



WHIRLCARE®

WHIRLPOOLS & SWIM-SPAS
MADE IN GERMANY



Installation and Instruction Manual

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WEEE-Reg.-Nr. DE 40367242

Manufacturer's Statement:
All hot tubs, SwimSpas, spare parts, equipment and machines from Whirlcare Industries GmbH comply with the relevant laws, standards and directives set by Germany and the European Union.

QUICK REFERENCE

To better assist you with the installation and maintenance of your new hot tub, please fill out the form below to have the information readily available.

Customer name: _____

Customer number: _____

Invoice number: _____

Details of you hot tub

Model: _____

Serial number: _____

Your specialist dealer: _____

Dealer telephone number: _____

The hot tub was:

New

A display model

Pre-owned

Purchase date: _____

Installation date: _____

Installation via: _____

Tradesperon details

General

1. Name: _____

Phone number: _____

2. Name: _____

Phone number: _____

Electrician who installed the hot tub:

1. Name: _____

Phone number: _____

2. Name: _____

Phone number: _____

Reason of complaint: _____

Precise description: _____

Images

Videos

Date & Signature

Thank you for choosing a product from Whirlcare Industries GmbH.

We hope you enjoy your new hot tub. With proper maintenance and care, you can enjoy your hot tub for years to come. This manual will help you with the appropriate maintenance of your hot tub. Maintenance depends on the frequency of use and the environment in which your hot tub is installed. For simple and easy use of the hot tub, please follow the instructions in this instruction manual. The hot tub is approved for private use only and may not be used commercially. Any use of the hot tub outside the recommended guidelines will result in forfeiture of all warranty claims.



Whirlcare Industries GmbH rejects all liability for damage caused by failure to comply with these regulations.

Important safety instructions

READ AND OBSERVE ALL INSTRUCTIONS BEFORE USING THE HOT TUB!

The hot tub is only intended for use in accordance with its intended purpose!

-  The hot tub must not be turned on while it is being filled with water.
-  No electrical appliances should be located in the immediate vicinity of the hot tub.
-  The installation of the electrical components of the hot tub system and the operation of electrical devices in the immediate vicinity must be carried out in accordance with the recognised rules of technology. DIN VDE 0100 applies. Within a 3m radius of the hot tub, all outlets, switches and lights must also be protected by a ground fault circuit interrupter. Do not operate other plugged in electrical equipment from the hot tub! Electronic devices must be attached or placed in such a way that they cannot fall into the water.
-  Connection work may only be carried out by licensed specialists in accordance with **DIN VDE 0100!**
-  Ensure that all site specific building regulations and codes regarding structural, electrical and plumbing are adhered to.
-  Pregnant women or persons suffering from various illnesses should only use the hot tub after consulting their doctor.
-  Persons under the influence of medication, alcohol, or drugs should not use the hot tub.
-  To prevent accidents and possible drowning, children must be supervised at all times by an adult when using the hot tub.
-  To avoid injuries and potential hazards, hot tub users with long hair are advised to tie their hair up in order to avoid entanglement in the hot tub's filters or suction systems. The hot tub should not be used if suction connections are missing or damaged. Injuries resulting from hair being sucked into unsecured filters, in combination with excessive flow velocities can be life threatening.
-  If suction connections or the pump need to be replaced, make sure that the flow rates for the replacement components are correct.
-  It is very important to pay attention to the water chemistry even when the hot tub is not in use.
-  The water quality must be checked regularly. For optimal disinfection, it is necessary that the pH of the water lie between 7.0 and 7.6. A lower pH may cause irritation to the eyes and skin, as well as damage to the hot tub equipment. A high pH can cause poor disinfection, cloudy water, lime build-up, and algae.
-  Check the filter regularly and remove any debris that has accumulated in it. Prevent build-up in the filters, as this can affect the functionality of your filter.

-  Avoid harsh cleaners and scrub brushes as they can damage the surface of your hot tub.
 -  No electrical appliances may be used in the hot tub or in its immediate vicinity.
 -  Before operating the hot tub, make sure that the screw connections of the pumps, the heater, and the piping are sealed correctly.
 -  It is not recommended to use the hot tub alone.
 -  Watches and jewellery must be removed before using the hot tub.
 -  Children and senior citizens should be warned about the danger of slipping, especially when getting in and out of the hot tub.
 -  Younger children are more sensitive and for this reason a lower water temperature is recommended when they use the hot tub.
 -  If the outside temperature lies below 6 °C over a longer period of time and the hot tub is not in use, the hot tub must be completely drained. Above all the pipes and the pump, so that no residual water remains. Otherwise, frost damage will occur, which is not covered by the warranty.
 -  Do not use anything fragile inside the hot tub.
 -  The hot tub should not be used directly after physical exertion.
 -  The edge of the hot tub is not intended to be used as a seating area.
 -  Please do not jump into the hot tub. This may result in damage that is not covered by the warranty.
 -  Always cover the hot tub with the cover when not in use.
 -  Depending on how often you use the hot tub, you will need to change with different frequencies. You should drain and clean the hot tub every three to four months.
 -  Also note that the filter cartridges have a limited life in their assigned function and therefore need to be replaced regularly.
 -  When you drain your hot tub, this is an appropriate time to clean it with the cleaning products recommended by Whirlcare Industries GmbH.
 -  To avoid overheating and burns, always check the water temperature before entering the hot tub.
 -  The water temperature must not exceed 40 °C, if necessary open the cover to ventilate and cool the hot tub.
 -  If any part or component of the hot tub is defective, immediately leave the hot tub, discontinue use, and notify the dealer or a dealer/manufacturer authorized service centre.
 -  Limit your time in the hot tub to a reasonable amount. Prolonged bathing in hot water can lead to an increase in body temperature. Conditions that increase the risk of drowning include light-headedness, dizziness, fainting, drowsiness, and impaired consciousness.
 -  The hot tub should not be used during bad weather.
- Do not hold your head under water.
- Avoid ingestion of hot tub water.

Failure to follow these safety instructions will void the warranty and may result in serious injury or death!

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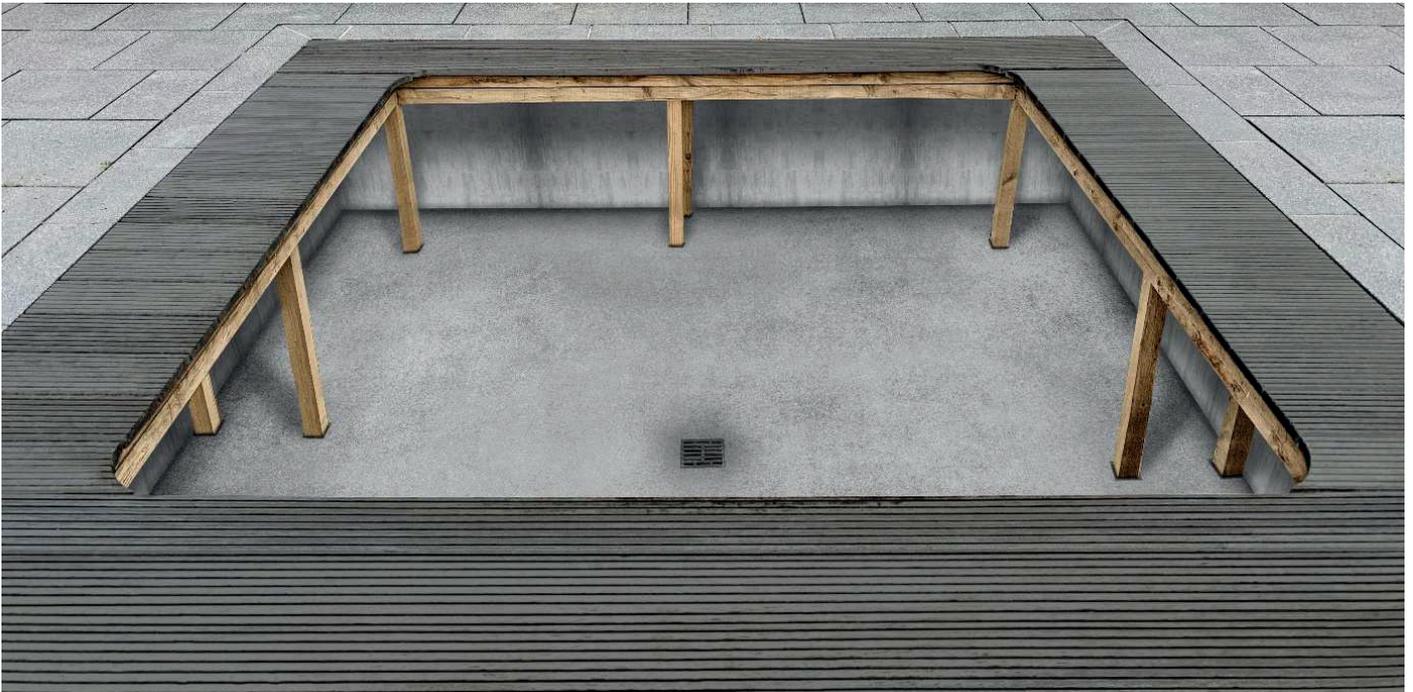
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1. 1. Important notes before initial use

1.1 1.1 Substrate and installation instructions

Before installing the hot tub, make sure the base is firm. This applies indoors and outdoors. For indoor installation, make sure entryways are large enough for that the hot tub to be moved indoors/outdoors without alterations. The environment around and under the hot tub should be waterproof, and preferably watertight. Another important factor for the interior is also the air circulation. Attention must be paid to the safety and comfort of bathers. When the hot tub is used, it produces a high level of humidity that can have a damaging effect on certain surfaces over a period of time. The base be at horizontally level, at ground level, and load-bearing. The foundation on which the hot tub is placed must be able to support the weight of the hot tub, the water, and the people inside. The decking must have proper drainage so that water does not collect around the pool. If you are unsure about this, consult a professional for advice. If in doubt, consult an architect or structural engineer. In addition, when deciding where to place the hot tub, it is important to make sure that there is enough space (at least 60 cm, optimally 80 cm) around the hot tub for maintenance and possible repairs. If the hot tub is recessed into the floor, make sure that all four sides of the hot tub are accessible. An access shaft is indispensable to provide access for maintenance work.

To better protect the hot tub and save on energy costs, the hot tub should not be exposed to the wind.

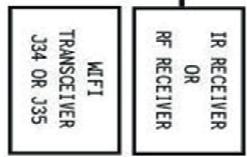
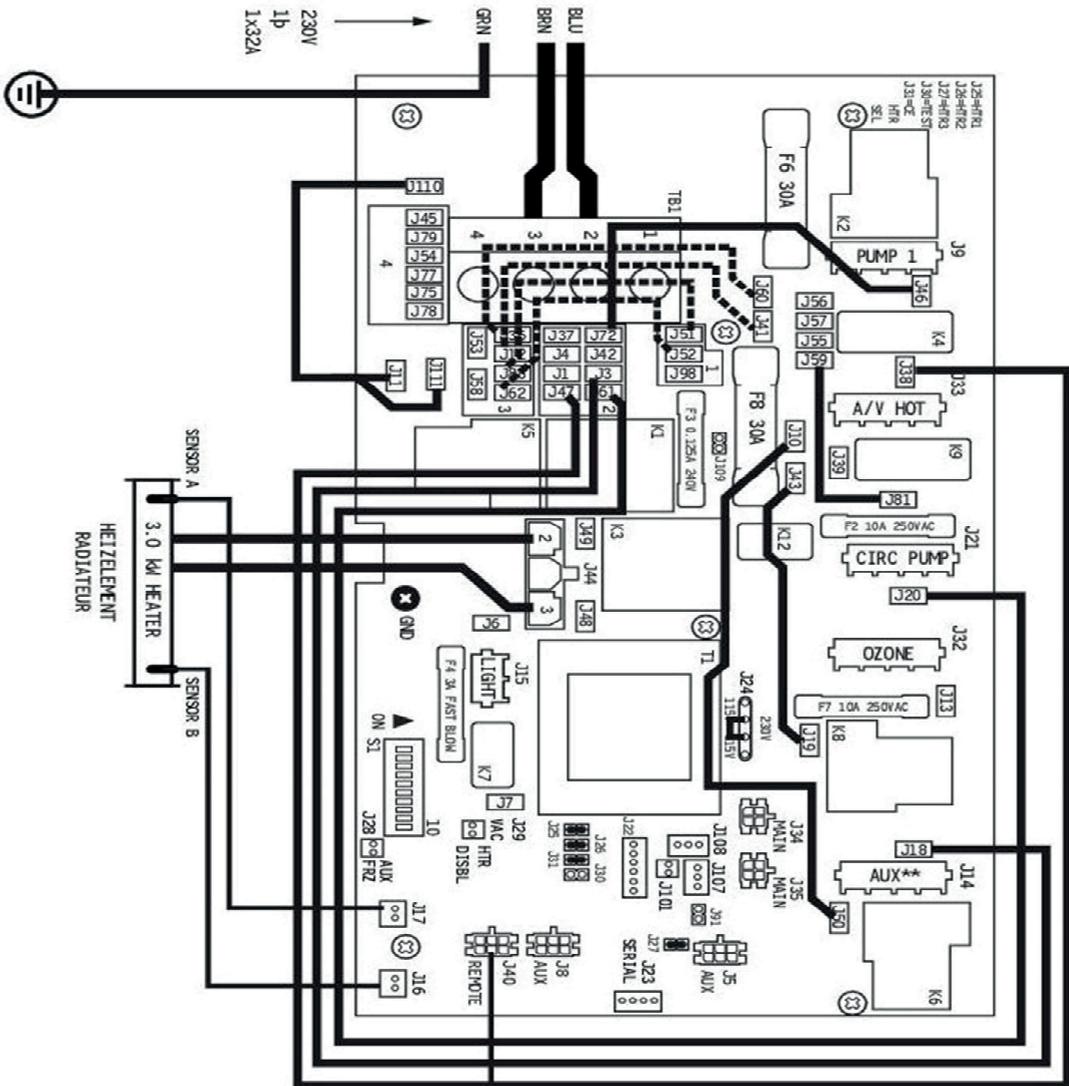


The installers or the owner must adhere to local regulations before and during installation. In the event of non-compliance to these regulations, all costs incurred, even in the event of a warranty claim, shall be borne by the customer. Whirlcare Industries GmbH rejects any liability associated with this. Whirlcare Industries GmbH is also not liable for any damage caused by disregarding these instructions.

1.2 Power connection

All electrical connections must be made by a qualified electrician. The connection must be made via a separate circuit. A disconnecting device must be installed in the circuit to isolate the system from the mains. The installation of a residual current circuit breaker is mandatory. The hot tub should not be connected to the house mains with a plug, but with a permanently connected cable. Failure to follow this instruction may result in damage as well as the forfeiture of any warranty claims. When connecting the hot tub, the local regulations must be adhered to.

A circuit diagram is located on the inside of the lid of the control box. All wiring except for the power supply is pre-assembled inside the hot tub.



SETUP #	CIRC PUMP	PUMP 1	PUMP 2	BLOWER	TEMP SCALE
1	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	NONE	°C
2	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	1-SPEED	°C
3	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	1-SPEED	NONE	°C
4	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	NONE	1-SPEED	°C
5	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	NONE	NONE	°C
6	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	1-SPEED	°C
7	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	1-SPEED	NONE	°C
8	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	NONE	1-SPEED	°C
9	PROGRAMMABLE FILTRATION + POLLING	1-SPEED	NONE	NONE	°C
10	PROGRAMMABLE FILTRATION + POLLING	2-SPEED	2-SPEED	NONE	°C
11	NONE	2-SPEED	1-SPEED	1-SPEED	°C
12	NONE	2-SPEED	1-SPEED	NONE	°C
13	NONE	2-SPEED	NONE	1-SPEED	°C
14	NONE	2-SPEED	NONE	NONE	°C

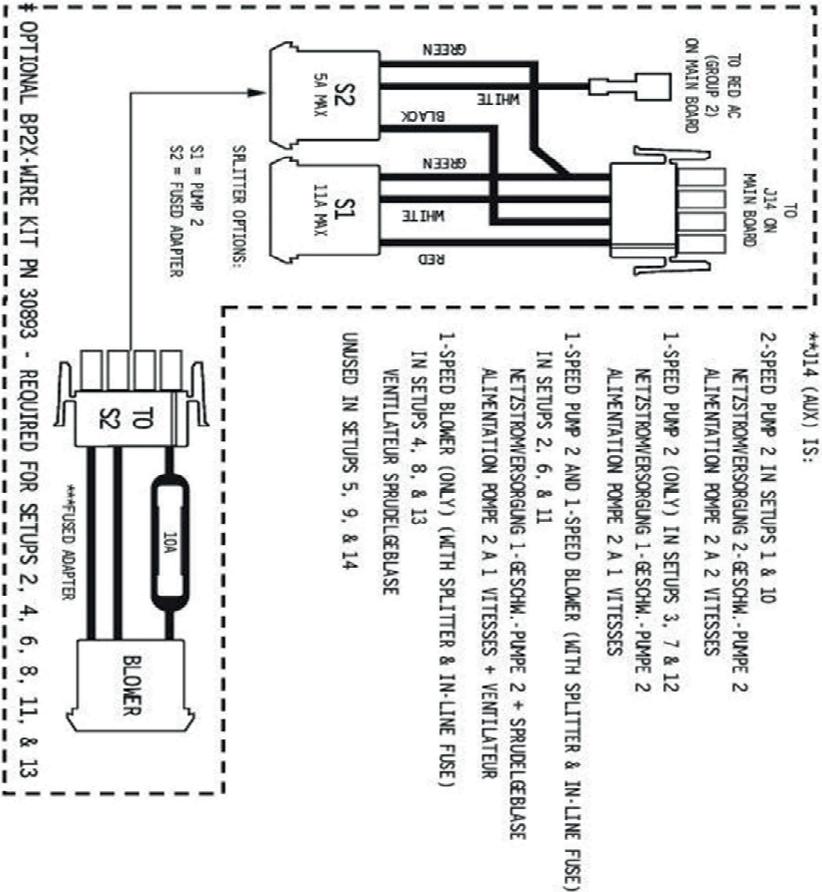
INSTEAD OF
 SETUP #10,
 THIS SYSTEM IS
 CONFIGURED IN
 SETUP #:



BP2100G0 - PN 56662-02
 05-08-17

SINGLE SERVICE 230V 1p / 1x32A, THREE-SERVICE 230V 1p / 3x16A

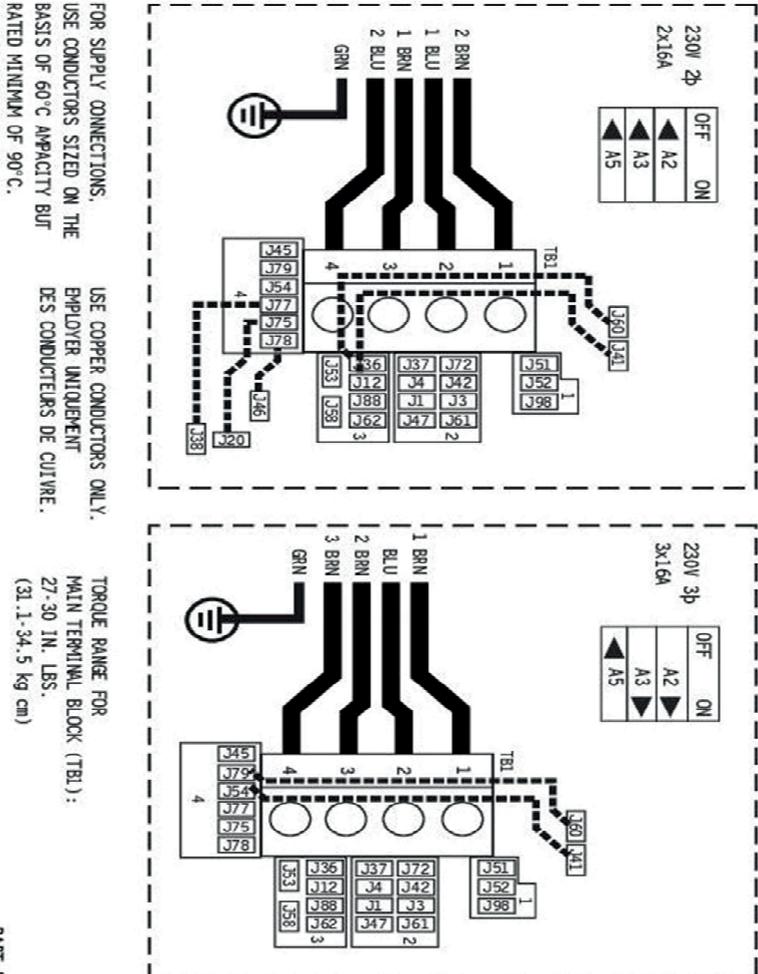
LOCATION	DEVICE
J9	NETZSTROMERSORGUNG 2-GE.SCHM.-PUMPE 1 ALIMENTATION POMPE 1 A 2 VITESSES 2-SPEED PUMP 1
J14	AUX**
J15	AUX LINE 1 CONNECTION J19 to J43, J50 to J10
J21	10V BELEUCHTUNG ECLAIRAGE BAIN HYDRO SPA LIGHT
J32	KREISLAUF PUMPE POMPE DE CIRCULATION CIRC PUMP (SETUPS 7-14, 16)
J33	OZONGENERATOR GENERATOROZONE OZONE GENERATOR
J40	CIRC AND OZONE LINE 1 CONNECTION J81 to J59
J40	TV / AV
J5, J8	IR RECEIVER
J5, J8	AUX PANEL(S) - AX10, AX20, AX30, AX40



OPTIONAL BP2X-WIRE KIT PN 30893 - REQUIRED FOR SETUPS 2, 4, 6, 8, 11, & 13

SWITCHBANK S1 OFF		SWITCHBANK S1 ON	
TEST MODE OFF	TEST MODE ON	TEST MODE OFF	TEST MODE ON
DOWN T ADD 1 HS PUMP W/HTR	A1	ADD 1 HS PUMP WITH HEAT	A2
DOWN T ADD 2 HS PUMPS W/HTR	A2	ADD 2 HS PUMPS WITH HEAT	A3
DOWN T ADD 4 HS PUMPS W/HTR	A3	ADD 4 HS PUMPS WITH HEAT	A4
SPECIAL AMPERAGE RULE A	A4	SPECIAL AMPERAGE RULE B	A5
STORE SETTINGS*	A5	MEMORY RESET*	A6
1 MIN HTR COOLDOWN (ELEC)	A6	5 MIN HTR COOLDOWN (GAS)	A7
NOT ASSIGNED	A7	NOT ASSIGNED	A8
NOT ASSIGNED	A8	NOT ASSIGNED	A9
NOT ASSIGNED	A9	NOT ASSIGNED	A10
NOT ASSIGNED	A10	NOT ASSIGNED	

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

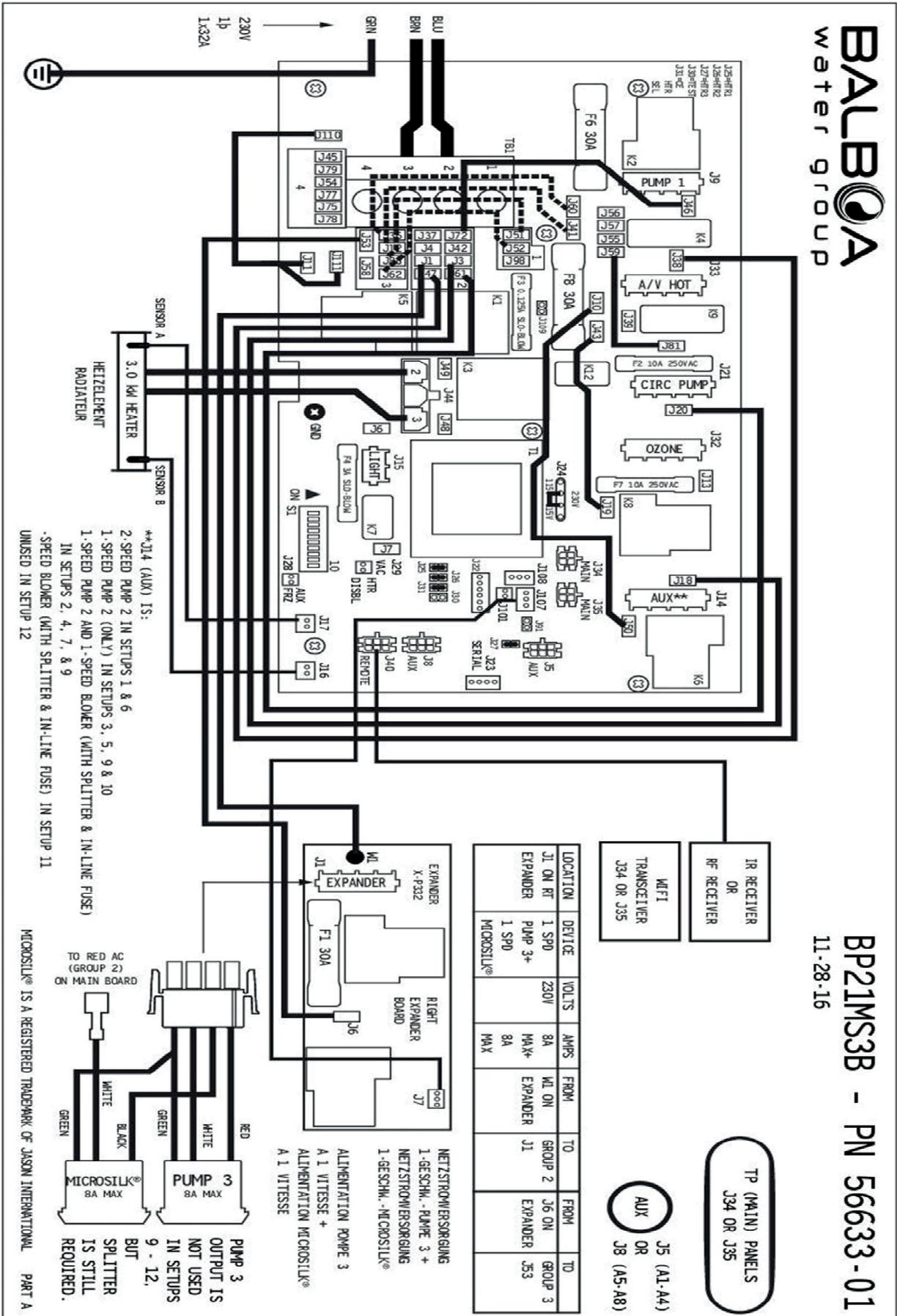


FOR SUPPLY CONNECTIONS, USE CONDUCTORS SIZED ON THE BASIS OF 60°C AMPACITY BUT RATED MINIMUM OF 90°C.

