Wellis®

HighLine

USER MANUAL

EVEREST

SPA SYSTEM

- 2x3HP and 2x2HP Hydromassage pumps or 1x3HP and 1x3HP Hydromassage pumps
- Energy-efficient LAING circulation pump
- 50 or 98 jets
- Hot air blower pump
- Ozone generator or
- UV-C water sanitizer
- Aromatherapy

START

DELUXE

PREMIUM

Standard Specification

	Start ☐	Deluxe ☐	Premium ☐
Dimensions	2360 x 2360 x 970 mm	2360 x 2360 x 970 mm	2360 x 2360 x 970 mm
Shell material	PU reinforced, outdoor acrylic (6,3 mm)	PU reinforced, outdoor acrylic (6,3 mm)	PU reinforced, outdoor acrylic (6,3 mm)
Sitting places	3 persons	3 persons	3 persons
Reclining places	2 person	2 person	2 person
Water volume	1560 l	1560 l	1560 l
Net weight	350 kg	410kg	420 kg
Total number of jets	50 pc.	98pc.	98pc.
Water diverter	1	1pc	1pc
Air diverter	3pc	5pc	5pc
Power requirement	optimum 1 Phase 1x32A (230V/50Hz); or minimum1 Phase 1x25A	optimum 3 Phase, 3x16A (400V/50Hz); or minimum 1 Phase, 1x32A (230V/50Hz)	optimum 3 Phase, 3x16A (400V/50Hz); or minimum 1 Phase, 1x32A (230V/50Hz)
Hydromassage pumps	1x 1speed, 2 HP 1x 2speed, 3HP	1x 1speed, 3HP 2x 2speed, 3HP	1x 1speed, 3HP 2x 2speed, 3HP
Hot air blower	no	1pcs 300W	1pcs 300W
Circulation pump	By hydromassage pump	Energy-efficient LAING circulation pump (0,1kW/h)	Energy-efficient LAING circulation pump (0,1kW/h)
Filter system	1 set (2pc.)	1 set (2pc.)	1 set (2pc.)
Control system	BALBOA BP600 / TP600	BALBOA BP2100 / TP800	BALBOA BP2100 / BALBOA SpaTouch
Chromotherapy lighting	---	1 lamp with 55 LEDs	1 lamp with 55 LEDs
Heating unit	1 pc 3kW	1 pc 3 kW	1 pc 3kW
1,5” drain connect	1 pc	1 pc	1 pc
Headrest	3 pc	3 pc	3 pc
Aromatic therapy	-	1pc	1 pc
Ozone generator disinfecting system	1pc	---	---
UV-C lamp disinfecting system	---	1pc	1 pc
Exklusive Chromotherapie Lighting	16 x 1 LED	16 x 1 LED	16 x 1 LED
Frame	surface-treated wood	WPC	WPC
Maintenance-free Synthetic Cabinet	1 set (just one,fix color)	1 set (in optional colors)	1 set (in optional colors)

SAFETY INSTRUCTIONS

ATTENTION: PLEASE READ CAREFULLY AND FOLLOW THE INSTRUCTIONS

AVOIDING THE RISK TO CHILDREN

1. In order to reduce the risk of injury to children, do not allow children to use this spa alone unless they are carefully supervised at all the times.
2. In order to reducing the risk of injury to children, lower water temperatures are recommended for young children. Please test the water temperature with your hands before allowing children to enter into the spa, and make sure It Is comfortable for children's usage.
3. Remember that wet surfaces can be slippery, please reminding children to be careful enough when entering or exiting the spa.
4. Don't permit children to climb onto the spa cover.

AVOIDING THE RISK TO ADULT

1. In order to reducing the risk of injury to persons, do not remove or lost any suction 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 of slipping and falling when entering or exiting the spa.
3. For the sake of health, people with infectious diseases should not be allowed to use the spa.
4. Keep any loose articles of clothing or hanging jewelry away from rotating jets or other moving components.
5. The use of drugs, alcohol or medicine before or during spa use may lead to uncon sciousness with the possibility of drowning. Persons using medicines should consult a physician before using spa; some medicine may cause a user to become drowsy. While other medicine may affect heart, blood pressure and circulation.
6. Pregnant women should consult a physician before using the spa.

AVOIDING THE RISK OF ELECTROCUTION

1. Test the ground fault circuit interrupters before use. Must always to be connected to a circuit protected by a ground fault interrupt.
2. Must not bury the power cord, a buried power cord may result in death, or serious personal injury due to electrocution. Replace a damaged cord immediately.

3 Do not permit any electrical appliances, such as a light, telephone, radio, or television within 1.5m of a spa. Failure to maintain a safe distance may result in death, or serious pers on injury due to electrocuting if the appliance should fall into the spa

4 Install your spa in such a way that drainage is away from the electrical compartment and from all electrical components.

5 Disconnect the spa from the power supply before servicing the electrical components.

NOTICE:

Your spa is a equipment with two/three massage pumps that allow you to operate each half of the jet system separately or both valves simultaneously. Do not connect power to an empty spa. Otherwise the components such as controller, heater, circulation pump, and other systems could be damaged.

INSTALLATION INSTRUCTIONS

SITE PREPARATION

1.INDOOR/BASEMENT INSTALLATION

If you place your spa indoors, be aware of some special requirements. Water will accumulate around the spa, so flooring materials must provide a good grip when wet 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 is installed. The humidity will naturally increase with the spa installed water may get into woodwork and produce dry rot ,mildew or other problems check for airborne moisture's effects on exposed wood ,paper ,etc in the room .To minimize these effects, it is best to provide plenty of ventilation to the spa area .

2.OUTDOOR AND PATIO INSTALLATION

It is important that you have solid foundation to support the new spa when you install it ,To be certain your deck or foundation can support your spa .you must know the deck's maximum load capacity Consult a qualified building contractor or structural 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 not exceed the structure's rated capacity; otherwise serious structural damages could result . If you install the spa outdoors ,we recommend a reinforced concrete pad at least four inches thick .Don't forget to install some floor drains around your spa so that it can take the water away during and after the heavy rain.

INSTALLATION

1.Please read and study the OWNER'S MANUAL carefully, if possible, please find the professional people to install and setup for first time .

2.Remove the package, and takes down the new spa on the prepared foundation.

3.Open the computer control box compartment under the computer display by loosen the screw and then open the compute box, prepare the accordingly cooper cable (the length will be enough to connect to the family power supply), with electrical plug one side, and another side without plug and then take the empty side of cable from electrical cable, channel to go through the pump compartment to the channel of control box compartment ,connect it to control box according to the following illustration:

4.Clean and wax your spa shell and cover your spa has been thoroughly tested during the manufacturing process to ensure reliability. So there's a small amount of water even within some grease may have remained in the plumbing after testing, as a result, ay have spotted the spa shell or the spa shell or the spa siding prior the delivery so before filling spa , it is a need to put some new water to wash it and then wipe the spa shell clean with a soft rage, or some acrylic cleaner and wax it if possible.

OPERATING INSTRUCTIONS

1. Close the drain and fill the spa with water

After closing the drain, put your garden hose inside the tub and turn your water on to fill the spa, and the water level should be maintained approximately 1 above the top of the highest jet keep an eye on everything as filling. If you see any leak(or flood) anywhere, turn off the water until it will be fixed.

2. Power up your spa

First check the main house CIRCUIT BREADER that controls the electric to the spa are functioning properly, connect 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 and AIR BLOWER to make jets run for some minutes to check the operation of the jet system and purge any remaining air from the heating system, once the jet system fully operational, priming of the spa is complete. Check and make sure the air controller and jets are open. Another possible main problem is AIR LOCK, which can cause the jets to appear not work well or at all. It is happened that when you are filling the spa up fairly rapidly, air can get trapped in the pipes that go to the suction fittings and the jets. The water level rises up past the openings in the spa. The air becomes locked in the pipes, and then when you go to start the spa pump, it tries to suck in water, but only air is in the pipes. The pump cannot prime itself at that point, so it just runs, but does not pump any water. Open the door of pump compartment, loosen the quick disconnect fitting in front of the pump a little, let some air get in and will break the air lock that has developed, and then see some water start to come out, re-tighten the fitting, turn the pump on, 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 massage basin clean are the removal of mechanical dirt and the blending of the chemicals in the water with continuous water recirculation. In all our basins 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 for the basins. The dirt settled at the bottom of the basin is filtered out with the aid of the suction and stirring created by the massage pumps.

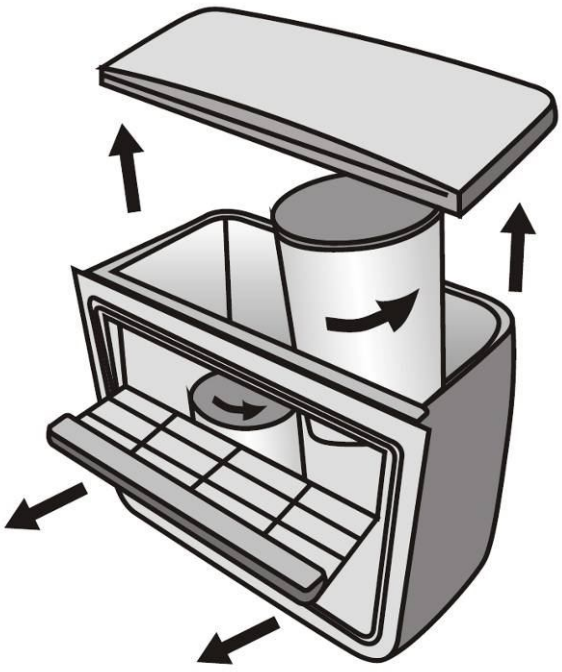
Don't leave the spa expose to the sun without water or the cover, Exposure to direct sunlight can cause solar distress of the shell material. Use and cover spa cover when spa is not in use, whether it is empty or full. Try to deep your spa away form rain, snow, if possible build a gazebo for your spa.

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 per 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 recommended cleaning you filter cartridge every month.

1.Remove filter lid.
2.Unscrew filter cartridge.
3.Clean with high pressure nozzle to remove all debris clinging to the filter.
4.Soak filter in warm water and Wellis Alga-Sokk to remove all body oils and grime. **Never use chlorine to clean the filter!** If you use textile filter, you can wash it int he washing machine too.



The chemical equilibrium of the water

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

1. pH-values:

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 acid, above it 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 basin, 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 basin opaque and cloudy. Most often – as we are dealing with warm water basins – 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:

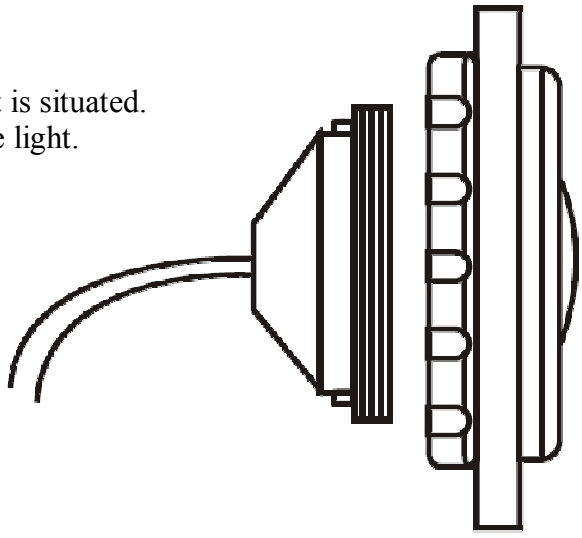
There are several different types of water analysers, which are mostly used to measure chemical and disinfectant effect. Chemical (pH); Disinfectant (Br, O_3)

Types:

- Box containing tablets and graduated measuring glass.
- Litmus paper indicators in a box.

Replacing underwater light

1. Turn off thepower on 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 or water	Clean filters Shock spa with sanitizer Add sanitizer Adjust PH and/ 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	Shock spa with sanitizer Add sanitizer Adjust PH refill the spa
Chlorine Odor	Chloramines level too high low PH	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 buildup/scum ring around spa	Build-up of oils and dirt	Wipe off scum with clean rag-if severe. Drain the spa. Use a spa surface and the cleaner to remove the scum, and refill the spa
Algae Growth	High PH Low sanitizer level	Shock spa with sanitizer and adjust PH Shock spa with sanitizer and maintain sanitizer level
Eye limitation	Low PH Low sanitizer level	Ajust PH Shock spa with sanitizer and maintain sanitizer level
Skin imitation/Rash	Unsanitary water Free chlorine level above 5ppm	Shock spa with sanitizer and maintain sanitizer level Allow free chlorine level to drop below 5ppm before spa use
Stains	Total alkalinity and/ or PH too low high iron or copper in source water	Adjust total alkalinity and/or PH Use a metal deposit inhibitor
Scale	High calcium content in water-total alkalinity and PH too high	Adjust total alkalinity and PH--if scale requires removal drain the spa scrub off the scale, refill the spa and balance the water

Problem	Probable causes	Solutions
Entire spa is inoperative	Power failure GFCI tripped heater high-limit thermostat tripped	Check power source Reset GFCL, call for service if will not reset Disconnect power for at least thirty seconds 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 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 restored Call for service 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 Control closed Jet closed	Add water Clean filters Open Air Controller Open the jet by adjust face of it
Light inoperative	Light wiring or assembly is faulty	Replace light assembly
Power indicator blinking (Enter spa inoperative)	Heater high-limit thermostat tripped	Disconnect power for at least thirty seconds to reset heater high limit. If it will not reset. Check for clogged filters if tripping continues, call for service.
Ready indicator blinking	Temperature sensor problem	Disconnect power for at feast thirty seconds if blinking continues, call for service.

