Thank You for Choosing an IQUE UK Hot Tubs

HOT TUBS UK

Developed and Designed in Sweden by
IQue Sweden AB Grustagsgatan 13 254
64 Helsingborg Sweden
Here is your manual, please read and follow the instructions carefully

LUX. Version

www.iquehottubs.com

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Table of Content

Picture Shows Model Trinidad2200

Spa Serial#: _____

Every effort has been made to ensure the accuracy of this manual. However, we reserve the right to modify and improve our spa products without prior notice. This may result in minor variations between this manual and your spa. Thank you.

SAVE THESE INSTRUCTIONS

1. SAFETY INSTRUCTIONS

IMPORTANT - READ, FOLLOW AND SAVE THESE INSTRUCTIONS

Read the entire manual and safety instruction before operating your Spa.
Follow these basic safety precautions when installing your spa.

(a) WARNING: Do not permit children to use this spa without close supervision at all times by an adult.

(b) DANGER: RISK OF ACCIDENTAL DROWINNG:
Exercise extreme caution when children using the spa. To avoid accidents or risk of drowning, ensure children do not use this spa unless under direct and close supervision at all times by an adult

(c) DANGER: RISK OF INJURY:
The suction fittings included in this spa are designed to match the water flow of the pump. To ensure safety and compatible flow rates, install the same model suction fitting or pump, in the event a replacement is required.

CAUTION: *NEVER OPERATE THE SPA IF THE SUCTION FITTINGS ARE BROKEN OR MISSING.*
NEVER REPLACE A SUCTION FITTING WITH ONE RATED LESS THAN THE FLOW RATE MARKED ON THE ORIGINAL SUCTION FITTINGS.

(d) DANGER: RISK OF INJURY:
When the spa jets are in use, suction through drains and skimmers are powerful. Do not remove the suction grate. A damaged suction grate can be hazardous to children and adults with long hair. As a precaution, restrict long hair from floating freely in the spa. If any part of the body or hair is drawn into or stuck in the fittings, turn the spa off immediately.

(e) DANGER: RISK OF ELECTRIC SHOCK.
Install the spa at least 5 feet (1.5M) from all metal surfaces. In accordance with your country electrical Code, a spa may be installed within 5 feet (1.5M) of metal surfaces only if each metal surface is permanently connected to the wire connector on the terminal box provided, by a minimum NO.8 AWG(8.4mm2) solid copper conductor.

(f) DANGER: RISK OF ELECTRIC SHOCK. Never operate any electrical appliances from inside the spa or if you are wet. Do not permit any electric appliance, such as a hair dryer, light, radio, telephone or television, within 5 feet (1.5m) of the spa.

(g) WARNING - To reduce the risk of injury:

i. Water temperatures between 38℃ (100' F) and 40℃ (104'F) are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes. Never allow the spa water temperature to exceed 40℃ (104'F).

ii. Spa water temperatures for pregnant women should be limited to 38℃ (100'F). Higher water temperatures may have a high potential for causing fetal damage in the early stages of pregnancy. Limit time is no longer

then10 minutes

iii. Individual tolerance of water temperature can vary and regulating devices may not reflect the proper temperature. Check the water temperature with an accurate thermometer before entering a spa.

iv. The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning and is strictly prohibited.

v. Those people with a history of heart disease, low or high blood pressure, circulatory system problems, diabetes or obesity should consult a physician before using a spa.

vi. Some medication may induce drowsiness; affect heart rate, blood pressure, and circulation. Those people using any medication should consult a physician before using a spa.

(h) Do not use the spa immediately after any strenuous exercise.

(i) Maintain water chemistry as recommended.

2 WARNING!

During pregnancy, soaking in hot water may cause damage to the fetus.
Limit use to 10 minutes at a time.

Prevent drowning:	**Prevent child drowning:**
■ Spa heat speeds up effects of alcohol, drugs or medicine and can cause unconsciousness	■ Water attracts children. ■ Always attach a spa cover after each use. ■ Immediately leave spa if uncomfortable or sleepy.

3. HYPERTHERMIA

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6'F or 37'C.

THE SYMPTOMS OF HYPERTHERMIA INCLUDE:

- Dizziness
- Fainting
- Drowsiness
- Lethargy
- Increase in internal body temperature

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

4. PRECAUTIONS

a)Always enter and exit the spa slowly.
b)Never use the spa alone. c)

Always measure the water temperature with an accurate thermometer before entering the spa. Tolerance of water temperature may vary and regulating devices may differ as much as ±5’F (3'C).

d) Spa water temperatures for pregnant women should be limited to 38'C (100'F). Higher water temperatures may have a high potential for causing fetal damage in the early stages of pregnancy. Always consult your doctor prior to using a spa.

e) Children's body temperature can increase more rapidly than adults in water temperatures above 99'F or 37.4' C. Limit use by children in water above body temperature.

f) The use of alcohol, drugs, and /or medication before or during spa use may result in hyperthermia, serious injury, unconsciousness or drowning.

g) Those people with a history of heart disease, low or high blood pressure, circulatory system problems, diabetes or obesity should consult a physician before using a spa.

h) Some medication may induce drowsiness; affect heart rate, blood pressure, and circulation. Those people using

any medication should consult a physician before using a spa.

i) People with infections, sores, or skin abrasions should not use the spa. Warm temperatures may allow the growth of infectious bacteria if not properly disinfected.

j) Test the GFCI (Ground Fault Circuit Interrupter) unit before each use. (Refer to instructions provided by GFCI manufacturer.)

k) Only service or repair any equipment if the circuit breaker and/or all power to the spa are off.

l) When not it use and/or if children are present, the spa must be locked and the protective cover securely in place at all times.

CAUTION

a) The following people should consult with a physician before using the spa. Those suffering from heart disease, diabetes, high or low blood pressure, any condition requiring medical treatment, pregnant women, the elderly and infants.

b) The consumer product safety commission recommends the water temperature in a spa should not exceed 104'F or 40'C. Complete immersion under water, in excess of 104'F or 40'C, can be hazardous to your health.

c) Long exposure in water at higher temperatures can cause high body temperature. Symptoms may include dizziness, drowsiness, fainting, and nausea and reduced awareness and could lead to drowning. Limit exposure when using the spa under these conditions.

d) Do not use the spa under influence of alcohol, narcotics, or other drugs. The use of the sap under these conditions may lead to serious consequences.

e) Always test the spa water temperature before entering the spa. Enter and exit the spa slowly. Wet surfaces can be very slippery.

f) Never bring any electrical appliance into or near the spa. Never operate any electrical appliance from inside the spa or when you are wet.

g) Proper chemical maintenance of spa water is necessary to maintain safe water and prevent possible damage to spa components.

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

SAFETY DEVICES

Your spa is equipped with the following safety features:

Over Heat Protection-- An electronic high limit switch is located under water. It shuts off the heater, pumps and accessories when the water temperature exceeds 112'F or 44'C. This function automatically resets when the spa water temperature drops below 109'F or 43'C.
Heater High Limit Protection--An electronic high limit switch is located on the heater barrel. It turns off the heater and low speed pump if it senses a temperature of 118'F (44'C) or greater. To reset this safety device, power to the spa must be interrupted.
Heater Dry Run Protection--A water flow sensor is also part of the design. It prevents the heater from turning on until there is sufficient water flow.
Freeze Protection System-- This function will activate the jet pumps for 1 minute every 2 hours or less when the temperature in the equipment compartment drops to 55'F or 13'C or below. Once the freeze protection system is initiated, it will remain active for a 24- hour period.
Automatic Pump and Light Time Out-- The automatic, built-in timer turns off the spa jet pump(s) and air blower (optional on some models) after 15 minutes of operation.

5. INSTALLATION INSTRUCTION

Read all instructions in this manual prior to having your spa installed indoors or outdoors.

IMPROPER INSTALLATION MAY RESULT IN EQUIPMENT DAMAGE AND VOID THE WARRANTY

Surface and Pad Requirements:
Place your new Spa on a 4‖ (10cm) thick reinforced CONCRETE PAD. Ensure the concrete has cured for at least one week before setting the spa in place. A typical spa, filled with water, could weigh as much as 2.5tons.The concrete could crack if it is not fully cured when placing the spa.

TO ENSURE YOU DO NOT VOID THE WARRANTY ON YOUR SPA, RESTRICT THE USE OF SHIMS OF ANY KIND OR PLACING THE SPA ON AN UNEVEN OR CRACKED PAD. THIS WILLL ALSO REDUCE THE RISK OF CAUSING THE SPA TO BUCKLE .DISTORT AND/OR CRACK.

1) If your spa is located near water sprinklers, adjust of cap to ensure the water does not affect the wood cabinet of the spa.
2) Build balconies and decks to meet current state and local codes to safely support the maximum load of your filled spa including the number of people during use, Check with your construction contractor for safety standards in your area.
3) Gates must be self- closing and self-locking. Check your local codes for regulations.
4) Ensure installation and the chosen location allows unobstructed access to the spa. It is the responsibility of the spa owner to provide clear access on all sides of the spa for service. Failure to meet these guidelines may result in additional service charges during maintenance or repairs to your spa.
5) To restrict water from entering the equipment compartment and away from all electrical components, ensure all water drains away from the spa.

Electrical installation requirements:

IMPROPER INSTALLATION MAY RESULT IN EQUIPMENT DAMAGE AND VOID THE WARRANTY

NOTE：DO not turn on electrical power to your spa until instructed in the owner manual.

1) Improper electrical connections may damage the equipment, cause injury, a fire, and void your spa warranty. We strongly recommend that only a licensed and bonded electrician perform the electrical installation.
2) Installation must be in accordance with the National Electrical Code; local and state electrical codes; and the manufacturer's instructions. It is the responsibility of the spa owner to ensure a qualified electrician performs the electrical installation.
3) This equipment has been designed to operate on 230 or 380 volts, 50HZ alternating current.
4) The spa must be connected to a dedicated branch circuit.
5) **IMPORTANT Note: Europe – R.C.D. Installation – circuit breaker, including ampere size and selection of the conductor size and type must be performed by qualified electricians in accordance with national Regional and Local codes and regulations in effect at the time of installation.**
6) As required, the electrical circuit to the spa must include a Class A type Ground R.C.D Interrupter.
7) All supply wires must be copper and rated at a minimum 90.C
8) Input Power Wiring and Circuit Breaker Selection

The Equipment Type column does not include the circulation pump for Silver series.
A jumper in the equipment control box configures the mode. In the HC 32 AMP 230 V or 2 and 3 phases Mode the heater will operate with everything on in the spa. In the LC 16 AMP Mode the heater turns off if either pump is in high speed or if the blower is turned on.

To hook-up your spa, follow these instructions:

1) Remove the screws holding the equipment access panel to the front of the spa cabinet. Set the panel aside. **Instructions how to open see page 26.**
2) Loosen the 2 screws on the top of the front equipment control enclosure.
3) Use- ―flexible, non-metallic conduit for a spa requiring #10 AWG or #8 AWG wire or 1‖ flexible non-metallic conduit for a spa requiring #6 AWG wire. Run the conduit from the power source through the hole in the left or right front corner of the enclosure into the equipment control box to the spa and secure / seal with PG so no water can enter into the box.
4) After pulling all wires through the conduit and into the equipment control box, connect them to the proper terminals as indicated by the wiring diagram see Electrical service configuration for each system Diamond/Gold or Silver versions.
5) Configure the jumpers to the correct position as indicated by the **Electrical service configuration.** Ensure the wires are properly tightened.
6) Close the lid on the equipment control box and secure with the 2 screws.
7) Electrical hook-up is now complete. Do not replace the equipment door at this point.