USE COPPER CONDUCTORS ONLY. EMPLOYER UNIFORMENT DES CONDUCTEURS DE CUIVRE.

BP21MS3B – PN 56633-01

BP21MS3B - PN 56633-01
11-28-16



- **J14 (AUX) IS:
- 1. SPEED PUMP 2 (ONLY) IN SETUPS 3, 5, 9 & 10
- 2. SPEED PUMP 2 IN SETUPS 1 & 6
- 1. SPEED BLOWER (WITH SPLITTER & IN-LINE FUSE) IN SETUPS 2, 4, 7, & 9
- 1. SPEED BLOWER (WITH SPLITTER & IN-LINE FUSE) IN SETUP 11
- UNUSED IN SETUP 12

MICROSLIK® IS A REGISTERED TRADEMARK OF JASON INTERNATIONAL PART A

SINGLE SERVICE 230V 1p / 1x32A, THREE-SERVICE 230V 1p / 3x16A

LOCATION	DEVICE	WIRING
J09	NETZSTROMVERSORGUNG 2-GESCHW.-PUMPE 1	ALIMENTATION POMPE 1 A 2 VITESSES 2-SPEED PUMP 1
J14	AUX**	
J15	AUX LINE 1 CONNECTION	J19 to J43, J50 to J10
J21	10V BELEUCHTUNG ECLAIRAGE BAIN HYDRO SPA LIGHT	
J22	KREISLAUF PUMPE POMPE DE CIRCULATION CIRC PUMP	(SETUPS 7-14, 16)
J32	OZONGENERATOR GENERATOROZONE OZONE GENERATOR	
J33	CIRC AND OZONE LINE 1 CONNECTION	J81 to J99
J40	TV / AV	
J40	IR RECEIVER	
J05, J08	AUX PANEL(S) - AX10, AX20, AX30, AX40	

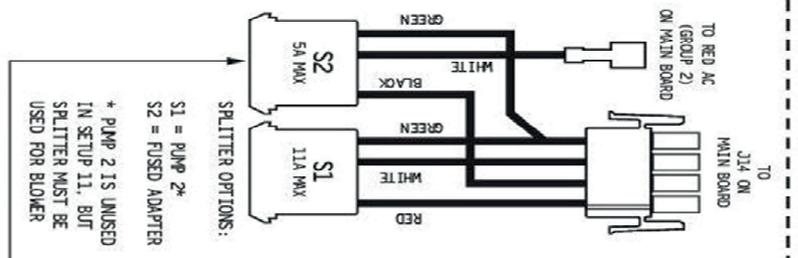
SETUP #	CIRC PUMP	PUMP 1	PUMP 2	PUMP 3	MICROSLIK® BLOWER	TEMP SCALE
1	PROGRAMMABLE FILTRATION + ROLLING	2-SPEED	2-SPEED	1-SPEED	1-SPEED	NONE °C
2	PROGRAMMABLE FILTRATION + ROLLING	2-SPEED	1-SPEED	1-SPEED	1-SPEED	°C
3	PROGRAMMABLE FILTRATION + ROLLING	2-SPEED	1-SPEED	1-SPEED	NONE	°C
4	PROGRAMMABLE FILTRATION + ROLLING	1-SPEED	1-SPEED	1-SPEED	1-SPEED	°C
5	PROGRAMMABLE FILTRATION + ROLLING	1-SPEED	1-SPEED	1-SPEED	NONE	°C
6	NONE	2-SPEED	2-SPEED	1-SPEED	NONE	°C
7	NONE	2-SPEED	1-SPEED	1-SPEED	1-SPEED	°C
8	NONE	2-SPEED	1-SPEED	1-SPEED	NONE	°C
9	PROGRAMMABLE FILTRATION + ROLLING	1-SPEED	1-SPEED	NONE	1-SPEED	°C
10	PROGRAMMABLE FILTRATION + ROLLING	1-SPEED	1-SPEED	NONE	NONE	°C
11	PROGRAMMABLE FILTRATION + ROLLING	1-SPEED	NONE	NONE	1-SPEED	°C
12	PROGRAMMABLE FILTRATION + ROLLING	1-SPEED	NONE	1-SPEED	NONE	°C

INSTEAD OF SETUP #5, THIS SYSTEM IS CONFIGURED IN SETUP #:

FOR SUPPLY CONNECTIONS, USE CONDUCTORS SIZED ON THE BASIS OF 60°C AMPACITY BUT RATED MINIMUM OF 90°C.

USE COPPER CONDUCTORS ONLY, EMPLOYER UNIFORMENT DES CONDUCTEURS DE CUIVRE. TORQUE RANGE FOR MAIN TERMINAL BLOCK (TBL): 27-30 IN. LBS. (31.1-34.5 kg cm)

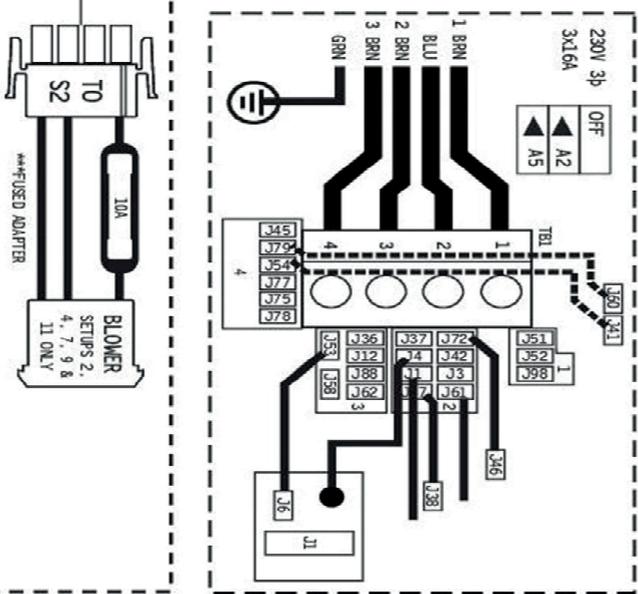
230V 1p
1x32A



SPLITTER OPTIONS:
S1 = PUMP 2*
S2 = FUSED ADAPTER
* PUMP 2 IS UNUSED IN SETUP 11, BUT SPLITTER MUST BE USED FOR BLOWER

SWITCHBANK S1 OFF		SWITCHBANK S1 ON	
TEST MODE OFF	▲ A1	▲ A1	TEST MODE ON
DOV'T ADD 1 HS PUMP W/HTR	▲ A2	▲ A2	ADD 1 HS PUMP WITH HEAT
DOV'T ADD 2 HS PUMPS W/HTR	▲ A3	▲ A3	ADD 2 HS PUMPS WITH HEAT
DOV'T ADD 4 HS PUMPS W/HTR	▲ A4	▲ A4	ADD 4 HS PUMPS WITH HEAT
SPECIAL AMPERAGE RULE A	▲ A5	▲ A5	SPECIAL AMPERAGE RULE B
STORE SETTINGS*	▲ A6	▲ A6	MEMORY RESET*
1 MIN HTR COOLDOWN (ELEC)	▲ A7	▲ A7	5 MIN HTR COOLDOWN (GAS)
NOT ASSIGNED	▲ A8	▲ A8	NOT ASSIGNED
NOT ASSIGNED	▲ A9	▲ A9	NOT ASSIGNED
NOT ASSIGNED	▲ A10	▲ A10	NOT ASSIGNED

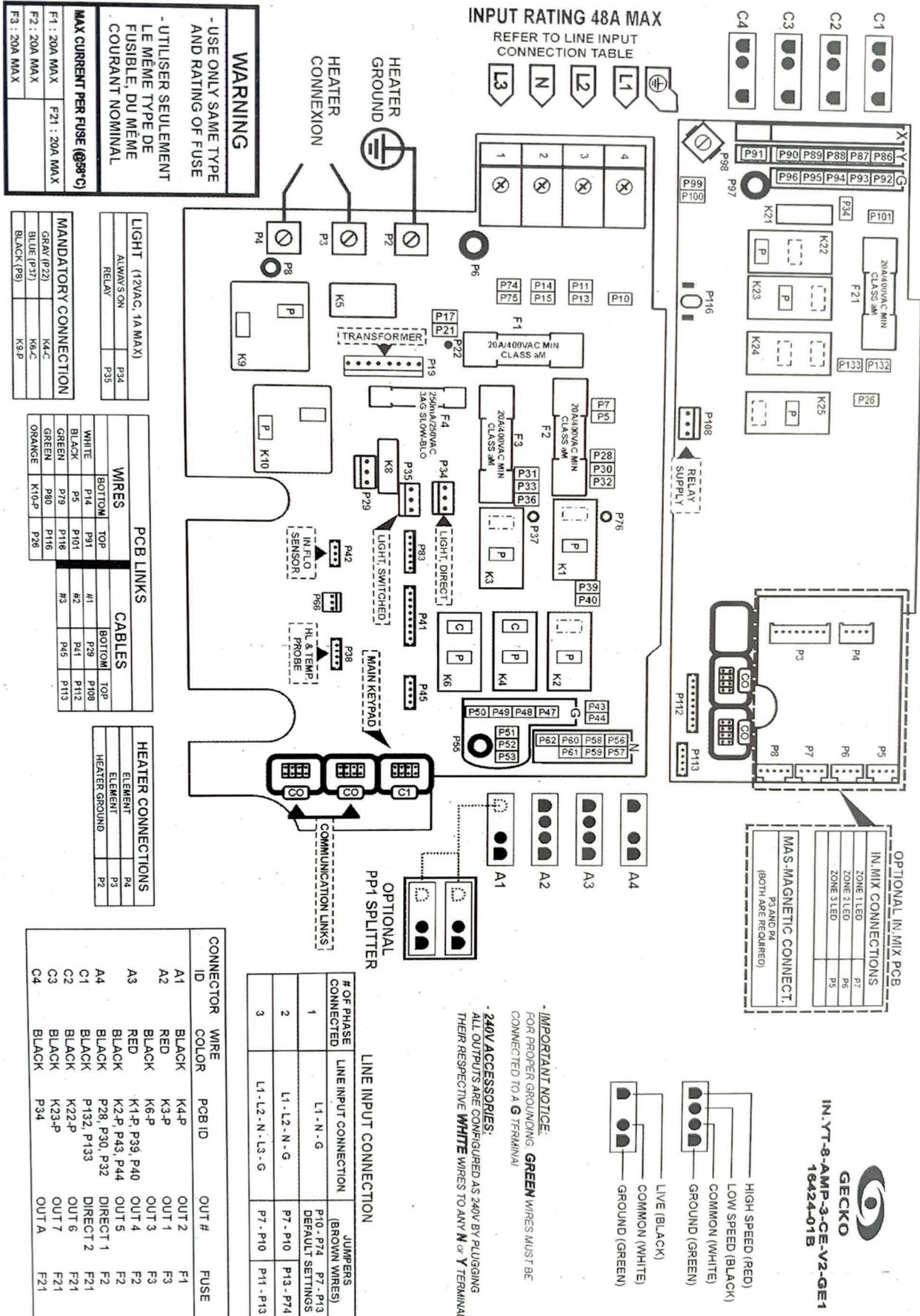
*SWITCH # 6 SHOULD BE SET TO OFF UPON FINAL INSTALLATION.



* OPTIONAL BP2X-WIRE KIT PN 30893 - REQUIRED FOR SETUPS 2, 4, 7, 9 & 11

BALBOA BP21MS3B - PN 56633-01
water group 11-28-16

Der Stromanschlussplan für IN.YT-8-AMP-3-CE-V2-GE116424-01B



1.3 Water connection and drainage

Our hot tubs do not require a fixed water supply. To fill the hot tub, simply use a garden hose (filling through the filter box). To drain water, e.g. for cleaning, it is enough to attach a garden hose to the outside of the drainage tap e.g. by means of a coupling, and to feed the other end of the hose into an external drain. It is also possible to remove water with a submersible pump.

1.4 Hygiene instructions

Before using the hot tub for the first time, it must be filled with tap water. (No rainwater) It is imperative that the filling take place through the skimmer box via the filter system directly into the piping, so that the hoses and pipes are also filled with water.

To clean the surface of the hot tub and to avoid scratching it, do not use abrasive cleaners or scouring agents. Regardless of the cleaner used, ensure that no soap residue or other foaming or unsuitable cleaners remain on the surface, as these could cause foaming or an undesirable reaction when the hot tub is refilled. Use a simple soft cloth for cleaning, for example a microfibre or cotton cloth. Never use sharp tools or aggressive agents to clean the surface.

To keep the water in the hot tub clean until the next use, regular cleaning of the water by the circulation pump and filter is necessary. At least 1 to 2 times a day for a sufficient period of time so that all the water in the system is circulated at least 4 times a day. This function is performed automatically after the filtering time has been set in the 'Filter Time' setting.

1.5 Notes on water maintenance

Your hot tub is a place of relaxation and well-being. Therefore, it is especially important that the water itself is clear, fresh and hygienic so that you can enjoy your hot tub in peace. With this guide, we want to show you that taking care of your hot tub water using the right products can be very simple and requires little time.

6 rules for perfectly maintained water:

1. Balance your hot tub water
2. Carry out regular basic treatments according to the instructions of the manufacturer of the cleaning or care products
3. Disinfect the water effectively
4. Filter the water sufficiently
5. Change the water regularly
6. Treat hot tub water on schedule

1. Balance your hot tub water

Although water always looks the same, water parameters such as pH or water hardness can vary greatly from region to region. Therefore, it is important to balance the water immediately after filling the hot tub to make regular maintenance as easy as possible. Three parameters play an important role in this context: total hardness, alkalinity and pH.

The total hardness is a measure of the content of mainly calcium and magnesium in the water. You can find out the value of the total hardness of your water from your local water company. At levels above 200 mg/L, lime can build up on the walls as the water heats up, and this can lead to the formation of rough surfaces. To prevent limescale deposits, use limescale remover immediately after filling the hot tub.

Another parameter plays an important role in water maintenance: Alkalinity. If it is too low or too high, the pH value fluctuates drastically and is difficult to bring under control. This can cause damage to the hot tub as well as skin and eye irritation. The ideal alkalinity value is between 125 - 150 mg/L.

Check the alkalinity value immediately after filling the hot tub and once a week from then on. If necessary, correct it upwards with alkalinity increaser and downwards with pH decrease.

These are added directly into the hot tub water and always according to the instructions of the respective manufacturer.

A reasonable pH value is essential for effective disinfection of the hot tub. Pool chemicals will only function correctly when the pH is within the appropriate bounds, and only then will the water be pleasant to the skin, hair and eyes. The ideal pH value is between 7.0 and 7.6.

The pH value is influenced by various factors. It increases for example when fresh water is added. The pH value is also affected by increasing the water temperature, or by bubbling air through the water. Therefore, check the value at least once a week and, if necessary, correct it upwards with pH increaser or downwards with pH-decreaser, according to the instructions of the respective manufacturer. The granules are added directly to the hot tub water.

2. Carry out regular basic treatments according to the instructions of the respective manufacturer of the cleaning or care products

Once the hot tub water is balanced, the next important step comes:

Water disinfection. Although the water is disinfected - depending on the care method - directly before or after each use, you should still carry out a basic treatment every week using cleaning or care products recommended by the manufacturer.

3. Disinfect the water effectively

To protect your health, your hot tub water should be continuously and adequately disinfected. This is especially important in hot tubs, as the high temperature of the water provides an ideal environment for bacterial growth. In order to avoid water maintenance problems, a sufficient amount of disinfectant must therefore be present in the water at all times.

Granular chlorine for reliable water disinfection with immediate effect

Granular chlorine is the traditional disinfection method used for hot tubs. Granular chlorine dissolves quickly, leaves no residue, and does not leave bleach stains on surfaces. Granular chlorine is pH neutral, i.e. the pH value of the water does not change when it is added.

What to do?

- Check the pH value with at least once a week and adjust it 7.0 - 7.6 if necessary.
- Add granular chlorine after each use of the hot tub according to the instructions of the respective manufacturer. Let the filtration run for 10 minutes and then check with test strips whether the ideal value of 1.0 - 1.5 mg/L has been reached. Add more granular chlorine if required. The granules are added directly to the hot tub water.

Bromine tablets for odourless water disinfection with permanent effect

Bromine tablets are just as effective as chlorine, but produce less odour. The tablets are dissolve and thus provide continuous disinfection the hot tub water over a longer period of time.

What to do?

- Check the pH value with test strips at least once a week and adjust it to 7.0 - 7.6 if necessary.
- Add bromine tablets according to the instructions of the respective manufacturer. Let the filtration run for several hours and then check with test strips whether the ideal value of 3.0 - 5.0 mg/L has been reached. If necessary, add additional tablets.

Active oxygen granules for chlorine-free and gentle water disinfection

Active oxygen granules gently disinfect your hot tub water. When this entirely chlorine-free method is used, the water feels particularly natural and pleasant, is gentle on skin and hair, and is odourless.

Important: To increase the effectiveness of the granules, you must also use an active oxygen activator.

Add active oxygen granules and active oxygen activator before each use of the hot tub according to the instructions of the respective manufacturer. Let the filtration run for about 10 minutes. The granules and activator are added directly to the hot tub water.

4. Filter the water sufficiently

Each hot tub is equipped with a circulation pump. It moves the water and makes it flow through the filter. Among other things, this helps to ensure that the pool chemicals added to the water are distributed evenly and can act everywhere. Run the circulation as specified in this manual.

A well-functioning filter helps to keep the water clean by capturing contaminants. However, if the filter is not correctly cared for, it can become clogged and drastically decrease in function. The result is poor water quality and increased consumption of disinfectants. We recommend that you clean the filter cartridge at least every four weeks, even when the hot tub is not in use. Otherwise, once a week or after each use.

5. Change the water regularly

Regular draining and refilling with fresh water is an important part of hot tub maintenance because over time minerals, chemicals and other substances accumulate in the water. These make the water look lifeless and decrease the effectiveness of the pool care products.

What to do?

- Drain the water completely.
- Clean all surfaces with surface cleaner using a rag or soft cloth.
- Fill your hot tub with fresh water.
- Don't forget to thoroughly clean the hot tub cover as well.

Is the water foaming?

Foam on the water surface does not look very inviting. If your hot tub water tends to foam, we recommend adding defoamer. This is added directly to the hot tub water. If the water is still foaming after you have added the defoamer, the water should be changed again.

6. Treat the hot tub water on schedule

At first glance, hot tub water treatment and maintenance seem costly and complicated; there are too many products and too many rules...

However, once you have familiarized yourself with the details, you will quickly realize that the effort required is minimal, because only a few tasks need to be performed regularly, others only as needed.

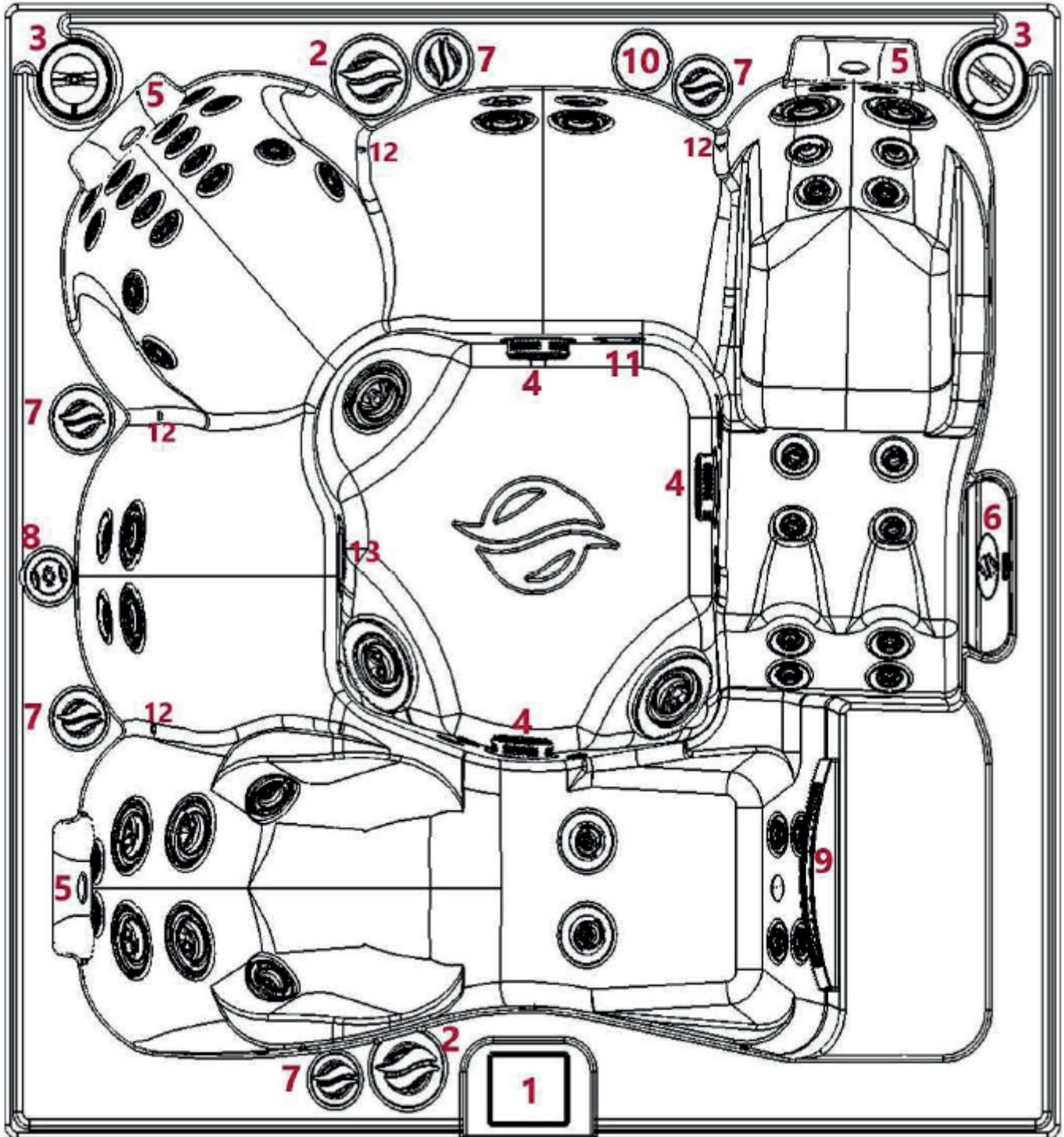
The basic rules are rule no. 1 and 2: the correct pH value and a basic disinfection of the water. The corresponding values can be checked easily and quickly with the test strips. If you follow these two rules without interruption, you will automatically avoid water treatment problems.