Everest Start Spa system

BALBOA TP600

HOT TUB Control panel

Main screen

NAVIGATION

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

KEY

Indicates Alternating or Progressive Message - every 1/2 second

Indicates flashing or changing segment

A temperature button, used for “Action”

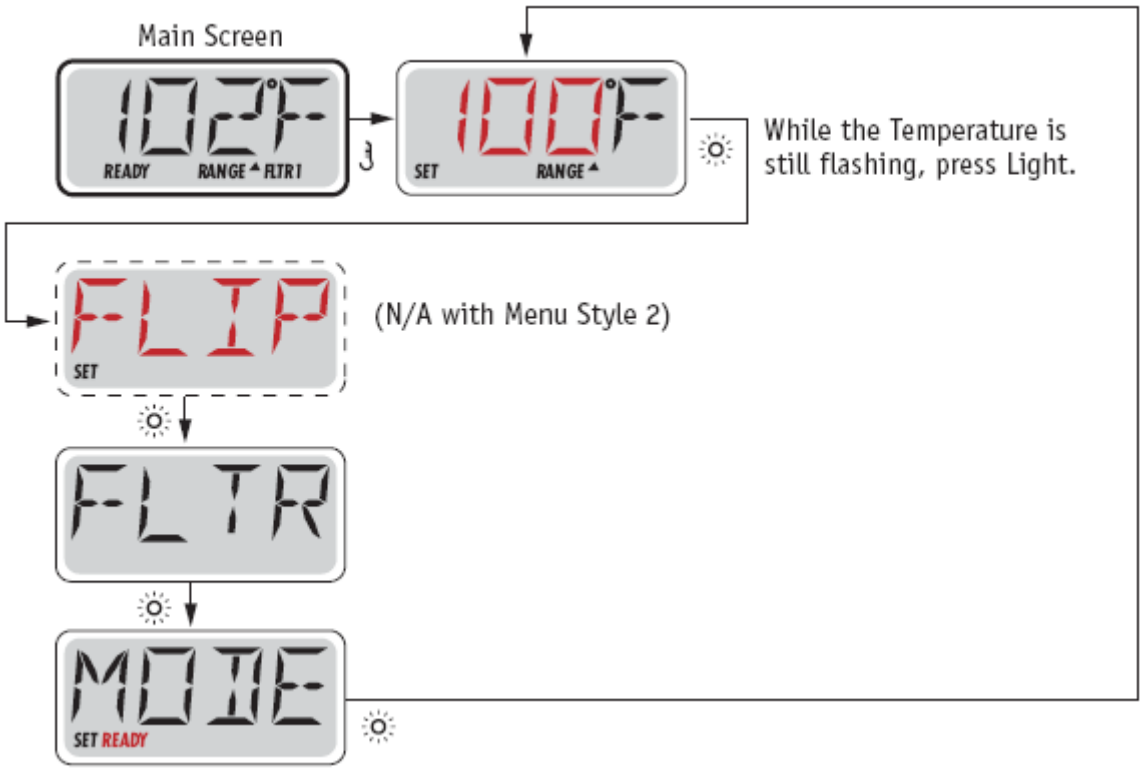
Light or dedicated “Choose” button, depending on control panel configuration

●●●●● 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.

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.



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.

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*

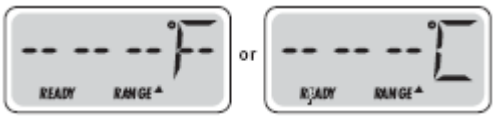
This mode will last for 4-5 minutes or you can manually exit the priming mode after the pump(s) have primed.

*M019 is a Message Code.

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.

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.



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, 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 (if there is one) will run during filtration. On circ systems, the ozone will run with the circ pump.
The system is factory-programmed with two filter cycles that will run 10 minutes after power-up. The filter duration is programmable.
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 (if there is one) 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 (if there is one) will run for 30 minutes or more, depending on the system.

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).
The temperature can be set between 60°F and 104°F.

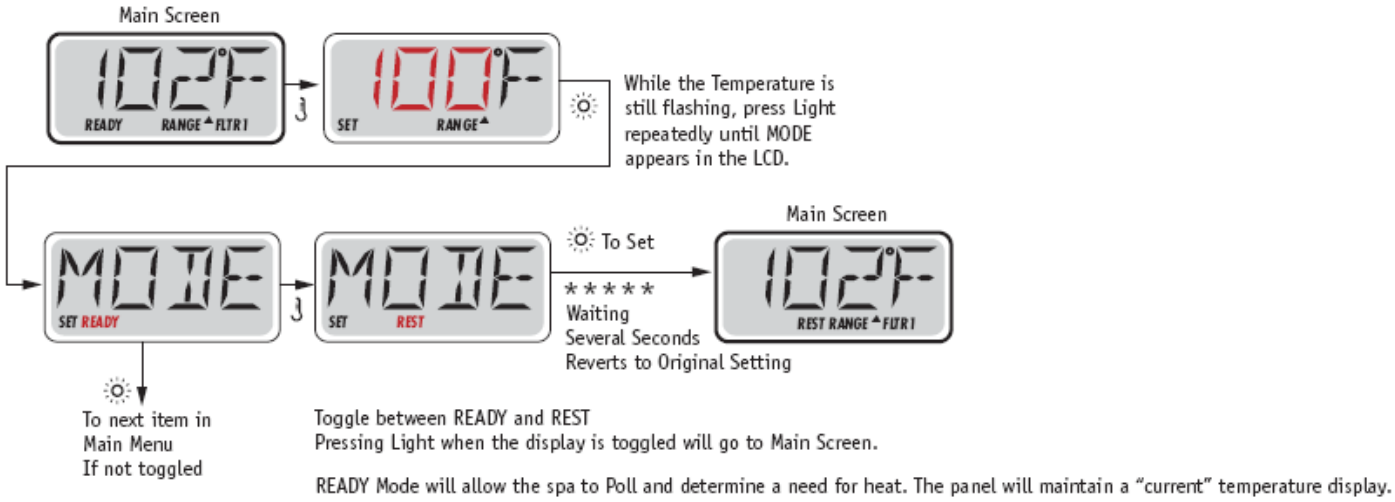
PRESS-AND-HOLD

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.

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

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.

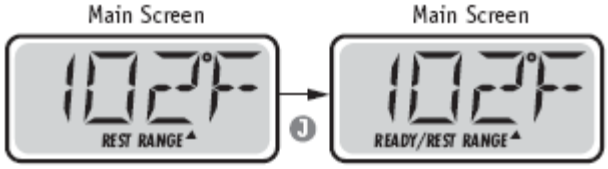


REST Mode will not Poll and will only heat during filter cycles. The panel will not display a current temperature at all times.

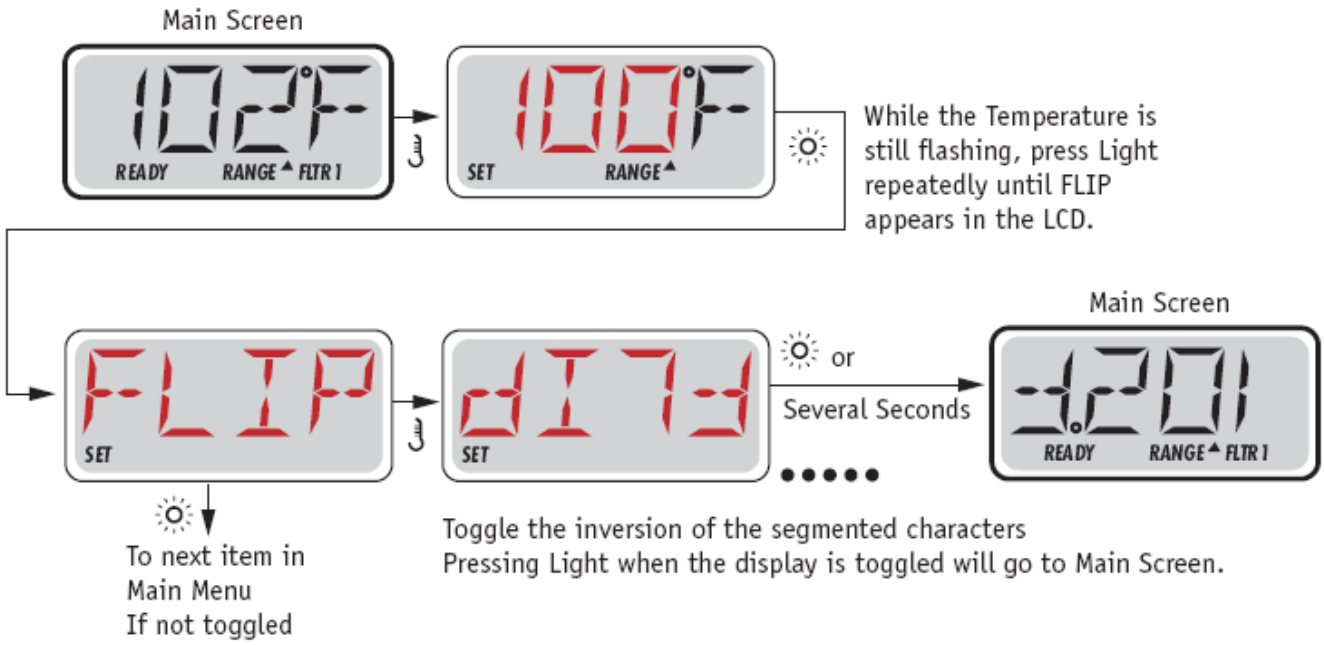
The Main Screen will display RUN PUMP FOR TEMP if the filtration pump has not run for over 1 hour.
The Main Screen will display normally during Filter Cycles or when the spa is in use.
If the filtration pump has been off for an hour or more, when any function button, EXCEPT Light, is pressed on the panel, the pump used in conjuncton with the heater will run so that temperature can be sensed and displayed.

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.



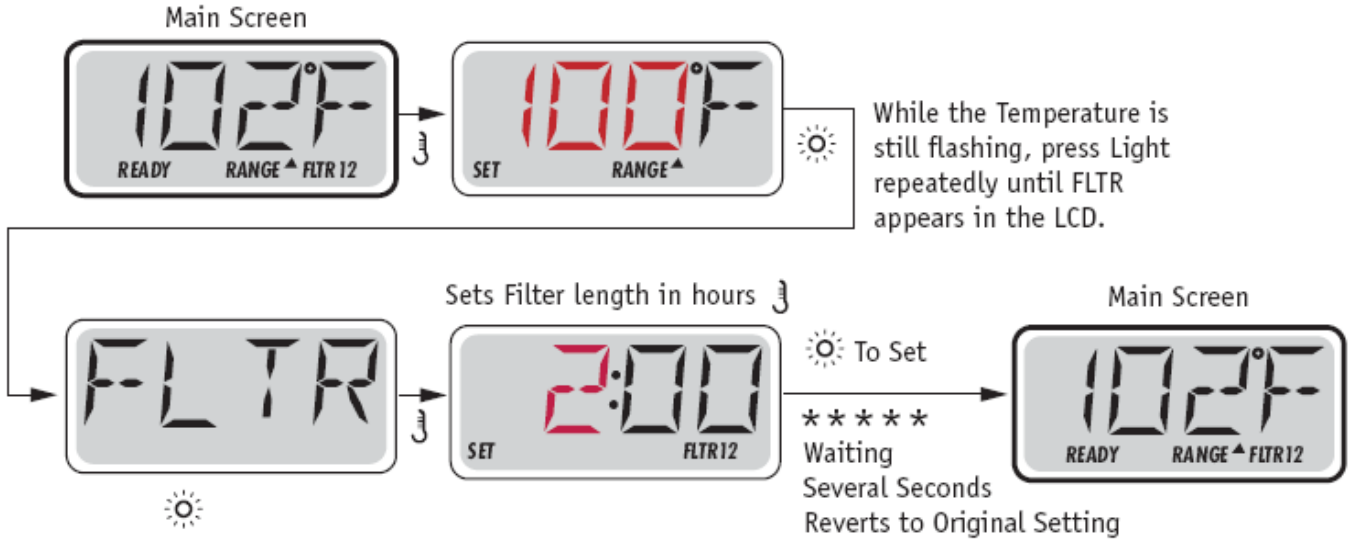
FLIP (INVERT DISPLAY)



Note: Some panels may have a dedicated FLIP button, which allows the user to flip the display with a single button-press. The FLIP menu/functionality depends on Manufacturer configuration and may not be available. (Menu Style 1)

MAIN FILTRATION

Filter cycles are set using a duration. Each setting can be adjusted in 1-hour increments. Filter Cycle 1 and Filter Cycle 2 (if enabled) are set to the same duration.



If Filter Cycle 2 is enabled, Filter 12 will appear in the LCD. If Filter is disabled, Filter 1 will appear.

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.

GENERAL MESSAGES

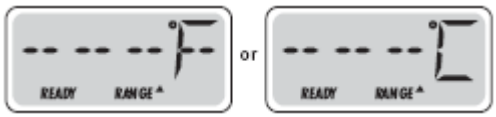
Priming Mode – M019

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

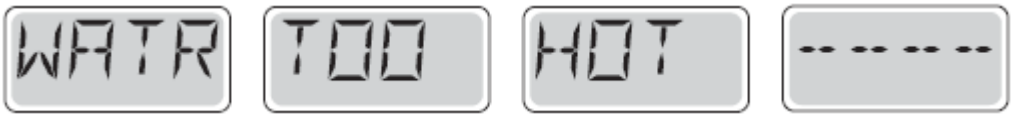
A potential freeze condition has been detected, or the Aux Freeze Switch has closed, and all pumps and blower are activated. All pumps and blower are ON for at least 4 minutes after the potential freeze condition has ended, or when the aux freeze switch opens.

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.)

* 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.

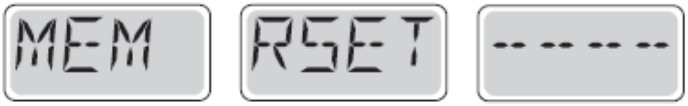
SYSTEM-RELATED MESSAGES

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.
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 specifi ed by the Manufacturer.
Press a Temperature button to reset a displayed reminder message.

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.
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.
Alternates with temperature or normal display.

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.

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.

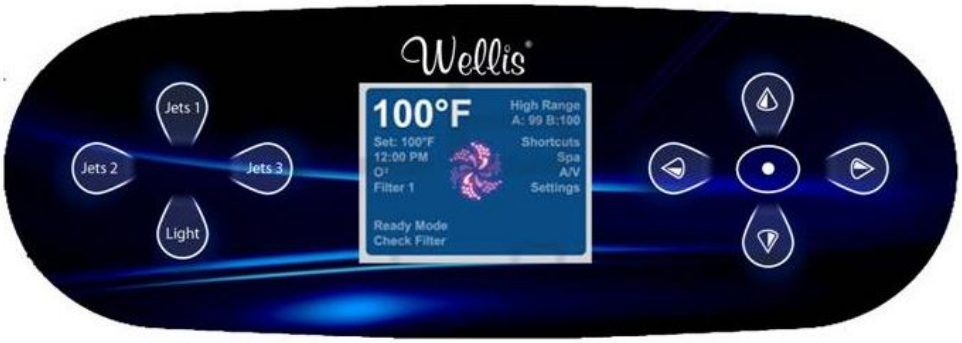
Appears on a regular schedule, e.g. every 365 days.
Filters should be replaced occasionally to maintain proper spa function and sanitary conditions.
Alternates with temperature or normal display.

As needed.
Install new mineral cartridge
Alternates with temperature or normal display.

