

THERMOSPAS® FITNESS SERIES OWNER'S MANUAL



Contents subject to change without notice

2021

TABLE OF CONTENTS

Important User Safety Instructions	3-4
Warnings	3
Hyperthermia	4
Important Electrical Safety Instructions	5-6
G.F.C.I. Application Guideline & Wire Size	5
North America G.F.C.I. Installation Diagram	6
Wiring Diagrams (IN.YE Pack Series)	7-8
Filling, Checking and Starting your Swim Spa	9-10
Pump Priming/Releasing an Air Lock	9-10
ThermoSpas Control Systems	11-20
Aquacisor Gold Controls	11
Aquacisor Diamond Controls	12
Aquacisor Series Programming	13-16
12' Aquacisor Controls	17
12' Aquacisor Series Programming	18-19
14' and 17' Swim Spa Platinum Controls	20
14' and 17' Swim Spa Diamond Controls	21
14' and 17' Swim Spa Series Programming	22-26
Swim Sync System	27-37
Standby Mode	38
Drain Mode	38
Topside Panel Display Messages	38
Swimfall Waterfall Control Filter	38
Power Sprint Current Control	39
ThermoSpas® Clear Blue Mineral System	40-41
Water Balance	
General Overview	42
Initial Fill	42
Glossary of Common Water Maintenance Terms	43
Water Balance Summary for your Swim Spa (chart)	43
Water Balance Troubleshooting	44
Routine Hot Tub Maintenance	
Daily, Weekly, Monthly, Quarterly	45
Cleaning the Skimmer Basket	45
Safety Hard Cover	45
Cartridge Filter, Removal, Cleaning, Re-installation	46
Cleaning the Acrylic Surface	46
Changing your Swim Spa Water	47
Draining your Swim Spa Water	47
Water Softeners	47
Soft Stride Floor System	48
Care of Stainless Steel	48
Winterizing your Swim Spa	49
General Troubleshooting	50
What to do in the event of Power Fluctuations	50
Cold Weather Power Failure	50

NOTE: Product specifications, warnings and labels are subject to change without notice. This user's manual should be used as a guide only. For further information, please contact ThermoSpas at 1-800-876-0158.

SAVE THESE INSTRUCTIONS

IMPORTANT SAVE THESE INSTRUCTIONS

Your physiological response to hot water is subjective and depends on your age, health, and medical history. If you don't know your tolerance to hot water, or if you get a headache, or become dizzy or nauseous when using your hot tub, get out and cool off immediately.



WARNING

1. CHILDREN SHOULD NOT USE SPAS OR HOT TUBS WITHOUT ADULT SUPERVISION.
2. DO NOT USE SPAS OR HOT TUBS UNLESS ALL SUCTION GUARDS ARE INSTALLED TO PREVENT BODY AND HAIR ENTRAPMENT.
3. PEOPLE USING MEDICATIONS AND/OR HAVING ANY ADVERSE MEDICAL HISTORY SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA OR HOT TUB.
4. PEOPLE WITH INFECTIOUS DISEASES SHOULD NOT USE A SPA OR HOT TUB.
5. TO AVOID INJURY, EXERCISE CARE WHEN ENTERING OR EXITING THE SPA OR HOT TUB.
6. DO NOT USE DRUGS OR ALCOHOL BEFORE OR DURING THE USE OF A SPA OR HOT TUB, TO AVOID UNCONSCIOUSNESS AND POSSIBLE DROWNING.
7. PREGNANT OR POSSIBLE PREGNANT WOMEN SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA OR HOT TUB.
8. WATER TEMPERATURE IN EXCESS OF 100°F (38°C) MAY BE INJURIOUS TO YOUR HEALTH.
9. BEFORE ENTERING THE SPA OR HOT TUB, MEASURE THE WATER TEMPERATURE WITH AN ACCURATE THERMOMETER.
10. DO NOT USE A SPA OR A HOT TUB IMMEDIATELY FOLLOWING STRENUOUS EXERCISE.
11. PROLONGED IMMERSION IN A SPA OR HOT TUB MAY BE INJURIOUS TO YOUR HEALTH.
12. DO NOT PERMIT OR USE ELECTRIC APPLIANCES (SUCH AS LIGHT, TELEPHONE, RADIO OR TELEVISION) WITHIN 1.5M (5FT) OF THIS SPA OR HOT TUB.
13. CHILDREN SHOULD NOT ENTER A HOT TUB WHERE THE WATER TEMPERATURE EXCEEDS BODY TEMPERATURE (98.6°F / 37°C).
14. DO NOT ALLOW CHILDREN TO SUBMERGE THEIR HEAD UNDER WATER.
15. NEVER OPERATE THE HOT TUB PUMP AT HIGH SPEED WITHOUT HAVING ALL SUCTION AND RETURN LINES OPEN.
16. ALWAYS KEEP THE HARDCOVER INSTALLED AND LOCKED WHEN THE HOT TUB IS NOT IN USE.
17. TEST THE GFCI (GROUND FAULT CIRCUIT INTERRUPTER) MONTHLY.
18. POST EMERGENCY PHONE NUMBERS FOR POLICE, FIRE DEPARTMENT, AND AMBULANCE AT THE NEAREST PHONE.
19. TO REDUCE THE RISK OF INJURY
 - THE WATER IN A SPA SHOULD NEVER EXCEED 40°C (104°F). WATER TEMPERATURES BETWEEN 100°F (38°C) AND 104°F (40°C) ARE CONSIDERED SAFE FOR A HEALTHY ADULT. LOWER WATER TEMPERATURES ARE RECOMMENDED FOR YOUNG CHILDREN AND WHEN SPA USE EXCEEDS 10 MINUTES.
 - SINCE EXCESSIVE WATER TEMPERATURES HAVE A HIGH POTENTIAL FOR CAUSING FETAL DAMAGE DURING THE EARLY MONTHS OF PREGNANCY, PREGNANT OR POSSIBLY PREGNANT WOMEN SHOULD LIMIT SPA WATER TEMPERATURES TO 100°F (38°C).
 - BEFORE ENTERING A SPA, THE USER SHALL MEASURE THE WATER TEMPERATURE SINCE THE TOLERANCE FOR WATER TEMPERATURE-REGULATING DEVICES VARIES.
 - THE USE OF ALCOHOL, DRUGS, OR MEDICATION BEFORE OR DURING SPA USE MAY LEAD TO UNCONSCIOUSNESS, WITH THE POSSIBILITY OF DROWNING.
 - OBESE PERSONS AND PERSONS WITH A HISTORY OF HEART DISEASE, LOW OR HIGH BLOOD PRESSURE, CIRCULATORY SYSTEM PROBLEMS OR DIABETES SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA.
 - PERSONS USING MEDICATION SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA SINCE SOME MEDICATION MAY INDUCE DROWSINESS WHILE OTHER MEDICATION MAY EFFECT HEART RATE, BLOOD PRESSURE AND CIRCULATION.

SAVE THESE INSTRUCTIONS

IMPORTANT SAVE THESE INSTRUCTIONS

Your physiological response to hot water is subjective and depends on your age, health, and medical history. If you don't know your tolerance to hot water, or if you get a headache, or become dizzy or nauseous when using your hot tub, get out and cool off immediately.



CAUTION

1. MAINTAIN WATER CHEMISTRY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.



DANGER

1. RISK OF ACCIDENTAL DROWNING. EXTREME CAUTION MUST BE EXERCISED TO PREVENT UNAUTHORIZED ACCESS BY CHILDREN. TO AVOID ACCIDENTS, ENSURE THAT CHILDREN CAN'T USE THE SPA UNLESS THEY ARE SUPERVISED AT ALL TIMES.
2. RISK OF INJURY. THE SUCTION FITTINGS IN THIS SPA ARE SIZED TO MATCH THE SPECIFIC WATER FLOW CREATED BY THE PUMP. SHOULD THE NEED ARISE TO REPLACE THE SUCTION FITTINGS OR THE PUMP, BE SURE THAT THE FLOW RATES ARE COMPATIBLE. NEVER OPERATE THE SPA IF THE SUCTION FITTINGS ARE BROKEN OR MISSING. NEVER REPLACE A SUCTION FITTING WITH ONE RATED LESS THAN THE FLOW RATE MARKED ON THE ORIGINAL SUCTION FITTING.
3. RISK OF ELECTRIC SHOCK. INSTALL AT LEAST 5FT (1.5M) FROM ALL METAL SURFACES. AS AN ALTERNATIVE, A SPA MAY BE INSTALLED WITHIN 5FT (1.5M) OF METAL SURFACES IF EACH METAL SURFACE IS PERMANENTLY CONNECTED BY A MINIMUM 8 AWG (8.4 mm²) SOLID COPPER CONDUCTOR TO THE WIRE CONNECTOR ON THE TERMINAL BOX THAT IS PROVIDED FOR THIS PURPOSE.
4. RISK OF ELECTRIC SHOCK. DO NOT PERMIT ANY APPLIANCE, SUCH AS A LIGHT, TELEPHONE, RADIO, OR TELEVISION, WITHIN 5FT (1.5M) OF THE SPA.

HYPERTHERMIA

Since your hot tub can be set to reach temperatures of 104°F (40°C), users should be aware that extended submersion in water that exceeds normal body temperature can lead to hyperthermia.

The causes, symptoms and effects of hyperthermia may be described as follows:

Hyperthermia occurs when the internal temperature of the body reaches several degrees above the normal body temperature of 98.6°F (37°C). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include:

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

If you sense any of the symptoms of hyperthermia, safely exit the hot tub immediately.

WARNING



THE USE OF ALCOHOL, DRUGS OR MEDICATION CAN SIGNIFICANTLY INCREASE THE RISK OF FATAL HYPERTHERMIA.

**NEVER ALLOW DIVING OR JUMPING
IN YOUR HOT TUB OR SWIM SPA**

IMPORTANT ELECTRICAL SAFETY INSTRUCTIONS

SAFETY COMES FIRST. WHEN INSTALLING & USING THIS ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS MUST ALWAYS BE FOLLOWED!

1 READ AND FOLLOW ALL INSTRUCTIONS

- 2 Electrical installation must be completed by a qualified electrician in accordance with all National, Regional and Local Codes and Regulations in effect at the time of installation.
- 3 Connect only to a dedicated circuit protected by a class 'A' two-pole ground fault circuit interrupter (GFCI)
- 4 **Use copper conductors only!**
- 5 The hot tub equipment and all electrical plugs, outlets and lights within 1.5m (5ft) of the unit must be G.F.C.I protected. Consult your electrician or local electrical authority for further details.
- 6 A green colored terminal or a terminal marked "G", "GR", "Ground", or "Grounding" is located inside the supply terminal box or compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying the equipment.
- 7 At least two lugs marked "**BONDING LUGS**" are provided on the external surface or on the inside of the supply terminal box or compartment. To reduce the risk of electric shock, connect the local common bonding grid in the area of the hot tub to these terminals with an insulated or bare copper conductor not smaller than No.6 AWG (Canada/ Europe) / No.8 AWG (USA).
- 8 All field installed metal components such as rails, ladders, drains or other similar hardware within 3 m (10 ft) of the hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than No.6 AWG.

IMPORTANT NOTE:

- This guide is for standard installations where the wire run is 15 m (50 ft.) or less. For longer wire runs, consult a qualified electrician.

G.F.C.I. APPLICATION GUIDE FOR THERMOSPAS FITNESS SERIES

NORTH AMERICA

Aquacisor Gold Series	50A
Aquacisor Diamond Series	60A
12' Aquacisor*	50A
14' and 17' Platinum Series*	50A
14' and 17' Diamond Series	60A
*upgraded w/Dual Heaters	60A

WIRE SIZE

NORTH AMERICA

- The minimum wire size for systems that require a 50A GFCI is # 6/4 c/w ground (also referred to as # 6 gauge / 4 conductor).
- The minimum wire size for systems that require a 60A GFCI is # 6/4 c/w ground (also referred to as # 6 gauge / 4 conductor).

NOTE: Please consult your applicable electrical codes related to the size of conductors as they may vary from what is stated above. Take into consideration the length of cable as well and increase as required.

NORTH AMERICA – GFCI INSTALLATION

NOTICE



Installation of the GFCI - Circuit Breaker, including ampere sizing and selection of conductor size and type, must be performed by a qualified electrician in accordance with the National Electrical Code, and all Federal, State/Provincial and local codes and regulations in effect at the time of installation.

ThermoSpas highly recommends the use of a new GFCI breaker for all of its products. Older GFCI's may have tripping issues. Customer/electrician is responsible for providing all wiring materials.