6. ELECTRICAL SERVICE CONFIGURATION

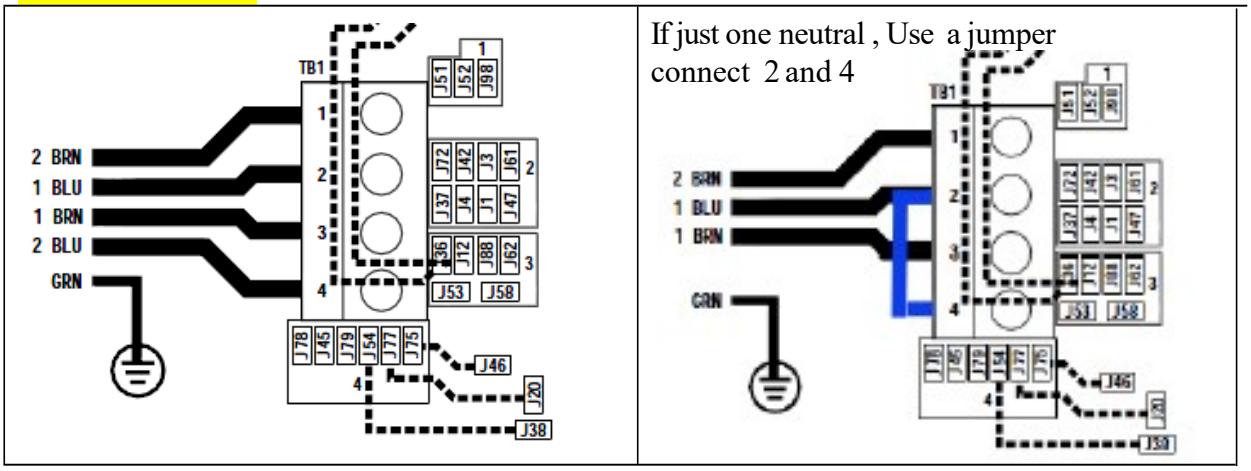
The settings made from factory as default is usually 2x 16Amp
If not the setting had been agreed to change for a specific country, check with the Distributor/Retailer

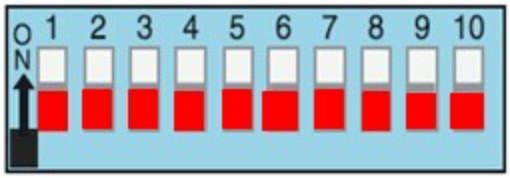
6.1 MAINS CONNECTIONS – LUX. Version

(a) Services Configuration 2Phases 2X16A Balboa System BP2100G0 PN: 56662-02

Configuration	Setting
2x 1-speed pump 1x Blower 1xCirc pump	● 8hrs Circ ● Celsius Temp Display

230V, 2X16 AMP





(b) Dip Switch Reference

A1 Test mode (normally Off)

A2 In ―ON‖ position, add one high-speed pump (or blower) with heater

A3 In ―ON‖ position, add Two high-speed pump (or1HS Pump and blower) with heater

A4 In ―ON‖ position, add Four high-speed pump (or3HS Pump and blower) with heater

A5 In ―ON‖ position, enables Special Amperage Rule B, 1phase Two pumps

In ―OFF‖ position, enables Amperage Rule A, Three phases 3*16A / 1*32A: two pumps+1blower

A6 Persistent memory reset (Used when the spa is power up to restore factory settings as determined by software configuration)

A2,A3,and A4 work in combination to determine the number of high-speed devices and blowers that can run before the heat is disabled, I.e. A2 and A3 in the On position and A4 in the OFF position will allow the heater to operate with up to 3 high-speed (or two HS pumps and Blower) running at the same time. Heat is disabled when the fourth high-speed pump or blower is turned on.

Note: A2/A3/A4 All off = No heat with any high-speed pump or blower.

Assignable Dip Switches

A7 In ―ON‖ position, enables a 5-minute cool down for same gas heaters(Cooling Time B)

In ―Off‖ position, enables a 1-minute cool down for electric heaters (Cooling Time A)

A8,A9,A10 Undesignated switches are not assigned a function.

WARNING

- Main Power to system should be turned OFF BEFORE adjusting DIP SWITCH
- Persistent Memory (A6) must be RESET to allow new DIP switch settings to take effect

To reset Persistent Memory:

1. Power down.
2. Set A6 ON
3. Power up.
4. Wait until —Pr‖ is displayed on your panel.
   Note: If —CFE ‖appears means DIP switch configuration is wrong!.
5. Power down and then set A6 OFF.
6. Power up again

(c) LUX. Version TP600 control panel

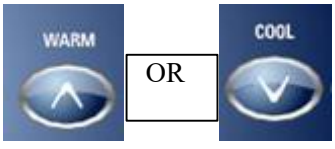
Priming mode:

This mode will last for 4-5 minutes or you can manually exit the priming mode after the pump(s) have primed.

Regardless of whether the priming mode ends automatically or you manually exit the priming mode, the system will auto-matically return to normal heating and filtering at the end of the priming mode. During the priming mode, the heater is disabled to allow the priming process to be completed without the possibility of energizing the heater under low-flow or no-flow conditions. Nothing comes on automatically, but the pump(s) can be energized by pushing the —Jet‖ buttons. If the spa has a Circ Pump, it can be activated by pressing the —Light‖ button during Priming Mode.

Temp Control (26°C - 40°C)

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.



Dual Temperature Ranges

This system incorporates two temperature range settings with independent set temperatures. The High Range designated in the display by an ―up‖ arrow, and the Low Range designated in the display by a ―down‖ arrow. These ranges can be used for various reasons, with a common use being a ―ready to use‖ setting vs. a ―vacation‖ setting. The Ranges are chosen using the menu structure below. Each range maintains its own set temperature as programmed by the user. This way, when a range is chosen, the spa will heat to the set temperature associated with that range.

For example:

High Range might be set between 80°F and 104°F.**(26°C - 40°C)**

Low Range might be set between 50°F and 99°F. **(10°C - 37°C)**

Key

Indicates Flashing or Changing Segment

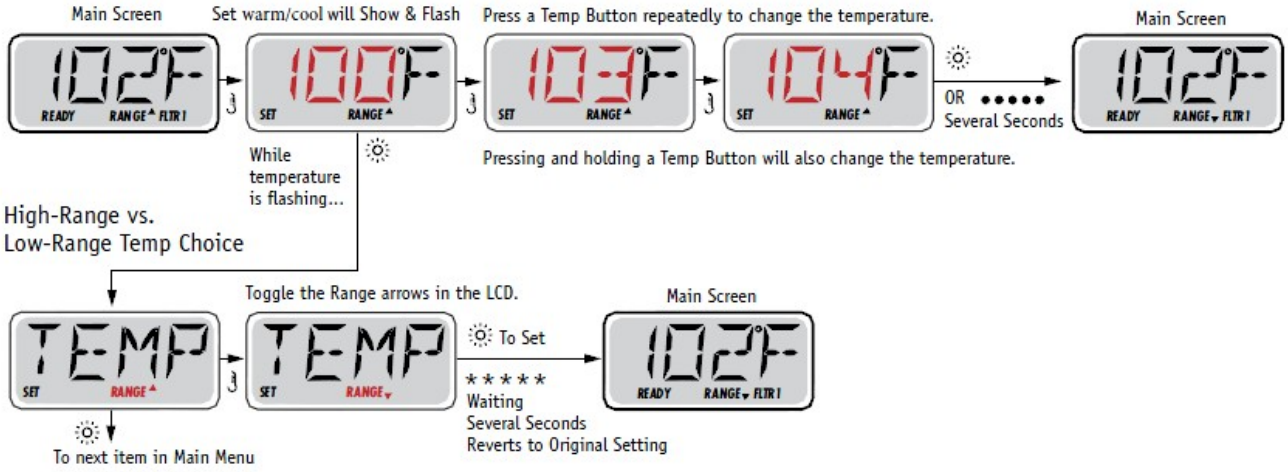
Indicates Alternating or Progressive Message - every 1/2 second

A temperature button, used for "Action"

Light or dedicated "Choose" button, depending on control panel configuration

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

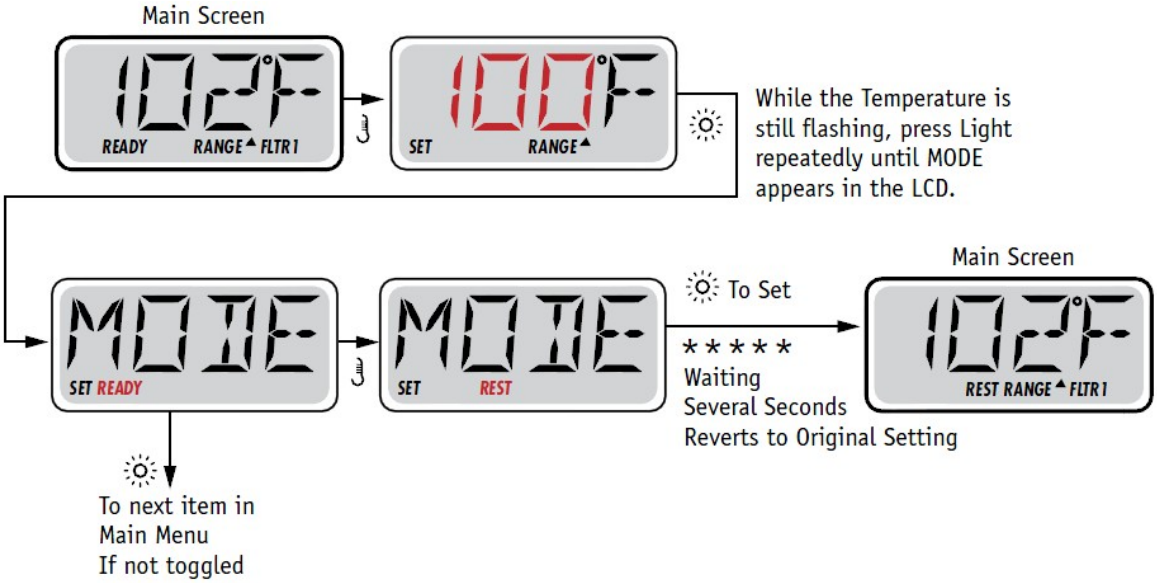
★★★★★ Waiting time (depends on menu item) that reverts to original setting and ignores any change to that menu item.



Mode-Reday and Reset

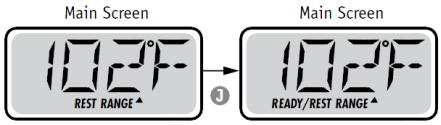
If the spa is configured for 24HR circulation, the heater pump generally runs continuously. Since the heater pump is always running, the spa will maintain set temperature and heat as needed in Ready Mode, without polling.

In Rest Mode, the spa will only heat to set temperature during programmed filter times, even though the water is being filtered constantly when in Circulation Mode.



Ready-in-Rest Mode

READY/REST appears in the display if the spa is in Rest Mode and Jet 1 is pressed. It is assumed that the spa is being used and will heat to set temperature. While Pump 1 High can be turned on and off, Pump 1 Low 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.



Jets1

To start pump1 (one speed) press “Jet1” one time, the pump1 will work at high speed. the high speed will turn off automatically after 15minutes. Press the second time “Jet1” the pump1 will stop.

Jets2

To start pump (one speed) press “Jets2” one time, the pump2 will work at high speed, and will turn off automatically after 15minutes. Press the second time “Jets2” the pump2 will stop.

Aux

To start blower press ―Aux‖ one time, the blower will work at high speed, and will turn off automatically after 15minutes. Press the second time ―Aux‖ the blower will stop.

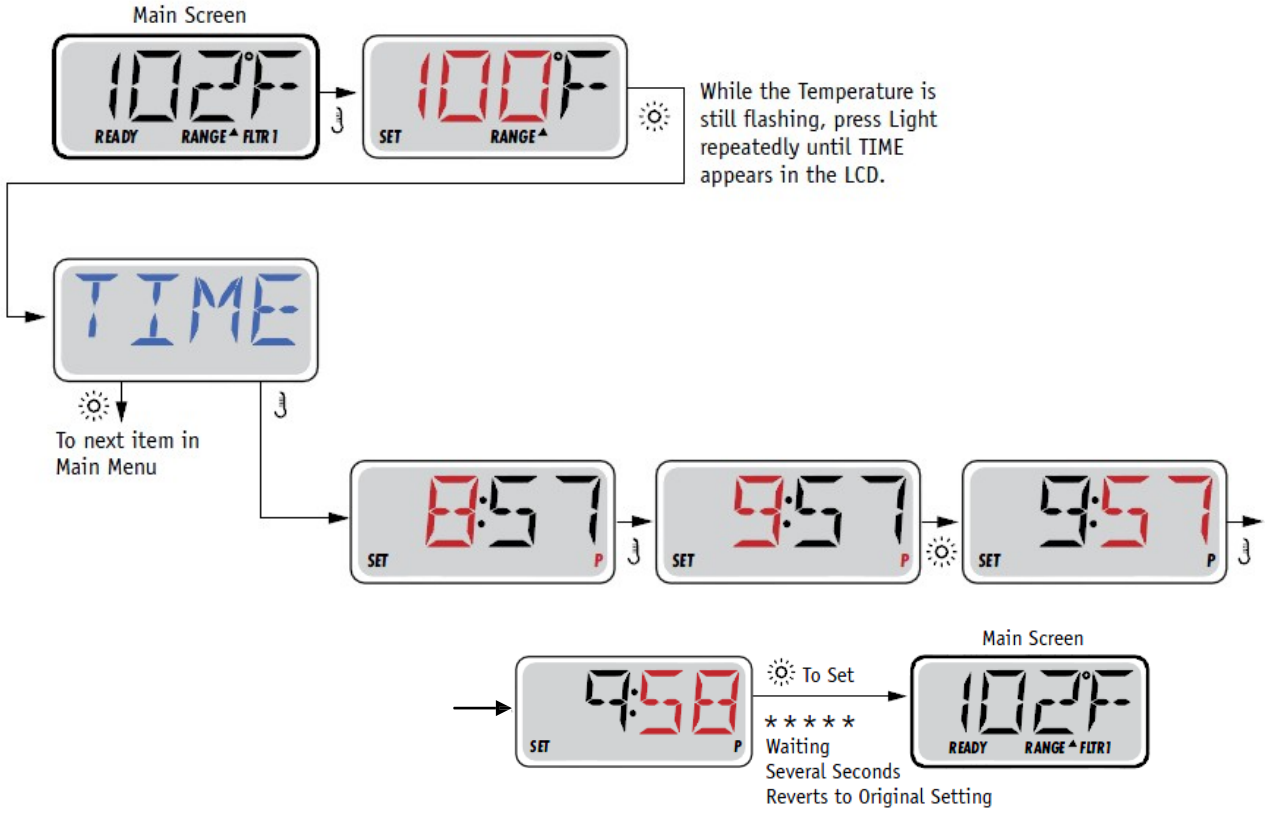
Light .

