myline spa

SATURN
USER'S GUIDE



WM00177
SATURN SPA
User's manual

Version: 02.2014

Standard Specification:

2300 × 2300 × 900 mm

Shell material	PU reinforced antimicrobial acrylic (6,3 mm)
Total number of bathers	5 Prs.
Lounge beds	2 Prs.
Seats	3 Prs.
Water volume	1400 l
Net weight	~350 kg
Power requirement	1 ×32 A (230V/50Hz) optimum 1 ×16 A (230V/50Hz) minimum
Total number of jets	50
Hydro massage pump	1×2 HP 2 speed (230V/50Hz) 1×2 HP (230V/50Hz)
Diverter	1
Ozonator	1
Filter	2
Chromotherapy lighting	18×1 LED
Heating unit	1 (3kW/230V/50Hz)
Air inlet regulator	5
Controller	TP600
3/4” Drain	1
Cabinet	Maintenance-free Synthetic
Spa cover	Thermal cover with child locks
Headrests	3

Warranty letter

Serial number:.....

Model: .....

Distributor	*Retailer*
Date of buying:	Date of buying:
.....	.....
Signature:	Signature:
.....	.....
(stamp)	(stamp)

2014 MyLine Spa Limited Warranty
WARRANTY FOR EXPORT Warranty;
Limitations of Liability and Damages.

Company offers a limited warranty comprised of replacement of faulty parts and offers no reimbursement for labour of repairs outside any abnormal failure rates to be determined by both parties.

5 years on spa shell: WELLIS warrants the structure of the spa shell against defects in workmanship and material for a period of 5 years, subject to the limitations and conditions listed in this Warranty.

3 years on spa shell surface: The acrylic spa shell is warranted against cracking, blistering or delaminating due to defects in materials or workmanship for three years from the original date of delivery.

2 years on spa plumbing: Spa fittings and plumbing are warranted against leaks due to defects in materials or workmanship for two years from the original date of delivery. There is no labour coverage on internal jet parts replacement, cleaning or adjusting.

2 years on standard and optional spa equipment – Balboa Control Systems, Jet Pump(s), Laing Circulation Pump, Heater, Wi-Fi module, IR receiver: The spa equipment systems are warranted against failure due to defects in materials or workmanship for two years from the date of delivery. Fuses, bulbs, and seals are not covered.

2 years on Pulsar hydrotherapy system: The factory installed Pulsar hydrotherapy systems are warranted against failure due to defects in materials or workmanship for one year from the original date of delivery.

2 years on spa cabinets/skirts: The factory installed spa cabinets/skirts are warranted against failure due to defects in materials or workmanship for one year from the original date of delivery.

2 years on ozone generator: The ozone generator is warranted against failure due to defects in materials or workmanship for one year from the original date of delivery.

2 years on audio system components: The factory installed audio components (i.e. power supply, speakers, wires, etc.) are warranted against failure due to defects in materials or workmanship for one year from the original date of delivery. There is no in-field labour service on these items.

2 years on LED lights: The factory installed LED lights are warranted against failure due to defects in materials or workmanship for one year from the original date of delivery.

2 years on UV-C sanitizer lamp: The factory installed UV-C sanitizer lamps are warranted against failure due to defects in materials or workmanship for one year from the original date of delivery.

2 years on I.S.I.S. water disinfection system: The factory installed I.S.I.S. water disinfection systems are warranted against failure due to defects in materials or workmanship for one year from the original date of delivery.

1 year on blower: The blower is warranted against failure due to defects in materials or workmanship for one year from the original date of delivery.

1 year on thermo cover: The thermo cover is warranted against failure due to defects in materials or workmanship for one year from the original date of delivery.

1 year on WELLIS Spa Umbrella: The factory installed WELLIS Spa Umbrellas are warranted against failure due to defects in materials or workmanship for one year from the original date of delivery.

1 year on LCD TV system: The factory installed LCD TV systems are warranted against failure due to defects in materials or workmanship for one year from the original date of delivery.

90 days on skimmer house: Skimmer houses are subject to water chemistry variation and are warranted for ninety days from the original date of delivery. NO warranty on filters, spa pillows and skimmer house tops.

WARRANTY PERFORMANCE

1. This warranty does not cover cleaning or adjusting spa or for customer error in following correct procedures.
2. WELLIS Magyarország Kft. reserves the right to substitute a spa or component of equivalent value, either new or factory reconditioned and any such repair or replacement shall assume as its warranty only the remaining portion of the warranty on the original product.
3. WELLIS Magyarország Kft. is not liable for any costs associated with in-ground, in-deck, or in-home installations or removal. Costs associated with installations other than standard residential portable spa use will be the sole responsibility of the spa owner. The spa owner is responsible for any freight and/or delivery and set up charges for a replacement spa.
4. The radio reception is not covered under warranty due to the following: The radio signal reception may be impaired by the positioning of the spa next to or near structures, high power lines, main power lines or metallic towers. The signal reception may be impaired if the spa is located near hills or it is in a valley or simply outside the broadcasting range of the radio stations. The position of the spa and radio may be "out of phase with the bandwidth" or the radio frequency. External signal reception assistance may be required and is not part of this warranty.
5. WELLIS Magyarország Kft. shall not be liable for any incidental or consequential damages for breach of any expressed or implied warranty, breach of contract, negligence, strict liability, or any other legal theory related to this product. All consequential expenses including loss of use, damages, or contingent liabilities arising out of any alleged deficiencies of the spa are specifically excluded from this warranty.
6. Warranty coverage is only extended to the original buyer. Spas purchased from anyone other than a current WELLIS Spas Authorized Dealer are specifically excluded from any warranty coverage. To obtain warranty service, please notify your WELLIS Spas Authorized Dealer in writing within 14 days of the problem (with problem details, original proof of purchase).
7. The Authorized Dealer will repair or replace any component found defective under the terms of this warranty – and permitted by WELLIS Magyarország Kft. Travelling expenses may apply outside of every European cities.
8. If the Authorized Dealer doesn`t supply the customer with proper service, please notify WELLIS Magyarország Kft. by mail within 10 days of the problem.
9. Electrical connection: All electrical connections are required to be done by a qualified electrician solely. The spa has to be connected to separate current circuit equipped with suitable power switch and life safety relay. Omission of these electrical conditions/requirements entails immediate loss of the warranty.
10. Water connection: All water connections are required to be done by a qualified plumber solely. If the spa is placed indoor make allowances for the following special requirements: The water accumulates around the spa so the socket cover has to be in possession of a suitable drainage. This arrangement hinders the water in collecting.
11. WELLIS Magyarország Kft. offers a limited warranty as described in the Warranty Letter.
12. Warranty claim is enforceable with this warrant letter. Irregular establishing of this warrant letter doesn`t affect to the validity of warranty obligation. If customer doesn`t get this warrant letter from the Authorized Dealer, it doesn`t affect to the validity of warranty obligation.

SPA WARRANTY COVERAGE WILL BE VOID UNDER THE FOLLOWING CONDITIONS

1. If damages caused by inefficient maintenance of water and/or chemical dosage. Terms of water hardness (limits): between 6-10 German degrees.
2. If the spa surface or equipment has been damaged or discoloured as a result of improper water chemistry maintenance, including sanitizers such as trichlor type chlorine, calcium hypochlorite, sodium hypochlorite, and any other chemicals or a chemical dispenser that may rest on the spa surface. Some household cleaners can damage the spa shell or equipment and will void this warranty completely. Use only products that are recommended for spas.
3. If damage to the spa has resulted from an Act of God, force majeure, moving of the spa, improper installation, unstable power conditions, customer negligence, customer abuse, weather and sunlight damage or damage caused in shipment.
4. If damage to the spa has resulted from operation outside – temperature exceed 45°C.
5. If the spa has been subjected to any alterations, after-market product installations, misuses, abuses, or if any repairs are attempted by anyone other than its authorised dealers.
6. If damage to the spa has resulted from improper use of thermo cover.
7. If damage to the spa has resulted from clogged, dirty and/or clogged filter. The spa warranty will be void if the owner does not follow all the instructions in the owner's manual regarding the proper use and care of the spa. Warranty doesn`t apply to filters!
8. If damage to the spa has resulted from improper electrical installation, voltage drop, peak voltage and/or operation is outside the pale of + / - 10% voltage range.
   Electrical conditions:
   For electrical installation it is required to build a 30mA circuit breaker (life safety relay), which is just connected to the spa (not allowed to connect any other devices). This 30 mA circuit breaker is not permitted to be installed in the same place as the spa.
   Required to install IEC, RCCB system in spa`s common surroundings.
   Length of cable is 3 meters at the place of spa installed.
   It is obligatory to observe all information, details and requirements which are in the product`s installation diagram regarding electricity demand and drain installation. These information can be found in the user manual, or able to download from www.wellis.eu. If you didn`t get the document from your dealer, please contact support@wellis.eu.
   If damage to the spa has resulted from debris in jets (i.e. sand, dirty calcium, leaves etc.).
9. Warranty doesn`t extend to the waste water manifold (drain hose), pillows, filters, bulbs and/or pump sealing.

LIMITATIONS

The Warranty expressions specified excludes any other implied or oral undertakings. Purchasers also have current rights under statute which will be respected by WELLIS Magyarország Kft. After a period of 12 months, for the purpose of assessing WELLIS Magyarország Kft. liability, all aspects covered by this Warranty will be treated on a pro-rata basis. WELLIS

Magyarország Kft. or its agents will not be liable for any incidental or consequential loss or injury. Nor will WELLIS Magyarország Kft. be liable for costs associated with but not limited to building alterations or finishes and under no circumstances will be liable for greater expense than the amount paid for the product.