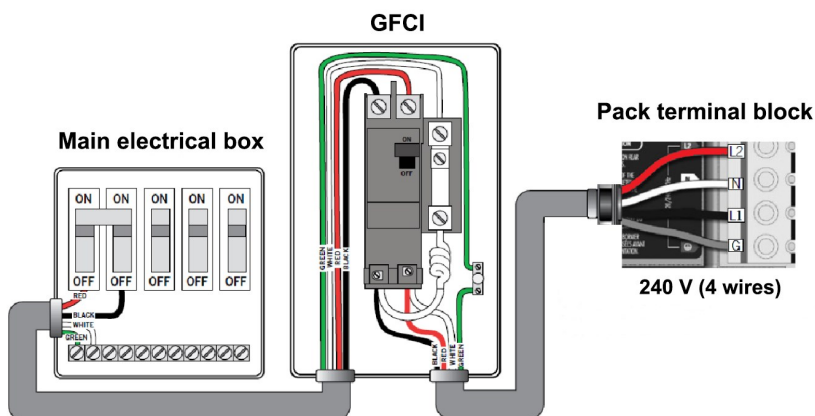
Single Heater

240 volt G.F.C.I. Dedicated Circuit
50 amp service required

- Aquacisor Gold
- 12' Aquacisor*
- 14' and 17' Platinum Swim Spa*

60 amp service required

- Aquacisor Diamond

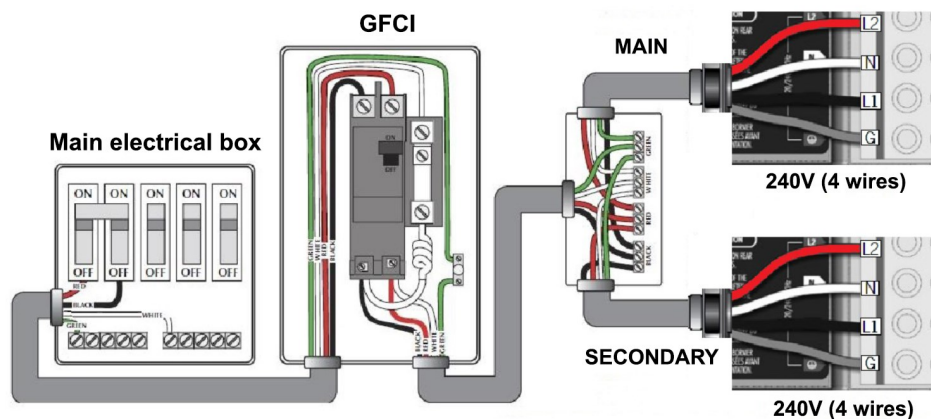


Dual Heater

240 volt G.F.C.I. Dedicated Circuit
60 amp service required

- 14' and 17' Diamond Swim Spa (Standard)

*Optional upgrade on 14' and 17' Platinum Swim Spa & 12' Aquacisor



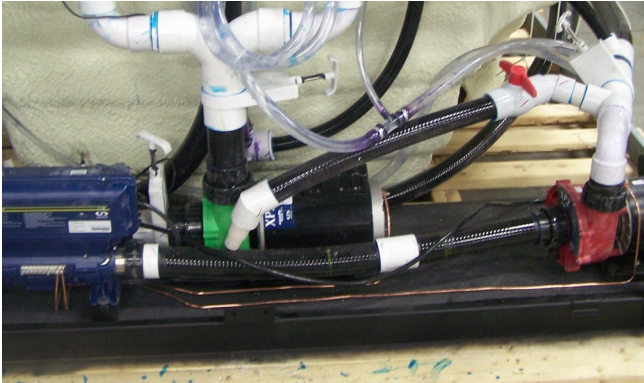
IN.YE-3 NA WIRING DIAGRAM



IN.YE-5 NA WIRING DIAGRAM



FILLING, CHECKING AND STARTING YOUR SWIM SPA



PROPER WATER LEVEL

FILLING

- When adding water for the first time, the swim spa should be filled through the skimmer opening (helps to prevent air locks) using a standard garden hose, turning the tap on slowly to prevent damage to the surface by a jerking hose connection.
- Pull up the handles on the intake and return gate valves and clip on the stem locks. (handles are pulled up when valves are open and pushed down when valves are closed).
- Ensure the drain valve is closed.
- Ensure that all jets are open.
- Fill the swim spa to the recommended level as indicated.

CHECKING

Although your swim spa was thoroughly water-tested in the factory, some loosening of fittings can occur during shipping. Before any decking, tiling or carpeting is completed around the installation, fill and operate your hot tub to test for leaks (this ensures easy access and inexpensive correction). Check all union connections and plumbing for minor leaks. In the event of a leak, ensure all union connections and pump plugs are tight and all o-rings/gaskets are in place. Also check the tightening of the screws and all the electrical connections which could loosen during shipping.

STARTING

Before applying voltage to power-up your swim spa, it is very important that you understand the sequence of events that occur when the system is activated in order that the pump can be primed efficiently and damage to the system can be avoided.

- Turn the main power "on" at your electrical panel.
- Follow the control instructions for your particular model swim spa to put the pump into low speed.

See section **THERMOSPAS CONTROL SYSTEMS**

PUMP PRIMING/RELEASING AN AIR LOCK

• On some systems a message will appear on the display indicating that the system is in **PUMP PRIMING MODE**. This mode will last for 4 to 5 minutes before automatically entering the normal operation mode. See complete details for your spa in section **THERMOSPAS CONTROL SYSTEMS**.

When the pump is located below water level, the water should start circulating immediately. If the motor works but if you do not notice water circulation within the first 15 seconds, the pump may require priming due to trapped air (referred to as an 'air lock'). To prime (inset 2), open the hose-bib to allow trapped air to escape. Close as soon as the water flow from the jets becomes regular. If the pumps have not primed after 2 minutes, and water is not flowing from the jets, **DO NOT** allow the pumps to continue to run. Turn power off at the main house panel (or GFCI) and try releasing the air again by loosening the union on the discharge side of the pump(s) while the motor is not running. Turn the power back on. If the pump(s) does not prime after 15 seconds, sometimes momentarily turning the pump(s) off and on will help the system to prime (note: do not do this more than 5 times). Repeat if necessary.

• **Important:** Under NO circumstances should the pump(s) be allowed to operate without priming beyond 5 minutes, as this may not only cause unwarrantable damage to the pump, it may also cause the control system to go into an overheat condition.

Definition: 'Priming' a pump is a term used to describe the process in which air trapped in the plumbing and pump wetend (referred to as an 'air lock') is released, allowing the pump to move water efficiently through the plumbing system and to the jets.

RELEASING AIR TRAPPED IN FILTER...

...THROUGH THE
PUMP UNION

RELEASING AN AIR LOCK...



- When the pump starts circulating, it will be necessary to release trapped air in the filter. Carefully loosen the air vent valve counter-clockwise until there is the hissing sound of air escaping. Once there is a steady stream of water, close the vent valve, ensuring that the o-ring does not become pinched.

- Turn the Hydrotherapy pump(s) on and re-check for leaks. The control system will automatically return the pump(s) off after 15 minutes.

- Adjust the hot tub heat control at the topside panel to the desired water temperature.

- Adjust water balance (pH, TA, calcium hardness) to recommended levels and add sanitizer once the water temperature reaches 68°F (20°C).

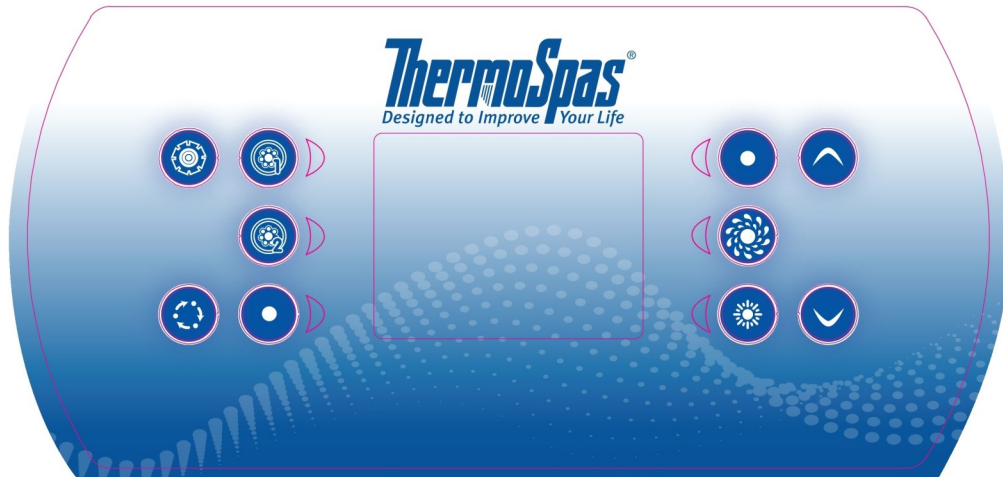
See section WATER BALANCE

- Keep insulated safety hard cover on the hot tub, and the air controls closed during the entire heat up process.

NOTE:

In order to prevent damage to your pillows caused by the gassing effect of the chemicals, we do recommend to remove them when the spa is not in use. By removing them you will extend considerably the life length of your pillows. We do design ours pillows to be removed easily in order to make sure they will not remain in the spa when it's not in use.

THERMOSPAS® SWIM SPA SERIES CONTROL SYSTEMS
NORTH AMERICA
AQUACISOR GOLD SERIES CONTROLS



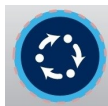
KEYPAD FUNCTIONS AND DISPLAY ICONS



SETTINGS KEY



**LIGHT KEY WHICH
CONTROLS THE
LIGHTING**



MODE KEY



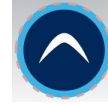
**PROGRAM SELECT
KEY**



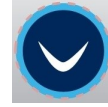
**JET 1 KEY WHICH
CONTROLS PUMP 1**



**JET 2 KEY WHICH
CONTROLS PUMP 2**

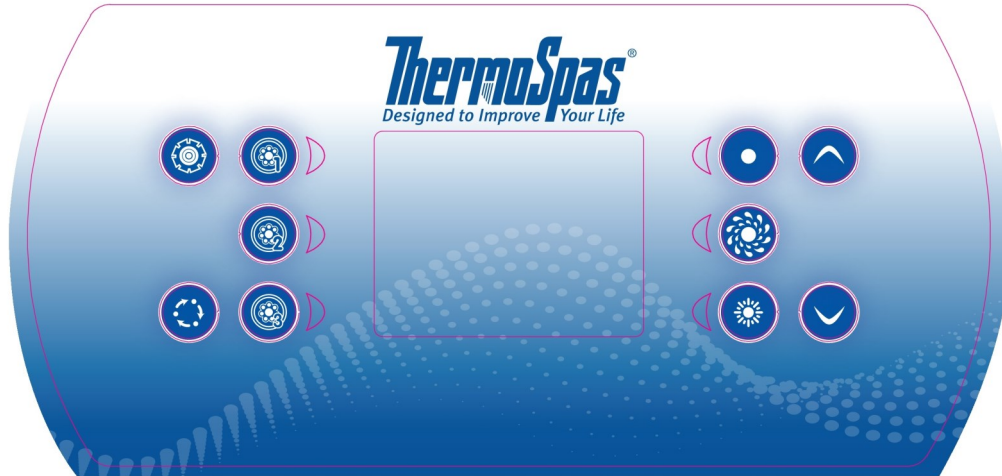


**TEMPERATURE UP
KEY**



**TEMPERATURE
DOWN KEY**

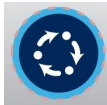
THERMOSPAS® SWIM SPA SERIES CONTROL SYSTEMS
NORTH AMERICA
AQUACISOR DIAMOND SERIES CONTROLS



KEYPAD FUNCTIONS AND DISPLAY ICONS



SETTINGS KEY



MODE KEY



**JET 1 KEY WHICH
CONTROLS PUMP 1**



**JET 2 KEY WHICH
CONTROLS PUMP 2**



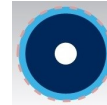
**JET 3 KEY WHICH
CONTROLS PUMP 3**



**TEMPERATURE UP
KEY**



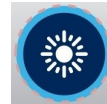
**TEMPERATURE
DOWN KEY**



SELECT KEY



**PROGRAM SELECT
KEY**



**LIGHT KEY WHICH
CONTROLS THE
LIGHTING**

PUMP 1 FUNCTION

Press this pad to activate the pump

1st press – on (**icon rotates slow**)

2nd press – on (**icon rotates fast**)

3rd press – turns off

PUMP AUTOMATIC TIME-OUT

High speed – 30 minutes

PUMP 2 & 3 FUNCTION (if included)

Press this pad to activate the pump

1st press – high speed (**icon rotates fast**)

2nd press – turns off

PUMP AUTOMATIC TIME-OUT

High speed – 30 minutes

LIGHT FUNCTION

Press this pad to activate the light

1st press: rotating colours

2nd press: solid blue colour

3rd press: solid green colour

4th press: solid red colour

Note: Pressing the light key in intervals less than three seconds will scroll to the next colour. Once you have selected the colour another press will turn the light off.

LIGHT AUTOMATIC TIME-OUT

Time out – 60 minutes

SETTINGS KEY

From the home page you can access the Settings, where you will find:

- Water Care
- Maintenance
- Day & Time
- Keypad Settings
- Wi-Fi (optional)
- Miscellaneous
- Electrical Configuration
- Factory Reset
- About



Use the arrow keys to move up and down in the list. To select an option, press the lit button beside it (Light button).

At any point you can press the Settings button to return to the home screen.



WATER CARE

The Water Care section will help you set up your ideal filtration and heating settings. Choose from Away, Beginner, Energy Savings, Super Energy Savings and Weekender, depending on your needs.

Use the Light key to choose your setting. A checkmark will appear on the selected icon to confirm.

In Energy Savings 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.



Water Care Modes:

Away:

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

Beginner:

The spa will never be in economy mode, and will run a normal 24 hours of filtration a day.

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

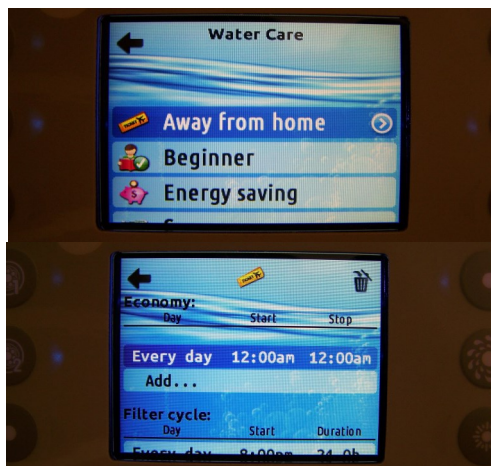


To see and / or modify the Water Care category, use the lit button to the right (Jet 1) to open the selected Water Care menu.

Use the arrow keys to choose a schedule to modify (choice of economy and filtration schedules). Use the Light key to move between parameters.

You have several possibilities for the schedule (Mon-Fri, weekend, every day, or single days). The schedules will be repeated every week. The time and duration are set in 30 minute increments. Once you have set the schedule, use Jet 1 key to go back. Ensure that you have selected the desired Water Care option in the main Water Care menu.