You should take a shower before using the hot tub. It is important that creams, body lotions, or hair care products for example, be removed from the body. Creams and body lotions in particular, but also deodorants, anti-perspirants, and hair care products negatively affect the quality of the water and clog the fine filter cartridges. For this reason, we recommend that you shower appropriately and thoroughly before each use of the hot tub.

CAUTION! Damage to the hot tub caused by improper pH levels or improper use of other cleaning and disinfecting agents is not covered under warranty. The water quality depends on the user, and on regular and careful water maintenance. To be able to enjoy your hot tub for years to come, the water quality must be checked regularly. No chemicals should be added while people are in the hot tub.

2. 2. Features and controls

Model: Regeneration

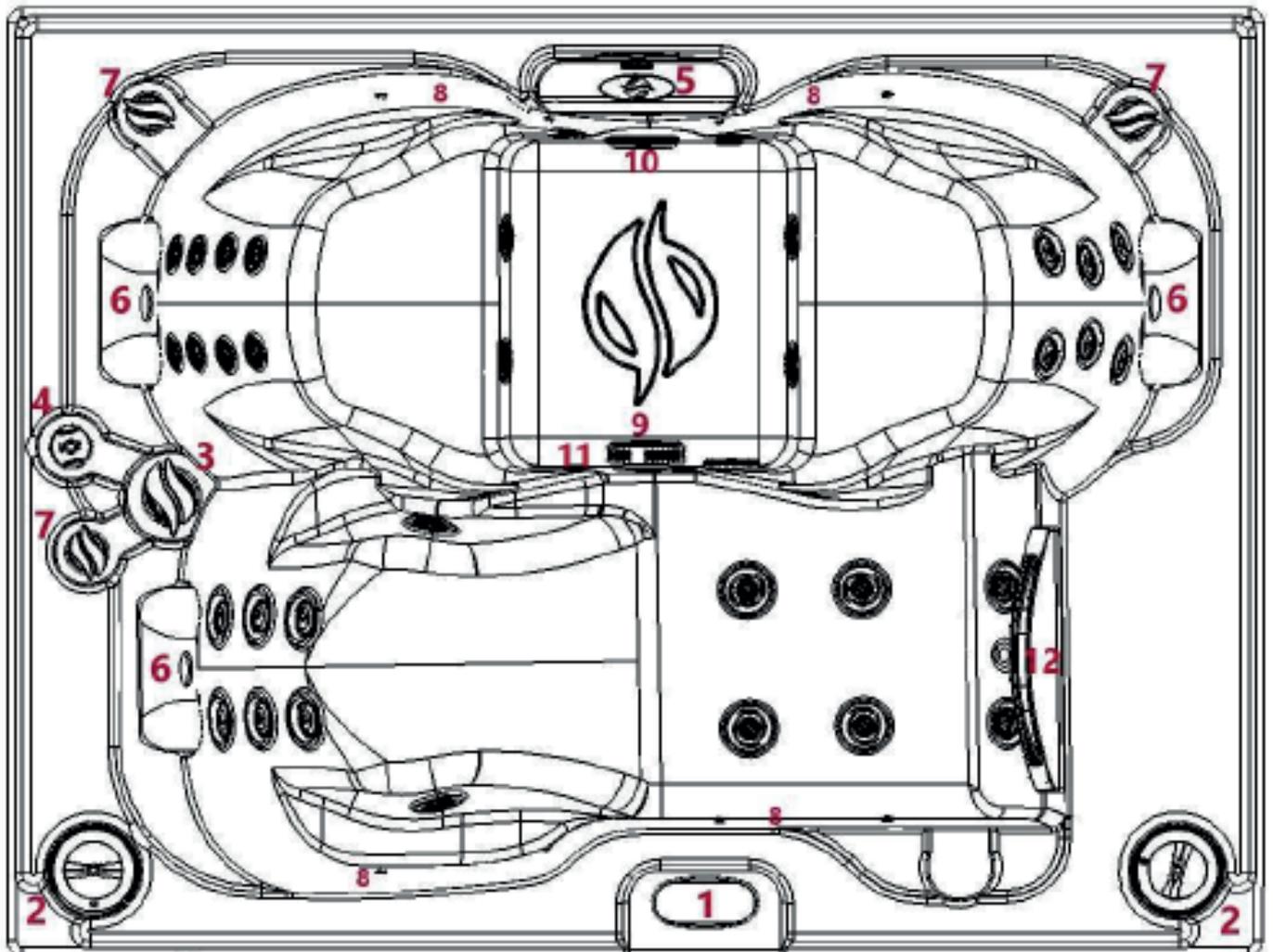


- 1 Control Panel
- 2 Diverter
- 3 Sound therapy
- 4 Intake
- 5 Pillow
- 6 Waterfall
- 7 Air regulator

- 8 Aromatherapy
- 9 Skimmer
- 10 Cupholder
- 11 Ozonator-nozzle
- 12 Color light therapy
- 13 Underwater lighting

- 59 Water jets
- 10 Air jets (optional)

Model: Charisma



1 Control panel
2 Sound therapy
3 Diverter
4 Aroma therapy
5 Waterfall
6 Pillow

7 Air regulator
8 Colour light therapy
9 Intake
10 Underwater lighting
11 Ozonator-nozzle
12 Skimmer

36 Water jets
6 Air jets (optional)

The hot tub features vary depending on the model and design!

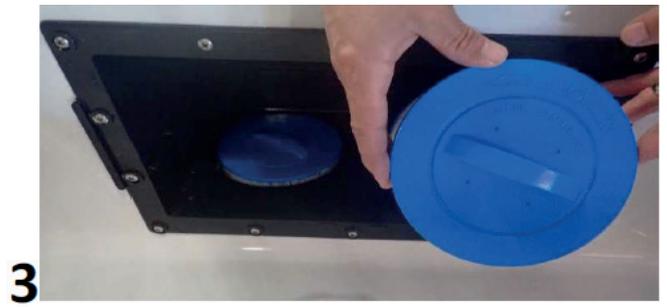
3.3. Filling the hot tub

Before filling the hot tub with water, it is important that you read and understand the operating instructions.

To fill the hot tub, you must disconnect the hot tub from its power source. (remove fuse).

Filling must be done through the filter housing (skimmer). If filling is not done through the filter housing, the motors and the heating element can be damaged. Before filling the hot tub for the first time, wipe it down with a damp, soft cloth to remove any dust particles or other contaminants.

- Remove the skimmer cover to access the filter.
- Remove the filter(s). The filters are embedded in the skimmer box by means of a screw connection (thread).
- Fill the hot tub with the garden hose. Insert the garden hose into the skimmer box and directly into the pipe of one of the removed filters.
- Fill the hot tub until the water level is approximately 2 - 5 cm above the uppermost water jets, so that these are underwater. This also corresponds to approximately the middle of the skimmer box.
- When the correct water level is reached replace the filter or filter cartridges but do not over tighten.
- Never fill the hot tub with water that is hotter than 38 ° Celsius.



4. Control panel

Models:	Control panel:	Control:
A – Edition		
Impression	TP 600	BP 2100/BP21MS3B
Charisma	TP 600	BP 2100/BP21MS3B
Identity	SpaTouch	BP21MS3B
C – Edition		
Teamwork	SpaTouch	BP21MS3B
Freedom	SpaTouch	BP21MS3B
Emotion	SpaTouch	BP21MS3B
E – Edition		
Home	SpaTouch	BP21MS3B
Regeneration	SpaTouch	BP21MS3B
Timeout	in.k1000	IN.YT-8-AMP-3-CE-V2-GE116424-01B
S – Edition		
Paradise	in.k1000	IN.YT-8-AMP-3-CE-V2-GE116424-01B
Vacation	in.k1000	IN.YT-8-AMP-3-CE-V2-GE116424-01B
Expression	in.k1000	IN.YT-8-AMP-3-CE-V2-GE116424-01B
K – Edition		
Prestige	in.k1000	IN.YT-8-AMP-3-CE-V2-GE116424-01B
Discovery	in.k1000	IN.YT-8-AMP-3-CE-V2-GE116424-01B
Champion	in.k1000	IN.YT-8-AMP-3-CE-V2-GE116424-01B

-Balboa

TP600 and TP400 Control panels

User Interface and Programming Reference – Standard Menus

System Model: 2100
 Software Version: 7.0 oder später
 Panel model: TP600 Series TP400 Series
 Software Version: 2.3 oder später 2.4 oder später





Main Menus

Navigation

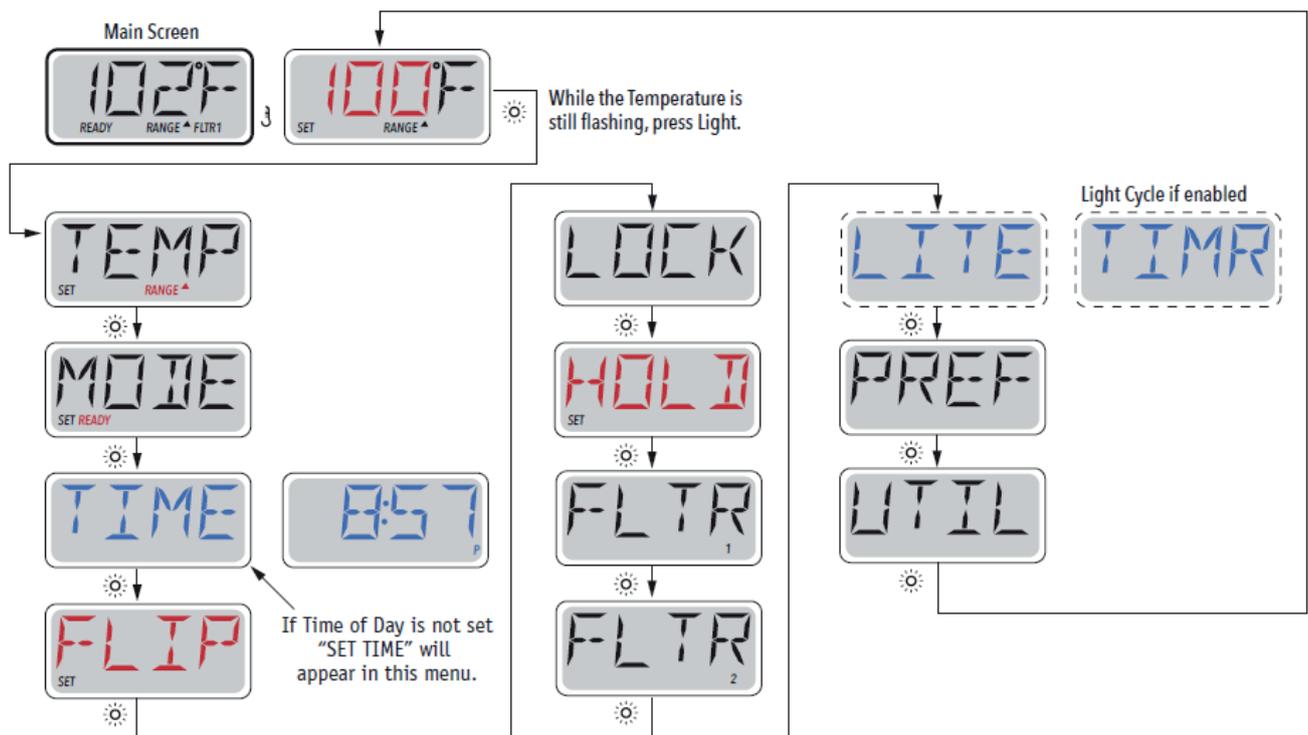
Navigating the entire menu structure is done with 2 or 3 buttons on the control panel. Some panels have separate WARM (Up) and COOL (Down) buttons, while others have a single Temperature button. In the navigation diagrams Temperature buttons are indicated by a single button icon. Panels that have two Temperature buttons (Warm and Cool) can use both of them to simplify navigation and programming where a single Temperature icon is shown. The LIGHT Button is also used to choose the various menus and navigate each section. Typical use of the Temperature button(s) allows changing the Set Temperature while the numbers are flashing in the LCD. Pressing the LIGHT button while the numbers are flashing will enter the menus. The menus can be exited with certain button presses. Simply waiting for a few seconds will return the panel operation to normal.

Power-up Screens

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

Schlüssel

- Indicates Flashing or Changing Segment
- Indicates Alternating or Progressive Message - every 1/2 second
-  A temperature button, used for "Action"
-  Light or dedicated "Choose" button, depending on control panel configuration
- Waiting time that keeps the last change to a menu item.
- ***** Waiting time (depends on menu item) that reverts to original setting and ignores any change to that menu item.



Preparation and Filling

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

Priming Mode – M019*

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



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

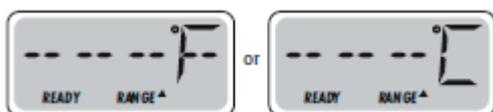
Priming the Pumps

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

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

Exiting Priming Mode

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



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.

*M019 is a Message Code.



Circulation Pump Modes

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

1. The circ pump operates continuously (24 hours) with the exception of turning off for 30 minutes at a time when the water temperature reaches 3°F (1.5°C) above the set temperature (most likely to happen in very hot climates).
2. The circ pump stays on continuously, regardless of water temperature.
3. A programmable circ pump will come on when the system is checking temperature (polling), during filter cycles, during freeze conditions, or when another pump is on.

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

Filtration and Ozone

On non-circ systems, Pump 1 low and the ozone generator will run during filtration. On circ systems, the ozone will run with the circ pump. The system is factory-programmed with one filter cycle that will run in the evening (assuming the time-of-day is properly set) when energy rates are often lower. The filter time and duration are programmable. A second filter cycle can be enabled as needed. At the start of each filter cycle, the blower (if there is one) or Pump 2 (if there is one) will run briefly to purge its plumbing to maintain good water quality.

Freeze Protection

If the temperature sensors within the heater detect a low enough temperature, then the pump(s) and the blower automatically activate to provide freeze protection. The pump(s) and blower will run either continuously or periodically depending on conditions. In colder climates, an optional additional freeze sensor may be added to protect against freeze conditions that may not be sensed by the standard sensors. Auxiliary freeze sensor protection acts similarly except with the temperature thresholds determined by the switch. See your dealer for details.

Clean-up Cycle (optional)

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

Adjusting the Set Temperature

When using a panel with Up and Down buttons (Temperature buttons), pressing Up or Down will cause the temperature to flash. Pressing a temperature button again will adjust the set temperature in the direction indicated on the button. When the LCD stops flashing, the spa will heat to the new set temperature when required. If the panel has a single temperature button, pressing the button will cause the temperature to flash. Pressing the button again will cause the temperature to change in one direction (e.g. UP). After allowing the display to stop flashing, pressing the Temperature Button will cause the temperature to flash and the next press will change the temperature in the opposite direction (e.g. DOWN).

Press-and-Hold

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

Dual Temperature Ranges

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

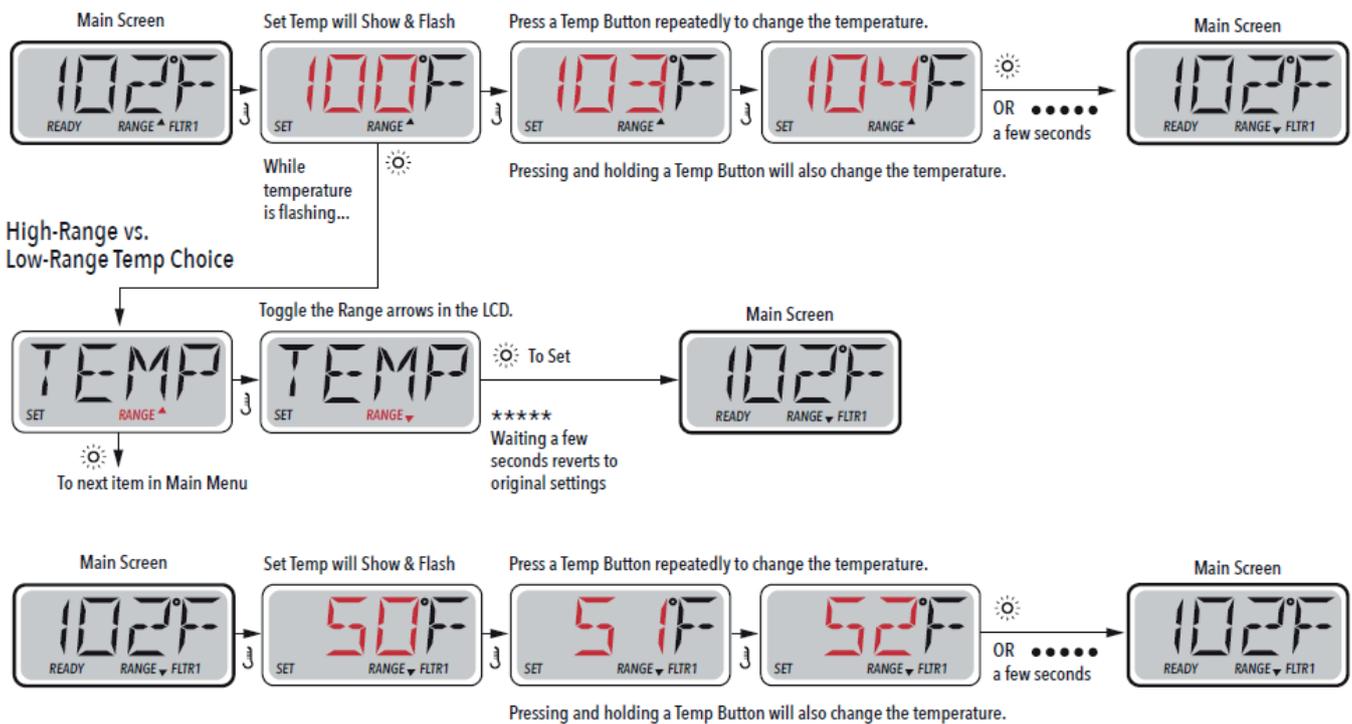
For example:

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

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

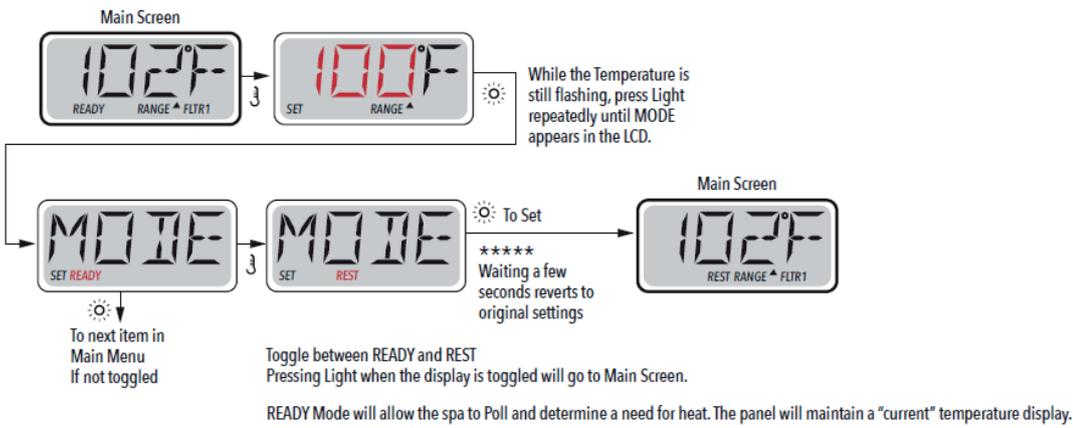
More specific Temp Ranges may be determined by the Manufacturer.

Freeze Protection is active in either range.

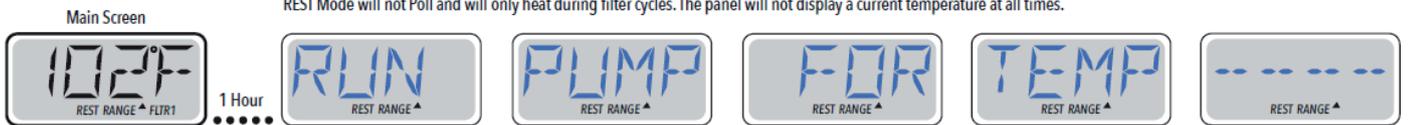


Mode – Ready and Rest

In order for the spa to heat, a pump needs to circulate water through the heater. The pump that performs this function is known as the “heater pump.” The heater pump can be either a 2-Speed Pump 1 or a circulation pump. If the heater pump is a 2-Speed Pump 1, READY Mode will circulate water periodically, using Pump 1 Low, in order to maintain a constant water temperature, heat as needed, and refresh the temperature display. This is known as “polling.” REST Mode 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.



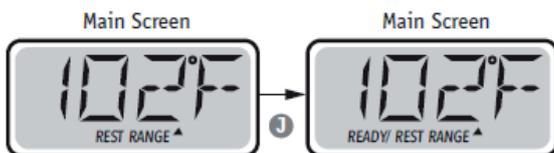
REST Mode will not Poll and will only heat during filter cycles. The panel will not display a current temperature at all times.



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 conjunction with the heater will run so that temperature can be sensed and displayed.

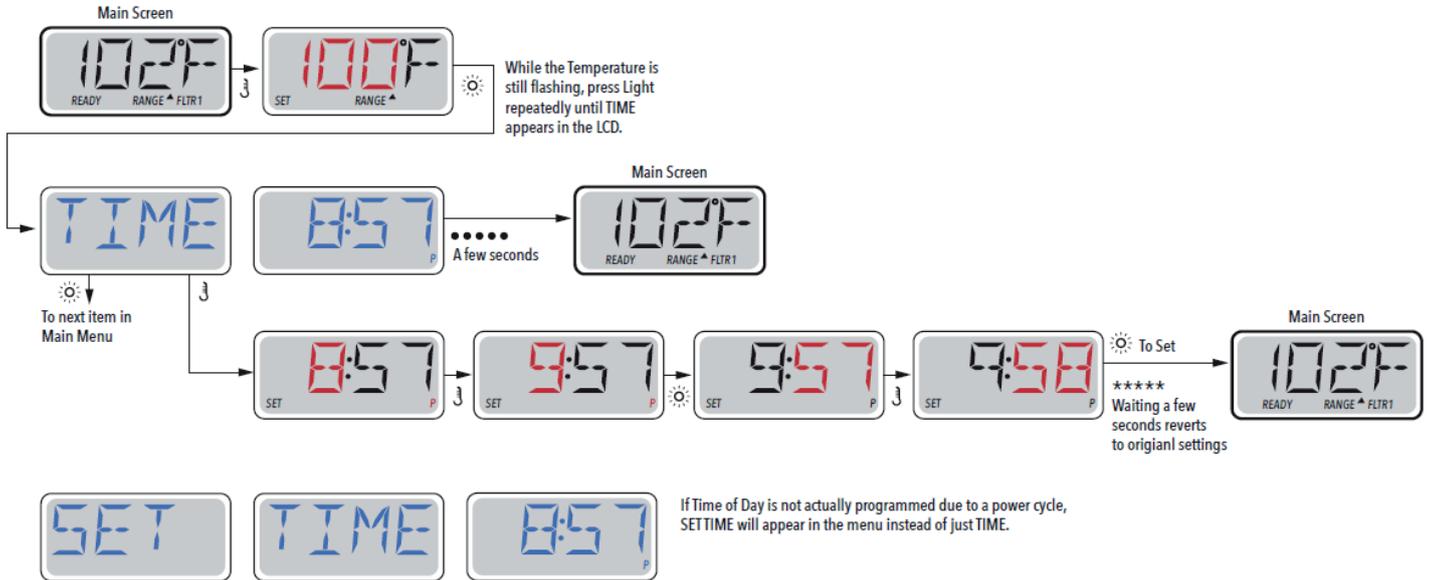
Ready-in-Rest Mode

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.