Everest Deluxe Spa system

BALBOA TP800

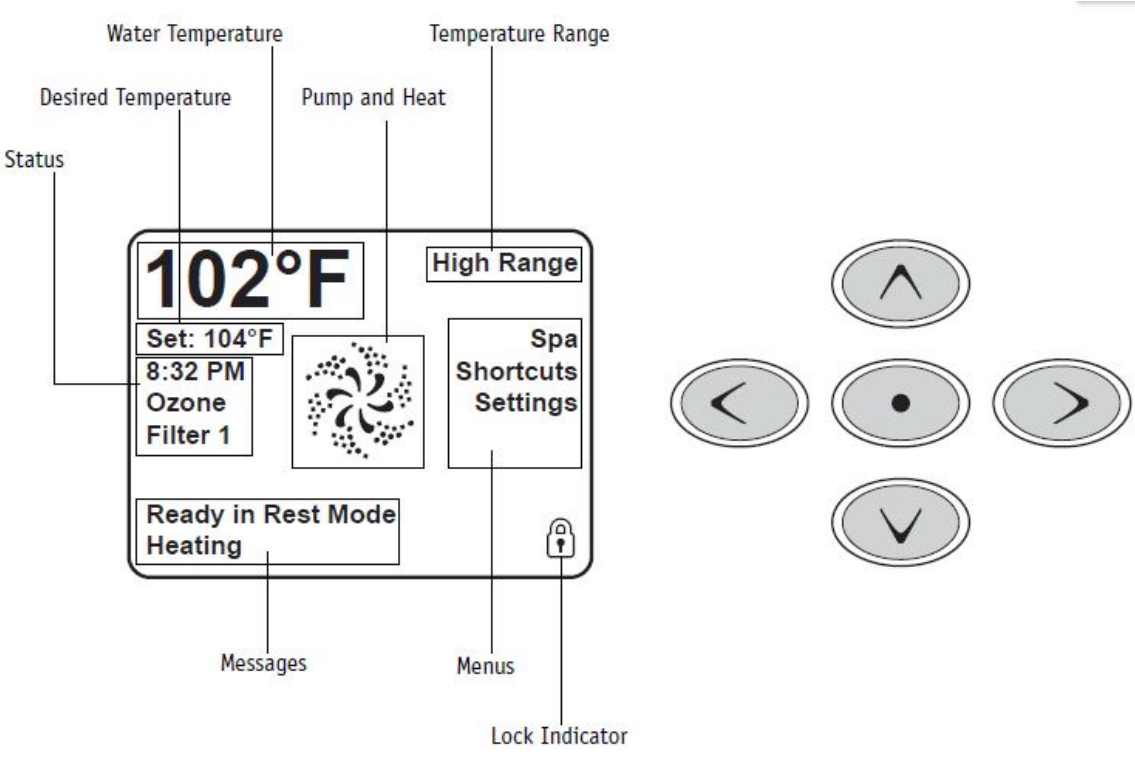
HOT TUB Control panel



Main screen

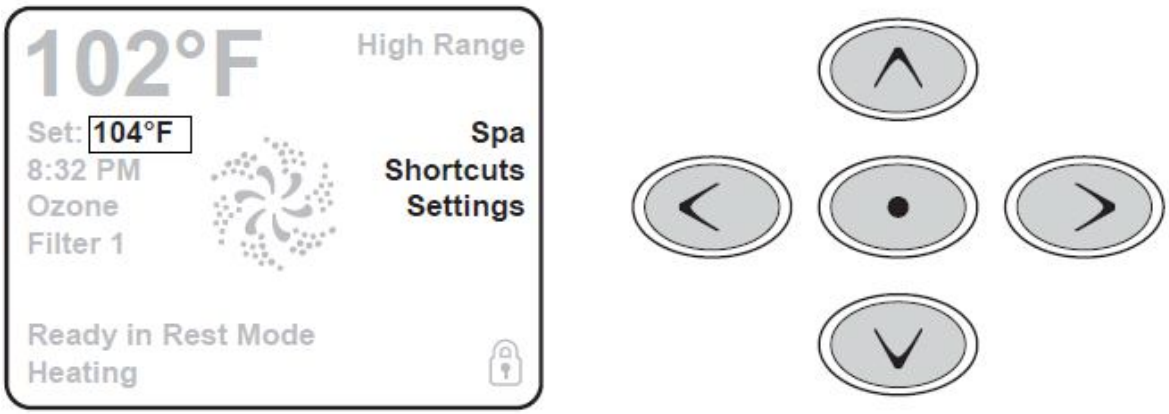
SPA STATUS

Important information about spa operation can be seen quickly from the Main Screen.
The most important features, including Set Temperature adjustment, can be accessed from this screen.
The actual water temperature can be seen in large text and the desired, or Set Temperature, can be selected and adjusted.
Time-of-day, Ozone operation and Filter Operation status is available, along with other messages and alerts.
High Temperature Range vs. Low Temperature Range is indicated in the upper right corner.
The Jets Icon in the center will spin on a TP900 if any pump is running and changes color when the heater is on. (The icon does not spin on a TP800, but still indicates pump and heater function.)
A Lock icon is visible if the panel or settings are locked.
The Menu choices on the right can be selected and the screen will change to show more detailed controls or programming functions.



NAVIGATION

Navigating the entire menu structure is done with the 5 buttons on the control panel.
When a text item changes to white during navigation, that indicates the item is selected for action.
Operating or changing a selected item is generally done with the center or “Select” button.
The only item that can be changed on the left side of the Main Screen is the Set Temperature. Press the Left Arrow button to change the Set Temperature number to white. The Set Temperature can then be adjusted with the up and down buttons.
Pressing the Select button or the Right Arrow button will save the new set temperature.
On the right side of the screen, the menu selections can be selected with the Up and Down Buttons. Use the Select Button to choose an item. Selecting one of these items will change to a different screen with additional controls.



MESSAGES

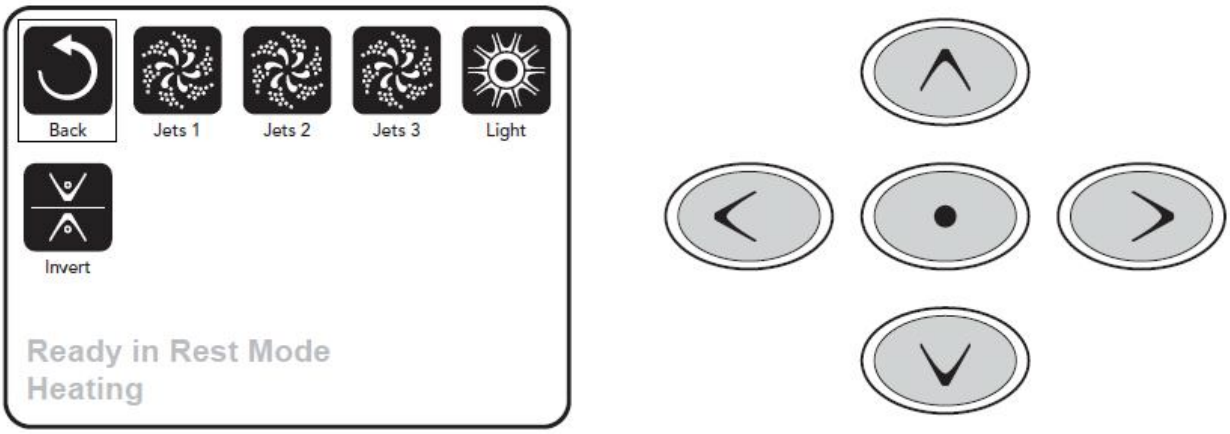
At the bottom of the screen, messages may appear at various times. Some of these messages must be dismissed by the user.

PRESS-AND-HOLD

If an Up or Down button is pressed and held when the Set Temperature is selected, the temperature will continue to change until the button is released, or the Temperature Range limits are reached.

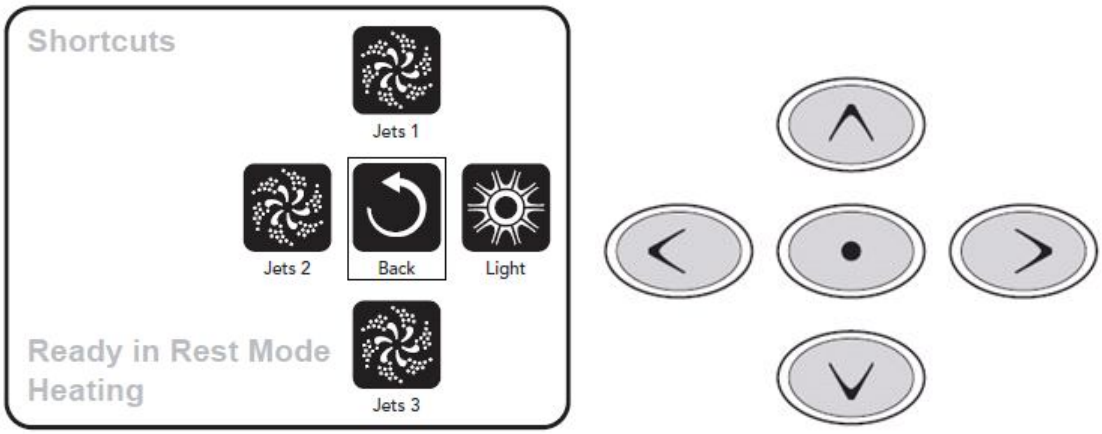
The Spa Screen shows all available equipment to control, as well as other features, like Invert, in one easy-to-navigate screen. The display shows icons that are related to the equipment installed on a particular spa model, so this screen may change depending on the installation.
The navigation buttons are used to select an individual device. The device that is chosen is highlighted with a white outline and the text under the icon changes to white. Once a device is selected, it can be controlled using the center Select Button.
Some devices, like pumps, may have more than one ON state, so the icon will change to refl ect the state that the
equipment is in. Below are some examples of 2-speed Pump indicators.

If the Spa has a Circ Pump, a Circ Pump Icon will appear to indicate its activity, but outside of Priming Mode, the Circ Pump cannot be controlled directly.
NOTE: The icon for the pump that is associated with the heater (Circ or P1 Low) will have a red glow in the center when the heater is running.



ON-PRESS ACTIVATION

The Shortcut Screen requires no navigation. Each button is fi xed on a specifi c fuction and can be used as a very simple user interface for the spa.
Each button function is illustrated in the display and mapped according to the manufacturer's instructions.



PRESSING A „BUTTON"

When instructions are given to "press a button" any of the following can be done:

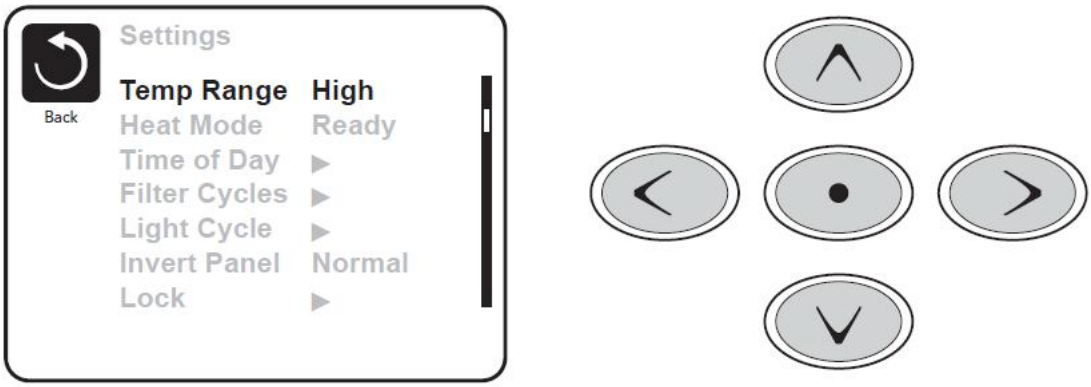
- Navigate to the desired item on any Screen. When the desired item is highlighted, press the Select Button.
- Press the button for that device while on the Shortcuts Screen, if the device is one of the 4 functions available.

PROGRAMMING, ETC.

The Settings Screen is where all programming and other spa behaviors are controlled.
This screen has several features that can be acted on directly. These features include Temp Range, Heat Mode, and Invert Panel. When one of these items is highlighted, the Select Button is used to toggle between two settings. All other menu items (with an arrow pointing to the right) go to another level in the menu.

PRESS-AND-HOLD

If an Up or Down button is pressed and held when an item in a Menu List is highlighted, the list can be scrolled quickly from top to bottom. The scroll bar on the right side of the screen indicates the relative position of the highlighted item in the list.



DUAL TEMPERATURE RANGES (HIGH VS. LOW)

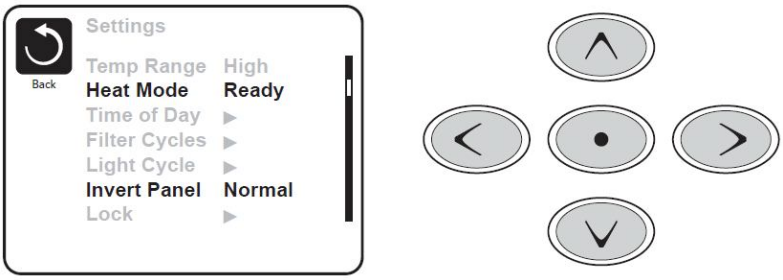
This system incorporates two temperature range settings with independent set temperatures. The specific range can be selected on the Settings screen and is visible on the Main Screen in the upper right corner of the display.
These ranges can be used for various reasons, with a common use being a “ready to use” setting vs. a “vacation” setting.
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.
High Range can be set between 80°F and 104°F.
Low Range can 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.

HEAT MODE – READY VS. 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 (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. 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.

Circulation Mode

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

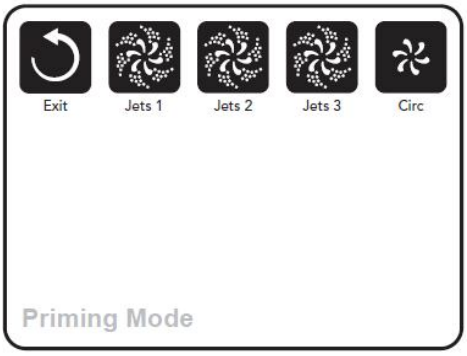
READY/REST appears in the display if the spa is in Rest Mode and the Jets 1 Button is pressed. It is assumed that the spa is being used and will heat to set temperature. While Pump 1 High can be turned on and off, Pump 1 Low will run until set temperature is reached, or 1 hour has passed. After 1 hour, the System will revert to Rest Mode. This mode can also be reset by entering the Settings Menu and changing the Heat Mode.

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 fi lling process. After turning the power on at the main power panel, the top-side panel will display a splash, or startup screen.

PRIMING MODE – M019*

After the initial start-up sequence, the control will enter Priming Mode and display a Priming Mode screen. Only pump icons appear on the priming mode screen. The system will automatically return to normal heating and filtering at the end of the priming mode, which lasts 4-5 minutes. 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 selecting the “Jet” buttons. If the spa has a Circ Pump, it can be turned on and off by pressing the “Circ Pump” button during Priming Mode. In addition, if the spa has a Circ Pump, it can be activated by pressing the dedicated “Light” button during Priming Mode when using a TP800. Manually exit Priming Mode by pressing the “Exit” Button.



PRIMING THE PUMPS

As soon as the Priming Mode screeen appears on the panel, select the “Jets 1” button once to start Pump 1 in low-speed and then again to switch to high-speed. Also, select the other pumps, to turn them on. The pumps should 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 navigating to the “Back” button on the Priming Mode Screen. 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 display the Main Screen, 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.

– – –°F – – –°C

PUMPS

On the Spa Screen, select a “Jets” button once to turn the pump on or off, and to shift between low- and high-speeds if equipped. If left running, the pump will turn off after a time-out period. 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, 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. Other device options may be available, like Blower, Light, Mist, etc.