The filtration schedule shown on the screen will apply to the main filtration pump. Your spa uses a two speed pump configured to run on low speed for 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.



FILTERING

Your spa is equipped with a two speed pump that filters your water on low speed for a minimum of 8 hours a day. If the water temperature exceeds the set temperature by 3 degrees then this pump will shut off automatically until the temperature drops below the set point by approximately 1.5 degrees.

MAINTENANCE

From the Settings page you can access the Maintenance Menu, which gives you access to the following options:

- Maintenance reminders
- Standby

Use the UP and DOWN keys to make a selection and Pump 2 to confirm the selection.



MAINTENANCE REMINDERS

The in.k800 keypad will remind you of maintenance required on your spa, like rinsing or cleaning the filter. Each task has its own duration, based on normal use.

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

Use the UP and DOWN keys to move through the list.

To reset a task, select it by pressing Pump 2, then confirm when prompted. Once you have confirmed the task will be reset.



STANDBY

The Standby mode allows you to service your spa. Pumps will stop for 30 minutes, and automatically restart after this time.

Once Standby mode has been activated a screen will appear to show the pumps are stopped. The normal spa page will return at the end of the maintenance.

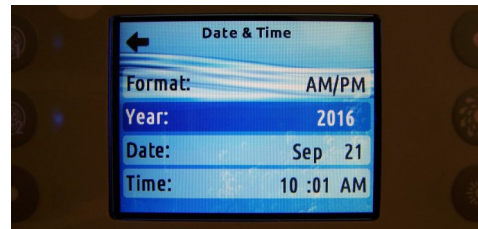
Press on the Confirm key to leave Standby mode and restart the spa.



DATE AND TIME

Here you can adjust the time format, change the year, date and time. Use the arrows to choose the setting you want to adjust and select it by pressing Pump 2.

Use the arrow keys to change the parameters and Pump 2 to move between parameters. Pump 1 will take you back to the main Settings menu.



KEYPAD SETTINGS

In this section you can change the temperature unit, language, invert the display, change the backlight color and partially or fully lock out the keypad.

Use the arrow keys and move to the setting that you would like to change. Use the Light key to choose and the arrow keys to modify

For the temperature setting you have a choice between Fahrenheit or Celsius.

For the language setting you have a choice between English, French, Spanish, Polish, Netherlands, Dutch, Norwegian, Sweden, Portuguese, Italian, Hungarian and Russian.

For the Display settings you can choose between a Normal or Inverted display

For the backlight color you can choose between off, white, teal, purple, blue, yellow, green or red.

KEYPAD SETTINGS (continued)

For the Security you can choose between unlock, partial or full lock modes.

Unlocked mode you have access to all features.

Partial lock mode does not allow access to change the water temperature or any of the menu settings. To unlock press the upper right key by the window display that shows the lock symbol.

Full lock mode does not allow access to any of the keys or menu settings. To unlock press the upper right key by the window display that shows the lock symbol.

Wi-Fi (optional)

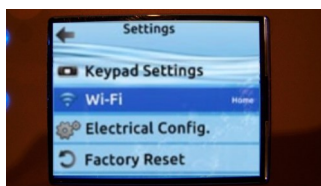
For the Wi-Fi menu to appear in the Settings menu your Swim Sync module must be equipped with software version 11.00 or higher. This menu allows you to connect your Swim Sync module to a Wi-Fi network or to change its network.

To connect your I-Command module to a wireless network, use the UP and DOWN keys to go to the Wi-Fi option in the Settings menu and Pump 2 to select it.

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

Use the UP and DOWN keys to move through the list. Select your network by pressing the Pump 2 key.

If the Wi-Fi network is password protected enter it when prompted. If no password is required it will connect automatically.



ELECTRICAL CONFIGURATION

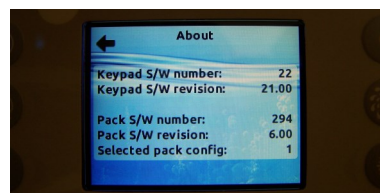
Please do not make changes in this section unless you are a qualified electrician.

FACTORY RESET

In this section you can see errors that have been archived by the system. Use the UP and DOWN keys to move through the list. Errors are archived chronologically, from most recent to oldest (top to bottom).

ABOUT

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



PURGE CYCLES

The purge cycles are programmed to begin at the start of each filter cycle. Pump 2 activates for 1 minute, shuts off and then Pump 1 activates for 1 minute then shuts off.

SMART WINTER MODE

Smart Winter Mode protects your system from the cold by turning the pumps on several times a day to prevent water from freezing in the pipes. The Smart Winter Mode indicator turns on when in this mode of operation. If the temperature drops to 4°C (39°F) within the heater chamber, the system automatically activates the pump to provide freeze protection. The pump will operate until the temperature reaches 5°C (41°F) before returning to normal system mode.

COOLING DOWN

After heating the spa water to the desired set point, the heater is turned off, but the filtration pump remains on for a certain amount of time to ensure adequate cooling of the heating element in order to prolong the useful life of the heater. The heater icon flashes during this time.

12' AQUACISOR CONTROLS

THERMOSPAS® FITNESS SERIES CONTROL SYSTEMS
NORTH AMERICA



KEYPAD FUNCTIONS AND DISPLAY ICONS



JET 1 KEY WHICH
CONTROLS PUMP 1



JET 2 KEY WHICH
CONTROLS PUMP 2



LIGHT KEY WHICH
CONTROLS THE
LIGHTING



TEMPERATURE UP/
DOWN KEY

12' AQUACISOR SERIES

THERMOSPAS® FITNESS SERIES CONTROL SYSTEMS

NORTH AMERICA

PROGRAMMING THE FILTER / PURGE CYCLES



The filter cycle menu consists of the following parameter: the start time (FS), the duration (Fd), and the frequency (FF).

NOTE: A filter cycle consists of starting all the pumps and blower (if equipped) in high speed for 1 minute (purge step) then the pump associated with the filter cycle will run in low speed for the remaining duration of the filter cycle (clean up step).

SETTING THE FILTER CYCLE



After you have programmed the clock, the next parameter is the filter cycle start time. The display will show FSxx, with “xx” representing the starting hour of the cycle. Use the arrow keys to adjust the hours. Use the Light Key to jump to the next parameter, filter duration (Fd).



The display will show Fdxx, with “xx” representing the duration in hours of the filter cycle. Use the arrow keys to adjust the duration. Use the Light Key to jump to the next parameter, filter frequency (FF).



The display will show FFxx, with “xx” representing the number of cycles per day. Use the arrow keys to adjust the frequency. Use the Light Key to jump to the next parameter, economy mode (EP)

This mode allows you to lower the temperature set point of the spa by 20°F (11°C) during a certain period of the day.



The display will show Epx, with “x” representing the state of the programming (0 = disabled, 1 = enabled). Use the arrow keys to enable or disable the economy mode. Use the light key to jump to the next parameter, economy start time (ES).

When the Economy mode in ON, the display will toggle between the “Eco” message, the time and the water temperature.



The display will show ESxx, with “xx” representing the hour at which the economy mode will become active. Use the arrow keys to adjust the hour. Use the Light Key to jump to the next parameter, economy duration (Ed).



The display will show Edxx, with “xx” representing the duration in hours of the economy mode. Use the arrow keys to adjust the hour. Use the Light Key to jump to the next parameter, temperature unit.



Water temperature can be displayed in either Fahrenheit (°F) or Celsius (°C). The display will show °F or °C. Use the arrow keys to change the setting. Use the Light Key to save all the parameters.

SMART WINTER MODE

Smart Winter Mode protects your system from the cold by turning the pumps on several times a day to prevent water from freezing in the pipes. The Smart Winter Mode indicator turns on when in this mode of operation. If the temperature drops to 39°F (4°C) within the heater chamber, the system automatically activates the pump to provide freeze protection. The pump will operate until the temperature reaches 41°F (5°C) before returning to normal system mode.

COOLING DOWN

After heating the spa water to the desired set point, the heater is turned off, but the filtration pump remains on for a certain amount of time to ensure adequate cooling of the heating element in order to prolong the useful life of the heater. The heater icon flashes during this time.

PUMP 1 FUNCTION



Press this key (JET 1) to activate the pump

1st press – low speed (**indicator light flashes**)

2nd press – high speed (**indicator light on solid**)

3rd press – turns off (**indicator light off**)

PUMP 2 FUNCTION



Press this key (JET 2) to activate the pump

1st press – high speed (**indicator light on solid**)

2nd press – turns off (**indicator light off**)

PUMPS AUTOMATIC TIME-OUT

Time out – 15 minutes

LIGHT FUNCTION



Press this pad to activate the light

1st press: rotating colors

2nd press: solid blue color

3rd press: solid green color

4th press: solid red color

Note: Pressing the light key in intervals less than five seconds will scroll to the next color. Once you have selected the color another press will turn the light off.

LIGHT AUTOMATIC TIME-OUT

Time out – 60 minutes

14' AND 17' SWIM SPA PLATINUM CONTROLS

THERMOSPAS® FITNESS SERIES CONTROL SYSTEMS
NORTH AMERICA



KEYPAD FUNCTIONS AND DISPLAY ICONS



**SPA
FUNCTION
KEY**



**SETTINGS
FUNCTION
KEY**



**PUMP 1
FUNCTION
KEY**



**PUMP 2
FUNCTION
KEY**



**LIGHT
FUNCTION
KEY**



**TEMP
UP
KEY**



**TEMP
DOWN
KEY**



**INVERT
DISPLAY
KEY**



**DAY
NIGHT
CONTRAST**



**SLEEP
MODE
KEY**

14' AND 17' SWIM SPA DIAMOND CONTROLS

THERMOSPAS® FITNESS SERIES CONTROL SYSTEMS
NORTH AMERICA



KEYPAD FUNCTIONS AND DISPLAY ICONS



**SPA
FUNCTION
KEY**



**SETTINGS
FUNCTION
KEY**



**PUMP 1
FUNCTION
KEY**



**PUMP 2
FUNCTION
KEY**



**PUMP 3
FUNCTION
KEY**



**LIGHT
FUNCTION
KEY**



**TEMP
UP
KEY**



**TEMP
DOWN
KEY**



**INVERT
DISPLAY
KEY**



**DAY
NIGHT
CONTRAST**



**SLEEP
MODE
KEY**

14' AND 17' SWIM SPA SERIES

THERMOSPAS® FITNESS SERIES CONTROL SYSTEMS

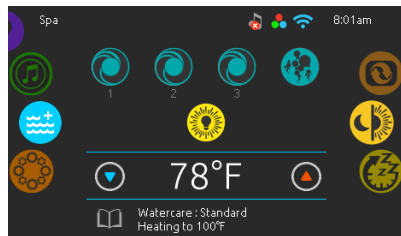
NORTH AMERICA



INITIAL START-UP

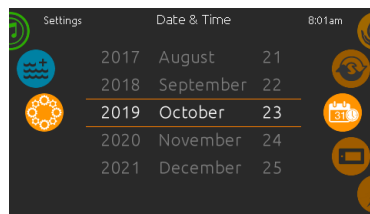
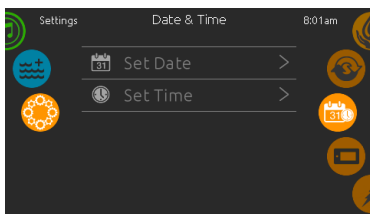
Before applying voltage to power-up your hot tub, it is very important that you understand the sequence of events that occur when the system is activated in order that the pump(s) can be primed efficiently and damage to the system can be avoided.

At initial power-up, the system will show the following screen.

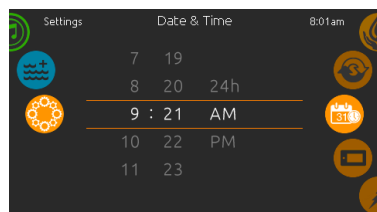


The keypad does store the date and time for a limited time so when the system starts up after a loss of power it may be necessary to reprogram the time and date if the power down duration is greater than 48 hours.

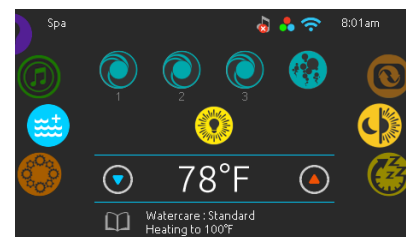
PROGRAMMING THE DATE AND TIME



Here you can adjust the time format (AM/PM or 24h), day of the week and time. Use the icons to choose the setting that you want to adjust and select it by scrolling through the menu.



TEMPERATURE CONTROL FUNCTIONALITY AND ADJUSTMENT

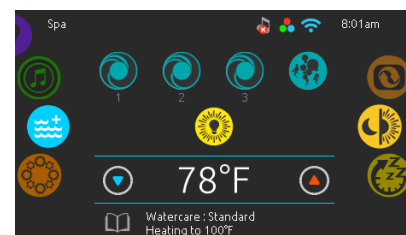


After you exit the programming mode your hot tub will automatically heat to the factory preset default temperature of 38°C (100°F).

The temperature shown in white on the screen is the current water temperature. Use the UP and DOWN icon to set the desired temperature.

The set point will appear in blue on the screen. After 3 seconds without any change to the set temperature value, the keypad will resume the normal display of messages.

When the set value is lower than the current temperature "Cooling to XX°F (°C)" will appear. When the value is set higher than the current temperature, "Heating to XX°F (°C)" will be indicated.



