USER MANUAL

/ **CONTROL SYSTEMS** / **KEYPADS** / **ACCESSORIES** /

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Congratulations on your new product!

Outside work and family the enjoyment of quality life and calm moments plays an important role in the life of a 21st century man. An evening bath in the spa or tub alone or in company can give you the opportunity to lose track of time and your body and soul can relax. From the world of rationality we get into the world of senses where the cosseting atmosphere of the water provides the perfect conditions for relaxation.

Our design engineers utilised the experiences of the ancient Eastern massage culture and the modern findings of Western hydrotherapy to create spas providing the perfect massage experience.

Develop a peaceful space for relaxation with your product in your home and join the group of the few who seek a positive impact on their environment by establishing internal harmony.

Dive into your spa and enjoy the gently flowing water!

FOR YOUR SAFETY PLEASE ALWAYS PERFORM THE FOLLOWING PRECAUTIONS. IF YOU DO NOT FOLLOW THE WARNINGS AND INSTRUCTIONS, ITEMS MAY GET DAMAGED, YOU MAY GET INJURED, OR YOU MAY SUFFER FATAL INJURY. IMPROPER INSTALLATION AND OPERATION INVALIDATES THE WARRANTY.

Initial safety warnings

The spa must be powered through a residual current device (RCD) with a current release not exceeding 30mA.

The devices and parts which contain active parts – except those which are powered from protective extralow voltage not exceeding 12V – must be inaccessible from the spa.

ABOUT THE ENVIROMENTALLY SAFE WATER DRAINING

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About the enviromentally safe water draining

The water temperature in the spa should never exceed 40°C (104°F). The water temperature is considered safe for a healthy adult at 36 to 38°C. Lower water temperature is recommended for younger children or when the spa is used for more than 10 minutes.

Spa heat can cause hyperthermia!

Symptoms: drowsiness, heaviness

Children under 14 years of age can only use and operate the products mounted with hydromassage system under adult supervision.

People with heart disease, low or high blood pressure, circulatory disorders, diabetes, and excessive weight should consult their physician prior to using the spa.

Consumption of alcohol or drugs while using the spa greatly increases the chance of fatal overheating.

A person taking medications should consult a doctor before using the spa as some medicines may cause drowsiness while others may affect the heart rate, blood pressure, and circulation.

Persons who suffer from infectious diseases should not use the spa.

Because high water temperature poses a high risk to the fetus and may cause serious fetal damage we advise that (potentially) pregnant women do not use the spa at a water temperature higher than 38°C. Wet surfaces can be slippery. Note and warn your child about this when entering and leaving the spa. To avoid injury carefully get into and out of the spa.

Do not use the spa if the suction cover is damaged or missing.

Never place any electric device within a 2-meter radius of the spa - it can cause electrical shock. Electric devices fallen into water may cause death, electric shock, or serious personal injuries.

It is prohibited to remove the panels while using the spa.

Water treatment should be carried out with caution. Improperly chemically treated* water may cause skin irritation.

When the spa is not in use, cover the spa with the cover to prevent ultraviolet radiation causing damage to the product.

Do not allow your child to climb on the thermo cover when it is on the water-filled spa.

Do not remove any suction sealing. Do not operate the spa if the suction sealing is broken or missing.

Keep your clothes and jewellery away from rotating jets and moving parts.

Test the residual current device before use.

Disconnect the spa from the power supply before servicing its electrical parts. (This operation can only be performed by qualified professionals).

It is strictly prohibited to use the spa in a not completely assembled state (e.g. detached side panel)

Chemical treatment of water can only be performed by persons under the age of 18 under parental supervision.

Maintenance can only be performed by trained professionals.

The user should check the electrical wiring every 3 months. It is required to perform a check by a professional every 3 years.

Mains fuses / circuit breakers may be activated because of power outages.

Installation and wiring of the spa, replacement of power cord, and any repairs must be performed by qualified professionals.

It is required to build in an isolating device to the fixed wiring.

Plug'n'play safety warnings

Beyond the previous warnings, please also pay attention to the undermentioned ones.

ATTENTION! The electrical receptacle must be located at least 2.5 meters from the spa so that bathers in a sitting position cannot reach it from the water. The plug can only be connected to a receptacle equipped with 2.5mm 2 diameter cables*

ATTENTION! RISK OF ELECTRIC SHOCK. The connector with residual current device must be inspected before every use.

ATTENTION! Only place the RCD plug in a receptacle equipped with RCD.

ATTENTION! Before you insert the plug into the socket ensure that the current of the socket and the fixed wiring is appropriate for the properties of the spa.

The spa must be equipped with an isolation transformer or powered through a residual current device with a release current not exceeding 30mA.

THIS PRODUCT IS EQUIPPED WITH A GROUND FAULT CIRCUIT BREAKER (GFCI) IN THE CONNECTOR. GFCI MUST BE TESTED BEFORE EACH USE.

If the power cable is damaged, it must immediately be replaced by the manufacturer or a service professional in order to minimize danger.

To minimize the risk of electric shock do not use extension leads to connect the product to the power supply.

Ensure that the receptacle is properly located.

Parts of the equipment cannot be placed above the spa during usage.

Parts under electrical power – except those operating with voltage not exceeding 12V - must be inaccessible for persons in the spa. The grounded device must be connected to a fixed socket with fixed wiring. Electrical parts – except remote controllers – must be positioned so as not to fall into the spa.

The electrical installation must meet the local standard requirements.

To avoid electric shock do not use the spa in rain.

Water attracts children. Always place and lock the cover on the spa after each usage.

Do not bury cables into the ground! Place the cables so that lawnmowers, trimmers, and similar devices will not reach them.

Do not force push the control panel up nor down and do not place heavy objects on it after installation.

Keep pets away from the spa to avoid damage.

Do not use the device if there is the slightest chance of water in the spa being frozen.

Only use accessories approved by us. The use of accessories not approved by us may void the warranty.

Choking hazard. Particular attention need to be paid to children during usage. To avoid accidents only allow children to use this spa under adult supervision.

Never operate electrical devices in the spa or with wet body. Do not place electrical devices (lamp, radio, television) within a 1.5m radius of the spa.

Do not expose the spa to direct sunlight.

Only connect the spa to an earthed socket.

Risk of electric shock. Install the unit at least 1.5m (5 feet) from any metal surfaces. You can install the unit 1.5m from metal surfaces only if every metal surface is permanently connected to a solid copper conductor

with a diameter of at least 6mm, which is connected to the cable connector of a junction box reserved for that purpose.

To avoid injury never pour water warmer than 40°C directly into the spa.

Effects of overheating: you cannot assess emergency situations, do not feel the temperature, do not feel the need to get out of the spa, cannot get out of the spa; risk of fetal damage in pregnant women, loss of consciousness, suffocation.

Do not use the spa alone.

Do not use the spa immediately after strenuous sport.

To prevent damage to the pump the spa can only be operated if it has been filled with water.

If you feel uncomfortably or sleepy, leave the spa immediately.

Never add water to the chemicals. Always be cautious when adding chemicals to the spa water to avoid inhaling vapors and possible effects of inhaling undiluted chemicals and splatters.

Only place the spa on a surface that can support its weight.

INSPECT THE UNIT BEFORE USE. CONTACT THE SERVICE PROVIDER STATED IN THIS MANUAL IF ANY OF THE PARTS WERE DAMAGED OR MISSING UPON PURCHASE. ENSURE THAT THE PARTS OF THE UNIT ARE THOSE WHICH YOU INTENDED TO BUY.

IN.CLEAR SAFETY WARNINGS

Beyond the previous warnings, please also pay attention to the undermentioned ones

Read this manual carefully, always follow its instructions, and retain it. This manual contains important information about the installation, operation, and safety recommendations of the in.clear unit. Safe installation and usage is your responsibility.

The in.clear unit must be connected to a network protected by a ground fault circuit interrupter (GFCI) of the maximal nominal fault current value of 30mA.

Ensure that the entire power supply is turned off before the in.clear unit is installed.

If the power cord is damaged, it must be replaced by the manufacturer, an authorized service provider, or qualified professionals to avoid emergencies.

Always use a proper electric cable for supply of current to the in.clear unit.

When installing the in.clear Automatic Bromine Generator local and international electrical regulations must be complied with.

Clean or replace the filter cartridge at regular intervals, otherwise part of the bromine produced by the in.clear unit will be consumed by oxidation of contamination accumulated in the filter.

DO NOT pour any other chemicals into the spa than the recommended sodium bromide. DO NOT use any ozone or UV disinfectant.

Operating the in.clear unit on lower sodium bromide level shortens the life of the cells. Keeping sodium bromide and bromine levels above the recommended level may lead to corrosion of the spa components and cause damage to the spa accessories.

Do not open the in.clear unit; it does not contain serviceable parts

Product disposal: the in.clear unit must be disposed of in accordance with local disposal regulations in force.

This device is not intended for use by persons (nor children) with limited physical, sensory, or mental capabilities except if these persons have received appropriate instruction on use of the device from the person responsible for their safety.

The in.clear unit cannot be applied to in-ground sunken spas as it may affect materials used in the construction.

The shut-off device must have fixed wiring in accordance with the cabling regulations.

Showering is compulsory before each spa use.

The user is responsible for regular monitoring of the spa water to ensure that enough bromine is available to reach the appropriate cleaning level. Intensive spa use may require higher bromine intake to always maintain appropriate bromine level.

Always check the expiry date of the test kit, because after this date the test results may be inaccurate.

For proper disinfection spas must periodically be completely drained. The advised time period between full drains given in days is calculated by dividing the capacity of the spa in litres by the tenfold of the average daily users.

The in.clear unit is applicable for indoor spas, but NOT for swimming pools.

ENRICHMENT:
With the enrichment tool additional air is introduced to the jets, which strengthens the effect of the massage.
Open to the right, close to the left.

TAP
The tap has an opened and a closed position. When it's open, it can operate the waterfall nozzle, the one-hole fountain, or the neck massage unit. The tap opens to the left, (3, 2/3 rewind) and closes to the right
(3, 2/3 rewind).

WATER FLOW REVERSER
With water reversing you share the jets in each seat. If you turn the water reverser to the right, it will operate the jets on its right seats. if you turn it to the left, it will operate the jets on its left seats. In center position all the jets controlled by water reversing will operate. In this case the efficiency of the massage is reduced (it splits among the seats).

SITE PREPARATION

When choosing a site for the spa take into account that its maintenance and repair works must be carried out behind the sidewalls, so accessibility and space to walk around the spa must be ensured.

1. INDOOR/BASEMENT INSTALLATION

If you place your spa indoors, be aware of some special requirements:

Water may accumulate around the spa, so the flooring material must have a proper runoff to avoid accumulation of water. When building a new room for the spa, constructing a floor drain is required, or damages may occur due to overflow, overfilling, or technical failure. Our company does not take responsibility for any damage in absence of floor drainage. Humidity will naturally increase in the room where the spa is located and the evaporated water condenses. For this reason ensure that the area has proper ventilation. We recommend installing a dehumidifier in the room.

2. OUTROOR AND PATIO INSTALLATION

A solid horizontal foundation is necessary for installation of the spa. We advise using a reinforced concrete foundation at least 10-15cm thick.

Ensure that your deck or foundation will support your spa. You must know the maximal load capacity of the foundation. Consult a qualified building contractor or structural engineer.

To find out the weight of your spa, its contents and occupants please refer to the spa specification chart. This weight must not exceed the structure's rated capacity per square meter, otherwise serious structural damages could result. If you install the spa outdoors, we recommend a reinforced horizontal concrete pad at least 10-15cm thick.

Install floor drains around your spa to lead water away even in heavy rain.

When constructing the water drain it is advised to form a 10-15cm deep sloping ditch around the spa which directs water to the drain. Water from the drain must be directed to the canal or a drainage with enough capacity.

Warning: Do not expose the spa to direct sunlight (not even empty) without proper coverage. The insulated spa cover preserves the water temperature and provides protection from sunlight and rain. When exposed to sunshine for a longer period it may damage the surface of the spa and the spa equipment.

Acrylic rapidly absorbs heat from sun rays, thus reaches a very high surface temperature which may damage the spa.

In case of sealed design, if the spa was placed between glass structures, prevent the sun rays from reaching the spa directly through the glass as the temperature may get too high.

3. IN-GROUND / SUNKEN SPA

In case of sinking the spa into the ground you must make sufficient space for walking around the spa. For completion of maintenance works a minimum of 60cm wide inspection pit must be built around the spa.

The inspection pit's bottom must be under the bearing pont of the spa so that water can flow into the pit in case of water leakage. A floor drain or sump pump should be used at the bottom of the pit to ensure continual water drainage.

In case of sinking the spa only the portion below the spa's acrylic edge can be sunk. The air of the inspection pit steams up. To prevent unpleasant odors proper ventilation must be provided (e.g. installing ventilators). The costs of pulling the spa out of the ground are borne by the user. If the aforementioned conditions are not present, setting up the spa may fail.

First filling of the spa

Proper filling of the spa is an important task both technically and chemically. We advise installation and periodic maintenance by the servicing professionals, which includes inspection and refilling of spa water. Spas do not contain water softener and hard water damages the equipment. Improper filling of the spa may bring air into the system, which damages the heating wire and engines. Repairs after such failures are not covered by warranty.

Filling process

Remove the spa cover. First remove the cover staves, then remove the side covers by unscrewing the bottom screws. During transportation the flare fittings of engines may dislocate. Check these connections before installation. If necessary, tighten the flare fittings.

In spas equipped with air engine the flare fitting must be connected before running the spa for the first time.

Before filling the spa check that the ratchets are not in a closed state (lever is pulled out and fixed with the safety lock).

Next fill the spa with water to the sign indicated on its sidewall.

Filling must be done through the filter housing. Improper filling can damage the engines and heating element.

Insert the filter or filter cartridges when proper water level is reached. Be cautious, because when replacing the filter cartridge air bubbles may remain in the cartridge. To avoid this the filter cartridges must be tilted in the water to remove air from them, and only then fitted to their place.
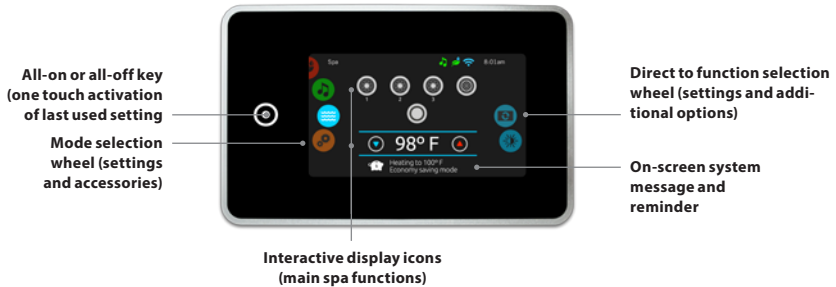
SMART TOUCH

TOUCH SCREEN KEYPAD

No buttons, keys and overlays! Mode and function selection wheels, all-on or all-off one touch activation key of last used settings, interactive display icons and on-screen messages are all elements of the Smart Touch user interface designed to let spa users interact intuitively with their spa and its value-added accessories.


All-on or all-off key (one touch activation of last used setting

Mode selection wheel (settings and accessories)

Direct to function selection wheel (settings and additional options)

On-screen system message and reminder

Interactive display icons (main spa functions)

NOTIFICATION ICONS

Notification icons at the top right-hand side of the screen show the status of connected value-added accessories.

in.clear system is on	in.clear system is idle	in.clear system is off	system is connected to wifi	system is not connected to wifi

Aquasoul Pro audio system is on	Aquasoul Pro audio system is on	in.mix is installed

SPAS FUNCTIONS

Quick and easy step-by-step instructions to control the main functions and to configure the system settings of your spa from its Smart Touch main spa keypad.
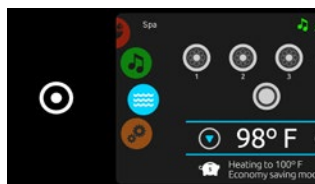
TURN KEYPAD ON

3 minutes after the last pump is turned off, the screen will shut off if there is no touch activity.

Touch the screen to turn on the keypad.

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

ALL-ON, ALL-OFF TARGET KEY

Smart Touch features an all-on or all-off one touch activation key of last used settings that, when pressed, stops or starts all working components and accessories at once.

From the home page you can access the following modes:

• sanitization (with in.clear connected)
• audio (with Aquasoul Pro connected)
• color (with in.mix installed)
• spa
• settings

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

SPA MODE
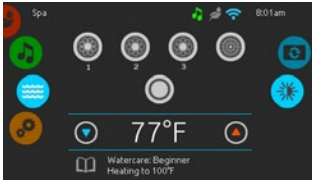
SPA MODE

To select the spa mode, slide the left wheel up or down until the spa icon is highlighted in the middle. The home page will be displayed its equipment start or stop keys, up and down buttons, water temperature, messages and quick access to display options:

• display orientation
• display contrast

To select an option, slide the right wheel up or down until the desired icon menu is highlighted in the middle.
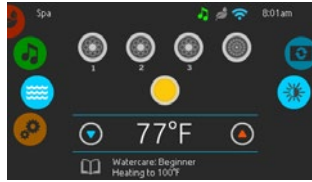
START OR STOP ACCESSORIES

To start or stop an accessory (pump, blower, light), 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 two speeds press the button until it reaches the desired speed.

WATER TEMPERATURE

The temperature shown at the bottom of the screen shows the current water temperature. Use the Up and Down icon 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.

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. Normally there is a short delay before the heating starts, during which Heating Suspended is indicated under the value.
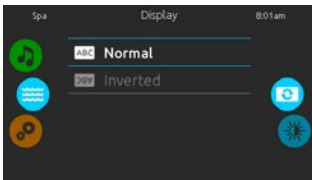
DISPLAY ORIENTATION

To modify the display orientation settings, slide the right wheel until the display orientation icon is highlighted in the middle. Simply touch the line of the orientation you want to select.
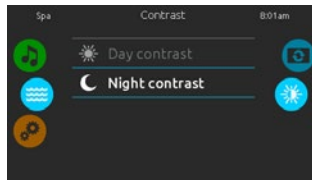
DISPLAY CONTRAST

To modify the display contrast settings, slide the right wheel until the display contrast icon is highlighted in the middle. Simply touch the line of the contrast you want to select.

SETTINGS

You can use the Settings mode to manage settings of your spa system.

Mode selection wheel: settings icon

List of featured items

Direct to function selection wheel:
– water care
– maintenance
– date & time
– keypad
– electrical config
– wifi
– about

To select the settings mode, slide the left wheel up or down until the settings icon menu is highlighted in the middle.

In the Settings page you can access the following:
• water care   • electrical configuration
• maintenance   • wifi
• date & time   • about
• keypad

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, set or modify one of the 5 suggested modes depending on your needs at any given time.

AWAY FROM HOME

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

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.
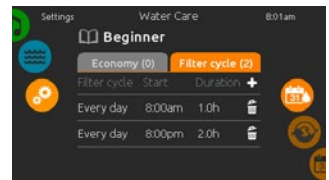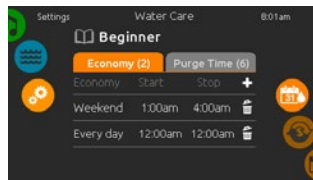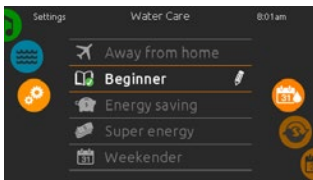
SUPER ENERGY

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 WATER CARE SCHEDULES

WATER CARE

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.
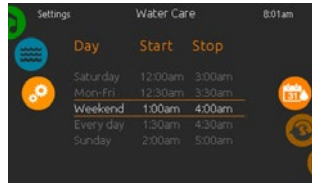
ECONOMY

Touch the Economy tab to change the economy schedule. You can add economy schedules by touching the « + » symbol . To delete a schedule, touch the garbage can icon at the right end of the desired line.

FILTER CYCLES

Touch the Filter cycle tab to change the filter cycle schedules. You can add filtration schedules by touching the « + » symbol . To delete a schedule, touch the garbage can icon at the right end of the desired line.

MODIFYING WATER CARE SCHEDULES

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 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.

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

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 the calendar icon to go back.
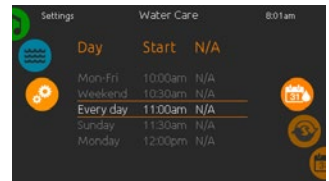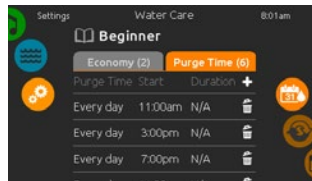
PURGES

Touch the Purge tab to change the purge settings. You can add purges by touching the « + » symbol.

To delete a schedule, touch the garbage can icon at the right end of the desired line.

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

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 purge, use the calendar icon to go back.

MAINTENANCE & ERROR LOG
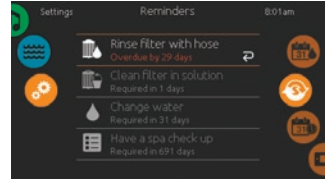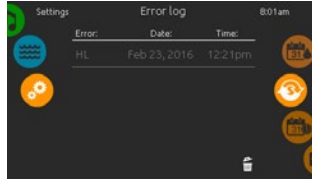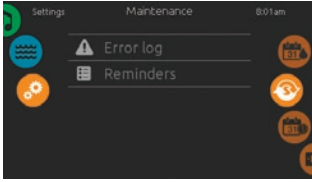
MAINTENANCE

To modify maintenance settings, slide the right wheel until the maintenance icon is highlighted in the middle.

From the Maintenance page you can access the following:

• Error log
• Reminders

Simply touch the line of the item you want to change.

ERROR LOG

Errors are archived by the system. Drag the list Up and Down to move through the list. Errors are archived chronologically, from the most recent at the top to the oldest at the bottom.

The Error log page shows the error code, the date of the error, and the time.

Touching the garbage can icon will delete the Error log (with a confirmation).

REMINDERS

Smart Touch 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.

DATE AND TIME
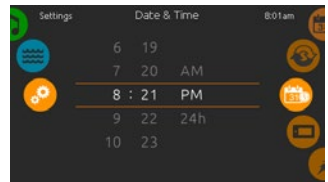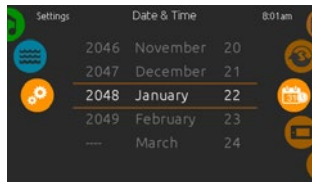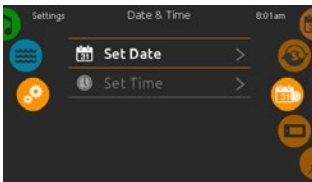
DATE AND TIME

To modify date and time settings, slide the right wheel until the date and time icon is highlighted in the middle.