FILTRATION AND OZONE

On non-circ systems, Pump 1 low and the ozone generator (if installed) will run during filtration. On circ systems, the ozone will generally run with the circ pump, but can be limited to filtration cycles.
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. A second filter cycle can be enabled as needed.
At the start of each filter cycle, the water devices like blower, mist device (if these exist) and other pumps will run briefly to purge the plumbing to maintain good water quality.

FREEZE PROTECTION

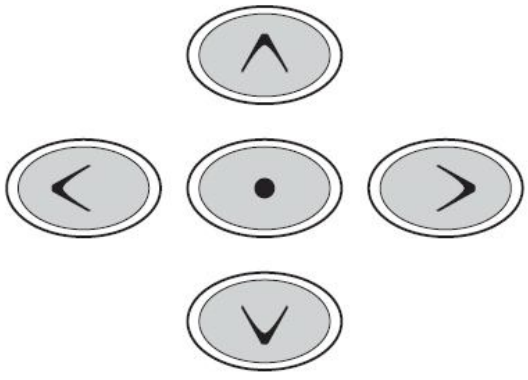
If the temperature sensors within the heater detect a low enough temperature, then the water devices automatically activate to provide freeze protection. The water devices will run either continuously or periodically depending on conditions.
In colder climates, an optional additional freeze sensor may 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 (if installed) will run for 30 minutes or more, depending on the system. On some systems, you can change this setting.

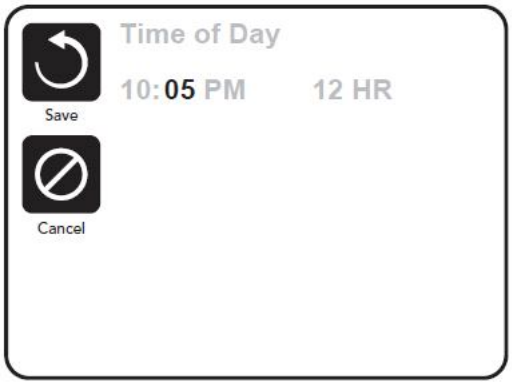
BE SURE TO SET THE TIME-OF-DAY

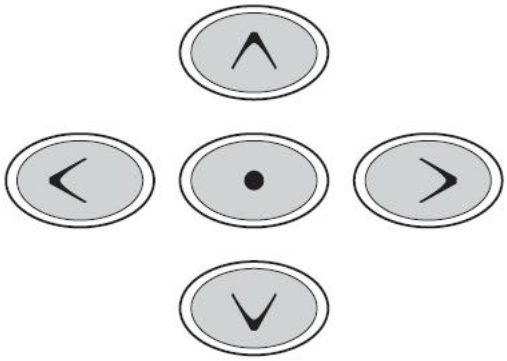
Setting the time-of-day is important for determining filtration times and other background features. “Set Time” will appear on the display if no time-of-day is set in the memory. On the Settings Screen, select the Time-of-Day line. On the Time-of-Day screen, simply navigate right and left to select the Hour, Minutes, AM/PM and 12/24 Hour segments. Use the Up and Down Buttons to make changes.



SAVING SETTINGS

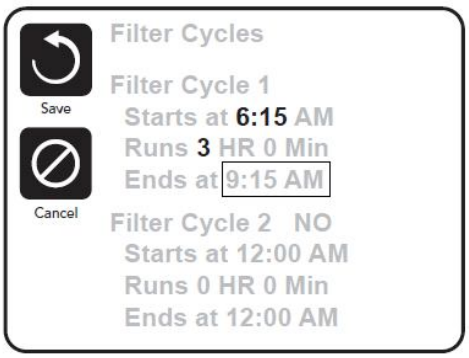
The Time-of-Day screen is a simple, editable screen that illustrates a feature of the control that applies to all other editable screens as well.
When changes are made, the icon to go “Back” changes to “Save” and a new icon for “Cancel” appears under the Save icon. Navigating to the left will highlight the Save icon, and navigating down from there will allow the user to cancel the pending change. Pressing the “Select” button will save or cancel the changes and go back to the previous screen.
Note: If power is interrupted to the system, Time-of-Day will be maintained for several days.





MAIN FILTRATION

Using the same navigation and adjustment as Setting the Time, Filter Cycles are set using a start time and a duration. 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.
Simply navigate to the Filter Cycle 2 line by pressing the Right Navigation Button, and when “NO” is highlighted, press Up or Down to toggle Filter Cycle 2 on and off. When Filter Cycle 2 is ON, it can be adjusted in the same manner as Filter Cycle 1 by navigating to the right.
It is possible to overlap Filter Cycle 1 and Filter Cycle 2, which will shorten overall fi ltration by the overlap amount.

CIRCULATION PUMP MODES

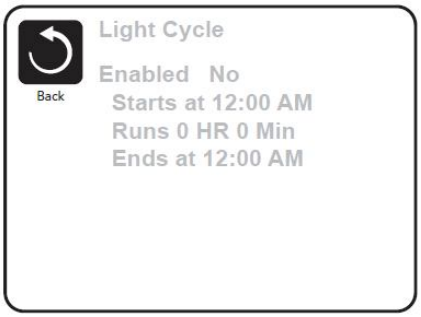
Some spas may be manufactured with Circ Pump settings that allow programming filtration cycle duration. Some circ Modes are pre-programmed to operate 24 hours a day and are not programmable. Refer to the spa manufacturer's documentation for any Circ Mode details.

PURGE CYCLES

In order to maintain sanitary conditions, as well as protect against freezing, secondary water devices will purge water from their respective plumbing by running briefly at the beginning of each filter cycle. If the Filter Cycle 1 duration is set for 24 hours, enabling Filter Cycle 2 will initiate a purge when Filter Cycle 2 is programmed to begin.

LIGHT CYCLE OPTION

If Light Cycle does not appear in the Settings Menu, the Light Timer feature is not enabled by the manufacturer. When available, the Light Timer is OFF by default. The settings can be edited the same way that Filter Cycles are edited.



INVERT PANEL

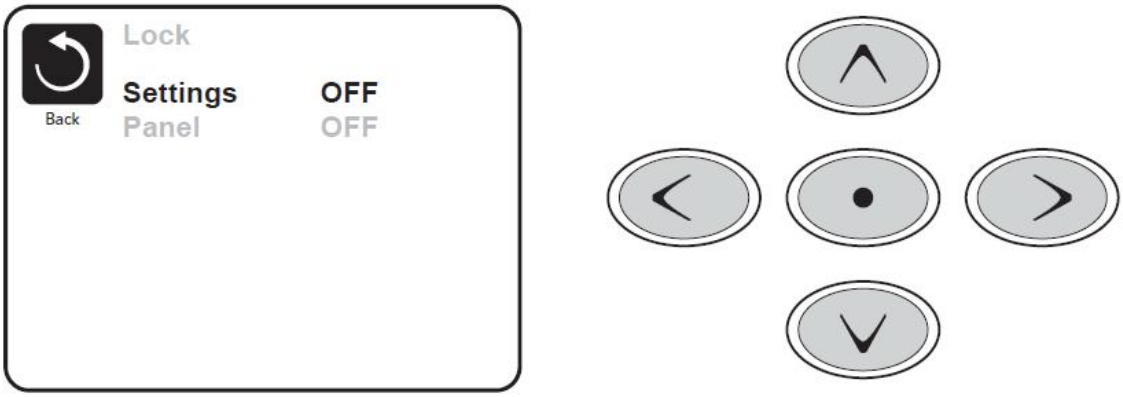
Selecting Invert Panel will flip the display and the buttons so the panel can be easily operated from inside or outside the hot tub.

SPECIFIC BUTTONS FOR SPECIFIC DEVICES

If the panel has dedicated function buttons (TP800) or the spa has an Auxiliary Panel(s) installed, pressing those buttons will activate the device indicated for that button.
These dedicated buttons will operate just like the Spa Screen buttons and the equipment will behave in the same manner with each button press.

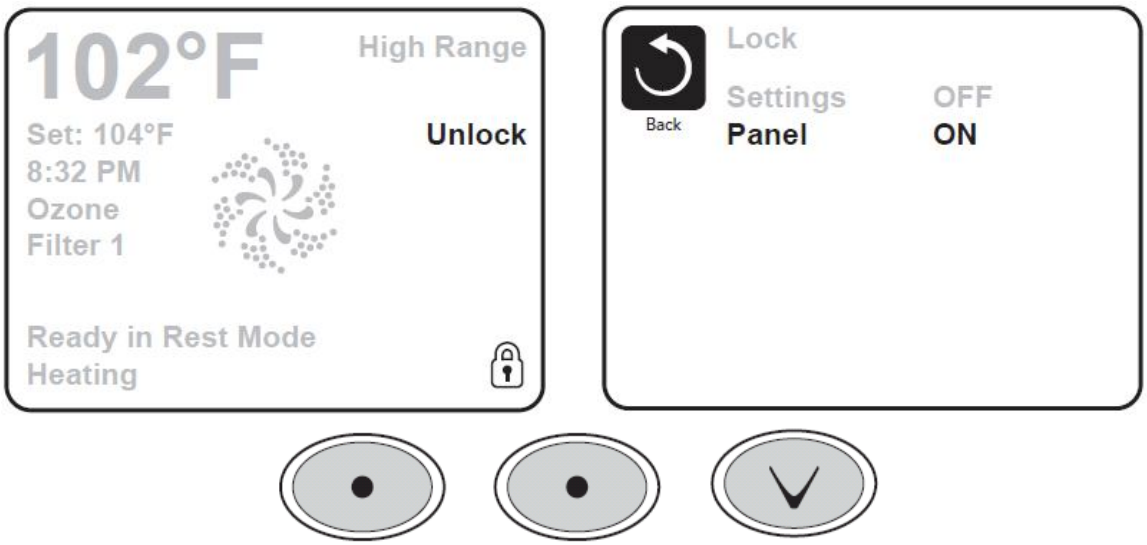
RESTRICTING OPERATION

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 Settings allows Jets and other features to be used, but the Set Temperature and other programmed settings cannot be adjusted. Settings Lock allows access to a reduced selection of menu items. These include Set Temperature, Invert, Lock, Utilities, Information and Fault Log. They can be seen, but not changed or edited.



UNLOCKING

An Unlock Sequence using the navigation buttons can be used from the Lock Screen. The Unlock Sequence is the same for both Panel Lock and Settings Lock.



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. If spa service will require more than an hour, it may be best to simply shut down power to the spa.

*M036 is a Message Code. Codes like this will be seen in the Fault Log

DRAIN MODE

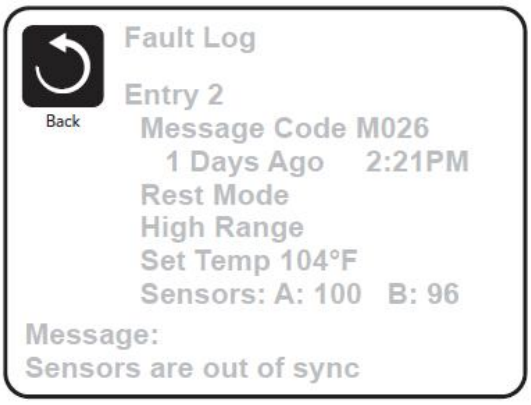
Some spas have a special feature that allows Pump 1 to be employed when draining the water. When available, this feature is a component of Hold Mode.

UTILITIES

The Utilities Menu contains the following:

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

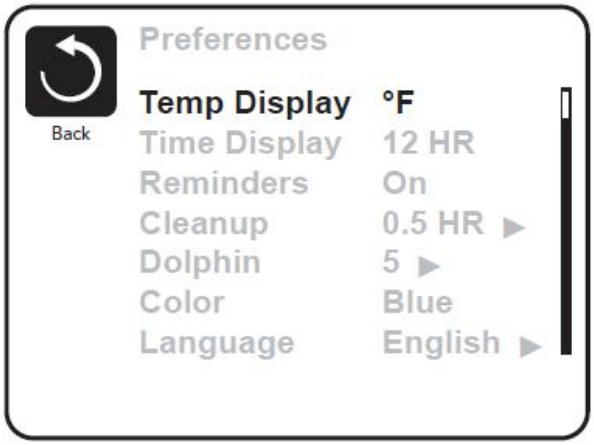
- **Demo Mode:** Demo Mode is not always enabled, so it may not appear. This is designed to operate several devices in a sequence in order to demonstrate the various features of a particular hot tub.
- **Fault Log:** The Fault Log is a record of the last 24 faults that can be reviewed by a service tech.
- **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.



PREFERENCES

The Preferences Menu allows the user to change certain parameters based on personal preference.

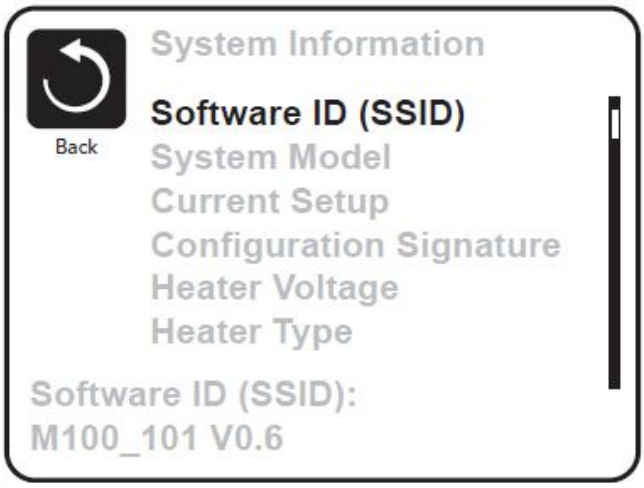
- **Temp Display:** Change the temperature between Fahrenheit and Celsius.
- **Time Display:** Change the clock between 12 hr and 24 hr display.
- **Reminders:** Turn the reminder messages (like “Clean Filter”) On or Off.
- **Cleanup:** Cleanup Cycle Duration is not always enabled, so it may not appear. When it is available, set the length of time Pump 1 will run after each use. 0-4 hours are available.
- **Dolphin II and Dolphin III (Applies to RF Dolphin only):** When set to 0, no addressing is used. Use this setting for a Dolphin II or Dolphin III 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.)
- **Color:** Pressing the Select Button when Color is highlighted will cycle through 5 background colors available in the control.
- **Language:** Change the language displayed on the panel.



SYTEM INFORMATION

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.

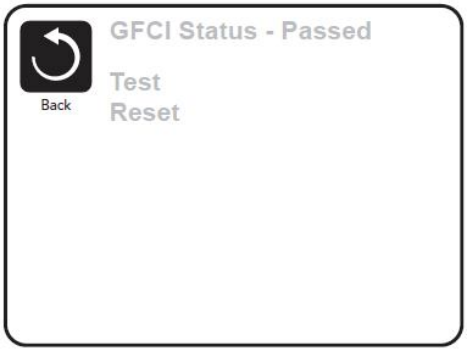
- **Software ID (SSID):** Displays the software ID number for the System.
- **System Model:** Displays the Model Number of the System.
- **Current Setup:** Displays the currently selected Configuration Setup Number.
- **Configuration Signature:** Displays the checksum for the system configuration file.
- **Heater Voltage (Feature not used on CE rated systems.):** Displays the operating voltage configured for the heater.
- **Heater Wattage as Confi gured in Software (CE Systems Only.):** Displays a heater kilowatt rating as programmed into the control system software (1-3 or 3-6).
- **Heater Type:** Displays a heater type ID number.
- **Dip Switch Settings:** Displays a number that represents the DIP switch positions of S1 on the main circuit board.
- **Panel Version:** Displays a number of the software in the topside control panel.