THE SPA OWNER MUST DO EVERYTHING STATED IN THE SPA OWNERS MANUAL AND WARRANTY LETTER TO SAFEGUARD AND MAINTAIN THE SPA!

MANUFACTURER OF YOUR SPA:
WELLIS Magyarország Kft.

Registered:.....31/C, Budaörsi út, H-1118 Budapest, HUNGARY
Central premise:.....hrsz: 0417, Mánteleki út, H-2371 Dabas, HUNGARY

AUTHORIZED DEALER OF YOUR SPA
Company in charge of your spa

Company name: Spa Industries Europe

Registered: .....

Central premise: .....

Place of complaint: .....

E-mail address: .....

Website: http://www.spa-industries.eu/

Phone number: .....

Fax: .....

Person in charge of installation: .....

Date of installation: .....

Service-work

The announcement date of damage: _____
Date of received goods/parts for repair: _____
Date of the return of repaired goods/parts: _____
Date of site service: _____
Improved error: _____
Mode of repair: _____
Failed component: _____
New deadline for the warranty: _____

A

STAMP

The announcement date of damage: _____
Date of received goods/parts for repair: _____
Date of the return of repaired goods/parts: _____
Date of site service: _____
Improved error: _____
Mode of repair: _____
Failed component: _____
New deadline for the warranty: _____

B

STAMP

The announcement date of damage: _____
Date of received goods/parts for repair: _____
Date of the return of repaired goods/parts: _____
Date of site service: _____
Improved error: _____
Mode of repair: _____
Failed component: _____
New deadline for the warranty: _____

C

STAMP

The announcement date of damage: _____
Date of received goods/parts for repair: _____
Date of the return of repaired goods/parts: _____
Date of site service: _____
Improved error: _____
Mode of repair: _____
Failed component: _____
New deadline for the warranty: _____

D

STAMP

SAFETY INSTRUCTIONS

ATTENTION: PLEASE READCAREFULLY AND FOLLOW THE INSTRUCTIONS

AVOIDING THE RISK OF INJURY OF CHILDREN

1. In order to reduce the risk of injury to children, do not allow children to use this spaalone unless they are carefully supervised at all the times.
2. Lower water temperatures arerecommended for young children. Please test the water temperature with yourhands before allowing children to get into the spa, and make sure it iscomfortable for children's usage.
3. Remember that wet surfaces can be slippery, please remind children to be careful when entering or exiting the spa.
4. Don't permit children to climb onto the spa cover.

AVOIDING THE RISK OF INJURY OF BATHERS

1. In order to reducing the risk of injury to bathers, do not remove or lose anysuction fittings. Never operate spa if the suction fitting are broken or missing.
2. Remember that wet surfaces can be very slippery. Take care of a danger ofslipping and falling when entering or exiting the spa.
3. For the sake of health, people with infectious diseases should not be allowed touse the spa.
4. Keep any loose articles of clothing or hanging jewelry away from rotating jets orother moving components.
5. The use of drugs, alcohol or medicine before or during spa use may lead to unconsciousness with the possibility of drowning. Persons using medicines shouldconsult a physician before using spa; some medicine may cause a user to becomedrowsy. While other medicine may affect heart beating, blood pressure changing and circulation problem.
6. Pregnant women should consult a doctor before using the spa.

AVOIDING TNE RISK OF ELECTROCUTION

1. Test the ground fault circuit interrupters before use. Must always to be connectedto a circuit protected by a ground fault interrupt.
2. Check the power cables cord, a damaged power cord may result in death, or seriouspersonal injury due to electrocution. Do not use the spa with damaged power cable, change that immediately before using and need to disconnect the spa from power supply.
3. Do not permit any electrical appliances, such as a light, telephone, radio, or television within 1,5m of a spa. Keep a safe distance from spa, because this failure may result indeath, or serious injury due to electrocuting if the appliance should fallinto the spa.
4. Install your spa in such a way that drainage is away from the electricalcompartment and from all electrical components.
5. Disconnect the spa from the power supply before servicing the electricalcomponents.

NOTICE:

Your spa is anequippedwith two/three massage pumps that allow you tooperate eachpart of the jet system separately or all valves simultaneously.

Do not connect power to an empty spa. Otherwise the components such ascontroller, heater, circulation pump, and other systems could be damaged.

INSTALLATION INSTRUCTIONS

SITE PREPARATION

1. INDOOR/BASEMENT INSTALLATION
   If you take it place your spa indoors, be aware of some special requirements. Water willaccumulate around the spa, so the flooring materials must provide a good grip whenwet proper drainage is essential to prevent a build-up of water around the spa. When building a new room for the spa it is recommended that a floor drain isinstalled. The humidity will naturally increase with the spa installed water may getinto woodwork and produce rot, mildew or otherproblems. Check for airborne moisture's effects on exposed wood, paper, etc in theroom .To minimize these effects, it is best to provide plenty of ventilation to the spa area.

2. OUTROOR AND PATIO INSTALLATION
   It is important that you have solid foundation to support the new spa when youinstall it .Tobe certain your deck or foundation can support your spa. You mustknow the deck maximum load capacity. Consult a qualified building contractor orstructural engineer. To find the weight of your spa, its contents and occupants, please refer to the spa specification chart. This weight per square foot must notexceed the structure's rated capacity: otherwise serious structural damages couldresult,if you install the spa outdoors we recommend a reinforced concrete pad a tleast four inches thick. Don't forget to install some floor drains around your spa sothat it can take the water away during and after the heavy rain.

INSTALLATION

1. Please read and study the OWNER'S MANUAL carefully. Please finda professional people to install and setup for first time.
2. Remove the package, and take down the new spa on the prepared foundation.
3. Open the control box compartment under the display by loosenthe screw and then open the control box. Prepare the accordingly cooper cable(the length will be enough to connect to the power supply), with electricalplug one side and another side without plug and then take the empty side of cablefrom electrical cable. Lead the cable through the pump compartment to the channelof control box compartment.Connect the electrical cable to control box according by electrical drawing in user manual.
4. Your spa has been thoroughly tested duringthe manufacturing process to ensure reliability. So there is a small amount of water even within some grease may have remained in the plumbing after testing, as a result,may have spotted the spa shell or the spa siding prior thedelivery so before filling spa.

OPERATING INSTRUCTIONS

1. Close the drain stub and fill the spa with water

After closing the drain stub, and fill up the tub with soft water to theindicated line inside of the body. If you see any leak(orflood) anywhere, stop the filling procedure until it will be fixed.

2. Power up your spa

First check the main house CIRCUIT INTERRUPTORY that controls the electricto the spa are functioning properly. Then connect the spa plug to the power supply.

3. Trail open and test

Your controller with a factory's first setup already. push the button of PUMP/JET andAIR BLOWER to make jets run for some minutes to check the operations of the jetsystem and purge any remaining air from the heating system. once the jet systemfully operational, priming of the spa is complete. Check and make sure the all aircontroller and all jets are open.

Possible symptom is an AIR LOCK on the first starting or when fills up with new water.

It can cause the jets to appear not work well or at all. It happens when you are filling the spa up fairly rapidly, and air can get trapped in the pipe system that goes to the suction fittings and to the jets. The water level rises up past the openings in the spa, but air becomes locked in the pipes, and then when you start the spa pump, it tries to air bubble(s) still in water, but only air is in the pipes. Sometimes the pump cannot prime itself at that point, so it just runs, but does not pump any water.

Solution:

1. Open the door of pump compartment.
2. Loosen the quick disconnectfitting (white rim on the pump) in front of the pump a little.
3. Let some air get in and it will break the air lock that has developed, and then see some water start to come out.
4. Re-tighten the fitting.
5. Turn the pump on again. It will surge for a few seconds and then start to pump properly.

If it still does not work, please contact a local spa professional to check it for you.

CLEANING

GENERAL INFORMATION:

Water recirculation-filtering

The basic conditions for keeping the water of the spa clean are the removal of mechanical dirt and the blending of the chemicals in the water with continuous water recirculation.
In all our spa's appliances comprising of a pump and a filter are used for this purpose.
- The filter removes the dirt floating in the water or at the surface of the water. Filters with paper or textile filter medium are used in the spa. The dirt settled at the bottom of the spa is filtered out with the aid of the suction and stirring created by the massage pumps.

Protecting the spa

Don't leave the spa expose to the sun without water or the cover. Exposure to direct sunlight can cause solar distress of the shell material. Use a spa cover when spa is not in use, whether it is empty or full. Try to keep your spa away from rain and snow. If possible, build a gazebo for your spa.

1. Don't attempt to open the electrical control box. There are no user serviceable parts inside.
2. Drain, clean and refill your spa with fresh water on a regular schedule.
3. Clean the filter cartridge at least once a month.
4. Have spa users bathe before entering the spa water, showering without soap prior to enter the spa, and using only the rinse cycle when laundering your bathing suit, will help avoiding detergent and soap residue in spa water.

FILTER CARTRIDGE RMOVAL AND CLEANING

You spa filter cartridge can become clogged with mineral particles of calcification from hard water. Which may result in reduced water flow. We recommend to clean the filter cartridges every month.

1. Remove filter grid.
2. Unscrew filter cartridge.
3. Clean with high pressure nozzle to remove all debris that clinging the filter.
4. Soak filter in warm water and WELLIS Alga Shock to remove all body oils and grime. Never use chlorine to clean the filter!