Be sure to set the Time-of-Day

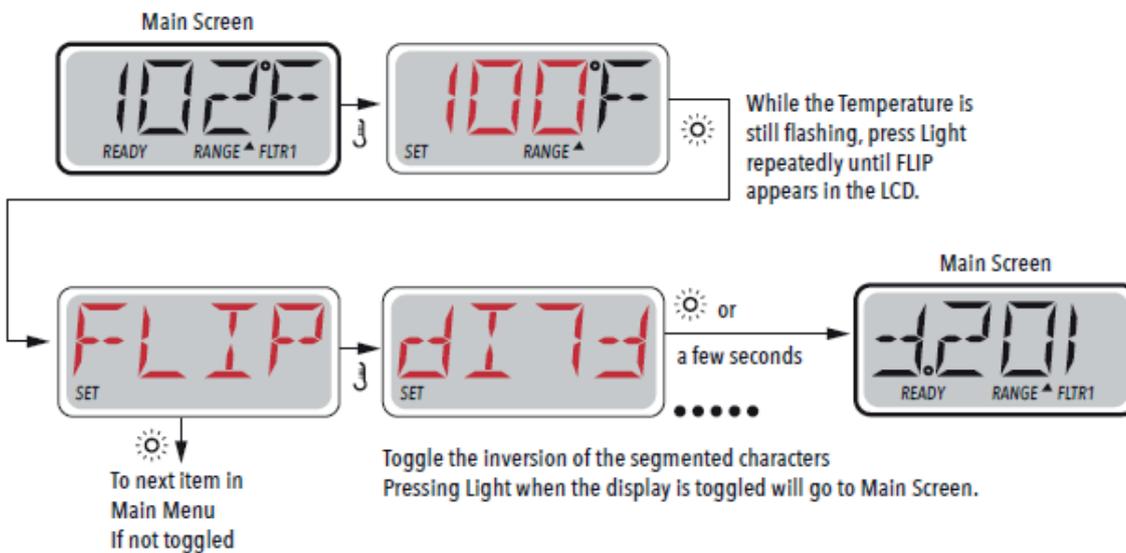
Setting the time-of-day can be important for determining filtration times and other background features. When in the TIME menu, SET TIME will flash on the display if no time-of-day is set in the memory. 24-hour time display can be set under the PREF menu.



Note:

If power is interrupted to the system, Time-of-Day is not stored. The system will still operate and all other user settings will be stored. If filter cycles are required to run at a particular time of day, resetting the clock will return the filter times to the actual programmed periods. When the system starts up, it defaults to 12:00 Noon, so another way to get filter times back to normal is to start up the spa at noon on any given day. SET TIME will still flash in the TIME Menu until the time is actually set, but since the spa started at noon, the filter cycles will run as programmed.

Flip (Invert Display)



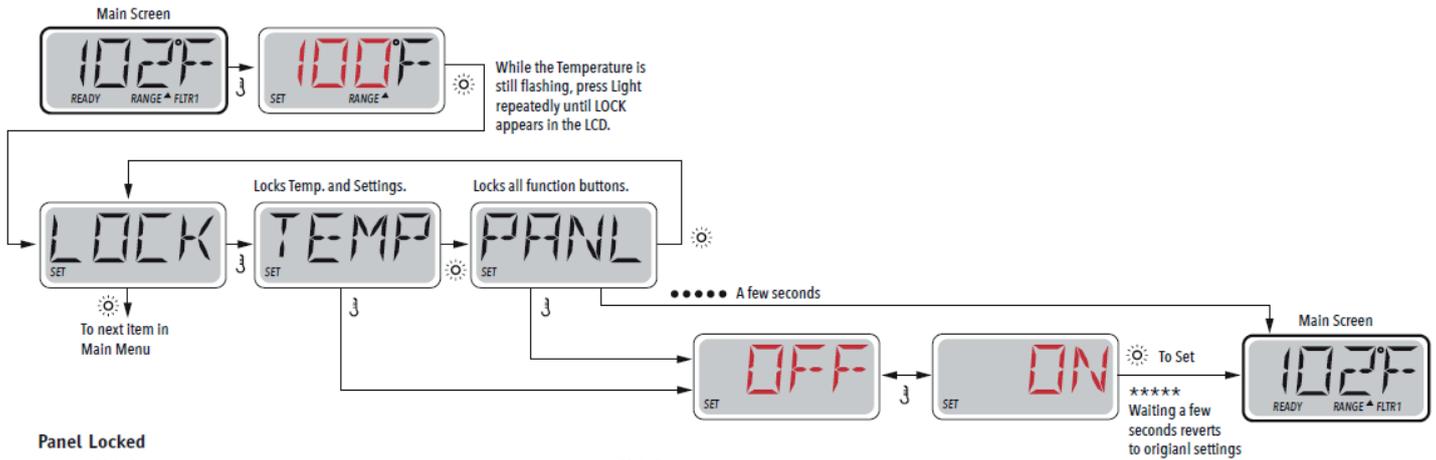
Note:

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

Restricting Operation

The control can be restricted to prevent unwanted use or temperature adjustments. Locking the panel prevents the controller from being used, but all automatic functions are still active. Locking the Temperature allows Jets and other features to be used, but the Set Temperature and other programmed settings cannot be adjusted. Temperature Lock allows access to a reduced selection of menu items.

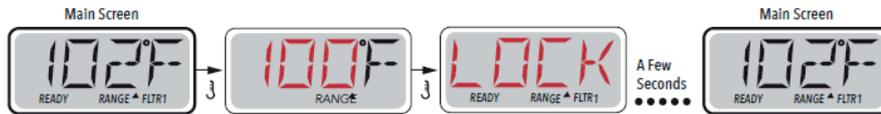
These include Set Temperature, FLIP, LOCK, UTIL, INFO and FALT LOG.



Panel Locked



Temperature Locked



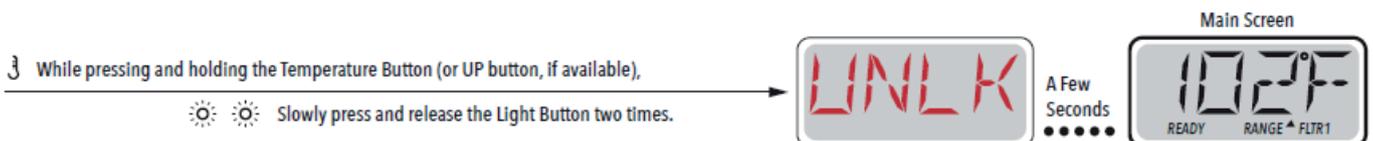
When the Temperature is locked, the panel will display the Set Temperature by pressing a Temperature Button, as usual. LOCK will appear if an attempt to reset the temperature is made with a subsequent button press. Adjustable settings in the menus are also locked. Other function buttons will operate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

Unlocking

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

NOTE:

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



Hold Mode – M037*

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

Drain Mode

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

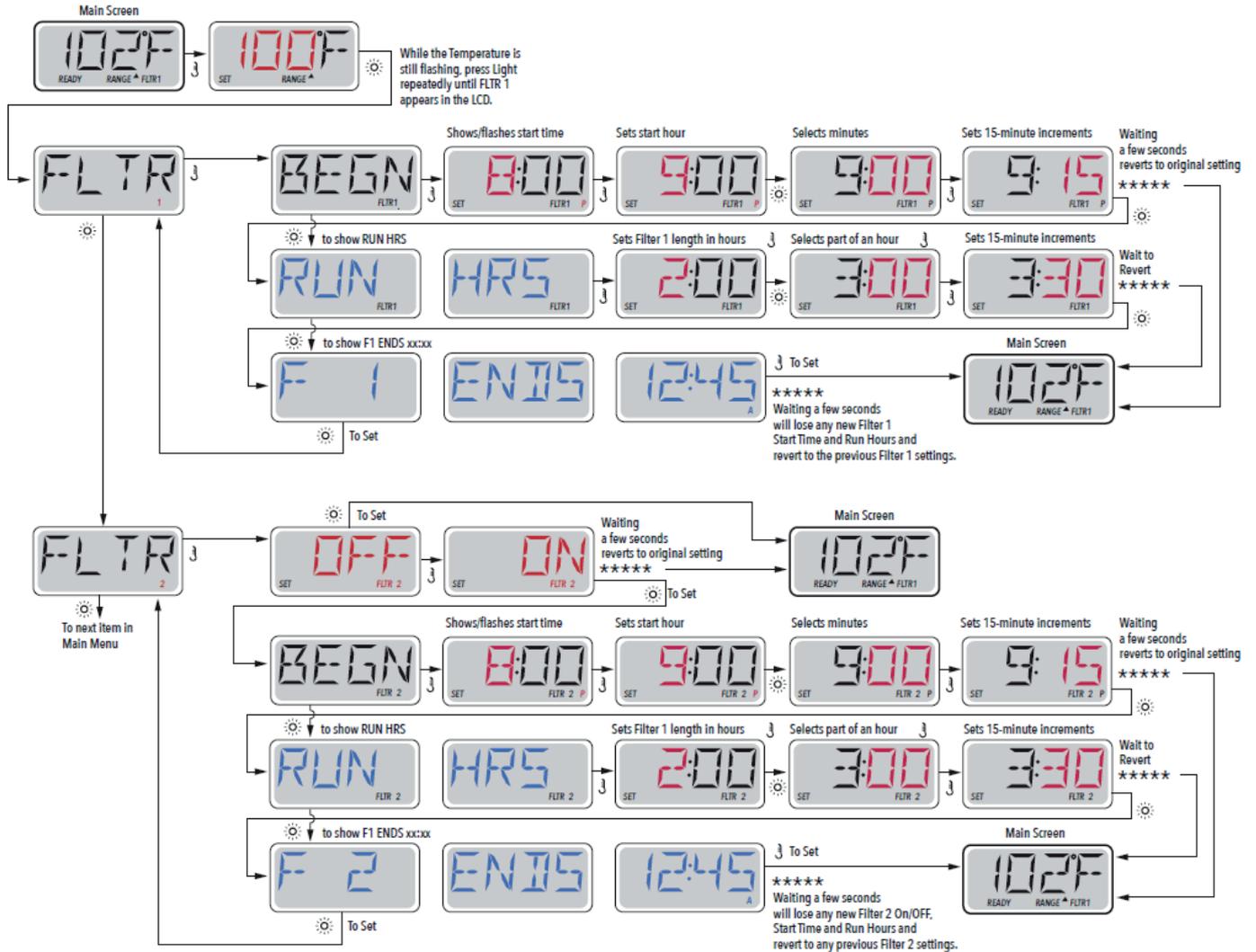


* M037 is a Message Code.

Adjusting Filtration

Main Filtration

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



Filter Cycle 2 - Optional Filtration

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

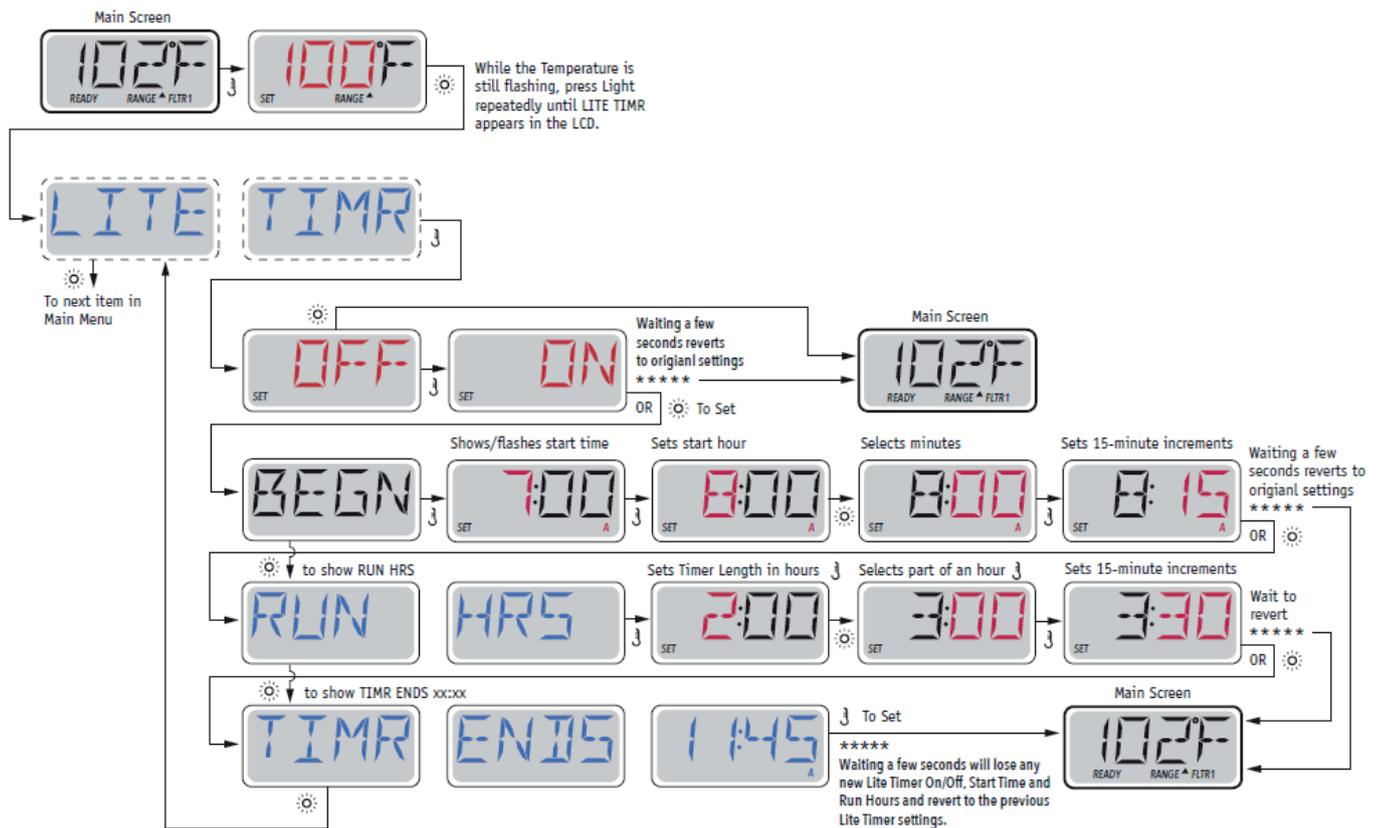
Purge Cycles

In order to maintain sanitary conditions, secondary Pumps and/or a Blower will purge water from their respective plumbing by running briefly at the beginning of each filter cycle. If Filter Cycle 1 is set for 24 hours, enabling Filter Cycle 2 will initiate a purge when Filter Cycle 2 is programmed to begin.

Light Timer Programming

Light Timer Option

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



Preferences

F / C (Temp Display)

Change the temperature between Fahrenheit and Celsius.

12 / 24 (Time Display)

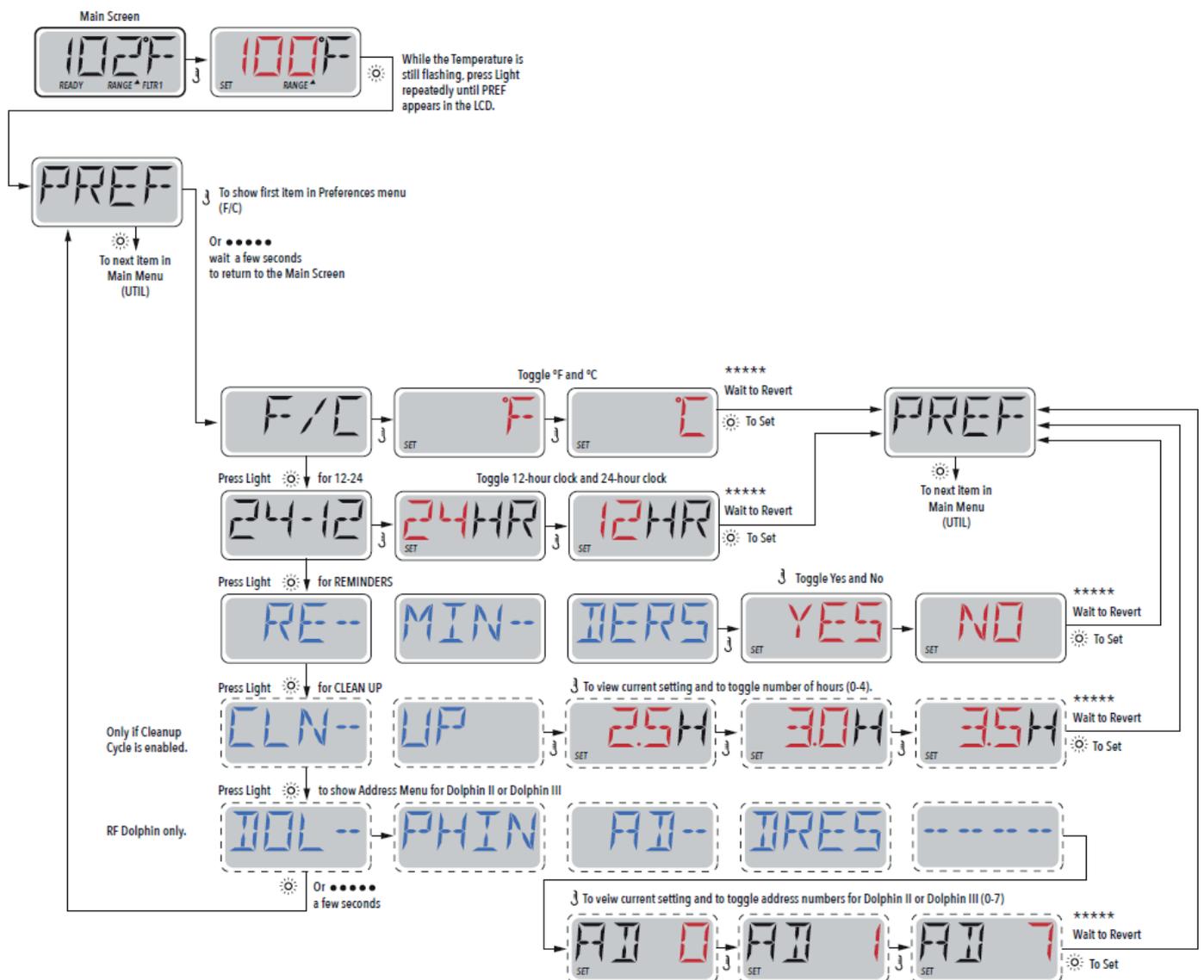
Change the clock between 12 hr and 24 hr display.

RE-MIN-DERS (Reminders)

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

CLN-UP (Cleanup)

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





Utilities and Information

INFO (System Information sub-menu)

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

SSID (Software ID)

Displays the software ID number for the System.

MODL (System Model)

Displays the Model Number of the System.

SETP (Current Setup)

Displays the currently selected Configuration Setup Number.

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

Displays the operating voltage configured for the heater.

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

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

H _ (Heater Type)

Displays a heater type ID number.

SW _ (Dip Switch Settings)

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

PANL (Panel Version)

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

Additional Utilities

Utilities

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

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

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

A / B (A/B Sensor Temperatures)

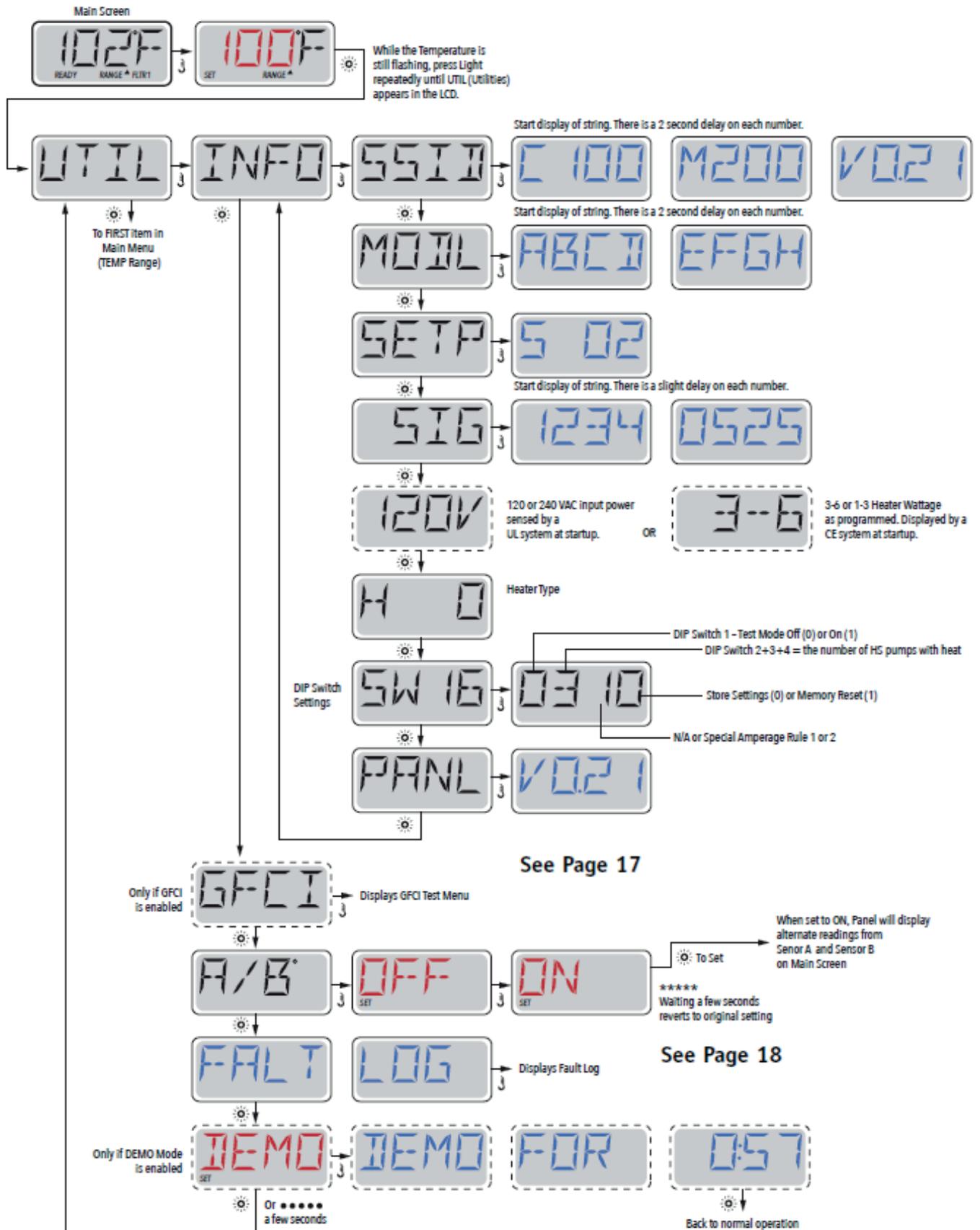
When this is set to On, the temperature display will alternate to display temperature from Sensor A and Sensor B in the heater.