Simply touch the line of the item you want to change.

SET DATE

Here you can adjust the year, month and date. 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.

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
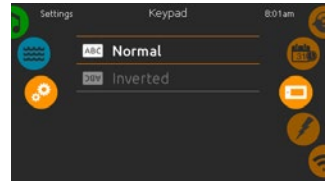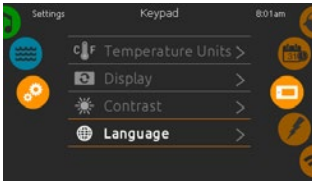
KEYPAD SETTING

KEYPAD SETTINGS

To modify keypad settings, slide the right wheel until the keypad icon is highlighted in the middle.

Simply touch the line of the item you want to change.

TEMPERATURE UNITS

Use this page to set or change the temperature in F˚ or C˚ units.

DISPLAY ORIENTATION

Use this page to set or change the normal or inverted display orientation.
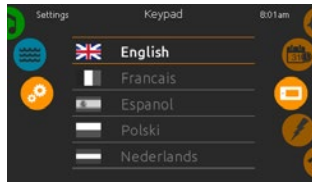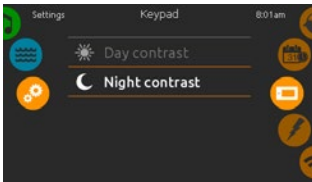
DISPLAY CONTRAST

Use this page to set or change the display day or night contrast.

DISPLAY LANGUAGE

Use this page to set or change the display language.

WIFI

(This function is available only if an in.touch module is connected to your system.)
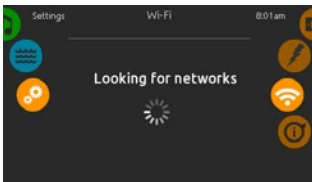
WIFI SETTINGS

To modify wifi network settings, slide the right wheel until the wifi icon is highlighted in the middle.

WIFI NETWORKS

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

Selected network will be identified by a green check mark.

Swipe Up or Down the list to select your network.

WIFI NETWORK PASSWORD

If the wifi network is password protected, enter it when keyboard prompts. Use Enter key to validate the password.

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

WIFI

IN.TOUCH MODULE NOT CONNECTED

If the in.touch module of your spa system is not connected, this message will be displayed.

ABOUT YOUR SPA SYSTEM
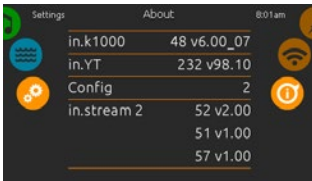
ABOUT

To get info about your spa system, slide the right wheel until the about icon is highlighted in the middle.

Information about Smart Touch software number and the revision numbers of the different components of your system will be displayed.

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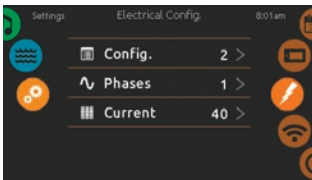
Please do not make changes in this section unless you are a qualified electrician.

A password will be required. Please contact a representative in order to obtain that password.

To change the low-level configuration, the number of phases and the input current of your spa system, slide the right wheel until the electrical configuration icon is highlighted in the middle.

AUDIO MODE

(only available if the system detects a connected Aquasoul Pro audio station)

**Direct to function
selection wheel:
– on/off
– speakers
– source
– bluetooth**

**Mode
selection wheel:
audio mode**

Mute / last track / play/pause / next track
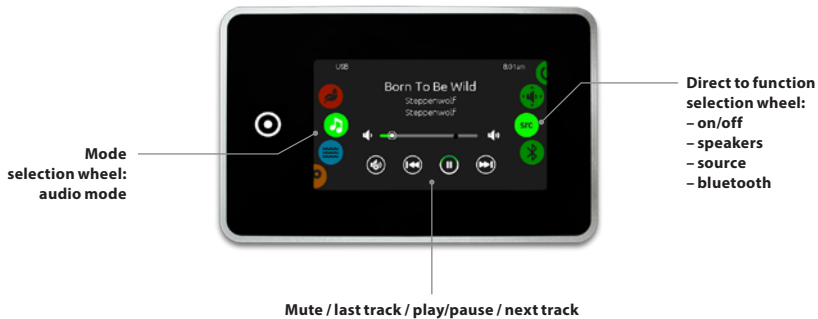
To select the audio mode, slide the left wheel up or down until the audio icon menu is highlighted in the middle.

In the Audio page you can access the following:

• Aquasoul Pro on/off
• speaker calibration
• audio source selector
• bluetooth pairing

To select an item, slide the right wheel until the desired icon is highlighted in the middle.

ON/OFF

TURN AQUASOUL PRO ON

Slide the right wheel until the power on/off icon is highlighted in the middle. Press on the audio icon at the center of the screen to turn Aquasoul Pro on.
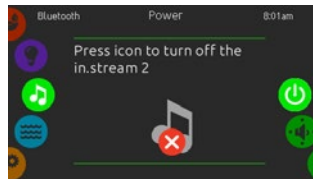
TURN AQUASOUL PRO OFF

Press on the audio icon in the center of the screen to turn Aquasoul Pro off.

MAIN DISPLAY

Press Play / Pause to start or pause playback of audio files.

Drag the volume slider to adjust the volume or tap the mute button to mute or unmute sound.

Press the last track or next track buttons to go to the previous song or skip to the next.

SPEAKER CALIBRATION
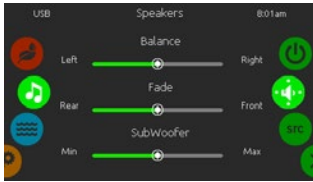
TO CALIBRATE YOUR SPEAKERS

Slide the right wheel until the speaker calibration icon is highlighted in the middle.

You can calibrate:

• balance
• fade
• subwoofer

Use the sliders to calibrate the speakers at the desired level.

The fade and subwoofer sliders will only appear on the screen if the corresponding speakers are installed on Aquasoul Pro.

AUDIO SOURCE SELECTOR
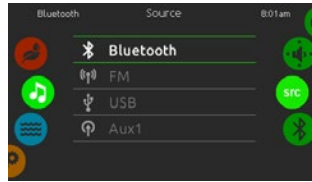
TO SELECT AN AUDIO SOURCE

Slide the right wheel until the source icon is highlighted in the middle.

In the menu list, the following sources are available:

• Bluetooth
• FM
• USB
• Aux. 1

Simply select the desired one to use.

Note that only the sources installed on Aquasoul Pro will be displayed in the source menu.

Please note that the Play/Pause and Change Track functions apply to devices using Bluetooth technology and USB, and will not work when AUX is selected as the source.

Please refer to the Aquasoul Pro connexions section to learn how to connect your Bluetooth device.

BLUETOOTH PAIRING
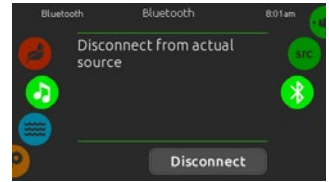
If you are using a device with Bluetooth technology, it must be connected for functions to work.

Slide the right wheel until the bluetooth icon is highlighted in the middle. Then follow the instructions displayed on the screen.

If a device with Bluetooth technology is connected to Aquasoul Pro, you can disconnect it by pressing the Disconnect button at the bottom of the screen.

Doing so will also prevent Aquasoul Pro from automatically reconnecting to this specific device until it has been reconnected using the device itself.

SANITIZATION MODE

(only available if the system detects a connected in.clear water sanitization system)

direct to function
selection wheel:
– on/off
– bromicharge
– boost levle
– maintenance

mode selection
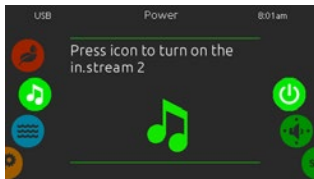wheel:
in.clear icon

statuts and messages

To select the sanitization mode, slide the left wheel up or down until the in.clear icon menu is highlighted in the middle.

In the sanitization page you can access the following:

• in.clear on/off   • boost level
• bromicharge   • maintenance level

To select an item, slide the right wheel until the desired icon is highlighted in the middle.

ON/OFF

TURN IN.CLEAR ON

Slide the right wheel until the power on/off icon is highlighted in the middle. Press on the in.clear icon to turn in.clear on.
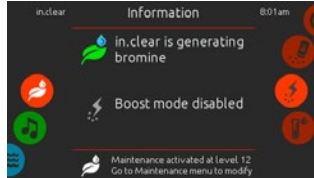
IN.CLEAR ACTIVITY SCREEN

The in.clear activity info screen will appear on the display.

TURN IN.CLEAR OFF

Press on the power on/off icon to turn in.clear off.

BROMICHARGE™ LEVEL

When performing a test, the BromiCharge™ gauge indicates the approximate sodium bromide level of the spa water.

To perform a water test, slide the right wheel until the add BromiCharge™ icon is highlighted in the middle.

There is no need to add sodium bromide if the indicator is in the green zone.

When adding sodium bromide, the gauge indicator will gradually shift to the right. When adding clean water to the spa, the indicator will shift to the left.

In order to achieve the proper level, start pumps and add 227g (.5 lb) of BromiCharge™ at a time and always allow 5 minutes for the gauge to react before adding more sodium bromide.

The green zone in the center area of the gauge should be targeted for optimal performance.
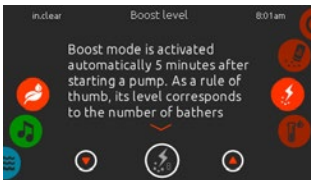
BOOST LEVEL

MODIFY THE BOOST LEVEL

Boost mode is activated automatically 5 minutes after starting a pump. Boost mode increases the bromine generation rate to keep the water clear, clean and soft. As a rule of thumb, its level correspond to the number of bathers.

To modify the boost level, slide the right wheel until the boost icon is highlighted in the middle and use the up or down arrow keys to adjust the level.

Click on the the level icon to confirm your selection.

MAINTENANCE LEVEL
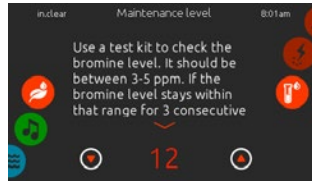
Use a test kit to check the bromine level. It should be between 3-5 ppm. If the bromine level stays within that range for 3 consecutive days, your maintenance level is well adjusted.

MODIFY THE MAINTENANCE LEVEL

To verify or modify the maintenance level, slide the right wheel until the maintenance icon is highlighted in the middle.

The recommended maintenance level is 12.

Use the up or down arrow keys to adjust the level.

Note that the level can be adjusted by increment of 2 using the up and down arrow keys.

Please note that it is not recommended to change the maintenance level at steps greater than 2.

A confirmation will be asked by the system if you do.

If you do, retest the bromine level the day after. If the bromine is not in the 3-5 range and is higher than 5 ppm, decrease the maintenance level. If the bromine is lower than 3 ppm, increase it. Repeat until the test reads a bromine level in the 3-5 range.

COLOR MODE

(only available if the in.mix is detected among the spa accessories)

color wheel

rainbow icon

synchronization/
desynchronization icon

zone 1

zone 2

zone 3

mode selection
wheel:
in.mix icon

off   intensity   on
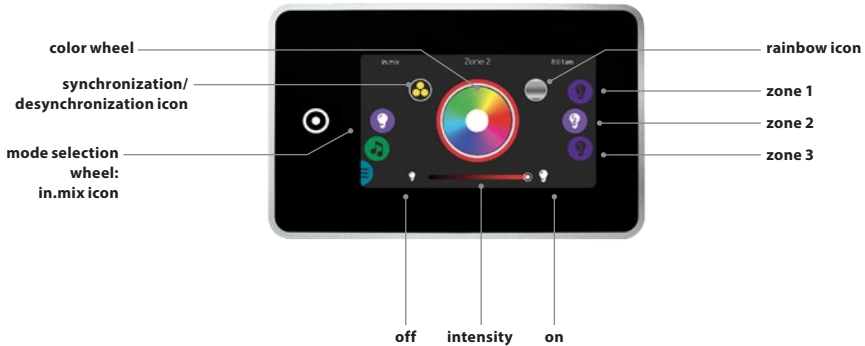
By default, the in.mix selects Zone 2 when you access the menu. To select the color mode, slide the left wheel up or down until the in.mix icon menu is highlighted in the middle.

In the color page you can access the following:

• zone selection   • synchronizing zones
• changing colors   • intensity
• on/off

IN.MIX FUNCTIONS
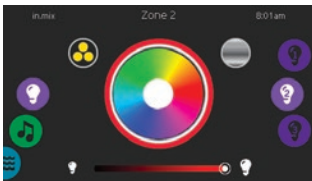
ZONE SELECTION

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.

The rainbow icon alternates between slow transitions, fast transitions and normal color selection.

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 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.

TOO MUCH WATER ON DISPLAY

WIPE SCREEN

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

INSTALLATION ERROR MESSAGES

Upon connecting Smart Touch to your spa system you may see one of two error messages. Please follow the instructions in the message or contact your dealer for more information.
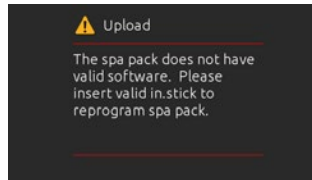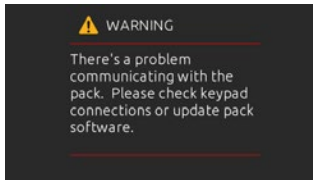
Error messages on the screen list and definitions:

http://geckokeypads.com/k1000errormessages

EASY 4

COMPACT FULL-FUNCTION KEYPAD

The Quick Reference Card provides an overview of your spa's main functions and the operations accessible from your digital keypad. This QRC depicts a generic overlay, custom versions may vary.

Heater
Smart Winter Mode
Filter
Set Point

1 PUMP MODEL

Pump 1
Light
Up
Indicator lights
Down

2 PUMP MODEL

Pump 1
Pump 2
Light
Indicator lights
Up / Down
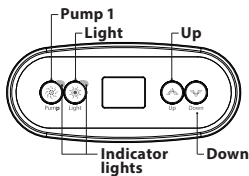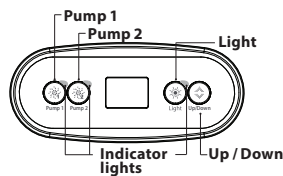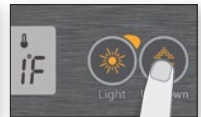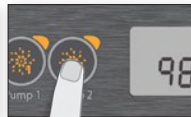
SPA FUNCTIONS

OFF MODE

Pressing Pump 1 for 5 seconds will enable the Off mode. This mode allows you to stop all outputs including automatic functions such as filter cycle, heat request and smart winter mode for 30 minutes to per-form quick spa maintenance. When Off mode is active, the display will toggle between the "OFF" message, the clock and the water temperature.
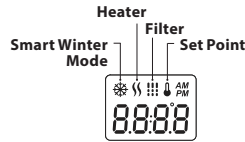
The spa light will flash for a few seconds before the end of the 30 minutes to warn you that the system is about to resume its normal operation. Press Pump 1 or Pump 2 (if available) to restart the system before the expiration of the 30 minute delay. When the system resumes its normal operation, the display shows "On" for 3 seconds.

PUMP 1

Press Pump 1 key to turn Pump 1 on at low speed. Press a second time to turn pump to high speed (with a dual-speed pump*). A third time turns pump off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.

The "Pump 1" indicator lights up when Pump 1 is on. With a dual-speed pump, the indicator will flash when pump 1 is on at low speed.

PUMP 2 KEY

Not available on all models

Press Pump 2 key to turn Pump 2 on at low speed. Press a second time to turn pump to high speed (with a dual-speed pump*). A third time turns pump off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.

The "Pump 2" indicator lights up when Pump 2 is on. With a dual-speed pump, the indicator will flash when pump 2 is on at low speed.

LIGHT KEY

Press Light key to turn light on. A second press turns light off. A built-in timer automatically turns light off after 2 hours, unless it has been manually deactivated first.

The "Light" indicator lights up when light is on.

UP/DOWN KEYS

Use Up or Down key to set desired water temperature. The temperature setting will be displayed for 2 seconds to confirm your new selection.

2 pump spas have a combined Up/Down key. Hold the button to increase the parameter and release the button to stop. Hold the button again to decrease the parameter.

The "Set Point" icon indicates that the display shows the desired temperature, NOT the current water temperature!

If single speed pump: press Pump key to turn pump on. Press Pump key again to turn pump off.

PROGRAMMING STEPS
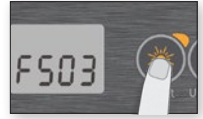
PROGRAM MENU

The program menu is accessible by holding down the Light key for 5 seconds. In the program menu the following parameters can be set: clock, the filter or purge cycles, economy mode and temperature units. While you are in the program menu, use the Up or Down key to adjust the parameters and use the Light key to jump to the next parameter.

The changes will be saved after the confirmation of the last parameter only. If there is no action taken for 10 seconds, the system will exit the program menu without saving any changes.

SETTING THE CLOCK

Enter the program menu by holding down the Light key for 5 seconds. The display will show the current clock setting with the hour flashing.

Depending on factory settings your system may be set to 24-hour time or 12-hour time.

Setting the hour: Use the Up or Down keys to adjust the hours. Press the Light key to jump to the next parameter, the minutes.

Setting the minutes: Use the Up or Down keys to adjust the minutes. Press the Light key to jump to the next parameter, the filter or purge start time (FS).

PROGRAMMING THE FILTER/ PURGE CYCLES

Depending on system configuration your spa will perform either a filter or a purge cycle. The filter cycle menu consists of the following parameters: the start time (FS), the duration (Fd) and the frequency (FF). The purge cycle menu consists of the following parameters: the start time (FS) and the frequency (FF).

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

A purge cycle is used when the spa is equipped with a 24 hour circulation pump which provides a continuous clean step. It consists of starting all the pumps and blower in high speed for 1 minute.

SETTING FILTER OR PURGE CYCLE START TIME

The display will show FSxx, "xx" representing the starting hour of the cycle. Use the Up or Down key to adjust the hours. Use the Light key to jump to the next parameter, filter duration (Fd).

SETTING FILTER CYCLE DURATION

(not available on purge systems)

The display will show Fdxx, "xx" representing the dura-tion in hours of the filter cycle. Use the Up or Down key to adjust the duration. Use the Light key to jump to the next parameter, filter or purge frequency (FF).

0 = no filtration

24 = continuous filtration

It is not recommended to set this to "0".

SETTING FILTER OR PURGE CYCLE FREQUENCY

The display will show FFxx, "xx" representing the number of cycles per day. Use the Up or Down key to adjust the frequency. Use the Light key to jump to the next parameter, economy mode (EP).

The "Filter cycle" indicator lights up when filter is on and flashes when suspended.

SETTING ECONOMY MODE

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, "x" representing the state of the programmed economy (0 = disabled, 1 = enabled). Use the arrow keys to enable or disable economy mode. Use the Light key to jump to the next parameter, economy start time (ES).

SETTING ECONOMY START TIME

The display will show ESxx, "xx" representing the hour at which the economy mode will become active. Use the Up or Down key to adjust the hour. Use the Light key to jump to the next parameter, economy duration (Ed).

When the Economy mode is ON, the display will toggle between the "Eco" message, the time, and the water temperature.

SETTING ECONOMY DURATION

The display will show Edxx, "xx" representing the duration in hour of the economy mode. Use the Up or Down key to adjust the hour. Use the Light key to jump to the next parameter, temperature unit.

24 = continuous economy

Note that the parameters for the economy mode settings are associated to specific low level configuration of the system that are not present in all software revisions.
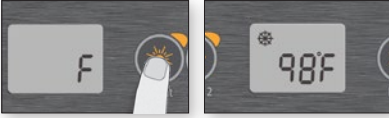
SETTING TEMPERATURE UNIT

Water temperature can be displayed in either Fahrenheit (°F) or Celsius (°C). The display will show F or C.

Use the Up or Down key to change the setting. Use the Light key to save all the parameters.

SMART WINTER MODE

Our Smart Winter Mode protects your system from the cold by turning pumps on several times a day to prevent water from freezing in pipes.

The "SWM" indicator lights up when freezing is detected and flashes when the purge is active.

COOLDOWN

After heating the spa water to the desired Set Point, the heater is turned off, but its associated pump (Pump 1 low-speed or CP) remains on for a predetermined period of time to ensure adequate cooling of the heating element, prolonging its useful life.

WATER TEMPERATURE REGULATION

Every 15 to 90 minutes the pump will run to ensure accurate water temperature readings as well as avoid heater activation in dry conditions. After verifying pump activation and taking a water temperature reading if required, the system automatically turns the heater on to reach and maintain water temperature at Set Point.

Indicator flashes when taking water temperature reading.

TROUBLESHOOTING SECTION

Should an error occur, the display will show one of the following error messages toggled with the clock and the water temperature.

IN.XE ERROR CODES	DESCRIPTION
Hr	**Hr** **An internal hardware error has been detected in the in.xe.** Contact dealer or service supplier.
HL	**HL** **The system has shut the heater down because the temperature at the heater has reached 119°F (48°C).** Do not enter the water! Remove the spa cover and allow the water to cool down, then shut power off and power your spa up again to reset the system.
AOH	**AOH** **Temperature inside the spa skirt is too high, causing the internal temperature in the in.xe to increase above normal limits. Open skirt and wait until error clears.**
FLO	**FLO** **The system does not detect any water flow while the primary pump is running.** Check and open water valves. Check for water level. Clean filter. If the problem persists, call your dealer or service supplier.
Prr	**Prr** **A problem is detected with the temperature probe.** Call your dealer or service supplier.
OH	**OH** **The water temperature in the spa has reached 108°F (42°C).** Do not enter the water! Remove the spa cover and allow the water to cool down to a lower temperature. Call your dealer or service supplier if problem persists.

4 BUTTON PANEL

AUXILIARY KEYPAD FOR YOUR SPA

The 4 button panel is an auxiliary keypad designed to be installed as a second keypad on your spa.

It allows you to run the accessories while staying comfortably seated in your spa.

Its surface mount allows for an easy installation in different locations around your spa.

