintenance will result in poor and potentially harmful conditions for soaking and even damage to your hot tub investment. The most important thing to keep in mind is that *preventing* poor water chemistry is much easier than *correcting* poor water chemistry. For specific guidance on maintaining water quality, consult your Authorized Dealer who can recommend appropriate chemical products for sanitising and maintaining your hot tub.

MAINTAIN HEALTHY SPA WATER

Important! When maintaining your hot tub's water chemistry, ensure that your cover is removed during any aggressive treatments to allow for dissipation into the air. Take care to remove the cover slowly and let chemicals deplete if you are uncertain if your water is properly balanced. ***Always maintain your hot tub's water chemistry within the following parameters:***

pH: pH is a measure of relative acidity or alkalinity of water and is measured on a scale of 0 to 14. The midpoint of 7 is said to be neutral, above which is alkaline, and below which is acidic. In hot tub water, it is very important to maintain a slightly alkaline condition of 7.2 to 7.8. Problems become proportionately severe the further outside of this range the water gets. A low pH will be corrosive to metals in the hot tub equipment. A high pH will cause minerals to deposit on the interior surface (scaling). In addition, the ability of the sanitation agents to keep the hot tub clean is severely affected as the pH moves beyond the ideal range. That is why almost all hot tub water test kits contain a measure for pH as well as sanitiser.

Sanitiser (Chlorine or Bromine): To destroy bacteria and organic com- pounds in the hot tub water by breaking them down into non-harmful levels which get filtered out. A sanitiser must be used regularly, either chlorine or bromine (Bromine is preferred.) Sanitising your spa water is the most important spa maintenance you can do for yourself.

Total Alkalinity: This refers to the ability of the hot tub water to resist changes in pH. Controlling alkalinity can help keep your pH in the appropriate range thereby lessening the need for pH balancing. If the TA is too low the pH level will fluctuate rapidly from high to low. If the TA is too high the pH will tend to be too high and will be very difficult to bring back down.

Calcium Hardness: This is a measurement of dissolved calcium in the water. Calcium will help control the corrosive nature of the spa's water.
WARNING: Never store chemicals inside the equipment area of your spa.

IMPORTANT: Do not use Hydrogen Peroxide based sanitisers in your spa. When using Chlorine or Bromine tablets you must use a floating dispenser or in line cartridge. These chemicals can have an extremely corrosive effect on certain materials in the spa. Damage caused by use of these chemicals, or improper use of any chemicals, is not covered under the spa's warranty.

OTHER ADDITIVES: Many other additives are available for your spa. Some are necessary to compensate for out-of-balance water, some aid in cosmetic water treatment and others simply alter the feel or smell of the water. Your Authorized Dealer can advise you on the use of these additives.

WATER CLARITY TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	POTENTIAL SOLUTIONS
Water Odour	• Improper sanitisation • Excessive organics in water • pH is too low	> Add sanitiser > Shock spa with sanitiser > Adjust pH
Chlorine Odour	• Chloramines are too high • pH is too low	> Shock spa with sanitiser > Adjust pH
Musty Odour	• Bacteria or Algae growth	> Shock spa with sanitiser > Drain and refill spa water
Scale	• Total alkalinity is too high • pH is too high • High calcium content in water	> Adjust total alkalinity > Adjust pH > Use stain and scale inhibitor
Stains	• Total alkalinity is too low • pH is too low • High metal content in water	> Adjust alkalinity > Adjust pH > Use stain and scale inhibitor
Cloudy Water	• Poor filtration • pH is too high • Hardness is too high • Total alkalinity is too high • Suspended particles	> Clean filter cartridge > Adjust pH > Adjust hardness > Adjust total alkalinity > Drain and refill spa water
Algae Growth	• pH is too high • Sanitiser is too low	> Adjust pH > Shock spa with sanitiser > Adjust sanitiser level
Eye Irritation	• pH is too low • Sanitiser is too low	> Adjust pH > Shock spa with sanitiser > Adjust sanitiser level
Skin Rash/Irritation	• Free chlorine level too high • Unsanitary water	> Adjust chlorine level > Shock spa with sanitiser > Adjust sanitiser level

PRODUCT & CARE GUIDE

Your Authorized Dealer carries a wide variety of care and maintenance products. For more information please contact your Dealer.