We raise your attention that it is forbidden to clean the spa body with detergents containing alcohol or acetate.
WELLIS Hungary Ltd. does not take any responsibility for damages deriving from the usage of forbidden detergents and this case you cannot validate the guarantee for the spa body.

The chemical equilibrium of the water

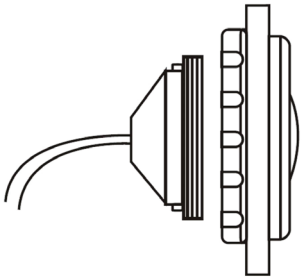
The water of the spa will be clean and clear if its chemical components are in equilibrium.

1. **pH-value:**
   The first important indicator is the pH value of the water. pH is measured in a scale between 0-14 where 7 is the neutral value. Below this level the water is acidic, above it is alkaline. The pH value of the human eye is around 7.5, below 7.2 and above 7.8 the water will sting the eyes of the bather. Experiences have shown that most problems are caused by a too high pH value. An improper value reduces the effect of the disinfectant.
2. **Water hardness:**
   Water hardness is determined by the quantity of calcium and magnesium salts dissolved in the water.
   Hard waters contain too much of these dissolved salts and thus, left alone, scale will form. Scales can cause significant damage both to the walls of the spa, to the piping, filter and to the heating and engineering units. In Hungary waters are medium hard. Water hardness cannot be reduced by the addition of chemicals, but the formation of scales can be prevented.
3. **Disinfection:**
   Disinfectant is the chemical that eliminates or neutralises the microorganisms (bacteria, algae, fungi, viruses) present in the water. Microorganisms are small, microscopic organisms, which cannot be detected with the naked eye and are continuously getting into the water through rain, wind and the body of the bathers. If they are not eliminated they pass from one person to the other through the water (and may cause sickness, infection). Organic matter turns the water of the spa opaque and cloudy. Most often – as we are dealing with warm water spas – bromine or active oxygen is used.
4. **Frothing:**
   Froth is the smaller-bigger agglomeration of the bubbles and colloid contaminants found on the surface of the water. It is mostly caused by the mixing of the dirt, cosmetics, body care lotions, etc. that soak out of the human skin and the chemicals. It endangers the conservation of the aesthetic appearance and cleanliness of the water.
5. **Water analysers:**
   There are several different types of water analysers, which are mostly used to measure chemical and disinfectant effect. Chemical (pH); Disinfectant (Br, O_3)
   Tester types:
   - Box containing tablets and graduated measuring glass.
   - Litmus paper indicators in a box.

Chemicals should always be loaded into the filter housing.
Then proper disinfection of the spa balance, if the chemical levels are not at least 48 hours below the specified value.
Even with the most accurate disinfection after 2-3 months, the water quality is no longer maintain and necessary replace the full water quantity.
Then proposed a large swimming pool, shock-like disinfection.

REPLACING UNDERWATER LIGHT

1. Turn off the power of the spa.
2. Remove plastic panel behind where the underwater light is situated.
3. There is a plug with two wires going into the back of the light.
4. Remove this plug by turning anticlockwise.
5. Replace faulty light globe with a new one.
6. Replace parts and put the plastic panel back on.



TROUBLESHOOTING

Problem	Probable causes	Solutions
Cloudy Water	Dirty filters. Improper sanitization. Suspended particles/organic matter. Overused water.	Clean filters. Shock spa with sanitizer. Add sanitizer. Adjust PH andl or alkalinity to recommended range. Run jet pump(s) and clean filters. Drain and refill the spa.
Water Odor	Excessive organics in water. Improper sanitization. Low PH level.	Shock spa with sanitizer. Add sanitizer. Adjust PH or refill the spa.
Chlorine Odor	Chloramines level too high. Low PH level.	Shock spa with sanitizer.Adjust PH to recommended range.
Musty Odor	Bacteria or algae growth.	Shock spa with sanitizer id problem is visible or persistent drain, clean and refill the spa.
Organic build-up/ scum ring around spa	Build-up of oils and dirt.	Wipe off scum with clean rag-if severe. Drain the spa. Use a spa surface cleaner to remove the scum, and refill the spa.
Algae Growth	High PH level. Low sanitizer level.	Shock spa with sanitizer and adjust PH level. Shock spa with sanitizer and maintain sanitizer level.
Eye irritation	Low PH level. Low sanitizer level.	Ajust PH level. Shock spa with sanitizer and maintain sanitizer level.
Skin irritation/rash	Unsanitary water. Free chlorine level above 5ppm.	Shock spa with sanitizer and maintain s anitizer level. Allow free chlorine level to drop below 5ppm before spa use.
Stains	Total alkalinity andl or PH too low high iron or copper in source water	Adjust total alkalinity and/or PH level. Use a metal deposit inhibitor.
Scale	High calcium content in water-total alkalinity and PH level too high.	Adjust total alkalinity and PH level. If scale requires removal, drain the spa, scrub off the scale, refill the spa and balance the water.

Problem	Probable causes	Solutions
Entire spa is inoperative.	Power failure. GFCI tripped heater high-limit thermostat tripped.	Check power source. Reset GFCI, call for service if not reset. Disconnect power for at least thirty second to reset heater high limit. If it will not reset check for clogged filters. If tripping continues, call for service.
Spa does not heat jets and light operate (Ready, and power indicators are blinking.	Integrated pressure switch open Circulation pump thermal cut-off tripped.	Check for cartridge filters. Integrated pressure switch will reset when the flow of water through the heater has been retored Call for ervice if the heater trips frequently. Check for cartridge filters or are looks in plumbing Disconnected power to the spa, allow circulation pump to cool Circulation pump thermal cut off will reset when pump has cooled and power is reapplied. Call for service if circulation pump thermal cut-off trips frequently.
Jets weak or surging.	Spa water level too low. Filters clogged. Air regulator is closed. Jet closed.	Add water. Clean filters. Open air regulator. Open the jet.
Light inoperative.	Light wiring or assembly is faulty.	Replace light assembly.
Power indicator is blinking. (Entire spa inoperative)	Heater high-limit thermostat tripped.	Disconnect power for at least thirty seconds to reset heater high limit. If it will not reet. Check for clogged filters if tripping continues, call for service.
Ready indicator blinking.	Temperature sensor problem.	Disconnect power for at feast thirty second problem if blinking continues, call for service.

TP600 Control Panel

User Interface and Programming Reference – Standard Menus

System Model: BP-Series Systems are BP5XX, BP6XX, BP1XXX, BP2XXX.
Software Version: 7.0 and later
Panel Model: TP600 Series
Software Version: 2.3 or later



Main Menus

Navigation

Navigating the entire menu structure is done with 2 or 3 buttons on the control panel.



Some panels have separate WARM(Up) and COOL(Down) buttons, while others have a single Temperature button. In the navigation diagrams Temperature buttons are indicated by a single button icon. Panels that have two Temperature buttons (Warm and Cool) can use both of them to simplify navigation and programming where a single Temperature icon is shown.

The LIGHT Button is also used to choose the various menus and navigate each section.

Typical use of the Temperature button(s) allows changing the Set Temperature while the numbers are flashing in the LCD. Pressing the LIGHT button while the numbers are flashing will enter the menus.

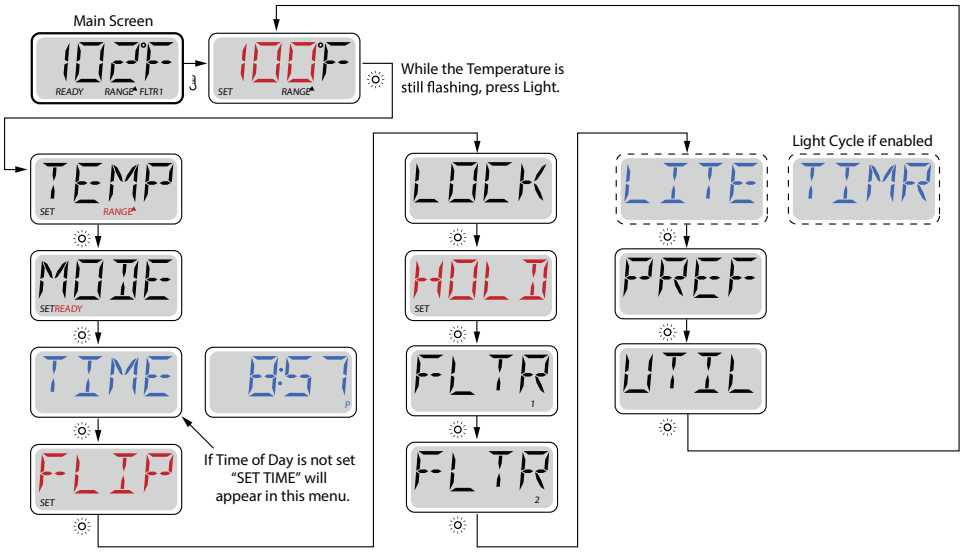
The menus can be exited with certain button presses. Simply waiting for several seconds will return the panel operation to normal.

Power-up Screens

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

Key

- Indicates Flashing or Changing Segment
- Indicates Alternating or Progressive Message - every 1/2 second
- A temperature button, used for "Action"
- 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.





Waiting Several Seconds in the Main Menu will allow the display to revert to the Main Screen. Most changes are not saved unless Light is pressed. Refer to Key above.

Indicates a Menu Item that Depends on a Manufacturer Configuration and may or may not appear.