UTILITIES – GFCI TEST FEATURE

The Ground Fault Circuit Interrupter (GFCI) or Residual Current Detector (RCD) is an important safety device and is required equipment on a hot tub installation. **(The GFCI Test Feature is not available on CE rated systems.) Used for verifying a proper installation.**
Your spa may be equipped with a GFCI Protection feature. 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.

Warning:
The end-user must be trained to expect this one-time test to occur and how to properly reset the GFCI. If freezing conditions exist, the GFCI or RCD should be reset immediately or spa damage could result.
CE Product:
CE registered systems do not have an RCD Test Feature due to the nature of the electrical service. Some UL registered systems do not have the GFCI Test Feature activated. The end-user must be trained how to properly test and reset the RCD.



GENERAL MESSAGES

Most messages and alerts will appear at the bottom of the normally used screens. Several alerts and messages may be displayed in a sequence. ***Some messages can be reset from the panel.*** Messages that can be reset will appear with a “right arrow” at the end of the message. This message can be selected by navigating to it at pressing the Select button.

WATER TEMPERATURE IS UNKNOWN

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

– – –°F – – –°C

POSSIBLE FREEZING CONDITION

A potential freeze condition has been detected, or the Aux Freeze Switch has closed. All water devices are activated. 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.

THE WATER IS TOO HOT – M029

The system has detected a spa water temp of 110°F (43.3°C) or more, 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.

M0XX numbers are Message Codes.
*This message can be reset from the topside panel.

HEATER RELATED MESSAGES

The water flow is low – 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.

The water flow has failed* – 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.

The heater may be dry* – 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.

The 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 clear the message to restart heater start up. See “Flow Related Checks” below.

The heater is too hot* – 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 clear the message when water is below 108°f (42.2°C). See “Flow Related Checks” below.

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 by an error condition, some equipment may occasionally turn on to continue monitoring temperature or if freeze protection is needed.

M0XX numbers are Message Codes.
*This message can be reset from the topside panel.

SENSOR RELATED MESSAGES

Sensors are out of sync – M015
The temperature sensors MAY be out of sync by 2°F or 3°F. Call for Service.

Sensors are out of sync -- Call for service* – M026
The temperature sensors ARE out of sync. The fault above has been established for at least 1 hour. Call for Service.

Sensor A Fault, Senor B Fault – Sensor A: M031, Sensor B: M032
A temperature sensor or sensor circuit has failed. Call for Service.

MISCELLANEOUS MESSAGES

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

Test software installed
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.

M0XX numbers are Message Codes.
*This message can be reset from the topside panel.

SYSTEM RELATED MESSAGES

Program memory failure* – 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.

The clock has failed* – M020
Contact your dealer or service organization.

Hot fault – M035
A Pump Appears to have been Stuck ON when spa was last powered.
POWER DOWN THE SPA. DO NOT ENTER THE WATER. Contact your dealer or service organization.

REMINDER MESSAGES

General maintenance helps
Reminder Messages can be suppressed by using the Preferences Menu. 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.

Check the pH
May appear on a regular schedule, i.e. every 7 days. Check pH with a test kit and adjust pH with the appropriate chemicals.

Check the sanitizer
May appear on a regular schedule, i.e. every 7 days. Check sanitizer level and other water chemistry with a test kit and adjust with the appropriate chemicals.

Clean the filter
May appear on a regular schedule, i.e. every 30 days. Clean the filter media as instructed by the manufacturer.

Test the GFCI (or RCD)
May appear on a regular schedule, i.e. every 30 days. The GFCI or 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.

Change the water
May appear on a regular schedule, i.e. every 90 days. Change the water in the spa on regular basis to maintain proper chemical balance and sanitary conditions.

Clean the cover
May appear on a regular schedule, i.e. every 180 days. Vinyl covers should be cleaned and conditioned for maximum life.

Treat the wood
May appear on a regular schedule, i.e. every 180 days. Wood skirting and furniture should be cleaned and conditioned per the manufacturers instructions for maximum life.

Change the filter
May appear on a regular schedule, i.e. every 365 days. Filters should be replaced occasionally to maintain proper spa function and sanitary conditions.

Reminder messages can be reset from the topside panel.
Additional messages may appear on specific systems.

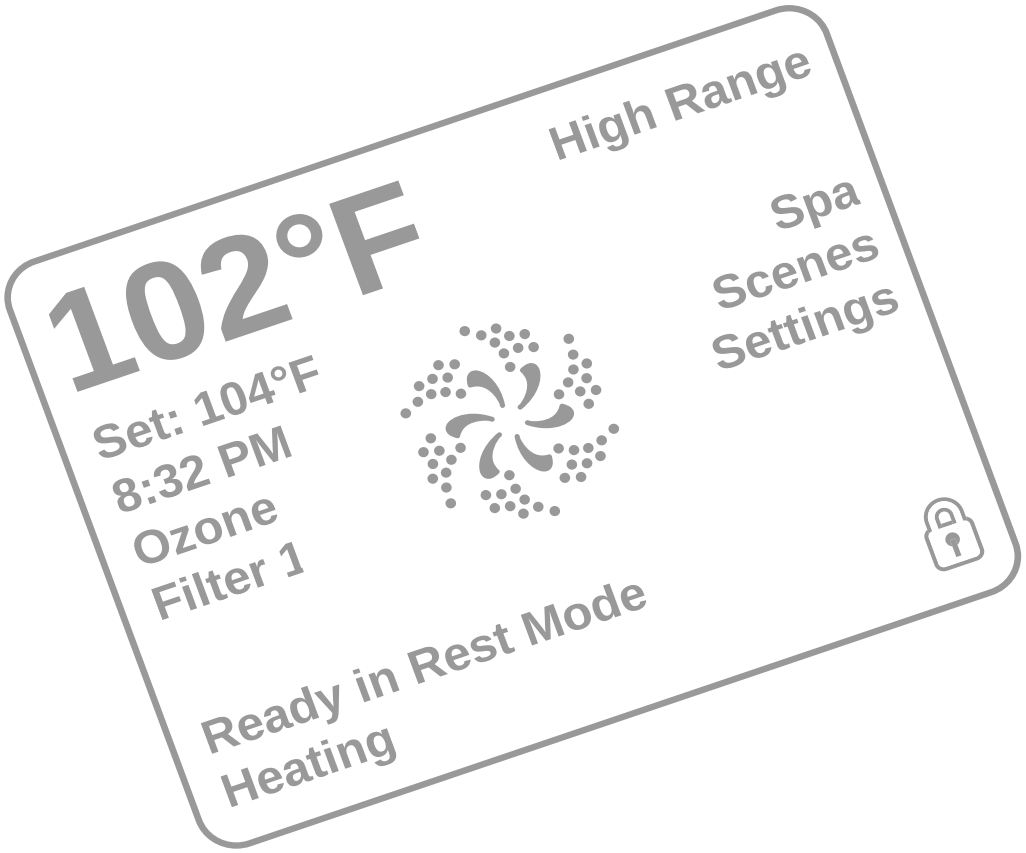
Everest Premium Spa system

spaTouch™ Menued Control Panels

Balboa Water Group BP Series Systems

User Interface and Programming Reference

The spaTouch™ menued panel is compatible with all BP systems that already support the TP800 and/or the TP900. If this panel is used with a system that supports only the TP400 and/or TP600, many screens will work correctly, but the spa screen will not display correctly and may not control all of your equipment.



The Main Screen

Spa Status

Important information about spa operation can be seen on the Main Screen.

Most features, including Set Temperature adjustment, can be accessed from this screen.

The actual water temperature and Set Temperature can be seen, and the Set Temperature can be adjusted (see page 4).

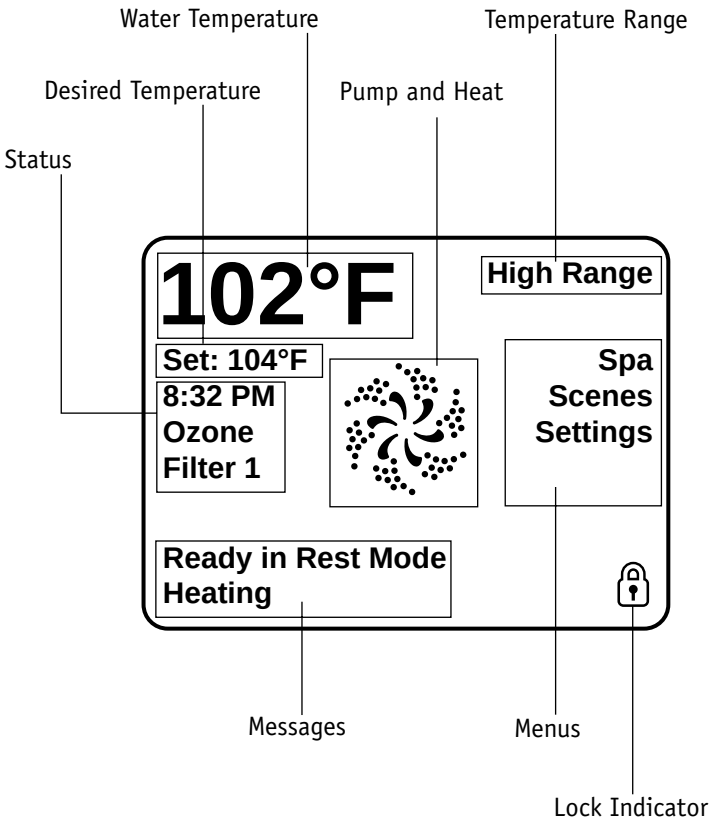
Time-of-Day, Ozone and Filter status is available, along with other messages and alerts.

The selected Temperature Range is indicated in the upper right corner.

The Jets Icon in the center will spin if any pump is running and changes color when the heater is on.

A Lock icon is visible if the panel or settings are locked.

The Menu choices on the right can be selected and the screen will change to show more detailed controls or programming functions.



The Main Screen

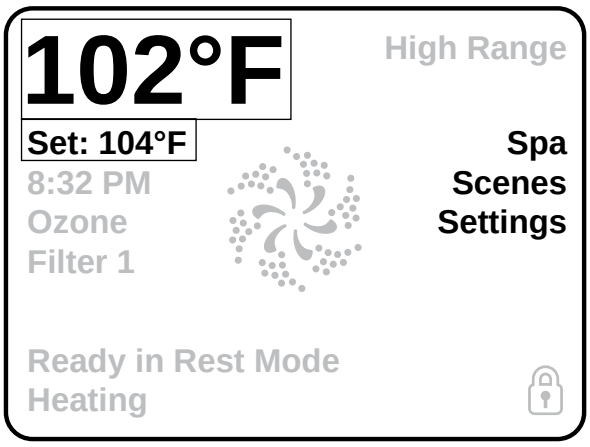
Navigation

Navigating the entire menu structure is done by touching the screen.

When a text item is shown in white on the main screen, it is selectable.

The menu selections on the right side of the screen can be selected. Select one of these to enter a different screen with additional controls.

Most menu screens time out and revert to the main screen after 30 seconds of no activity.

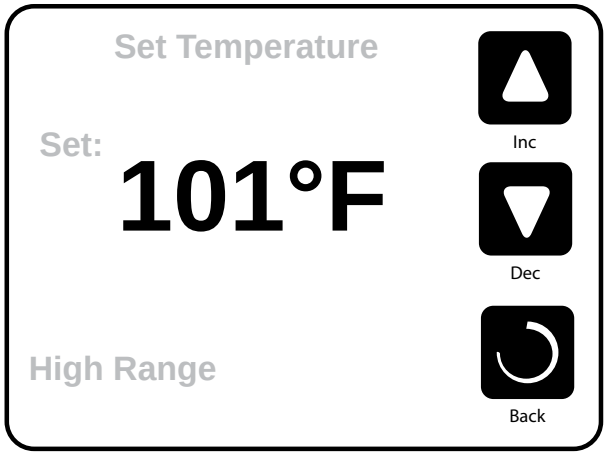


The only item that can be changed on the left side of the Main Screen is the Set Temperature. Touch either the set temperature line or the water temperature to go to the Set Temperature screen. See next page.

Messages

At the bottom of the screen, messages may appear at various times. Some of these messages must be dismissed by the user (see pages 22-26).

The Set Temperature Screen



Set Temperature

Press Inc or Dec to modify the Set Temperature. The Set Temperature changes immediately. Press Back to return to the Main Screen.

If you need to switch between high range and low range you need to go to the Settings Screen.

Press-and-Hold

If the Up or Down button is pressed and held, the temperature will continue to change until the button is released, or the Temperature Range limits are reached.

The Spa Screen

All Equipment Access

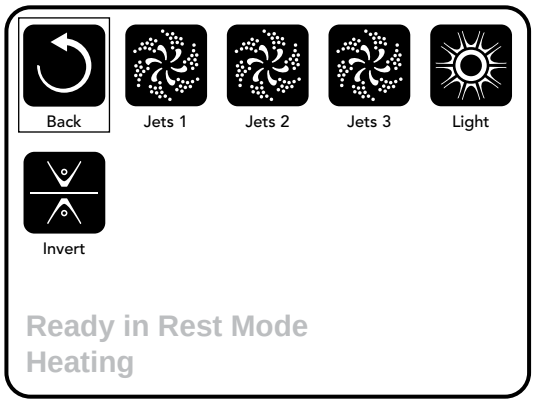
The Spa Screen shows all available equipment to control, as well as other features, like Invert. The display shows icons that are related to the equipment installed on a particular spa model, so this screen may change depending on the installation.

The icon buttons are used to select and control individual devices.

Some devices, like pumps, may have more than one ON state, so the icon will change to reflect the state that the equipment is in. Below are some examples of 2-speed Pump indicators.

If the Spa has a Circ Pump, a Circ Pump Icon will appear to indicate its activity, but outside of Priming Mode, the Circ Pump cannot be controlled directly.

NOTE: The icon for the pump that is associated with the heater (Circ or P1 Low) will have a red glow in the center when the heater is running.