Color light Press the ―Light‖ button to turn on the lights, again to turn off it, keep pressing the ―Light‖ button turn on and turn off the lights, the color will be different each time, just one time, the color can change automatically. they can working 8 status , the first status is changing the color automatically , then you press the lights button, turn off it then turn on it stay red color, then you keep turning off and turn on they will stay different colors every time and after 7 times they get back to the first status change the color automatically. stop pressing the ―Light‖ button. The lights will automatically turn off after 4 hours.

Show and Set Time-of-Day

Be sure to set the Time-of-Day

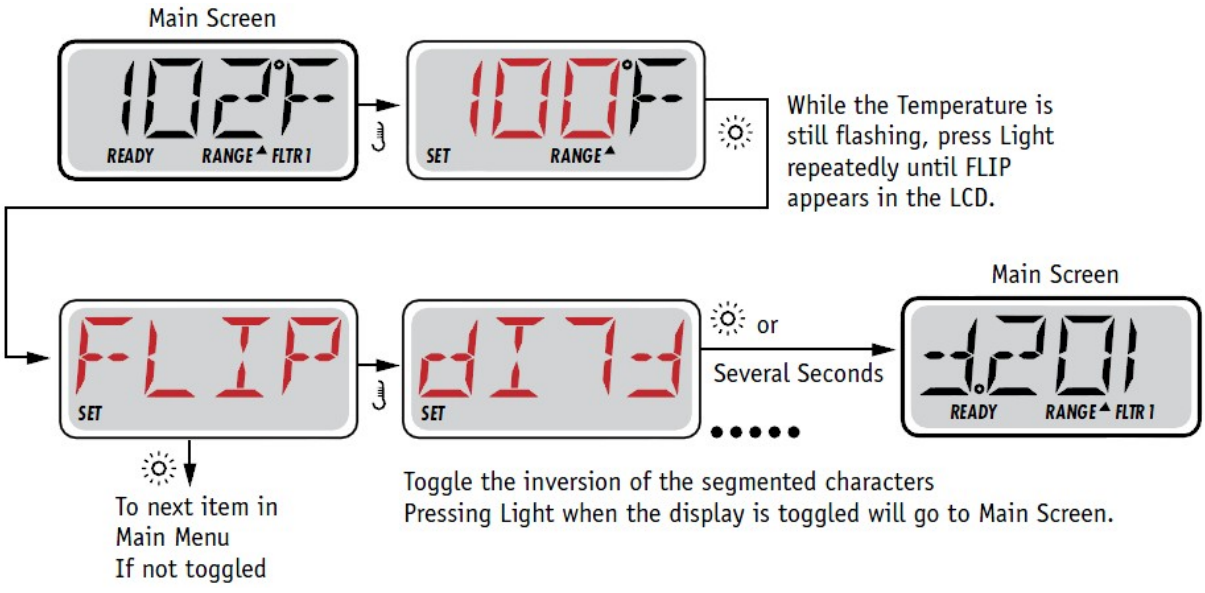
Setting the time-of-day can be important for determining filtration times and other background features. When in the TIME menu, SET TIME will flash on the display if no time-of-day is set in the memory.



Note: If power is interrupted to the system, Time-of-Day is not stored. The system will still operate and all other user settings will be stored. If filter cycles are required to run at a particular time of day, resetting the clock will return the filter times to the actual programmed periods.

When the system starts up, it defaults to 12:00 Noon, so another way to get filter times back to normal is to start up the spa at noon on any given day. SET TIME will still flash in the TIME Menu until the time is actually set, but since the spa started at noon, the filter cycles will run as programmed

Flip (Invert Display)



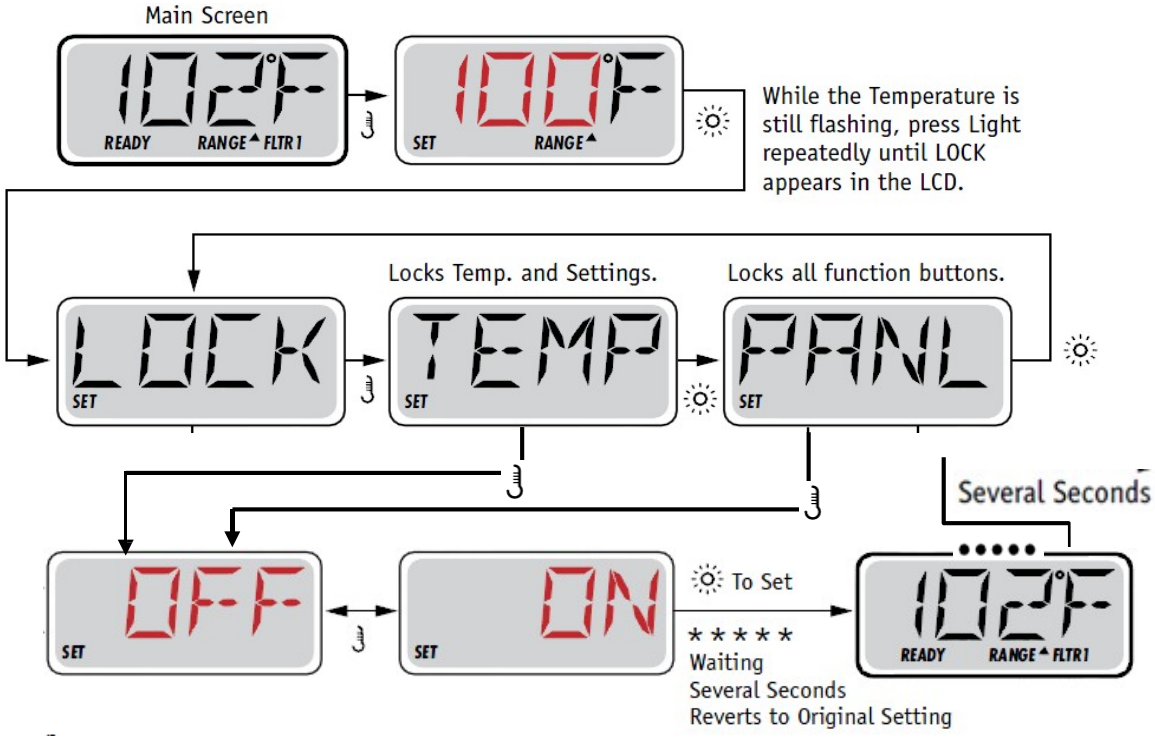
Restricting Operation

The control can be restricted to prevent unwanted use or temperature adjustments.

Locking the panel prevents the controller from being used, but all automatic functions are still active.

Locking the Temperature allows Jets and other features to be used, but the Set Temperature and other programmed settings cannot be adjusted.

Temperature Lock allows access to a reduced selection of menu items. These include Set Temperature, FLIP, LOCK, UTIL, INFO and FALT LOG.

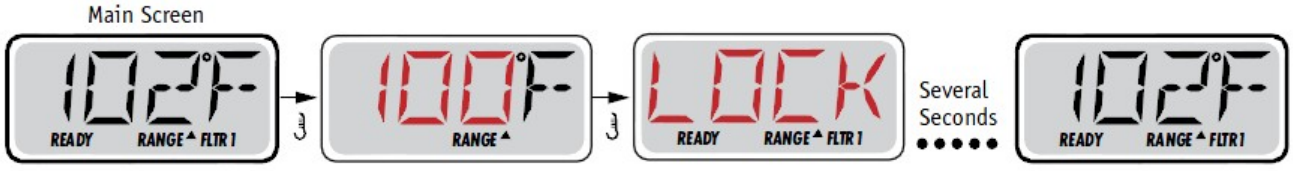


Panel locked

LOCK will remain on the display for 3 seconds and then revert to the normal display. Main Screen

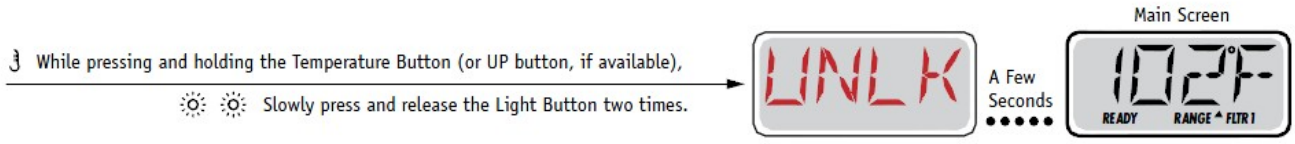
Panel locked

When the Temperature is locked, the panel will display the Set Temperature by pressing a Temperature Button, as ususal. LOCK will appear if an attempt to reset the temperature is made with a subsequent button press. Adjustable settings in the menus are also locked. Other function buttons will operate normally.



Unlocking

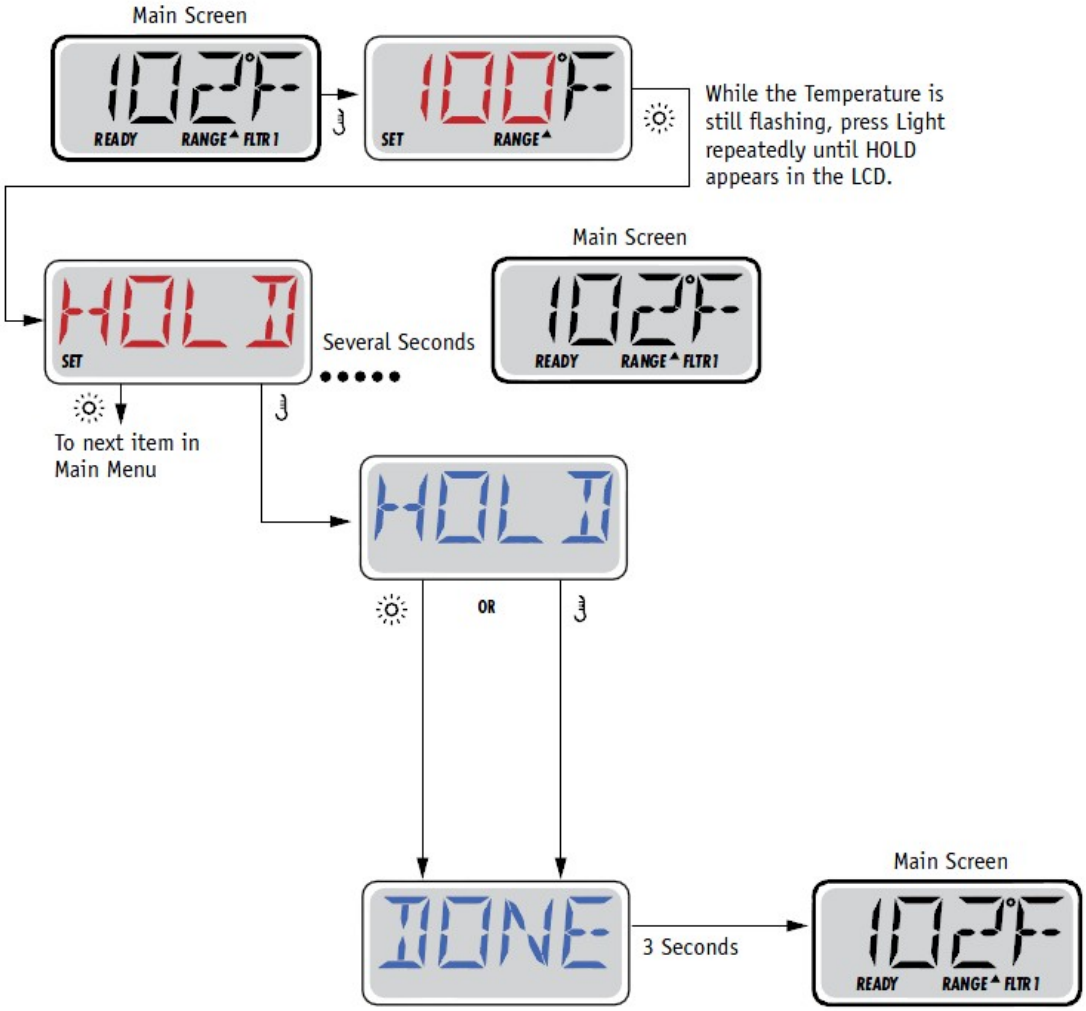
This Unlock sequence may be used from any screen that may be displayed on a restricted panel.