Fill it up!

Preparation and Filling

Fill the spa to its correct operating level. Be sure to open all valves and jets in the plumbing system before filling to allow as much air as possible to escape from the plumbing and the control system during the filling process.

After turning the power on at the main power panel, the top-side panel display will go through specific sequences. These sequences are normal and display a variety of information regarding the configuration of the hot tub control.

Priming Mode – M019*

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 automatically 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.

Priming the Pumps

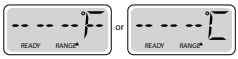
As soon as the above display appears on the panel, push the "Jet" button once to start Pump 1 in low-speed and then again to switch to high-speed. Also, push the Pump 2 or "Aux" button, if you have a 2nd pump, to turn it on. The pumps will now be running in high-speed to facilitate priming. If the pumps have not primed after 2 minutes, and water is not flowing from the jets in the spa, do not allow the pumps to continue to run. Turn off the pumps and repeat the process. Note: Turning the power off and back on again will initiate a new pump priming session. Sometimes momentarily turning the pump off and on will help it to prime. Do not do this more than 5 times. If the pump(s) will not prime, shut off the power to the spa and call for service.

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

Exiting Priming Mode

You can manually exit Priming Mode by pressing a "Temp" button (Up or Down). Note that if you do not manually exit the priming mode as described above, the priming mode will be automatically terminated after 4-5 minutes. Be sure that the pump(s) have been primed by this time.

Once the system has exited Priming Mode, the top-side panel will momentarily display the set temperature but the display will not show the temperature yet, as shown below. This is because the system requires approximately 1 minute of water



flowing through the heater to determine the water temperature and display it.

*M019 is a Message Code. See "General Messages" Pages.

Spa Behavior

Pumps

Press the “Jets 1” button once to turn pump 1 on or off, and to shift between low- and high-speeds if equipped.
If left running, the pump will turn off after a time-out period. The pump 1 low-speed will time out after 30 minutes. The high-speed will time out after 15 minutes.

On non-circ systems, the low-speed of pump 1 runs when the blower or any other pump is on. If the spa is in Ready Mode (See page 6), Pump 1 low may also activate for at least 1 minute every 30 minutes to detect the spa temperature (polling) and then to heat to the set temperature if needed. When the low-speed turns on automatically, it cannot be deactivated from the panel, however the high speed may be started.

Circulation Pump Modes

If the system is equipped with a circ pump, it will be configured to work in one of three different ways:

1, The circ pump operates continuously (24 hours) with the exception of turning off for 30 minutes at a time when the water temperature reaches 3°F (1.5°C) above the set temperature (most likely to happen in very hot climates).

2, The circ pump stays on continuously, regardless of water temperature.

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

The specific Circulation Mode that is used has been determined by the Manufacturer and cannot be changed in the field.

Filtration and Ozone

On non-circ systems, Pump 1 low and the ozone generator will run during filtration. On circ systems, the ozone will run with the circ pump.

The system is factory-programmed with one filter cycle that will run in the evening (assuming the time-of-day is properly set) when energy rates are often lower. The filter time and duration are programmable. (See page 10)
A second filter cycle can be enabled as needed.

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

Freeze Protection

If the temperature sensors within the heater detect a low enough temperature, then the pump(s) and the blower automatically activate to provide freeze protection. The pump(s) and blower will run either continuously or periodically depending on conditions.

In colder climates, an optional additional freeze sensor may be added to protect against freeze conditions that may not be sensed by the standard sensors. Auxiliary freeze sensor protection acts similarly except with the temperature thresholds determined by the switch. See your dealer for details.

Clean-up Cycle (optional)

When a pump or blower is turned on by a button press, a clean-up cycle begins 30 minutes after the pump or blower is turned off or times out. The pump and the ozone generator will run for 30 minutes or more, depending on the system. On some systems, you can change this setting. (See the Preferences section on page 12)

Temperature and Temp Range

Adjusting the Set Temperature

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

If the panel has a single temperature button, pressing the button will cause the temperature to flash. Pressing the button again will cause the temperature to change in one direction (e.g. UP). After allowing the display to stop flashing, pressing the Temperature Button will cause the temperature to flash and the next press will change the temperature in the opposite direction (e.g. DOWN).

Press-and-Hold

If a Temperature button is pressed and held when the temperature is flashing, the temperature will continue to change until the button is released. If only one temperature button is available and the limit of the Temperature Range is reached when the button is being held, the progression will reverse direction.

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.

Low Range might be set between 50°F and 99°F.

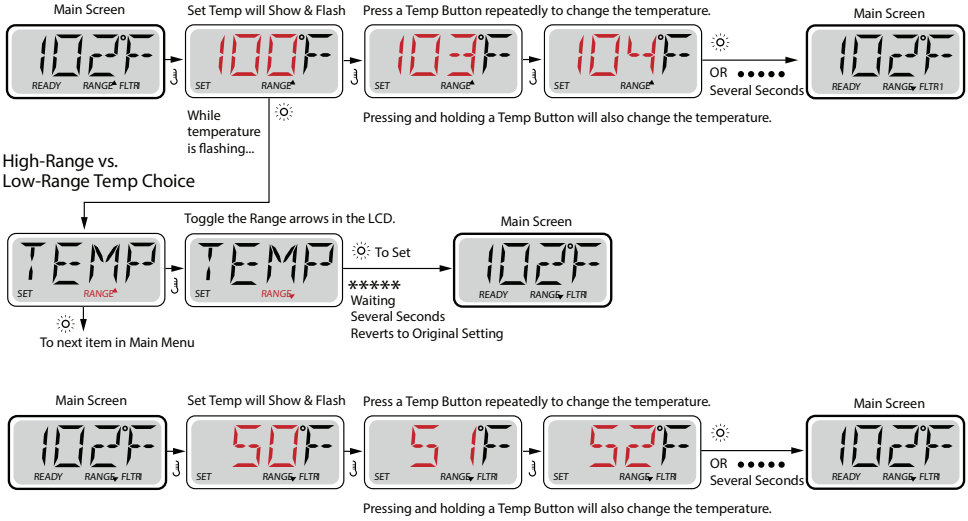
More specific Temp Ranges may be determined by the Manufacturer.

Freeze Protection is active in either range.

See Ready and Rest on Page 6
for additional heating control information.

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 – Ready and Rest

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

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

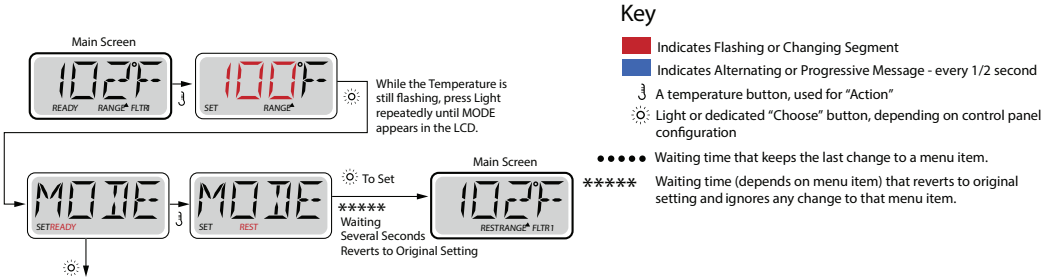
If the heater pump is a 2-Speed Pump 1, READY Mode will circulate water every 1/2 hour, using Pump 1 Low, in order to maintain a constant water temperature, heat as needed, and refresh the temperature display. This is known as “polling.”

REST Mode will only allow heating during programmed filter cycles. Since polling does not occur, the temperature display may not show a current temperature until the heater pump has been running for a minute or two.

Circulation Mode (See Page 4, under Pumps, for other circulation modes)

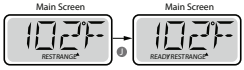
If the spa is configured for 24HR circulation, the heater pump generally runs continuously. Since the heater pump is always running, the spa will maintain set temperature and heat as needed in Ready Mode, without polling.

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.



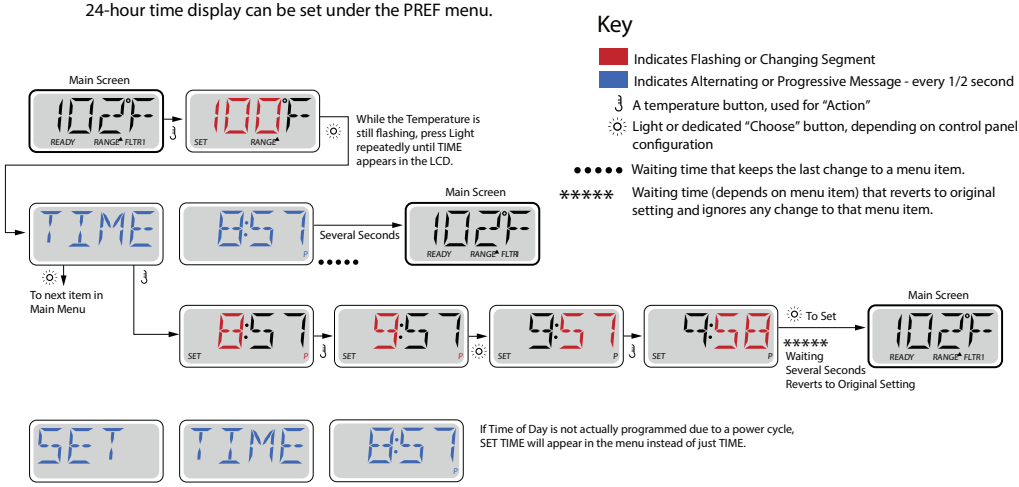
Show and Set Time-of-Day

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.