FALT LOG (Fault Log)

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

DEMO (Demo Mode)

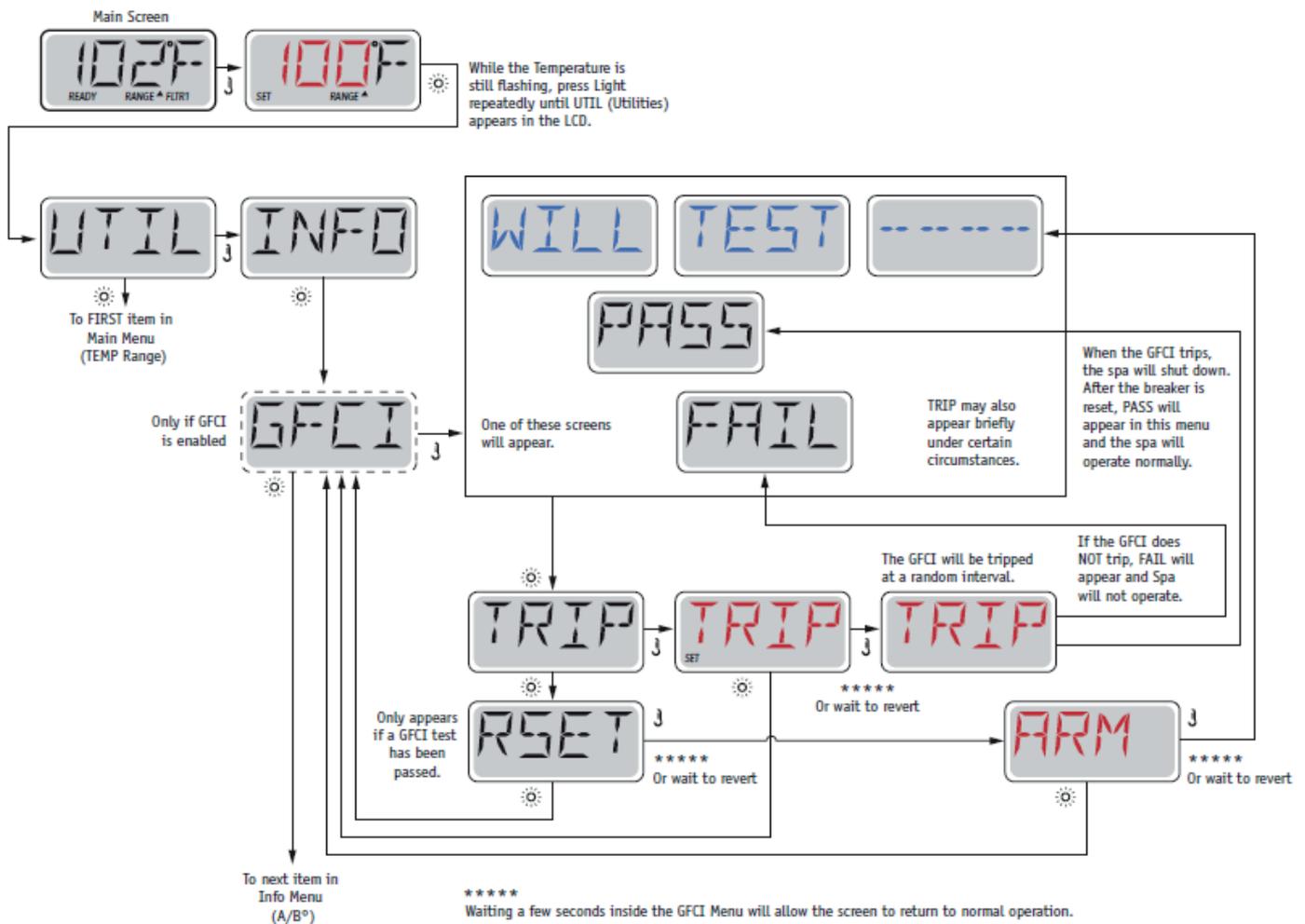
Demo Mode is not always enabled, so it may not appear. This is designed to operate several devices in a sequence in order to demonstrate the various features of a particular hot tub.



Utilities – GFCI Test Feature

Not Available on CE Rated Systems.

A GFCI is an important safety device and is required equipment on a hot tub installation. Your spa may be equipped with a GFCI Protection feature. (UL rated systems only.) If your spa has this feature enabled by the manufacturer, the GFCI Trip Test must occur to allow proper spa function. Within 1 to 7 days after startup, the spa will trip the GFCI to test it. (The number of days is factory programmed.) The GFCI must be reset once it has tripped. After passing the GFCI Trip Test, any subsequent GFCI trips will indicate a ground fault or other unsafe condition and the power to the spa must be shut off until a service person can correct the problem.



Forcing the GFCI Trip Test

The installer can cause the GFCI Trip Test to occur sooner by initiating it using the above menu. The GFCI should trip within a few seconds and the spa should shut down. If it does not, shut down the power and manually verify that a GFCI breaker is installed and that the circuit and spa are wired correctly. Verify the function of the GFCI with its own test button. Restore power to the spa and repeat the GFCI Trip Test. Once the GFCI is tripped by the test, reset the GFCI and the spa will operate normally from that point. You can verify a successful test by navigating to the above menu. PASS should appear after a temp button is pressed from the GFCI screen.

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

Warning:

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

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

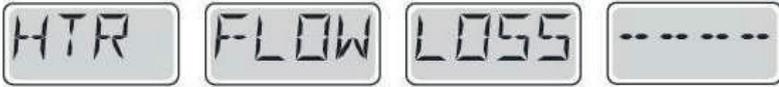
One of the water temp sensors has detected spa water temp 110°F (43.3°C) and spa functions are disabled. System will auto reset when the spa water temp is below 108°F (42.2°C). Check for extended pump operation or high ambient temp.



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.)

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.

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

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.

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

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



Alternates with temperature or normal display.

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

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



Alternates with temperature or normal display.

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

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



Alternates with temperature or normal display.

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

Clean the filter media as instructed by the manufacturer.



Alternates with temperature or normal display.

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

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

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

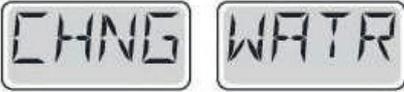
A GFCI or RCD will have a TEST and RESET button on it that allows a user to verify proper function.

Warning:

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

The end user should always be trained to test and reset the GFCI or RCD on a regular basis.

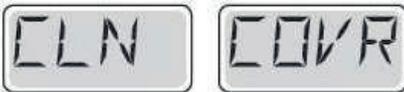
Reminder Messages Continued



Alternates with temperature or normal display.

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

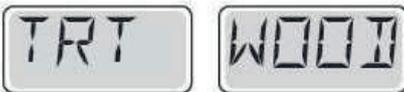
Change the water in the spa on regular basis to maintain proper chemical balance and sanitary conditions.



Alternates with temperature or normal display.

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

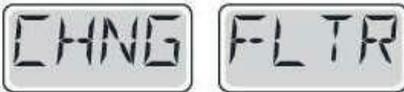
Vinyl covers should be cleaned and conditioned for maximum life.



Alternates with temperature or normal display.

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

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



Alternates with temperature or normal display.

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

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



Alternates with temperature or normal display.

As needed.

Install new mineral cartridge.

Warning! Qualified Technician Required for Service and Installation

spaTouch™ Icon Driven Control Panels



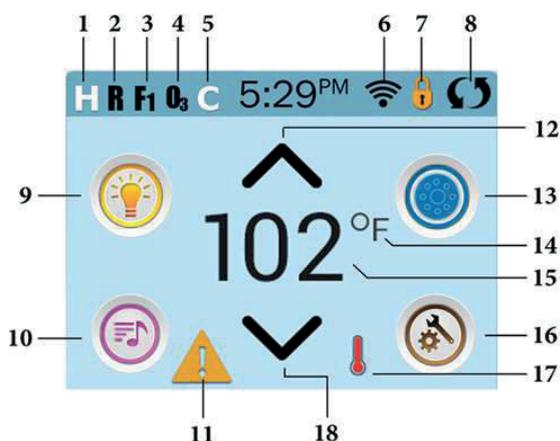
User Interface and Programming Reference

The spaTouch™ Icon Driven 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, and the spa screen will try to display all of your equipments, but in some cases it may not display correctly.

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 can be seen, and the Set Temperature can be adjusted. Time-of-Day, Ozone and Filter status is available, along with other messages and alerts. The selected Temperature Range is indicated in the upper left corner. The Spa Equipment Control Icon will spin if any pump is running. A Lock icon is visible if the panel or settings are locked. A Lock icon is visible if the panel or settings are locked.



- 1. H = High Temperature Range
- 2. R = Ready Mode
- 3. F1 = Filter Cycle 1 Running
- 4. O3 = Ozone Running
- 5. C = Cleanup Cycle
- 6. Wi-Fi Signal Indicator

- 7. Lock Indicator Icon
- 8. Invert Screen
- 9. Light Icon = Turns On/Off
- 10. Music Icon = Press To Enter Music Screen
- 11. Message Waiting Indicator
- 12. Set Temperature Up

- 13. Spa Equipment Control Icon
- 14. Temperature Scale (F/C)
- 15. Current Water Temperature
- 16. Settings Icon
- 17. Heat Indicator
- 18. Set Temperature Down

Note: After 30 minutes* the display will automatically go into sleep mode, which turns the display off. This is normal operation. Touch anywhere on the screen to wake the panel up.

*The actual number of minutes can be customized.

1.  = High Temperature Range.  = Low Temperature Range.
2.  = Ready Mode.  = Ready And Rest Mode.  = Rest Mode.
3.  = Filter Cycle 1 is running.  = Filter Cycle 2 is running.  = Filter Cycles 1 and 2 are both running.
4.  = Ozone is Running. If you don't see the icon that means the Ozone is OFF.
5.  = Cleanup Cycle is Running. Note: Not all systems that can run a Cleanup Cycle display this icon.
6.  = Wi-Fi icon just indicates that the Wi-Fi link is connected. It does not indicate signal strength. Note: Not all systems that support Wi-Fi display this icon.
7. Lock Icon:
When displayed, indicates the panel is in a locked mode. To unlock or lock a setting or panel lock, first press the corresponding icon on the Lock Screen, then press and hold the word "Lock" for 5+ seconds until the text and icon change to the opposite state. There are 2 lock icons that can be shown on the title bar of most screens. A tall skinny one  representing a settings lock is applied. It is shown on screens that are affected by the settings lock. And the standard lock icon Padlock  which represents the Panel being locked. If both settings and panel are locked, only the panel lock will show since the settings lock doesn't do much in that situation. When the panel is locked, the Settings Screen will only show items not affected by that lock (System Info and Lock Screens).
8.  = Invert (or flip) Screen.
9.  = Lights is turned ON.  = Light is Inactive.  = Light is Disabled.
10.  = Music is Active.  = Music is Inactive.  = Music is Disabled.
11. Message Waiting Indicator:
The Message Waiting Indicator will show one of the following icons:
 = Fatal error (Spa can't function until it's fixed)
 = Normal Error or Warning
 = Reminder Message
 = Information Message.
Touch the Indicator to go to a Message Screen which shows the message.
Some messages will include the "Call for Service" text as it requires a service technician to fix the problem. If the panel is locked and a message alert appears, you will be taken to the Lock Screen (where you will need to Unlock the panel) before you can clear the message. Touching the Error/Warning/Reminder/Info Icon on the Message Screen will take you to the System Information Screen to allow for troubleshooting over the phone or for a field service tech to better understand what is going on. Exiting the System information Screen will take you back to the Message Screen in that situation.
12.  = Adjust set temperature higher.
13.  = Spa Equipment Control Icon. Brings up a screen where the spa jets, blower or other equipment can be controlled. While on the Spa Equipment Screen, you can press a Jets button once for low speed, and if configured press it again for high speed.
 = Jet is Inactive. Indicates if a pump is running or not.
14. Indicates if the temperature is in °F = Fahrenheit or °C = Celsius.
15. Current water temperature if °F or °C is solid; set temperature if °F or °C is flashing.

16. Setting Icon.  = Settings is Active.  = Settings is Inactive (when the panel is locked). Takes you to Settings Screen.

17.  Different animation sequences, including blinking, may indicate different stages of heating.

18.  Adjust set temperature lower.

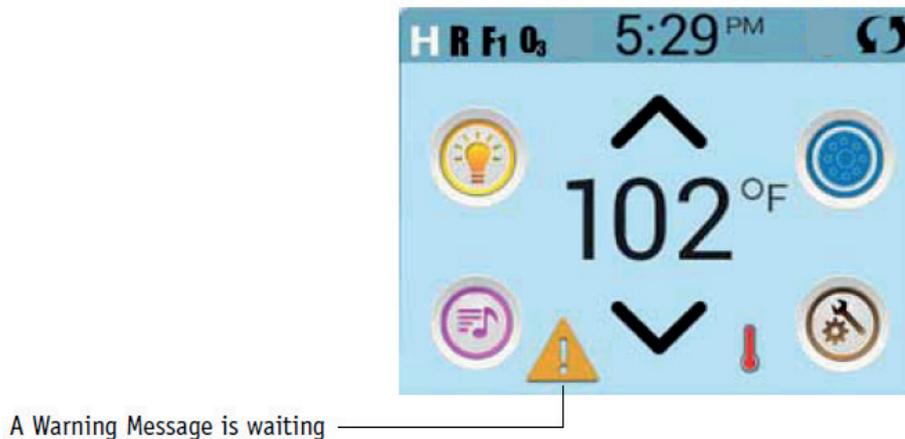
Navigation

Navigating the entire menu structure is done by touching the screen. The three screen selections indicated below can be selected. Touch 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.

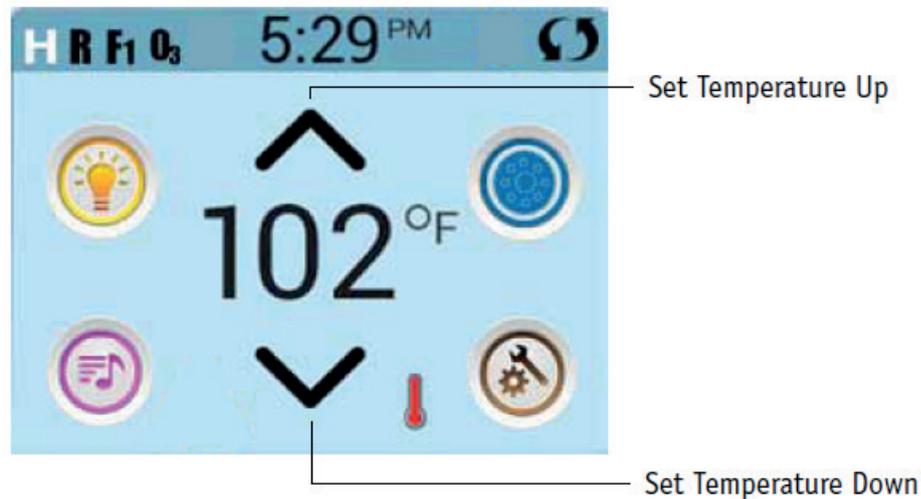


Messages

At the bottom of the screen, at certain times an indicator may appear showing that a message is waiting. Touch this indicator to go to the Message Display Screen. On that Screen some of the messages can be dismissed.



Set Temperature



Press Up or Down once to display the Set Temperature (indicated by a flashing °F or °C, plus a change in color of the temperature). Press Up or Down again to modify the Set Temperature. The Set Temperature changes immediately. If you need to switch between High Temperature Range and Low Temperature Range you need to go to the Settings Screen.

Press-and-Hold

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

All Equipment Access

The Spa Screen shows all available equipment* to control. 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 of the equipment. Below are some examples of 2-speed Pump indicators.



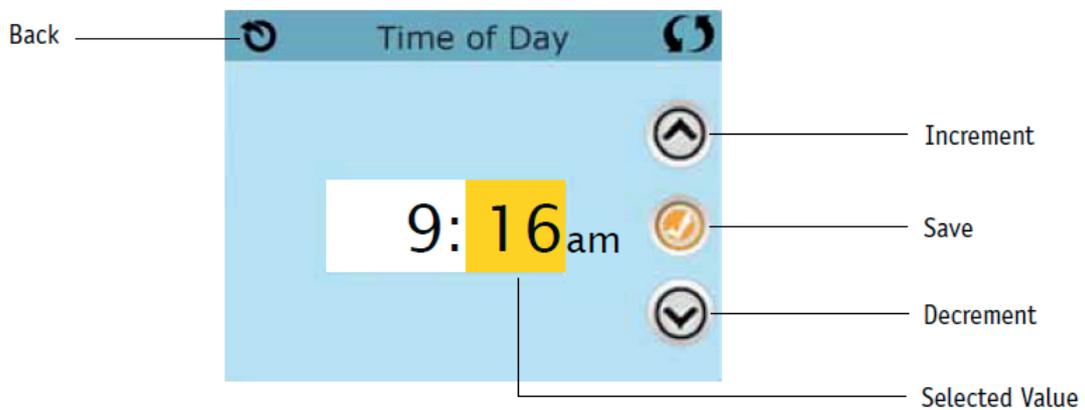
If the Spa has a Circ Pump, a Circ Pump Icon will appear to indicate its activity, but outside of Priming Mode, the Circ Pump cannot be controlled directly



Common Buttons

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.



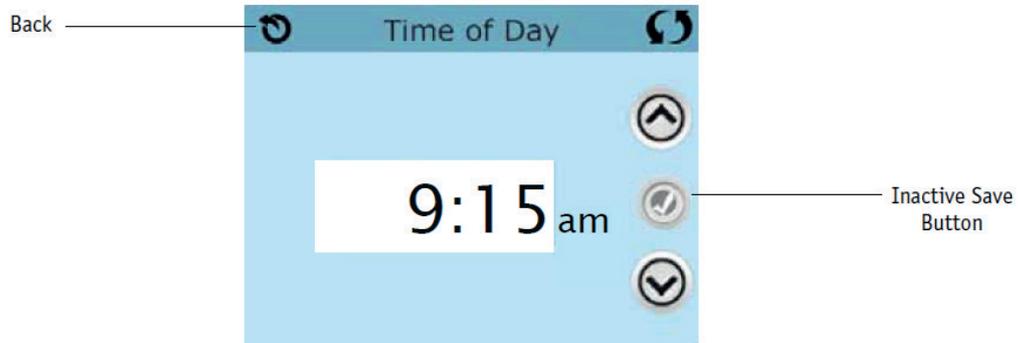
Invert

Will appear on upper right on all screens.



Exiting Screens

The Back button is on every screen except the Main Screen, the Priming Mode Screen and a Message Display Screen. When you see only this button, or this button plus an Inactive Save Button, it means Back or Exit. It appears on editing screens before you have changed any value, as well as on all other screens.



When you see both the Back button and an Active Save button, the Save button will Save, while the Back button will Cancel. If the screen times out due to no activity it will act like Cancel.

Page Right/Left

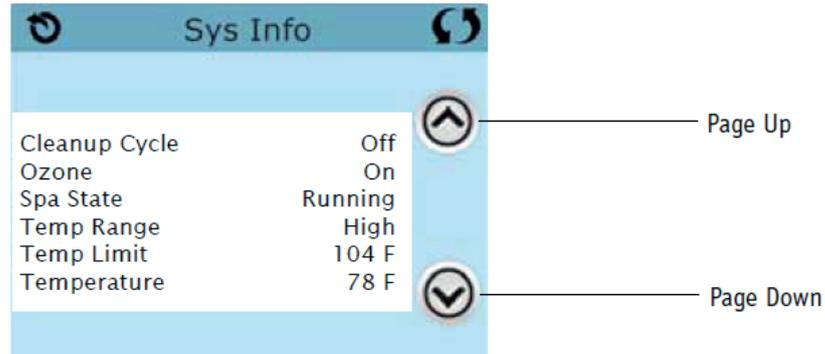
If there is a right arrow at the bottom of the screen, it takes you to the next page.

If there is a left arrow at the bottom of the screen, it takes you to the previous page.



Page Up/Down

If an Up or Down button is shown and pressed when on a page with a text list, the list can be scrolled a page at a time.



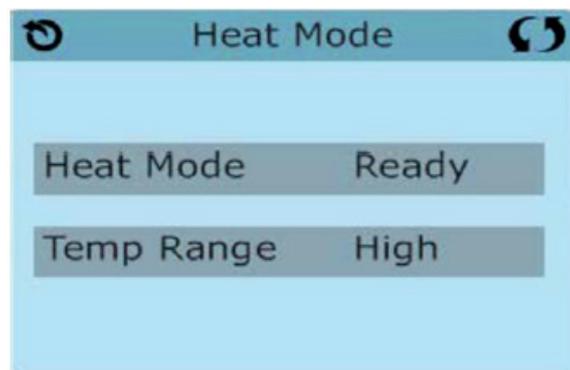
The Settings Screen

Programming, Etc.

The Settings Screen is where all programming and other spa behaviors are controlled. Each icon on the Settings screen takes you to a different screen, where one or more setting may be viewed and/or edited.



The Heat Icon  takes you to a screen where you control the Heat Mode and the Temperature Range.



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 left 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. 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

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 selecting the Heat Mode line on the Screen shown here.

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” button during Priming Mode.

*M019 ist ein Nachrichten-Code. Siehe Fehlermeldungen.



Priming the Pumps

As soon as the Priming Mode screen appears on the panel, select the "Jets 1" button once to start Pump 1 in low-speed 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 "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 water 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

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, 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. (On some circs systems, Pump 1 low will run along with the circ Pump during filtration.) 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, 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.

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. The Heat Icon  on the Settings Screen takes you to a screen where you control the Time-of-Day. On the Time-of-Day screen, simply select the Hours and Minutes. Use the Up and Down Buttons to make changes, then Save.



If no time-of-day is set in the memory an Information Screen will appear. If you exit it and Information Icon will appear at the bottom of the Main Screen, until the time-of-day has been set.



Note:

This only applies to some systems:

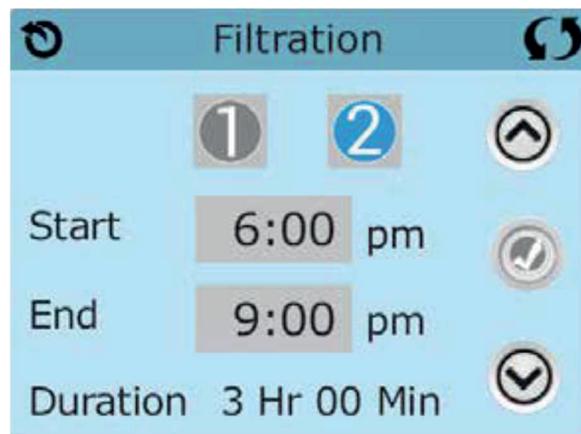
If power is interrupted to the system, Time-of-Day will be maintained for several days.

Adjusting Filtration

Main Filtration

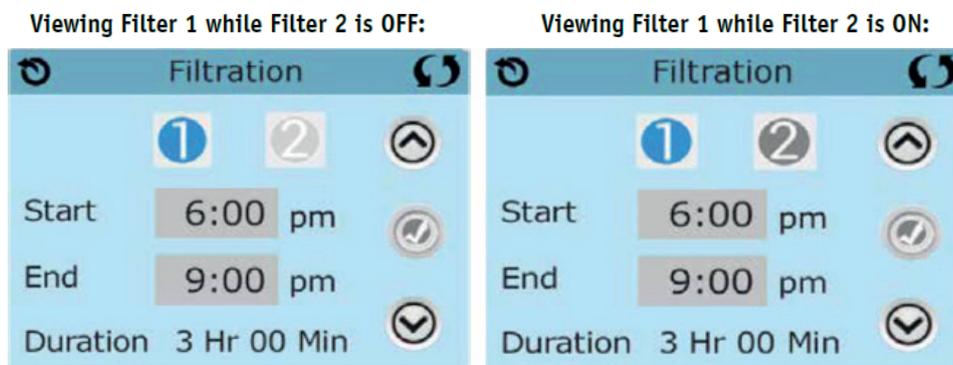
Using the same adjustment as Setting the Time, Filter Cycles are set using a start time and a duration. Each setting can be adjusted in 15-minute increments. The panel calculates the end time and displays it automatically.

The Filter Icon  on the Settings Screen takes you to a screen where you control the Filter Cycles.



Filter Cycle 2 - Optional Filtration

Filter Cycle 2 is OFF by default.



Press “1” to view Filter 1. Press “2” once to view Filter 2. Press “2” again to turn Filter 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. (Some systems will run a certain number of purge cycles per day, independent of the number of filter cycles per day. In this case, the purge cycles may not coincide with the start of the 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.