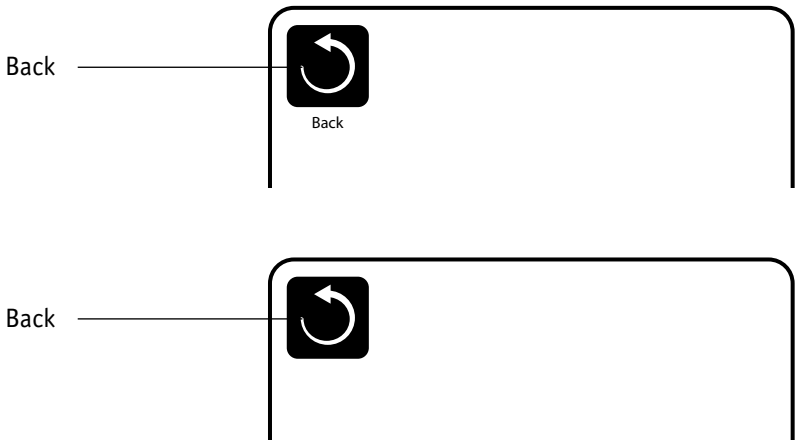
Common Buttons

Exiting Screens

When you see both of these buttons, whether they are labeled or not, they always mean Save and Cancel. They appear on most editing screens once you have changed the value on that screen.

If the screen times out due to no activity it will act like Cancel.

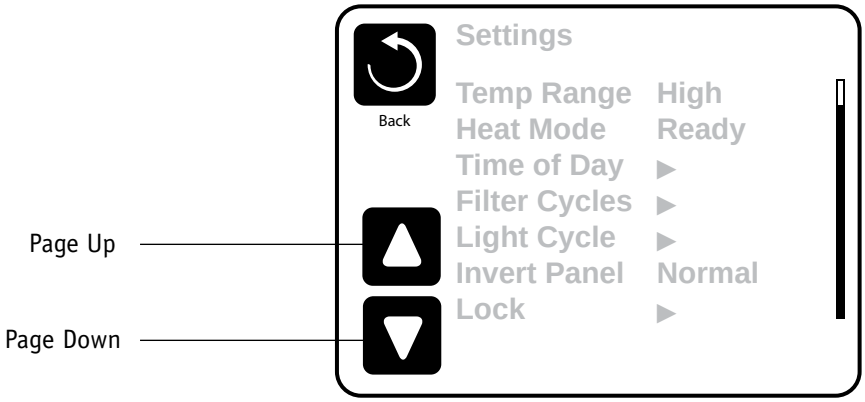
When you see only this button, whether it is labeled or not, it means Back or Exit. It appears on editing screens before you have changed any value, as well as on all other screens.



Common Buttons – Continued

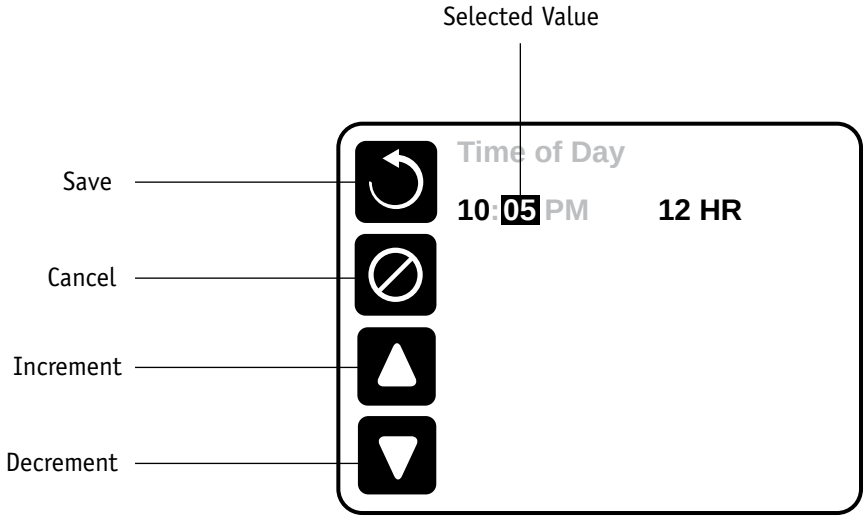
Page Up/Down

If an Up or Down button is shown and pressed when in a Menu List, the list can be scrolled a page at a time. The scroll bar on the right side of the screen indicates the relative position of the page.



Values Increment/Decrement

If an Up or Down button is shown and pressed when on an editing page, and a value has been selected (highlighted), the value can be incremented by pressing the up arrow or decremented by pressing the down arrow.



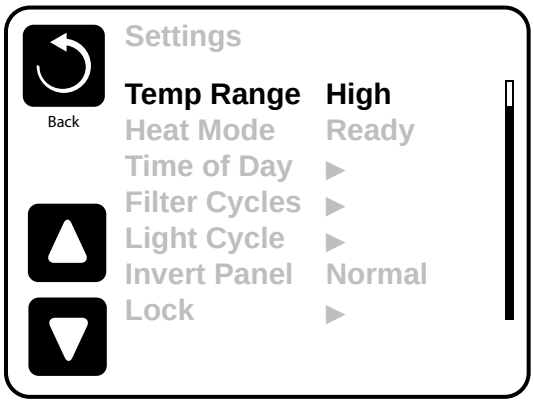
The Settings Screen

Programming, Etc.

The Settings Screen is where all programming and other spa behaviors are controlled.

This screen has several features that can be acted on directly. These features may include Temp Range, Heat Mode, Hold, and Invert Panel. When one of these items is selected, it will toggle between two settings.

All other menu items (with an arrow pointing to the right) go to another level in the menu.



Dual Temperature Ranges (High vs. Low)

This system incorporates two temperature range settings with independent set temperatures. The specific range can be selected on the Settings screen and is visible on the Main Screen in the upper right corner of the display.

These ranges can be used for various reasons, with a common use being a “ready to use” setting vs. a “vacation” setting. 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.

High Range can be set between 80°F and 104°F.

Low Range can 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.

The Settings Screen – Continued

Heat Mode – Ready vs. 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 (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."

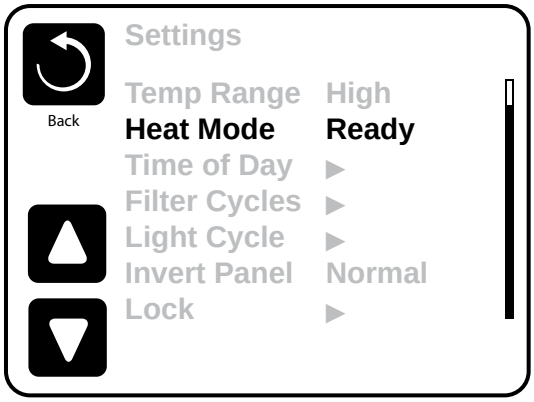
Rest Mode will only allow heating during programmed filter cycles. Since polling does not occur, the temperature display may not show a current temperature until the heater pump has been running for a minute or two.

When the heater pump has come on automatically (for example for heating) you can switch between low speed and high speed but you cannot turn the heater pump off.

Circulation Mode (See Page 11, 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 24HR circulation mode.



Ready-in-Rest Mode

Ready in Rest Mode appears in the display if the spa is in Rest Mode and the Jets 1 Button is pressed. When the heater pump has come on automatically (for example for heating) you can switch between low speed and high speed but you cannot turn the heater pump off. After 1 hour, the System will revert to Rest Mode. This mode can also be reset by entering the Settings Menu and selecting the Heat Mode line.

Fill it up!

Preparation and Filling

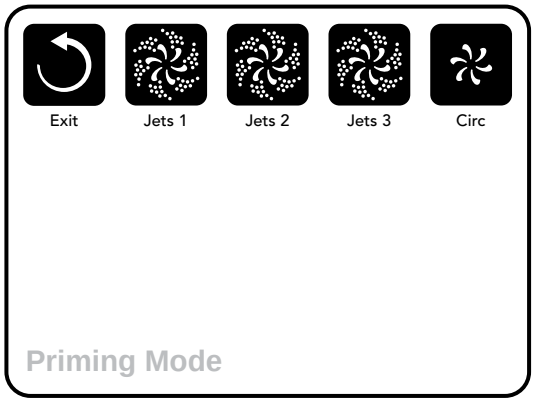
Fill the spa to its correct operating level. Be sure to open all valves and jets in the plumbing system before filling to allow as much air as possible to escape from the plumbing and the control system during the filling process.

After turning the power on at the main power panel, the top-side panel will display a splash screen or startup screen.

Priming Mode – M019*

After the initial start-up sequence, the control will enter Priming Mode and display a Priming Mode screen. Only pump icons appear on the priming mode screen. 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 selecting the "Jet" buttons. If the spa has a Circ Pump, it can be turned on and off by pressing the "Circ Pump" button during Priming Mode.

Priming the Pumps



As soon as the Priming Mode screeen appears on the panel, select the "Jets 1" button once to start Pump 1 in low-speed and then again to switch to high-speed. Also, select the other pumps, to turn them on. The pumps should 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

The system will automatically enter the normal heating and filtering at the end of the priming mode, which lasts 4-5 minutes.

You can manually exit Priming Mode by pressing the "Exit" button on the Priming Mode Screen. 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 display the Main Screen, 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.

– – –°F – – –°C

*MOXX is a Message Code. See Fault Log on Page 17.

Spa Behavior

Pumps

On the Spa Screen, select a "Jets" button once to turn the pump on or off, and to shift between low- and high-speeds if equipped. If left running, the pump will turn off after a time-out period.

Non-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 9), 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.

Other device options may be available, like Blower, Light, Mister, etc.

Filtration and Ozone

On non-circ systems, Pump 1 low and the ozone generator will run during filtration. On circ systems, the ozone will generally run with the circ pump, but can be limited to filtration cycles.

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 13)
A second filter cycle can be enabled as needed.

At the start of each filter cycle, the water devices like blower, mister device (if these exist) and other pumps will run briefly to purge the plumbing to maintain good water quality.

Freeze Protection

If the temperature sensors within the heater detect a low enough temperature, then the water devices automatically activate to provide freeze protection. The water devices will run either continuously or periodically depending on conditions.

In colder climates, an optional 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 18)

BALBOA water group

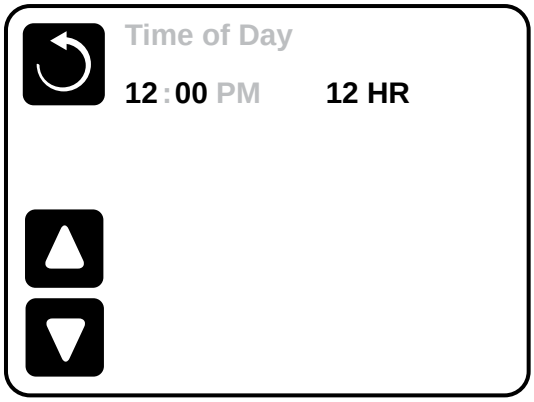
Time-of-Day

Be sure to set the Time-of-Day

Setting the time-of-day is important for determining filtration times and other background features.

“Set Time” will appear on the display if no time-of-day is set in the memory.

On the Settings Screen, select the Time-of-Day line. On the Time-of-Day screen, simply select the Hour, Minutes, and 12/24 Hour segments. Use the Up and Down Buttons to make changes.



Note:

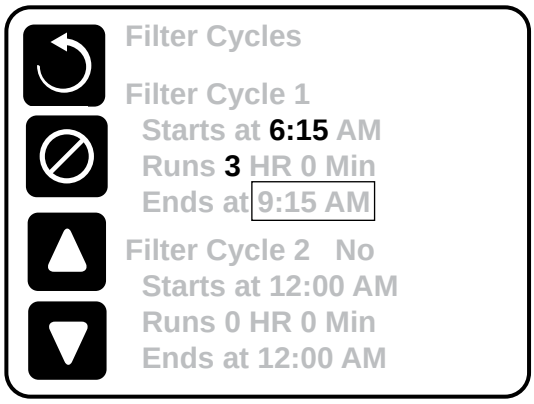
This only applies to some systems:

If power is interrupted to the system, Time-of-Day will be maintained for several days.

Adjusting Filtration

Main Filtration

Using the same adjustment as Setting the Time, Filter Cycles are set using a start time and a duration. 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. This displays as “No”. When Filter Cycle 2 is ON it displays as “Yes”.

Press “Yes” or “No” to toggle Filter Cycle 2 ON or OFF. When Filter Cycle 2 is ON, it can be adjusted in the same manner as Filter Cycle 1.

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

Circulation Pump Modes

Some spas may be manufactured with Circ Pump settings that allow programming filtration cycle duration. Some circ Modes are pre-programmed to operate 24 hours a day and are not programmable. Refer to the spa manufacturer’s documentation for any Circ Mode details.

Purge Cycles

In order to maintain sanitary conditions, as well as protect against freezing, secondary water devices will purge water from their respective plumbing by running briefly at the beginning of each filter cycle.

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

The Meaning of Filter Cycles

1. The heating pump always runs during the filter cycle*
2. In Rest Mode, heating only occurs during the filter cycle
3. Purges happen at the start of each filter cycle

*For example, if your spa is set up for 24/hour circulation except for shutting off when the water temperature is 3˚F/1.3˚C above the set temperature, that shutoff does not occur during filter cycles.

BALBOA water group

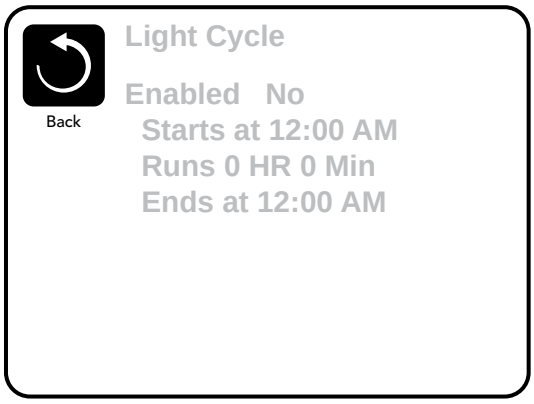
Additional Settings

Light Cycle Option

If Light Cycle does not appear in the Settings Menu, the Light Timer feature is not enabled by the manufacturer.

When available, the Light Timer is OFF by default.

The settings can be edited the same way that Filter Cycles are edited (see page 13).



Invert Panel

Selecting Invert Panel will flip the display and the buttons so the panel can be easily operated from inside or outside the hot tub.

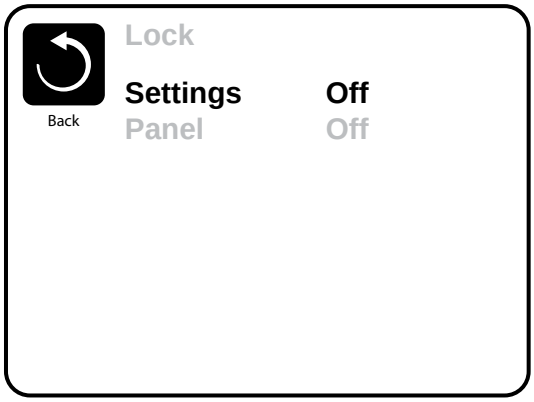
Auxiliary Panel(s)

Specific Buttons for Specific Devices

If the spa has an Auxiliary Panel(s) installed, pressing buttons on that panel will activate the device indicated for that button.

These dedicated buttons will operate just like the Spa Screen buttons (see page 5) and the equipment will behave in the same manner with each button press.