24-hour time display can be set under the PREF menu.

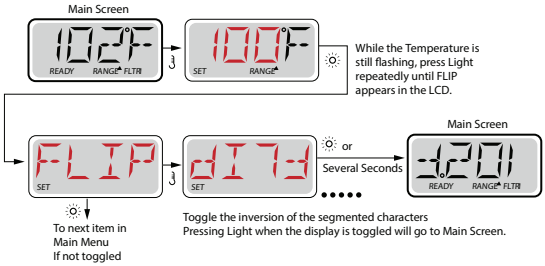


Note:

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)



Note:

Some panels may have a dedicated FLIP button,
which allows the user to flip the display with a single button-press.

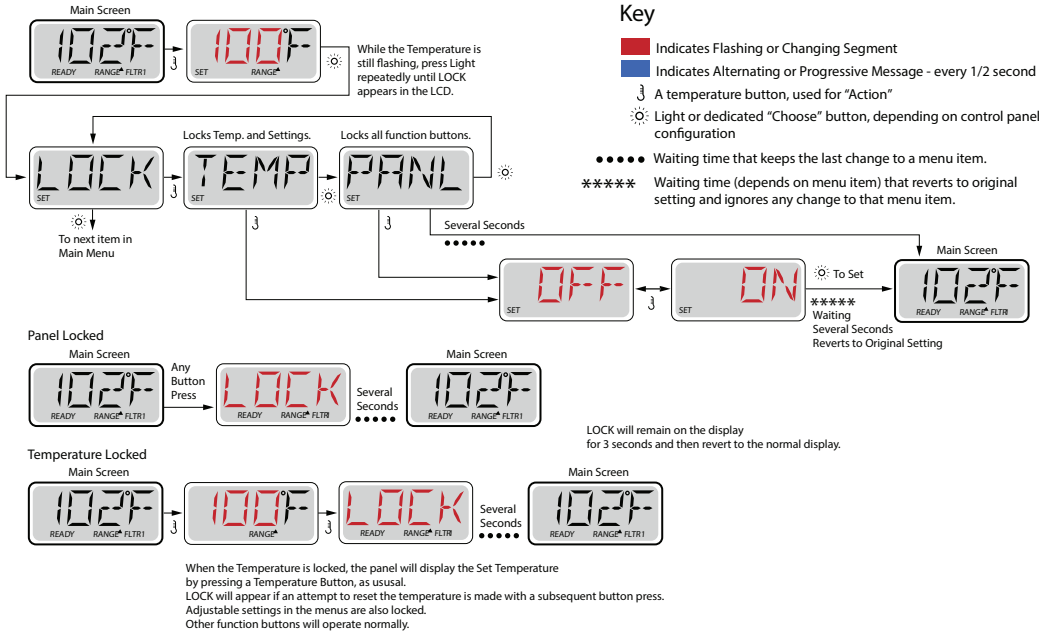
Restricting Operation

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.

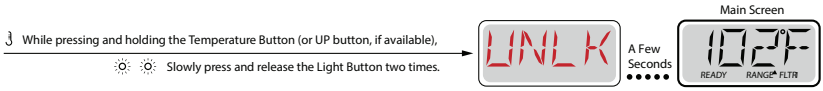


Key

- 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.

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.

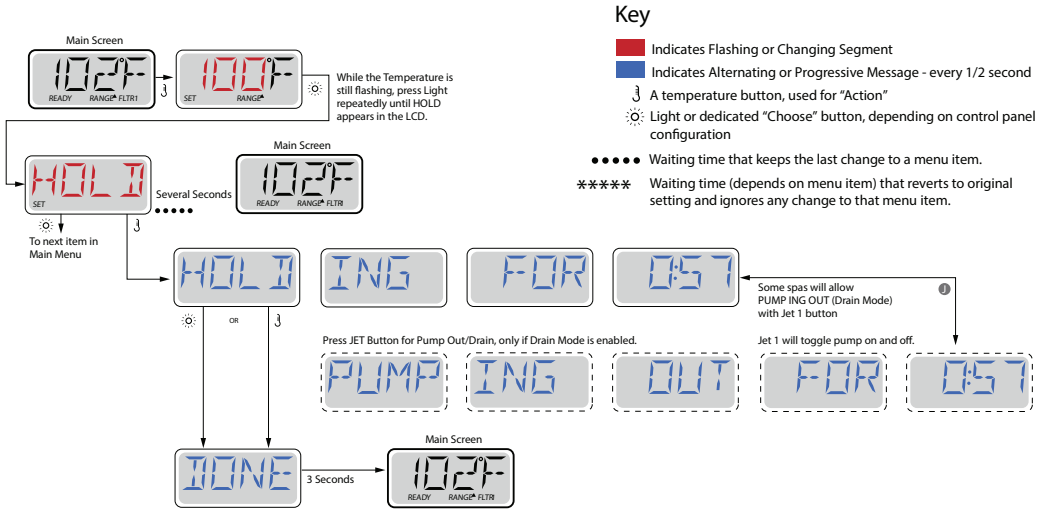
Hold (Standby)

Hold Mode – M037*

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.

Drain Mode

Some spas have a special feature that allows a pump to be employed when draining the water.
When available, this feature is a component of Hold Mode.

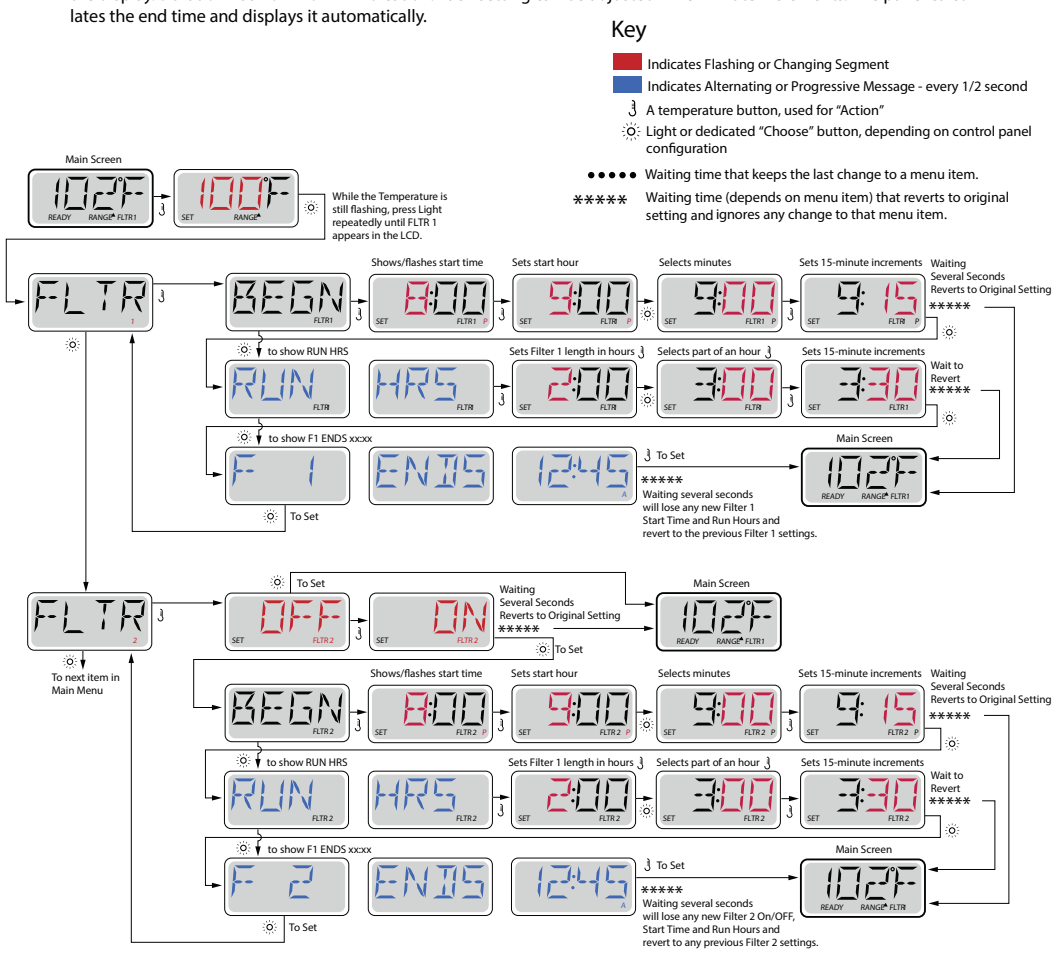


M037 is a Message Code. See "General Messages" Pages.

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.