NOTE: If the panel has both an UP and a Down button, the ONLY button that will work in the Unlock Sequence is the UP button.

Hold Mode

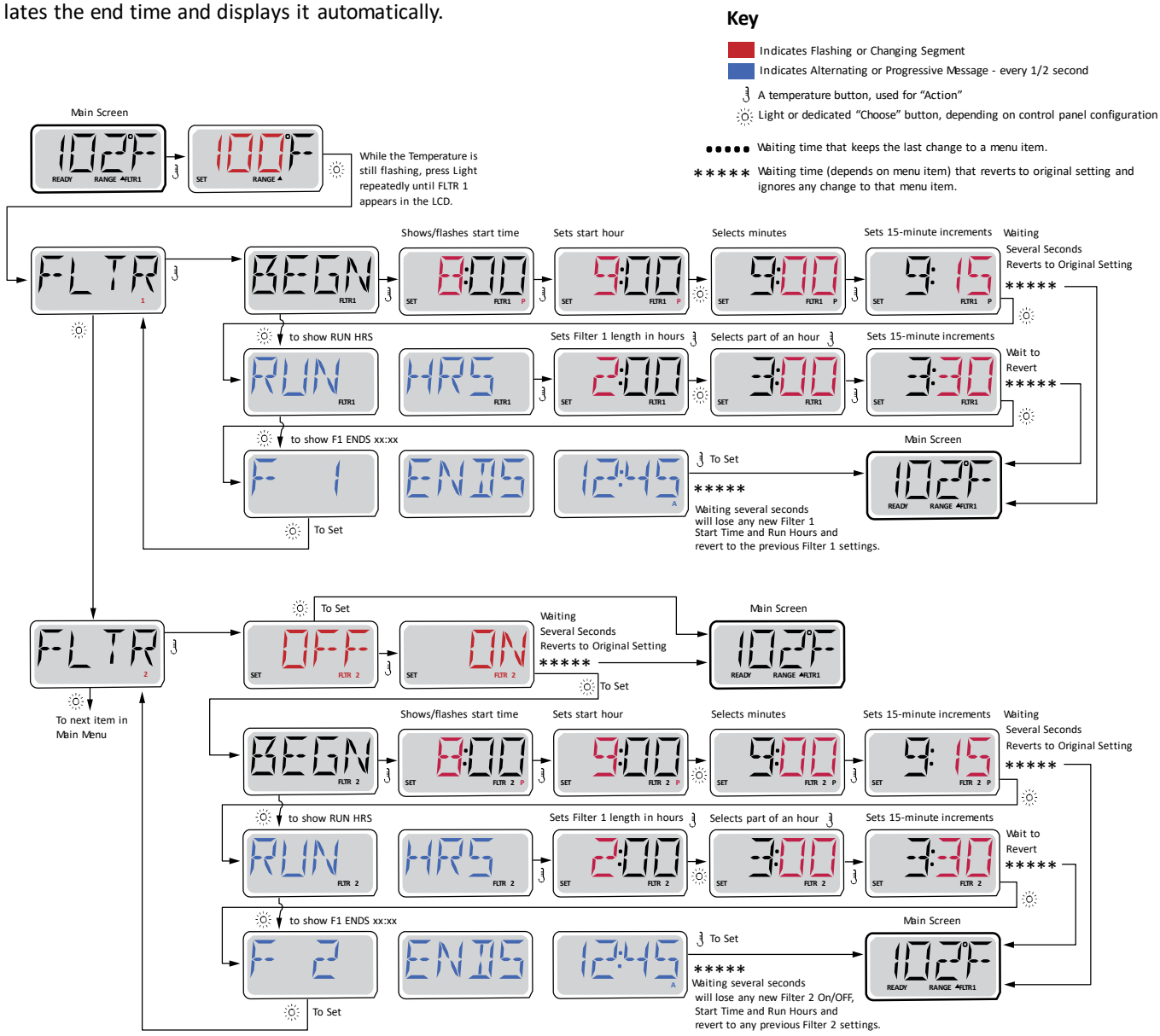
Hold Mode is used to disable the pumps during service functions like cleaning or replacing the filter. Hold Mode will last for 1 hour unless the mode is exited manually.



Adjusting Filtration

Main Filtration

Filter cycles are set using a start time and a duration. Start time is indicated by an “A” or “P” in the bottom right corner of the display. Duration has no “A” or “P” indication. Each setting can be adjusted in 15-minute increments. The panel calculates the end time and displays it automatically.



Filter Cycle 2 - Optional Filtration

Filter Cycle 2 is OFF by default.
It is possible to overlap Filter Cycle 1 and Filter Cycle 2, which will shorten overall filtration by the overlap amount.

Purge Cycles

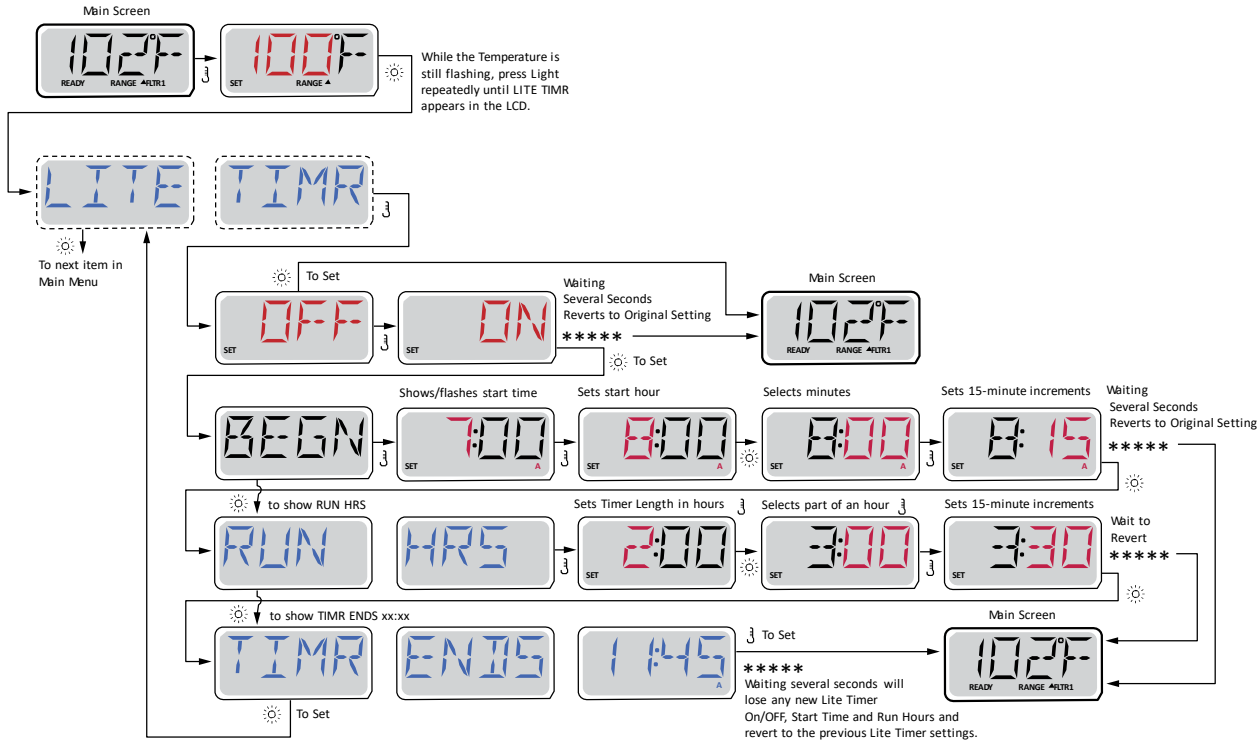
In order to maintain sanitary conditions, secondary Pumps and/or a Blower will purge water from their respective plumbing by running briefly at the beginning of each filter cycle.

If Filter Cycle 1 is set for 24 hours, enabling Filter Cycle 2 will initiate a purge when Filter Cycle 2 is programmed to begin.

Light Timer Option

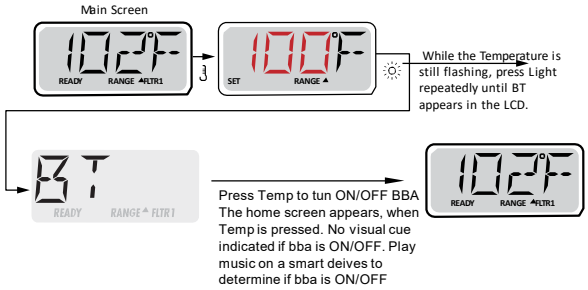
If LITE TIMR does not appear in the Main Menu, the Light Timer feature is not enabled by the manufacturer.

When available, the Light Timer is OFF by default.



BBA Audio system (Option)

Turn on/off bba



For the detail BBA using check the BBA maual if the spa installed

Preferences

F / C (Temp Display)

Change the temperature between Fahrenheit and Celsius.

12 / 24 (Time Display)

Change the clock between 12 hr and 24 hr display.

RE-MIN-DERS (Reminders)

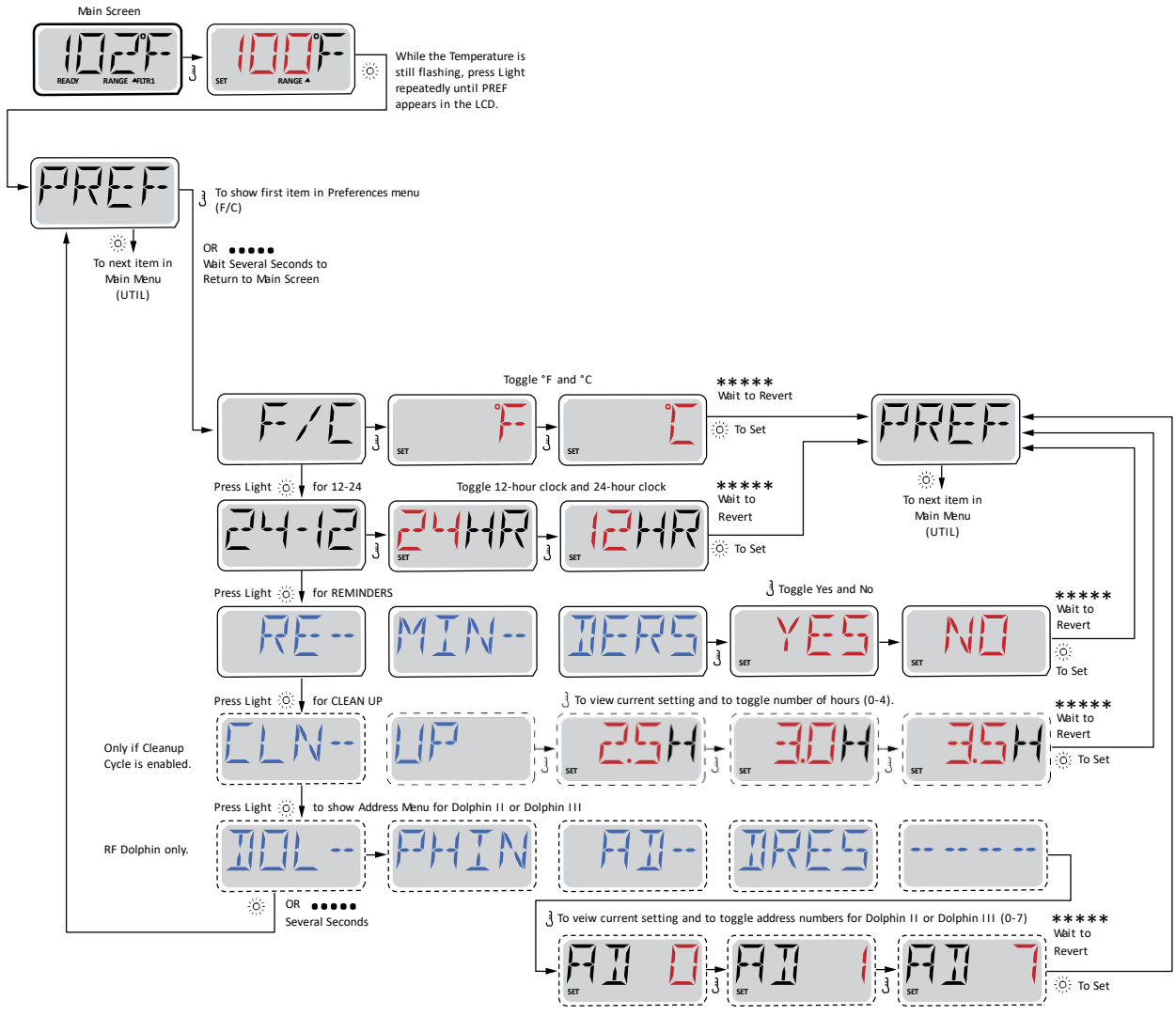
Turn the reminder messages (like “Clean Filter”) On or Off.