Additional Settings

Light Cycle Option

If Light Cycle does not appear on the Settings Screen, the Light Timer feature is not enabled by the manufacturer. The Light Cycle Icon  on the Settings Screen takes you to a screen where you control the Light Cycle. When available, the Light Timer is (“Disabled”) by default. Press “Disabled” to change it to “Enabled” (ON). The settings can be edited the same way that Filter Cycles are edited



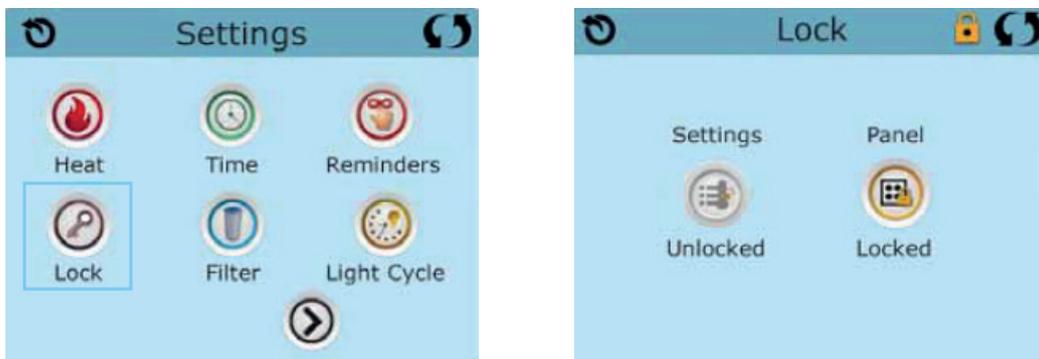
Auxiliary Panel(s)

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 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.



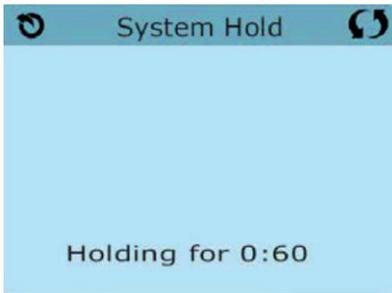
Panel Locked and Settings Unlocked

Locking and Unlocking

The same steps are used to Lock and Unlock. To lock either Settings or Panel first select Settings (if it says "Unlocked") or Panel (if it says "Unlocked"), then press the word "Lock" for at least 5 seconds. To unlock either Settings or Panel first select Settings (if it says "Locked") or Panel (if it says "Locked"), then press the word "Lock" for at least 5 seconds.



Press here for 5 seconds
to lock or unlock.



Hold - 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.

The Hold Icon  on the Settings Screen places the spa in Hold Mode and displays the System Hold screen. Touch Back to exit Hold Mode.

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



Touch this Icon to turn the Drain Pump ON or OFF.

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.

The Utilities Screen



Utilities

The Utilities Icon  on the Settings Screen takes you to the Utilities Screen.

Demo Modus

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:

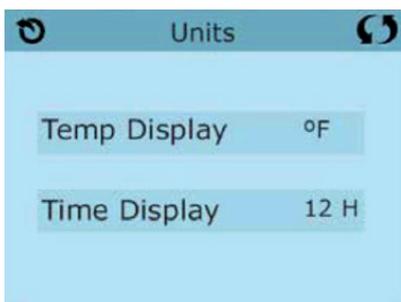
1. 1. GFCI test is not enabled
2. 2. Manual GFCI test is enabled but automatic GFCI test is not enabled
3. 3. Both manual and automatic GFCI tests are enabled. The automatic test will happen within 7 days of the spa being installed and if successful will not repeat. (If the automatic test fails it will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



Bedienement

Touching the Panel Icon  on the Utilities Screen takes you to the Panel Screen, where you can set how long it takes the panel to go to sleep after the last activity. The Sleep Timer can be set from 1 minute to 60 minutes. The default is 30 minutes.



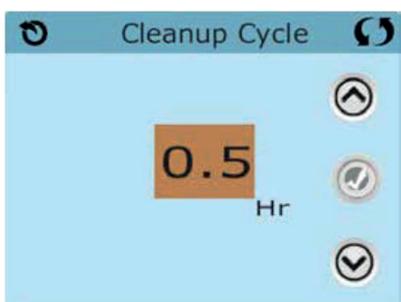
Units Screen

The Units Icon  on the Settings Screen takes you to the Units Screen. Press "Temp Display" to change the temperature between Fahrenheit and Celsius. Press "Time Display" to change the clock between 12 hr and 24 hr display.



Reminders

The Reminder Icon  on the Settings Screen takes you to the Reminders screen. Press "Reminders" to turn the reminder messages (like "Clean Filter") ON (Yes) or OFF (No).



Cleanup Cycle

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. Settings it to 0.0 Hr keeps the Cleanup Cycles from running. The Cleanup Icon  on the Settings Screen takes you to the Cleanup Cycle screen.



Language

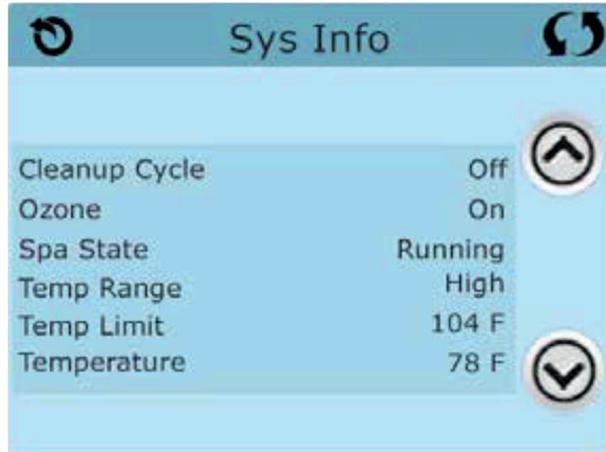
The Language Icon  on the Settings Screen takes you to the Language screen. Change the language displayed on the panel.



Information

System-Information

The System Information Screen displays various settings and identification of the particular system.



System Model

Displays the Model Number of the System.

Panel Version

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

Software ID (SSID)

Displays the software ID number for the System.

Configuration Signature

Displays the checksum for the system configuration file.

Current Setup

Displays the currently selected Configuration Setup Number.

Dip Switch Settings

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

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.

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)

Touching the GFCI Test Icon  on the Utilities Screen takes you to the GFCI Test screen. The installer can cause the GFCI Trip Test to occur sooner by pressing Test on the GFCI Test screen. 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 screen. "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.

Reset Button:

Only use the Reset Button prior to moving the spa to a new location. Pressing the Reset the button forces a new Test to be performed at the new location.

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.

The water level is too low

This message can only appear on a system that uses a water level sensor. It appears whenever the water level get too low (or the water level sensor is disconnected), and automatically disappears when the water level is adequate. Pumps and the heater turn OFF when this message appears.

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**



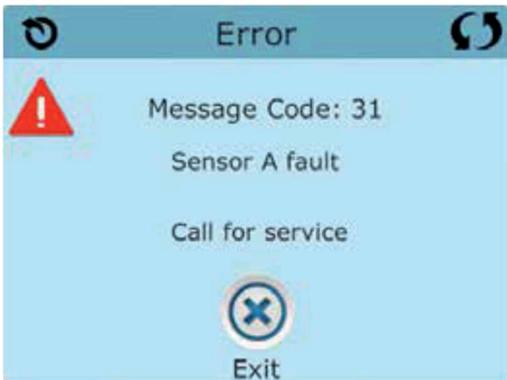
One of the water temp sensors has detected 118°F (47.8°C) in the heater and the spa is shut down. You must reset the message* when water is below 108°F (42.2°C). See “Flow Related Checks” below.

* **Some messages can be reset from the panel.** Messages that can be reset will appear with a Clear Icon at the bottom of the Message Screen. Press the Clear Icon text to reset the message.

Sensor-Related Messages

Sensors are out of sync – M015**

The temperature sensors MAY be out of sync by 3°F. Call for Service if this message does not disappear within a few minutes.



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, Sensor 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.

* **Some messages can be reset from the panel.** Messages that can be reset will appear with a Clear Icon at the bottom of the Message Screen. Press the Clear Icon text to reset the message.





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 Clear Icon at the bottom of the Message Screen. Press the Clear Icon text to reset the message.

Reminder Messages

General maintenance helps.

Reminder Messages can be suppressed by using the Reminders Screen. 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.

Reminder messages can be reset from the panel. Messages that can be reset will appear with a Clear Icon at the bottom of the Message Screen. Press the Clear Icon text to reset the message.

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.

Change the UV

May appear on a regular schedule.

Change the UV as instructed by the manufacturer.

Check ozone

May appear on a regular schedule. Check the ozone generator as instructed by the manufacturer.

Service Check-up

May appear on a regular schedule.

Do a service check-up as instructed by the manufacturer.

Additional messages may appear on specific systems.

Reminder messages can be reset from the panel. Messages that can be reset will appear with a Clear Icon at the bottom of the Message Screen. Press the Clear Icon text to reset the message.

Warning! Qualified Technician Required for Service and Installation

Basic Installation and Configuration Guidelines

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.

-In. k1000-Gecko

MAINTENANCE

IF YOU HAVE PROBLEMS, DO NOT ATTEMPT TO REPAIR THE UNIT YOURSELF. RETURN IT TO YOUR DEALER OR SERVICE STATION FOR SERVICING.

ACCESSORY PARTS

BE SURE TO USE ONLY THE SPECIFIED ACCESSORY PARTS. USE OF OTHER THAN DESIGNATED PARTS MAY DAMAGE THIS UNIT INTERNALLY OR MAY NOT SECURELY INSTALL THE UNIT IN PLACE. THIS MAY CAUSE PARTS TO BECOME LOOSE RESULTING IN HAZARDS OR PRODUCT FAILURE.

DISPOSAL OF THE PRODUCT

THE APPLIANCE (OR THE PRODUCT) MUST BE DISPOSED OF SEPARATELY IN ACCORDANCE WITH THE LOCAL WASTE DISPOSAL LEGISLATION IN FORCE.



in.k1000

full-featured color capacitive touchscreen display keypad for spas

Fun, simple, engaging one level menu interface

Parting ways with physical buttons, keys and overlays, Gecko's in.k1000 touchscreen keypad is fun to use, simple to learn and features an intuitive and engaging one level menu interface.

Truly interactive control of all spa and accessory

functions and settings Mode and function selection wheels, all-on or all-off one touch activation key, interactive display icons and on-screen reminders and messages make for a unique user interface. Get direct feedback and seamless interaction when controlling your spa equipment and connected value added accessories like in.clear, in.mix, in.touch 2 and in.stream 2.

Larger, faster, and cooler touch screen display

Driven by a powerful 400 MHz processor, the in.k1000 keypad features an eye-catching 4.3 inch 256K color LCD capacitive touchscreen display resting within a thin and beautiful enclosure that houses its cutting-edge electronics. The in.k1000 keypad fits perfectly on the edge of any spa.

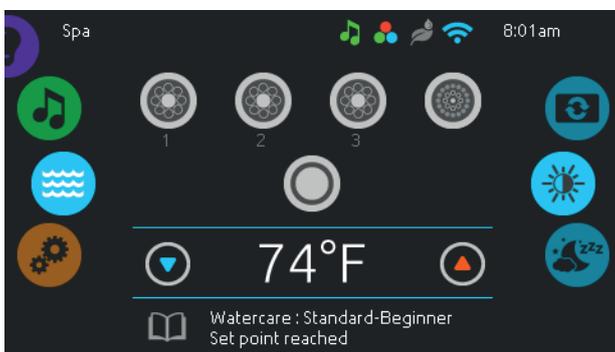




Sleep mode

Touch the screen to exit sleep mode. 3 minutes after the last pump is turned off, the screen will shut off if there is no touch activity.

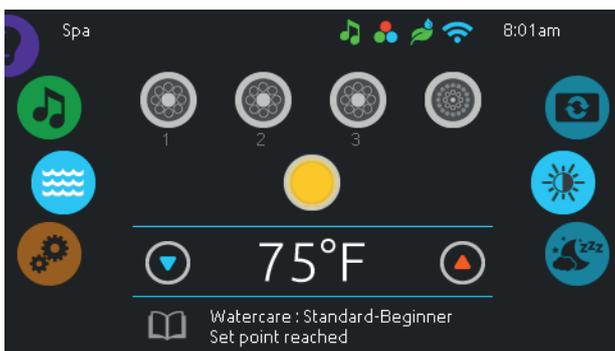
Then Follow the instructions on the screen to access the main screen.



Main screen

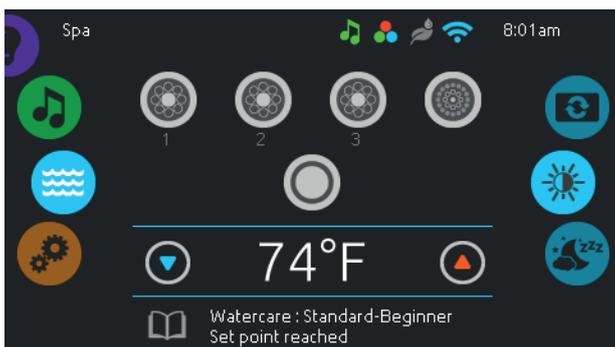
The main screen gives you access to your accessories and water temperature. At the bottom of the screen you will see any error or maintenance messages that are present.

Keypad functions



Start or stop accessories

To start or stop an accessory, touch the associated icon. Icons will become animated when their accessory is turned on and animation will stop when turned off. Icons on the screen will reflect the speed or state of the devices running on your spa. When an accessory has more than one speed press the button until it reaches the desired speed.



Notifications

A notification area at the top right-hand side of the screen shows the state of certain installed accessories.

Keypad functions



in.touch:

- Indicates that the in.touch module is detected and connected to a Wi-Fi network.
- A red cross indicates that the in.touch module is detected but is not connected to a Wi-Fi network.
- An animated icon indicates that the in.touch module is connecting to a Wi-Fi network.

For more information about the in.touch, refer to the Wi-Fi section.



in.clear:

- The icon is green when the in.clear is generating bromine.
- The icon is grey when the in.clear is not generating bromine.
- A red cross indicates that the in.clear is turned off.

For more information about the in.clear, refer to the in.clear functions section.



in.stream 2:

- The icon is green when the in.stream 2 is on.
- A red cross indicates that the in.stream 2 is turned off.

For more information about the in.stream 2, refer to the in.stream 2 functions section.

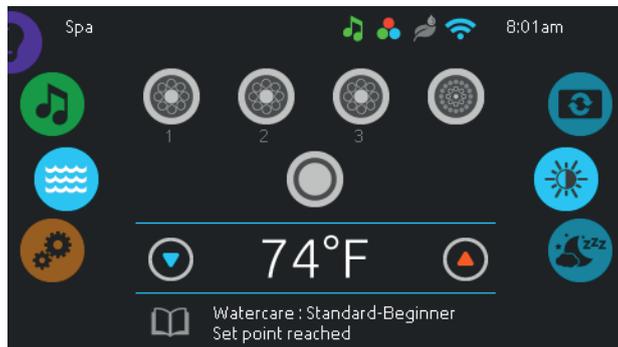


in.mix:

- Indicates that an in.mix system is detected.

For more information about the in.mix system, refer to the in.mix functions section.

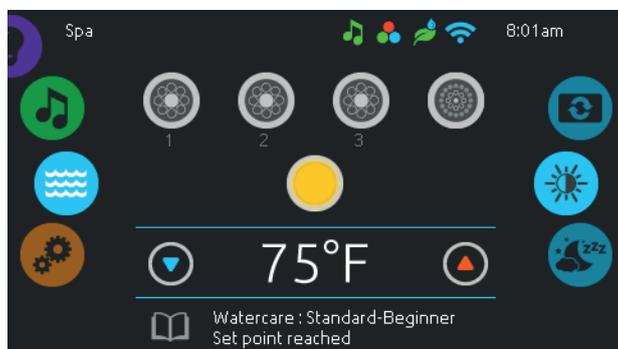
Keypad functions



Water temperature

The temperature shown at the bottom of the screen indicates the current water temperature. Use the Up and Down icons to set the desired temperature. The set point will appear in blue. After 3 seconds without any change to the set temperature value the current water temperature will reappear in white.

When the set value is lower than the current temperature Cooling to xx.x will appear below. When the set value is higher than the current temperature, Heating to xx.x will be indicated under the value.



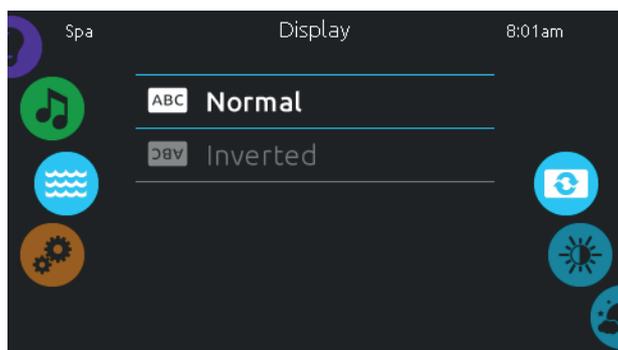
Spa menu

From the home page you can access the following:

- in.clear (if installed)
- in.stream 2 (if installed)
- in.mix (if installed)
- Spa menu
- Settings

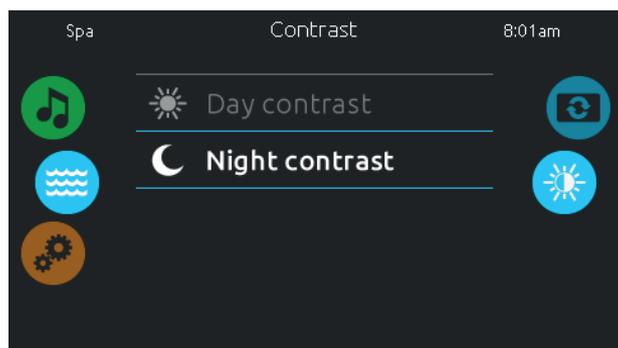
To select an option, slide the left wheel up or down until the desired icon menu is highlighted in the middle.

On the right side is a menu for access to the Display and Contrast pages.



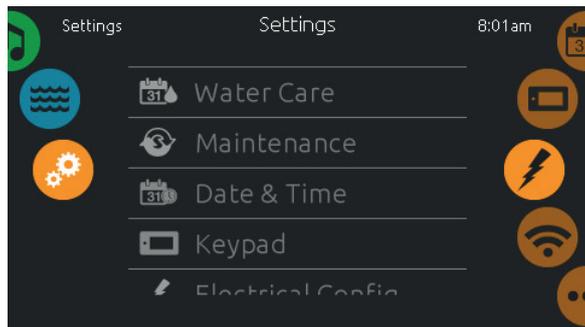
Display page

Use this page to change the display orientation.



Contrast page

Use this page to change the display contrast.

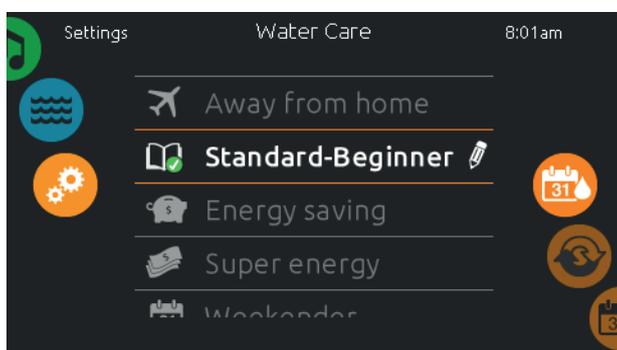


Settings

In the Settings page you can access the following:

- WaterCare
- Date & Time
- Electrical Config
- Miscellaneous
- Maintenance
- Keypad
- Wi-Fi
- About

To select an item, slide the right wheel until the desired icon is highlighted in the middle or press on the menu name.



Water Care

The Water Care page will help you set up your ideal filtration and heating settings. Choose between Away from Home, Standard-Beginner, Energy Savings, Super Energy and Weekender, depending on your need. Touch the Water Care name to choose your setting. A green checkmark will appear on the selected icon to confirm your choice. When you select another water care setting, a confirmation window appears to prevent inadvertent selection that could result in a setup modification for your spa. In Economy mode, the set point will be reduced by 20°F*, which means that the heating system will not be engaged unless the temperature falls to 20°F below the spa's set temperature. The filtration schedule shown on the in.k1000 screen will apply to the main filtration pump, most likely pump 1. If your spa uses a circulation pump configured to run 24 hours, the screen will show you the purge setting instead of filtration. The purges are pre-programmed for a fixed number of minutes, therefore the duration will be set to N/A on the screen and only the start time can be modified.

Water care modes



Away:

In this mode the spa will always be in economy; the set point will be reduced by 20° F.



Standard-Beginner:

The spa will never be in economy mode and will be filtering according to the pack's low level configuration.



Energy Savings:

The spa will be in economy mode during the peak hours of the day and resume normal mode on the weekend.



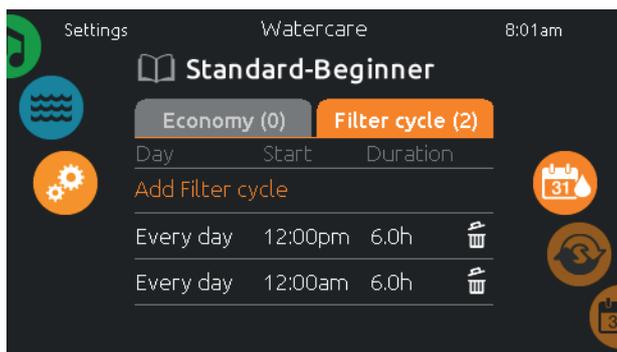
Super Energy Savings:

The spa will always be in economy mode during peak hours, every day of the week.



Weekender:

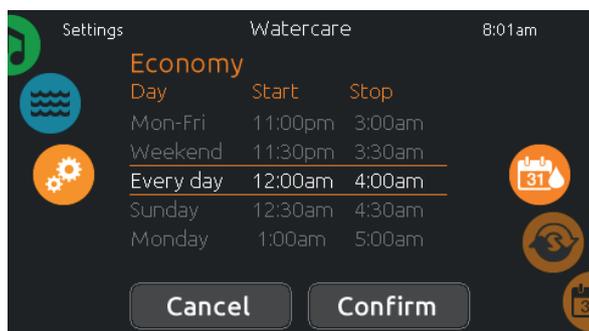
The spa will be in economy mode from Monday to Friday, and will run normally on the weekend.



Modifying schedules

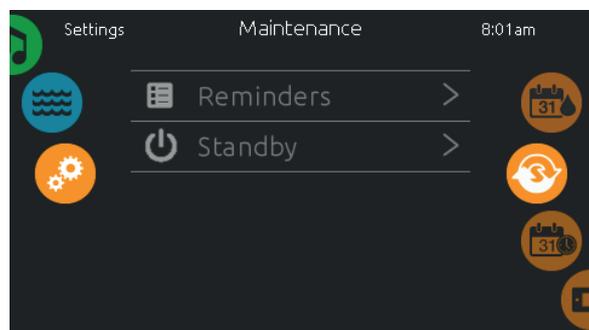
To modify a Water Care category, touch the pen icon at the right end of the desired Water Care to open the selected Water Care menu. Touch the Economy tab to change the economy setting and Filter cycle tab for the filtration settings (or schedules). You can add economy or filtration schedules by touching the orange line labelled « Add Filter cycle » or „Add Economy cycle“.

To delete a schedule, touch the garbage can icon at the right end of the desired line. Confirm your action when prompted.



You can modify the programmed schedules by selecting one and adjusting the schedule.

You have several possibilities for the schedule (Mon-Fri, week-end, every day, or single days). The schedules will be repeated every week. The time and duration are set in 30 minute increments. When changes are done, press „confirm“. If you don't want to keep any changes, press „cancel“ or use the calendar icon to go back. Ensure that you have selected the desired Water Care mode in the main Water Care menu.

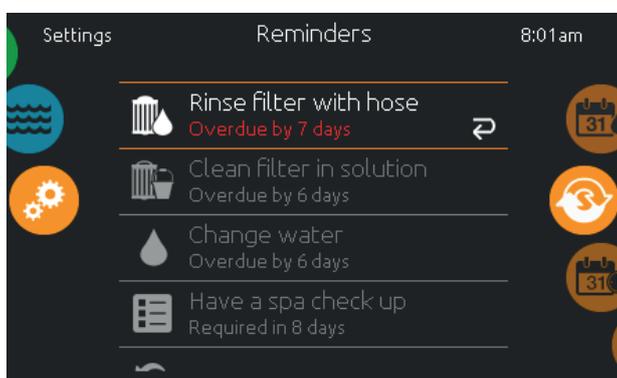


Maintenance

From the Maintenance page you can access the following:

- Reminders
- Standby

To access the desired option simply touch the corresponding menu item.