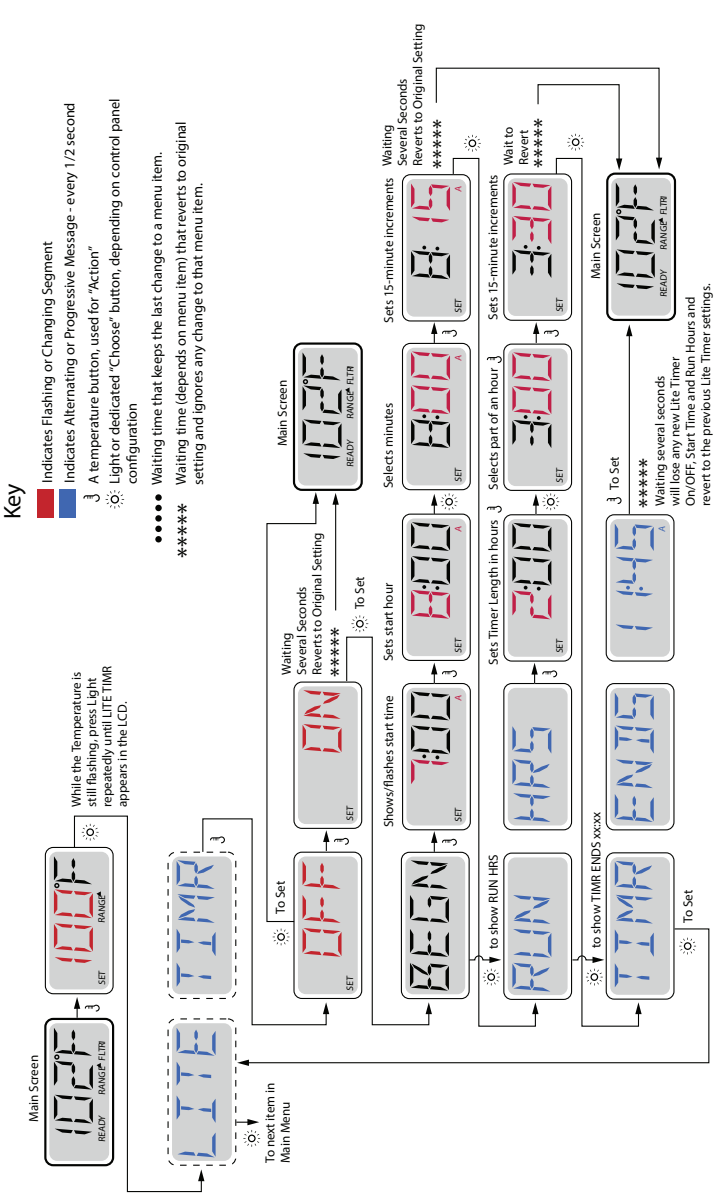
If Filter Cycle 1 is set for 24 hours, enabling Filter Cycle 2 will initiate a purge when Filter Cycle 2 is programmed to begin.

Light Timer Programming

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.



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.

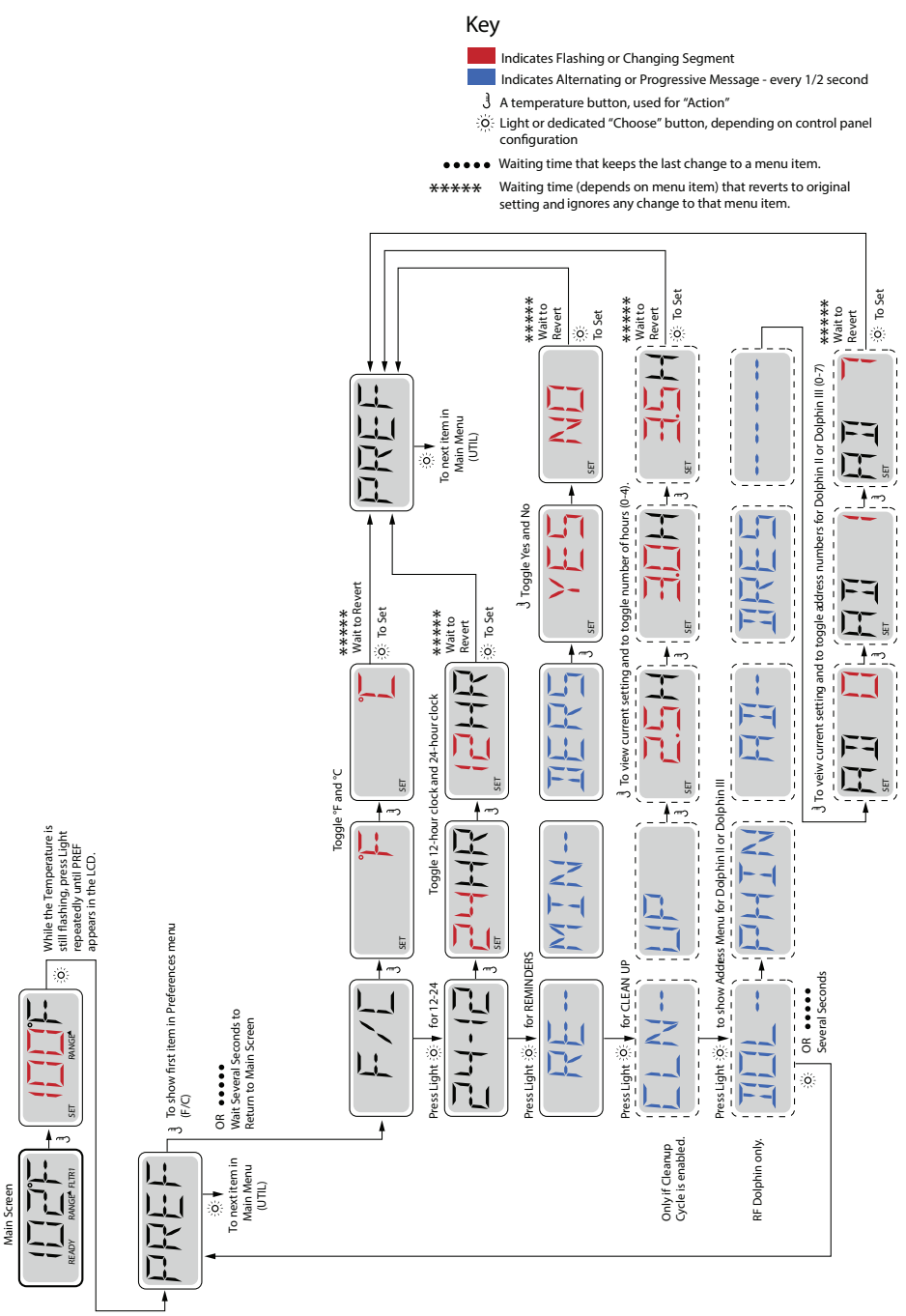
CLN-UP (Cleanup)

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.)

Preferences



Utilities and Information

INFO (System Information sub-menu)

The System Information Menu displays various settings and identification of the particular system. As each item in the menu is highlighted, the detail for that item is displayed at the bottom of the screen.

SSID (Software ID)

Displays the software ID number for the System.

MODL (System Model)

Displays the Model Number of the System.

SETP (Current Setup)

Displays the currently selected Configuration Setup Number.

SIG (Configuration Signature)

Displays the checksum for the system configuration file.

Heater Voltage (Feature not used on CE rated systems.)

Displays the operating voltage configured for the heater.

Heater Wattage as Configured in Software (CE Systems Only.)

Displays a heater kilowatt rating as programmed into the control system software (1-3 or 3-6).

H _ (Heater Type)

Displays a heater type ID number.

SW _ (Dip Switch Settings)

Displays a number that represents the DIP switch positions of S1 on the main circuit board.

PANL (Panel Version)

Displays a number of the software in the topside control panel.

Additional Utilities

Utilities

In addition to INFO, The Utilities Menu contains the following:

GFCI (GFCI Test)
(Feature not available on CE rated systems.)

GFCI Test is not always enabled, so it may not appear. This screen allows the GFCI to be tested manually from the panel and can be used to reset the automatic test feature. If the GFCI Test Feature is reset, the device will trip within 7 days. (See Page 17)

A / B (A/B Sensor Temperatures)

When this is set to On, the temperature display will alternate to display temperature from Sensor A and Sensor B in the heater.

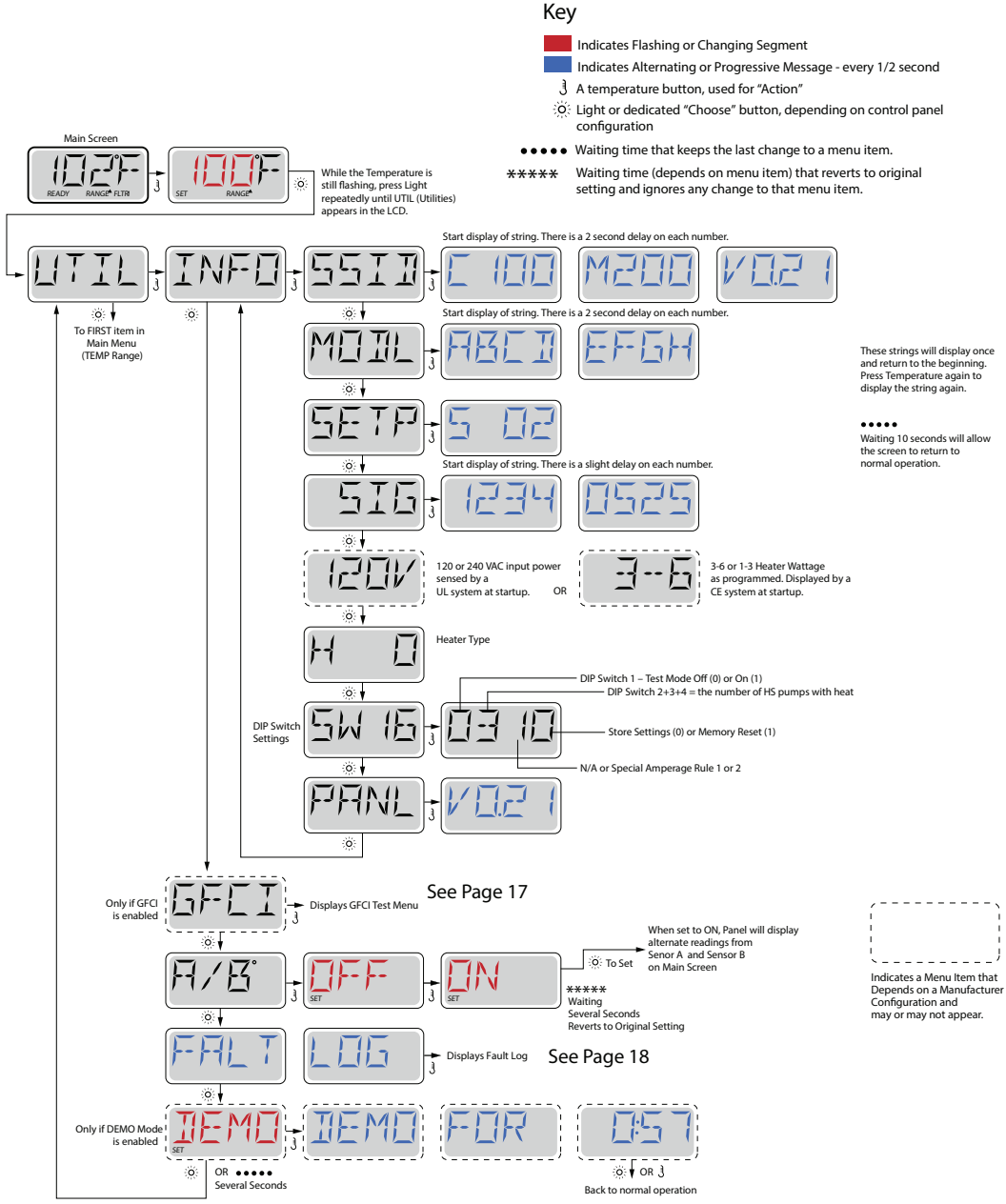
FALT LOG (Fault Log)