CLN-UP (Cleanup)

Cleanup Cycle Duration is not always enabled, so it may not appear. When it is available, set the length of time Pump 1 will run after each use. 0-4 hours are available.

DOL-PHIN AD-DRES (Dolphin II and Dolphin III) Applies to RF Dolphin only. (This message may not appear depending on the configuration)

When set to 0, no addressing is used. Use this setting for a Dolphin Remote which is factory set for no address by default. When set between 1 and 7, the number is the address. (See the Dolphin manual for details.)

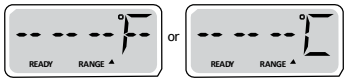


General Messages

Priming Mode – M019

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. 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 Circ Pump, it will turn on with Jets 1 in Priming Mode. The Circ Pump will run by itself when Priming Mode is exited.



Water Temperature is Unknown

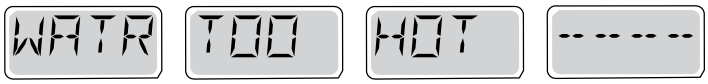
After the pump has been running for 1 minute, the temperature will be displayed.

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. 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 (OHS) – M029

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.

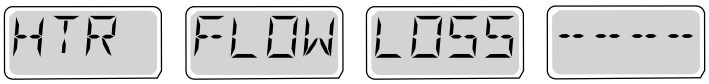
Safety Trip - Pump Suction Blockage* – M033

The Safety Trip error message indicates that the vacuum switch has closed. This occurs when there has been a suction problem or a possible entrapment situation avoided. (Note: not all spas have this feature.)

M0XX numbers are Message Codes. See Page 15.

* This message can be reset from the topside panel with any button press.

Heater-Related Messages



Heater Flow is Reduced (HFL) – M016

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)* – M017

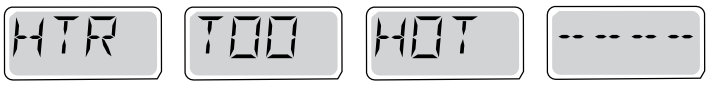
There is not enough water flow through the heater to carry the heat away from the heating element and the heater has been disabled. See "Flow Related Checks" below. After the problem has been resolved, you must press any button to reset and begin heater start up.

Heater may be Dry (dr)* – M028

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* – M027

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)* – M030

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 for low water level, suction flow restrictions, closed valves, trapped air, too many closed jets and pump prime.

On some systems even when spa is shut down, some equipment may occasionally turn on to continue monitoring temperature or if freeze protection is needed.

* This message can be reset from the topside panel with any button press.

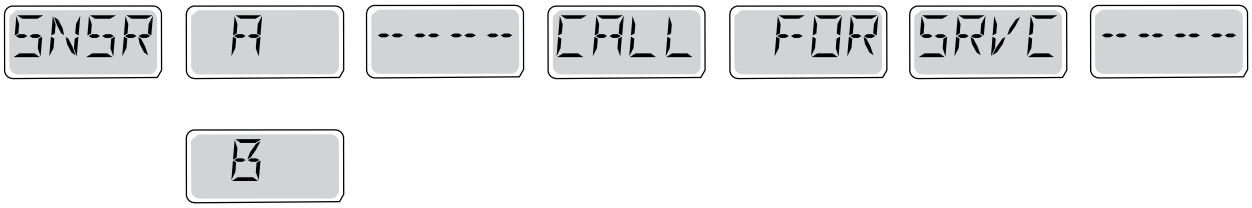
Sensor-Related Messages

Sensor Balance is Poor – M015

The temperature sensors MAY be out of sync by 2°F or 3°F. Call for Service.

Sensor Balance is Poor* – M026

The temperature sensors ARE out of sync. The Sensor Balance is Poor fault has been established for at least 1 hour. Call for Service.



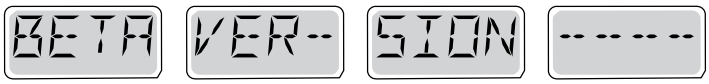
Sensor Failure – Sensor A: M031, Sensor B: M032

A temperature sensor or sensor circuit has failed. Call for Service.

Miscellaneous Messages

No Communications

The control panel is not receiving communication from the System. Call for Service.



Pre-Production Software

The Control System is operating with test software. Call for Service.

°F or °C is replaced by °T

The Control System is in Test Mode. Call for Service.

* This message can be reset from the topside panel with any button press.

System-Related Messages

Memory Failure - Checksum Error* – M022

At Power-Up, the system has failed the Program Checksum Test. This indicates a problem with the firmware (operation program) and requires a service call.

Memory Warning - Persistent Memory Reset* – M021

Appears after any system setup change. Contact your 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* – M020 - Not Applicable on the BP1500

Contact your dealer or service organization.

Configuration Error – Spa will not Start Up

Contact your dealer or service organization.

GFCI Failure - System Could Not Test/Trip the GFCI – M036

NORTH AMERICA ONLY. May indicate an unsafe installation. Contact your dealer or service organization.

A Pump Appears to be Stuck ON – M034

Water may be overheated. POWER DOWN THE SPA. DO NOT ENTER THE WATER. Contact your dealer or service organization.

A Pump Appears to have been Stuck ON when spa was last powered – M035

POWER DOWN THE SPA. DO NOT ENTER THE WATER.
Contact your dealer or service organization.

* This message can be reset from the topside panel with any button press.

Reminder Messages

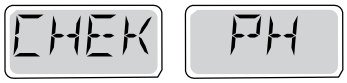
General maintenance helps.

Reminder Messages can be suppressed by using the PREF Menu. See Page 11.

Reminder Messages can be chosen individually by the Manufacturer. They may be disabled entirely, or there may be a limited number of reminders on a specific model.

The frequency of each reminder (i.e. 7 days) can be specified by the Manufacturer.

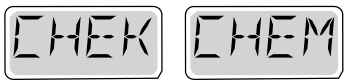
Press a Temperature button to reset a displayed reminder message.



Alternates with temperature or normal display.

Appears on a regular schedule, e.g. every 7 days.

Check pH with a test kit and adjust pH with the appropriate chemicals.



Alternates with temperature or normal display.

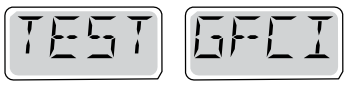
Appears on a regular schedule, e.g. every 7 days.

Check sanitizer level and other water chemistry with a test kit and adjust with the appropriate chemicals.

Alternates with temperature or normal display.

Appears on a regular schedule, e.g. every 30 days.

Clean the filter media as instructed by the manufacturer. See HOLD on page 6.



Alternates with temperature or normal display.

Appears on a regular schedule, e.g. every 30 days.

The Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD) is an important safety device and must be tested on a regular basis to verify its reliability.

Every user should be trained to safely test the GFCI or RCD associated with the hot tub installation.

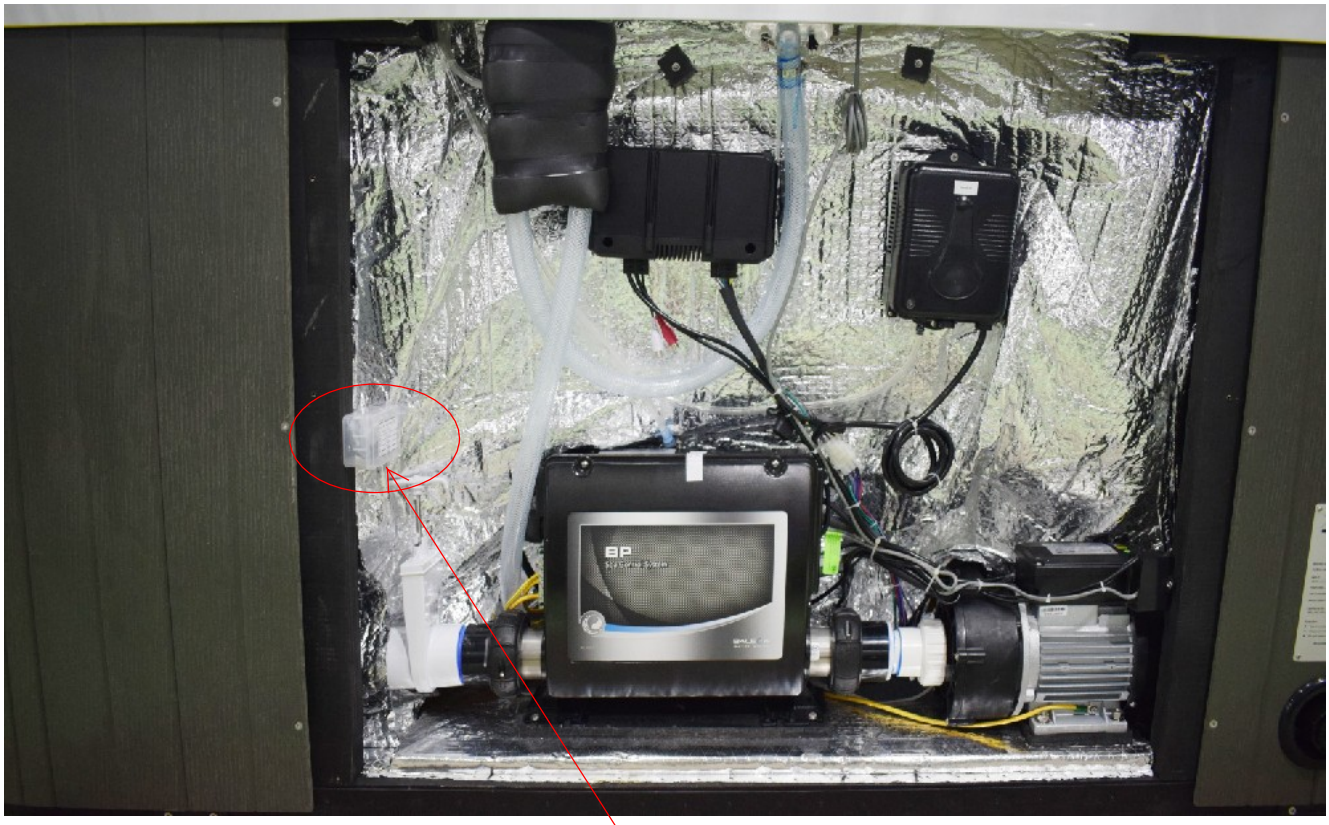
A GFCI or RCD will have a TEST and RESET button on it that allows a user to verify proper function.

Warning:

If freezing conditions exist, a GFCI or RCD should be reset immediately or spa damage could result.
The end user should always trained to test and reset the GFCI or RCD on a regular basis.

6.2 Jump wire

When the spa delivered setting power services configuration is 2phase or 3phase, the jump wire which removed from the control box are put in this box



Jump wires position

6.3 The power cable cap

There are both power cable caps on the corner shirt. you can use a drill machine to drill the suitable hole for the power cable.

7. INITIAL START-UP PROCEDURES AND SPA COVER BASKET LIFTER

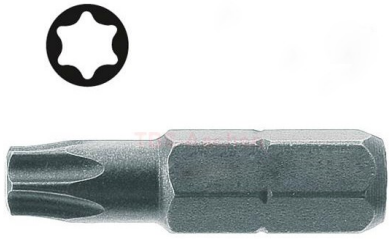
DO NOT TURN ON THE POWER TO THE SPA WHEN THE SPA IS PARTIALLY FILLED OR EMPTY

1) Ensure the circuit breaker to the spa is off
2) Rotate all the jets in the spa to a clockwise—fully open position Executed in FACTORY
3) If the spa is equipped with valves
   (a handle located near the jet pumps),
   ensure the handle is open.
   Spas with 1 pump will include 2 valves and
   spas with 2 pumps will include 4 valves.
   Note: a circulation pump will include 2 valves.
   The valves are in open position upon delivery see picture.