REQUIRED FILTER MAINTENANCE

Your new hot tub is equipped with a filter cartridge. To ensure maximum water quality always, you should replace the filter cartridge every six months, or earlier as necessary. The filter cartridge is designed to be thrown away! Attempts to re-use the filter cartridge may result in the re-release of unwanted particles back into the hot tub.

REQUIRED WATER REPLACEMENT

You should replace the hot tub's water every 3-4 months. The frequency will depend on several variables including frequency of use, number of bathers and attention paid to the water quality maintenance. You will know it is time for a change when you can no longer get the normal feel or sparkle to the water, even though the key water balance measurements are all within the recommended ranges.

HEADREST / PILLOW CARE

The pillows can be removed for easy cleaning and maintenance. All pillows have location plugs. To remove the pillow, grab the bottom edge firmly and pull outward. This will allow the pillows to pop- out from the receptacle in the spa shell. To reinstall the pillow, you will align the pillow plug with the receptacle. Press/hit the front side of the pillow firmly, which will insert the plug back into the receptacle.

- ***Proper water chemistry must be maintained. Your hot tub pillows are easily and quickly damaged when exposed to unbalanced spa water.*** If you suspect that your chemicals may be unbalanced, remove your pillows immediately until the water has been restored to suggested conditions.
- Do not sit on the pillows
- Do not pull on the pillows
- Pillows should be cleaned using a soft cloth, then wiped with a conditioner. We recommend that pillows be washed each time you drain your spa.

This Limited Warranty is void if failure is caused by accident, acts of nature, acts of God, or other causes beyond the control of BHT. Neglect, misuse and abuse include any installation, operation, or maintenance of the spa other than in accordance with the instructions contained in the owner's manual provided with the spa, including, but not limited to damage caused by operation outside the range of 34 degrees Fahrenheit and 116 degrees Fahrenheit or 1 degree Celsius and 47 degrees Celsius .

Please be advised that the Spa Warranty will become void if British Hot Tubs or any of its selling or servicing agents determines that the spa has been exposed to Hydrogen Peroxide, TriChlor or any substance using it as an ingredient proven to be dangerous to the Spa. Any condition arising from the use of Hydrogen Peroxide or TriChlor on the Spa is not a warrantable defect.

HOT TUB INTERIOR

Your hot tub has a fiberglass reinforced acrylic shell. Generally, dirt and stains will not adhere to the surface. To properly clean the surface, we recommend wiping it with a soft damp cloth (or sponge) with fresh water. Stubborn dirt or stains may be removed by using SpaMate surface cleaner.

DO NOT use any cleaning products containing abrasives or solvents, since these could damage the surface. Harsh chemicals should never be used on acrylic surfaces. Damage to the shell due to the use of harsh chemicals is not covered under the warranty.

DO NOT leave your hot tub drained and in direct sunlight for extended periods of time. Extreme heat could cause damage to the acrylic surface and may induce an effect known as "crazing".

STAINLESS STEEL CONTROLS AND COMPONENTS ABOVE THE WATER LINE

To preserve the stainless-steel finish of the controls and components above the water line, we recommend they be wiped with a dry soft cloth after each use of your hot tub. In addition, off-gas your tub by removing the cover for approximately 30 minutes multiple times per week (if not in use) and during every shock treatment.

CABINET CARE

Never spray cabinets with a high-pressure garden hose or pressure washer for any reason. This action may induce an electrical short in the hot tub's electrical equipment.

VINYL CABINET

Vinyl cabinets are made of a rigid polymer that combines the durability of plastic with the beauty of real wood. This cabinet is manufactured so that it won't crack, peel, blister or delaminate even after prolonged exposure to the elements. We recommend wiping the cabinet with a soft damp cloth (or sponge) using household soap or liquid detergent and rinsing with fresh water thoroughly. DO NOT use abrasive cleansers or material as this may damage the surface.