The Fault Log is a record of the last 24 faults that can be reviewed by a service tech.

DEMO (Demo Mode)

Demo Mode is not always enabled, so it may not appear. This is designed to operate several devices in a sequence in order to demonstrate the various features of a particular hot tub.

Utilities


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.
Main Screen
While the Temperature is still flashing, press Light repeatedly until UTIL (Utilities) appears in the LCD.
UTIL
INFO
SSID
C 100
M200
V0.21
To FIRST item in Main Menu (TEMP Range)
Start display of string. There is a 2 second delay on each number.
MODL
ABCD
EFGH
SETP
S 02
Start display of string. There is a slight delay on each number.
SIG
1234
0525
These strings will display once and return to the beginning. Press Temperature again to display the string again.
●●●●●
Waiting 10 seconds will allow the screen to return to normal operation.
120V
120 or 240 VAC input power sensed by a UL system at startup.
OR
3-6
3-6 or 1-3 Heater Wattage as programmed. Displayed by a CE system at startup.
H 0
Heater Type
DIP Switch Settings
SW 16
0310
DIP Switch 1 – Test Mode Off (0) or On (1)
DIP Switch 2+3+4 = the number of HS pumps with heat
Store Settings (0) or Memory Reset (1)
N/A or Special Amperage Rule 1 or 2
PANL
V0.21
Only if GFCI is enabled
GFCI
Displays GFCI Test Menu
See Page 17
A/B
OFF
ON
To Set
When set to ON, Panel will display alternate readings from Senor A and Sensor B on Main Screen
✱✱✱✱✱ Waiting Several Seconds Reverts to Original Setting
FALT
LOG
Displays Fault Log
See Page 18
Only if DEMO Mode is enabled
DEMO
FOR
0:57
OR ●●●●● Several Seconds
OR
Back to normal operation
Indicates a Menu Item that Depends on a Manufacturer Configuration and may or may not appear.

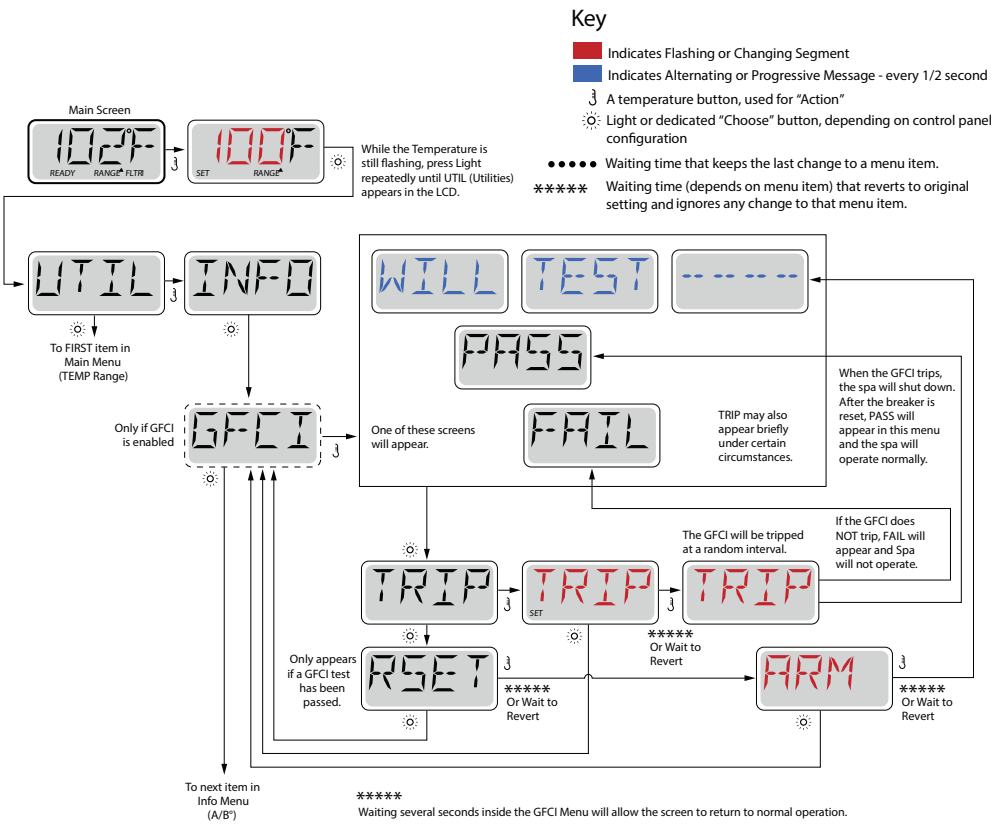
Utilities – GFCI Test Feature

Not Available on CE Rated Systems.

A GFCI is an important safety device and is required equipment on a hot tub installation.

Your spa may be equipped with a GFCI Protection feature. (UL rated systems only.) If your spa has this feature enabled by the manufacturer, the GFCI Trip Test must occur to allow proper spa function.

Within 1 to 7 days after startup, the spa will trip the GFCI to test it. (The number of days is factory programmed.) The GFCI must be reset once it has tripped. After passing the GFCI Trip Test, any subsequent GFCI trips will indicate a ground fault or other unsafe condition and the power to the spa must be shut off until a service person can correct the problem.



Forcing the GFCI Trip Test

The installer can cause the GFCI Trip Test to occur sooner by initiating it using the above menu.

The GFCI should trip within several seconds and the spa should shut down. If it does not, shut down the power and manually verify that a GFCI breaker is installed and that the circuit and spa are wired correctly. Verify the function of the GFCI with its own test button. Restore power to the spa and repeat the GFCI Trip Test.

Once the GFCI is tripped by the test, reset the GFCI and the spa will operate normally from that point. You can verify a successful test by navigating to the above menu. PASS should appear after a temp button is pressed from the GFCI screen.

The end-user must be trained to expect this one-time test to occur and how to properly reset the GFCI.

Warning:

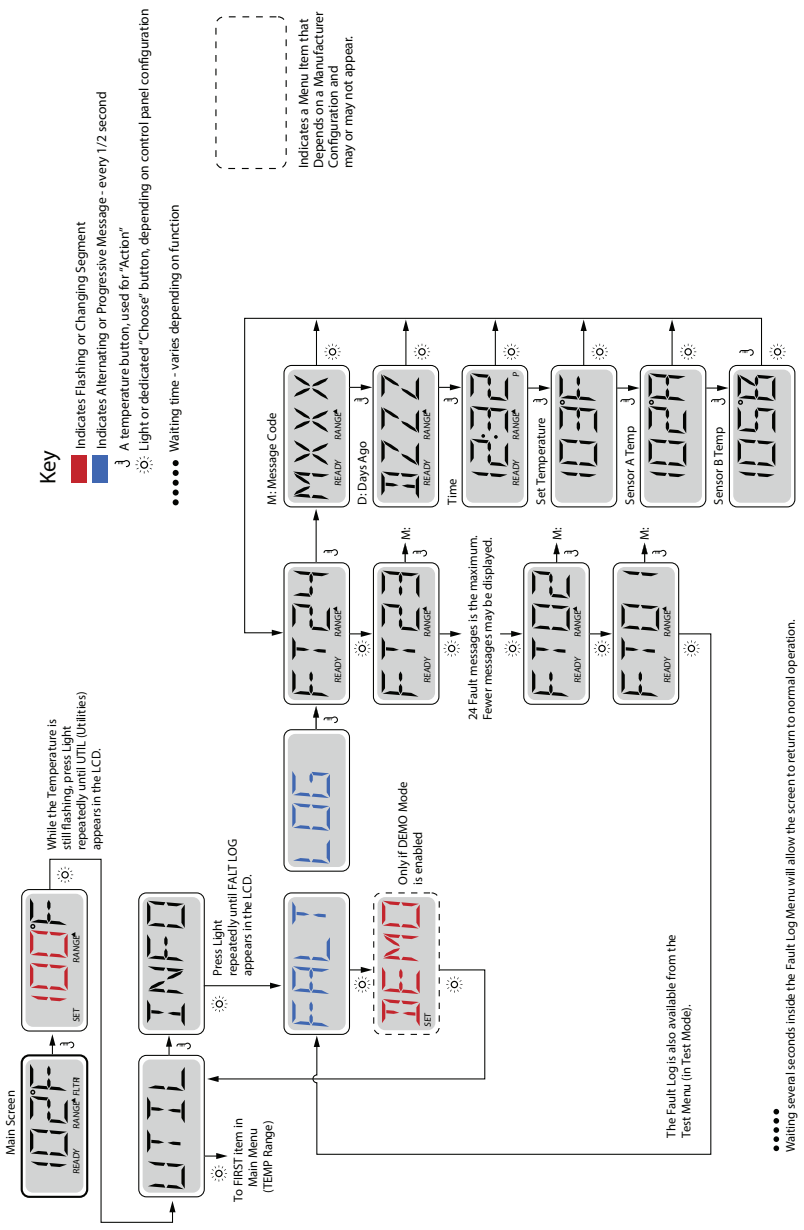
If freezing conditions exist, a GFCI should be reset immediately or spa damage could result. The end user should always trained to test and reset the GFCI on a regular basis.