4) How to open and close the door to pump area

There are 8 fixing screws on the door each side, and the screws on the bottom, remove the screws then you can take out the door panel

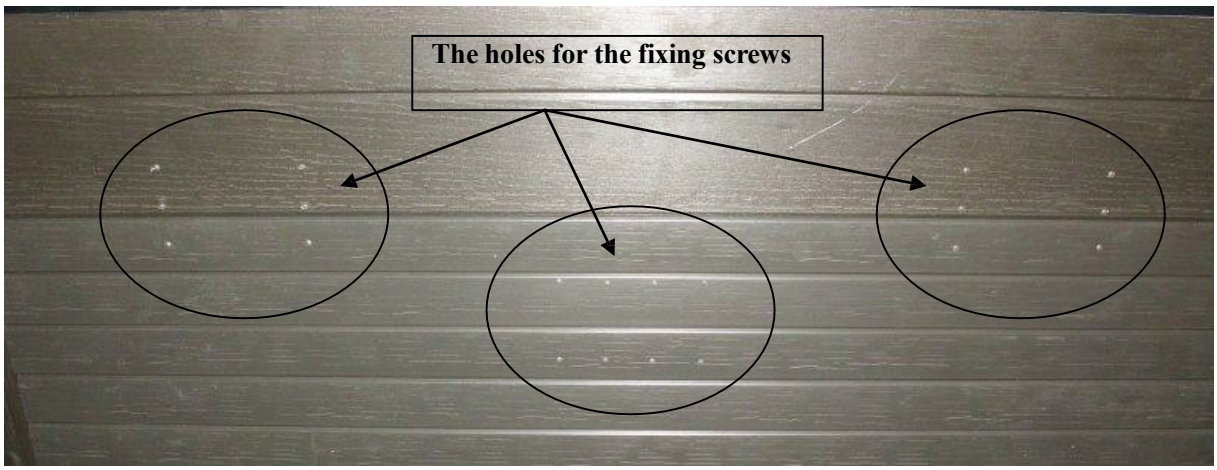
Torx screws diver T25

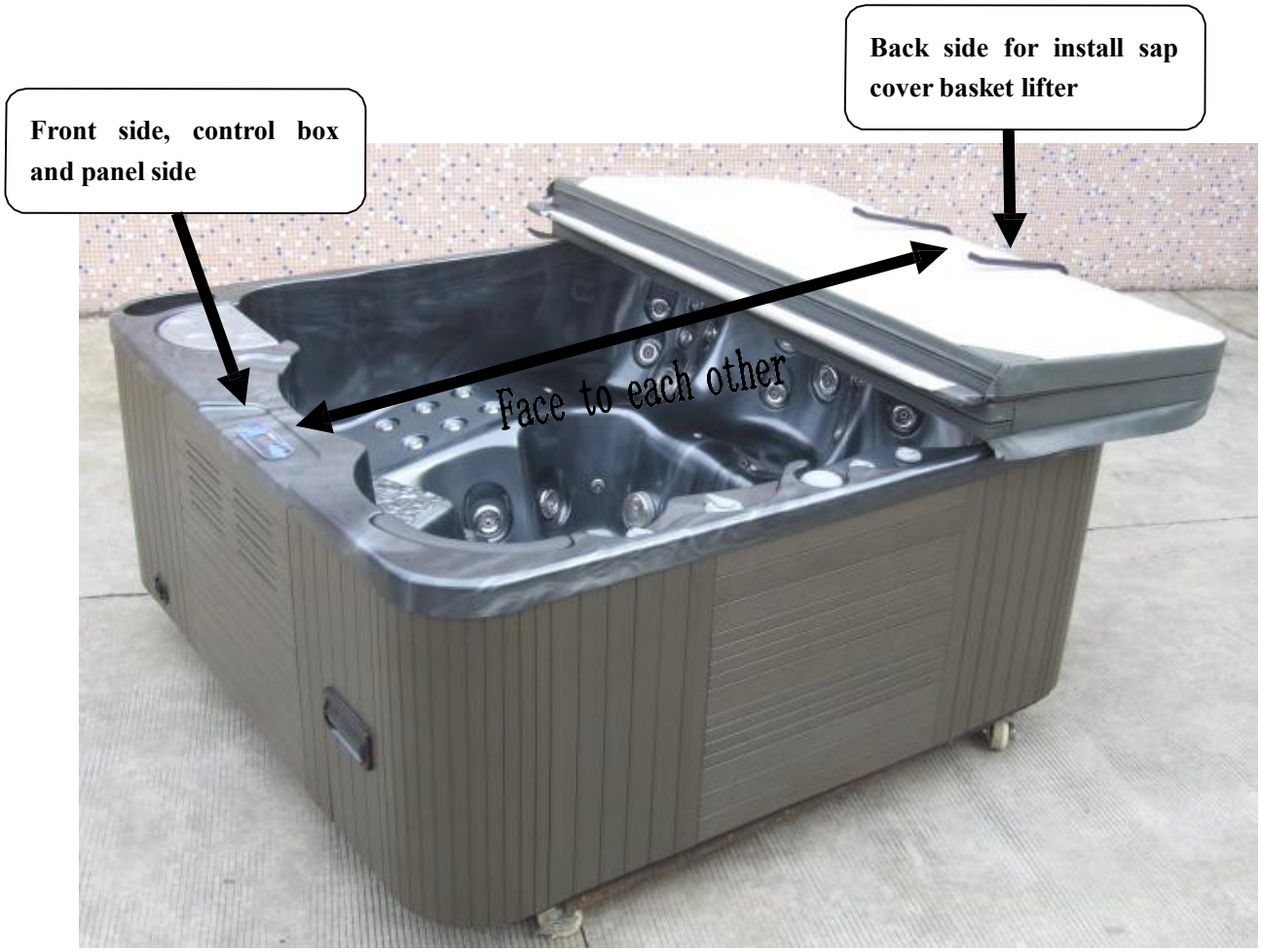


5)To prevent the possibility of leakage in the equipment bay, ensure the pump unions are tight.
6)Close and cap the hose bib. This is used for draining the spa
Now check next chapter for the spa start up and care

The side of the skirts panel for install the spa cover basket lifter

Note: the spa cover basket lifter should install the back skirt panel that side face to the control box/panel side, one this side shirt we have drilled the holes for the fixing screws, just need to use the screw to fix the spa cover basket lifter.





8. SPA START-UP and CARE

IMPORTANT

Your spa has passed stringent quality assurance testing by trained technicians to ensure reliability and your long –term satisfaction. Before filling the spa, wipe the shell clean with a soft dry rag.

Follow these instructions to ensure a successful start-up or refill.

1) Fill spa to correct level (approximately 4 inches 10 cm above the top of the filter cartridge).

2) Power up. First the system starts in priming mode the circulation pump starts up automatically do **NOT start jet pumps or blower** at this stage let the priming mode continue until the control panel display shows standard mode. **IMPORTANT!** Check for air locks in the circulation pump system, during the priming. There are six small jets installed in the foot well walls one is the ozonator where there should be a stream of bubbles coming out if there is small bubbles coming out from some of the other small jets there is an airlock in the system check for 30 seconds and if there is still small bubbles do as follows. **Turn the power off and follow the instructions on last page in this Manual.**

WARNING

DO NOT ALLOW THE PUMPS TO RUN FOR MORE THAN 1 (one) MINUTE WITHOUT WATER FLOWING FROM THE JETS. PUMPS WITH DRY RUN PROBLEMS WILL NOT BE COVERED UNDER WARRANTY

3) Once the priming is completed, Re-attach the equipment access panel.

4) Heating will occur at a rate of 5-12 f or 3-5 .C per hour, depending upon the size of the spa and the electrical circuit

5) Add stain and scale control (or a similar product.)

6) Test and adjust total alkalinity. Run pump for 1/2 hour.

7) Test and adjust pH. Run pump for 1/2 hour. Test again to ensure stable pH and alkaline levels.

8) If sanitizing with bromine, add sodium bromide with jets running. (See ―bromine‖ in this section.)

9) Fill and set bromine floater or adjustable bromine feeder and place in the spa water.

10) Shock water using potassium peroxymonosulfate while jets are running.

11) If sanitizing with chlorine, use only a granular ―Dichloride‖ compound. On start up, turn on all jets, add 1 oz. per 500 gal. spa water. Check free available chlorine (FAC) to attain 2-3PPM. Repeat of needed. For regular use, turn jets on, scatter 1/2 oz. per 500 gal. to spa water to maintain 2-3PPM of FAC. (See ―chlorine‖ in this section.)

12) Run jet pump/s and blower if installed for 1/2 hour

13) Be sure to regularly check your sanitizer levels!

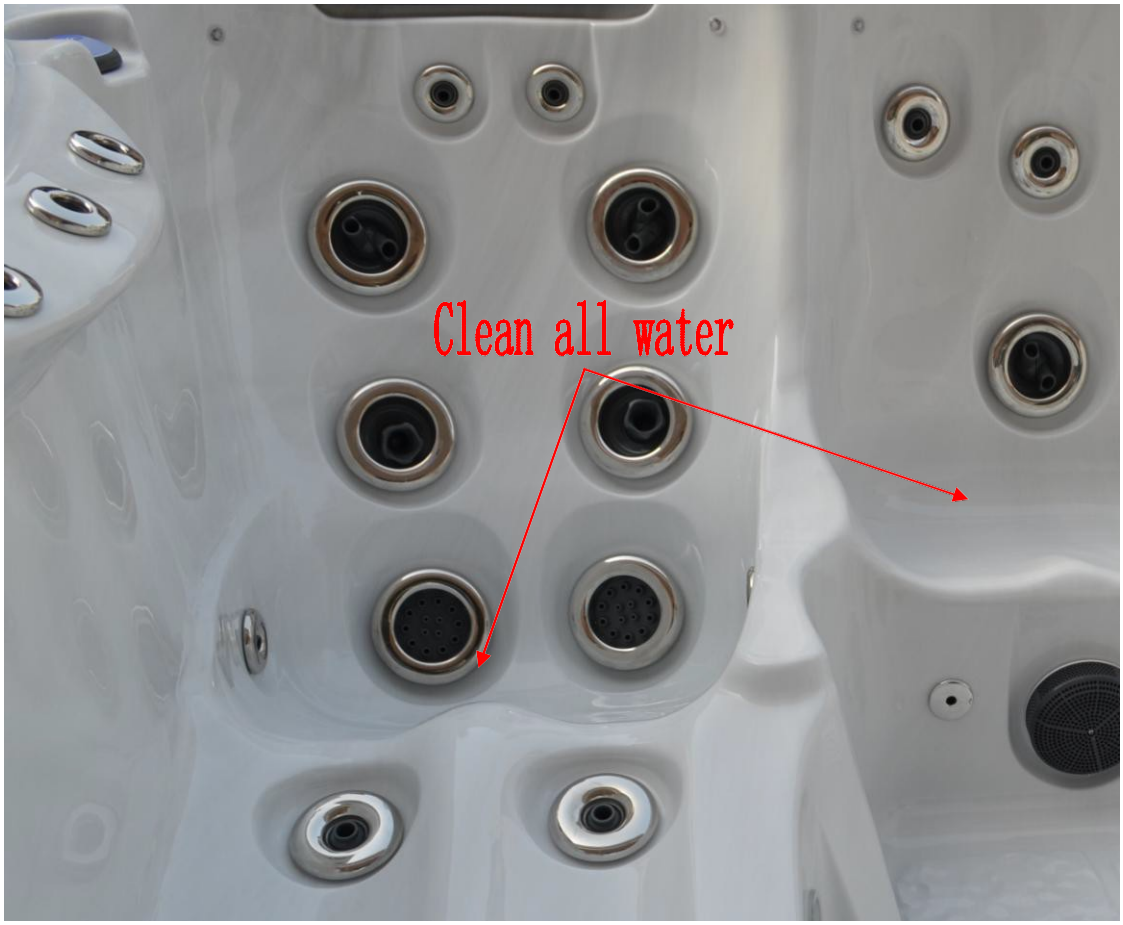
14) Check for air locks in the circulation pump system, there are six small jets installed in the foot well walls turn off the jet pumps and blower check for small bubbles coming out from the small jets.

15) To conserve energy and ensure your spa is ready for use, place the thermal cover securely on and lock it.

16) IMPORTANT Pillows **must** be removed from the Spa after each time the spa has been used. Pillows will not be replaced on guarantee if the color has changed or faded.

17) IMPORTANT The water in the jets recess and in the seat **must** clean completely.

When the spa is drained and don't use it temporarily, the water in the spa, includes the water in the jets recess , the water in each seat, must be cleaned completely. because you may get a concentration of chemicals in this area from the evaporation of the water leaving a more potent chemical mix on the surface of the acrylic in these pockets. Add the effects of heat from the sun to a chemical in this recess and it may attack the surface of the acrylic.



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 owners' manual power connection instructions. A licensed electrician must perform installation and all grounding connections must be properly installed.

Jet Selector Valves

Your spa is equipped with a spa side selector valve. This valve can be used to divert jet power from one area in the spa to another. This valve is fully adjustable and can be used to suit the bather's desired affect. The valve may be difficult to turn when the spa pump is on high speed. This is normal and is caused by the high rate of water flow and pressure present in the valve. Two pump systems have two valves and one-pump systems have one valve.

Air Control Valves

The air control is an on off valve that allows air to be introduced into a specific jetting configuration resulting in more vigorous jet action. Turn the valve handle clockwise to turn the air on and counter clockwise to turn the air off. Opening the valve increases jet pressure and closing the valve decreases the jet pressure.