COVER CARE

A well cared for spa cover is a thing of beauty in its own right. Be sure to clean and condition your cover at least once a month – more often if needed. Your cover needs to be cleaned and conditioned because vinyl can be dry and become brittle, spoiling your spa's appearance. Dry, brittle vinyl can also tear at the seams and stress points. Quality materials, internal sewn reinforcing and careful workmanship can only go so far

against the ravages of Mother Nature. See the specific Warranty card enclosed with your cover for further details.

- When you shock your spa, you need to remove the cover for a minimum of 30 minutes to ensure that the chemical off gas can escape from the spa.
- You are required to keep the spa covered at all time when not in use to protect the shell from harmful UV rays.
- A covered spa will use less electricity when maintaining the desired water temperature
- See the manual that comes with the cover for proper mounting of the cover locks
- The cover should always remain locked to prevent unauthorized entry into the spa and potential drowning.
- Do not Sit, Stand or Lie on your cover. Nor should you place any heavy object on top of the cover as this may damage the structure.

VERY IMPORTANT: We recommend a vinyl conditioner for your spa cover. Your local dealer carries a wide variety of care and maintenance products. Choose a pleasant day each month to remove your cover from the spa and lay it on a flat surface accessible by garden hose. Douse the cover with a healthy amount of water from the hose or a bucket to rinse away loose dirt or debris. Using a soft bristle brush and a mild solution of dishwashing liquid (about one teaspoon of detergent to two gallons of water), and with a gentle circular motion, scrub the cover clean. Be careful not to let any areas of the cover dry before they're thoroughly rinsed. Now apply the vinyl conditioner as directed on the container. Massage the conditioner into the cover in a gentle but firm manner. Before replacing the cover on your spa, wipe and rinse any dirt from the bottom of the cover. When you are ready, put the cover on the spa.

NOTE: To remove tree sap, use lighter fluid (not charcoal lighter but the fluid used in cigarette lighters). Use sparingly, then immediately apply conditioner (UV Protectant or Saddle soap) to that area.

<u>All waterfalls and fountain water features should be turned off when the spa is not in use to avoid heat and water loss</u>

GLOSSARY OF TERMS

AIR CONTROL VALVE: Mounted on the top of the spa, it introduces warm air from inside the spa cabinet, into the jet stream through venturi action.

WATER DIVERTER VALVE: The large diverter is used to divert water to various areas/seats in the spa.

ON/OFF FOUNTAIN VALVE: The smaller diverter is used to control waterfall and fountain flow.

FILTER AIR RELIEF VALVE: Located on top of dome filter lid. Used to release air from the filter.

SKIMMER BLEED VALVE: Located in the skimmer area, needs to be loosened while filling the spa. This will help eliminate air from being trapped in the spa equipment.

OZONATOR: The ozonator produces natural ozone through the Corona Discharge process. Continuous use of an ozonator can dramatically reduce sanitizer consumption.

CONTROL BOX (Pack): Basically the "heart" of the spa. Power is distributed to any/all functions of the spa: pumps, ozonator, LED lighting, heater element, etc.

CONTROL PANEL: Mounted on the top lip of the spa and controls the functions of the spa.

DRAIN VALVE: Used in draining of the spa. Normally located at the bottom right hand, external corner of the spa

EQUIPMENT ENCLOSURE: An enclosure that houses the control box, pump(s) and other electrical components.

FILTER: The filter cleans the spa by passing water through a filter cartridge where debris and impurities are removed. Top load filter means the filter cartridge is accessible through the top of the spa

FLOOR DRAIN: The floor drain is covered by a grate-type cover and is utilized when draining the spa

KNIFE VALVES: A white "T"-handled valve, to open them, you pull up on handle.

HEATER: The electronically controlled heater raises the temperature of the spa to the desired setting.

LEDs: LEDs and their special lenses can be used to achieve the desired mood lighting in the spa and spa jets.

SKIMMER: This is the rectangular outlet at the water level. The skimmer removes surface debris to the filter. The water level in the spa should be kept ½ to ¾ up on the skimmer for optimum operation.

BASIC INSTALLATION AND CONFIGURATION GUIDELINES

Warning! Qualified Technician Required for Service and Installation

Use copper conductors only. Torque field connections between 21 and 23 in lbs. Readily accessible disconnecting means to be provided at time of installation. Permanently connected power supply.