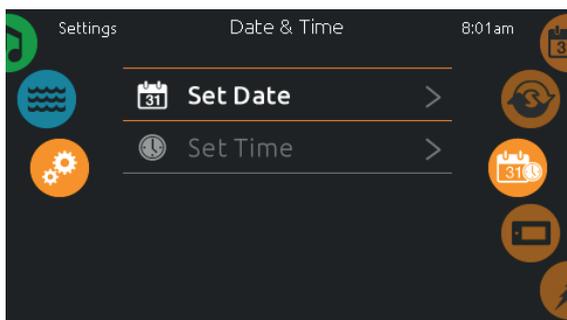
Reminders

The in.k1000 keypad will provide reminders about maintenance required on your spa, like rinsing or cleaning the filter. Every task has its own duration based on normal use.

The Reminders menu allows you to check the time left before maintenance is required, as well as to reset the time once a task has been completed.

To reset a task, select it by pressing the curved arrow, then confirm when prompted. Once you have confirmed, the task will be reset.

You can also use the option Reset Reminders to reset all the reminders.



Date and Time

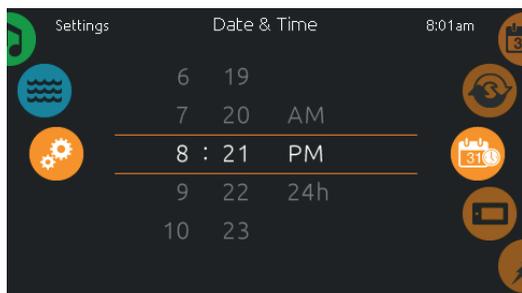
Use this page to change Date/Time settings.



Set date

Here you can adjust the year, month and day.

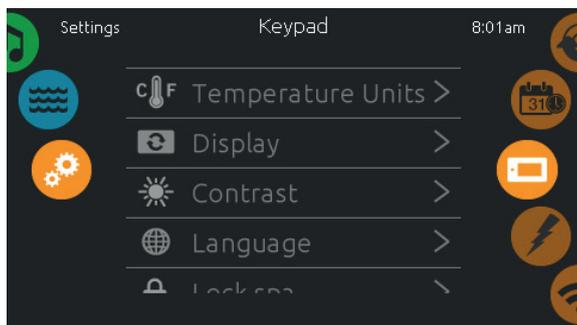
Simply swipe up and down the column you want to change and select the desired value. When you are done, touch the calendar icon at the right of the screen.



Set time

Here you can change the hour, minute and time format.

Simply swipe up and down the column you want to change and select the desired value. When done, touch the calendar icon at the right of the screen.

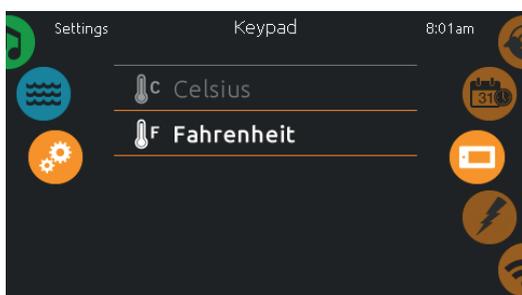


Keypad settings

In the keypads page you can access the following:

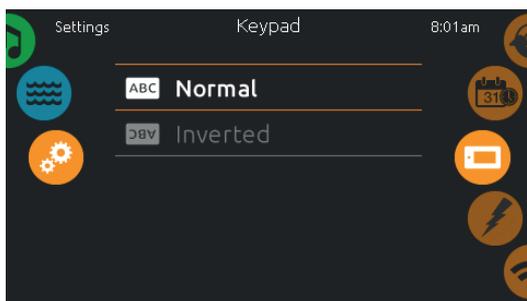
- Temperature units
- Contrast
- Lock spa (optional)
- Display
- Language
- Keypad color (optional)

To select an item, slide the right wheel until the desired icon is highlighted in the middle or press on the menu name.



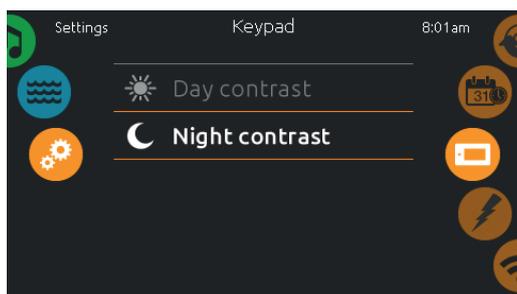
Temperature units

Choose the desired units to display temperatures.



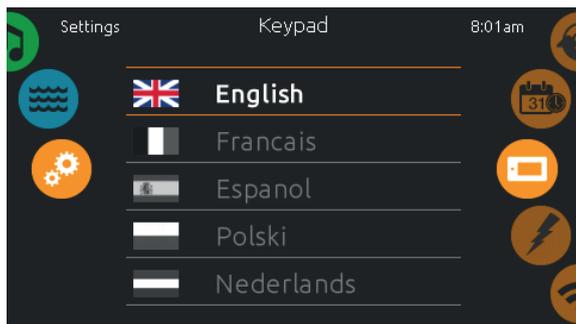
Display page

Use this page to change the display orientation.



Contrast page

Use this page to change the keypad contrast.



Language select

Use this page to select the display language of the in.k1000 keypad.

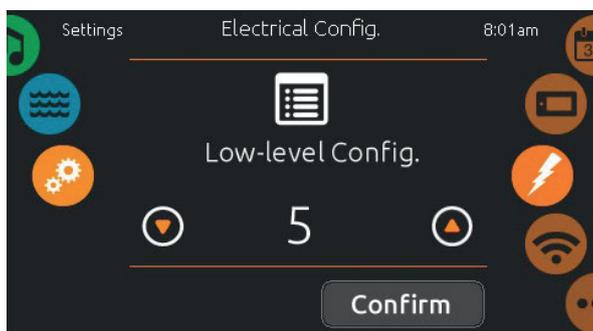


Electrical Configuration

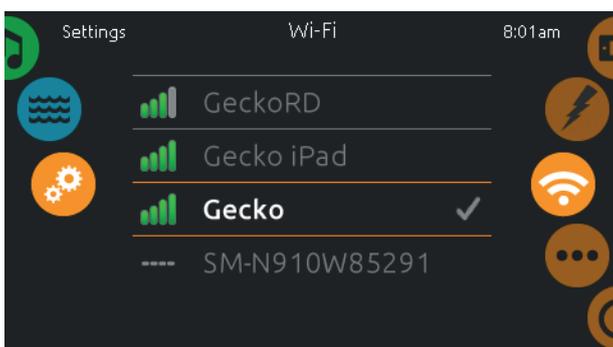
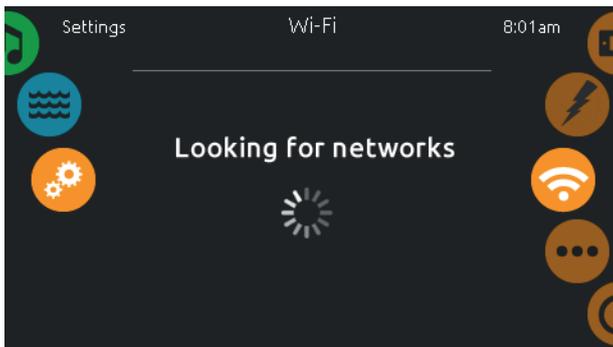
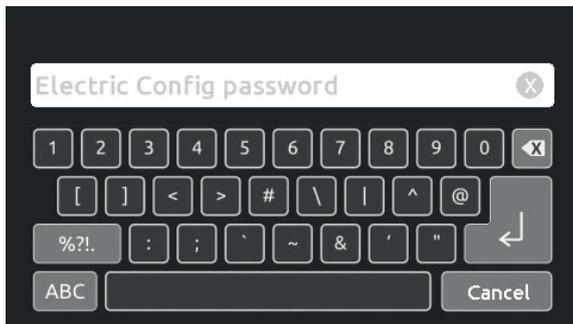
Please do not make any changes in this section unless you are a qualified electrician.

In this section, you can change the low-level configuration, as well as modify the number of phases and the input current value*. Once the modification done, hold the Apply button for five seconds.

Please note that if there are two spa packs in the system (i.e. a SwimSpa installation), the master's unit's chosen unit configuration must support a slave unit. If after rebooting the chosen configuration does not support SwimSpa installations, the in.k1000 will return (after approximately 45 seconds) to this configuration menu and prompt the user to select a configuration number again.



* Depending on the pack configuration, a code may be required to modify the low-level number. This code is 5555.



Wi-Fi (in.touch)

This page allows you to connect your in.touch module to a Wi-Fi network or to change its network.

For more details about other in.touch connection methods, please see the in.touch techbook.

After a few seconds the available networks will appear on the screen, as well as their signal strength.

Swipe Up or Down the list to select your network. If the Wi-Fi network is password protected, enter it when prompted.

If no password is required, the in.touch will connect automatically.

Once the in.touch module is connected to a Wi-Fi network, a green check mark will appear in the Wi-Fi menu and the network name will appear in the Settings menu.



About

This section shows information about the in.k1000 software number and the revision numbers of the different components of your system.



Wipe screen

This message appears when too much water is detected on the touch screen. Simply wipe away excess water.

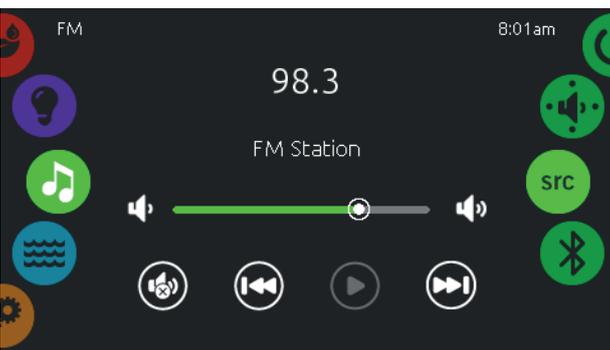


in.stream 2 functions

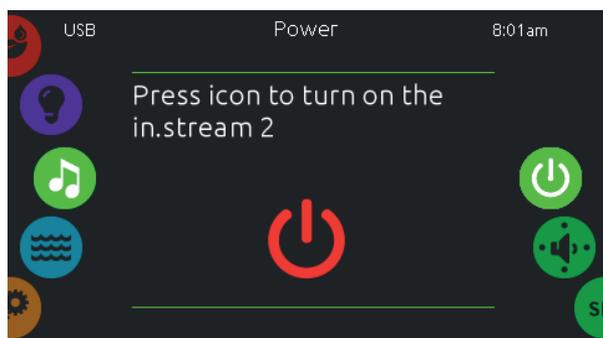
This menu is available only if the in.stream 2 audio station is detected in the spa accessories.

The audio page will allow you to control the active audio source. Note that only the functions that apply to the selected source will be available. From this page, you can also access the following:

- in.stream 2 on/off
- speaker settings
- audio source selection
- disconnect bluetooth



To select an item, slide the right wheel until the desired icon is highlighted in the middle. For more information about the in.stream 2 audio station, please refer to the in.stream 2 tech-book.



in.stream 2 power

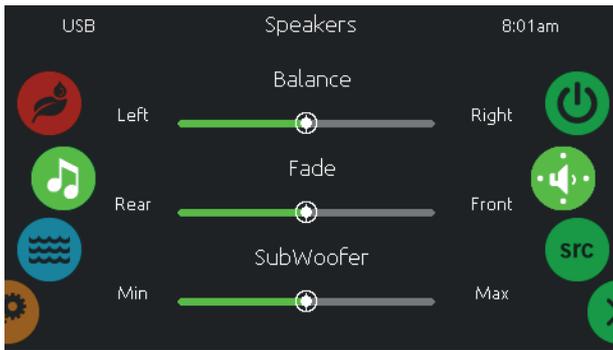
To turn the in.stream 2 on or off, tap the icon located in the center of the screen.



On (red)

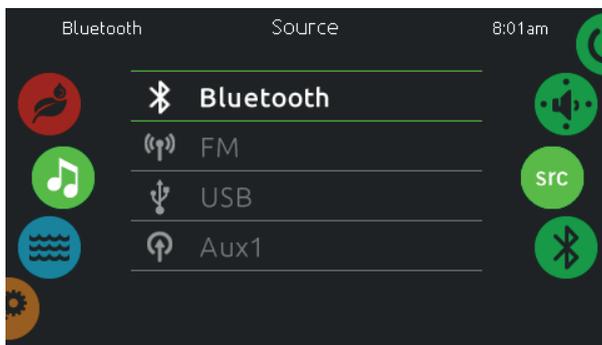


Off (green)



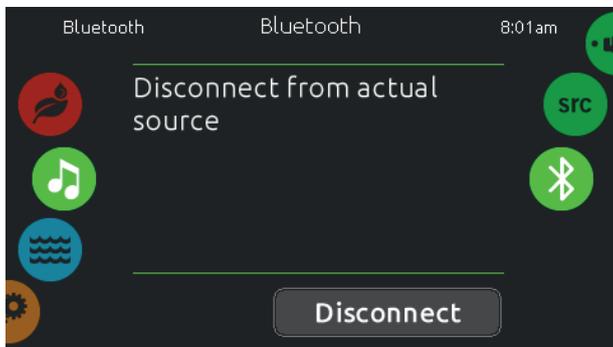
Speakers settings

Move the sliders to adjust the Balance, Fader and Subwoofer settings. The Fader and Subwoofer sliders will only appear in the Speakers menu if the corresponding speakers are available on the in.stream 2.



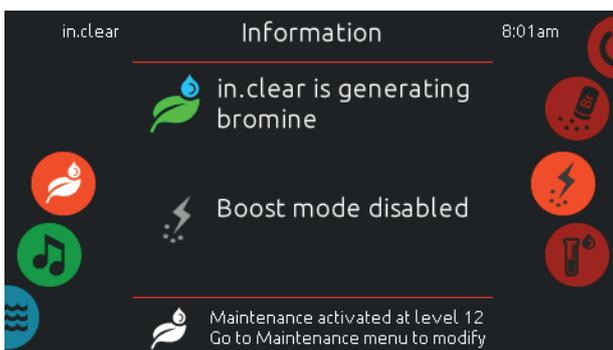
Source menu

To change the audio source, simply tap on the desired one. Note that only the sources available on the in.stream 2 will be displayed in the source menu.



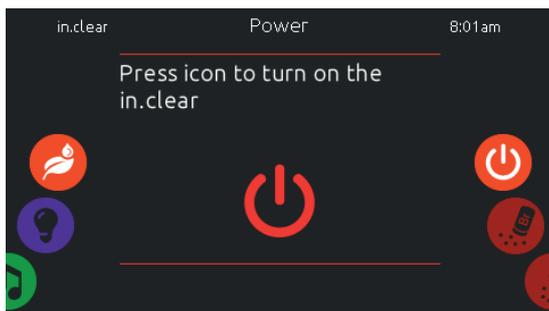
Disconnect Bluetooth

If a device with Bluetooth technology is connected to the in.stream 2, you can disconnect it by pressing the Disconnect button at the bottom of the screen. Doing so will also prevent the in.stream 2 from automatically reconnecting to this specific device until it has been reconnected using the device itself.



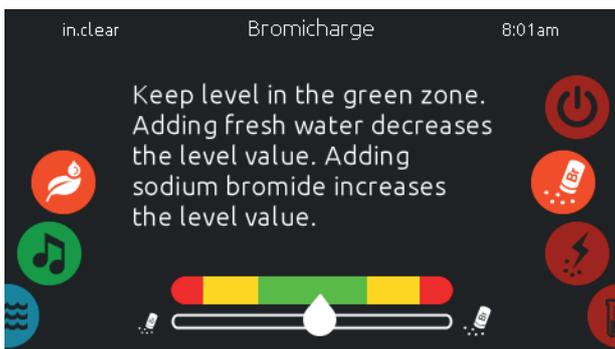
in.clear functions

This menu is available only if the in.clear is detected in the spa accessories. The in.k1000 keypad can be used with the in.clear sanitation system. The in.clear menu allows you to configure your maintenance settings and boost levels. The main in.clear menu shows the current status of the sanitation system, whether it is on and if it is generating bromine or not. For more information about the in.clear, bromine levels and other settings, please refer to the in.clear user manual.



in.clear on/off

A 5 second press on the power down key is required to turn off the in.clear. This prevents accidental desactivation of the sanitation system.



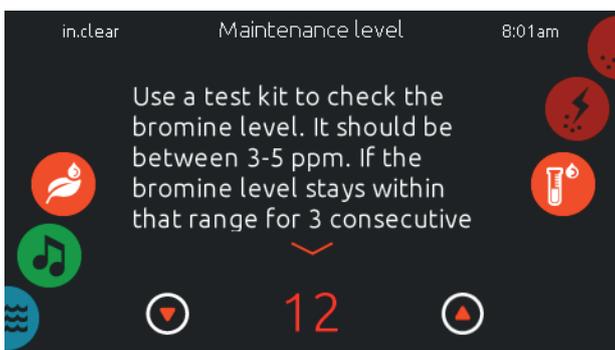
Bromicharge™ level

The Bromicharge page allows you to see the current level of sodium bromide in the water. Ideally, you should aim to be near the center of the green area of the gauge. Follow the instructions given on the screen to increase or reduce the level. Note that it may take a few seconds to obtain a reading from the in.clear, during this time the wait icon is displayed on the gauge. There are no settings to change on this page, it is solely informative.



Modify the Boost level

The Boost level is used to set the amount of boost required. As a rule, enter the number of bathers in the bath. Boost mode is automatically activated 5 minutes after starting a pump.



Modify the maintenance level

The maintenance level can be changed and must be tested with a bromine level tester. The tester should report between 3-5 ppm. If the bromine level is within this range for 3 consecutive days your maintenance level is correctly adjusted. If you adjust the maintenance level by more than 2, you will be prompted to confirm.

in.mix functions

This menu is available only if in.mix is detected in the spa accessories. By default, in.mix selects Zone 2 when you access the menu.



Zone selection

To select a zone, turn the right wheel until the desired icon is highlighted in the middle. This selection allows you to modify its color.

Changing colors

Once a zone has been selected, use the color wheel to choose the desired color, or the rainbow icon to get changing colors.

On/Off

There are two ways to turn the in.mix on or off. The first one is by using the Light icon on the spa Screen. The second way is by touching the light bulb icons located on each side of the intensity bar.

Synchronizing zones

The synchronization/desynchronization icon allows you to match the color of the selected zone with the other zones.

Intensity

Located at the bottom of the screen, the slider allows you to modify the intensity of the color.

Error messages

The list below shows the different error messages that can appear on the home screen. Refer to the troubleshooting and error codes section of the TechBook for your spa pack system. Please note that if you are in a swim spa configuration, the message may be followed by „Master“ or „Slave“ to designate from which pack the error is coming.

Code	Message
HL	High Limit circuit has tripped!
FLO - L01 FLO - L02 FLO	FLO condition - Check filter, pump, blockage, air lock and water level
NO FLO	Persistent NO FLO, all off - Check filter, pump, blockage, air lock and water level
HR	A hardware error was detected (Relay stuck)
OH	Spa temperature is too high
Pr	Temp probes or detection circuit are defective
AOH	Elevated internal temperature
FLC	The pressure switch is closed
SP in	Input voltage issue
RH NC	Comm. error between in.xm2 - in.therm
RH ID	in.xm2 and in.therm incompatible
SC ER	Error detected during the learning mode
F1	in.xm2 Fuse # 1 is blown
F2	in.xm2 Fuse # 2 is blown
F3	in.xm2 Fuse # 3 is blown
ER1	SwimSpa config. : slave unit is missing
Hr	Hardware error was detected (Thermal fuse)
UPL	The spa pack does not have valid software. Please insert valid in.stick to reprogram spa pack.
CFLO	No Flow condition
HIBr	Add fresh water to the spa
HiBr	Add fresh water to the spa
LoBr	Add BromiCharge to spa water
NoBr	Add BromiCharge to spa water
Comm	Verify cable connections
Supp	Connect power cord to 240 V source

Feature matrix

The following table presents the features and/or options available for the in.k1000 keypad and the earliest software version at which this feature/option is available. All later versions greater than the earliest version continue to support the feature.

Keypad functions	Earliest support
Power	5.00
Main screen	5.00
Start or stop accessories	5.00
Notifications	5.00
Water temperature	5.00
Spa menu	5.00
Settings	5.00
Water care	5.00
Water care modes	5.00
Modifying schedules	5.00
Maintenance	
Error log	5.00
Reminders	12.00
Date and time	
Set date	5.00
Set time	5.00
Keypad settings	
Temperature unit	5.00
Display	5.00
Contrast	5.00
Language	
English	5.00
Français	5.00
Español	5.00
Polski	5.00
Nederlands	5.00
Deutsch	5.00
Norsk	5.00
Svenska	5.00
Magyar	5.00
Italiano	5.00
Português	5.00
Česky	12.00
Keypad Lock/Unlock	20.00
Keypad Color	20.00
Electrical configuration	5.00
Wi-Fi	5.00
Miscellaneous	
Warm Weather	20.00
Message info	20.00
About	5.00
Wipe screen	6.00
in.stream 2 functions	5.00
in.mix functions	12.00
in.clear functions	7.00
Support for AC Light output	8.00
Support for in.xe-2 and in.ye-2 packs	8.00

Specifications

Model
IN.K1000-BK-GE1

Environmental
Operating temperature: -4°F (-20°C) to 149°F (65°C)
Storage temperature: -22°F (-30°C) to 185°F (85°C)
Water ingress protection: IPX5

Mechanical
Weight: 1.05 lbs (0.48 kg)
Dimensions (W x H x D): 7,49" x 5,17" x 1,93"
(190 mm x 1031 mm x 49 mm)

Audio specifications
Audio source supported: in.stream 2

Compatibility
in.yt, in.ye, in.yj, in.xe, or in.xm2 spa packs with appropriate software revision

5. Dynamic Jet Sequencer (Optional)



□ Your dynamic jet sequencer controls 4 areas in the „hot seat“ of your hot tub. This manual provides an overview of the main functions you can access with the DJS-I control panel.



How to start your controller:

Press the on/off button to start access the controls. The system starts with a test of the display lighting and opens all valves. Pressing the on/off button again switches the controls off. A built-in timer turns the system off automatically after two hours if this is not done manually.

Annotation: If DJS-I is installed together with a Gecko Pack equipped with an optional pressure switch, the DJS-I will be activated automatically when the pump turns on.



To select a sequence preview:

Press the „sequences“ button to select one of the 7 pre-programmed massage sequences. Only the first 6 programs are displayed via the indicator lights. Program 7 opens all valves and is not displayed with the lights. After a sequence has been selected, a preview of the massage will be displayed for 5 seconds.



To change the run speed:

Press the Speed button to set the time intervals of the individual massage levels.

Speed 1: 15 second interval

Speed 2: 10 second interval

Speed 3: 5 second interval

The corresponding indicator light flashes to indicate the selected speed.



Stopping the massage sequence:

Pressing the "Pause" button retains the current nozzle pressure configuration. Pressing the "Pause" button again resumes the massage program.

Skinoxyform® (Optional)

Skinoxyform® gives the skin an extra oxygen kick and thus promotes its regenerative capacity. The oxygen content of the water increases by more than 70 percent. This can stimulate your metabolism, improve cell growth and promote deep hydration of the skin, even reducing lines and wrinkles. In addition, Skinoxyform® can have the effect of neutralizing free radicals and increasing serotonin levels. This „happiness hormone“ is known to influence well-being. The microscopic oxygen bubbles give the hot tub water a milky white appearance. They are generated by a special, low-vibration pump and injected into the water. These oxygen bubbles are about 50 to 100 times smaller than a normal air bubble and this is why they are so effective.



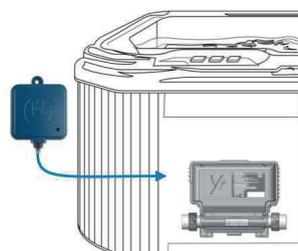
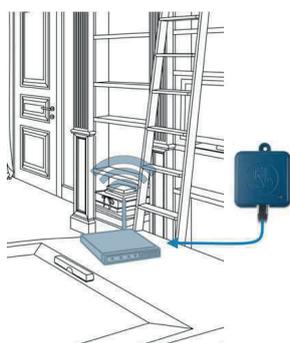
Skinoxyform® can be selected conveniently via the touchscreen and runs fully automatically. When the Skinoxyform option is selected, all other pumps automatically switch off. Do not switch on a massage pump while the Skinoxyform is running, as this will prevent the oxygen level in the water from being increased.

in.touch 2

Easily connect your hot tub to the Internet of Things!