9. WATER CHEMISTRY

Maintaining water chemistry will aid in preventing possible damage to your spa and ensuring safe water conditions for users.

Water Quality:

Filtering the water helps maintain clean, clear and safe water. You spa is equipped with a 2 cartridges filter system. Although the filter traps most solid materials, it is necessary to add a sanitizer (chlorine or bromine) to the water. This will help oxidize organic materials and reduce build up of algae or bacteria. Note: Do not use peroxide chemicals.

To ensure the safe operation of your spa, we recommend using chemicals from your authorized spa dealer. The dealer is informed about the care and maintenance of your spa and can provide guidance when choosing alternative methods for maintaining water quality.

Note: Use of the wrong chemicals can be dangerous and may void the warranty on your spa.

Water Testing:

Testing your spa water on a regular basis with an accurate test kit or strips is also recommended.

These kids are available from your authorized spa dealer. Follow the chemical manufacturer's instructions for use.

PH CONTROL:

All water has a PH value. This value measures the acid to alkaline relationship from 14-point scale. A reading of 7.0 is considered neutral while a lower reading is considered acidic and a higher reading is alkaline.

The proper PH for spa water is between 7.2-7.6. A high PH (above 7.6) can reduce sanitizer efficiency, cloud the water, promote scale formation on the spa surface and equipment and impede the filter operation. When PH is too high, add a PH reducer.

Low PH (below7.2) can cause equipment corrosion, water that can irritate users and rapid sanitizer dissipation. Add PH increaser to adjust the level.

Note: Good PH control and sanitation are essential for proper spa water treatment. Always add PH adjuster with jets operating and circulate chemicals for at least 30 minutes. Follow the chemical manufacturer's directions and procedures when adding chemicals to spa water.

Sanitizer:

Warm water creates a fertile environment for growth of bacteria. To prevent growth it is very important to maintain adequate and constant levels of sanitizer in your spa.

WARNING:

Sanitizers such as Tri-chlor (tablets or sticks), calcium hypochlorite, sodium hypochlorite, peroxide based chemicals or any chemical compound that remains undeserved in direct contact or adheres to the spa surface will damage the spa and void the warranty.

Bromine:
Maintaining a proper total bromine level of 3.0-5.0 PPM can control bacteria. Tablets are easy to use and effective. Brominating tablets will keep your water clean, clear and odor-free. A bromine "floater" dispenses the tablets properly and evenly into the spa water to avoid damage to the spa surface. Do not drop bromine tablets directly into the water. Allow for a bromide reserve by adding 1/2 oz. of sodium bromide per 100 gal of water every time you fill your spa.

Chlorine
Chlorine is also a water sanitizer. It is sensitive to pH. Any pH reading outside of the optimum range of 7.2-7.6 will reduce the effectiveness of chlorine.
The best chlorine for your spa is a granular "Dichloride" compound. It dissolves quickly in moving water and has a nearly neutral pH. For severely contaminated water, it is most effective to drain the spa and refill it with clean water. Add chlorine while jets are running and let them run for 1/2 hour. Or disinfect the spa with large chlorine dosed, in the range of 8-10 PPM.
Use a chlorine test kit or strips to maintain a reading of 1.0-3.0 PPM of free chlorine. If the reading is below 1 PPM, raise the level before using the spa. If the reading is above 3 PPM, allow PPM to drop to proper range before using the spa.
To increase the effectiveness of the chlorine, leave the protective cover on your spa. Leaving the cover off may result in decay of the chlorine by exposure to sunlight and reduce the effectiveness of the chlorine by organic debris deposits. Higher water temperatures also promote fast decay of chlorine.

Note: Two individuals in a spa may reduce the level of chlorine as much as 3 PPM in 20 minutes. Read the instructions on your chlorine container carefully, or consult your local spa dealer if you are having difficulty adjusting your chlorine level.

Shock Treatments (Potassium Peroxymonosulfate):
Even with regular sanitization the need for shock treatment may arise. Shock is recommended over super chlorination because it does not require additional sanitizer. Shock is also effective in oxidizing wastes and reducing chloramines or bromamines. Follow the manufactures instructions listed on the label.

Super Chlorination:

Super chlorination quickly oxidizes the spa water to burn away waste such as hairspray and lotions that the spa filter cannot remove. This waste build-up reduces the power of the sanitizer resulting in dull water and may cause irritation to the user's eyes and skin. It may also produce an ineffective sanitizer. Super chlorination can eliminate this occurrence. To produce an adequate super chlorination, apply 5 times the normal chlorine dosage.

Stain & Scale inhibitor (Controlling Stain & Scale)

Due to hot water conditions, staining and scaling may become a problem. Water circulation can cause the erosion of metals from spa equipment and create a stained surface. A weekly dose of a stain and scale fighter will help.

To eliminate metals in your water and increase the life of your spa equipment, add a sequestering agent to the spa water when draining or refilling the spa for the first time.

Total Alkalinity:

Total alkalinity (TA) is the amount of carbonate, bicarbonate and hydroxyl ions in the water. TA (total alkalinity) affects and protects the PH of water. Proper TA levels allow other chemicals to work more effectively. Water with a TA above 160, makes it difficult to adjust the pH. With a TA below 130 the PH is unstable and difficult to maintain at proper levels.

Foam Inhibitor:

Rapid circulation of spa water combined with soap residue from the user may cause foaming in your spa. Foam inhibitors cannot remove the soap but will control foam in the water. A shock treatment can oxidize soap in the water and help prevent foaming. If foaming remains an issue, change the water. Consult the foam inhibitor container for directions.

When adding chemicals to your spa water, ad to the center of the spa with the pump and air blower (bubbles) operating simultaneously. Never add chemicals directly into the skimmer. To ensure no chemical reaction, only add chemicals to heated water. Never add chemicals to cold water.

Store all chemicals in a cool, dry place and out of reach of children or pets.

Consult your authorized spa dealer prior to any chemical use.

Keeping your water clean & safe

MONDAY	**FRIDAY**
TEST: Bromine/Chlorine PH Total Alkalinity ADJUST: Follow steps 1-4 ADD: stain and Scale control	TEST: Bromine/Chlorine PH Total Alkalinity ADJUST: Follow steps 1-3

STEP#1: Adjust total alkalinity: (ideal range = 130-160). Test water (follow directions on manufacturer's label) and add required amount of chemicals with jets on. Wait 30 minutes before running additional tests.

STEP#2: Adjust PH: (ideal range = 7.4-7.6). Test water (follow directions on manufacturer's label) and add required amount of chemicals with jets on.

STEP#3: Adjust bromine/chlorine: (ideal range = 3-5ppm or 4-6ppm for heavy usage for bromine and 1-3 ppm for chlorine). Fill bromine floater or adjustable feeder and shock spa as necessary.

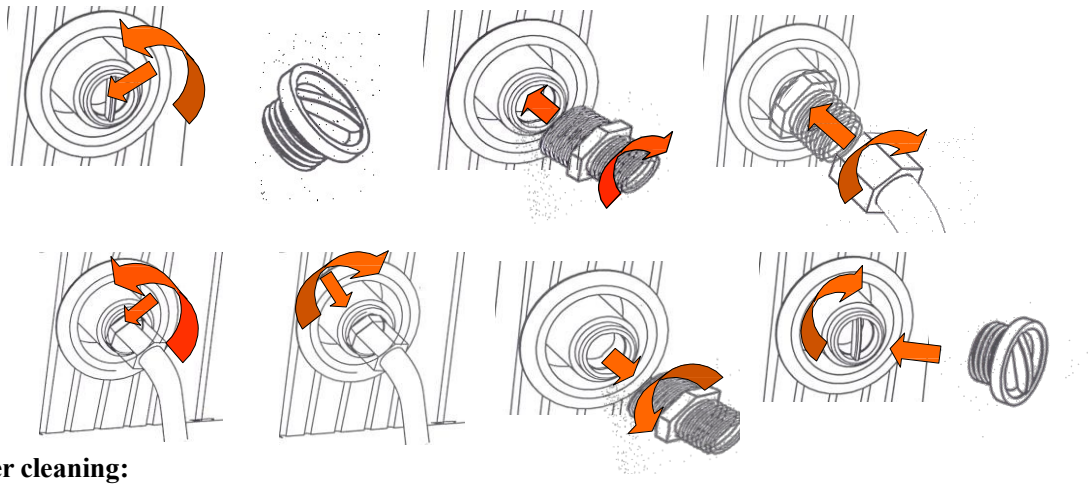
STEP#4: Stain and scale control – Add required amount each week (with jets on).
Note: The chemical chart above is a simple schedule for moderate spa use. Depending on the user load and frequency of use, more frequent chemical balancing may be required.

10. SPA MAINTENANCE

Draining your spa:

Do not drain water onto your lawn or garden until all chemicals are negligible in the water. To dissipate the sanitizer, leave the spa cover off to expose the water to direct sunlight. Remember to drain and refill your spa at least every 4 months depending on use. To drain your spa:

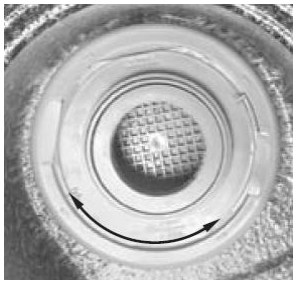
1) Turn power off.
2) Attach a hose to the hose bib at the lowest point of your spa. Open the valve allowing the water to drain away from the spa. See illustration below.
3) Clean the spa surface. (See care of spa surface.)
4) Refill spa. (Follow initial start – up procedures to reheat spa.)

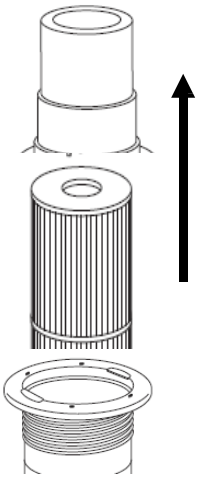


Filter cleaning:

As part of your regular maintenance or in where there is a decrease in jet performance, clean the filters every 3-4 weeks. On initial start – up, filters should be cleaned every second day for the first two weeks of operation. Always turn off the spa before removing and cleaning the filter cartridges. To clean the filters, simply use a garden hose with and spay nozzle and spay the entire filter.

Remove basket and filter cartridge
By twisting counter clockwise
And lift up.





Remove stains, lotions etc. by soaking the cartridge into warm water, add filter cleaning/compound available at your distributor

You may use a brush for removing remaining dirty particles.

Rinse it thoroughly and let dry.

Care for the spa surface:

Your spa has been crafted with a high luster finish that will generally not adhere stains and dirt. After draining the spa, use a soft damp cloth to wipe down and household soap or liquid detergent. Difficult stains and dirt may be removed

by using a non-abrasive household cleaner dissolved in water. To avoid excessive foaming when refilling the spa, rinse the surface well.
CAUTION: Do not use any cleaning products containing abrasives or solvents. This could damage the surface and void your warranty.

Care of the spa cabinet (Thermo Guard skirt).

To clean your Thermo Guard skirt, simply wipe the cabinet with a clean towel and a mild soap.

Note: The skirt will fade slightly under normal environmental exposure.

CAUTION: Do not use any cleaning products containing abrasives or solvents. This could damage the surface and void your warranty.

Care for the spa cover:
The thermal cover for your spa is made of extremely durable foam insulated material. To ensure safety for children and to minimize heat loss, we recommend the cover ties always are in place when the spa is not in use. However, the ties will not prevent unauthorized people from entering the spa.

SPECIAL COLD WEATHER INSTRUCTIONS
WE DO NOT RECOMMEND DRAINING YOUR SPA FOR THE WINTER.

Winter is g great time to enjoy your spa. However, it is difficult to remove water from the plumbing lines. If you do not plan to use your spa during the winter, winterize to eliminate any water trapped in the system.

1) Prior to draining the spa ensure the power is turned off. Drain water as low as possible. Using a wet/dry – vacuum or high-pressure blower will remove most of the water from the spa plumbing (blower only air line)
2) When the spa is drained, leave the hose bib open and open the pump drain plug on the bottom side at the front end of the pump. Loosen all pump unions and fittings to allow air and water to flow in the system. This should help prevent expansion damage in pipes and fittings.

If your region is subject to heavy snowfall in winter, you may want to build a protective cover over the spa. A – piece of plywood reinforced with ―2x4‖ planks may work well.
Your spa is equipped with automatic freeze protection. During severe cold weather conditions, check your spa on a frequent basis to ensure proper operation. In the event of a power outage your spa equipment system may freeze quickly. Check your spa immediately after any power failure to ensure it is operating properly.
Contact your local spa dealer for additional information on winterizing your spa.