Connect only to a circuit protected by a Class A Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD) mounted at least 5' (1.52M) from the inside walls of the spa/hot tub and in line of sight from the equipment compartment.

The Owner should test and reset the GFCI or RCD on a regular basis to verify its function.

WARNING! SHOCK HAZARD! NO USER SERVICEABLE PARTS.

Do not attempt service of this control system. Contact your dealer or service organization for assistance. Follow all owner's manual power connection instructions. Installation of the electrical circuit, must be performed by a licensed electrician and all grounding connections must be properly installed to BS-7671 IEE/IET.

• Disconnect the electric power before servicing. Keep access door closed.

Caution:

- Test the ground fault circuit interrupter before each use of the spa.
- Read the instruction manual.
- Adequate drainage must be provided if the equipment is to be installed in a pit.
- Connect only to a circuit protected by a Class A ground fault circuit interrupter or residual current device.
- To ensure continued protection against shock hazard, use only identical re- placement parts when servicing.
- Install a suitably rated suction guard to match the maximum flow rate marked.

Warning:

- Water temperature in excess of 38°C may be injurious to your health.
- Disconnect the electrical power before servicing.

HEAT PROBLEMS	PROBABLE CAUSE	RECOMMENDED ACTION
Water will not heat	• Error message on control panel	> Refer to the Reference Card for your control panel to verify the error
	• Water level is too low	> Add water to the spa
	• Poor water flow	> Clean filter & check valves
	• Closed valves	> Open all valves
	• Pump 1 is not running	> Contact your dealer
Water is too hot	• Incorrect reading	> Verify temperature with thermometer
	• Filter cycle duration is too long	> Reduce duration of the filter cycle
	• Pump speeds reversed	> Contact your dealer
Water will not maintain heat	• Cover is off for extended periods of time in cold weather / cold wind.	> Put cover back onto hot tub and allow for heat to regenerate. Call your dealer if temperature does not increase.

TROUBLESHOOTING GUIDE

SPA SYSTEM

SYMPTOM	PROBABLE CAUSE	RECOMMENDED ACTION
Spa does not work	• Power is turned off	> Reset GFCI
No display on the control panel	• Power is turned off • Defective topside control	> Reset GFCI/RCD > Contact your Dealer
Letters on the control panel	• An error has been found	> Refer to the Reference Card for your control panel to verify the error. Contact your Dealer for service

PUMP PROBLEMS

SYMPTOM	PROBABLE CAUSE	RECOMMENDED ACTION
Noisy/Loud motor	• Air trapped in the pump • Low water level • Worn pump seal • Defective pump	> Open bleed valve in the skimmer > Add water to the spa > Contact your Dealer > Contact your Dealer
Pumps power down on their own	• Set temperature has been reached • Filtration cycle has ended • Automatic time out • Overheat safety protection	> No problem > No problem > Pumps are set to run for a predetermined time while the spa is in use (20 Mins) > The pumps have a thermal overload which will prevent them from running for extended periods of time. Wait until pumps have cooled down (1+ hrs.). If problem persists, contact your Dealer.
Pump running constantly, will not turn off	• Filter cycle set to 24 hours • Problem with the circuit board	> Turn off 24-hour filtration > Turn power off at GFCI/RCD and contact your Dealer
Pump will not turn on	• GFCI tripped • Motor has overheated • Not plugged in • Damaged plug • Seized motor • Blown fuse • Motor vent is blocked	> Reset the GFCI/RCD > Let cool for 1+ hour > Plug in to the board > Contact your Dealer > Contact your Dealer > Check fuse or contact your Dealer > Clear debris from the vent

LIGHTING ISSUES	PROBABLE CAUSE	RECOMMENDED ACTION
Standard light will not come on	• Bulb has burnt out	> Replace the light bulb
LED lighting not in sync	• Burnt out bulb/connection	> Contact your dealer
LED lighting won't come on	• Incorrect settings	> Contact your dealer

PUMPS WILL NOT PRIME	PROBABLE CAUSE	RECOMMENDED ACTION
Pump on but no water flow	• Air trapped in pump • No water in the pump • Closed valves	> Loosen bleed valve in skimmer > Check the fill level in the spa > Open all valves