PUMP 1 FUNCTION

Press this pad to activate the pump

- 1st press – low speed (**icon rotates slow**)
- 2nd press – high speed (**icon rotates fast**)
- 3rd press – turns off

PUMP AUTOMATIC TIME-OUT

Low and High speed – 15 minutes

PUMP 2 & 3 FUNCTION (if included)

Press this pad to activate the pump

- 1st press – high speed (**icon rotates fast**)
- 2nd press – turns off

PUMP AUTOMATIC TIME-OUT

LIGHT FUNCTION

Press this pad to activate the light

- 1st press: rotating colours
- 2nd press: solid blue colour
- 3rd press: solid green colour
- 4th press: solid red colour

Note: Pressing the light key in intervals less than three seconds will scroll to the next colour. Once you have selected the colour another press will turn the light off.

LIGHT AUTOMATIC TIME-OUT

Time out – 60 minutes

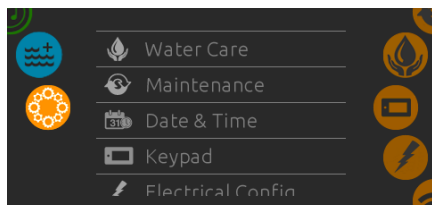
SETTINGS KEY

From the home page you can access the Settings, where you will find:

- Water Care
- Maintenance
- Day & Time
- Keypad Settings
- Miscellaneous
- Electrical Configuration
- About

Use the icon keys to scroll up and down in the list. To select an option, press the text.

At any point you can press the Spa Function icon to return to the home screen.

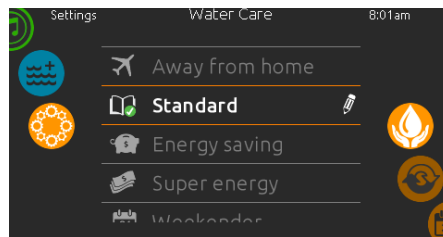


WATER CARE

The Water Care section will help you set up your ideal filtration and heating settings. Choose from Away, Beginner, Energy Savings, Super Energy Savings and Weekender, depending on your needs.

Use the Light key to choose your setting. A checkmark will appear on the selected icon to confirm.

In Energy Savings mode, the set point will be reduced by 20°F (11°C), which means that the heating system will not be engaged unless the temperature falls to 20°F (11°C) below the spa's set temperature.



Water Care Modes:

Away:

In this mode the spa will always be in economy; the set point will be reduced by 20°F (11°C) and the filtration can be reduced.

Beginner:

The spa will never be in economy mode, and will run a normal 24 hours of filtration a day.

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 see and / or modify the Water Care category, use the Settings icon to open the selected Water Care menu.

Scroll through the menu to choose a schedule to modify (choice of economy and filtration schedules).

You have several possibilities for the schedule (Mon-Fri, weekend, every day, or single days). The schedules will be repeated every week. The time and duration are set in 30 minute increments. Once you have set the schedule, use Spa Function Icon to go back. Ensure that you have selected the desired Water Care option in the main Water Care menu.

The filtration schedule shown on the screen will apply to the main filtration pump. Your spa uses a circulation pump configured to run 24 hours by default and 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.



FILTERING

Your spa is equipped with a circulation pump that filters your water for 24 hours a day. If the water temperature exceeds the set temperature by 4°F (and set point is 95°F or higher) then this pump will shut off automatically until the temperature drops below the set point by approximately 1.5°F.

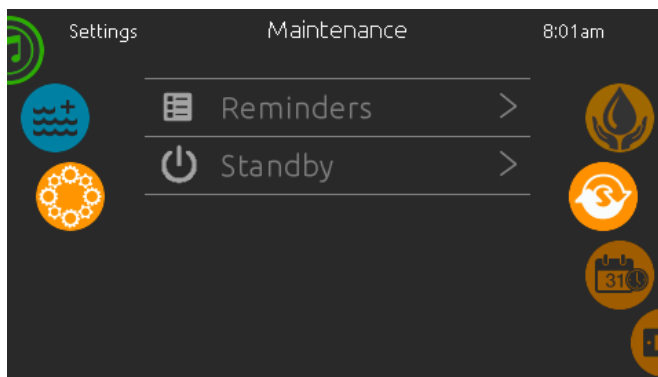
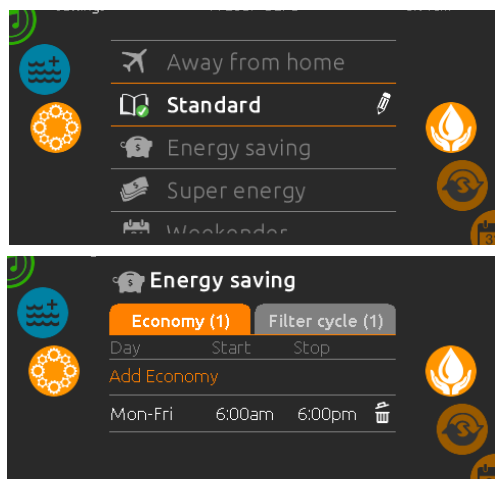
You can bypass the pack filtration over-temperature feature. When Warm weather is "Off", the filtration over-temperature is disabled. This feature allows the spa to continue filtering even through the water temperature is high.

MAINTENANCE

From the Settings page you can access the Maintenance Menu, which gives you access to the following options:

- Maintenance reminders
- Standby

Press the text to make a selection.

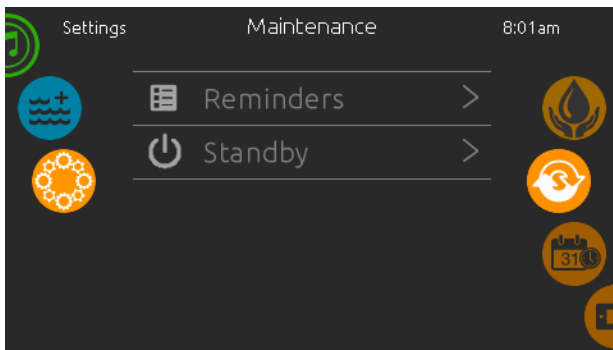
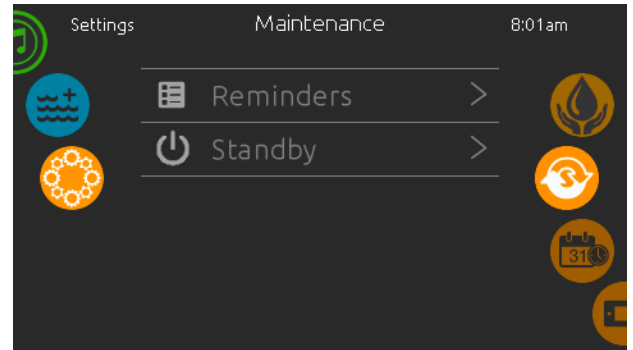


MAINTENANCE REMINDERS

The in.k1000 keypad will remind you of maintenance required on your spa, like rinsing or cleaning the filter. Each task has its own duration, based on normal use.

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

Scroll through the menu to move through the list.



STANDBY

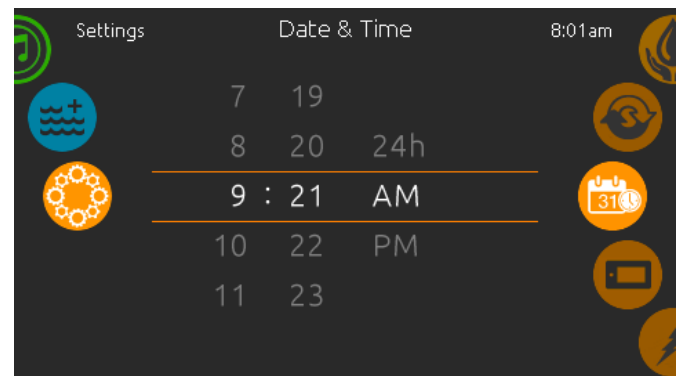
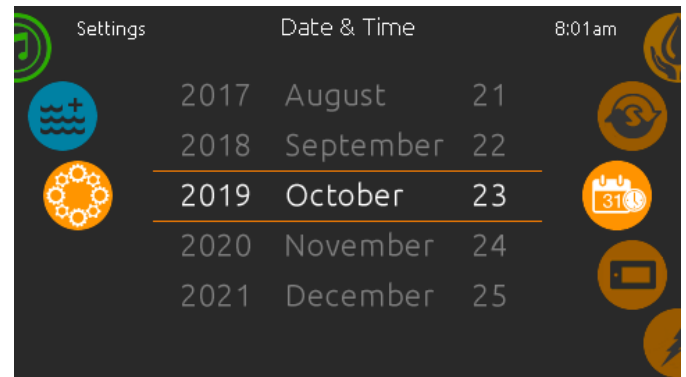
The Standby mode allows you to service your spa. Pumps will stop for 30 minutes, and automatically restart after this time.

Once Standby mode has been activated a screen will appear to show the pumps are stopped. The normal spa page will return at the end of the maintenance.

Press Cancel to leave Standby mode and restart the spa.

DATE AND TIME

Here you can adjust the time format (AM/PM or 24h), day of the week and time. Use the icons to choose the setting that you want to adjust and select it by scrolling through the menu.

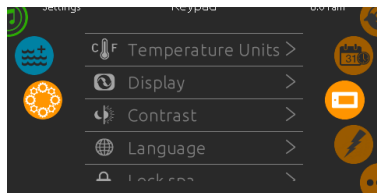


KEYPAD SETTINGS

In this section you can change the temperature unit and language. Use the arrow keys and move to the setting that you would like to change. Use the Light key to choose and the arrow keys to modify

For the temperature setting you have a choice between Fahrenheit or Celsius.

For the language setting you have a choice between English and French.

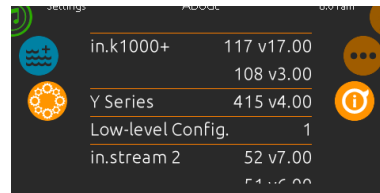


ELECTRICAL CONFIGURATION

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

ABOUT

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



PURGE CYCLES

The purge cycles are programmed to begin at the start of each filter cycle. Pump 2 activates for 1 minute, shuts off and then Pump 1 activates for 1 minute then shuts off.

SMART WINTER MODE

Smart Winter Mode protects your system from the cold by turning the pumps on several times a day to prevent water from freezing in the pipes. The Smart Winter Mode indicator turns on when in this mode of operation. If the temperature drops to 4°C (39°F) within the heater chamber, the system automatically activates the pump to provide freeze protection. The pump will operate until the temperature reaches 5°C (41°F) before returning to normal system mode.

COOLING DOWN

After heating the spa water to the desired set point, the heater is turned off, but the filtration pump remains on for a certain amount of time to ensure adequate cooling of the heating element in order to prolong the useful life of the heater.

"Cooling to XX°F (°C)" message will appear at the bottom of the screen.

OPTIONAL SWIM SYNC SYSTEM

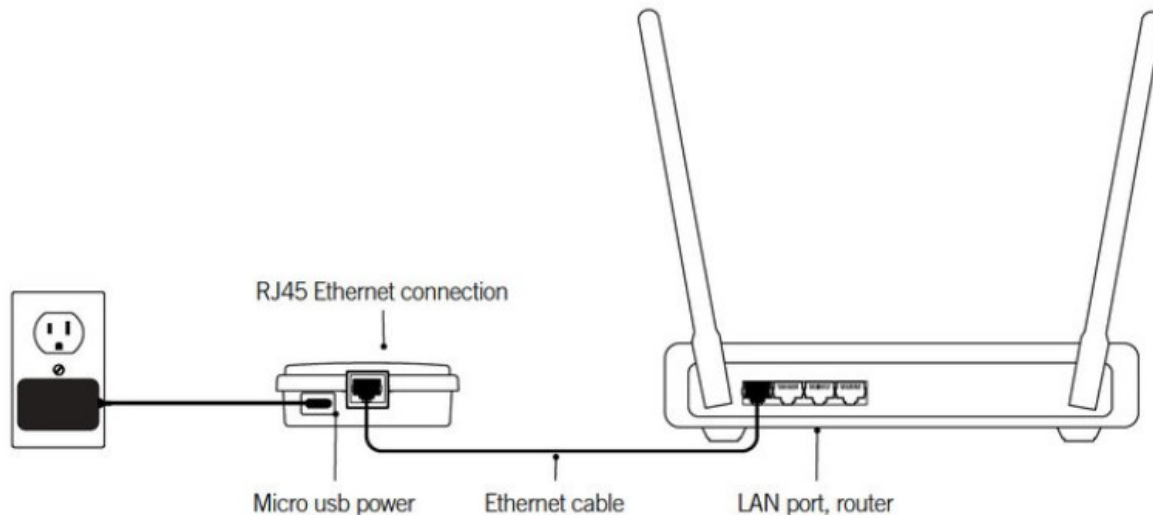
The Smart Phone App that is designed as a wireless hot tub control which allows you to pick the water care settings that fit your schedule. Adjust filtration and temperature settings and create the ideal hot tub experience from inside your home. This option is supported by your iPhone®, iPOD touch®, iPad® (requires iOS 8.0 or later) and Android Device (requires Android 2.3.3 and up).

In. touch 2 comes with a state-of-the-art app and 2 pre-paired radio frequency transmitters:

One being part of the spa system and the second one, being connected to the Home Internet router. Both RF transmitters are pre-linked to one another, enabling an immediate and perfect communication between user and the spa.

1. Installing the home transmitter

The home transmitter is provided with an Ethernet cable and a power supply. The in. touch 2 home transmitter unit must be installed inside the house, connected to a router and powered by the provided wall transformer. A longer Ethernet cable may be used to bring the home transmitter closer to the spa.