Restricting Operation



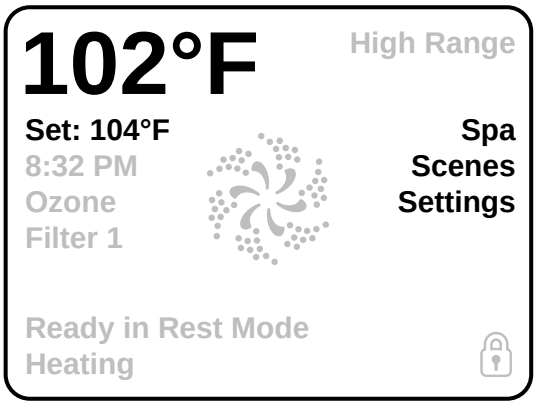
The control can be restricted to prevent unwanted use or temperature adjustments.

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

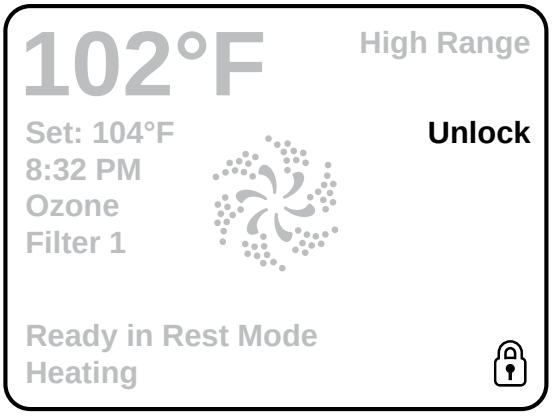
Locking the Settings allows Jets and other features to be used, but the Set Temperature and other programmed settings cannot be adjusted.

Settings Lock allows access to a reduced selection of menu items. These include Filter Cycles, Invert, Information and Fault Log. They can be seen, but not changed or edited.

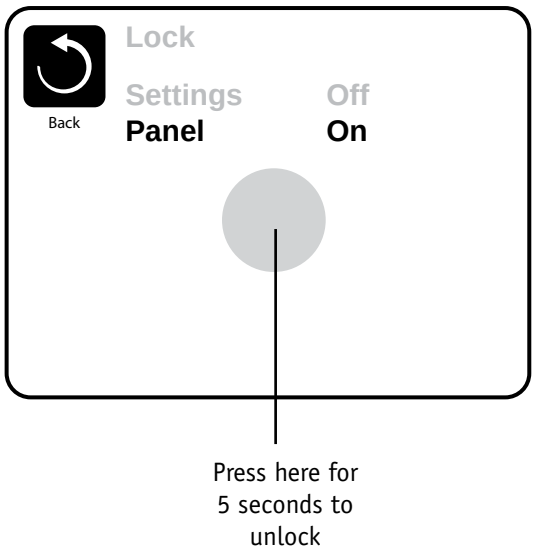
Settings Locked



Panel Locked



Unlocking



To unlock either Settings or Panel first select Settings (if it says “On”) or Panel (if it says “On”), than press in the middle of the screen for at least 5 seconds.

Scenes

What are Scenes?

Scenes are stored combinations of equipment states. For example if you want to have Pump 1 at high speed and Pump 2 at low speed and the Light ON, you could store that in a Scene and recall this combination at any time.

Storing a Scene

Press a Scene number and hold until “Scene stored“ appears at the bottom of the screen to save the current equipment combination.

Recalling a Scene

To recall a Scene simply press a Scene number.

Pressing any Scene line which has not yet been stored will simply turn off all spa devices.

Additional Settings

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. If spa service will require more than an hour, it may be best to simply shut down power to the spa.

Drain Mode

Some spas have a special feature that allows Pump 1 to be employed when draining the water.
When available, this feature is a component of Hold Mode.

Utilities

The Utilities Menu contains the following:

A/B Temps

When this is set to On, the main screen will display sensor A and sensor B temperatures simultaneously. Sensor A is at the opposite end of the heater from sensor B.

Demo Mode

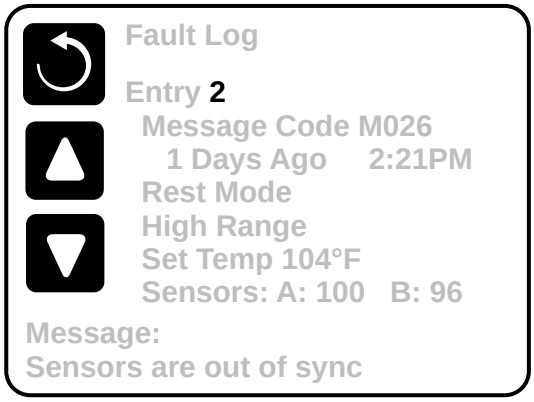
Demo Mode is not always enabled, so it may not appear. This is designed to operate several devices in a sequence in order to demonstrate the various features of a particular hot tub.

Fault Log

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

Use the Up and Down buttons to view each of the Faults.

When Priming Mode shows in the Fault Log, it is not a fault. Rather, it is used to keep track of spa restarts.



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

Your systems may have GFCI configured in one of three ways:

1. GFCI test is not enabled
2. Manual GFCI test is enabled but automatic GFCI test is not enabled
3. Both manual and automatic GFCI tests are enabled. The automatic test will happen within 7 days of the spa being installed and if successful will not repeat. (If the automatic test fails it will repeat after the spa is restarted.)

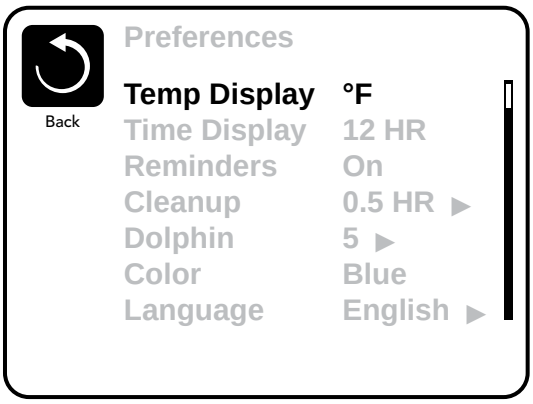
GFCI Test will not appear on the screen if it is not enabled. This screen allows the GFCI to be tested manually from the panel and can be used to reset the automatic test feature. (See Page 20)

*MOXX is a Message Code. Codes like this will be seen in the Fault Log

Additional Settings

Preferences

The Preferences Menu allows the user to change certain parameters based on personal preference.



Temp Display

Change the temperature between Fahrenheit and Celsius.

Time Display

Change the clock between 12 hr and 24 hr display.

Reminders

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

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.

Dolphin II and Dolphin III (Applies to RF Dolphin only)

When set to 0, no addressing is used. Use this setting for a Dolphin II or Dolphin III 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.)

Color

Selecting Color will cycle through 5 background colors available in the control.

Language

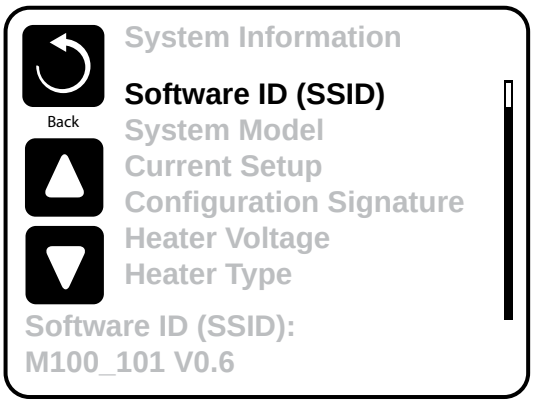
Change the language displayed on the panel.

BALBOA water group

Information

System Information

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



Software ID (SSID)

Displays the software ID number for the System.

System Model

Displays the Model Number of the System.

Current Setup

Displays the currently selected Configuration Setup Number.

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).

Heater Type

Displays a heater type ID number.

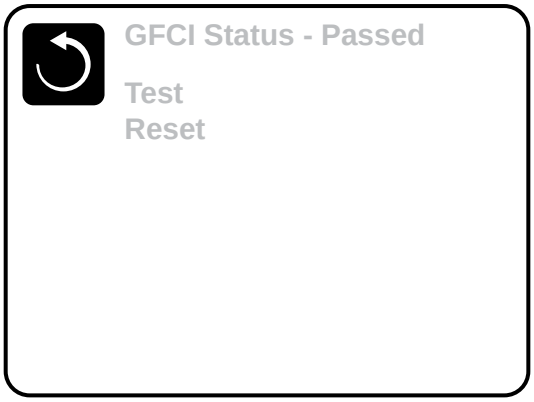
Dip Switch Settings

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

Panel Version

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

Utilities – GFCI Test Feature



The Ground Fault Circuit Interrupter (GFCI) or Residual Current Detector (RCD) is an important safety device and is required equipment on a hot tub installation.

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

Used for verifying a proper installation

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

On some systems:

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 (North America Only)

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. “Passed” should appear after the Reset line is selected on the GFCI screen.

Warning:

On those systems that automatically test the GFCI within 1 to 7 days after startup:

The end-user must be trained to expect this one-time test to occur.

The end-user must be trained how to properly reset the GFCI.

If freezing conditions exist, the GFCI or RCD should be reset immediately or spa damage could result.

CE Product:

CE registered systems do not have an RCD Test Feature due to the nature of the electrical service.

Some UL registered systems do not have the GFCI Test Feature activated.

The end-user must be trained how to properly test and reset the RCD.

General Messages

Most messages and alerts will appear at the bottom of the normally used screens.
Several alerts and messages may be displayed in a sequence.

– – –°F – – –°C

Water Temperature is Unknown

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

Possible freezing condition

A potential freeze condition has been detected, or the Aux Freeze Switch has closed. All water devices are activated.

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.

The water is too hot – M029*

The system has detected a spa water temp of 110°F (43.3°C) or more, 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.

---

*M0XX is a Message Code. Codes like this will be seen in the Fault Log

Heater-Related Messages

The water flow is low – 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.

The water flow has failed* – 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, reset the message*.

The heater may be dry* – M028**

Possible dry heater, or not enough water in the heater to start it. The spa is shut down for 15 min. Reset this message* to reset the heater start-up. See "Flow Related Checks" below.

The 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 reset the message* to restart heater start up. See "Flow Related Checks" below.

The heater is too hot* – 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 reset the message* when water is below 108°f (42.2°C). See "Flow Related Checks" below.

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 by an error condition, some equipment may occasionally turn on to continue monitoring temperature or if freeze protection is needed.

* ***Some messages can be reset from the panel.*** Messages that can be reset will appear with a "right arrow" at the end of the message. Press the message text to reset the message.

Clean the filter ▶

**M0XX is a Message Code. Codes like this will be seen in the Fault Log

Sensor-Related Messages

Sensors are out of sync – M015**

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

Sensors are out of sync -- Call for service* – M026**

The temperature sensors ARE out of sync. The fault above has been established for at least 1 hour.
Call for Service.

Sensor A Fault, Senor B Fault – Sensor A: M031**, Sensor B: M032**

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

Miscellaneous Messages

Communications error

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

Test software installed

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.

* ***Some messages can be reset from the panel.*** Messages that can be reset will appear with a "right arrow" at the end of the message. Press the message text to reset the message.

Clean the filter ▶

**MOXX is a Message Code. Codes like this will be seen in the Fault Log

System-Related Messages

Program memory failure* – 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.

The settings have been reset (Persistent Memory Error)* – M021**

Contact your dealer or service organization if this message appears on more than one power-up.

The clock has failed* – M020**

Contact your dealer or service organization.

Configuration error (Spa will not Start Up)

Contact your dealer or service organization.

The GFCI test failed (System Could Not Test the GFCI) – M036**

(North America Only) May indicate an unsafe installation. Contact your dealer or service organization.

A pump may be stuck on – M034**

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

Hot fault – M035**

A Pump Appears to have been Stuck ON when spa was last powered
POWER DOWN THE SPA. DO NOT ENTER THE WATER. Contact your dealer or service organization.

* ***Some messages can be reset from the panel.*** Messages that can be reset will appear with a "right arrow" at the end of the message. Press the message text to reset the message.

Clean the filter ▶

**MOXX is a Message Code. Codes like this will be seen in the Fault Log

Reminder Messages

General maintenance helps.

Reminder Messages can be suppressed by using the Preferences Menu. See Page 18.

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.

Check the pH

May appear on a regular schedule, i.e. every 7 days.

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

Check the sanitizer

May appear on a regular schedule, i.e. every 7 days.

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

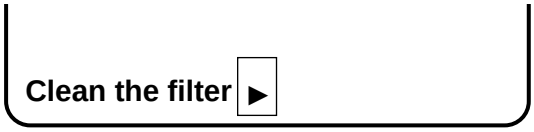
Clean the filter

May appear on a regular schedule, i.e. every 30 days.

Clean the filter media as instructed by the manufacturer. See HOLD on page 17.

Additional messages may appear on specific systems.

Reminder messages can be reset from the panel. Messages that can be reset will appear with a “right arrow” at the end of the message. Press the message text to reset the message.



Reminder Messages

Test the GFCI (or RCD)

May appear on a regular schedule, i.e. every 30 days.

The GFCI or 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.

Change the water

May appear on a regular schedule, i.e. every 90 days.

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

Clean the cover

May appear on a regular schedule, i.e. every 180 days.

Vinyl covers should be cleaned and conditioned for maximum life.

Treat the wood

May appear on a regular schedule, i.e. every 180 days.

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

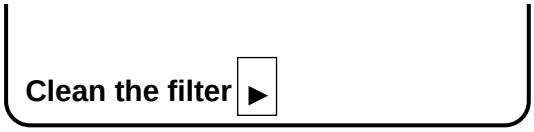
Change the filter

May appear on a regular schedule, i.e. every 365 days.

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

Additional messages may appear on specific systems.

Reminder messages can be reset from the panel. Messages that can be reset will appear with a "right arrow" at the end of the message. Press the message text to reset the message.



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 power supply.

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

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 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.

Basic Installation and Configuration Guidelines

Use minimum 6AWG copper conductors only.
Torque fi eld connections between 21 and 23 in lbs.
Readily accessible disconnecting means to be provided at time of installation.
Permanently connected power supply.
Connect only to a circuit protected by a Class A Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD) mounted at least 5' (1.52M) from the inside walls of the spa/hot tub and in line of sight from the equipment compartment.
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
Caution:

- Test the ground fault circuit interrupter before each use of the spa.
- Read the instruction manual.
- Adequate drainage must be provided if the equipment is to be installed in a pit.
- 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 fl ow rate marked.