Utilities – Fault Log

A Little History can tell a lot

The Fault Log stores up to 24 events in memory and they can be reviewed under the Fault Log Menu.

Each event captures a Fault Message Code, how many days have passed since the fault, Time of the fault, Set Temperature during the fault, and Sensor A and B temperatures during the fault.



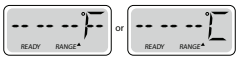
General Messages



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 “General Messages” Pages.

* 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

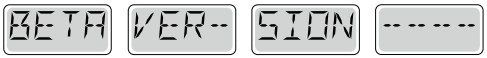
A temperature sensor or sensor circuit has failed. Call for Service.

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.

Reminder Messages Continued



Alternates with temperature or normal display.

Appears on a regular schedule, e.g. every 90 days.

Change the water in the spa on regular basis to maintain proper chemical balance and sanitary conditions.



Alternates with temperature or normal display.

Appears on a regular schedule, e.g. every 180 days.

Vinyl covers should be cleaned and conditioned for maximum life.



Alternates with temperature or normal display.

Appears on a regular schedule, e.g. every 180 days.

Wood skirting and furniture should be cleaned and conditioned per the manufacturers instructions for maximum life.



Alternates with temperature or normal display.

Appears on a regular schedule, e.g. every 365 days.

Filters should be replaced occasionally to maintain proper spa function and sanitary conditions.



Alternates with temperature or normal display.

As needed.

Install new mineral cartridge

Warning! Qualified Technician Required for Service and Installation

Basic Installation and Configuration Guidelines

Use minimum 6AWG 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.

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.

CSA enclosure: Type 2

Refer to Wiring Diagram inside the cover of the control enclosure.

Refer to Installation and Safety Instructions provided by the spa manufacturer.

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 Manufacturers instructions.

Warning: The equipment and controls shall be located not less than 1.5 meters horizontally from the spa or hot tub.

Warning! GFCI or RCD Protection.

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 must be performed by a licensed electrician and all grounding connections must be properly installed.

CSA Compliance/Conformité

Caution:

- Test the ground fault circuit interrupter or residual current device 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.
- For use only within an enclosure rated CSA Enclosure 3.
- 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 replacement 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.

Attention:

- Toujours verifier l'efficacite du disjoncteur differentiel avant d'utiliser differentiel avant d'utiliser le bain.
- Lire la notice technique.
- Lorsque l'appareillage est installe dans une fosse, on doit assurer un drainage adequat.
- Employer uniquement a l'interieur d'une cloture CSA Enclosure 3.
- Connecter uniquement a un circuit protege par un disjoncteur differentiel de Class A.
- Afin d'assurer une protection permanente contre le danger de shock electrique, lors de l'entretien employer seulement des pieces de rechange identiques.
- Les prises d'aspiration doivent etre equipees de grilles convenant au debit maximal indique.

Avertissement:

- Des temperatures de l'eau superieures a 38°C peuvent presenter un danger pour la sante.
- Deconnecter du circuit d'alimentation electrique avante l'entretien.

Warning/Advertissement:

- Disconnect the electric power before servicing. Keep access door closed.
- Deconnecter du circuit d'alimentation electrique avant l'entretien. Garder la porte fermer.

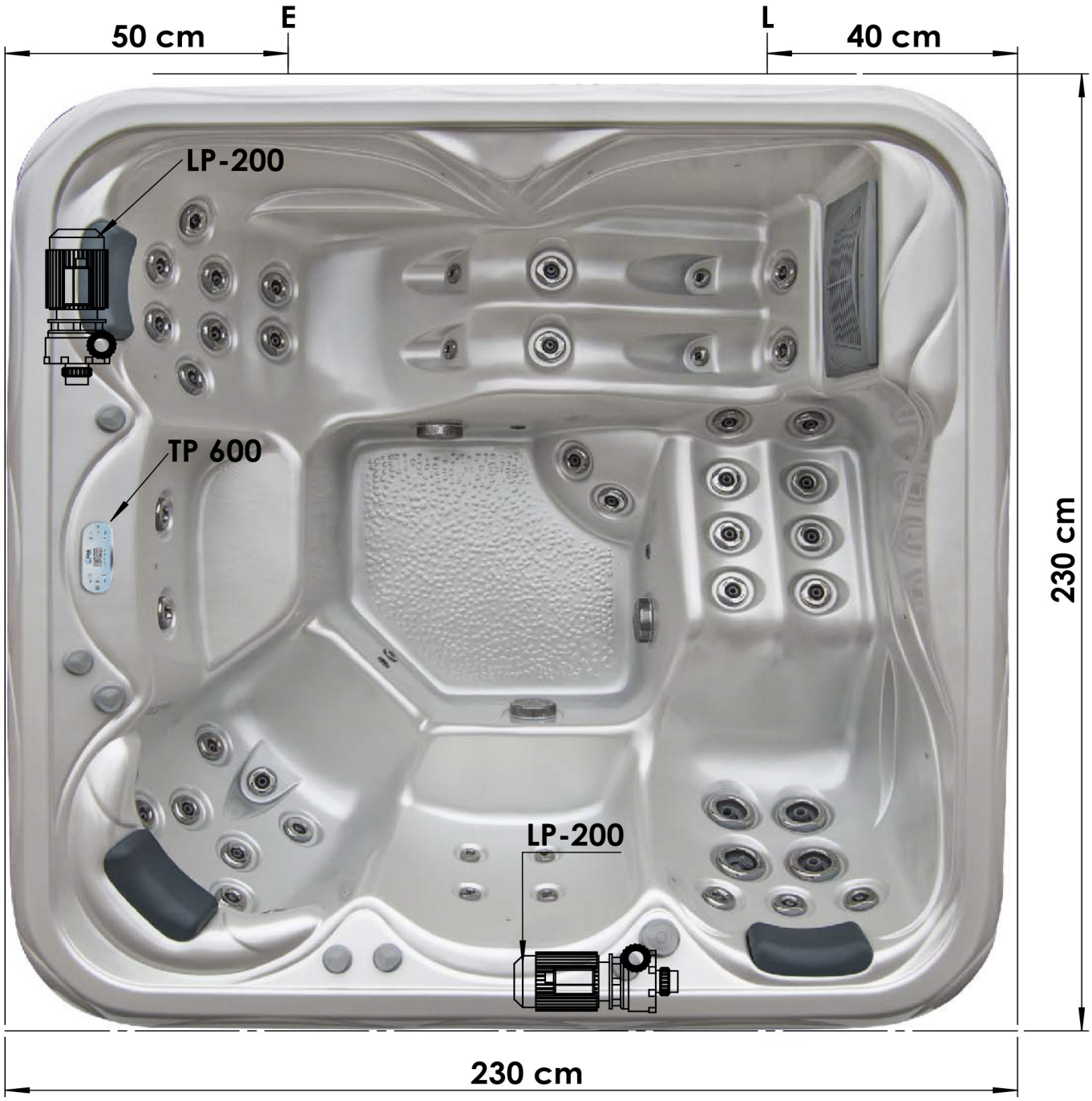
Piping instructions of SATURN spa
30mA safety relay is need to be installed!

- E:Electric hole (500mm) to terminal facilities through spa cabinet. 3 m cabels are required!
- L: Drain connector (400 mm)

In case of sinking just allowed to sinking part which is under the spa`s acrylic-flange. You have to make safe the diversion of inlet water in the deepest point of the inspection pit. The inspection pit has to be aired accordingly (proposal: building in an extractor fan).
The inspection pit`s minimum width is 60 cm around the spa.
If the spa is placed indoor please make allowances for the following special requirements: The water accumulates around the spa so the socket cover has to be in possession of a suitable drainage. This arrangement hinders the water in collecting.

Given sizes above are only information, there may be variant sizes on the grounds of the spa`s manufacturing technique.

Dimensions: 2300 x 2300 x 900 mm



1 Phase (Line) Connection to 1x16A (minimum) or
1 Phase (Line) Connection to 1x32A (optimum)