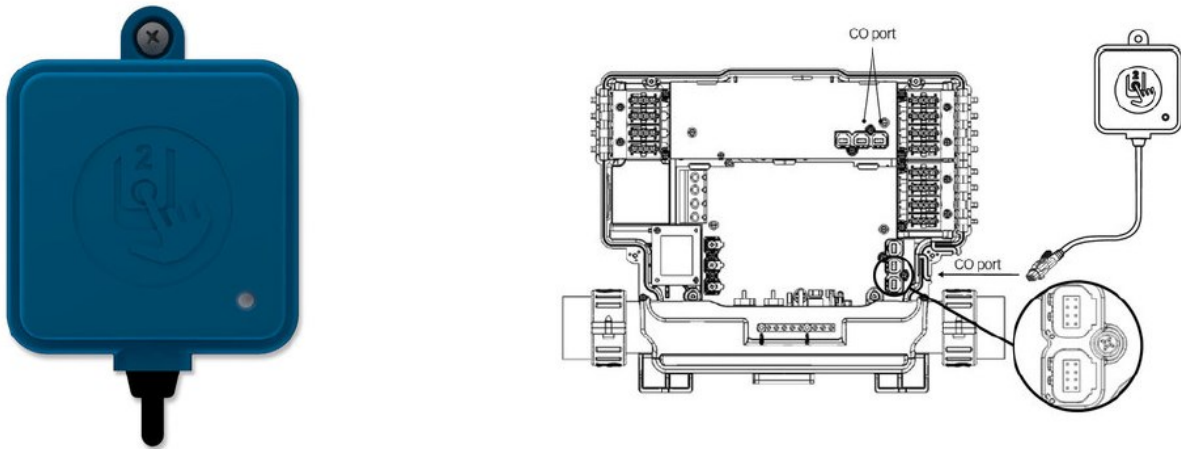


Simply connect the Ethernet cable into the RJ45 port of the in. touch 2 home transmitter and in one of the available LAN ports on your router. To power up the home transmitter, plug the provided wall outlet charger to a 120V (North American model) or 220V (European model) household supply and connect the USB cable to the wall outlet and the home transmitter.

2. Installing the spa transmitter

If you purchased a spa with in. touch 2 as a standard feature or as an option, note that the spa transmitter will be pre-installed.

To ensure proper signal transmission, it may be necessary to change the position of the transmitter once the spa is installed in the yard. The transmitter should be located on the side of the spa facing the house.

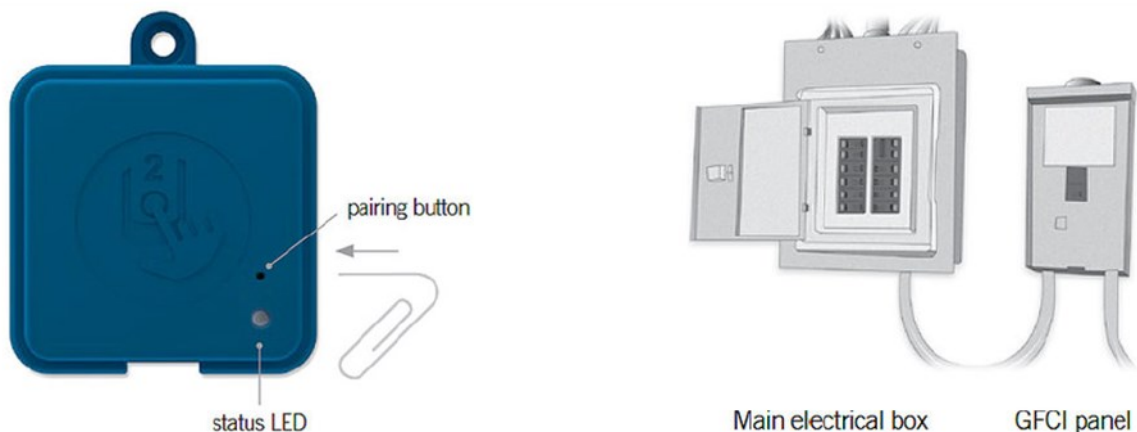


The in. touch 2 spa transmitter must be installed under the spa skirt, at least 12" (30 cm) away from any metal component or structure, as close as possible to the house to optimize the signal strength.

Simply connect the spa transmitter into an available CO port of the spa control system (or any other accessory with a free CO port, such as the in. stream 2 audio amplifier, or the in. clear water sanitization system).

3. Pairing the home and spa transmitters

If you bought an in. touch 2 equipped spa or a complete retrofit kit, both transmitters of your in. touch 2 will be factory pre-paired.

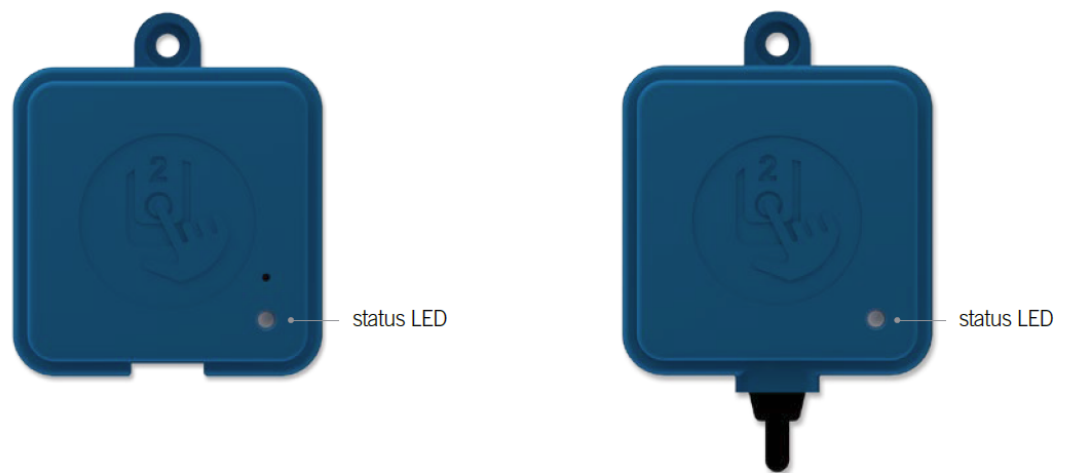


If you need to replace a transmitter or pair your transmitters again, power up the home transmitter and press on its pairing button with a paper clip. The status light of the transmitter will blink yellow.

Then, shut off the spa's breaker to turn the spa transmitter off. Wait a little and put the breaker back on. Within a few seconds, pairing will be completed and both transmitter status lights will turn to blue.

4. Transmitters status LED indicator

Both the home and spa transmitters have color status LED that can be used for troubleshooting purposes.



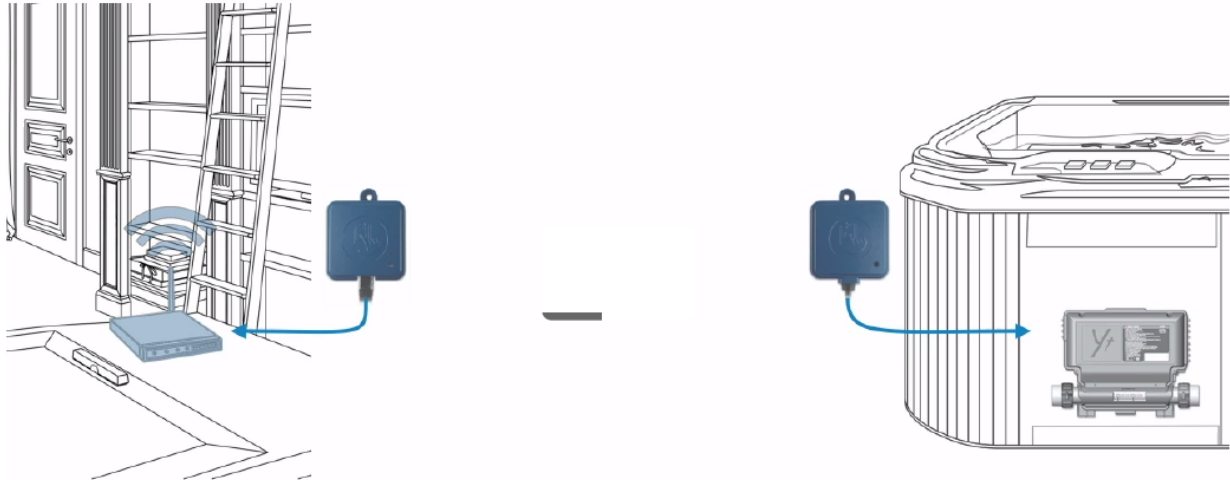
Home Transmitter		
Pairing mode	Yellow	Yellow (Blinking)
Router not detected	Red	Red
Router detected	Green	Green
in.touch 2 server detected	Blue	Blue
Module is fully functional		

Spa Transmitter		
Pairing mode	Yellow	Yellow (Blinking)
Spa controller not detected	Red	Red
in.touch 2 server detected	Blue	Blue
Module is fully functional		

When the LED status is blinking (blue, green or red) this indicates that the communication between the EN module and the CO module it not established.

5. Strong and Long Range Communication Signal

Through their proprietary RF technology, in. touch 2 transmitters emit a strong, stable and long-range signal between your spa and your router (about 3 times longer than regular signal). No need for repeaters or boosters: your spa will always remain within reach in typical backyard settings.



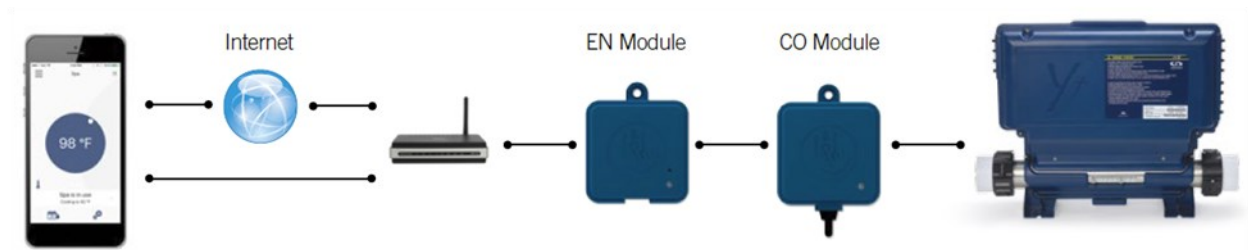
6. Application

Download application:



The in. touch app allows you to control your spa using your home network or an Internet connection anywhere in the world. The in. touch 2 app is waiting for you in the App Store for iOS devices and on Google Play for Android — search for « in. touch 2 » then click on it to install.

USING THE APP



On your home network

It is possible to access your spa with the in. touch 2 app through your home network. To be able to see your in. touch 2 in the application you need to connect your device to the same router (Wi-Fi network) than the one used to connect your Home Transmitter. Go to the Wi-Fi settings section of your mobile device and choose the same network that your spa is connected to (i.e. Home). Once you've selected it, wait until your device confirms the connection.

On the Internet

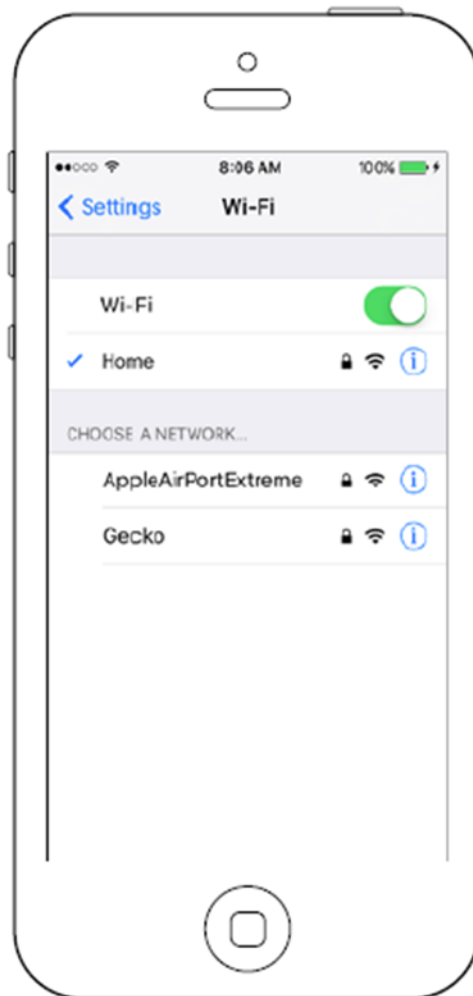
The in. touch 2 allows you to use the Internet to control your spa from anywhere in the world. In order for them to communicate, both the in. touch 2 module and your device must be connected to a network that allows access to the Internet.

Once your Home Transmitter is connected to the Internet (the LED status is blue), you can use your in. touch 2 app any time your device is also connected to the Internet (wireless or cellular network), even if you are away from home.

To have access to your spa away from home, you will need to have previously linked your mobile device to your spa on your home network.

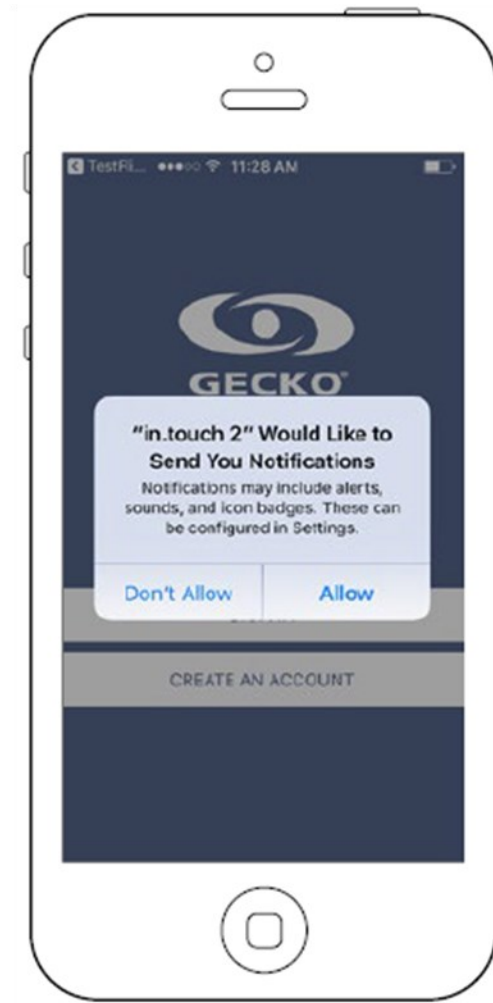
Setup your Wi-Fi on your device

Before using your application, go to the Wi-Fi section of your device's settings. Make sure you are connected to your home network. This needs to be the same Wi-Fi provided by the router to which you connected your Home Transmitter.