HYDROTHERAPY JETS	PROBABLE CAUSE	RECOMMENDED ACTION
Little to no water flowing from jets	• Jets turned off • Pump not primed • Valves are closed • Diverter set to a different seat • Dirty filter	> Open jet by turning the face anticlockwise > Reset breaker to allow for the spa to prime the pump. Open bleed valve in the skimmer area > Open valves > Switch diverter > Remove and clean filter cartridge

PLUMBING SYSTEM	PROBABLE CAUSE	RECOMMENDED ACTION
Water around base of spa	• Loose connections • Leak from internal fitting • Air relief valve is loose • Waterfall/fountains are set too high when the thermal cover is in place. Water will capillary from the underside of the thermal cover.	> Hand tighten all unions and fittings. > Check gaskets and O-rings > Hand tighten the air relief valve > Ensure the fountain/waterfall is turned off when the thermal cover is in place.

Warning: People with infectious diseases should not use a spa or hot tub.
Warning: To avoid injury, exercise care when entering or exiting the spa or hot tub.
Warning: Do not use a spa or hot tub immediately following strenuous exercise.
Warning: Prolonged immersion in a spa or hot tub may be injurious to your health.
Warning: Maintain water chemistry in accordance with the Manufacturer's instructions.
Warning: The equipment and controls shall be located no less than 1.5 meters horizontally from the spa or hot tub.

WARNING: To Reduce the Risk of Injury: The water in a hot tub 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 hot tub use exceeds 10 minutes. 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 hot tub water temperatures to 100 °F (38 °C). If pregnant, please consult your physician before using a hot tub. Before entering the hot tub, the user should measure the water temperature with an accurate thermometer since the tolerance of water temperature regulating devices may vary as much as +/- 5 °F (2 °C). Persons suffering from obesity or a medical history of heart disease, low or high blood pressure, circulatory system problems or diabetes should consult a physician before using a hot tub.

CAUTION: Risk of 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). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the body's internal temperature.

Prolonged immersion in hot water may induce hyperthermia. A description of the symptoms, and effects of hyperthermia are as follows:

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

WARNING: Children should not use hot tubs without adult supervision. **WARNING:** Do not use hot tubs unless all suction guards are installed to prevent body and hair entrapment.
WARNING: People with infectious diseases should not use a hot tub. **WARNING:** To avoid injury, exercise care when entering or exiting the hot tub.
WARNING: Do not use drugs or alcohol before or during the use of a hot tub to avoid unconsciousness and possible drowning. The use of alcohol or drugs can greatly increase the risk of fatal hyperthermia in hot tubs.
WARNING: Pregnant or possibly pregnant women should consult a physician before using a hot tub.
WARNING: Water temperature in excess of 38 °C (100 °F) may be injurious to your health. Before entering the hot tub, measure the water temperature with an accurate thermometer.
WARNING: Do not use a hot tub immediately following strenuous exercise.
WARNING: Prolonged immersion in a hot tub may be injurious to your health.
WARNING: Do not permit electric appliances (such as lights, radio, television, etc.) within 5 feet (1.5m) of this hot tub unless such appliances are built-in by the manufacturer.
WARNING: People using medication and/or having an adverse medical history should consult a physician before using a spa or hot tub.
CAUTION: Observe a reasonable time limit when using the hot tub. Long exposures at higher temperatures can cause high body temperature. Symptoms may include dizziness, nausea, fainting, drowsiness, and reduced awareness. These effects could possibly result in drowning. **CAUTION:** Enter and exit the hot tub slowly. Wet surfaces can be very slippery.
CAUTION: Proper chemical maintenance of hot tub water is necessary to maintain safe water and prevent possible damage to hot tub components. Maintain water chemistry in accordance with manufacturer's instructions.
CAUTION: Use the straps and clip tie downs to secure the cover when not in use. This will help to discourage unsupervised children from entering the hot tub and keep the hot tub cover secure in high-wind conditions. There is no representation that the cover, clip tie-downs, or actual locks will prevent access to the hot tub.
CAUTION: For exercise, the water should not exceed 90 °F (32 °C). **CAUTION:** When using this electrical equipment, basic safety precautions should always be followed.

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