Easy setup

in.touch 2 eliminates all connectivity issues between your hot tub and the internet, turning your smartphone or tablet into the ultimate hot tub remote control. in.touch 2 features a state-of-the-art app, as well as 2 radio frequency transmitters: one connected to your hot tub; the other to your internet router. Both RF transmitters are interconnected to provide fast and secure communication between you and your hot tub.



in.touch 2 makes it easy to manage all programs and settings no matter where you are. You are in control of your water, maintenance settings, filter cycles, water temperature, economy settings, modes and more. Push messages always keep you up to date, even when the in.touch 2 app is not open.

in.touch 2 hot tub Transmitter

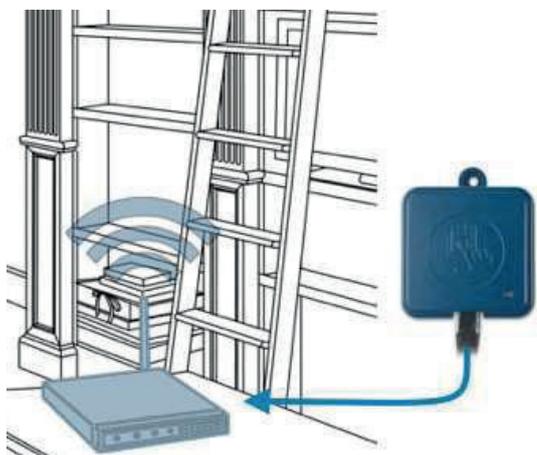
If your hot tub has in.touch 2, the hot tub transmitter comes pre-installed by the manufacturer.

Installing the home transmitter

The home transmitter must be placed inside the house, near the router, so that it can establish a connection to it. The home transmitter comes with an Ethernet cable and power supply. If needed, a longer, good quality Ethernet cable can also be used (this does not come with the house transmitter) to allow the home transmitter to be installed closer to the hot tub. The only requirement for the installation location is that household electricity is available to power the home transmitter. The home transmitter can be mounted on a wall to increase the signal strength.

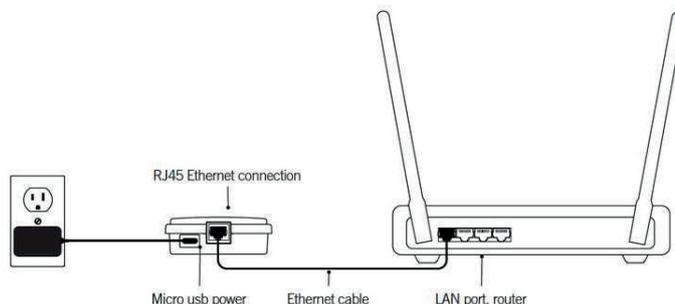
Here are some suggestions for a successful installation:

- If possible, install the unit on the first floor of your home. Not on the ground floor.
- When installing on the ground floor, pick a high spot near a window.
- Avoid installing near metal structures or thick concrete walls that may affect the signal.



Connection of the home transmitter

Simply connect the home transmitter with an Ethernet cable between the transmitter's RJ45 port and an available LAN port on the router. To power the transmitter, connect the supplied cable to the transformer and the USB connector to the transmitter.



Download the application

With the in.touch app, you can control your hot tub from anywhere in the world via your home network or an internet connection. You can get the in.touch 2 app in the App Store for iOS devices and on Google Play for Android devices. Search for „in.touch 2“ and click on the icon to install the app.



On your home network

You can access your hot tub through your home network with the in.touch 2 app. To find your in.touch 2 in the app, your mobile device must be on the same WiFi network as the router connected to the home transmitter. Go to the WiFi settings in your mobile device and select the same network your hot tub is connected to. Once you have selected the correct network, wait for your mobile device to confirm the connection.

Via the Internet

With in.touch 2 you can control your hot tub from anywhere in the world using the Internet. In order for both in.touch 2 modules to communicate with each other, they must each be connected to the same internet-connected network. Once your home transmitter is connected to the internet (status LED is blue), you can use the in.touch 2 app from anywhere, provided that your mobile device is connected to the internet, even when you are not at home. To be able to connect to your hot tub even when you are not at home, you must have been connected to the hot tub once before with the mobile device on your home network.

WiFi setup on your mobile device

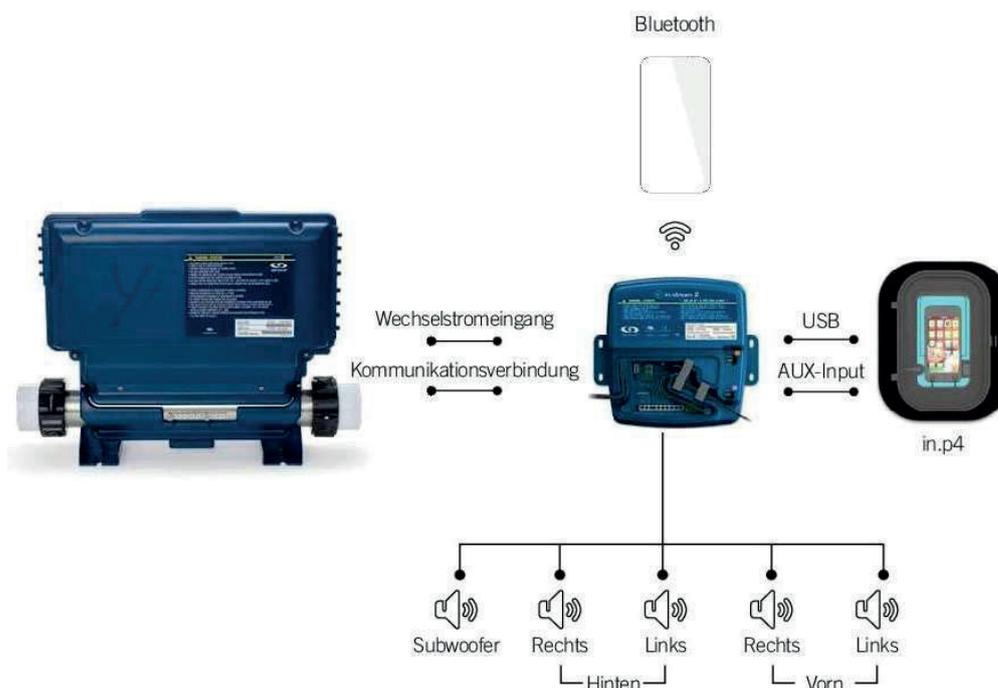
Before you can use the in.touch 2 app, go to WiFi settings on your mobile device and select the same home network that the home transmitter is connected to.

Starting the in.touch 2 application

When you use the application for the first time, you will be asked whether you wish to allow messages from „in.touch 2“ or not. If you allow notifications, you will be notified of status changes of your hot tub with push notifications. If you do not allow notifications, you will not receive any notifications from the application.

Before you can use the application, you must create an account. After that you can log in to the app. This account gives you the ability to access your hot tub with any in.touch 2 app.

in.stream 2 Bluetooth connectivity



Pairing with a Bluetooth device

in.stream 2 can play music from any device that has been equipped with Bluetooth wireless technologies, for this function you must pair your device with the audio receiver.

The system is ready to pair if it is not already connected to another device. To pair your device, make sure you are close enough to the in.stream 2, that it is turned on, and that it is set to Bluetooth mode.

Follow these steps to pair your device:

1. Open the Bluetooth settings on your device. The location of the settings depends on the device used.
2. Make sure that Bluetooth is turned on.



3. Select „in.stream 2“ from the list of Bluetooth devices detected nearby.
4. When prompted, enter 5555 as the PIN code.



5. When pairing is complete, select in.stream 2. When „connected“ is displayed, in.stream 2 is ready to play the selected audio file.



Notice: If the device moves out of range and the connection is lost, it must automatically reconnect as soon as it is close enough. This occurs automatically; it is not necessary to go through the menu again. in.stream 2 stores up to 8 devices in its memory. If one of the last three connected devices is within range and Bluetooth is turned on, it will automatically connect to in.stream 2. If there are several devices within range and pairing with in.stream 2 has already taken place, priority is given to the device that was detected first in the in.stream 2 memory.

BWA-WiFi module

The Bwa is an app for your smart device (Android™ or iPhone®) that allows you to control your hot tub via a direct connection anywhere in the immediate vicinity of the hot tub, anywhere in your home with access to the Wi-Fi network, or anywhere in the world with Internet access for your smart device via 3G, 4G, or Wi-Fi Hot Spot. With the Bwa app, you can make sure your hot tub will be ready for you whenever you want to use it. Instead of going outside and pressing the buttons on the control panel, you can use the app to start the hot tub and change the settings from your smartphone or tablet. The app offers full control through the user interface, allowing you to set the temperature, turn the pumps on and off, and even control the filtration cycles.



There are two ways to operate the hot tub using the Wi-Fi module.

Direct connection

- Under Wi-Fi Settings, connect the external device to the hot tub module. This module is automatically displayed in the list of networks. To connect, activate the Bwa app to complete the connection. This option is only available when you are within the range of the Wi-Fi network connected to the hot tub.

Connection via the router

- The Wi-Fi module should be connected to the router directly. After the Wi-Fi module is connected to the router, start the Bwa app. In the top right corner, click on „Settings“. Select the „Wi-Fi“ option below. The Wi-Fi settings are shown here. Enter the name and password. Your hot tub is now connected to the router. Disconnect your smart device from the hot tub's wireless module. Now there is an Internet connection via mobile data or Wi-Fi.

WAS SIE BRAUCHEN 1



Ein Smart Gerät
(Android™, iPhone® oder iPad®)



Wireless Internet-Anschluss
(3G, 4G, oder Wi-Fi Hot-Spots)

Fertige Installation 3



Nach dem herunterladen der bwa™ App sollte das unten abgebildete Symbol auf dem Bildschirm Ihres Smart-Geräts angezeigt werden.

Hinweis: Wenn Sie das Symbol nicht auf Ihrem Hauptbildschirm sehen, wiederholen Sie Schritt 2.

App 2 herunterladen 2

Auf einem Android™ Gerät

QR-Code scannen, um direkt zu Google Play zu kommen



Öffnen Sie den Google-Play-Shop



Suchen Sie nach "Balboa Water Group"



Laden Sie die App herunter

Auf einem iPhone® oder iPad®

QR-Code scannen, um direkt zum App Store zu kommen



Öffnen Sie den App Store



Suchen Sie nach "Balboa Water Group"

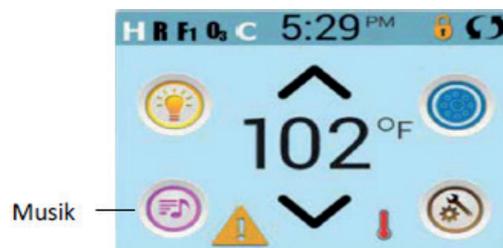


Laden Sie die App herunter

Bluetooth BBA



- Press the music button on the display.



- Activate the Bluetooth function of your smart device or music device.
- Click „search for Bluetooth device“ on your smart device or on your music device. Make sure they are close enough to the hot tub.
- Select your hot from the list.
- Click on „Connect“. Once connected, you can play your favourite music from your smart device or music device.

6. Operation instructions

The hot tub control system is equipped with automatic functions that activate when the hot tub is started and during normal operation.

Lighting system

Your hot tub is equipped with LED lighting, which provides a pleasant atmosphere. The LED lighting can be adjusted on the control panel or using the application.

Nozzle control

The massage strength of the different nozzles varies according to their different functions and sizes. The massage strength can be influenced by modulating the strength of the water flow. The massage strength is additionally increased by the addition of air through the load regulator. All nozzles work as soon as the corresponding pump is switched on. Make sure all jets are fully open and covered with water before using the hot tub for the first time. You regulate these by turning the individual nozzles to their respective stop resistance. Particular attention should be given to the rotating nozzles, as they can no longer rotate properly if there is an accumulation of dirt or contaminants. This can be remedied by cleaning them with a sponge or soft cloth. In exceptional cases, the respective nozzle can be carefully pressed via the attachment point, unscrewed out and then removed. This allows the entire surface of the nozzle to be cleaned and reinserted. Attention, unprofessional unscrewing of the nozzle wherein the thread of the plastic screw mechanism is damaged can lead to damage of the nozzle and even the nozzle body.

Air regulator

Air regulators are the valves that help control the air flow through the nozzles. These air controls are located on the top of the hot tub. This can significantly influence the massage effect provided by the jets. Turn the air regulator up for a strong massage, close the air regulator for a milder massage effect.

Diverter /Regulation

The diverters control the flow of water from the pumps to the individual manifolds and thus to the individual couches or seats. With the diverter you control which seat or which person in the hot tub is targeted with the complete water flow at full capacity of a particular pump. This means that you can specifically determine with the diverter which seat or which person in the hot tub should receive the entire water stream provided by a pump. When the diverter is centered, the water flow from a pump is directed at multiple seats or people inside the hot tub, and is thus less intense.

The strength of the massage can be controlled by several individual settings. Nozzles: open or closed, additional air: open or closed, additional diverter for a pump. The massage dial directs the force of the water from one jet zone, seat or reclining surface to another, redirecting the flow of the water to other hot tub users providing a greater massage effect.

7. Filtration cycles

A filter circuit is the amount of water that flows through the hot tub's filter. The more water that flows through the filter system, the cleaner it becomes. Care should be taken to ensure that during normal use, the water volume/content of the hot tub is completely replaced by the filtration system at least 4 times per day. In case of more intensive use, especially by several people, it is necessary to increase the cleaning / circulation cycle accordingly. Due to the energy efficient circulation pumps, you should be generous with the filtration cycles. We recommend running the circulation pump twice a day for at least 4 hours, regardless of usage. This can be easily set or programmed via the control panel. Regardless of the set filtration times, the circulation pump also runs while the hot tub is heating up.

Important:

After exiting the hot tub, be sure to turn on all underwater massage jets, close all air valves, and set the diverter valves to the center open position to allow chemically treated water to flow through all the pipes to flush them effectively.

Standard heating and filtration mode

When the water temperature is changed, the heater switches on automatically in connection with the circulation pump until the set temperature has been reached. No matter which mode or temperature you have set, the control system ensures that the temperature never falls below +16 ° Celsius and thus the hot tub is protected from frost and cold conditions. This is the so-called automatic frost protection mode.

The standard mode is mostly selected during the times when temperatures are lower and therefore the heating times are longer. The aim of this mode is to maintain the desired water temperature.

The pump remains active at low speed during the filtration and heating cycles, while the heater is activated only when necessary.

Economy heating and filtration mode

In the economy mode, the water is only heated during filtration. This mode is mostly selected during the times when the temperatures are high, which greatly affects and shortens the heating times.

Heating Mode – Standby vs. Rest

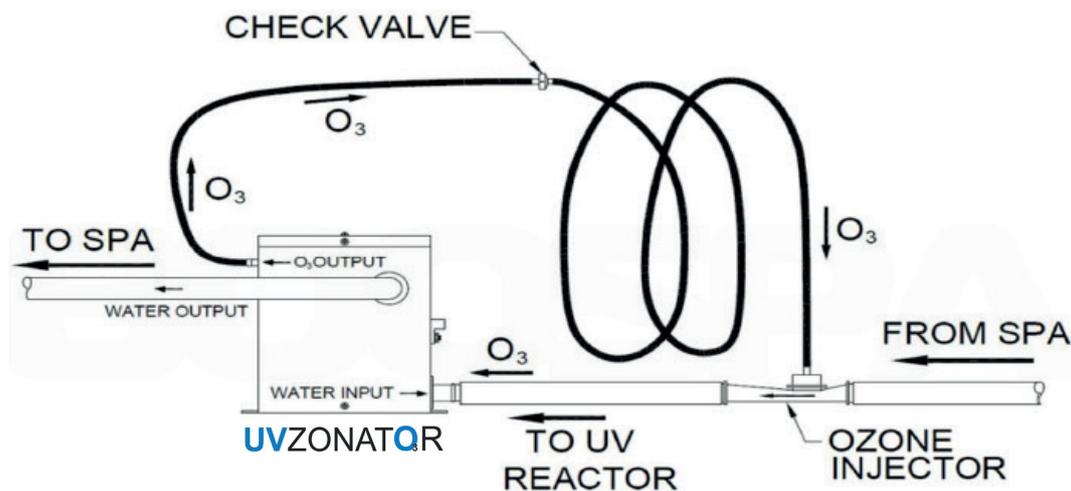
In order for the hot tub to heat up, a pump must pump water through the heater. The pump that performs this function is the „heating pump“. The heating pump can be either a 2-speed pump (pump 1) or a circulation pump. If the heating pump is a 2-speed pump, in READY mode, pump 1 will run at low speed every ½ hour to keep the water temperature constant, heat it as needed. The temperature display will be updated.

If the hot tub is configured for 24 hour circulation, the heater pump will run continuously. As the heating pump is always running, the set temperature is maintained and heats the water in standby mode if required.

In rest mode, the hot tub is only heated to the set temperature during the programmed filter cycles, although the water is constantly filtered in 24-hour Circulation Mode.

8. Water treatment system

Disinfection system: Ozonator and UV lamp



The ozonator removes impurities from the water by killing viruses and biological contaminants. Wavezo3ne reduces the use of chemicals and results in clean and clear water, that leaves skin feeling smooth and silky.

For non-circulation systems, pump 1 will run at low speed with the ozone generator during filtration. In circulation systems, the ozone generator will run with the circulation pump.

The system has been factory programmed to run a filter cycle in the evening, (assuming the time of day is set correctly), as energy costs are often lower at this time. The filtration time and duration are programmable.

If required, a second filter cycle can be programmed.

At the beginning of each filter cycle, the blower (if present) or pump 2 will run briefly to clean the system to ensure good water quality.

Instructions for replacing the UV lamp:

Danger: Disconnect the hot tub completely from the power supply.

Warning: Allow the UV lamp to cool before removing it from the unit.

Remove the top cover of the UV lamp housing.

Danger: Never look at the illuminated UV lamp. This can cause severe eye damage or blindness.

Never touch the glass of the UV lamp with your bare hands. This can break the UV lamp. Be sure to use suitable gloves (latex gloves if necessary) when handling the UV lamp.

Slowly remove the old UV lamp from the quartz tube.

Slide the NEW UV lamp into the quartz tube.

Replace the top cover of the UV lamp housing and secure it with the screws removed earlier.

Turn the power back on.

Warning: The UV lamp used in this device contains mercury. Dispose of the old UV lamp in accordance with your country's waste disposal regulations. Information on UV lamp disposal is available at www.lamprecycle.org.

9. Pool maintenance

A hot tub is a source of enjoyment and pleasure, but it also needs a certain amount of care. The hot tub must be cleaned regularly, the water treated, and the technical components maintained. This must also occur in periods when the hot tub is not being used. For good and professional hot tub maintenance, suitable accessories are also required.

The water is purified by the pumps, the skimmer, and the filtration system, which circulate and filter the water. Mechanical and chemical maintenance should also not be forgotten.

Filter cleaning

Important: Disconnect the hot tub from its power supply

To keep the system running smoothly and the water clean, you should pay close attention to the cleanliness of the filter(s). You should clean the filter effectively to avoid damage. The filter must be rinsed with clean water every week. This prevents dirt from accumulating and chemicals from eating away at the filter material.

The filter must be flushed every month with a filter cleaner recommended by Whirlcare Industries GmbH. Spray the filter with the cleaner and allow it to react for approx. 20 minutes. Rinse the filter thoroughly with clean water before reinserting it. The filter must be placed in a special filter cleaning solution every 3-4 months for a period of 24 hours. In this case, too, the filter must be thoroughly rinsed with water after cleaning. Dry the filter before reinserting it. It is recommended that filters be replaced every 6 months.

The hot tub's filtration system is the main protection against dirt and other contaminants that can pollute the water. For this reason, it is important to maintain them.

The filter should be cleaned and dried when the hot tub is emptied.

10. Emptying and filling the hot tub

It is recommended that the hot tub be drained and refilled every 3 to 4 months. The frequency of water replacement also depends a lot on the frequency of use of the hot tub and other factors such as water hygiene and water quality. The water must be replaced even if the measured values of the water are within the prescribed values.

To drain water, just attach a garden hose to the outside of the drainage tap e.g. by means of a coupling, and to feed the other end of the hose into an external drain.



The hot tub can also be emptied with a submersible pump. The advantage of this variant is that you can empty the hot tub faster. To refill the hot tub, see **point 3**.

Important: before you start draining the hot tub disconnect it from its power supply. The hot tub may be reconnected to power when it has been refilled!

11. Cleaning the hot tub

Cushion care

Remove the cushions from the hot tub and clean them as needed (approximately every 2 months or more often if necessary). Use soapy water, a cloth or a soft brush for this purpose. It is very important to carefully remove the pillows from the hot tub.

Procedure:

- Grasp the ends of the pillows with your fingertips and pull gently
- After cleaning, replace the cushions by following the process above in reverse.

Cover maintenance

When not in use, always cover the hot tub with the cover and secure with the latch (see picture). Do not walk on top of the cover or sit on it. Do not drag the cover over rough surfaces as this may damage it.

The cover should be removed and carefully rinsed with water. Wipe the cover with a soft cloth or sponge. In addition, the cover must be treated with special cleaning and care products recommended by Whirlcare Industries GmbH.



Care of the panels

- Never use a high-pressure cleaner to clean the panels or the outer cladding. Strong water jets from a high-pressure cleaner may damage the exterior cladding.
- Wipe the outer cladding with a clean, soft cloth, or sponge and rinse thoroughly with water.

Care of the tub

To clean the inside of the hot tub, use either a soft sponge or a soft cloth. To avoid scratching the inside of the hot tub, do not use abrasive cleaners or rough cleaning devices. Regardless of the cleaner used, ensure that no soap residue remains on the surface as this could cause foaming when the hot tub is filled. Never use sharp tools to clean the surface.

12. Preparation for the winter

In principle, Whirlcare Industries GmbH recommend operating the hot tub throughout the year and is not liable for damage caused by winterproofing the tub and restarting it.

Your hot tub is designed to automatically provide protection against possible freezing when operated correctly. However, during periods of severe frost, you should periodically make sure that the power to the hot tub has not been interrupted. If you do not plan to use your hot tub in the winter, make sure there is no water left in the piping, hoses, pumps or heater. The warranty does not cover frost damage.

The following steps are necessary to completely drain the hot tub:

- Drain the hot tub via the drainage valve or with the help of a submersible pump.
- Turn off the power.
- Drain all water from the hot tub.
- If your hot tub is equipped with a blower, turn on the power and run the blower for 10 seconds to remove water from the airways.
- Turn off the power.
- Remove water residues with a sponge.
- Separate the inlet and outlet units to allow any remaining water to drain out. Using a wet/dry vacuum cleaner or equivalent, vacuum any additional water from the loosened lines, offsets, and pump heads.
- Remove motors, pumps, electrical equipment, and fans and store them in a warm, dry place to protect them from moisture damage. Leave the topside control in place and seal the cable ends in a plastic bag so that no moisture can enter.
- Using a wet/dry vacuum cleaner, either suck up water from each nozzle and open the lines or blow the water out of each nozzle.
- Make sure that the drain is open.
- Cover all open leads of motors and control systems with shielding mesh to prevent foreign objects from entering the system.
- Cover the hot tub.
- Optionally, you can also cover the hot tub with a special winter cover. (not included in the scope of delivery.)



Annotation: Damage caused by moisture, condensation or other problems resulting from winterproofing your hot tub are not covered under warranty.

We recommend that you regularly sweep away snow to prevent damage to the pool and thermal cover due to overloading.

Restarting your hot tub

To return your hot tub to service after it has been sitting unfilled for some time, follow these steps:

- Make sure that all screw connections are tightly fastened.
- Fill the hot tub with tap water.
- Connect the power.
- If necessary, the pipe system must be cleaned with a special cleaning agent, such as System Rein from Bayrol.
- Run all nozzles at full pump power for approximately 30 minutes.
- In between, turn on the aerator every now and then, which cleans the air jets.
- Drain the water again
- Insert the cartridge filter.
- Fill with water again and treat it in the usual way with the usual water hygiene products.

CAUTION!

During operation, we recommend that you check all connections for leaks.