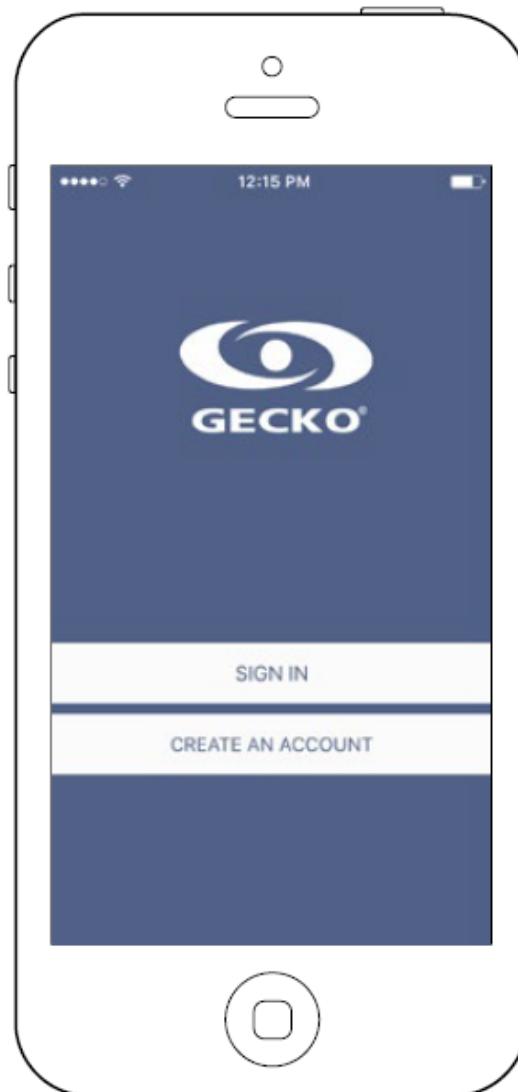
Find the icon for the in. touch 2 application, then tap on it to open it.



The first time you use the application a message will ask you: "in. touch 2" Would like to send you notifications. If you choose *Allow*, the application will send you notifications about the status of your spa. If you choose *Don't Allow*, the application will not send you notifications.

Login page

Before using your application, you must create an account first and then, you'll be able to sign in. Your account will give you the opportunity to have access to your spa from any in. touch 2 application.



New account creation

When you choose to create a new account, you agree at the same time the Terms of Service and the Privacy Policy. You can read them at any time through this link: <https://geckointouch.com/legal>

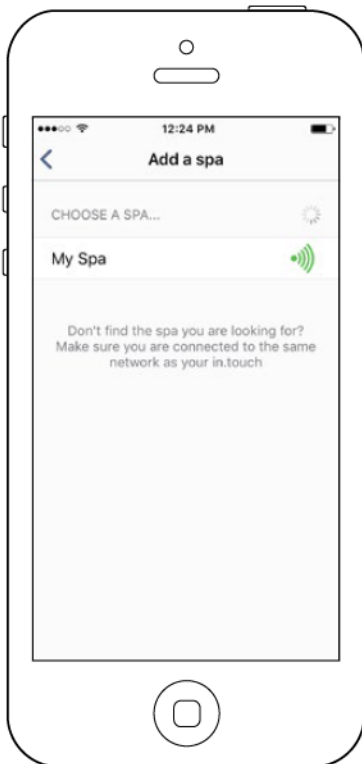
The image shows a mobile app interface for creating a new account. The screen is titled 'New Account' and has a 'Cancel' button on the left and a 'Create' button on the right. The form contains four input fields: 'name', 'email', 'password', and 'confirm password'. Below the form is a checkbox labeled 'By signing up, you agree to the Terms of Service and Privacy Policy.' The interface is displayed on a smartphone with a home button at the bottom.

Choose a spa

This page displays all the spas detected by your application.
To detect your spa, you need to connect your mobile device to the same network to which you connected your Home Transmitter.

Once you have done a connection with the spa its name will be saved on this page to allow you to connect to this spa from anywhere.

To add a spa later on, go to Settings (up right corner) - Add a spa



The RF signal strength (communication between the two in.touch 2 transmitters) is illustrated on the Select a spa page. There are 5 possible states:



- Signal superior to 80%



- Signal between 80% and 51%



- Signal between 50% and 31%



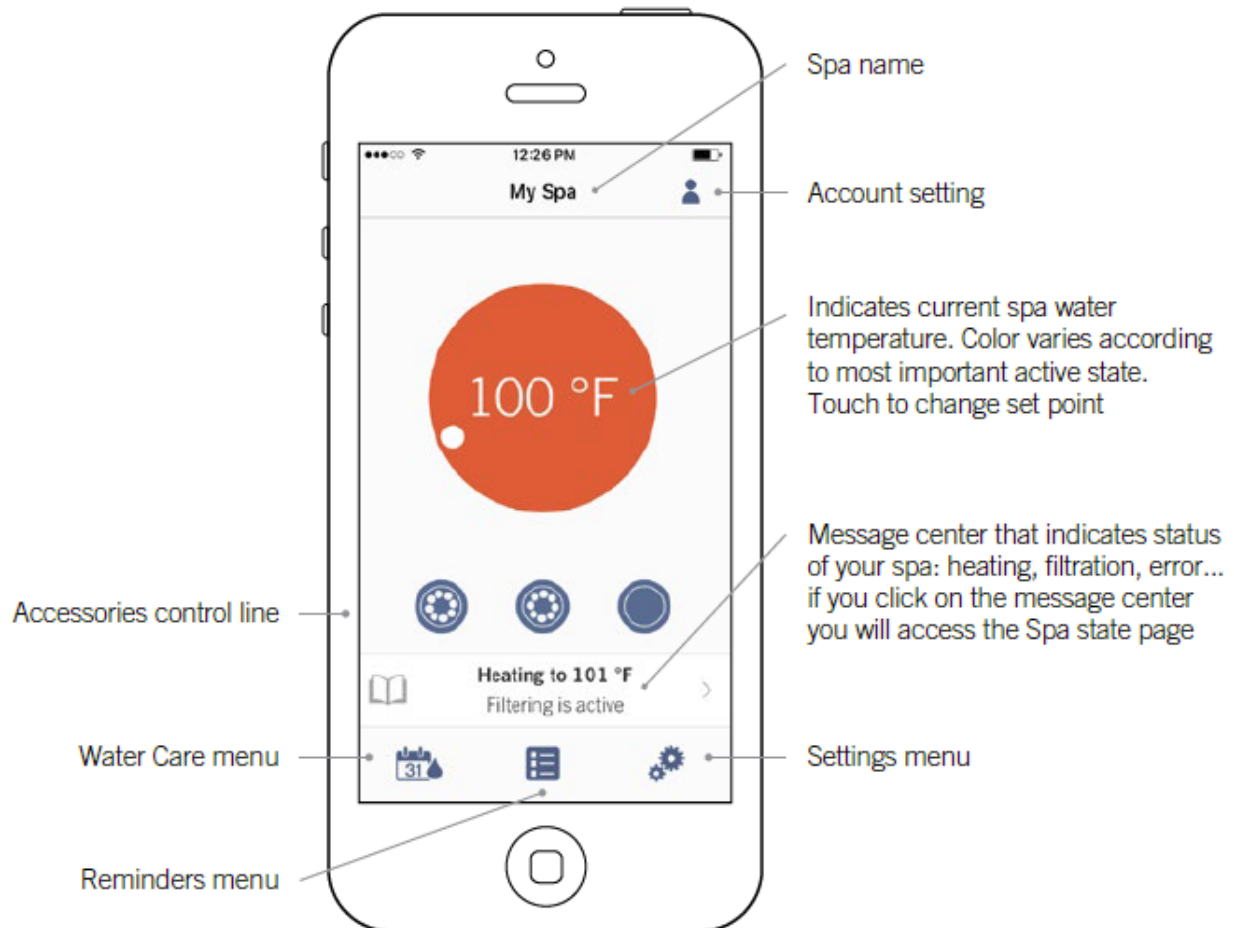
- Signal below 30%



- The Spa Transmitter is not available

Home page

The main screen gives you access to your accessories, water temperature, water care and settings.



The app is mirroring the top side control (keypad) over the internet.

STANDBY MODE (14' AND 17' SWIM SPA ONLY)



A press of the **SETTINGS** key brings you into the menu options. Use the **UP** and **DOWN** arrow keys to highlight **STANDBY**. Press the **LIGHT** key and the following message will appear.

“All pumps off! Press Drain to drain spa”

This mode allows you to stop all outputs including all automatic functions such as a filter cycle, heating requests and smart winter mode purging for 30 minutes to perform quick spa maintenance.

DRAIN MODE (14' AND 17' SWIM SPA ONLY)

If you wish to put your spa into “**DRAIN MODE**” press the **FUNCTION** key beside the word “**Drain**” on the display. Once you do that the display will indicate “**Drain in progress**”. The filtration pump will turn on and run for 60 minutes.

In order to exit this mode, press the **FUNCTION** key beside the back arrow once to exit **DRAIN MODE**. This will put you back into **STANDBY MODE** and if you wish to exit that press the same key to go back to the main screen.

TOPSIDE PANEL DISPLAY MESSAGES

Hr - An internal hardware error has been detected

Prr - The Prr error message indicates a problem with the regulation probe. The system is constantly verifying if the temperature probe reading is within its normal limits.

HL - The water temperature at the heater has reached 119°F (48°C). **Do not enter spa water.**

FLO - The system did not detect any water flow while the filtration pump was running.

UPL - No low level configuration software has been downloaded into the system.

AOH - The temperature inside the spa skirt is too high, causing the internal temperature in the spa pack to increase above the normal limits.

OH - The water temperature in the spa has reached 108°F (42°C). **Do not enter spa water.**

SWIMFALL WATERFALL CONTROL FILTER

This filter must be cleaned at each drain and refill of your swim spa to ensure proper functionality of the Swimfall Waterfalls. It is located behind the door in the equipment area. To access the filter screen turn large canister section of the assembly counter-clockwise till the apparatus separates revealing screen filter. Run filter under tap to clean out any debris and reassemble in reverse order.



ADJUSTABLE FLOW CONTROL

Your ThermoSpas® swim spa is equipped with a DIVERter valve to control and adjust water flow to suit individual user preference. The pump 1 (P1) DIVERter valve provides variable water flow adjustment between the lower center swim jet (providing added buoyancy and variable swim resistance), and the hydrotherapy jets on the bucket seats, or a combination of both.

AIR
CONTROLS

PUMP 1
DIVERter



POWER SPRINT CURRENT CONTROL

(14' AND 17' SWIM SPA DIAMOND MODEL only)

This system allows for the swimmer to vary the flow of water and adjust the swim intensity of the jets. Allows quick adjustment to level of fitness the swimmer is accustomed to from Novice to Triathlete. This option has a keypad near the swim end so the water current can be easily adjusted without having to go back to the main keypad area and eliminates the need for manual diverters.

NOTE: You should always start from a full on or full off position to ensure you have consistent water flow. Failure to do so may unbalance the system requiring it to be recalibrated.



THERMOSPAS® CLEAR BLUE MINERAL SYSTEM

CLEAR BLUE KEYPAD FUNCTIONS



IONIZING -

When the “Ionizing” light is illuminating, it confirms that the system is ionizing the water. To illuminate, the electrodes must be submersed in water and at least 80 mA of current must be flowing through the electrodes into the water. The more ions that are being released into the water, the faster the light will blink. The light will look solid at maximum dose.

ION/ACTION -

This user defined setting represents the percentage of time in each hour the ionizer is on for. The suggested setting follows in the operating instructions.

LARGE DOSE -

Press this button to release the maximum amount of ions for the number of hours you choose. The default setting is 24 hours. The display will count down the amount of hours left. The system will return to the previously set Ion/Action setting when the large dose ends. Use this function at your discretion whenever a burst of ions is required. You may choose to use this when the ionizer is first installed, upon refilling or during large amounts of rain or spillage.

“ - “

This button will decrease the setting for Ion/Action or Large Dose.

“ + ”

This button will increase the setting for Ion/Action or Large Dose.

CLEAR BLUE OPERATING INSTRUCTIONS

PROGRAM - Press the "Ion/Action" button to set the ion cycle time. Follow the guidelines below based on the gallons or liters you are ionizing.

OPTIONAL - Press the "Large Dose" button to set the hours of large dose. You may set it from 1 to 99 hours. 24 hours will activate as the default setting. Follow the guidelines below. When the large dose cycle is finished it will return to the previously set Ion/Action setting.

MODEL	LITERS	GALLONS	ION/ACTION	LARGE DOSE
12' AQUACISOR	4670	1229	44	50
14' SWIM SPA	7220	1900	67	71
17' SWIM SPA	9120	2400	86	91

CLEAR BLUE MAINTENANCE INSTRUCTIONS

1. Occasionally, you will need to oxidize the water to help break down excess organic matter (i.e. sweat, makeup, suntan oils). We suggest running your system in conjunction with 0.6 ppm bromine. Tablets are recommended before liquid as they are extremely stable and slow releasing.
2. Keep the total alkalinity between 80 and 120 ppm.
3. Keep pH between 7.2 and 7.6. Unlike bromine, ions are pH neutral so they will not change the pH level of the water but your choice of oxidizer or environmental factors may.
4. Keep total dissolved solids (TDS) between 500 and 2000 ppm.
5. You may need to add a clarifier or flocculent if you see cloudy water or fine particles in the water which the filter cannot catch

NOTE: Stain and Scale or other sequestering products conflict with ClearBlue.