11. TROUBLESHOOTING

Heating System

Symptom	Problem	Corrective action
Does not heat	1. Temperature setting is too low. 2. Dirty filter 3. Air Lock	1. Turn up the thermostat 2. Clean filter 3. Prime pump
Too hot	1. Temperature setting too high 2. High limit tripped 3. Too much filtration	1. Turn down the thermostat 2. Call for service 3. Reduce the number of filter cycles and/or the filter cycle duration
Hot Tub Temperature erratic water	1. level	1. Fill with water to 3‖ (7cm) to 4‖ (10cm) above top of the filter

Display reads

Symptom	Problem	Corrective action
OVERHEAT	1. Too much filtration 2. Temperature setting too high	1. Reduce the number of filter cycles and/or the filter cycle duration 2. Turn down the thermostat
Will not turn on in any mode	1. No power	1. Check circuit breaker and/or R.C.D.
Turns on by itself	1. Normal automatic daily power Filtration or anti-Freeze cycle	1. No action required
Light is out	1. Burned out bulb	1. Replace bulb

Pump shuts down

Symptom	Problem	Corrective action
Unexpectedly while in use	1. Automatic timer has shut pump off 2. Motor over- heated and automatic protective device has shut down pump(s)	1. Push JETS Button again to start another cycle 2. If pump(s) will not restart when JETS Button is pushed, call for service 3. If problem persists, call for service

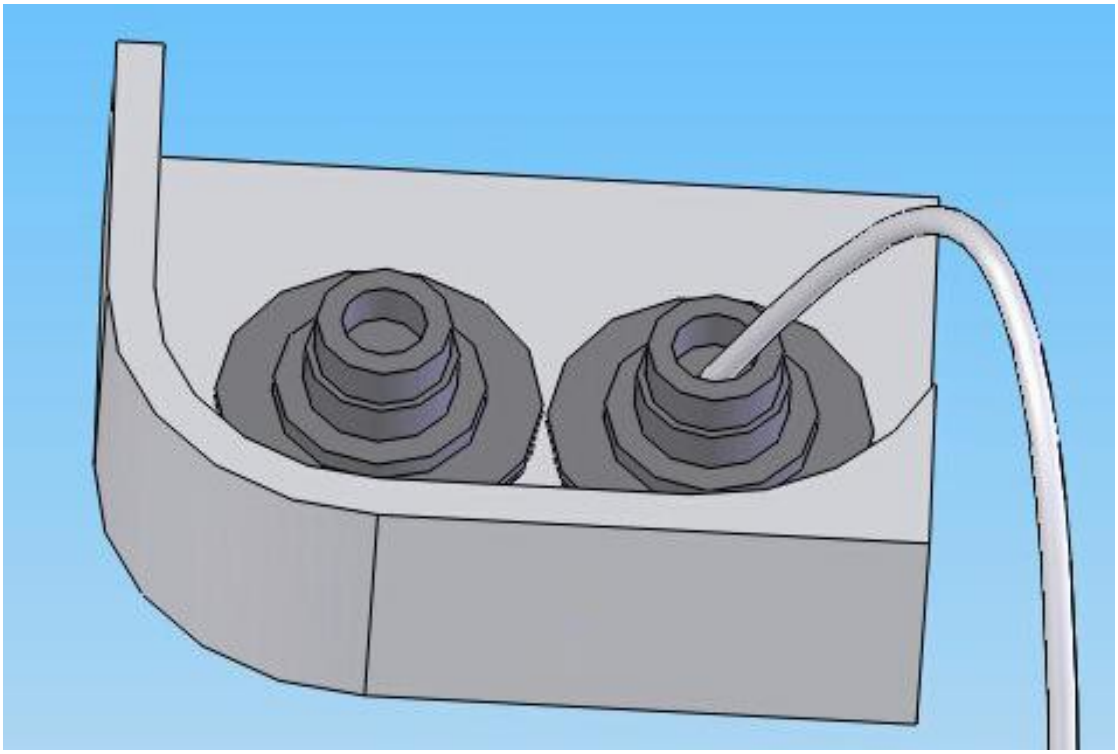
12. IMPORTANT Additional installation information

Due to vibrations during transportation the connections to pumps and heater must be checked during installation and water filling of the spa. Fill the spa with water then check each connection for all pumps and the spa pak and hand tighten them.

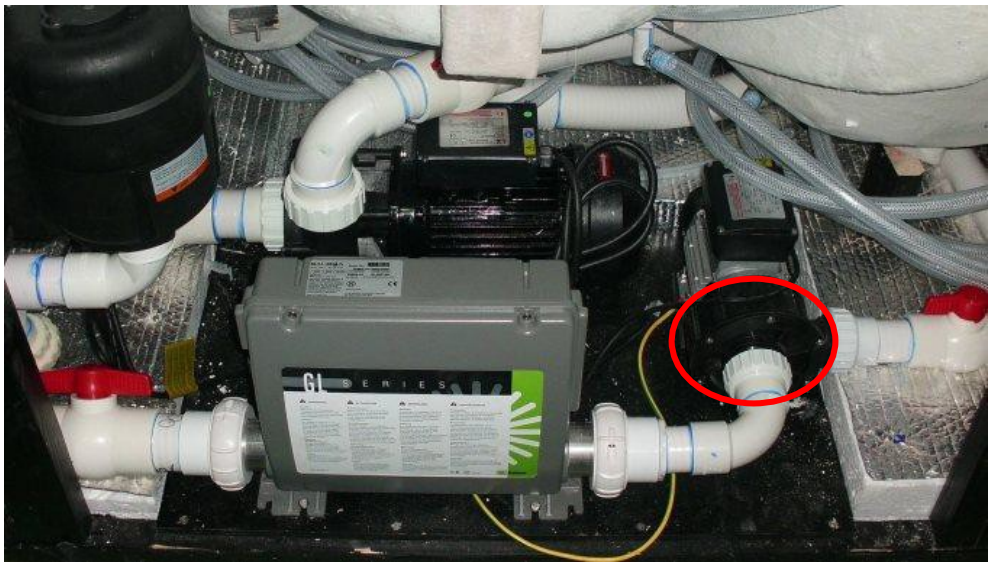
Fill in your spa

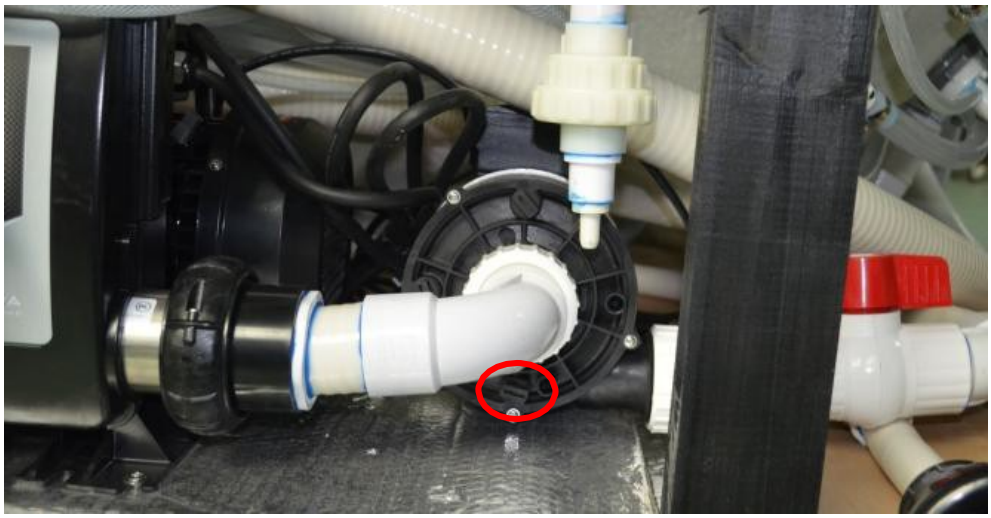
When you fill the water into spa, please insert the water hose into the filter or direct fall the water into the filter. This way can push out the air into pump, to prevent the airlock in the pump

Always fill it up with water using a garden hose directly into the filter. If there is two filters, use the filter on the right side when you stay on the pump bay side. If there is an airlock, follow instructions in the owner manual delivered together with this spa to solve.

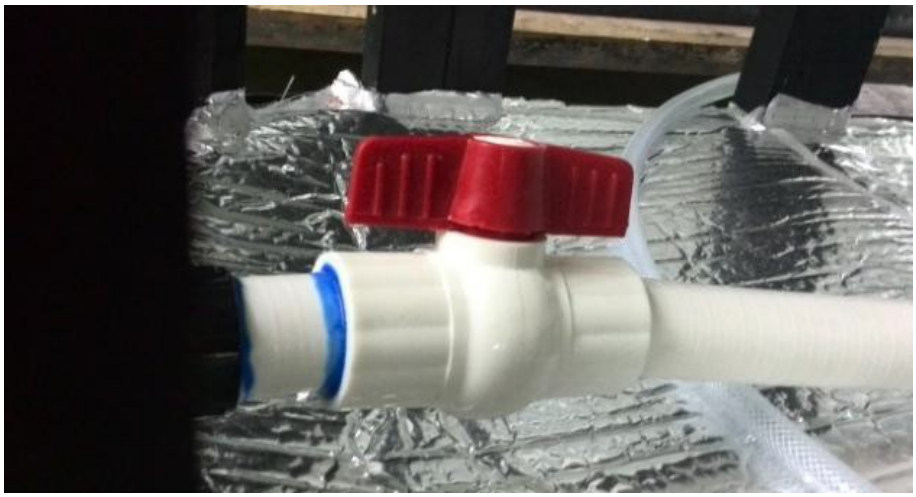


After filling full water , start the spa , if the wrong message ―FL‖ OR ―DR‖ comes out ,should there is airlock in the circ pump and heater, To re-lease an air lock in the circulation system , Power off , use a screw driver to loose the downside plug on the circulation pump wetend, loosen the plug and let some water flow out of the pump then tighten the plug again. Prime mood (Pr) is displayed in control panel. Check again for small bubbles if they still are there from some of the small jets then do it the same once again until the small bubbles doesn't come out anymore. There should only be coming out a stream of bubbles from one jet which is the ozone.



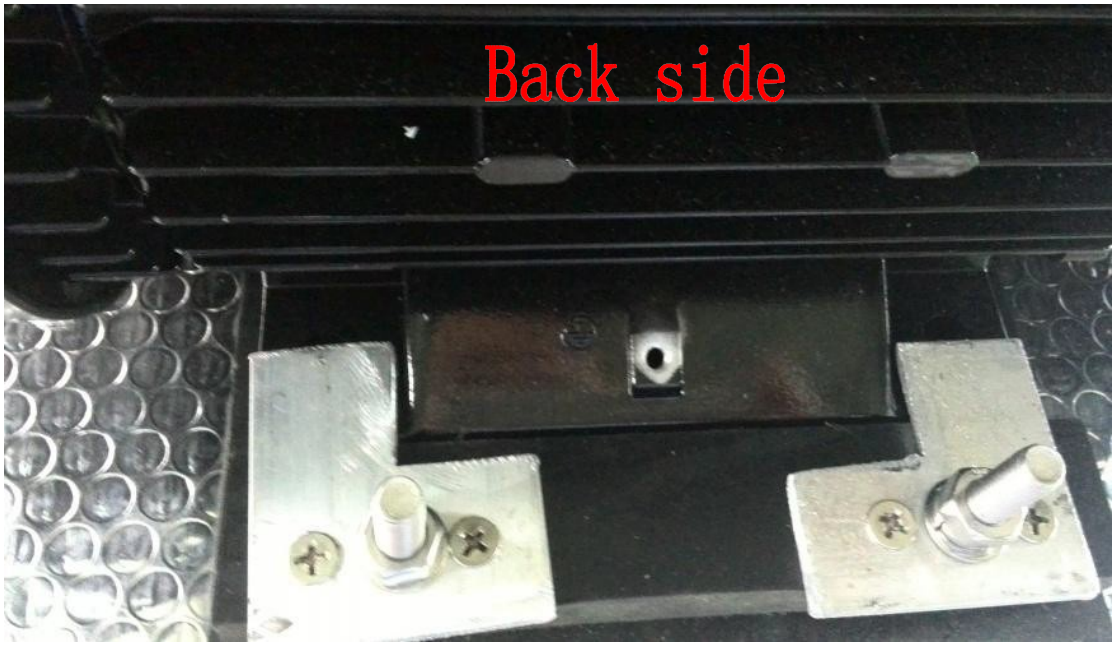


Safety Valve: there is a safety valve behind the drainage valve, when a failure in the drainage valve happens. Can close the safety valve to stop the water to flow out to the floor.



13.HOW TO REPLACE THE JETS PUMPS

a) Just need to remove the two front side screws nuts, the back side is installed the aluminium sheet to secure the base of the pump.



b) After remove the front side fixing nut, put up the front side to loosen the pump base from the bolt, then can pull out the pump.