**Pump 1
key**

**Pump 3
key**

**Pump 2
key**

**Light
key**
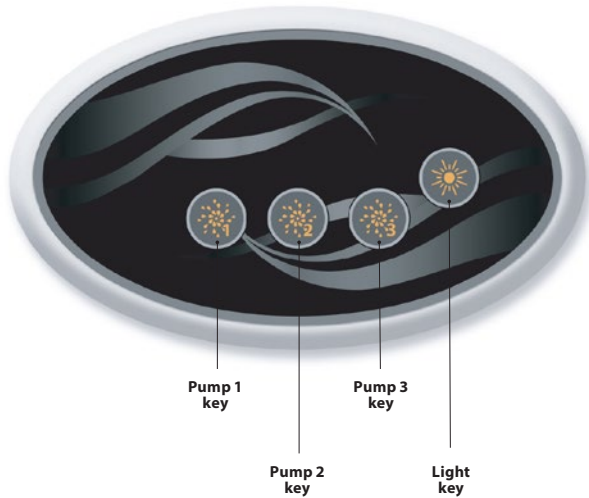
ONE SINGLE BUTTON PANEL

AUXILIARY KEYPAD FOR YOUR SPA

This one single button panel is also an auxiliary keypad designed to be installed as a second keypad on your spa.

It allows you to activate the spa pump associated to its respective section.

The panel surface allows for an easy installation in any location around your spa.

**On/Off
key**

AQUASOUL PRO

AUDIO STATION FOR SPAS

Aquasoul Pro audio system offers you the perfect means to bring music into your spa. Aquasoul Pro is simple to install and compatible with numerous audio sources. For example, you may connect Aquasoul Pro to an iPod using the auxiliary audio input or play music wirelessly using a Bluetooth mobile device. Listen to music in MP3 format saved on a USB flash disk or tune in to an FM station of your choice using the Aquasoul Pro integrated FM receiver. Depending on the configuration used, Aquasoul Pro can handle up to 4 speakers and one subwoofer.

The audio station can be used to charge most mobile devices on the market with its onboard USB charger controller.

Powered with its own internal universal power supply, Aquasoul Pro can be used in any place in the world. All the electronics circuits are contained in a innovatively designed and splashproof plastic enclosure.

Aquasoul Pro is equipped with state of the art class D audio amplifiers. This type of amplifier is very power efficient and dissipates much less heat than any comparable audio system for use in spa.

Depending on the selected configuration, Aquasoul Pro conveniently lets you control music from the main keypad or may be used as a stand-alone.

Main characteristics

• Fully splashproof (IPx5)
• Integrated universal power supply
• 1 auxiliary input
• Compatible USB port
• Integrated FM receiver with external antenna
• Bluetooth receiver
• Mobile device USB charger controller
• Up to 4 speakers and one subwoofer

OVERVIEW

25

Depending on the chosen configuration, Aquasoul Pro can support up to 4 speakers, 1 subwoofer, an auxiliary input, a USB connection with 1A charging capability, FM radio receiver and Bluetooth streaming.

The in.p4 waterproof enclosure, which provides protection to your iPod or smart phone, is available as an option.

With a compatible keypad, you will have full control over the Aquasoul Pro features from inside of your spa.

Bluetooth

AC input

Communication link

USB

AUX input

in.p4

Subwoofer   Right   Left   Right   Left

└─ Rear ─┘   └─ Front ─┘
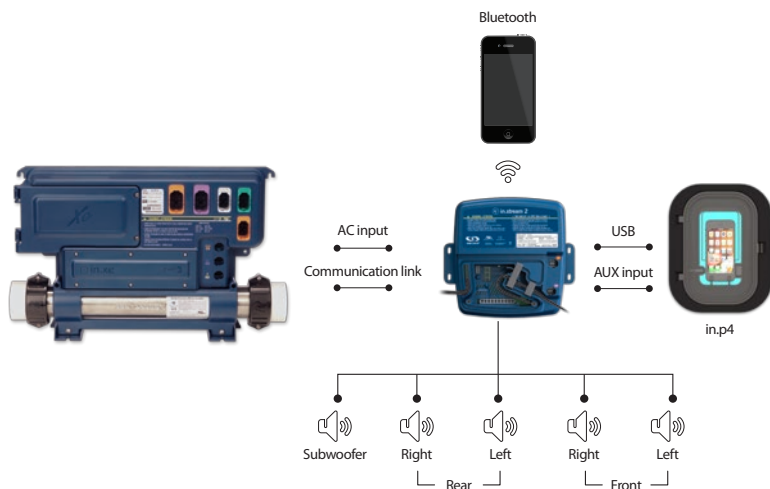
CONNECTIONS

PREPARATION

⚠ **TO PREVENT ELECTRIC SHOCK HAZARD, DO NOT CONNECT TO MAIN POWER SUPPLY WHILE THE COVER IS REMOVED.**

Remove the cover screws from the front of the apparatuswith a Phillips screw driver.

Remove cover and put aside the foam gaskets located in the wire channel.

CONNECTIONS

CONNECTING THE SPEAKERS AND SUBWOOFER

Class 2 Wiring

10 9 8 7 6 5 4 3 2 1

Connector pins	Identification
1	Front Left speaker (+)
2	Front Left speaker (-)
3	Front Right speaker (-)
4	Front Right speaker (+)
5	Rear Left speaker (+)
6	Rear Left speaker (-)
7	Rear Right speaker (-)
8	Rear Right speaker (+)
9	Subwoofer (+)
10	Subwoofer (-)

The speakers and the subwoofer output terminals are located on the 10-pin MATE-N-LOK connector marked "SUB R-R R-L F-R F-L"

⚠ **CAUTION: AQUASOUL PRO DOES NOT COME WITH SPEAKERS AND ASSOCIATED WIRING. THE INTERCONNECTION BETWEEN THE AUDIO SYSTEM AND THE SPEAKERS MUST BE "CLASS 2 WIRING" AND BE DONE BY QUALIFIED PERSONNEL.**

To connect your own speaker cable or to connect the optional adaptor, insert the 10-pin connector into the appropriate connector. Route the wires through the molded strain relief channel as illustrated.

CONNECTIONS

PAIRING WITH A BLUETOOTH ENABLED DEVICE

Aquasoul Pro can play music from any device equipped with Bluetooth wireless technologies, however, you must pair your mobile device to the audio receiver in order to do so.

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

FOLLOW THESE STEPS TO PAIR YOUR DEVICE

1. Open the Bluetooth settings on your device. The location of the settings will depend on the device you are using.

2. Make sure Bluetooth is on.

3. Select "in.stream 2" in the list of discoverable Bluetooth devices detected nearby.

4. When prompted, enter 5555 as the PIN Code.

NOTE: In basic configuration (not connected to a keypad or controller), Aquasoul Pro is set in Bluetooth mode. Otherwise, please refer to your specific keypad operating manual for details on the Aquasoul Pro functions.

5. Once the pairing is done, select in.stream 2. When "connected" is displayed, Aquasoul Pro will be ready to start playing the selected audio.

Note: If the device moves out of range and loses connection, it should reconnect automatically as soon as it is close enough. This should happen without having to go through the menu again.

Aquasoul Pro will keep up to 8 devices in its memory. If one of the last three connected devices is in range and has its Bluetooth turned on, it will automatically connect to Aquasoul Pro.

If multiple devices are within range and have already been paired with Aquasoul Pro, priority will be given to the device that was first detected in the Aquasoul Pro memory.

AQUATIC/ MY MUSIC

NO EXTERNAL CONTROL UNIT

1. Listening to music via Bluetooth

1.1 Pairing Bluetooth devices

1. Turn on the Bluetooth device
2. Select AQUATIC AV from the available devices and pair it (no password needed). Only one Bluetooth device can be paired with the BlueCube Media Player at a time.

1.2 Listening to music via Bluetooth device

1. The Bluetooth mode is activated as soon as it is paired with a Bluetooth device.
2. Play music on the device and the BlueCube Media Player will provide the sounds.
3. Press the PLAY/PAUSE buttons to play or pause the music.
4. Press the FAST REWIND/FORWARD buttons to play the previous/next track.
5. The songs/tracks and volume can be set directly on your Bluetooth device or with a remote control.

1.3 Listen to music with external input device

1. Connect your MP3 player to the RCA connector.
2. Press the MODE button on the remote control and select AUX IN. Only one external input device can be connected at a time.

IN.CLEAR

Bromine based water sanitization system for spa

On/Off — — Maintenance

START UP PROCEDURE

(Instruction video: www.geckoal.com/inclear)

1. Fill the spa with water.

2. Begin heating the water to your desired temperature.

3. Balance your water parameters (see info in your user guide regarding water chemistry for spa: total hardness, alkalinity, pH).

4. Start main pump and add BromiCharge™ slowly into the warm water, 0.54 kg for every 378 liters (1.2 lbs per every 100 gallons) of water.

5. Turn on the in.clear system by pressing and holding the on/off button ⚡ for 2 seconds, until your display lights up. Refer to your user manual for information on achieving the proper BromiCharge™ quantity.

6. Now you're ready to calibrate your in.clear settings. There are 2 settings, Maintenance and Boost.

7. Maintenance: Your Maintenance value was set at the factory. It should read "5" to start. Using your spa while you're establishing the residual will slow the process. Be patient.

Check your bromine level each day with a test kit. Your goal is a residual bromine bank of 3 – 5 ppm. If the bromine content of your water is less than 3 ppm, press and hold the Maintenance key ⚡ for 2 seconds and increase the Maintenance setting by 1 or 2 increments with the up arrow ⌃. Repeat daily until your bromine level stabilizes at 3 – 5 ppm.

IMPORTANT FOR THE STAND ALONE VERSION: Make sure your spa is filtering the water at least 8 hours per day. The in.clear only creates bromine when the filter pump is running.

8. Boost: Every time you use the spa, press Boost ⚡. Boost runs a clean-up cycle that returns your residual bromine to the proper level. You should run Boost every time you use the spa. Press Boost key ⚡. Set the Boost level by using the up and down arrow ⌃⌄ to select the number of bathers that use the spa (i.e., 2 users = 2, and so on). With the proper Maintenance level setting, and consistent use of the Boost mode, your spa will be ideally maintained.

Refer to our web site www.geckoalliance.com/inclear for detailed information about the operation of the in.clear.

INTRODUCTION

HOW THE IN.CLEAR WORKS

When sodium bromide (such as BromiCharge) is added to the water, it separates into sodium ions and bromide ions. As the water passes through the in.clear bromine generator, a low-voltage source supplies a current that electrolytically reduces the bromine ions into bromine. The bromine destroys bacteria and algae, and then releases bromide ions back into the water for continuous recycling until the spa is emptied. It is important to note that the amount of bromine needed will vary in direct proportion to the number of bathers in the spa (bather load).

VERSIONS

There are two versions of the in.clear module: a stand alone version that uses the in.k200 keypad directly, and the linked version, which communicates with the spa pack for more control and precision.

EFFECTS OF BROMINE

- Bromine destroys waterborne bacteria.
- Bromine destroys algae in water (e.g. Black, Green, Mustard).
- Bromine swiftly eliminates the presence of organic matter left behind by spa users (e.g. oil, sweat, dead skin cells).
- Because bromine doesn't contain calcium, it can be used to sanitize hard water without increasing the calcium hardness.

BROMINE IN A SPA

Bacteria require a certain period of time before forming into micro colonies and becoming attached to a surface. Rapid elimination of bacteria is a key element in the proper maintenance of the spa water. The in.clear achieves this while oxidizing odors, reducing eye and skin irritation. The in.clear enhances the clarity and quality of spa water. For bathers this translates into a more enjoyable warm water therapy experience.

BEFORE STARTING

(see video: www.geckoal.com/inclear)

1. DRAIN AND CLEAN THE SPA

It's important to completely drain and clean the spa to remove all residues accumulated on the surface and inside or around the jet area. After draining the spa, use spa cleaning products only. Household cleaners contain additives such as phosphates which may affect the bromine production. When the spa is clean, rinse it off thoroughly with a garden hose.

⚠ It's extremely important to clean your filter cartridge with a filter soaking solution or replace your filter artridges.

⚠ It is important that the spa is well cleaned and rinsed prior to the startup of the new system. Some biofilms may have formed in the spa that could prevent the system from functioning properly. We strongly recommend the use of a flushing product such as Spa System Flush, Swirl Away or National Chemistry Spa Purge to clean the plumbing even if the spa is brand new.

2. REFILL THE SPA WITH FRESH WATER

After the in.clear unit has been installed, check the TDS (Total Dissolved Solids) of the water you'll use to refillthe spa. Verifying the TDS range can be done by your local spa dealer. The TDS range should be within 50 and 400 PPM. When you're certain the water is within the proper TDS range, refill your spa.

⚠ If your TDS is higher than 500 PPM, ask your spa dealer for additional information to help reduce initial TDS.

⚠ DO NOT use water from a "Salt Water Softener" system.

Make sure there is adequate flow and that no airlocks are trapped in the unit's plumbing. If airlocks are formed, start the pump and slowly loosen one of the union nuts to release the air trapped in the plumbing Tighten the nut again after you are done.

3. ADJUST WATER CHEMISTRY IN THE SPA

Proper chemical maintenance of a spa is essential for the health of bathers. Maintaining the quality of the spa water within these specified values will enhance your enjoyment of the spa and prolong the life of the in.clear system.

For best results, adjust to the following water chemistry parameters. Check these parameters periodically.

⚠ Calcium hardness (TH): between 150 and 200 PPM Total Alkalinity: between 100 and 120 PPM pH: between 7.2 and 7.8

⚠ Water chemistry should be balanced before adding sodium bromide into the water. It's essential that the water chemistry parameters are within the proposed range to obtain optimal system performance.

⚠ High Calcium Hardness may lead to faster calcification of the electrolytic plates.

4. ADD SODIUM BROMIDE (SUCH AS BROMICHARGE)

Water temperature between 32° and 38° C (90° and 100° F) helps dissolve sodium bromide and facilitates the adjustment of the maintenance level.

Start the pump to allow water to circulate and slowly add sodium bromide uniformly in the spa by simply pouring it from the container.

METRIC CALCULATION:

Add 0.143 kg of sodium bromide which has a guarantee of at least a 98% active ingredient, such as BromiCharge, per 100 L of water to attain 1 400 ppm TDS value (Total Dissolved Solids).

Example, if your spa holds 1200 L of water, add 1.72 kg of sodium bromide (12 X 0.143 kg).

IMPERIAL CALCULATION:

Add sodium bromide which has a guarantee of at least a 98% active ingredient, such as BromiCharge per 100 US gallons of water.

Example, if your spa holds 300 US gallons of water, add 3.6 lbs of sodium bromide (3 X 1.2 lb).

Note: Your spa manufacturer can tell you how much water your spa holds (in liters or gallons).

SODIUM BROMIDE INFORMATION

In Canada, the in.clear must only be used with sodium bromide (such as BromiCharge) scheduled or registered under the Pest Control Product Act. In the USA, the sodium bromide (such as BromiCharge) must be registered under the EPA.

Your warranty will be void if a product other than sodium bromide is used as a substitute.

⚠ Do not inhale the product or get into your eyes! First Aid instructions should appear on the label of the registered sodium bromide container.

⚠ Do not use any other sanitation chemicals (including shock) other than sodium bromide in the spa.

⚠ When adding fresh water to the spa, start a Boost to help build a residual bromine bank.

IN.CLEAR OPERATING MODES

This manual details the functions of the in.clear with the default keypad (in.k200). If your spa pack uses a compatible keypad (ex. in.k800) please see its manual for more specific information.

MAINTENANCE MODE

Maintenance Mode keeps the bromine bank levels at a stable and acceptable range when the spa is not being used. Maintenance mode is the "everyday" mode and is automatically ON when the system is activated. Maintenance level adjustment changes the rate at which bromine will be released into the spa water.

Finding and setting the right maintenance level will keep the residual bromine level between 3 and 5 PPM (the recommended range)when the spa is not being used or is left unused for an extended period of time. Once the proper maintenance level is determined, keep the same setting unless the spa conditions change (change in water temperature, spa location etc).

Finding the right bromine generation level is a crucial step for the in.clear system to be stable and effective (see Set Maintenance Mode).

⚠️ With the stand alone version, the spa filtration should be set to a minimum of 8 hours per day. To check the minimum filtration time for your spa, see the Program Key section.

⚠️ With the linked version, it is not necessary to set the filtration duration, as communication between the pack and in.clear allows the system to stop and start the associated pump at the best times.

It is important to note that the in.clear system can ONLY generate bromine when the water is circulating. If you are having problems maintaining a stable level of bromine, or determining the proper maintenance level for your spa, you may have to increase the daily filtering time. Longer filtration produces a more steady level of bromine.

BOOST MODE

The Boost Mode should be activated every time you use your spa. Boost mode increases the bromine generation rate to attack pollutants in the water and helps rebuild the necessary residual bromine in the water after each use of the spa. Pollutants are introduced to the water by the bathers, causing the bromine levels to decrease. Activating the boost mode when you enter the spa will prevent inadequate bromine levels and will restore your bromine to the proper residual level.

Finding the right boost level is another crucial step for the in.clear system to be stable and effective.

⚠️ If water quality is not good after use, only the boost level should be adjusted, not the maintenance level.

KEYPAD FUNCTIONS

BromiCharge gauge

Bromine Generation Indicator

lo

hi

On/Off & Boost key

Maintenance Diagnostic key

Up key

Down key
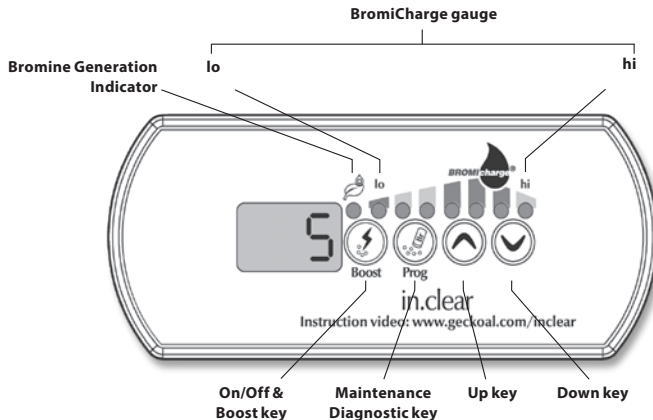
KEYPAD FUNCTIONS

BOOST KEY

The first press of the Boost key turns the in.clear ON and puts the in.clear into maintenance mode. ON appears on the keypad display.

Press the Boost key once while in maintenance mode to start a boost, or to adjust boost settings.*

The Bromine Generation Indicator (LED), located above the Boost key, lights up when the cell is producing bromine and is off when no bromine is being produced.

Press and hold the Boost key for 2 seconds to turn the in.clear off. OFF will appear on the keypad display. Do not turn the in.clear off unless required for maintenance, or if advised by a technician or a Gecko representative. Turning the in.clear off will cancel the boost.

Note: With the standalone version the Bromine Generation indicator will blink if the in.clear system cannot generate bromine due to low or no water flow.

* In older versions, pressing the Boost key during a boost cycle will cancel the remainder of that boost cycle and return the in.clear system to maintenance mode.

PROGRAM KEY

Press and hold the Program key for 2 seconds to change the maintenance mode level.

Once in maintenance mode adjustment, press the Program key again to view the suggested minimum filtration time * (stand alone version only). Press the Program key once more for Diagnostic mode.

* Not displayed in older versions.

+/- KEYS

Use the Up and Down keys to adjust the maintenance and boost levels while in the appropriate mode.

DIAGNOSTIC MODE

Diagnostic mode can be used to periodically adjust the sodium bromide level or to check sodium bromide keypad warnings and errors.

The BromiCharge Gauge will indicate the level of sodium bromide in the spa water. As you add sodium bromide to the spa an animation will indicate rising levels*. If the levels go down (when adding fresh water, for example) the animation will indicate diminishing levels.

Press the Prog key to exit diagnostic mode or the system will automatically exit after 15 minutes.

*In older versions a number will be displayed instead of an animation to indicate the level. The target number is 12.

BROMICHARGE GAUGE (LEDS)

In diagnostic mode, the BromiCharge gauge (LEDs) indicates the approximate sodium bromide level of your spa water. Do not add sodium bromide if the indicator is in the green zone.

When adding sodium bromide, the gauge indicator will gradually shift to the right. When adding clean water to the spa the indicator will shift to the left. In order to achieve the proper level, start pumps and add 227g (.5 lb) at a time and always allow
5 minutes for the gauge to react before adding more sodium bromide.

The green zone in the center area of the gauge should be targeted for optimal performance.

⚠ Water must be circulating through the in.clear cell in order for the diagnostic mode to work. If no water is circulating through the in.clear unit, a FLO message will appear on the keypad display. Make sure the pump is circulating water through the in.clear.

⚠ Be aware that the gauge will move according to sodium bromide level.

⚠ Make sure your water temperature is at least 32° C (90° F).

BromiCharge gauge

decrease

increase

Boost   Prog

Instruction video

34
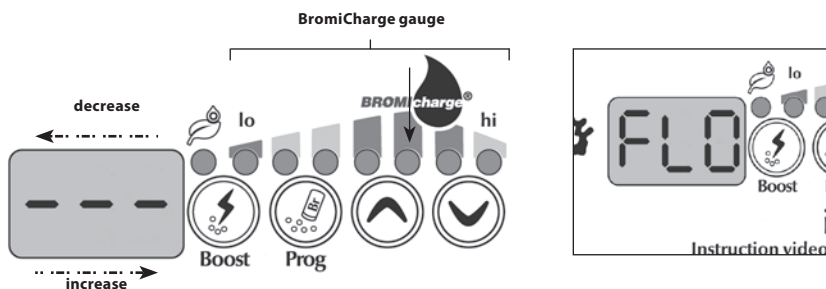
START UP PROCEDURE

Set the maintenance level

Determining the proper maintenance level for your spa is an extremely important step. DO NOT use your spa during this step as it will slow the process. Be patient. Make sure you follow steps 1 through 4 of the Before Starting section before performing the following steps.

1. Power up your spa and activate the system by pressing the Boost key.

2. Make sure your maintenance level is set to 15. To adjust the level, press and hold the Program key for 2 seconds, then use the Up and Down keys to adjust the maintenance level. The bromine generation rate ranges from 1 to 50, where 1 corresponds to the system's minimum generating rate and 50 corresponds to the maximum generation rate allowed by the system.

   OPTIONAL: Set the boost to level 2 to help build up the bromine bank faster and speed up the startup process.

3. Use a test kit to check the bromine level every 12-24 hours*. The bromine level should be between 3-5 PPM. If the bromine level is within that range for 3 consecutive days, you are ready to use your spa. If the bromine level is above 5 PPM, decrease the maintenance level. If the bromine level is below 3 PPM, increase the maintenance level.

4. Repeat step 3 until bromine is stable between 3 and 5 PPM for 3 consecutive days.

⚠ Do NOT increase/decrease maintenance level in steps greater than 2.

⚠ Setting the maintenance level to a value that's too high can cause damage to your equipment.

⚠ Check bromine level and always test water before entering the spa.

⚠ If the bromine level is higher than 5 PPM, lower the maintenance level and turn off the system until the bromine level is back below 5 PPM Then, restart the system and continue monitoring the bromine level.

To lower the bromine level, expose your spa water to the sun and activate all pumps for a few cycles.

* Testing bromine levels with FAS-DPD drop count method is more accurate than using test strips. Bromine FAS-DPD is available at www.geckodepot.com under number 0699-300008.

DETERMINE THE BOOST LEVEL

Every time you use your spa, activate the boost mode. As a rule of thumb, the boost level corresponds to the number of bathers using the spa. For example, activate the boost level to 2 if two bathers are entering the spa.

1. With the system in maintenance mode, press the Boost key to activate the Boost mode.

2. The keypad display will show a numeric value that corresponds to the selected level. There are 8 possible levels available with the boost mode. Set the boost level by using the up and down arrow to select the number of bathers that use the spa.

3. Confirm the selection by pressing the Boost key again or wait 5 seconds for the system to save the desired level and activate the Boost cycle.

Note: The in.clear keeps the last used boost level in memory.

4. At the end of the boost period, verify that the bromine level has returned to the 3-5 PPM range. If the bromine level is too low or too high after the Boost period, the boost level should be adjusted the next time the spa is used. For example, if bromine level is higher than 5 PPM after a boost of 2, lower the boost level to 1 the next time. Repeat these steps until you are able to determine the ideal boost level for your usage.

Note: Boost levels depend on the number of bathers using the spa. We recommend you validate the Boost level after each use to determine the ideal boost level for all numbers of bathers.

⚠ Changing the water temperature setpoint of your spa, or using the economy mode, could require a change in the maintenance level of your in.clear. Lower water temperatures may require a lower maintenance level than higher temperature setpoints. Please check your bromine level when changing your temperature setpoint or using the economy mode of your spa.

⚠ Never adjust the maintenance level of your in.clear without allowing at least 24 hours following the end of the boost period. Boost cycles allow the residual bromine level to stabilize. Bromine levels outside the 3-5 PPM range may result from pollutants following usage.

Linked version only: If the pack connected to the in.clear detects spa use (pumps, blower, or lights active) for 5 minutes without a boost, it will automatically start a boost at the last used level. This is a security feature only, and should not be used to replace the boost setting. Incorrect boost settings for the bather load could damage spa parts and/or be hazardous to bathers.

TROUBLESHOOTING

LOW SODIUM BROMIDE ERROR

Low Sodium Bromide Error (Err) occurs when the sodium bromide level is too low. The lo LED indicator will blink when the error is present. The in.clear system will not generate bromine until the Low Sodium Bromide Error (Err) is cleared.

To clear the Low Sodium Bromide error (Err), add sodium bromide to the spa water. Let water circulate for 5 minutes. Activate diagnostic mode and add more sodium bromide until gauge is back in the green zone. Exit diagnostic mode.
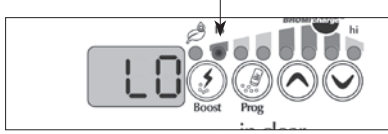
LOW SODIUM BRO-MIDE WARNING

Low Sodium Bromide Warning (Lo) indicates the need to add sodium bromide to the spa water.

In diagnostic mode, add sodium bromide to the water until the gauge reaches the green zone to clear a Low Sodium Bromide Warning (Lo).

⚠️ If after adding sodium bromide the Low Sodium Bromide Warning (Lo) or Low Sodium Bromide Error (Err) still occurs it could be the result of:

- calcification of the electrolytic plates;

- airlocks trapped in the in.clear unit or insufficient flow;
- internal pressure switch problem.

BLINKING "AC"

A blinking "AC" message displayed on the keypad indicates that there is a problem with the power input. The most common reason is that the in.clear unit is supplied with 120 V instead of 240 V.

Please make sure power cord is connected properly to a 240 V source.

STANDALONE VERSION ONLY: BROMINE GENER-ATION INDICATOR BLINKING

A blinking Bromine Generation LED means that the system is unable to generate bromine because no water flow is detected by the in.clear system. This situation is normal if the pump is not running and no water is flowing through the in.clear. However, if water is circulating through the in.clear unit, and the Bromine Generation LED is still blinking, make sure that the in.clear is installed on the pressure side of the pump and that water is properly flowing through the in.clear unit.

BROMINE GENER-ATION INDICATOR IS OFF

The Bromine Generation LED indicator is OFF when there is no need for bromine generation. This situation is normal, especially with low maintenance level of bromine generation set on the keypad.

HIGH SODIUM BROMIDE WARNING

High Sodium Bromide Warning (Hi) occurs when too much sodium bromide is present in the water or there is a high TDS level (water hardness, alkalinity, organic compounds, etc).

To clear a High Sodium Bromide Warning, readjust the sodium bromide content of your water in diagnostic mode, into the green zone by draining some water from your spa and adding fresh water.

IN.CLEAR IS TURNED OFF

The OFF message indicates that the in.clear is turned off.

Press the Boost key to reactivate the in.clear.

FLO ERROR (OUT OF DIAGNOSTIC MODE)

With the linked version the FLO error appears when the in.clear's pressostat is open for longer than 3 minutes and the pump associated with it was activated by the spa pack.

Verify that the in.clear unit was installed on the right pump (must be installed on the circulation pump if present).

Check that the in.clear is installed on the pressure side of the pump and that water is flowing through the in.clear unit.

COMMUNICATION ERROR

The Co error indicates that a linked version of the in.clear is being used, but a pack cannot be detected. Ensure that you are using a compatible pack with appropriate software, and that all connections are secure. If this does not clear the message, contact your dealer for help.

TROUBLESHOOTING

LOW OR NO BROMINE READING

Make sure the maintenance level is properly set according to the procedure described in the section Set Maintenance Level. Make sure there is no error or warning message on the display, the cell is activated and that water is circulating properly through the cell.

Make sure water chemistry is balanced. Refer to the section Adjust Water Chemistry in the Spa for more details.

Test your spa water for phosphate to make sure there is no contamination. Phosphates should never exceed 100 PPB. Phosphates can be introduced to your spa water by household cleaners, soaps and lotions.

Change your filter or clean it with a filter cleaner and rinse thouroughly with cold water.

Make sure the in.clear cell is not damaged and that no calcium or lime deposits appear on the cell plates. Clean your cell regularly (at least once a year).

LONG RECOVERY TIME AFTER USAGE

Activate Boost Mode at the appropriate level every time you use your spa. Refer to the section Determine the Boost Level.

Heavy bather loads will require longer boost periods. If bromine level is below 3 PPM following a boost period, re-activate Boost Mode to bring the bromine bank within 3-5 PPM.

The bromine bank should always be regenerated following a boost period. If a high boost level does not regenerate the bromine bank properly, increase the daily filtration time.

If bromine production is still inadequate after following all of the instructions above, biofilm deposits could be causing the lack of bromine generation. Flushing products such as Sea Klear Spa System Flush, Swirl Away or National Chemistry Spa Purge have shown to be effective for biofilm removal.

IN.CLEAR OPERATING MODES

IF YOU ARE A USING A SMART TOUCH, PLEASE REFER TO THE USER INTERFACE SECTION TO GET THE IN-STRUCTIONS ABOUT THE SANITIZATION MODE.

mode selection wheel: in.clear icon

direct to function selection wheel:
– on/off
– bromicharge
– boost level
– maintenance

statuts and messages

MAINTENANCE MODE

Maintenance Mode keeps the bromine bank levels at a stable and acceptable range when the spa is not being used. Maintenance mode is the "everyday" mode and is automatically ON when the system is activated. Maintenance level adjustment changes the rate at which bromine will be released into the spa water.

Finding and setting the right maintenance level will keep the residual bromine level between 3 and 5 PPM (the recommended range) when the spa is not being used or is left unused for an extended period of time. Once the proper maintenance level is determined, keep the same setting unless the spa conditions change (change in water temperature, spa location, etc).

Finding the right bromine generation level is a crucial step for the in.clear system to be stable and effective (see Set Maintenance Mode).

It is important to note that the in.clear system can ONLY generate bromine when the water is circulating. If you are having problems maintaining a stable level of bromine, or determining the proper maintenance level for your spa, you may have to increase the daily filtering time. Longer filtration produces a more steady level of bromine.

BOOST MODE

The Boost Mode should be activated every time you use your spa. Boost mode increases the bromine generation rate to attack pollutants in the water and helps rebuild the necessary residual bromine in the water after each use of the spa. Pollutants are introduced to the water by the bathers, causing the bromine levels to decrease. Activating the boost mode when you enter the spa will prevent inadequate bromine levels and will restore your bromine to the proper residual level.

Finding the right boost level is another crucial step for the in.clear system to be stable and effective.
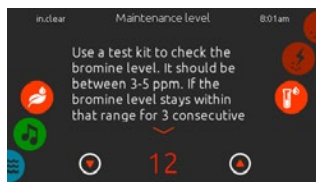
⚠ If water quality is not good after use, only the boost level should be adjusted, not the maintenance level.

START UP PROCEDURE

IF YOU ARE A USING A SMART TOUCH, PLEASE REFER TO THE USER INTERFACE SECTION TO GET THE IN-STRUCTIONS ABOUT THE SANITIZATION MODE.
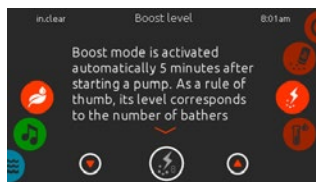

SET THE MAINTENANCE LEVEL

Determining the proper maintenance level for your spa is an extremely important step. DO NOT use your spa during this step as it will slow the process. Be patient. Make sure you follow steps 1 through 4 of the Before Starting section before performing the following steps.

1. Power up your spa and activate the system by pressing the Boost key.
2. Make sure your maintenance level is set to 15. To adjust the level, press and hold the Program key for 2 seconds, then use the Up and Down keys to adjust the maintenance level. The bromine generation rate ranges from 1 to 50, where 1 corresponds to the system's minimum generating rate and 50 corresponds to the maximum generation rate allowed by the system.
   OPTIONAL: Set the boost to level 2 to help build up the bromine bank faster and speed up the startup process.
3. Use a test kit to check the bromine level every 12-24 hours*. The bromine level should be between 3-5 PPM. If the bromine level is within that range for 3 consecutive days, you are ready to use your spa. If the bromine level is above 5 PPM, decrease the maintenance level. If the bromine level is below 3 PPM, increase the maintenance level.
4. Repeat step 3 until bromine is stable between 3 and 5 PPM for 3 consecutive days.

⚠ Do NOT increase/decrease maintenance level in steps greater than 2.

⚠ Setting the maintenance level to a value that's too high can cause damage to your equipment.

⚠ Check bromine level and always test water before entering the spa.

⚠ If the bromine level is higher than 5 PPM, lower the maintenance level and turn off the system until the bromine level is back below 5 PPM Then, restart the system and continue monitoring the bromine level.

To lower the bromine level, expose your spa water to the sun and activate all pumps for a few cycles.

*Testing bromine levels with FAS-DPD drop count method is more accurate than using test strips. Bromine FAS-DPD is available at www.geckodepot.com under number 0699-300008.

DETERMINE THE BOOST LEVEL

Every time you use your spa, activate the boost mode. As a rule of thumb, the boost level corresponds to the number of bathers using the spa. For example, activate the boost level to 2 if two bathers are entering the spa.

1. With the system in maintenance mode, press the Boost key to activate the Boost mode.
2. The keypad display will show a numeric value that corresponds to the selected level. There are 8 possible levels available with the boost mode. Set the boost level by using the up and down arrow to select the number of bathers that use the spa.
3. Confirm the selection by pressing the Boost key again or wait 5 seconds for the system to save the desired level and activate the Boost cycle.
   Note: The in.clear keeps the last used boost level in memory.
4. At the end of the boost period, verify that the bromine level has returned to the 3-5 PPM range. If the bromine level is too low or too high after the Boost period, the boost level should be adjusted the next time the spa is used. For example, if bromine level is higher than 5 PPM after a boost of 2, lower the boost level to 1 the next time. Repeat these steps until you are able to determine the ideal boost level for your usage.
   Note: Boost levels depend on the number of bathers using the spa. We recommend you validate the Boost level after each use to determine the ideal boost level for all numbers of bathers.

⚠ Changing the water temperature setpoint of your spa, or using the economy mode, could require a change in the maintenance level of your in.clear. Lower water temperatures may require a lower maintenance level than higher temperature setpoints. Please check your bromine level when changing your temperature setpoint or using the economy mode of your spa.

⚠ Never adjust the maintenance level of your in.clear without allowing at least 24 hours following the end of the boost period. Boost cycles allow the residual bromine level to stabilize. Bromine levels outside the 3-5 PPM range may result from pollutants following usage.

Linked version only: If the pack connected to the in.clear detects spa use (pumps, blower, or lights active) for 5 minutes without a boost, it will automatically start a boost at the last used level. This is a security feature only, and should not be used to replace the boost setting. Incorrect boost settings for the bather load could damage spa parts and/or be hazardous to bathers.

TROUBLESHOOTING

ERROR MESSAGES WILL APPEAR ONLY WHEN IN SANITIZATION MODE.
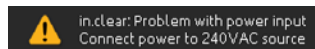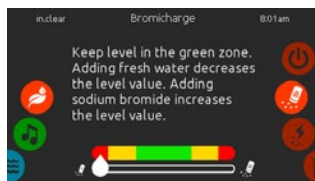
BROMICHARGE LEVEL TOO LOW

Low Sodium Bromide Error occurs when the sodium bromide level is too low. The in.clear system will not generate bromine until the Low Sodium Bromide Error is cleared.

To clear the Low Sodium Bromide error, add sodium bromide to the spa water. Let water circulate for 5 minutes. Activate diagnostic mode and add more sodium bromide until gauge is back in the green zone. Exit diagnostic mode.

LOW SODIUM BROMIDE WARNING

Low Sodium Bromide Warning indicates the need to add sodium bromide to the spa water.

In diagnostic mode, add sodium bromide to the water until the gauge reaches the green zone to clear a Low Sodium Bromide Warning.

⚠ If after adding sodium bromide the Low Sodium Bromide Warning or Low Sodium Bromide Error still occurs it could be the result of:

- calcification of the electrolytic plates;
- airlocks trapped in the in.clear unit or insufficient flow;
- internal pressure switch problem.

INPUT AC

A input AC message displayed on the keypad indicates that there is a problem with the power input. The most common reason is that the in.clear unit is supplied with 120 V instead of 240 V.

Please make sure power cord is connected properly to a 240 V source.
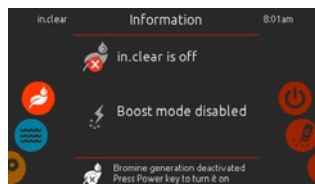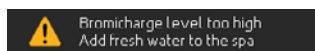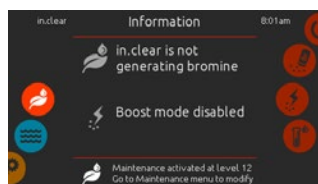
IN.CLEAR IS NOT GENERATING BROMINE

Smart Touch will display this message when your spa system has stopped generating sodium bromine. This is normal, especially with low maintenance level of BromiCharge™ set on your keypad.

HIGH SODIUM BROMIDE WARNING

High Sodium Bromide Warning occurs when too much sodium bromide is present in the water or there is a high TDS level (water hardness, alkalinity, organic compounds, etc).

To clear a High Sodium Bromide Warning, readjust the sodium bromide content of your water in diagnostic mode, into the green zone by draining some water from your spa and adding fresh water.

IN.CLEAR IS OFF

This message indicates that the in.clear is turned off.

Press the Boost key to reactivate the in.clear.

TROUBLESHOOTING

⚠ ERROR in.clear!
No flow condition

⚠ Lost communication with in.clear
Verify cable connections

**NO FLOW CONDITION
(OUT OF DIAGNOSTIC MODE)**

With the linked version, this message appears when the in.clear's pressostat is open for longer than 3 minutes and the pump associated with it was activated by the spa pack.

Verify that the in.clear unit was installed on the right pump (must be installed on the circulation pump if present).

Check that the in.clear is installed on the pressure side of the pump and that water is flowing through the in.clear unit.

COMMUNICATION ERROR

The lost communication error indicates that a linked version of the in.clear is being used, but a pack cannot be detected. Ensure that you are using a compatible pack with appropriate software, and that all connections are secure. If this does not clear the message, contact your dealer for help.

LOW OR NO BROMINE READING

Make sure the maintenance level is properly set according to the procedure described in the section Set Maintenance Level. Make sure there is no error or warning message on the display, the cell is activated and that water is circulating properly through the cell.

Make sure water chemistry is balanced. Refer to the section Adjust Water Chemistry in the Spa for more details.

Test your spa water for phosphate to make sure there is no contamination. Phosphates should never exceed 100 PPB. Phosphates can be introduced to your spa water by household cleaners, soaps and lotions.

Change your filter or clean it with a filter cleaner and rinse thouroughly with cold water.

Make sure the in.clear cell is not damaged and that no calcium or lime deposits appear on the cell plates. Clean your cell regularly (at least once a year).

LONG RECOVERY TIME AFTER USAGE

Activate Boost Mode at the appropriate level every time you use your spa. Refer to the section Determine the Boost Level.

Heavy bather loads will require longer boost periods. If bromine level is below 3 PPM following a boost period, re-activate Boost Mode to bring the bromine bank within 3-5 PPM.

The bromine bank should always be regenerated following a boost period. If a high boost level does not regenerate the bromine bank properly, increase the daily filtration time.

If bromine production is still inadequate after following all of the instructions above, biofilm deposits could be causing the lack of bromine generation. Flushing products such as Sea Klear Spa System Flush, Swirl Away or National Chemistry Spa Purge have shown to be effective for biofilm removal.

FREQUENTLY ASKED QUESTIONS

Q: WHY IS MY SPA WATER CLOUDY/OILY?

A: If your spa becomes cloudy or oily due to bather load perform an additional Boost and wait for 24 hours to see if conditions return to normal. If the problem persists consult a spa/pool dealer to have your water balanced properly.

Q: DOES THE SODIUM BROMIDE EVAPORATE?

A: No. Sodium bromide is only lost through splash out, eaks or when draining your spa.

Q: WHAT SHOULD I USE TO CLEAN MY SPA?

A: Always use a non-sudsing cleaner found at your spa store.

Q: WHEN MY IN.CLEAR BROMINE GENERATOR IS OFF DOES THE SODIUM BROMIDE CONTINUE SANITIZING MY SPA?

A: No, the in.clear system does not sanitize if inactive. If there is a residual bank of bromine, bromine continues to sanitize the spa water. The in.clear may be off at certain times and the spa will still be fine and clean.

The sodium bromide is converted to bromine as it passes through the electrodes of the in.clear system and the pump associated with the in.clear is running.

GLOSSARY

TDS

Total Dissolved Solids (TDS) is an expression for the combined content of all inorganic and organic substances contained in a liquid which are present in a molecular, ionized or micro-granular (colloidal sol) suspended form.

pH

pH (potential hydrogen) is a measure of the acidity or basicity of a solution.

PPM

"Parts-per million" notation is used to denote relative proportions or a comparative ratio in a given measured quantity.

The expression "1 PPM" means a given property exists at a relative proportion of one part per million parts examined, as would occur if a water-borne pollutant was present at a concentration of one-millionth of a gram per gram of sample solution.

TOTAL ALKALINITY (TA)

Total Alkalinity or TA is a measure of the ability of a solution (such as water) to neutralize acids to the equivalence point of carbonate or bicarbonate.

BATHER LOAD

This term is used to describe the number of bathers using a spa, combined with the length and frequency of its usage. The higher the bath usage, the greater quantity of chemicals needs to be added to maintain the same spa water quality.

CALCIUM HARDNESS (CH)

Calcium Hardness describes the concentration of calcium in your spa water.

TOTAL HARDNESS (TH)

Total Hardness describes the concentration of calcium and magnesium in your spa water.

ORGANIC MATTER

Substances left behind by spa users such as oil, sweat and dead skin cells that serve as "food" for bacteria.

CELL CLEANING

In.clear includes a self-cleaning feature to prevent scale deposits on the graphite electrodes of the in.clear system. However, deposits may still form due to hard water. If that happens the cell should be cleaned in an acidic solution.

All power must be disconnected before any service procedure is performed.

Disconnect the communication cable and power cable of the in.clear unit.

TO CLEAN THE IN.CLEAR CELL, FOLLOW THESE STEPS:

- To remove scales from the cell, we recommend using phosphoric acid (non-diluted) as the preferred cleaning product.
- Close the spa flow shut off valves. Unscrew both unions from the unit and remove the cell from the spa equipment compartment.
- Install the rubber washer and the plastic nut on the threaded end of the cell. Tighten plastic nut firmly.
- Place the cell vertically with the cap end down into a plastic 19 L (5 U.S. gallon) bucket and carefully pour the acid solution into the cell until the 4 plates are covered (careful not to overflow). The acid solution will begin to produce bubbles to clean the electrodes.
A foaming action will follow, which is caused by the scale deposits being dissolved from the plates. If rigorous foaming action does not begin, the cell does not need to be cleaned. Rinse and reinstall the cell.
- Allow the electrodes to remain in the solution until the foaming has stopped. However, DO NOT leave in acid for more than fifteen minutes. Excessive acid cleaning will damage the electrolytic cell.
- Pour the acid solution back into the bucket and rinse the cell thoroughly with clean tap water. If deposits are still visible, repeat operation for fifteen minutes maximum (some acid may need to be added to the solution).
- Remove the plastic nut and washer from the cell and keep them for future cell cleaning.
- Rinse the in.clear with fresh water.
- Re-install the in.clear unit into spa system plumbing, tighten all connections by hand. Open the spa flow shut off valves.
- Reconnect the keypad and power cable.
- Turn power on and start up the pump. Check the keypad to see that the bromine generation LED is on and resume normal operation.

Phosphoric acid or muriatic acid
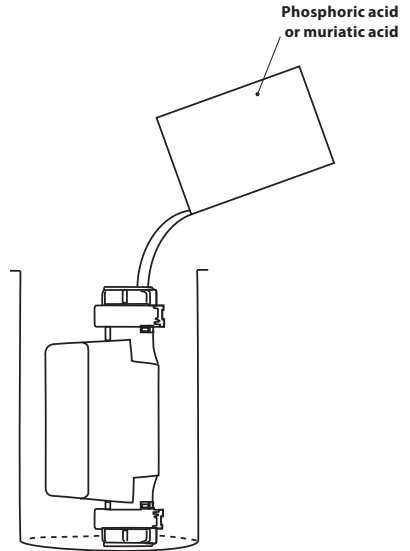
⚠ Refer to acid manufacturer's instructions.

⚠ Wear eye protection and rubber gloves during these operations. Splashing or spilling acid can cause severe personal injuries and/ or property damage.

⚠ Always work in a well-ventilated area.

⚠ Always add acid to the water; never add water to the acid.

⚠ Do not pour acid outside of the unit where the connectors are located.

⚠ Never use acetic acid to clean the cell, as this will cause permanent damage to cell components and void the warranty.

UV-C WATER TREATMENT

1- Water resistant lid
2- Aluminum nut
3- Lamp casing, wire outlet
4- Germicidal ultraviolet lamp
5- Rubber sealing ring
6- Quartz sleeve
7- Chamber
8- Pawl
9- Transformer
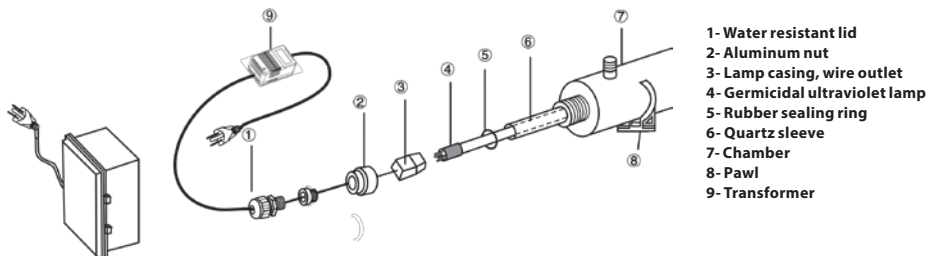
WARNING: THE GERMICIDAL ULTRAVIOLET RAYS ARE HARMFUL TO THE EYES, SKIN.

INTEGRATION:

1. Install the sterilization equipment at an easy to reach well lit place for effortless observation and maintenance.
2. Lock the clamp on the frame.
3. Insert the chamber with the help of the clamps.
4. Connect to the water supply.
5. Insert the quartz sleeve, sealing ring, lamp.

IMPORTANT: DO NOT TOUCH THE QUARTZ SLEEVE OR THE SIDES OF THE LAMP, ONLY HOLD IT BY THE TWO ENDS.

The ultraviolet lamp and the quartz can easily be damaged. Take care when removing or changing the lamp or the quartz sleeve.

a. Take off the nut. (2).
b. Carefully slide the quartz sleeve (6) from one end of the chamber to the other.
c. Slide the sealing ring (5) onto the free end points of the quartz sleeve.
d. Squeeze the aluminum nut on by hand (2).
e. Slide the lamp (4) into the quartz sleeve.
f. Connect the lamp to the casing.
g. Screw the nut to the chamber, then screw on the water resistant lid (1) to the nut (2).
h. Open the tap and check if the device is leaking. Repair as necessary.
I. Plug the device into the electric supply. Use a socket equipped with a fault circuit interrupter (GFCI).

CHANGING THE LAMP AND SERVICING THE UV SYSTEM

Important: Do not touch the quartz sleeve or the sides of the lamp, only hold it by the ends.

1. Unplug the power plug.
2. Shut down and drain the water from the device to lessen pressure.
3. Take off the PVC lid (1) and unscrew the aluminum nut (2).
4. Carefully pull out the lamp (4) to approximately 5cm from the chamber (7).
5. Holding the lamp by the end carefully remove the lamp casing (3) on the free end.
6. Carefully take the lamp out of the chamber.
7. Carefully take off the sealing ring (5) from the end of the quartz sleeve.
8. Carefully take off the quartz sleeve.
9. To reinstall follow instructions 1 to 8 in reversed order

MAINTENANCE SUGGESTION:

In order for the sterilizer to work properly and with maximal efficiency the user should perform the following maintenance tasks.

1. Cleaning, changing the quartz sleeve:
   a) The quartz sleeve is to be cleaned with a glass cleaner solution every 6-12 months.
   b) The quartz sleeve is to be changed every 24 months.
2. Changing the UV lamp is recommended after 8-9000 operating hours (about 12 months of continuous operation).
3. To acquire interchangeable parts contact our headquarters or the local representatives of our company.

OZONE DISINFECTION

FILTRATION AND OZONE

In a system without circulation engines the low setting of the massage engine and the ozone generator will switch on during filtration. In a circulation type system ozone starts in a system with circulation engine.

The system is factory programmed for an evening filtration cycle since energy prices might be lower in the evening (assuming that the time of day is properly set). The filtration time and duration are programmable.

A second filtration cycle can be freely entered.

At the start of every filtration cycle the jets and engine start to clean the pipes and ensure proper water quality.

CONTAMINATED WATER
CLEAN WATER
OZONE GENERATORTOR
OZONE INJECTOR
OZONE MIXER
WARM WATER
WARM WATER
FILTERED WATER
WARM WATER
LAING ENGINE
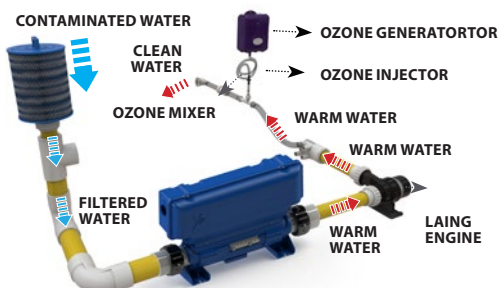
PULSAR

DYNAMIC JET SEQUENCER

The dynamic jet sequencer (Pulsar) is a stand-alone system that transforms a whirlpool into the ultimate at home therapy center. By grouping jets into distinctive sets and electronically controlling the action of each set with 7 pre-programmed sequences, Pulsar adds a totally new and highly effective dimension to any whirlpool.

The dynamic jet Sequencer features an elegant oval-shaped keypad and an electronically controlled power module that connects to a set of valves and a designated pump. The user can select from among 7 preprogrammed jet sequences. Like the conductor of an orchestra, Pulsar directs each jet set in coordinated water sequences, providing much more than a great back massage... a symphony of sensations!

With a simple touch of the finger, the user can change the speed of the jets, modify the intensity of water therapy or pause the action to prolong the soothing effects of a particular jet set (or combination of sets) before resuming the massage session.

Pulsar not only brings more value to your whirlpools by adding to their list of features, but also provides end users with a new relaxation tool that they will enjoy for many years to come.

FOR END USERS, IT'S... A SYMPHONY OF SENSATIONS!

Just imagine being able to select from 7 pre-programmed sequences designed to maximize your whirlpool massage effectiveness. The dynamic jet sequencer groups a whirlpool "hot seat" jets into 4 distinctive sets and electronically controls the action of each set according to pre-programmed sequences. This breakthrough system adds a totally new and highly-effective dimension to any whirlpool.

With its light indicators and preview display, the Pulsar oval-shaped keypad is intuitive and easy-to-use. The user selects a sequence and sees a preview of the massage on the keypad display!

The Speed key lets the user add even more variety by selecting one of 3 available jet speeds. By pressing on the Pause key, the user can interrupt a sequence to prolong the effects of a single jet set (or combination of sets).

Pulsar electronically controls the action of each set according to 7 pre-programmed sequences.

FOR MANUFACTURERS, IT'S... MUSIC TO YOUR EARS!

From the maker of the most advanced line of Electronic controls comes an add-on that will top your whirlpool list of best features! Easy to install and use, Pulsar brings real added-value and increases the sales potential of any whirlpool!
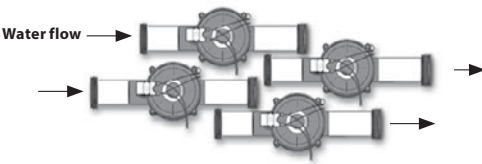
Valves are connected to the plumbing to the Pulsar power box.

Water coming from a designated pump enters the valves. The system board electronically opens or closes each jet set valve (30 gpm) according to pre-programmed sequences.

SEQUENCE TABLE

IN.TOUCH

IN.TOUCH WIFI MOBILE REMOTE

Control all functions of a spa from an iOS or Android smartphone or tablet with one of our in.touch mobile apps. in.touch home allows to control a spa using a wifi home network; in.touch world uses the internet to control a spa from anywhere.

Users can select predefined spa experiences or customize their own with this ultimate remote that provides easy access to water care management, temperature setting and maintenance reminders and total control of each connected equipment and accessories of the spa.

⚠ WARNINGS

* THE MODULE SHOULD BE INSTALLED SO IT CAN BE RELOCATED UNDER THE SPA TO OBTAIN THE OPTIMUM RECEPTION AFTER FINAL INSTALLATION OF THE SPA IN THE YARD.

* TO SATISFY FCC RF EXPOSURE REQUIREMENTS FOR MOBILE AND BASE STATION TRANSMISSION DEVICES, A SEPARATION DISTANCE OF 8" (20 CM) OR MORE SHOULD BE MAINTANED BETWEEN THE IN. TOUCH MODULE AND PERSONS DURING OPERATION. TO ENSURE COMPLIANCE, OPERATION AT CLOSER THAN THIS DISTANCE IS NOT RECOMMENDED.

* THE ANTENNA(S) USED FOR THIS TRANSMITTER MUST NOT BE CO-LOCATED OR OPERATING IN CONJUNCTION WITH ANY OTHER ANTENNA OR TRANSMITTER.

COMPATIBILITY REQUIREMENTS

in.touch modul:

Model : 0608-521012   IN.TR-IT-P1-P2-P3-P4-CO
Model : 0608-521011   IN.TR-IT-P1-P2-P3-P4-P5

Compatible spa packs:
in.xm2, in.xe, W3000 & W5000, W2000 and W8000 with compatible software revision

in.touch application:

Compatible with:
iPod touch (4th generation and later)
iPhone (3GS and later)
iPad (2nd and later)
iPad mini
Requires iOS 6.0 and higher
Android 2.2 and higher,
compatible with Google Play

Router compatibility :
Should not filter broadcast messages and should not use WEP encryption.
Here is the list of routers that have been tested :

– Apple Extreme A1354
– Apple Express A1264
– Linksys WRT54G2
– Linksys WRT160N
– D-Link WBR-1310
– Buffalo WZR-HP-G300NH
– Linksys EA2500
– Linksys EA4500
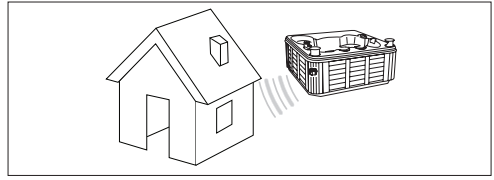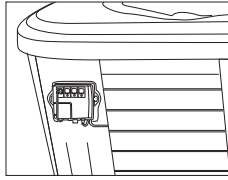– TP Link TL-WR740N

Minimum requirements for PC Setup software:
-Windows Vista or later

Minimum requirements for Mac Setup software:
- Mac OS 10.7 or later

INSTALLATION
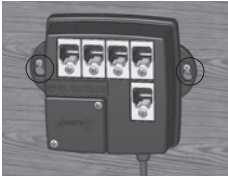
The in.touch module should be installed as close as possible to the house to optimize the signal strength. It is recommended to install the side of the spa with the in.touch module facing the house, to increase the signal. Water between the in.touch module and the router could drastically reduce the signal.

The in.touch module has a built-in WiFi transceiver that allows you to communicate with your favorite iOS and Android devices. The connection can be point-to-point (ad hoc mode) or with your home WiFi (infrastructure mode). In infrastructure mode you have the option of using a shared network (home WiFi) or the Internet. The following steps will show you how to connect with your spa. Note that the first time you install the in.touch, you have to set the connection point-to-point, using either an iOS device or the PCSetup/Mac Setup software that can be downloaded from www.geckoalliance.com/intouch.

DOWNLOAD APPLICATION

The in.touch app is available in two versions: in.touch home allows you to control your spa using your home network; in.touch world allows you to use the Internet anywhere in the world to control your spa. Both versions of the app are waiting for you at the App Store for iOS devices and the Google Play Store for Android devices— search for "in.touch gecko" then click on the version you want to install.

SET THE POINT-TO-POINT CONNECTION (AD HOC MODE)

For the first use, you must connect directly to in.touch. After the connection has been established, you can use your home WiFi network if you wish. If you have a Smart Touch keypad, refer to p.14 for the network setup and then jump back to step 2 of this section. Step 4 will not be necessary either, as you will already have connected in.touch to your home network using Smart Touch.

1. WIFI CONFIGURATION FOR IOS DEVICES

Note: If you have an Android device see Annex A (PC) or B (Mac).

On your iDevice, go to the WiFi section of Settings. The network named in.touch should appear on the list. Press on it to select the in.touch network. Once you've selected it, wait until the WiFi icon appears on the top left corner of the screen. This icon shows that your iDevice is now connected to the network.

Please note that with some iDevices and different versions of the iOS, the icon may not appear as connected even if it is connected. If it does not appear after 30 seconds, make sure that the in.touch network is selected and proceed to step 2.

2. START THE IN.TOUCH APPLICATION

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

The first time you use the app a message will tell you to add a spa to your list. You must add your spa to the list in order to configure it and use it with the application.

Once you tap Ok, you will see a list of visible spas. Tap on yours.

If there is a message about firmware updates, please see the section titled "Updating in.touch firmware" for more details.

3. NAMING AND EDITING YOUR SPA

When adding your spa to your list, enter the name you want to give it (e.g. Home) and tap Ok.

To edit the name of a spa, or to remove it from the list, tap the My Spas icon. On the My Spas page, tap Edit. A red circle with a minus sign will appear beside the names of the spas. If you want to remove the spa from the list, tap the minus sign, and then tap Delete. A confirmation message will appear — tap YES. If you want to change the name of the spa, tap on the name, enter the new name when prompted, and then select Save. To exit from My Spas, tap the name of the spa you want to use.

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4. SET THE CONNECTION USING HOME WIFI OR INTERNET
(INFRASTRUCTURE MODE)

For iOS users only. If you are using an Android device, skip this step.

Warning: Routers blocking broadcast messages and/or using WEP encryption are not compatible with the in.touch.

To set the connection using home WiFi or Internet, you need to have already set your point-to-point connection (see point-to-point connection instructions).

FIRST USE

1. In the in.touch application, go to Settings and select WiFi Connection. The list of networks in your area should appear on the screen; be patient, as it may take a minute.
2. Choose the network that your device will be connected to (i.e. your home WiFi). If the network has a security key, enter it when prompted. You are now set to run in infrastructure mode.
   As long as all hardware (router etc) and security keys remain unchanged you will not have to repeat this process.

WiFi icon

HOME PAGE

Once you have named your spa and added it to your favorites you will see the home screen.

At the top of the screen you will see the name of your spa. Just underneath that is a section that will show maintenance and water care information, along with any system errors. Below that you have access to all of your spa accessories, and water temperature. At the bottom of the screen you can edit your My Spas list, select from the spa Experiences, open Maintenance, and adjust the Settings for your spa.

START OR STOP ACCESSORIES

To start or stop an accessory, tap on the icon. Icons will become animated when their accessory is turned on , and inanimate when turned off. Icons on the in.touch screen will reflect the speed or state of the devices running on your spa.

When an accessory has more than two states, toggle the icon until it reaches the desired state.

WATER TEMPERATURE

The temperature shown at the bottom of the screen gives the actual water temperature. Use the + and - buttons to set the desired temperature. The value will appear in blue, with Set Temperature written beneath. After 3 seconds without any change to the set temperature value, the actual water temperature will appear.

When the set value is equal to the current one, Temperature will be indicated under the number. 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. Normally there is a delay before the heating starts, during which Heating Suspended is indicated under the value.

SETTINGS

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

- About this spa (Mac Address, hardware and firmware versions)
- WiFi Connection settings
- Water Care settings
- Maintenance settings and alerts
- Temperature Unit settings
- Time display settings

WATER CARE

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

A checkmark will appear on the icon to indicate the selected setting.

To modify a Water Care setting just tap on the blue arrow. It will open the selected Water Care menu.

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.

The filtration schedule shown on the 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 time will be set to N/A on the screen, and only the start time can be modified.

You can add schedules by tapping Add Economy or Add Filtration buttons.

*Default pack value

You can modify or delete the programmed schedules by selecting one and adjusting the schedule using the scroll wheel that appears or pressing on the Delete button.

You have several possibilities to set the schedule (Mon-Fri, weekend, every day, or single days). The schedules are recurrent and will be repeated every week. The time and duration are set in 30 minute increments. Once you have set the schedule, press Ok.

Pressing the Factory Settings button will restore settings to their original default values.

The Close key returns you to the Water Care menu.

MAINTENANCE

The in.touch will remind you to perform required maintenance tasks on your spa, such as rinse filter or clean filter. Each task has its own reminder duration based on normal usage. The period can be changed by the owner. The owner can also add a reminder to the device calendar by selecting Calendar.

Once the task is completed, press *Done* to reset the countdown.
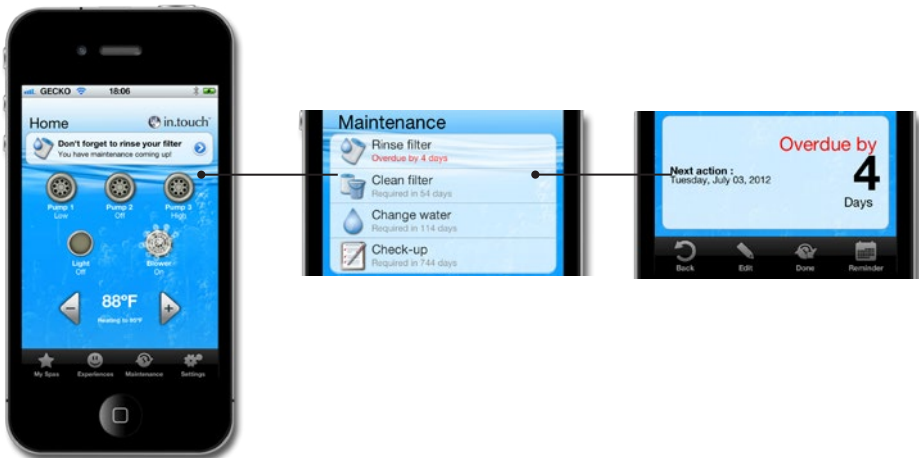
TEMPERATURE UNIT

The current temperature unit is displayed, and can be set to Celcius or Farenheit by tapping and toggling the button.

Time display settings

Time display applies to water care only, and can be set to 24 hour or AM/PM mode by tapping the button to toggle between options.

SPA MANAGEMENT ERRORS

If an error occurs in the spa, the warning message will appear in the second section of the main screen. Tap on the warning message to see the list of errors.

The next screen shows you the list of errors that are present in your spa. Note that more than one error can occur at the same time and some errors can be linked together. Solving one may resolve another.

Start at the top of the list, if there is more than one, and tap the error to get details about how to troubleshoot it.

Once you tap the error, a screen will show you the detailed explanation of how to solve the problem.
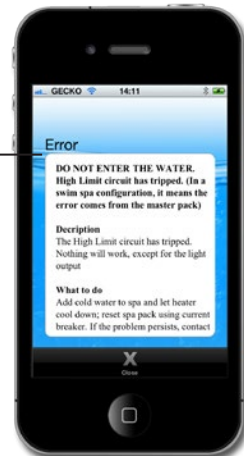
SPA EXPERIENCES

Access preset programs by tapping on the Experiences button on the Home page. Choose one of the experiences by tapping on it: Beach Party, Gentle Movement, Kids, His, Hers, or Relaxation. To customize your program, adjust the settings to your needs by tapping each accessory icon on the Home page. Once you have your settings picked, select the Experiences button and save the program by tapping the Save Experience button and selecting a name to save it under. All experiences except for Relaxation can be customized.

Each accessory will start as it is configured in the spa experience that is selected. For safety reasons, all accessories start with a delay to prevent from overcharging the system. You will see the accessory icons turn on one after another.

Experiences can be stopped at any point by tapping on the experience name in the message section of the Home page, or by modifying any of the accessories (pump, light etc).

While in Relaxation mode, only modifications to the pump or blower will stop the experience; changing the temperature will start the pump, but the experience will remain active.

UPDATING IN.TOUCH INTERNAL SOFTWARE

Updating your in.touch internal software will provide you with the latest features for controlling and using your spa. Updates can only be done using the same WiFi as your in.touch module, or using point-to-point connection (not on cellular network).

The latest version of in.touch will directly update the in.touch system. Follow instructions on the display to complete the download.

Upon opening, the app will alert you if your spa needs to be updated.

You can select Yes for an immediate start, or select No. If you choose not to update, the app will remind you each time you open the in.touch, until it is up-to-date.

Note: Only Android devices with software version 10.00 or later are capable of direct updates. If your software is 9.00 or older you must use PC Setup or Mac Setup software (see Annex A or B).

For a successful update, keep your in.touch app connected to your spa during the entire process download cycle.

The update could take several minutes.

Please let the update run with the app open until the in.touch Updated alert appears.

Tapping on Ok will complete the update process and the app will return to the spa control page. Your spa is now ready to use.

If the update fails the in.touch Update Failed message will appear. Close the app and reopen to restart the update.

See the Update Failure chart in the Troubleshooting section for more information.

TROUBLESHOOTING

LED

The in.touch module has three LEDs that can be used for troubleshooting purposes. The LEDs are located behind the accessible cover on the front of the unit. The cover must removed in order to see the LEDs.

LED
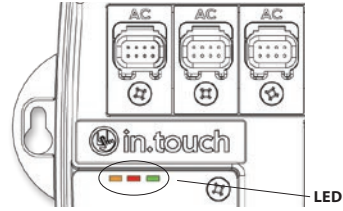
The following table shows the different states of the in.touch module and the LED states for each condition.

SITUATION	SEQUENCE	ORANGE	RED	GREEN
Normal use (infrastructure mode)	In.touch network available	OFF	OFF	Flashes
Normal use (point-to-point mode)	In.touch network available	Flashes	OFF	OFF
Update	Updating in.touch software (Phase 1)	Flashes very fast	OFF	OFF
	Updating in.touch software (Phase 2)	ON	OFF	Flashes very fast
Error	In.touch network not available,restart your in.touch[1].	OFF	OFF	OFF
	Failure of the in.touch, return unit for replacement	OFF	ON	OFF

Update failure

UPDATE FAILURE REASON	ACTION TO RESOLVE THE ISSUE
The device isn't connected to in.touch network (iOS devices only)	Leave the in.touch application and completely close your app. Go to the Settings of your device, WiFi menu, select the in.touch network and wait 30 seconds, then re-launch the in.touch application. If the in.touch network does not apear in the WiFi list, power down and power up the spa, wait 2 minutes(1) and check again. If problem persists contact your dealer for a replacement unit.
Your device closes due to low battery power	Close your app, recharge your device and try again.
You close or put your app in the background during the update	Completely close your app. Open it again. Do not close your app during an update.
You moved too far from the in.touch module, your device lost the in.touch connection (iOS devices only)	Return near your spa; when the spa name is available in the Visible Spas, select it.
An error occurs in file transfer and the maximum retry count is reached	Completely close your app and restart your spa before trying again.
The current to the in.touch was interrupted	When the in.touch experiences a power outage in infrastructure mode it will revert to ad hoc mode when power is restored. The update should be redone.

If the problem persists, please contact Gecko Alliance support for a unit replacement.

Note (1): Please, wait 2 minutes to let the WiFi module re-establish the in.touch network.If the problem persists, please contact your spa dealer.

FACTORY DEFAULT

It is possible to erase the in.touch memory and return to factory settings. To do this, open the front panel of the module and place a jumper between pins 3 and 4 of P7 on the PCB. The LED (orange or green) will stop blinking for a few seconds and the system will reset.

Warning: The jumper must be installed while the power is on. The reset will not work if it is placed when the pack starts up.

*A computer jumper can be used.

plug P7

#3rd - #4th contacts
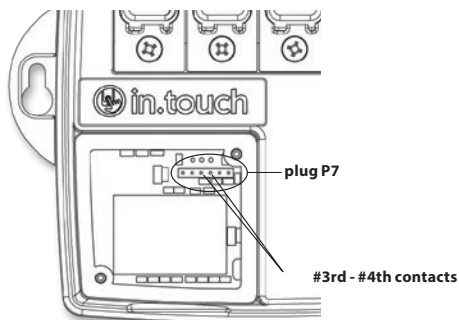
TROUBLESHOOTING

Please note that in order to properly troubleshoot the in.touch it is important to know if it is in point-to-point mode or connected to a network. The best way to tell is by looking at the color of the LED (see LED section).

Before starting the troubleshooting, restart the system by turning it off and back on. Close the app and wait 2 minutes.

Incompatible spa pack:

Your spa pack is not compatible with the in.touch module. In some cases it is possible to update the pack software to make it compatible. Please contact customer service to find out more.

INCOMPATIBLE IN.TOUCH:

The in.touch app requires additional data to communicate with your spa pack.

1. Close the in.touch app.
2. Make sure your device is connected to the Internet.
3. Restart your in.touch app and wait 30 seconds.
4. Close the in.touch app again.
5. Reconnect to the same network to which your in.touch module is connected.

You can now use your in.touch app as usual.
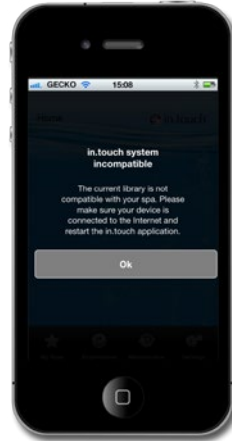
LOST CONNECTION

If your device has communication issues with your in.touch module, the in.touch app will display a Lost Connection message. Make sure you are within range of the in.touch system if you are in a point-to-point connection.

When the in.touch app has difficulty communicating with your in.touch, don't do anything. It will try to connect to your in.touch again. If the alert does not disappear after 2 or 3 minutes, or if a WiFi Alert appears during this delay, please close your in.touch app. Open the app again.
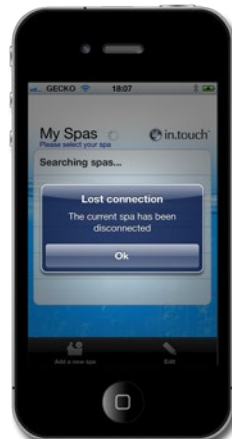
SLOW OR UNSTABLE COMMUNICATION:

If your in.touch module is having trouble receiving a signal from your routeur the communication might be slow or the in.touch module may disconnect from time to time.

In this case, move your in.touch module and/or router so that the reception is better. In some cases it may be necessary to add a WiFi repeater (such as the universal NETGEAR WiFi repeater) to amplify the signal between the router and the in.touch module.

To get an idea of the signal being received, go to the Settings page in the in.touch app and tap on WiFi Settings. For each network shown there will be an icon indicating the signal level (out of 4 bars) received by the in.touch module.

In order to troubleshoot, it is also possible to see the variation in signal strength in real time by touching the blue arrow beside your network. You will be taken to the Signal Quality page. By moving either your in.touch module or your router (and repeater, if present) you will see the change in signal strength and any other information available.
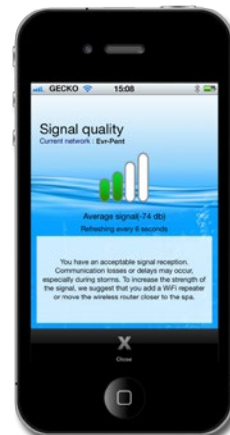
SPA DOES NOT APPEAR AFTER CONNECTING TO ROUTER:

After connecting the in.touch module to a network (either with an iOS device or the PC Setup/Mac Setup software), it is possible that the module will stay in point-to-point mode.

1. Retry the configuration. The connection request may not have been sent the first time.
2. Ensure that you have entered the right password for your router. It is important to enter the password precisely (pay attention to uppercase/lowercase letters, numbers etc).
3. Ensure that your router does not use WEP security, as this is not compatible with the in.touch.

If your module is connected to a router, ensure that:

1. Your network is not set to block broadcasts.
2. Your network is not set to block messages using UDP protocole.

It is possible that the the connection is unstable and will alternate between point-to-point and network modes. In this case, see the Slow or Unstable Communication section.

ANNEX A

WIFI CONFIGURATION FOR ANDROID DEVICES (WITH A PC)

Android devices do not have point-to-point capability, so you must use your computer to configure the connection of your in.touch module. Once the initial configuration is done, the app can be used on Android devices.

To complete the setup download the file in.touch_PC_Setup.exe from www.geckoalliance.com/intouch.

With your computer, move as close as possible to your spa and connect to the in.touch WiFi network. (No network other than WiFi should be active, to ensure functionality of the software.) Open in.touch_PC_Setup.exe and follow the instructions:

1- Click on English for instructions in English.

2- Move as close as possible to your spa with your computer and connect to the in.touch WiFi network. Click on Continue.
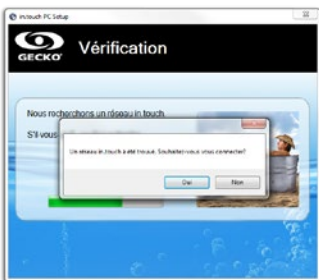
3- Click on Yes to confirm connection to the in.touch network.

4- The software will detect your spa. The above screen shows an example of the spa ID number (SPAxx:xx:xx:xx:xx:xx). Click on it.

5- Click on Next. After a moment a list of available networks will appear. Choose the one to which you would like to connect.

Note: For each network there will be an icon with a number of bars representing the signal strength. For more information on signal strength, see Annex C.
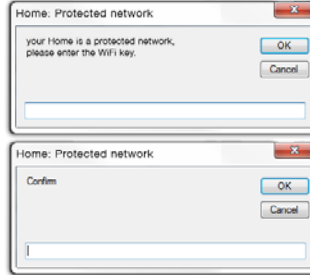
6- If the network is protected, enter the password. Enter it a second time to confirm.

7- Once you have entered the password your in.touch module will connect to the selected network. During this process (which takes about 1 minute), your computer will automatically connect to the same network selected. Ensure that your computer is properly connected, and manually connect it if necessary.

8- The program will verify the internal software of your in.touch, and will automatically update if necessary.
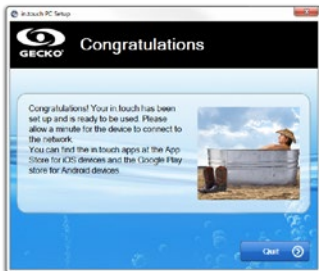
You will not need to repeat this process as long as the hardware or security keys do not change.

Choose the same network for your Android as you did for your in.touch.

9- Click on Quit to close the program.

Troubleshooting (PC Setup software)

1- The program displays the following message: We recommend disconnecting the network cable from your PC.

WHAT TO DO:

The software has detected that a network cable is connected to your computer. To ensure functionality of the program, only the WiFi network should be active. Disconnect your network cable and proceed with configuration. Once you are finished you can reconnect your network cable.

2- The software doesn't detect your in.touch after more than 2 minutes.

WHAT TO DO:

There are a few reasons that can explain why your in.touch module is not being detected:

1- Multiple active networks on the computer: To ensure functionality of the program, only the WiFi network should be active. Make sure that only the WiFi network is active during the configuration process; you can reconnect other networks when the program has finished.

2- The in.touch module is not on: Make sure that the in.touch module is properly connected to the CO port of your spa pack. See the installation section for more information. Restart the module by turning the power to your spa off, then back on. Wait 2 minutes and try the program again.

3- The computer is not connected to the in.touch network: Make sure that the computer is connected to the in.touch WiFi network. If it is not, manually connect and restart the program.

4- The computer doesn't see the in.touch connection in the list of WiFi networks: You are probably out of range of your in.touch module.
Move closer to the spa and try again.

5- Other problems: See the Troubleshooting section for more information on the various states of the in.touch module.

3- The software doesn't show your WiFi network.

WHAT TO DO:

The in.touch module is not receiving a signal from your router because it is too weak. Move your router and/or in.touch module to improve reception. In some cases it may be necessary to add a WiFi repeater (such as the universal NETGEAR repeater) to amplify the signal between the router and the in.touch module.

4- The software is waiting indefinitely to connect to the selected network (at least 2 minutes of waiting).

WHAT TO DO:

There are a few reasons that may explain this problem:

1- The computer is not connected to the WiFi network: To detect the in.touch module, your computer must be connected to the same network. Make sure that your computer is connected to the same network chosen for the in.touch module.
2- Incorrect password: The router password is incorrect. Ensure that you have entered the right password for your router. It is important to enter the password precisely (pay attention to uppercase/lowercase letters, numbers etc). Restart the program.
3- Unstable connection between the router and the in.touch module: If your in.touch module is having trouble receiving a signal from your routeur the communication might be slow or the in.touch module may disconnect from time to time. In this case, move your in.touch module and/or router so that the reception is better. In some cases it may be necessary to add a WiFi repeater (such as the universal NETGEAR WiFi repeater) to amplify the signal between the router and the in.touch module. See Annex C for more information on signal strength.

5- Error in updating the internal software.

WHAT TO DO:

There are a few reasons for a failed update:

1- Power to the in.touch module was interrupted: In this case the in.touch data has been erased from its memory. Restart the configuration with the program.

2- Lost connection: Communication between your computer and the in.touch module was cut during the transferring of files. In this case, your in.touch module is connected to your WiFi network but couldn't complete the update. Restart the program, and keep your computer connected to the WiFi network for the whole process.

3- Unstable connection between the router and the in.touch module: Fix this problem and restart the program. Move your in.touch module and/or router so that the reception is better. In some cases it may be necessary to add a WiFi repeater (such as the universal NETGEAR WiFi repeater) to amplify the signal between the router and the in.touch module. See Annex C for more information on signal strength.

4- Your software version is 6.00 or earlier: The software is incompatible with these versions. Contact your dealer for help with the update through an iOS device, or to have your module replaced.

5- Your Windows firewall doesn't allow file transfers: See the next problem.

6- Error in updating the internal software because of Windows firewall:

WHAT TO DO:

Your Windows firewall does not allow file transfer from the in.touch module.

Go to the Windows' firewall settings and deactivate it. Restart the program.

Once configuration is finished you can reactivate the firewall.

ANNEX B

WIFI CONFIGURATION FOR ANDROID DEVICES (WITH A MAC)

Android devices do not have point-to-point capability, so you must use your computer to configure the connection of your in.touch module. Once the initial configuration is done, the app can be used on Android devices.

To complete the setup download the file intouch_MacSetup. zip from www.geckoalliance.com/intouch.

With your computer, move as close as possible to your spa and connect to the in.touch WiFi network. (No network other than WiFi should be active, to ensure functionality of the software.) Unzip intouch_MacSetup.zip, open intouch_MacSetup.app and follow the instructions:

1- Click on English for instructions in English.

2- Move as close as possible to your spa with your computer and connect to the in.touch WiFi network. Click on Continue.

3- The software will detect your spa. The above screen shows an example of the spa ID number (SPAxx-:xx:xx:xx:xx:xx). Click on it.

4- The program will verify the internal software of your in.touch, and will automatically update if necessary when you click Next. If the software is up-to-date you will proceed to step 7 without seeing the above image.

5- The update can take up to 5 minutes.

6- After the update, the in.touch must restart. Wait until it has restarted and choose it from the list again.

7- The program will reverify the in.touch software and a checkmark will appear when it is successful.
Click on Next.

8- Choose the network to which you would like to connect.
Note: For each network there will be an icon with a number of bars representing the signal strength. For more information on signal strength, see Annex C.

9- Once the password has been entered identically twice click on Next. At this point your in.touch will connect to the selected network.
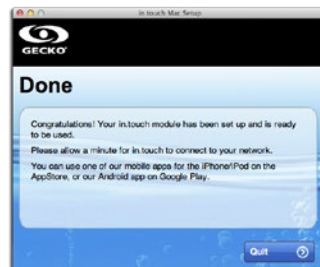
10- Click on Quit to close the program.
You will not need to repeat this process as long as the hardware or security keys do not change.
Choose the same network for your Android as you did for your in.touch.

TROUBLESHOOTING (MAC SETUP SOFTWARE)

1- The software doesn't detect your in.touch after more than 2 minutes.

WHAT TO DO:

There are a few reasons that can explain why your in.touch module is not being detected:

1- Multiple active networks on the computer: To ensure functionality of the program, only the WiFi network should be active. Make sure that only the WiFi network is active during the configuration process; you can reconnect other networks when the program has finished.

2- The in.touch module is not on: Make sure that the in.touch module is properly connected to the CO port of your spa pack. See the installation section for more information. Restart the module by turning the power to your spa off, then back on. Wait 2 minutes and try he program again.

3- The computer is not connected to the in.touch network: Make sure that the computer is connected to the in.touch WiFi network. If it is not, manually connect and restart the program.

4- The computer doesn't see the in.touch connection in the list of WiFi networks: You are probably out of range of your in.touch module. Move closer to the spa and try again.

5- Other problems: See the Troubleshooting section for more information on the various states of the in.touch module.

2- Error during internal software update:

WHAT TO DO:

This error is probably due to instable communication between the computer and the in.touch. Make sure to stay close to the spa during the process. Wait for the in.touch module to work again and restart the update.

3- The software doesn't show your WiFi network.

WHAT TO DO:

The in.touch module is not receiving a signal from your router because it is too weak. Move your router and/or in.touch module to improve reception. In some cases it may be necessary to add a WiFi repeater (such as the universal NETGEAR repeater) to amplify the signal between the router and the in.touch module.

ANNEX C

INFORMATION ON ROUTER SIGNAL STRENGTH

Here you will find information regarding the signal strength received bythe in.touch module.

4 vertical bars:

The signal strength is excellent.

3 vertical bars:

The signal strength is adequate, and no modification is required.

2 vertical bars:

The signal strength is acceptable. Sporadic communication losses or delays are possible, particularly during storms. It is recommended that you move the router closer to the spa or use a WiFi repeater to improve the signal strength.

1 vertical bar:

The signal strength is weak but functional. Communication losses or delays are possible. It is strongly recommended that you add a WiFi repeater to improve the signal strength.

4 horizontal bars:

The signal strength is too weak for the in.touch to function. Move the router closer to your spa or add a WiFi receiver to improve signal strength.

CHEMICAL TREATMENT DEVICE

THINGS TO KNOW ABOUT THE ASIN AQUA

The CHEMICAL TREATMENT device provides pure sparkling water that contains only a minimal amount of chemical substances. This system directly measures and monitors free chlorine content and the redox potential of the spa water. The CHEMICAL TREATMENT device regulates the spa water while using only a minimal amount of chlorine, thus eliminating the strong smell of overtreated water. The touch screen solution allows you to attentively monitor the measuring units and regulations of your spa. The CHEMICAL TREATMENT device uses the current filtration equipment of the spa and works with a timed dosing system and even with chlorine-free oxygen based disinfection.

HEALTH AND SAFETY

The CHEMICAL TREATMENT device makes it possible to adhere to the rules of hygiene in regards to the physical and chemical demands concerning the spa water's quality.Do not open the casing of the CHEMICAL TREATMENT device and do not change any of its internal parts. Opening the casing voids the warrantyThe chemicals used by the CHEMICAL TREATMENT device can only be used in safe conditions to avoid damage or personal injury. Always use personal protective equipment (safety goggles and gloves) when handling pH or chlorine substances. For further information consult your Chemical Safety Data Sheet.

INSTALLING THE CHEMICAL TREATMENT DEVICE

Install the CHEMICAL TREATMENT device in an environment free of dust and high humidity. Secure your device on the wall in a way that leaves at least 30cm of empty space on either side.

To connect your CHEMICAL TREATMENT device to the water supply provides a special Speedfit quick connector. To connect push the plastic pipe into the Speedfit quick connector. To remove the pipe from the quick connector push in the collet and pull the pipe out.

1. Cut off the plastic pipe at a 90-degree angle to ensure proper connection. Use a sharp knife or blade for precise cutting.
2. Connect the water intake on the left and the water outlet on the right. Ensure that the water pressure does not go over the 1,5 bar value.

3. The water outlet of the CHEMICAL TREATMENT device can be connected to the plumbing, before the pump, to the skimmer, the buffer tank, or the drain pipe.

DISCONNECTING

After connecting to the water supply your ASIN Aqua device is able to take samples of the spa water and analyze them. Analysis makes monitoring of chlorine levels and pH values possible, ensuring the spa's hygiene.

Adjusting the spa's parameters Every spa represents a unique solution. Temperature, size, location, and water hardness all affect the ability of the CHEMICAL TREATMENT device to monitor and regulate the water of your spa. To reach maximal performance the CHEMICAL TREATMENT device must be adjusted to your spa's characteristics. After selecting the REQUIRED VALUES menu item:

1. Adjust the filtration parameters of the spa.
2. Adjust the parameters of the water. Adjusting the filtration parameters The CHEMICAL TREATMENT device must know the spa's size and filtration cycles. When installing the CHEMICAL TREATMENT device you must define these spa parameters:

   A.) Choose the SETTINGS menu item on the start screen, then press the PARAMETERS item to get to the next screen.
   B.) Choose the spa PARAMETERS item
   C.) Choose the spa VOLUME menu item.

Your choice is shown by a black triangle. Check the spa's data sheet for its volume. (1000L =1m3) Press the + and - buttons to enter the appropriate spa value, then press OK to save.

Note: If the volume of your spa is between 1000 and 1500 liters, select 1 m3. If it is between 1500 and 2000 liters, select 2 m3.

   D.) Choose the desired disinfection timeframe and press OK to save. Your choice is shown by a black triangle at the bottom. The displayed number shows the timeframe of the disinfection cycle, not its frequency.

SUGGESTION:

The recommended filtration timeframe is 24 hours. The minimal filtration timeframe is 6 hours.

After selecting the spa filtration parameters for the CHEMICAL TREATMENT device adjust the parameters of the water as well. The spa filtration and water parameters determine what settings the CHEMICAL TREATMENT device will use for correct monitoring and regulation of the spa.

If you change the mass of the water of the filtration timeframe of the spa, you must update the parameters.
 - Depth
 - Length
 - Width

USER GUIDE FOR THE CHEMICAL TREATMENT DEVICE

Setting the parameters of the water

The parameters of the water settings define the attributes of the spa water for the CHEMICAL TREATMENT device. The CHEMICAL TREATMENT device also contains presets based on the following conditions:
 - Indoor or outdoor spa.
 - The level of water hardness.
 - The average water temperature.

Because each of these parameters affect the operation of the CHEMICAL TREATMENT device, appropriate parameters of the water must be defined to ensure optimal performance of the CHEMICAL TREATMENT device in your spa. Set water parameters when installing CHEMICAL TREATMENT DEVICE.

1. In the main menu select SETTINGS, then PARAMETERS, then select the spa PARAMETERS menu item to enter the next screen.

2. SPA Select your spa type using the checkboxes.
 - INDOOR
 - OUTDOOR
 - EXTREME CONDITIONS

3. AVERAGE TEMPERATURE
Select the average temperature of the spa.

WARNING! This parameter affects the maximum hours duration of the disinfection process.

4. WATER HARDNESS:
Enter the water hardness level of the spa. The unit of measurement is dH (degrees of hardness) and can be 0 - 9 soft, 9 - 21 hard, and 21+ extra hard.

Before calibrating the CHEMICAL TREATMENT device ensure that the parameters entered match the properties of the spa.

©pH settings

Setting the desired values:

1. In the main menu select SETTINGS, then the PARAMETERS menu item.

2. Select the blue pH button on the right.

3. Adjust the pH value using the - and + buttons.

CALIBRATING THE pH PROBE OF THE CHEMICAL TREATMENT DEVICE:

1. Check the pH value of your spa manually.
   Use an Aseko tester.

Displayed value

-6,8
-6,8
-7,0
-6,8
-6,4

SUGGESTION:

We recommend a pH value of between 6.5 and 7.6.

- Use a low pH value if the spa is cleaned via active oxygen system.
- Use a high pH value if the spa is cleaned via saltwater electrolysis system.
- Use a pH value of 7.0 if the spa is cleaned via chlorine.

2. In the main menu of the CHEMICAL TREATMENT device select SETTINGS, then the CALIBRATION menu item.

3. Select the blue pH button on the right.

4. Compare the data shown by the CHEMICAL TREATMENT device with the results of the manual measurement. If there is a difference, adjust the values shown by the CHEMICAL TREATMENT device with the + and - buttons until they match the manual results, then select OK to save.

If the results of the manual test fall outside the 6.2 - 7.8 range, you will receive the following notification.

If the difference between the results of the manual test and the values shown electrically by the pH valve is greater than 0.3, you will receive the following notification.

pH buffer 7.00 #12065

SUGGESTION:

To finely calibrate use the 7.00 pH testbuffer.
User guide for the ASIN Aqua device.

Choose the function of your CHEMICAL TREATMENT device:

1. Free chlorine probe CLF
2. Redox electrode probe RX
3. Dosage based on time ml/m3 per hour or per day

In the main menu select SETTINGS, then the TYPE OF PROBE to enter the next screen.

If you have a free chlorine probe:

Your CHEMICAL TREATMENT device is set up and connected to the spa water and the chemicals.
Adjust the chlorine level to 0.0 mg/l.
Adjust the pH value to 7.0.
Manually adjust the chlorine level of your spa to between 0.5 and 1.2 mg/l via the manual dispenser of the ASIN Aqua or directly via the manual dispenser of your chlorine disinfectant. Wait 24 hours for stabilization.

OPTIONAL ACCESSORIES - CHEMICAL TREATMENT

THE FIRST CLF CALIBRATION

Using the provided Aseko test kit to manually check the chlorine level of your spa by taking a sample from the output stream of spa water.

In the main menu of the CHEMICAL TREATMENT device select SETTINGS, then the CALIBRATION menu item.

Select the yellow chlorine box on the left of the screen. If the probe is broken or has any other malfunction, you will receive the following notification.

Compare the data shown by the CHEMICAL TREATMENT device with the results of the manual measurement. If there is a difference, adjust the values shown by the CHEMICAL TREATMENT device with the + and - buttons until they match the manual results, then select OK to save.

If the chlorine level data of the manual test matches the readings of the CHEMICAL TREATMENT device, your probe measures chlorine level accurately.

SUGGESTION:

Measure the chlorine level of your spa weekly.

SAFETY FUNCTIONS:

The CHEMICAL TREATMENT device has safety functions that prohibit overdosage of the spa. The device uses the following safety functions:

– Maximal safety dosage
– Overly fast change in the pH value
– Dosing without probe reading

If you adjust the parameters of the water appropriately, the CHEMICAL TREATMENT device calculates the maximum hourly dosage of the disinfectant. Thanks to this function overdosage is highly improbable.

The maximal safety dosage moves between 1 and 11 ml/m3/hour. In extreme conditions the value rises to 25 ml/m3/hour.

Overly fast change in the pH value

can be caused by heavy rain, adding large amounts of water, or inordinate usage. If any of these occur the CHEMICAL TREATMENT device shuts down dosage of the pH medium for 2 hours and only restarts it when the pH value stabilizes. Change in the pH value without a probe reading.

Depending on the water hardness the CHEMICAL TREATMENT device reports an error and shuts down dosage of the pH agent.

– From soft to moderately hard < 9°dH.
  If there is no change in the pH value, the ASIN Aqua device shuts down dosage of the pH agent after 10 doses.

– Hard 9–21°dH.
  If there is no change in the pH value, the ASIN Aqua device shuts down dosage of the pH agent after 15 doses.

– Extra hard > 21,01°dH.
  If there is no change in the pH value, the ASIN Aqua device shuts down dosage of the pH agent after 25 doses.

WARNING! Never mix the pH agent with a chlorinated substance. Always prevent mixing of the pH agent with a chlorinated substance by rinsing whenever you are performing maintenance on the plastic cleaning pipes or valves.

WARNING! Always ensure that the spa water is chemically clean and uncontaminated before setting up your CHEMICAL TREATMENT device.

When setting up the CHEMICAL TREATMENT device ensure that it is no more than 8 meters far from the point where the chemicals connect to the spa's water supply.

When setting up the ASIN Aqua device ensure that there are no more than 2 vertical meters between the wall mount and the point where the chemicals connect to the spa's water supply.

WARNING! Usage of pliers and wrenches damages the tube and causes fitting problems.

WARNING! This parameter affects the maximum hours duration of the disinfection process.

WARNING! The filtration time frame should be set as the daily operating time of the CHEMICAL TREATMENT device.

WARNING! This parameter affects the maximum hours duration of the disinfection process.

WARNING! These parameters affect the maximum hours duration of the disinfection process.

pH CALIBRATION

WARNING! Probes do NOT require calibration most of the time. We authenticate the pH probe of the CHEMICAL TREATMENT device at the factory.

If you do not let the probes stabilize in the water before the calibration and usage of the system, we cannot guarantee proper function of the CHEMICAL TREATMENT device. Check the pH calibration once a year and change the probe if needed.

SAND FILTER SYSTEM

ACCESSORIES OF THE SAND FILTRATION SYSTEM:

– filter tank
– prefilter circulation engine
– circulation valve
– silica sand, 0.7 - 1.2 particle size

Operational concept: the water is transported by a circulation engine through a filter housing (which does not contain a filter cartridge), then it passes through the sand filter. Then the filtered water flows through the circulation valve and back to the spa.In this case the circulation valve is set to "filtration". Upon inspecting the sand filter's filling you may come across the following issues.

The sand is white when dry: this points to the presence of limescale, in which case there are 2 ways to proceed. Changing the filter sand or applying disinfectant. The sand feels greasy to touch and forms lumps. Take a handful of sand and rub it in your palm. If your skin feels greasy, a layer of biofilm has formed around the sand.The formation of a biofilm layer is often related to lack of rinsing.The actual filter here is the silica sand through which the water passes in a downward flow and the sand filters the particles floating in it.The particle size of the sand (0.7 - 1.2mm) is an important regulation. Part of the sand filtration system is the circulation valve which, depending on its position in relation to the tank, can be a side- or a top valve. The lever on the circulation valve can be used to switch between functions.The sand filter has to be backwashed weekly, since pollution can back up in the sand and obstruct the flow of the water.During backwashing the water flow in the filter is reversed, so any filtered pollution will wash down the drain.

We recommend changing the sand filter every 2 - 3 years.

We recommend disinfecting the sand twice every year. This process involves treating the sand with antialgae chemicals diluted in water.

LOADING THE SAND FILTER

1. Before loading the sand into the filter put up the filter tank and fasten the pipe links.
2. Remove the lid and seal.
3. Fill the filter with the required amount of sand.
4. Clean the seal's nest on the lid.
5. Put the lid on and tighten it.

FUNCTIONS OF THE CIRCULATION VALVE:

– filtration
– backwashing, rinsing
– postwashing, postrinsing
– flushing
– circulation
– locking

INSTALLATION

After filling the sand filtration tank with sand wash the sand as follows:

1. Set the valve to "RINSE".
2. Open the lockings so that the water flow will not be obstructed and switch on the pump for 3 minutes.
3. Switch the pump off and set the valve to "FILTRATION". After you finish these steps the sand filtration system is ready to filter the spa water.

Attention: operate the valve only when the pump is switched off.

FILTRATION

While the pump is switched off set the valve to "FILTRATION". Switch the pump on.

While the pump is on occasionally check the pressure gauge to monitor the fullness of the filter. When the pressure reaches 1.3 kg/cm2, perform "RINSING".

RINSING

Every load of sand represents thousands of channels meant to tackle floating particles and keep them within the sand filter, which means that the channels open to water flow are gradually reduced in number. Because of this the pressure within the filter progressively builds up to 1.3 kg/cm2. This means that the sand filter is not capable of retaining any more contaminations and cleaning is necessary. Do this as follows.Switch the valve to "RINSING" while the part leading to the drain is open and turn the pump on. Any contamination will flow down the drain.

CIRCULATION

At this setting of the valve the pump moves the water directly into the spa without it going through the sand filter.

POSTRINSING

After rinsing the filter and after setting the device to "FILTRATION" the water will be turbid for a few seconds. To avoid mixing the turbid water with the spa water set the valve to "POSTRINSING". This should be done as follows. Set the valve to "AFTER-RINSING" right after "RINSIGN" and switch the pump on for max. 1 minute. This setting will pump the filtered water right down the drain.

FLUSHING

If the spa cannot be emptied directly into the drain because there is no drainage at the level of the bottom of the spa, flushing can be performed via the filtration pump. To perform flushing set the valve to "FLUSHING". While the valve of the bottom drainage is open, switch the pump on.

Important: ensure that while the pump is switched on the hair filter and full tubing of the bottom drainage is always full of water.

CLOSED

The water flow from the sand filter to the pump is closed in order for the casket of the pump to always be possible to be opened.

Filtration   Postrinsing

Rinsing   Flushing

Circulation   Closed
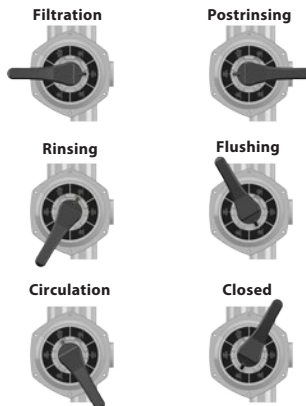
WATER TREATMENT BASICS

The chemical equilibrium of the water

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

1. pH value:

The first important indicator is the pH value of the water. pH is measured on a scale of 0-14 where 7 is the neutral value. The ideal value is between 7.2 and 7.8 pH. pH values out of this range may irritate the eyes.

Under this value the water is acidic, above is basic. The pH value of the human eye is around 7.5, below 7.2 and above 7.8 the water will sting the eyes. Most problems are caused by the pH value being too high. An improper value reduces the effect of the disinfectant.

A high pH value can cause the following problems:
• The disinfectant can be ineffective.
• The solution can exude solid matter.
• The water can become turbid.
• Can cause skin irritation.

A low pH value can cause the following problems:

• The water can become turbid.
• Can cause eye irritation.

Rain or adding fresh water will change the pH value of the water.

2. Disinfection:

Disinfectant is the chemical that eliminates or neutralises the microorganisms (bacteria, algae, fungi, viruses) present in the water. Microorganisms are small microscopic organisms which cannot be detected by the naked eye and are continuously getting into the water through rain, wind, and the bodies of the bathers. If they are not eliminated, they pass from one person to the other through the water (and may cause sickness, infection). Organic matter turns the spa water opaque and cloudy.

As we are dealing with warm water spas, bromine or active oxygen is most often used.

3. Preventing growth of algae:

In addition to the disinfection of water the prevention of growth of algae is another key issue. Algae can grow even if proper disinfection and filtration is performed.

Antialgae treatments only work with appropriate pH values.

4. Water hardness:

Water hardness is determined by the quantity of calcium and magnesium salts dissolved in the water. Hard waters contain too much of these dissolved salts and thus scale will form if left alone. Scale can cause significant damage to the walls of the spa, piping, filter, heating, and engineering units. In Hungary water is medium hard. Water hardness cannot be reduced by the addition of chemicals, but formation of scale can be prevented.

5. Frothing:

Froth is the smaller-bigger agglomeration of the bubbles and colloid contaminants found on the surface of the water. It is mostly caused by mixing of dirt, cosmetics, body lotions, etc. that soak out of the human skin and the chemicals. It endangers conservation of the aesthetic appearance and cleanliness of the water.

6. Water analysers:

There are several types of water analysers which are mostly used to measure chemical and disinfectant effect. Chemical (pH); Disinfectant (Br, O3)

Tester types:

Box containing tablets and graduated measuring glass.

Litmus paper indicators in a box.

Chemicals should always be loaded into the filter housing.

Then proper disinfection of the spa balance if the

chemical levels are not at least 48 hours below the specified value.

Even with the most accurate disinfection after 2-3 months the water quality is no longer maintainable and it is necessary to replace the entire water quantity. In this case we advise you an extensive shock-like disinfection with algae. Dissolve a tablespoonful of algae in the spa water and run the engines for 15 minutes. After switching it off for 5 minutes switch it on for another 1-2 minutes, then drain, clean, and rinse the spa.

ATTENTION!
Using alcohol- or acetate based cleaning products for cleaning the spa is PROHIBITED!

The manufacturer is not responsible for damage resulting from the use of such chemicals.

The chemical treatment of the water should only be done by persons under 18 years of age under parental supervision.

Maintenance should only be performed by qualified professionals.

SPA MAINTENANCE

Do not expose the spa to sunlight! Without a thermal cover direct exposure to sunlight can cause discoloration in the water. Use a spa cover when you are not using the spa, whether it is filled with water or not. Do not expose the spa to rain or snow. If possible, build a covering shelter for the spa.

The side coating of the spa should be protected from high UV exposure (e.g. SPA BAG) and cedar spas should be periodically treated with UV-resistant products. The coating is lined with UV-resistant paint, but because of the previously mentioned factors there is no guarantee that it will prevent fading of color. With cedar coated spas wood treatment is recommended yearly.

1. Periodically drain, clean, and refill the spa. We recommend utilizing professional service for the refill.
2. Clean the filter once a month.
3. Shower before stepping into the spa.

Maintenance is recommended in the following periods:

• Weekly and before every use Check the spa water - see the basics of water treatment
• Every 3 months
• Change the filter cartridges
• Every 3 months Change the spa water - see draining the water
• Yearly Inspection of the spa is recommended - call a professional for proper inspection.

FILTER CARTRIDGE REMOVAL AND CLEANING

Cleaning mechanical contaminations via continuous water circulation and chemical mixture is a basic requirement for proper cleaning of the spa water. Every spa has an engine designed for this purpose. The circulation engine circulates the water through the filter(s). The filter protects against contamination floating in the water.

Cleaning of the filter cartridges is recommended weekly.

Soaking the filter cartridges in water mixed with chlorine or antialgae agents for 24 hours is recommended monthly.

Changing the filter cartridges is necessary every 3 months.

SURFACE MAINTENANCE

Wipe the surface with a wet cloth. Always use a neutral cleaning product and a soft wiping cloth. Never scratch the acrylic surface with an abrasive tool, blade, or knife, because it may cause damage. Never use nail polish remover, acetone, or paint stripper when cleaning the surface because it may cause damage.

Maintenace manual for the control panel of the spa:

• Do not damage the control panel with anything hard. If possible,
• Avoid exposing the control panel to direct sunlight.
• When not using the spa, always use a spa cover.

WINTERIZATION

Remember to correctly maintain the spa if you are not using it in the winter. If you are not using your spa during the winter months and want to put it out of service properly, call one of our qualified professionals to winterize your spa at a prearranged date and time.

The winterization encompasses the following:

• Drainage of used water
• Cleaning of the inner surface of the spa
• Dewatering of pipe and jet system
• Dewatering and disconnecting the engine's interface
• Delivery - reception

If the spa is not winterized properly, the system can retain water that can easily freeze during the winter months. This can cause heavy irreparable damage to the pipes and the engine. This will void the warranty.

Maintenance of the out-of-service spa:

When you are not using the spa, use the thermo cover and fasten it with the buckles. Do not forget! If the spa is filled with water and you are not using it, lift the cover at least once a week to ensure proper ventilation. The thermo cover is multipurpose. Most importantly it decreases the heating time of the water to operational temperature and decreases the energy needed to maintain water temperature, decreasing the operational costs.

Using the cover you can avoid leaves, rain, snow, or other contamination entering the spa water, effectively sealing it off from environmental effects.

Fastening the cover with buckles prevents young children from using it without parental supervision.

CLEAN THE FILTER CARTRIDGES WEEKLY AS FOLLOWS:

WARNING!
Changing the filter cartridges is recommended every 3 months!

Operating the spa without a filter cartridge is PROHIBITED

1. Remove the lid of the filter.
2. Take out the filter cartridge.
3. Clean contamination from the cartridge with water.
4. Soak the cartridge in lukewarm water mixed with chlorine or antialgae agents for 1-2 hours, then rinse it.

Never use an alkaline detergent or a high-pressure cleaner to clean the filter!

RAINING THE WATER

You can drain the water via the drain outlet in accordance with environmental standards.

1. Find the drainage and remove the cap.
2. Screw on the metric intermediate piece that came with the spa.
3. Twist the larger receiving part anticlockwise as much as possible.
4. Pull the receiving part towards you - the water will start flowing from the spa.
5. After the water has drained from the spa go through the previous steps in a reversed order.

W2000

OVERVIEW

Probe connectors (heat.wav's low voltage cable or regulation probe and overheat captor model-re)

Light output (12 V DC)

Communication link (in.touch or in.stik)

Main keypad connector

Power output drivers

Pump 1 and accessory fuse

heat.wav power connection

Bonding lugs

Main power entry connection

Watertight strain relief system
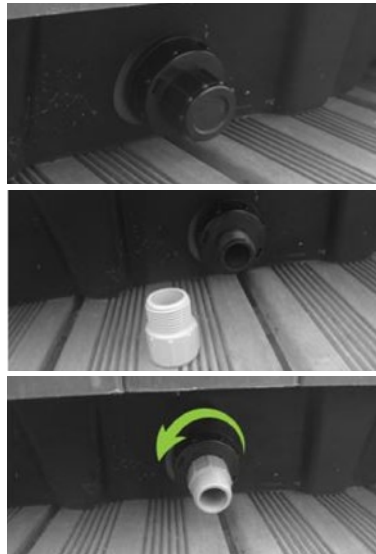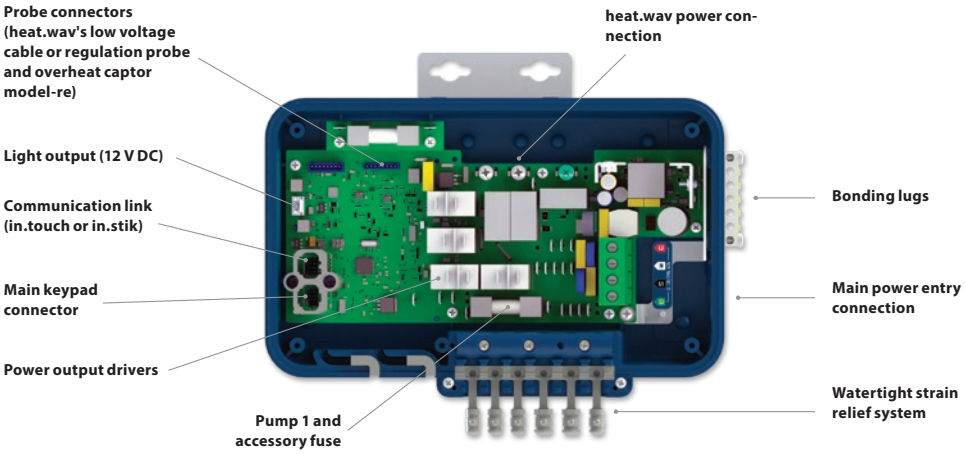
CONNECTIONS

CONNECTING HIGH VOLTAGE ACCESSORIES: EUROPEAN, AUSTRALIAN, NEW ZEALAND MODEL W2000

These tabs require high-voltage accessories to have straight, non-insulated, female quick-connect terminals for all connections, including ground. Refer to the following tables for correct connections. Note that all female terminals must be correctly and completely seated on the PCB tab for proper current ratings.
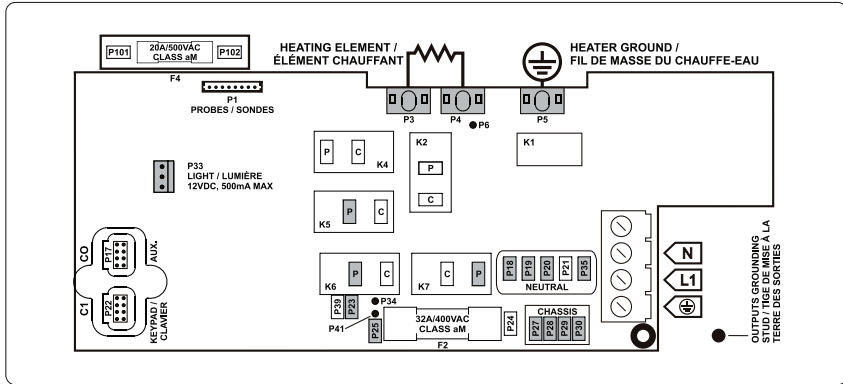
Make sure all accessories are linked to the bonding lug connector located on the side of the spa pack.

DIRECT OUTPUT

Voltage	230 V
Ground	P27
Line	P25
Common	P18

PUMP 1

Voltage	230 V
Ground	P28
Low speed	K6-P
High speed	K7-P
Common	P19

OZONE
(Working with pump 1 low speed)

Voltage	230 V
Ground	P30
Line	P23
Common	P35

HEAT.WAV-YJ

Green / ground	P5
Black / line	P3
White / common	P4

LIGHT
(12 V DC , 500mA)

Switch	P33

ELECTRICAL WIRING

ELECTRICAL WIRING: CE/AUS/NZS MODELS

Refer to wiring diagram in the enclosure box lid for more information.

> ⚠️ **WARNING!**
> W2000 models must always be connected to a circuit protected by a Residual-Current Device (RCD) having a rated operating residual-current not exceeding 30 mA.
>
> Correct wiring of the electrical service box, RCD, and pack terminal block is essential! Check your electrical code for local regulations. Only copper wire should be used, never aluminum.
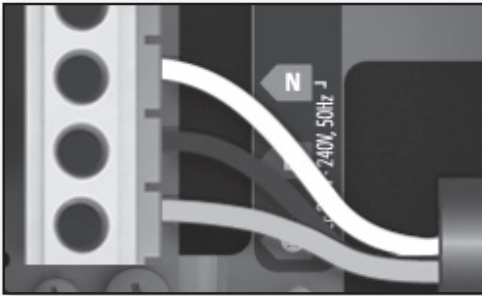
230 V (3 WIRES)

Insert each wire into the appropriate socket of the main entry terminal block according to the color code indicated on the sticker. Use a flat screwdriver to tighten the screws on the terminal.

After making sure wires are securley connected, push them back into the box and replace the cover. Do not over tighten cover screws (torque to 8 in.lb max {0.9 N.m.}).

Connect the bonding conductor to the bonding lug on the side of the spa pack (a grounded electrode conductor should be used to connect the equipment grounding conductors).

W3000 & W5000

CONNECTIONS

CONNECTION HIGH VOLTAGE ACCESSORIES: W5000 (EUROPEAN)

These tabs require high-voltage accessories to have straight, non-insulated, female quick-connect terminals for all connections, including ground. On -ce packs, only 230V accessories are supported. Refer to the following tables for correct connections. Note that all female terminals must be correctly and completely seated on the PCB tab for proper current ratings.
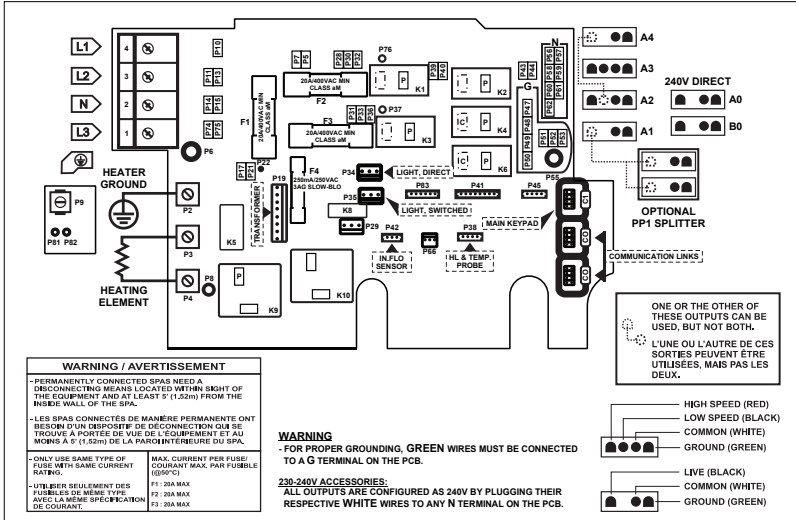
DIRECT OUTPUT 1
(Floating connector)

Voltage	230 V
Green / ground	P47
Black / line	P32
White / common	P56

PUMP 1 (A3)

Voltage	230 V
Green / ground	P49
Black / low speed	K2-P
Red / high-speed	K1-P
White / common	P59

BLOWER / CP / ABG* (A4)

Voltage	230 V
Green / ground	P48
Black / low speed	K6-P
White / common	P57

OZONATOR / PUMP 3 / CP (A1)

Voltage	230 V
Green / ground	P52
Black / line	K4-P
White / common	P62

PUMP 2 (A2)

Voltage	230 V
Green / ground	P51
Black / low speed	K6-P
Red / high-speed	K3-P
White / common	P60

CIRC. PUMP (A1)**

Voltage	230 V
Green / ground	P52
Black / line	K4-P
White / common	P62

OZONATOR / CP (B0)
(Floating connector)

Voltage	230 V
Green / ground	P48
Black / line	K2-P
White / common	P57

LIGHT (12 V AC, 1A MAX.)

Voltage	
Always on	P34
Relay	P35

* **ABG: Auxiliary Bubble Generator**
** **Ozonator and circ pump can be combined on the same output via the optional slitter PP1.**
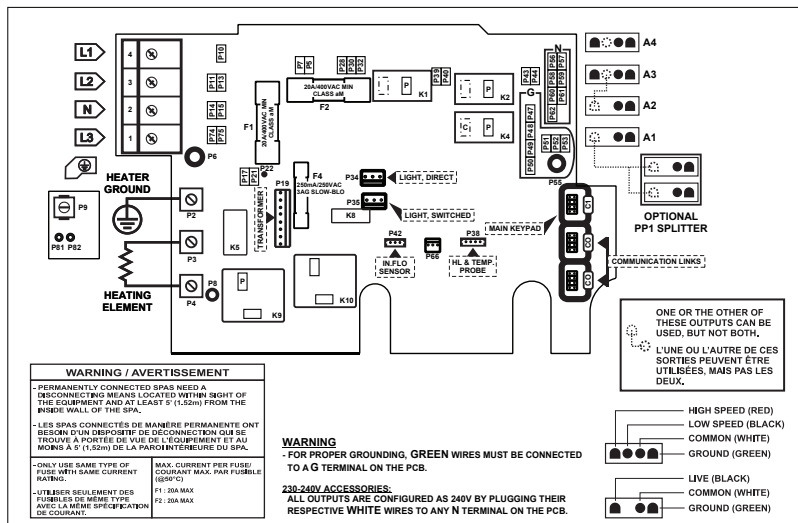**This table shows typical connections. OEMs may have a different connection scheme.**

CONNECTIONS

CONNECTION HIGH VOLTAGE ACCESSORIES: W3000 (EUROPEAN)

These tabs require high-voltage accessories to have straight, non-insulated, female quick-connect terminals for all connections, including ground. On -ce packs, only 230V accessories are supported. Refer to the following tables for correct connections. Note that all female terminals must be correctly and completely seated on the PCB tab for proper current ratings.

WARNING / AVERTISSEMENT

- PERMANENTLY CONNECTED SPAS NEED A DISCONNECTING MEANS LOCATED WITHIN SIGHT OF THE EQUIPMENT AND AT LEAST 5' (1.52m) FROM THE INSIDE WALL OF THE SPA.

- LES SPAS CONNECTÉS DE MANIÈRE PERMANENTE ONT BESOIN D'UN DISPOSITIF DE DÉCONNECTION QUI SE TROUVE À PORTÉE DE VUE DE L'ÉQUIPEMENT ET AU MOINS À 5' (1,52m) DE LA PAROI INTÉRIEURE DU SPA.

- ONLY USE SAME TYPE OF FUSE WITH SAME CURRENT RATING.

- UTILISER SEULEMENT DES FUSIBLES DE MÊME TYPE AVEC LA MÊME SPÉCIFICATION DE COURANT.

MAX. CURRENT PER FUSE/
COURANT MAX. PAR FUSIBLE
(@50°C)
F1 : 20A MAX
F2 : 20A MAX

WARNING
- FOR PROPER GROUNDING, **GREEN** WIRES MUST BE CONNECTED TO A **G** TERMINAL ON THE PCB.

230-240V ACCESSORIES:
ALL OUTPUTS ARE CONFIGURED AS 240V BY PLUGGING THEIR RESPECTIVE **WHITE** WIRES TO ANY **N** TERMINAL ON THE PCB.

ONE OR THE OTHER OF THESE OUTPUTS CAN BE USED, BUT NOT BOTH.
L'UNE OU L'AUTRE DE CES SORTIES PEUVENT ÊTRE UTILISÉES, MAIS PAS LES DEUX.

HIGH SPEED (RED)
LOW SPEED (BLACK)
COMMON (WHITE)
GROUND (GREEN)

LIVE (BLACK)
COMMON (WHITE)
GROUND (GREEN)

DIRECT (A4) Voltage	230 V
Green / ground	P47
Black / line	P32
White / common	P56

PUMP 1 (A3) Voltage	230 V
Green / ground	P49
Black / low speed	K2-P
Red / high-speed	K1-P
White / common	P59

PUMP 2 / BLOWER / 03 / ABG* (A1) Voltage	230 V
Green / ground	P52
Black / line	K4-P
White / common	P62

PUMP 2 / BLOWER / 03 / CP / ABG* (A2) Voltage	230 V
Green / ground	P51
Black / low speed	K2-P
White / common	P60

CIRC. PUMP** (A1) Voltage	230 V
Green / ground	P52
Black / line	K4-P
White / common	P62

LIGHT (12 V AC, 1A MAX.) Voltage	
Always on	P34
Relay	P35

* ABG: Auxiliary Bubble Generator
* * Ozonator and circ pump can be combined on the same output via the optional slitter PP1.
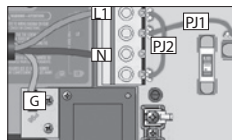**This table shows typical connections. OEMs may have a different connection scheme.**

ELECTRICAL WIRING

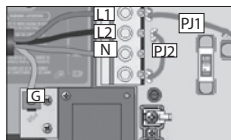### ELECTRICAL WIRING: W3000 & W5000 (EUROPEAN)

Refer to wiring diagram in the enclosure box lid for more information.
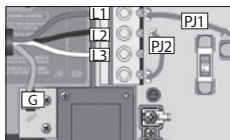

1-phase

L1 current returns through neutral

Connect PJ1 between P7 and P13. Connect PJ2 between P10 and P74.

2-phase

with single neutral L1+L2 currents return through neutral

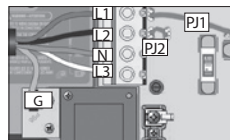Connect PJ1 between P7 and P10. Connect PJ2 between P13 and P74.

2-phase used from 3-phase Delta – no neutral

Use 2-phase setting

L1+L2 currents return through L3

Connect PJ1 between P7 and P10. Connect PJ2 between P13 and P74.

3-phase

with single neutral

L1, L2+L3 currents return through neutral

Connect PJ1 between

P7 and P10. Connect PJ2 between P11 and P13.

W3000 & W5000 230 V OR 230/400 V

Correct wiring of the electrical service box, RCD, and pack terminal block is essential! Call an electrician if necessary.

> ⚠️ **WARNING!**
>
> W3000 & W5000 models must always be connected to a circuit protected by a Residual-Current Device (RCD) having a rated operating residual-current not exceeding 30 mA.

CONNECTIONS

### CONNECTION HIGH VOLTAGE ACCESSORIES: W8000 (EUROPEAN)

These tabs require high-voltage accessories to have straight, non-insulated, female quick-connect terminals for all connections, including ground. On -ce packs, only 230V accessories are supported. Refer to the following tables for correct connections. Note that all female terminals must be correctly and completely seated on the PCB tab for proper current ratings.
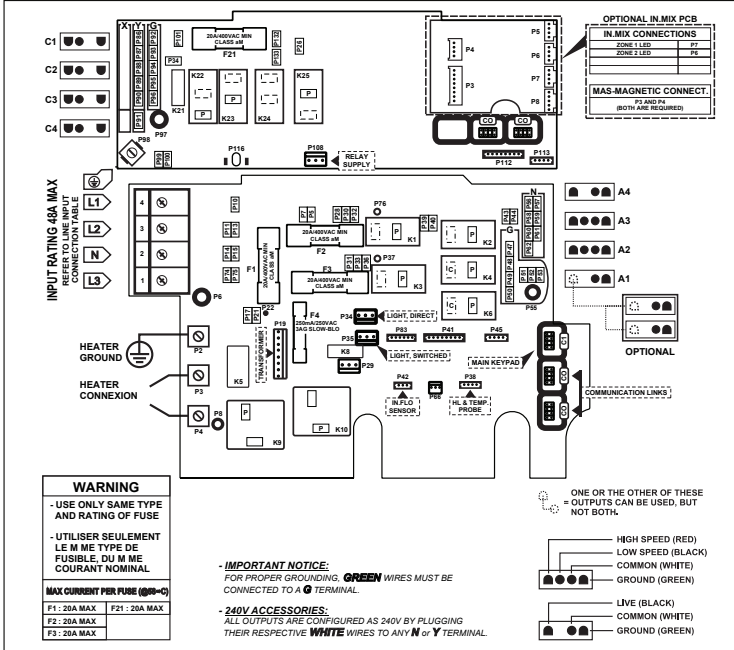
IN.MIX

Zone 1	P7
Zone 2	P6

DIRECT OUTPUT 1 (A4)

Voltage	230 V
Green / ground	P47
Black / line	P32
White / common	P56

DIRECT OUTPUT 2 (C1)

Voltage	230 V
Green / ground	P92
Black / line	P132
White / common	P86

PUMP 1 (A3)

Voltage	230 V
Green / ground	P49
Black / low speed	K2-P
Red / high-speed	K1-P
White / common	P58

CP / BLOWER / ABG* (C3)

Voltage	230 V
Green / ground	P94
Black / low speed	K23-P
White / common	P88

OZONATOR / CP (C4)

Voltage	230 V
Green / ground	P93
Black / line	P34
White / common	P88

PUMP 3 (A1)

Voltage	230 V
Green / ground	P52
Black / line	K4-P
White / common	P61

PUMP 2 (A2)

Voltage	230 V
Green / ground	P51
Black / low speed	K6-P
Red / high-speed	K3-P
White / common	P60

PUMP 4 / BLOWER / ABG* (C2)

Voltage	230 V
Green / ground	P93
Black / line	K22-P
White / common	P87

LIGHT (12 V AC, 1A MAX.)

Always on	P34
Relay	P35

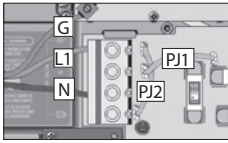*** ABG: Auxiliary Bubble Generator**
This table shows typical connections. OEMs may have a different connection scheme.
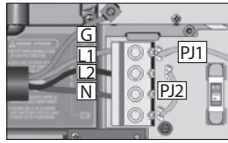
ELECTRICAL WIRING

ELECTRICAL WIRING: W8000 (EUROPEAN)

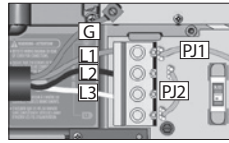Refer to wiring diagram in the enclosure box lid for more information.

1-phase
L1 current returns through neutral

Connect PJ1 between P7 and P13. Connect PJ2 between P10 and P74.

2-phase
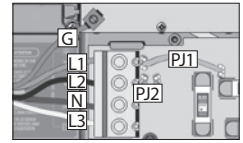with single neutral L1+L2 currents return through neutral

Connect PJ1 between P7 and P10. Connect PJ2 between P13 and P74.

2-phase used from 3-phase Delta – no neutral

Use 2-phase setting

L1+L2 currents return through L3

Connect PJ1 between P7 and P10. Connect PJ2 between P13 and P74.

3-phase with single neutral
L1, L2+L3 currents return through neutral

Connect PJ1 between P7 and P10. Connect PJ2 between P11 and P13.

W8000 230 V OR 230/400 V

Correct wiring of the electrical service box, RCD, and pack terminal block is essential!
Call an electrician if necessary.

⚠️ **WARNING!**

W8000 models must always be connected to a circuit protected by a Residual-Current Device (RCD) having a rated operating residual-current not exceeding 30 mA.

BREAKER SETTING

POWER UP AND BREAKER SETTING

It is important to specify the current rating of the GFCI/RCD used to ensure a safe and efficient current management (and reduce nuissance GFCI/RCD trippings).

Press and hold the Prog. button until you access the breaker setting menu. (the programming menu will appear first). If your control system is equipped with the phase configuration menu, it will appear before the breaker setting menu.
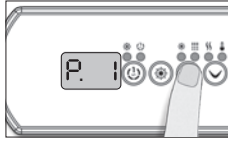
Note: if the keypad does not have the Prog. Key, use the Light key.

For color display keypad go in setting menu.

The tables below indicate the typical value of b for different GFCI/RCD ratings.

Choose the one that corresponds to your breaker.

Note: Every OEM has its own pre-established configurations.

Choose the number of phases supplying your spa (1 to 3). Use the **Up** or **Down** keys to select the number of phases and press on the **Prog**. key to confirm your selection.

W2000

Selecting number of phases

UL	Menu not available
CE	Menu not available

W3000, W5000 & W8000

Selecting number of phases

CE	1, 2 or 3
CE Swim*	1, 2 or 3

* For more information see the Swim spa system Techbook.

The values displayed by the system correspond to 80% of the maximum amperage capacity of the GFCI.

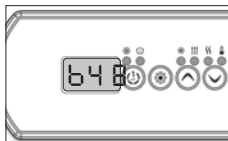Use the Up or Down keys to choose the desired value.

The value can typically be modified from 10 to 48 A.

Press on the Prog. key to set the breaker rating.

W2000

GFCI/RCD	b
50A	40A*
40A	32A
30A	24A
20A	16A
16A	12.8A
15A	12A

W3000, W5000 & W8000

| GFCI/RCD	b
60A	48A
50A	40A
40A	32A
30A	24A
20A	16A

* Only available on in.yj-3.

POWER UP AND BREAKER SETTING

IMPORTANT Please read the following before starting the device.

Verify that all accessories are linked to the ground lug and connected to the to the control system.

A minimum flow of 68 LPM (18 GPM) is required. Make sure that all valves are open in the spa plumbing and that the water flow is sufficient between the main pump and the water heater.

Turn on the breaker.
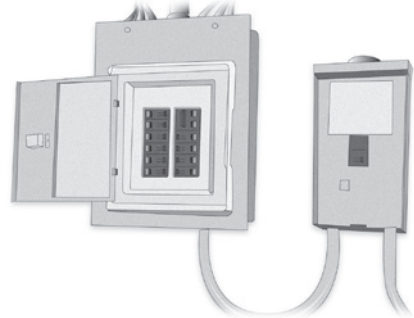
IN.FLO DRY-FIRE PROTECTION

At start up, the in.flo's detector verifies the water flow according to the following sequence:

The Pump 1 or the circulation pump runs for a period of 2 to 5 minutes.

The display will show "- - -" during the flow verification. After this time, the system confirms if flow is adequate or not.

If the flow is sufficient, the temperature of the water is displayed on the keypad screen. When the water has reached the consigned temperature plus 0.45°C (0.8°F), the water heater turns off.

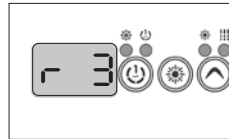**DISPLAY SEQUENCE AT START UP (EVERY PARAMETER IS DISPLAYED FOR 2 SECONDS)**
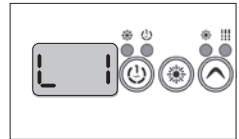
Lamp test
All segments and LEDs light up.

Software number

Software revision

Low-level selected
Low-level selected from the low-level menu.

QUESTIONS CONCERNING CLEANING, WATER TREATMENT, AND MAINTENANCE

What should I do if the filter of the spa is polluted?

Clean the filter every week or two weeks with a jet of water. Periodically, depending on usage, soak the filter in water mixed with an antialgae agent for 1-2 hours, then rinse it.

Should I shower before using the spa?

Yes, thoroughly.

Should the side cover of the spa be treated?

The side cover is made from weather resistant plastic. It does not require treatment or maintenance (except if it is a cedar cover).

How often should the water be changed if my spa has the in.clear water maintenance system? Does it maintain water quality?

With the cutting-edge automated brominating in.clear system water only has to be changed approximately once every 6 months. This can be even longer if the spa is not used daily. Adding water and Trublu (sodium bromide) may be necessary if the water level decreases because of splashing or evaporation. Optional UV-C antibacterial agents, disinfectant, and a sterilization system are available for our spas. These guarantee fresh and pure water using 30-50% fewer chemicals.

What kind of water treatment do you recommend in case of communal use?

In case of communal use we recommend the optional sand filtration device that comes in place of the standard antibacterial filter. In case of heavy usage we recommend the automated monitoring-, regulating-, and chemical dispenser device.

I cannot stop the heavy foaming. Before using the spa we shower without using soap and I use the necessary chemicals. Did I use too little?

As described in the user guide of the products, apply 1-2 cups of antifoaming agent to the spa water. Wait for the chemical to thoroughly mix with the water. Repeat if necessary. If the problem is still present, check and readjust the pH value. If foaming still occurs, disinfect the spa with an antialgae chemical containing free active chlorine, then drain, clean, rinse, and refill the spa.

PREPARATION OF THE INSTALLATION SITE

What are the most important concerns when selecting the installation site?

The installation site should be prepared in accordance with the installation guide by a professional. The devices can only be installed and set up at appropriate installation sites. Make sure there is an appropriate cable length, electric supply, a 30mA protective relay, and with certain products a floor drain.

Is a floor drain necessary for an indoor spa?

Building a floor drain is mandatory!

TECHNICAL DATE OF THE PRODUCT, USAGE

What type of water circulation engine is used for massage spas?

Our massage spas are equipped with Laing low power (110W) energy saving, silent circulating motor pumps.

What is the maximal temperature that does not damage the spa?

The water temperature can be adjusted to between 26 and 40 degrees Celsius.

What is the recommended optimal water temperature?

32-38 degrees Celsius. If young children are using the spa, lower temperature is recommended. Always check the water temperature before the child steps into the spa and make sure that the temperature is suitable for the child.

Can the system freeze? Is there a sensor that starts emergency heating in case of freezing?

In the winter the unused spa should be winterized. After draining the spa we will defrost the system as necessary, meaning that we will remove the water retained by the engine and the pipes. For details and pricing please call our customer service. If the spa remains in use during the winter, the engines start if there is a danger of freezing and heat the water to 8°C

Can the system be programmed to start heating at certain time?

There is no way of setting a time and date for automatic heating. Because of concerns of energy efficiency heating the water to greater temperatures is not recommended in case of multiple weekly usage.

Can the spa be controlled remotely?

Our premium category massage spas come with a Balboa Colossus control system that can be controlled via an app designed for IOS and Android (Windows is not supported). The app makes remote access and control possible. You can access the controls of your massage spa anywhere, adjust the water temperature, circulation, lighting, and check the status of the spa from afar.

The jet of the spa shuts down automatically after 15 minutes of operation. Can I restart it immediately, or do I have to wait? Can I restart it as many time as I want without a break? How does this affect the jets?

The hydromassage system shuts down every 15 minutes for security reasons - to avoid possible muscle soreness. It can be restarted for any amount of times and without a break.

Is this the same for the bubble massage function?

Yes, it is the same for the bubble massage function.

When we do not use the spa often, mostly in the winter (around 3 times a week), which is the most energy efficient setting, taking into account the energy necessary for reheating? We only use it a couple of times a week, 37 degrees Celsius is our favourite temperature. Should it be in Sleep or Economy mode? Should I switch to the Standard setting only when heating the spa? Or should it always stay on Standard?

If you only use it 2-3 times a week, the most efficient way is to keep the water at operational temperature (38 degrees Celsius). Thanks to the excellent insulation and the thermo cover this setting requires less energy than letting the water cool down and reheating it before usage. The heating system automatically switches on in case the water temperature drops more than half a degree Celsius. In the summer the Economy setting is recommended as the external temperature is usually high. Only use the Sleep setting if you are not using the spa for a longer period of time (3-4 weeks).

Does the spa switch back to the last used setting if there is a power outage?

When connecting the spa to the power supply it switches to charging mode. Push the "Temp" button to set it to the Standard setting and it will display the water temperature. The spa will switch back to the last used setting after a power outage.

Can the filtration cycle only be programmed to 1-8 hour periods? Is there something like a 3-hour period? What is ideal and what is adequate?

The filtration cycle can be set to 1-8 hour or continuous settings. If you have a spa equipped with the in.clear automatic water management system, a daily 8-hour circulation period is recommended to produce necessary amounts of bromine. The 8-hour (2x4 hour) setting is ideal.

Can the operating device for our spa be placed in an external location where only the staff can access it?

The operating device can only be placed 5 meters cable length away from the spa.

What is the service life of the UV-C lamp?

If the filtration cycle is set to the continuous (0-24) setting, then the service life of the UV-C lamp is 8000-9000 hours. With continuous setting the most effective water disinfectant system can reduce the necessary amount of chemicals by 30-50% depending on usage.

IN.CLEAR

Why is the water turbulent/oily?

If the water is turbulent or oily after heavy usage, perform a refill and wait 24 hours until conditions are suitable for usage. If the problem persists, contact your service provider to perform the necessary water equilibriation.

Does sodium-bromide vaporize?

No. Sodium-bromide will only leave the spa in case of splashing, leaking, or draining.

What should I use to clean my spa?

Only nonfoaming nonacerbic cleaning products available at professional dealerships.

If the in.clear bromine generator is switched off, is the spa still being disinfected by sodium bromide?

No. The in.clear system does not disinfect while switched off. However, if there is a level of bromine left over in the water, it will continue the disinfecting process. The In.clear system can be switched off for certain periods of time and the spa will remain nice and clean. Sodium bromide becomes bromine when it passes through the electrodes of the in.clear system, while the pump connected to the in.clear system is operational.

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