If you use a stain and scale or other sequestering product, it will remove the ClearBlue minerals from the water and neutralize new minerals for several weeks. Before adding a sequestering product, turn down the "Ion/Action" setting to 00 to preserve the life of the electrodes. After three to five weeks, you can turn the controller back on. You will need to ramp up the copper level to 0.2ppm to 0.4ppm.

If you have a serious staining and scaling problem, it can be also treated at the point where the water enters the swim spa using a metal trap filter. This filter can be attached to the garden hose and will provide better water quality for your swim spa.

WATER BALANCE – GENERAL OVERVIEW

NOTABLE POINTS

- The reliability and longevity of your swim spa support equipment are directly related to how well water quality is maintained!
- The small volume of water in your swim spa is easily affected by the introduction of oils, lotions, perspiration and chemicals. It is imperative that you give your swim spa regular attention to maintain clean, safe and balanced water to prevent premature damage and/or failure (corrosion/calcification) to the support equipment. Maintaining proper swim spa water balance and sanitizer levels is extremely important. Neglected hot water will allow bacteria to quickly spread.
- The mineral content of swim spa water increases due to water evaporation, sanitizers and other chemicals. If the mineral concentration, particularly calcium, becomes too high, the minerals will literally “drop” or precipitate out of the water and deposit on the swim spa walls, plumbing, jets, in the filter and on the heater element.
- It is very important that pH be checked frequently and maintained in the recommended range as indicated in the chart **WATER BALANCE SUMMARY FOR YOUR SWIM SPA**
- It is also very important that Total Alkalinity (the ability of the water to resist a change in pH) be maintained in the recommended range as indicated in the chart **WATER BALANCE SUMMARY FOR YOUR SWIM SPA**
- Although there may be two identical swim spa models right next door to each other, the maintenance requirements will be different, dependent on such factors as:
 - bather load
 - frequency of use/quantity of bathers
 - different body chemistry
 - sun vs. shade
 - temperature

For these reasons, it is very important to develop proper swim spa water maintenance habits and follow the recommended water maintenance procedures.



WARNING

CHEMICAL HANDLING SAFETY HINTS

- **Never pre-mix chemicals with each other prior to adding to hot tub water.**
- **Add only one chemical to the water at a time.**
- **Always add chemicals to water and not vice-versa.**
- **Chemicals may be corrosive, so handle with care and store in a cool dark place.**
- **Never smoke near chemicals as most are flammable**
- **Ensure any spilled chemicals are carefully cleaned up immediately.**
- **Always have the POISON CONTROL telephone number handy in the event of an emergency.**
- **Keep chemicals out of children's reach**
- **Wear safety glasses and gloves when handling chemicals.**

INITIAL WATER FILL & BALANCE

- 1 Make sure the swim spa is circulating.
- 2 Add a sequestrant (stain and scale controller). Allow water to circulate for an hour before adding anything else to the swim spa water.
- 3 Add a Shock / oxidizing agent .
- 4 Add sanitizing tablets (Bromine or Chlorine) to the dispenser:



Heater and other component failure due to improper water balance is not covered under warranty.

GLOSSARY OF COMMON WATER MAINTENANCE TERMS

- 1 CHLORINE** – in granular, liquid or puck/tablet form, is an oxidant and biocidal agent. It is very effective and fast acting. Recommended chlorine residual level is 3.0 to 5.0 ppm.
- 2 CHLORAMINES** – a compound formed when chlorine combines with nitrogen or ammonia present in the water. When allowed to go unchecked, it causes eye and skin irritation and is indicated by a strong chlorine odor.
- 3 ONE-PART BROMINE** – also available in puck/tablet form, is another type of oxidant/biocidal agent, and is introduced into the hot tub water via a brominator. Recommended bromine residual level is 3.0 to 5.0 ppm
- 4 TWO-PART BROMINE** – composed of a liquid or powder component introduced manually into the water on a weekly basis, and a granular component that is added daily or as the hot tub is used.
- 5 BROMAMINES** – are formed when bromine destroys nitrogen-bearing organic matter. Unlike chloramines, bromamines don't cause eye irritation, however, when allowed to go unchecked, will cause an objectionable odor.
- 6 SHOCK** – the practice of adding an oxidizing agent to hot tub water to destroy ammonia, nitrogenous and organic contaminants (chloramines and bromamines)
- 7 pH** – a logarithmic value expressing the relative acidity or basicity of a substance (such as hot tub water) as indicated by the hydrogen ion concentration. pH is expressed as a number on a scale of 0 to 14, where 0 is most acidic, 1 to 7 being acidic, 7 considered neutral, 7 to 14 being basic, and 14 being most basic. The ideal range for hot tub water is 7.4 to 7.6 ppm
- 8 pH INCREASER** – raises the pH level of the water.
- 9 pH DECREASER** – lowers the pH level of the water.
- 10 TOTAL ALKALINITY (TA)** – the amount of carbonate, bicarbonate and hydroxide compounds present in the water that determines the ability or capacity of the water to resist change in pH. Also known as the 'buffering' capacity.
- 11 ALKALINITY BOOSTER** – raises the alkalinity.
- 12 CALCIUM HARDNESS** – the calcium portion of the total alkalinity which represents 70 to 75% of total hardness. Calcium concentrations determine whether water is 'soft' - too little calcium, or 'hard' -too much calcium.
- 13 CALCIUM BOOSTER** – increases the calcium level.
- 14 TOTAL DISSOLVED SOLIDS (TDS)** – a measure of the total amount of dissolved matter in the water (calcium, carbonates, bicarbonates, magnesium, metallic compounds, etc.)
- 15 SEQUESTERANTS (STAIN AND SCALE CONTROLLERS)** – keeps dissolved metals and minerals in the water from attacking the hot tub shell and support equipment components.
- 16 DEFOAMER** – removes foam build-up from the water surface. At best, this is a temporary remedy, as excessive foam is merely a symptom of improper water balance (typically high organic residue and/or high pH).
- 17 CARTRIDGE FILTER CLEANER** – degreases and cleans cartridge filters.
- 18 OZONATOR** – generates Ozone (a gaseous molecule composed of 3 atoms of oxygen) and is injected into the hot tub water for the oxidation of water contaminants.
- 19 TEST KIT** – used to monitor specific chemical residual or demands in the water. May be in the form of litmus strips or liquid drops.
- 20 PPM** – abbreviation for 'parts per million', the unit of measurement used in chemical testing which indicates the parts by weight in relation to one million parts by weight of water. Essentially identical to the term mg/L - milligrams per liter.

WATER BALANCE SUMMARY FOR YOUR SWIM SPA*

SANITIZER (ppm)	MIN	IDEAL	MAX
Chlorine	1.0	3.0 - 5.0	5.0
Bromine	1.0	3.0 - 5.0	5.0
CHEMICAL			
PH	7.2	7.4 - 7.6	7.8
Total Alkalinity (TA)	80	80 - 120	180
Calcium Hardness	150	200 -400	500 -1000

*National Spa & Pool Institute recommended levels for residential spas/hot tubs

WATER BALANCE TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
Cloudy Water	Microscopic particles too small to filter out.	Test and adjust all water balance elements and add flocculent* to cause the particles to combine together so they can be filtered out. Increase filter cycle time.
High Total Alkalinity High pH levels High Calcium Hardness		Test these water balance elements and adjust to recommended parameters.
Scale (White/Grayish Deposit)	High Calcium Hardness	Test calcium hardness level and treat with sequestering agent* or perform partial drain/refill.
Skin Eye Irritation	Improper pH and/or Total Alkalinity levels	Test water balance and make the appropriate changes.
Excessive Foam	Buildup of body oils or cosmetics	If no water line is present you can try using defoamer* to break up the contaminants and then a clarifier* to help filter them away. If a water line is present the spa may need to be drained and cleaned. Either way, the filter should be thoroughly cleaned by soaking over night in bleach. An oil absorbing sponge can help in preventing this in the future. Increase filter cycle time.
	Laundry detergent residual in swimwear	Prevent by running an extra rinse cycle on washing machine or re-rinse well by hand
	Excess organic contaminants	Some organic matter is prone to causing foamy water as it breaks down in the filter (maple leaves especially). Generally using defoamer* to break up the contaminants, then a clarifier* To help filter them away followed by thoroughly cleaning your filter will clear up the problem. It may however be necessary to drain and refill your spa if the foaming is quite excessive.
	Low Calcium Hardness	Test calcium hardness and if necessary increase with calcium chloride*
Corrosion/Etching	Presence of metals in water (iron, copper, etc.)	Test total alkalinity levels and if necessary increase with sodium bicarbonate*
Discolored Water (Clear v. turbid water)	Presence of metals in water (iron, copper, etc.)	Treat with chelating* or sequestering agent*
Unstable pH	Low Total Alkalinity levels	Test total alkalinity levels and if necessary increase with sodium bicarbonate*
pH resistant to changing	High Total Alkalinity levels	Test total alkalinity levels and if necessary decrease with sodium bisulfate* or muriatic acid*



ROUTINE SWIM SPA MAINTENANCE

REVIEW CHEMICAL HANDLING SAFETY HINTS

DAILY

- 1 Test water, and if necessary, add shock.
- 2 Ensure proper water level is maintained.

WEEKLY

- 1 Test pH and Alkalinity. Adjust accordingly
- 2 Top-up chemical dispenser
- 3 Add sequestrant (**stain and scale controller**)
- 4 Remove and spray cartridge filter with garden hose and re-install (**see section CARTRIDGE FILTER**)
- 5 Remove and clean out skimmer basket (**see section CLEANING THE SKIMMER BASKET**)
- 6 Add Shock / oxidizing agent
- 7 Inspect union connections for o-ring and gasket leaks - Tighten if loose

MONTHLY

Soak your filter cartridge in a filter cartridge cleaning solution. Rinse thoroughly and, if possible, allow to dry before re-installing. ThermoSpas recommends purchasing a second filter so that while the first is cleaning, the other is clean and ready to install

QUARTERLY

Drain swim spa at least once per quarter and clean the acrylic shell surface with a non-abrasive cleaner designed specifically for acrylic surfaces. **See sections CHANGING THE HOT TUB WATER and DRAINING YOUR SWIM SPA**

SAFETY HARD COVER

When a swim spa is uncovered, over 90% of heat is lost from the water surface. This evaporation also affects the chemical balance and could create humidity problems indoors. THERMOSPAS® Safety Hard Covers are engineered for maximum thermal efficiency and appearance. They are hinged in the middle for easier handling. The skirt of the safety hard cover hugs the lip of the hot tub for a tight fit. The locks, with one part fastened to the deck or skirt, prevent small children or animals from entering the swim spa. Do not drag the safety hard cover across the swim spa or decking. Standing on the hardcover could cause the tapered foam inserts to crack, which will lead to water absorption.

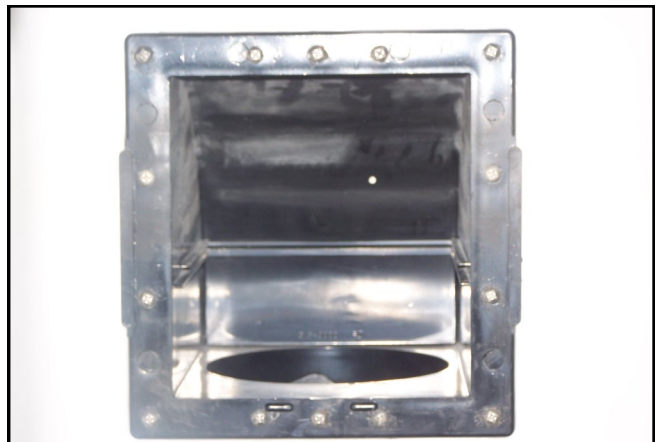
NEVER LEAN OR STAND ON YOUR HARDCOVER.

The cover should be cleaned at least twice a year with a vinyl moisturizer and protector.

NOTE: ALWAYS ENSURE THE SAFETY HARDCOVER IS IN PLACE AND LOCKED WHENEVER THE SWIM SPA IS NOT BEING USED. FAILURE TO DO SO MAY CAUSE DAMAGE OR CRACKING OF THE ACRYLIC SURFACE NOT COVERED UNDER THE WARRANTY.

CLEANING THE SKIMMER BASKET

- 1 Activate the **STANDBY/DRAIN ASSIST** mode
- 2 Remove the skimmer basket by pulling the weir door forward, and pulling the basket up and towards the front
- 3 Remove debris from basket. (**Note: Avoid hitting the basket against objects to knock debris loose as this may damage the unit**)
- 4 Reinsert basket
- 5 Take the system out of **STANDBY/DRAIN ASSIST** mode, and as the pump begins to operate, monitor water flow over the weir door to assure that it is free floating



CARTRIDGE FILTER

The cartridge should be cleaned every two to four weeks, depending on the amount of use. Signs that the filter requires cleaning include:

- **Reduced jet power**
- **Hazy gray water**
- **Rattling noise in the pump or filter**
- **Heater not working**

REMOVAL

- 1 Activate the **STANDBY/DRAIN ASSIST** mode.
- 2 Remove the skimmer cover.
- 3 Pull the basket out.
- 4 Rotate the filter counter clockwise to unthread.
- 5 Lift the filter out of the housing.