Warning:

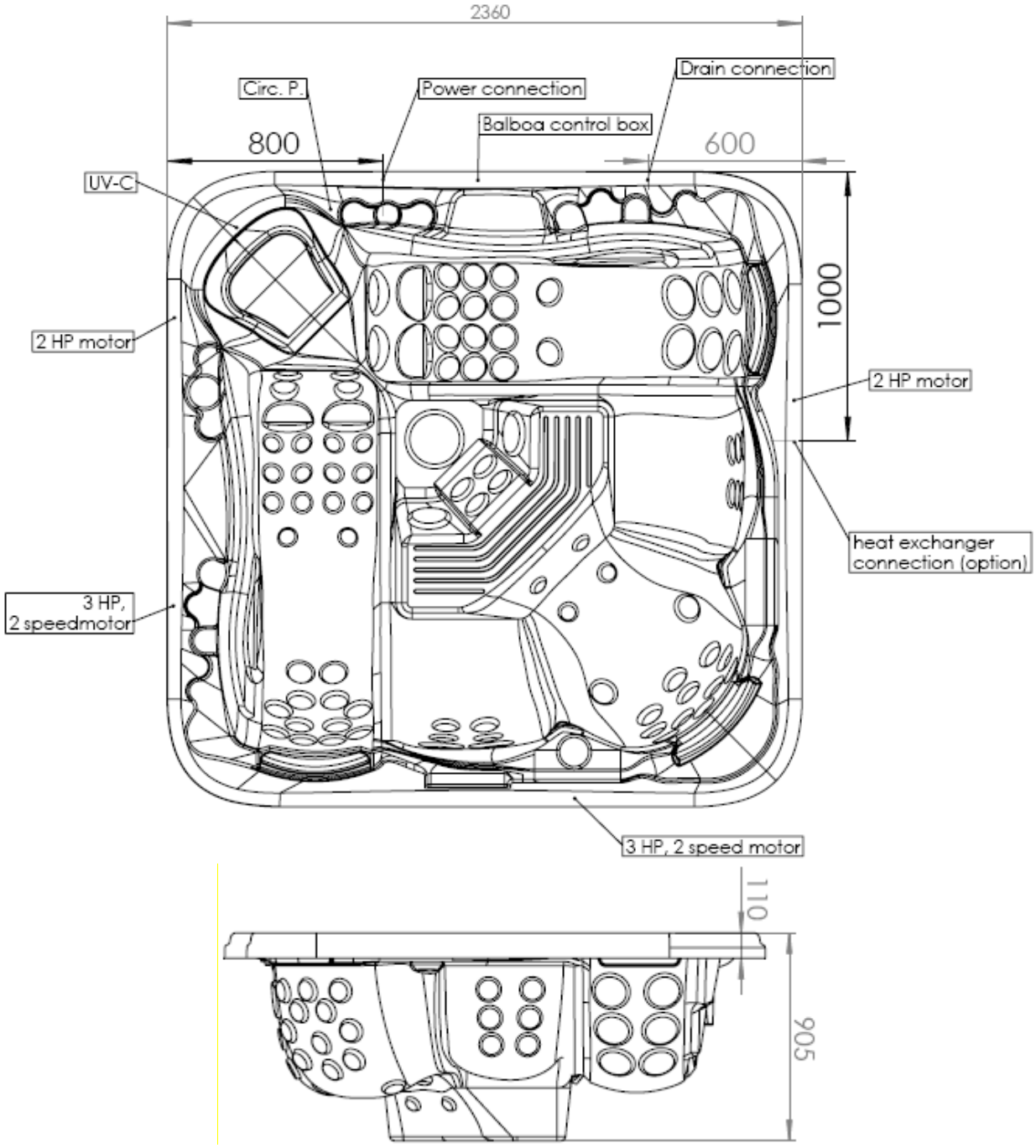
- Water temperature in excess of 38°C may be injurious to your health.
- Disconnect the electrical power before servicing.

Warning

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

Piping instructions of EVEREST spa

30mA safety relay is need to be installed!



Dimension: 2360x2360x970 mm

Drain valve (600 mm)

Electric terminal facilities through spa cabinet. 3 m cabels are required!

Length and cross sections of cabels:

- **Electric condition:** to 10 meters 3x16A 5×4mm^2 MTK cabel is required (230V) (in this case – during usage of 3HP, 2HP pumps, blower – the heating is not working)
- **In case of full opertaion**: to 10 meters 3x20A 5×4mm^2 MTK cabel is required (in this case – during usage of 3HP, 2HP pumps, blower – the heating is working)

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.

GS500Z GS501Z GS520DZ WLG523DZ BP26P3BC

1 LINE (1 FÁZIS) 1x230V 1x32A BP2100G1

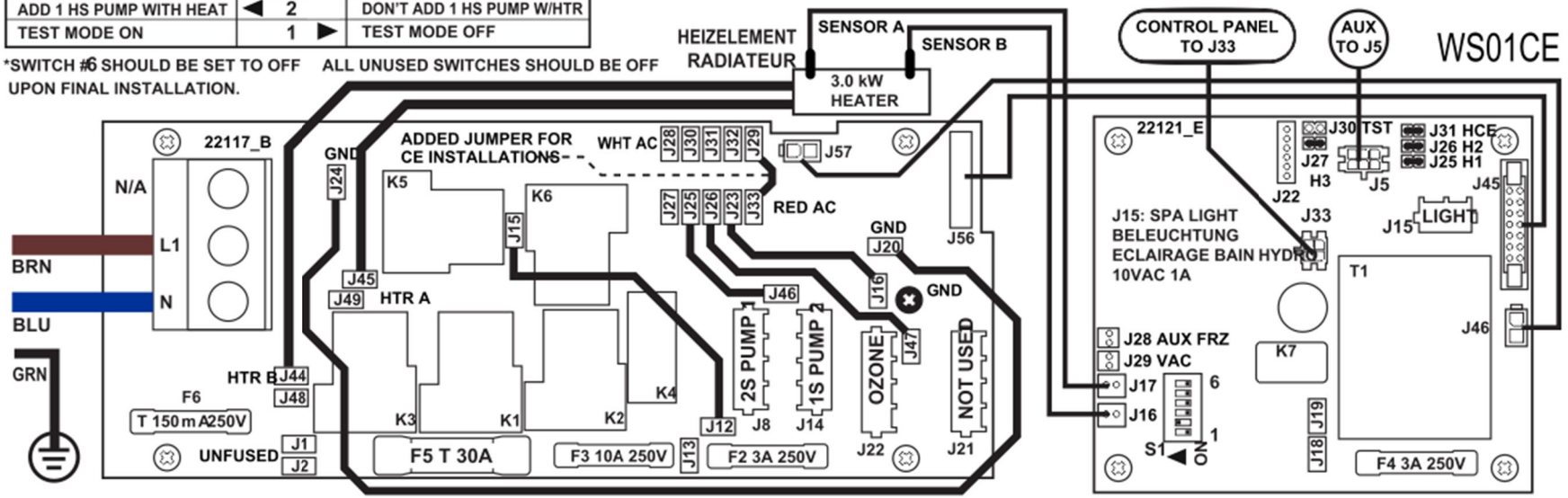
BP600

Alábbi medencékbe	1 LINE 16A	1 LINE 32A
Manhattan Basic		
Ibiza		
Samoa		
Palermo Basic		
Palermo Standard		
Malaga Basic		
Challanger		
Dominika		
Cancun		
Westerbergs relax		

ON POSITION	S1 SWITCH #	OFF POSITION
MEMORY RESET*	6 ▶	STORE SETTINGS*
SPECIAL AMPERAGE RULE ON	5 ▶	SPECIAL AMPERAGE RULE OFF
ADD 4 HS PUMPS WITH HEAT	4 ▶	DON'T ADD 4 HS PUMPS W/HTR
ADD 2 HS PUMPS WITH HEAT	3 ▶	DON'T ADD 2 HS PUMPS W/HTR
ADD 1 HS PUMP WITH HEAT	◀ 2	DON'T ADD 1 HS PUMP W/HTR
TEST MODE ON	1 ▶	TEST MODE OFF

*SWITCH #6 SHOULD BE SET TO OFF UPON FINAL INSTALLATION.

ALL UNUSED SWITCHES SHOULD BE OFF



1 Phase (Line) Connection to 1x32A
Advice to EVEREST Start modell

GS500Z GS501Z GS520DZ WLG523DZ BP26P3BC

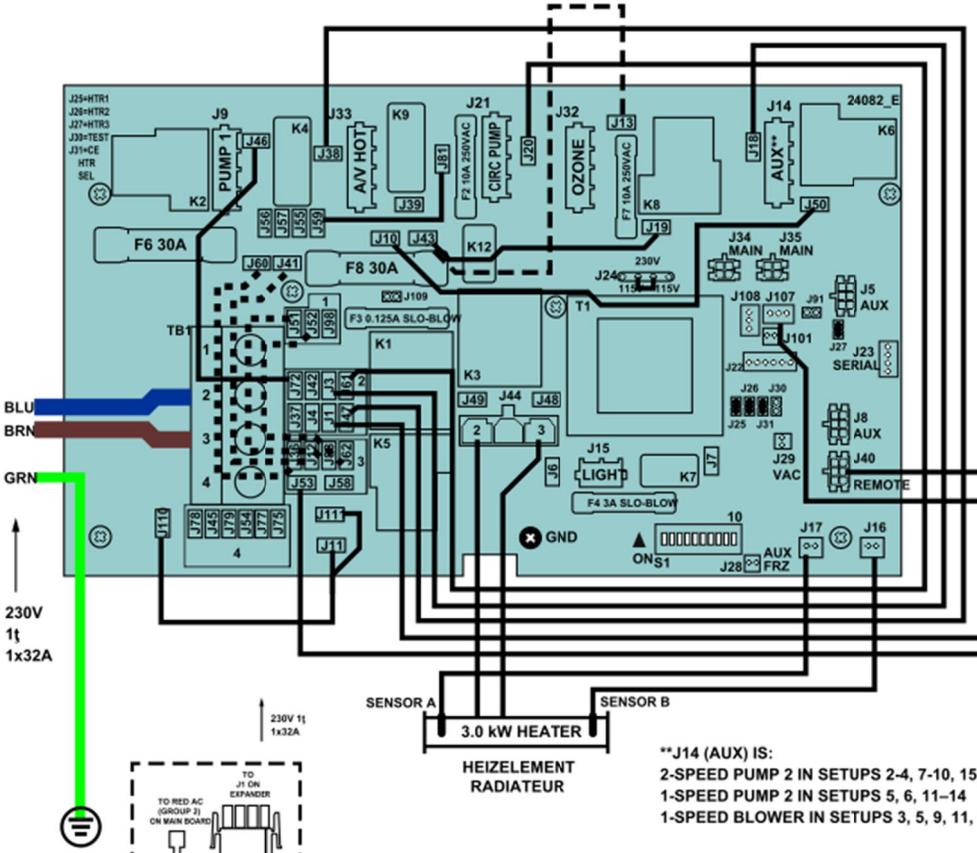
1 LINE (1 FÁZIS) 1x230V 1x32A BP2100G1

BP600

Alábbi medencékbe **1 LINE** **3 LINE**

Manhattan Deluxe	Robinzon
Zonza	Everest
Palermo Deluxe	Everest Deluxe
Borneo	Acapulco
Greenland	Acapulco mobil
Malaga	Santana
Bahama	Grenada
Bahama Deluxe	Westerbergs luxury
	Westerbergs deluxe

J43 TO J13 (BLOWER ON J14)
IN SETUPS 3, 5, 9, 11, 12, 17, 18



BLU
BRN
GRN

230V
1ţ
1x32A

SENSOR A
SENSOR B
3.0 kW HEATER
HEIZELEMENT
RADIATEUR

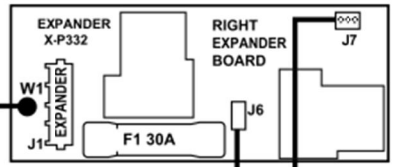
IR RECEIVER
OR
RF RECEIVER

WIFI
TRANSCEIVER
J34 OR J35

TP (MAIN) PANELS
J34 OR J35

AUX J5 (A1-A4)
OR
J8 (A5-A8)

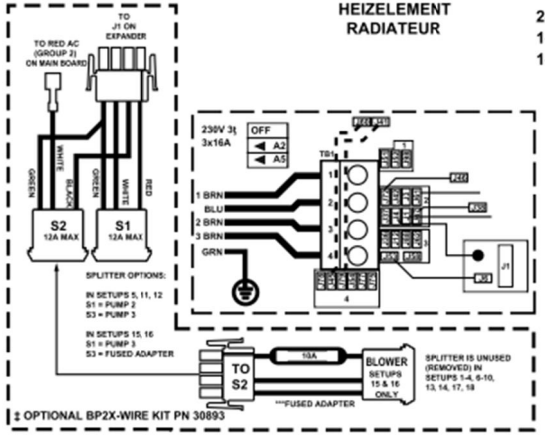
LOCATION	DEVICE	VOLTS	AMPS	FROM	TO	FROM	TO
J1 ON RT EXPANDER	2 SPD* PUMP 3	230V	12A MAX	W1 ON EXPANDER	GROUP 2 J1	J6 ON EXPANDER	GROUP 3 J53



NETZSTROMVERSORGUNG
2-GESCHW.-PUMPE 3*
ALIMENTATION POMPE 3
A 2 VITESSES*

*EXPANDER BOARD IS:
2-SPEED PUMP 3 IN SETUPS 1, 7
1-SPEED PUMP 3 (ONLY) IN SETUPS 2, 6, 8, 13, 14
1-SPEED PUMP 3 AND 1-SPEED BLOWER (WITH SPLITTER & IN-LINE FUSE) IN SETUPS 15, 16
1-SPEED PUMP 2 AND 1-SPEED PUMP 3 IN SETUPS 5, 11, 12
2-SPEED PUMP 2 IN SETUPS 3, 9
1-SPEED PUMP 2 IN SETUP 17, 18
UNUSED IN SETUPS 4, 10

**J14 (AUX) IS:
2-SPEED PUMP 2 IN SETUPS 2-4, 7-10, 15, 16
1-SPEED PUMP 2 IN SETUPS 5, 6, 11–14
1-SPEED BLOWER IN SETUPS 3, 5, 9, 11, 12, 17, 18



‡ OPTIONAL BP2X-WIRE KIT PN 30893

230V 1ţ
1x32A

SWITCHBANK S1 OFF		SWITCHBANK S1 ON
TEST MODE OFF	◀ A1	TEST MODE ON
DON'T ADD 1 HS PUMP W/HTR	◀ A2	ADD 1 HS PUMP WITH HEAT
DON'T ADD 2 HS PUMPS W/HTR	◀ A3	ADD 2 HS PUMPS WITH HEAT
DON'T ADD 4 HS PUMPS W/HTR	◀ A4	ADD 4 HS PUMPS WITH HEAT
SPECIAL AMPERAGE RULE A*	A5 ▶	SPECIAL AMPERAGE RULE B*
STORE SETTINGS**	◀ A6	MEMORY RESET**
NOT ASSIGNED	◀ A7	NOT ASSIGNED
NOT ASSIGNED	◀ A8	NOT ASSIGNED
NOT ASSIGNED	◀ A9	NOT ASSIGNED
NOT ASSIGNED	◀ A10	NOT ASSIGNED

**SWITCH #6 SHOULD BE SET TO OFF UPON FINAL INSTALLATION.

1 Phase (Line) Connection to 1x32A (minimum)
Advice to EVEREST Deluxe and Premium modell

3 Phase (Line) Connection to 3x16A (optimum)
Advice to EVEREST Deluxe and Premium modell