CLEANING

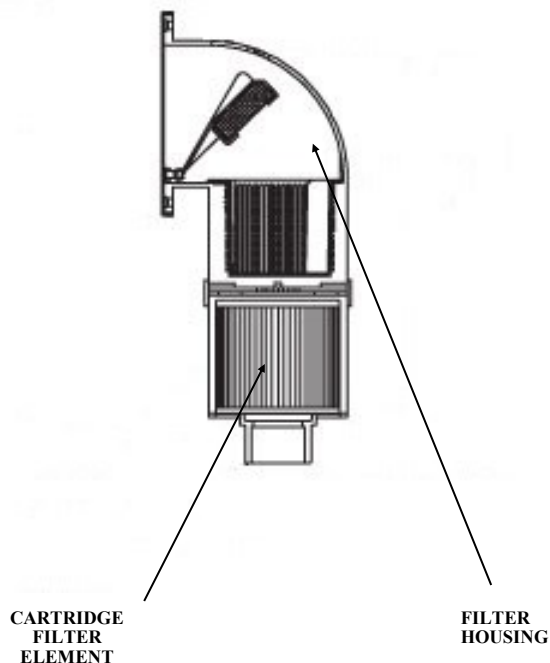
- 6 With a garden hose and spray nozzle, hose off the cartridge element, ensuring to carefully separate every pleat.
- 7 To remove collected lotions, body oils, etc. soak the cartridge in warm water and a filter cleaning/emulsifying compound (**available at THERMOSPAS online store**). <https://online.thermospas.com>
- 8 Rinse thoroughly and dry before replacing.
- 9 ThermoSpas recommends purchasing a spare filter cartridge so that you always have a clean substitute ready to rotate.
- 10 After the element has dried - if necessary, lightly brush between pleats with a fine paint-brush to remove remaining dirt particles.



Do not use a wire brush or other device to clean cartridge element.
Do not put in dishwasher or washing machine.

RE-INSTALLATION

- 12 Place the cartridge filter back into the filter housing.
- 13 Rotate clockwise until the filter is tight in place.
- 14 Reinstall the skimmer tray.
- 15 Locate the skimmer face in place and slide down to lock in place.
- 16 Take the system out of **STANDBY/DRAIN ASSIST** mode.
- 17 When the pump starts circulating on low speed, it will be necessary to release trapped air in the filter.



CLEANING THE ACRYLIC SURFACE

The acrylic surface can be cleaned and polished using a soft cloth and acrylic cleaner (**available at THERMOSPAS online store**). <https://online.thermospas.com>



- **Important: Do not use detergents - the remaining residues will adversely affect water chemistry, making it difficult to maintain proper water balance**
- **Do Not use abrasive cleaners – damage to the acrylic surface will occur.**

CHANGING THE SWIM SPA WATER

The water in your swim spa must be carefully monitored and drained regularly as required, depending on size and amount of use. Draining at least once annually is strongly recommended and offers the opportunity for inspection of jets and suction fitting covers. If your swim spa is used daily or by a large number of bathers, the water should be drained more often. One method to determine the approximate length of time between water changes is to divide the water volume (in liters) of your swim spa by 13.5 and then divide by the average number of bathers each day.

Formula

$$\left(\frac{\text{Volume of water in liters}}{13.5} \right) \div \left(\frac{\text{Average daily bathers}}{\text{Days between water changes}} \right) = \text{Days between water changes}$$

Volume of water
in liters

Average daily
bathers

Days
between
water
changes

EXAMPLE:

1000 liters divided by 13.5 divided by 2 = 37 days. The swim spa water must be changed when the amount of dissolved solids becomes excessive, and is usually indicated by "gray" or dull looking water.

DRAINING YOUR SWIM SPA

REFER TO FIGURE 1 & FIGURE 2

- 1 Locate nearest drain facility (**Check your local bylaws**).
- 2 Put the swim spa control system into **STANDBY/DRAIN ASSIST** mode. The system will automatically exit Standby Mode after 1 hour and resume normal operating functions.
- 3 Remove the skimmer basket so that the hole beneath it is accessible, and insert the #10 rubber expansion plug provided.
- 4 Attach garden hose to hose bib located on plumbing line beside the hot tub control system.
- 5 Run garden hose to drain location.
- 6 Open hose bib.
- 7 Close filtration pump return gate valve next to the hose bib (this directs the water out the drain hose).
- 8 Activate the circ pump.
- 9 Monitor the swim spa while it drains.
- 10 Use the second garden hose to wash down interior surface as the swim spa continues to drain. A sponge may also be used to wipe down the interior surface.

- 11 To completely flush the old water from the plumbing lines: allow fresh water to fill into the foot-well area while the old water continues to be pumped out. Always keep at least 4in. (10cm.) of water in the foot-well so that pump 1 remains primed.
- 12 When the water from the drain hose turns clear (indicating fresh fill water), flush is complete.
- 13 Turn OFF the filtration pump.
- 14 Close the drain-hose bib on the swim spa plumbing line and continue filling swim spa with fresh water.
- 15 Place cover on swim spa (to avoid splash-out).
- 16 Open filtration pump return gate valve.
- 17 Press any button on the topside control panel (other than the pump 1 button) to take the system out of **STANDBY/DRAIN ASSIST** mode. Filtration pump and the heater will activate to circulate and heat the water while filling continues. This also reduces the possibility of an airlock occurring.
- 18 Continue adding fresh fill water until level is approximately 3/4 in. (19 mm) from the top of the skimmer opening.
- 19 Once fill is complete, remove the #10 rubber expansion plug from the bottom of the skimmer housing.*
- 20 If the filter housing was opened to replace the cartridge filter, it will be necessary to release trapped air from the filter housing by carefully loosening the small black air vent/bleeder valve located on the top of the filter housing. When water begins to escape close the air vent valve.
- 21 In the unlikely event of a pump air lock (pump 1 is operating but there is no water movement from the jets), refer to section **PUMP PRIMING/RELEASING AN AIR LOCK**

* It may be necessary to put system into **STANDBY/DRAIN ASSIST*** mode in order to remove plug.



FIGURE 1

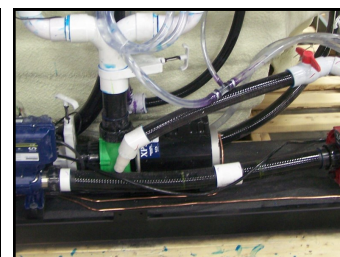


FIGURE 2

WATER SOFTENERS

ThermoSpas does not recommend filling a swim spa with water from a water softener, as it could adversely effect the water chemistry, making it difficult to maintain proper water balance. If you live in an area with hard or soft water, give careful attention to your Calcium Hardness level. Topping up with soft water is acceptable.

SOFT STRIDE FLOOR SYSTEM

The exclusive Soft Stride Floor System is available as a standard feature on the **12' Aquacisor** model.

Care & Maintenance Recommendations:

- Soft Stride Floor System cleans easily with soap, hot water and a brush (soft to medium bristle stiffness). Chlorine/bleach and water mixture, isopropyl rubbing alcohol or other household cleaners such as SoftScrub, Simple Green and 409 can be used to clean the pads.
- Be sure any soap or cleaning product is thoroughly rinsed from the pads and swim spa shell and this residue is removed before refilling the spa to prevent foaming.
- Always promptly attend to and clean any noticeable stains.

Never:

- Allow stains to develop without promptly being attended to and cleaned.
- Clean with acid based cleanly products.
- Use acetone or mineral spirits on the pads or swim spa shell as damage caused to the swim spa shell from these chemicals will void the warranty.

CARE OF STAINLESS STEEL

ThermoSpas uses stainless steel in a number of our swim spas. Its lasting beauty and resistance to corrosion make it an excellent material for handrails and jet faces.

With the proper care it will keep its luster for many years. All stainless steel can corrode given the right circumstances so we have provided a guide to help you keep the stainless components in your swim spa looking nice.

Stainless steel derives its ability to resist corrosion by forming a very thin transparent coating on the surface when exposed to oxygen. This coating can be damaged by abrasive materials such as steel wool, sand paper, and other cleaning materials that are abrasive. Chlorine salts, sulfides or other rusting metals can also erode this thin coating exposing the metal to corrosion.

The best defense to combat corrosion on stainless steel components in your swim spa is to make sure that it is kept clean and free of any chemical build up.

Always:

- Clean frequently with fresh, clean water.
- Remove any rust spots as soon as they appear with vinegar or a brass, silver, or chrome cleaner.
- Use a good car cleaning wax for extra protection

Never:

- Clean with mineral acids or bleaches.
- Clean with steel wool or any other abrasive material.
- Leave in contact with iron, steel or other metals.
- Close the cover immediately after adding chemicals to the water.

NOTE: Failure to take proper care of the stainless steel components could result with them rusting. Rusting is not covered by the warranty.

Do not cover the swim spa for 15 minutes after adding chemicals as the off gas can cause unwarranted damage. Larger dosages can require longer lengths of time to off gas. It is recommended to check the swim spa water more frequently to allow small dosages to be added as necessary versus large dosages being added less often.

WINTERIZING YOUR THERMOSPAS® SWIM SPA

In the event that you do not wish to use your swim spa year-round, it is very important that you properly winterize to protect against damage from freezing. An authorized ThermoSpas service technician can perform this service for a nominal fee. If you choose to winterize your swim spa yourself, please follow the directions outlined below:

- Drain the swim spa entirely see section - **DRAINING YOUR SWIM SPA**
- Remove and clean the cartridge filter element see section - **CARTRIDGE FILTER**
- Using a wet/dry utility vacuum, remove remaining water from the jet openings, filter cartridge housing, and footwell.
- Either pour or use a turkey-baster where necessary to add potable biodegradable RV antifreeze to areas such as pump wet end, jet channels, filter housing, blower channels.

DO NOT USE AUTOMOTIVE ANTIFREEZE.

- **Important:** mixing potable biodegradable RV antifreeze with water significantly reduces its ability to protect against freezing. Therefore, it is very important ALL water is removed from the swim spa plumbing before adding.
- Add potable RV antifreeze to the holes in the bottom suction/drain to prevent any trapped water in the false floor from freezing and damaging the swim spa shell.
- Turn pump on for only a few seconds to circulate the antifreeze.
- Unthread and disconnect all unions in the support equipment area. Remove lowest winter drain plug on pump face plate. Repeat for all pumps, where applicable.
- Cover exposed plumbing connections with plastic bags and duct tape.
- Where practical, disconnect swim spa support equipment and store in a dry heated area.
- Install the safety hardcover, and cover the entire swim spa with a tarp to prevent premature weathering of the cabinet and the safety hard cover.
- Remove snow build up regularly to prevent damage to the safety hard cover.
- It is assumed that your ThermoSpas swim spa has been properly installed on a reinforced concrete pad to eliminate lifting of the swim spa due to hydrostatic ground water pressure.

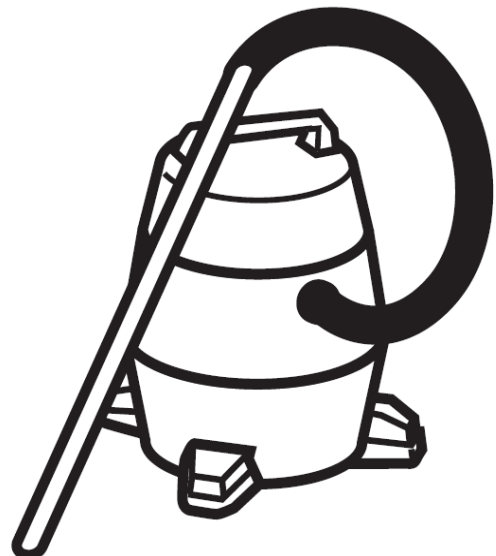
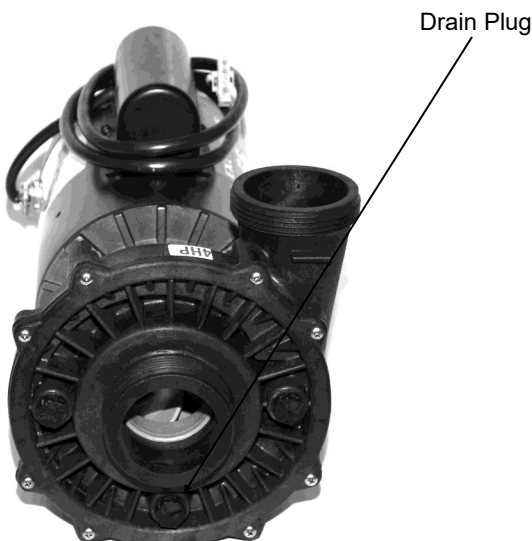
NOTE:

When winterizing your swim spa, make sure that the swim spa is fully covered to ensure that the acrylic is not damaged from expose to the sun and to prevent any snow or debris from entering into the swim tank.

When empty, ensure that the shell is properly supported with cross members and that the solid state frame system is locked in place. Ensure the supporting wall and lip anchors are locked down properly as they will no longer have the additional load of the weight of the water impacting them.



If you are not 100% confident that your swim spa is properly winterized, please contact ThermoSpas at 1-800-876-0158. Caution recommends that an authorized ThermoSpas service technician winterize your swim spa in the initial year. Damage as a result of freezing is not covered by the warranty.



GENERAL TROUBLESHOOTING CONTINUED

WHAT TO DO IN THE EVENT OF...

...POWER FLUCTUATIONS

The power supply into your home is, for the most part, fairly consistent.

However, when local power demand is high, there is a tendency for the voltage entering your home to drop (sometimes significantly) or fluctuate.

This condition is referred to as a 'brown-out'. Although safeguards have been built into the system to protect against this condition, supply voltage may drop low enough, if even for a second, to cause the system to display a 'ghost' message. Should this occur or if the display shows partial messages, try resetting the system by turning power to the swim spa, waiting a few minutes, then turning power on again.

...POWER FAILURE OR SYSTEM FAULT DURING COLD WEATHER CONDITIONS

If your control system will not reset, (ie. GFCI trips) or if your pump will not circulate for any other reason, place a low wattage space heater under the cabinet in the equipment area. This will delay the risk of freezing while a service appointment is scheduled.



Always follow the manufacturers instructions when locating and placing a portable electric space heater into service. Ensure that safe clearance to combustible surfaces is maintained. Do not leave unattended.

NOTES: