



Bueno^ospa

USER MANUAL FOR HOT TUB

/ CONTROL SYSTEMS / KEYPADS / ACCESSORIES /



WARNING

REDUCE THE RISK OF ELECTROCUTION

- Never place an electric appliance within 5 feet of hot tub.

REDUCE THE RISK OF CHILD DROWNING

- Supervise children at all times.
- Attach hot tub cover after each use.

REDUCE THE RISK OF OVERHEATING

- Check with a doctor before use if pregnant, diabetic, in poor health, or under medical care.
- Exit immediately if uncomfortable, dizzy, or sleepy. Hot tub heat can cause hyperthermia and unconsciousness.
- Hot tub heat in conjunction with alcohol, drugs, or medication can cause unconsciousness.

WHEN PREGNANT, water temperature before entering.

- Soaking in hot water for long periods can harm your fetus. Measure
- Exit immediately if uncomfortable, dizzy, or sleepy. Hot tub heat can cause hyperthermia and unconsciousness.
- Hot tub heat in conjunction with alcohol, drugs, or medication can cause unconsciousness.

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INTRODUCTION

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 hot tub 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 cossetting 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 hot tubs 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 hot tub and enjoy the gently flowing water!

The user manual is available at <http://www.buenospa.com>.

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IMPORTANT SAFETY INSTRUCTIONS

1. **READ AND FOLLOW ALL INSTRUCTIONS.**
2. **WARNING** – To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
3. A wire connector is provided on this unit to connect a minimum 8 AWG (8.4 mm²) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5 m) of the unit.
4. (For cord-connected/convertible units) **DANGER** – Risk of injury.
 - a) Replace damaged cord immediately.
 - b) Do not bury cord.
 - c) Connect to a grounded, grounding type receptacle only.
5. **DANGER** – Risk of Accidental Drowning. Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this hot tub unless they are supervised at all times.
6. **DANGER** – Risk of Injury. The suction fittings in this hot tub are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure that the flow rates are compatible.
Never operate hot tub if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.
7. **DANGER** – Risk of Electric Shock. Install at least 5 feet (1.5 m) from all metal surfaces. As an alternative, a hot tub may be installed within 5 feet of metal surfaces if each metal surface is permanently connected by a minimum 8 AWG (8.4 mm²) solid copper conductor to the wire connector on the terminal box that is provided for this purpose.
8. **DANGER** – Risk of Electric Shock. Do not permit any electric appliance, such as a light, telephone, radio, or television, within 5 feet (1.5 m) of a hot tub.
9. **WARNING** – To reduce the risk of injury:
 - a) The water in a hot tub should never exceed 40°C (104°F). Water temperatures between 38°C (100°F) and 40°C are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when hot tub use exceeds 10 minutes.
 - b) Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit hot tub water temperatures to 38°C (100°F).
 - c) Before entering a hot tub, the user should measure the water temperature since the tolerance of water temperature-regulating devices varies.
 - d) The use of alcohol, drugs, or medication before or during hot tub use may lead to unconsciousness with the possibility of drowning.
 - e) Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a hot tub.
 - f) Persons using medication should consult a physician before using a hot tub since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation.

13. SAVE THESE INSTRUCTIONS.

Audio/video components

- a) "CAUTION – Risk of Electric Shock. Do not leave compartment door open";
- b) "CAUTION – Risk of Electric Shock. Replace components only with identical components"; and
- c) "Do not operate the audio/video controls while inside in the hot tub".
- d) "WARNING – Prevent Electrocutation. Do not connect any auxiliary components (for example cable, additional speakers, headphones, additional audio/video components, etc.) to the system".
- e) These units are not provided with an outdoor antennae; when provided, it should be installed in accordance with Article 810 of the National Electrical Code, ANSI/NFPA 70.
- f) Do not service this product yourself as opening or removing covers may expose you to dangerous voltage or other risk of injury. Refer all servicing to qualified service personnel.
- g) When the power supply connections or power supply cord(s) are damaged; if water is entering the audio/video compartment or any electrical equipment compartment area; if the protective shields or barriers are showing signs of deterioration; or if there are signs of other potential damage to the unit, turn off the unit and refer servicing to a qualified service personnel.
- h) This unit should be subjected to periodic routine maintenance (for example, once every 3 months) to make sure that the unit is operating properly.

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.

AVOIDING THE RISK TO CHILDREN

- To reduce the risk of injury, lower water temperatures are recommended for young children. Children are especially sensitive to hot water.
- Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use a hot tub unless they are supervised at all times.

DO:

- Make sure you always lock the child resistant locks after using the hot tub for your children's safety.
- Test the water temperature with your hand before allowing children to enter the hot tub to be sure that it's comfortable. Children are especially sensitive to hot water.
- Remind children that wet surfaces can be very slippery. Make sure that children are careful when entering or exiting the hot tub.
- Do not allow children to climb onto the hot tub cover.
- Do not allow children to have unsupervised access to the hot tub.

SAFETY INSTRUCTIONS

AVOIDING THE RISK OF ELECTROCUTION



DANGER - RISK OF ELECTROCUTION

Initial safety warnings

- The hot tub 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 hot tub.
- Connect only to a grounded source.
- Do not bury the power cord. A buried power cord may result in death, or serious personal injury due to electrocution if direct burial-type cable is not used, or if improper digging occurs.



WARNING

- To reduce the risk of electrical shock, replace a damaged cord immediately. Failure to do so may result in death or serious personal injury due to electrocution.
- Your hot tub must be connected to a Ground Fault Circuit Interrupter (GFCI) for user and equipment protection. To ensure proper operation of this important safety device, test according to the following instructions per electrical configuration.
- **Cord-Connected 115 volt, 20 amp models:** The GFCI is located at the end of the power cord. Before each use, with the unit operating, push the TEST button. The unit should stop operating and the GFCI power indicator will go out. Wait 30 seconds and then reset the GFCI by pushing the RESET button. The GFCI power indicator will turn on, restoring power to the hot tub. If the interrupter does not perform in this manner, there

may be an electrical malfunction and with it, the possibility of an electric shock. Disconnect the power until the problem has been corrected.

- **2x120 volt, permanently connected or converted models:**
- A ground terminal is provided on the terminal block (TB-1, system ground terminal) located inside the control box. To reduce the risk of electric shock, connect this terminal to the grounding terminal of your electrical service or supply panel with a continuous green, insulated copper wire. The wire must be equivalent in size to the circuit conductors supplying the equipment. In addition, a bonding terminal (pressure wire connector) is provided on the outside of the control box for bonding to local ground points. To reduce the risk of electric shock, this connector should be bonded with a No. 8 AWG (8.4 mm²) solid copper wire to any metal ladders, water pipes, or other metal within 5 feet (1.5 m) of the hot tub to comply with local requirements. The means of disconnection must be readily accessible, but must be installed at least 5 feet (1.5 m) from the hot tub.
- Your hot tub is provided with a suitably rated circuit breaker to open all ungrounded supply conductors.
- Your hot tub uses ground fault circuit interrupters in the electrical subpanel. Before each use of the hot tub and with the unit operating, push the TEST button on each breaker. The switch should click over to the “Trip” position. Wait 30 seconds and reset each GFCI breaker by switching it completely off and then completely on.

The switch should then stay on. If either of the interrupters does not perform in this manner, it is an indication of an electrical malfunction and the possibility of an electric shock. Disconnect the power until the fault has been identified and corrected.

SAFETY INSTRUCTIONS

IMPORTANT: Failure to wait 30 seconds before resetting the GFCI may cause the hot tub's Power Indicator (on the control panel) to blink. If this occurs, repeat the GFCI test procedure.



DANGER - RISK OF ELECTRIC SHOCK

- A wire connector is provided on this unit to connect a minimum 8 AWG (8.4 mm²) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5 m) of the unit.
- Install at least 5 feet (1.5 m) from all metal surfaces. As an alternative, a hot tub may be installed within 5 feet of metal surfaces if each metal surface is permanently connected by a minimum 8 AWG (8.4 mm²) solid copper conductor to the wire connector on the terminal box that is provided for this purpose.
- Do not permit any electric appliance, such as a light, telephone, radio, or television, within 5 feet (1.5 m) of a hot tub. Failure to maintain a safe distance may result in death, or serious personal injury due to electrocution, if the appliance should fall into the hot tub.
- Install your hot tub in such a way that drainage is away from the electrical compartment and from all electrical components.
- **CAUTION** — Risk of Electric Shock. Do not leave compartment door open
- **CAUTION** — Risk of Electric Shock. Replace components only with identical components
- Do not service this product yourself as opening or removing covers may expose you to dangerous voltage or other risk of injury. Refer all servicing to qualified service personnel.

DO:

- Be sure your hot tub is connected to the power supply correctly - use a licensed electrical contractor.
- Disconnect the hot tub from the power supply before draining the hot tub or servicing the electrical components.
- Test the Ground Fault Circuit Interrupter(s) before each use.
- Do not use the hot tub with the equipment compartment door removed.
- Do not place electrical appliances within 5 feet (1.5m) of the hot tub.
- Do not use an extension cord to connect the hot tub to its power source. The cord may not be properly grounded and the connection is a shock hazard. An extension cord may cause a voltage drop, which will cause overheating of the jet pump motor and motor damage.
- Do not attempt to open the electrical control box. There are no user serviceable parts inside.

RISKS TO AVOID



DANGER - RISK OF INJURY

- To reduce the risk of injury to persons, **DO NOT** remove suction fittings (filter standpipes) located in the filter compartment.
- There is a danger of slipping and falling. Remember that wet surfaces can be very slippery. Take care when entering or exiting the hot tub.
- Never operate hot tub if the suction fittings are broken or missing.
- People with infectious diseases should not use the hot tub.
- Keep any loose articles of clothing, long hair, or hanging jewelry away from rotating jets or other moving components.

SAFETY INSTRUCTIONS

- Water treatment should be carried out with caution. Improperly chemically treated water may cause skin irritation.
- Do not remove any suction sealing.
- Do not operate the hot tub if the suction sealing is broken or missing.
- Keep your clothes and jewellery away from rotating jets and moving parts.
- Effects of overheating: you cannot assess emergency situations, do not feel the temperature, do not feel the need to get out of the hot tub, cannot get out of the hot tub; risk of fetal damage in pregnant women, loss of consciousness, suffocation.
- Do not use the hot tub alone.
- Do not use the hot tub immediately after strenuous sport.

INCREASED SIDE EFFECTS OF MEDICATION

- The use of drugs, alcohol may cause unconsciousness with the possibility of drowning.

HEALTH PROBLEMS AFFECTED BY HOT TUB USE

- Pregnant women should consult a physician before using hot tub.
- Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a hot tub.

AVOIDING THE RISK OF HYPERTHERMIA

Prolonged immersion in hot water can result in HYPERTHERMIA, Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F. The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting. The effects of

hyperthermia include failure to perceive heat; failure to recognize the need to exit hot tub or hot tub; unawareness of impending hazard; fetal damage in pregnant women; physical inability to exit the hot tub or hot tub; and unconsciousness resulting in the danger of drowning.



WARNING

The use of alcohol, drugs, or medication before or during hot tub use may lead to unconsciousness with the possibility of drowning.

TO REDUCE THE RISK OF INJURY

- The water in a hot tub should never exceed 40°C (104°F). Water temperatures between 38°C (100°F) and 40°C are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when hot tub use exceeds 10 minutes. Extended use can cause hyperthermia.
- Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit hot tub water temperatures to 38°C (100°F).
- Pregnant or possibly pregnant women should limit hot tub water temperatures to 100°F (36°C). Failure to do so may result in permanent injury to your baby.
- Do not use hot tub immediately following strenuous exercise.
- Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a hot tub.

SAFETY INSTRUCTIONS

AVOIDING THE RISK OF SKIN BURNS

- Before entering a hot tub, the user should measure the water temperature since the tolerance of water temperature-regulating devices varies.
- To reduce the risk of injury, before entering a hot tub the user should measure the water temperature with an accurate thermometer.
- Test the water with your hand before entering the hot tub to be sure it's comfortable.

PRODUCT SAFETY AND MAINTENANCE

For units intended for use in other than single-family dwellings, a clearly labeled emergency switch must be provided as part of the installation. The switch must be readily accessible to the occupants and must be installed at least 5 feet (1.52 m) away, adjacent to, and within sight of, the unit.

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

Do not remove any suction sealing. Do not operate the hot tub 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 hot tub 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 hot tub 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 hot tub, 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 hot tub 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 hot tub.*

The hot tub 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.

SAFETY INSTRUCTIONS

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 hot tub during usage.

Parts under electrical power – except those operating with voltage not exceeding 12V – must be inaccessible for persons in the hot tub. 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 hot tub.

The electrical installation must meet the local standard requirements.

To avoid electric shock do not use the hot tub in rain.

Water attracts children. Always place and lock the cover on the hot tub 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 hot tub to avoid damage.

Do not use the device if there is the slightest chance of water in the hot tub 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 hot tub under adult supervision.

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

If you feel uncomfortably or sleepy, leave the hot tub immediately.

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

Only place the hot tub 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 hot tub 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 hot tub components and cause damage to the hot tub 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 hot tubs 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 hot tub use.

The user is responsible for regular monitoring of the hot tub water to ensure that enough bromine is available to reach the appropriate cleaning level. Intensive hot tub 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 hot tubs must periodically be completely drained. The advised time period between full drains given in days is calculated by dividing the capacity of the hot tub in litres by the tenfold of the average daily users.

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

THIS UNIT SHOULD BE SUBJECTED TO PERIODIC ROUTINE MAINTENANCE (FOR EXAMPLE, ONCE EVERY 3 MONTHS) TO MAKE SURE THAT THE UNIT IS OPERATING PROPERLY.

SAVE THESE INSTRUCTIONS

WARNING: CHILDREN SHOULD NOT USE HOT TUBS OR HOT TUBS WITHOUT ADULT SUPERVISION

AVERTISSEMENT : NE PAS LAISSER LES ENFANTS UTILISER UNE CUVE DE RELAXATION SANS SURVEILLANCE

WARNING: DO NOT USE HOT TUBS OR HOT TUBS UNLESS ALL SUCTION GUARDS ARE INSTALLED TO PREVENT BODY AND HAIR ENTRAPMENT

AVERTISSEMENT : POUR ÉVITER QUE LES CHEVEUX OU UNE PARTIE DU CORPS PUISSENT ÊTRE ASPIRÉS, NE PAS UTILISER UNE CUVE DE RELAXATION SI LES GRILLES DE PRISE D'ASPIRATION NE SONT PAS TOUTES EN PLACE

WARNING: PEOPLE USING MEDICATIONS AND/OR HAVING AN ADVERSE MEDICAL HISTORY SHOULD CONSULT A PHYSICIAN BEFORE USING A HOT TUB OR HOT TUB

AVERTISSEMENT : LES PERSONNES QUI PRENNENT DES MÉDICAMENTS ET (OU) ONT DES PROBLÈMES DE SANTÉ DEVRAIENT CONSULTER UN MÉDECIN AVANT D'UTILISER UNE CUVE DE RELAXATION

WARNING: PEOPLE WITH INFECTIOUS DISEASES SHOULD NOT USE A HOT TUB OR HOT TUB

AVERTISSEMENT : LES PERSONNES ATTEINTES DE MALADIES INFEC-

SAFETY INSTRUCTIONS - CANADA

TIEUSES NE DEVRAIENT PAS UTILISER UNE CUVE DE RELAXATION

WARNING: TO AVOID INJURY, EXERCISE CARE WHEN ENTERING OR EXITING THE HOT TUB OR HOT TUB

AVERTISSEMENT : POUR ÉVITER DES BLESSURES, USER DE PRUDENCE EN ENTRANT DANS UNE CUVE DE RELAXATION ET EN SORTANT

WARNING: DO NOT USE DRUGS OR ALCOHOL BEFORE OR DURING THE USE OF A HOT TUB OR HOT TUB TO AVOID UNCONSCIOUSNESS AND POSSIBLE DROWNING

AVERTISSEMENT : POUR ÉVITER L'ÉVANOUISSEMENT ET LA NOYADE ÉVENTUELLE, NE PRENDRE NI DROGUE NI ALCOOL AVANT D'UTILISER UNE CUVE DE RELAXATION NI QUAND ON S'Y TROUVE

WARNING: PREGNANT OR POSSIBLY PREGNANT WOMEN SHOULD CONSULT A PHYSICIAN BEFORE USING A HOT TUB OR HOT TUB

AVERTISSEMENT : LES FEMMES ENCEINTES, QUE LEUR GROSSESSE SOIT CONFIRMÉE OU NON, DEVRAIENT CONSULTER UN MÉDECIN AVANT D'UTILISER UNE CUVE DE RELAXATION

WARNING: WATER TEMPERATURE IN EXCESS OF 38 °C CAN BE INJURIOUS TO YOUR HEALTH

AVERTISSEMENT : IL PEUT ÊTRE DANGEREUX POUR LA SANTÉ DE SE PLONGER DANS DE L'EAU À PLUS DE 38 °C

WARNING: BEFORE ENTERING THE HOT TUB OR HOT TUB, MEASURE THE WATER TEMPERATURE WITH AN ACCURATE THERMOMETER

AVERTISSEMENT : AVANT D'UTILISER UNE CUVE DE RELAXATION, MESURER LA TEMPÉRATURE

DE L'EAU À L'AIDE D'UN THERMOMÈTRE PRÉCIS

WARNING: DO NOT USE A HOT TUB OR HOT TUB IMMEDIATELY FOLLOWING STRENUOUS EXERCISE

AVERTISSEMENT : NE PAS UTILISER UNE CUVE DE RELAXATION IMMÉDIATEMENT APRÈS UN EXERCICE FATIGANT

WARNING: PROLONGED IMMERSION IN A HOT TUB OR HOT TUB CAN BE INJURIOUS TO YOUR HEALTH

AVERTISSEMENT : L'UTILISATION PROLONGÉE D'UNE CUVE DE RELAXATION PEUT ÊTRE DANGEREUSE POUR LA SANTÉ

WARNING: DO NOT PERMIT ELECTRIC APPLIANCES (SUCH AS A LIGHT, TELEPHONE, RADIO, OR TELEVISION) WITHIN 1.5 M OF THIS SPA OR HOT TUB

AVERTISSEMENT : NE PAS PLACER D'APPAREIL ÉLECTRIQUE (LUMINAIRE, TÉLÉPHONE, RADIO, TÉLÉVISEUR, ETC) À MOINS DE 1.5 M DE CETTE CUVE DE RELAXATION

CAUTION : MAINTAIN WATER CHEMISTRY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS

ATTENTION: LA TENEUR DE L'EAU EN MATIÈRES DISSOUTES DOIT ÊTRE CONFORME AUX DIRECTIVES DU FABRICANT.

WARNING: THE USE OF ALCOHOL OR DRUGS CAN GREATLY INCREASE THE RISK OF FATAL HYPERTHERMIA IN HOT TUBS AND SPAS

LA CONSOMMATION D'ALCOOL OU DE DROGUE AUGMENTE CONSIDÉRABLEMENT LES RISQUES D'HYPERTHERMIE MORTELLE DANS UNE CUVE DE RELAXATION.

SAFETY INSTRUCTIONS - CANADA

WARNING: RISK OF ACCIDENTAL DROWNING. EXTREME CAUTION MUST BE EXERCISED TO PREVENT UNAUTHORIZED ACCESS. ENSURE THAT CHILDREN CANNOT USE THIS PRODUCT UNLESS THEY ARE SUPERVISED AT ALL TIMES

AVERTISSEMENT : RISQUE DE NOYADE. PRENDRE TOUTES LES PRÉCAUTIONS NÉCESSAIRES POUR INTERDIRE L'ACCÈS AUX PERSONNES NON AUTORISÉES. S'ASSURER QUE LES ENFANTS NE PUISSENT PAS UTILISER CE PRODUIT SANS SURVEILLANCE CONSTANTE

WARNING: RISK OF ACCIDENTAL DROWNING. THE USE OF ALCOHOLIC BEVERAGES OR DRUGS BEFORE OR DURING SPA USE CAN LEAD TO UNCONSCIOUSNESS WITH THE POSSIBILITY OF DROWNING

AVERTISSEMENT : RISQUE DE NOYADE. TOUTE PERSONNE QUI PREND DE LA DROGUE OU DE L'ALCOOL AVANT D'UTILISER UNE CUVE DE RELAXATION OU PENDANT QU'ELLE S'Y TROUVE RISQUE L'ÉVAUOUEMENT ET LA NOYADE

WARNING: RISK OF ACCIDENTAL DROWNING DUE TO HYPERTHER-

MIA. CONSULT THE INSTRUCTIONS PROVIDED WITH THIS UNIT FOR A DESCRIPTION OF THE CAUSES, SYMPTOMS, AND EFFECTS OF HYPERTHERMIA

AVERTISSEMENT : RISQUE DE NOYADE PAR SUITE D'HYPERTHERMIE. LIRE LA NOTICE QUI ACCOMPAGNE

CET APPAREIL; ELLE DÉCRIT LES CAUSES, LES SYMPTÔMES ET LES EFFETS DE L'HYPERTHERMIE

WARNING: RISK OF ELECTRIC SHOCK. DO NOT PERMIT ANY ELECTRIC APPLIANCE (SUCH AS A LIGHT, TELEPHONE, RADIO, OR TELEVISION) WITHIN 1.5 M OF A SPA

AVERTISSEMENT : DANGER D'ÉLECTROCUTION. NE PAS PLACER D'APPAREIL ÉLECTRIQUE (LUMINAIRE, TÉLÉPHONE, RADIO, TÉLÉVISEUR, ETC) À MOINS DE 1.5 M DE CETTE CUVE DE RELAXATION

WARNING: THIS MARKING SHALL BE REMOVED BY THE END USER OF THIS PRODUCT ONLY

AVERTISSEMENT : SEUL L'UTILISATEUR DE CE PRODUIT PEUT ENLEVER CE MARQUAGE.

IMPORTANT SAFETY INSTRUCTIONS

When using this electrical equipment, basic safety precautions should always be followed, including the following:

A) READ AND FOLLOW ALL INSTRUCTIONS.

B) A GREEN COLOURED TERMINAL OR A TERMINAL MARKED G, GR, GROUND, GROUNDING, OR THE Ⓧ SYMBOL IS LOCATED INSIDE THE SUPPLY TERMINAL BOX OR COMPARTMENT. TO REDUCE THE RISK OF ELECTRIC SHOCK, THIS TERMINAL MUST BE CONNECTED TO THE GROUNDING MEANS PROVIDED IN THE ELECTRIC SUPPLY SERVICE PANEL WITH A CONTINUOUS COPPER WIRE EQUIVALENT IN SIZE TO THE CIRCUIT CONDUCTORS SUPPLYING THIS EQUIPMENT.

C) AT LEAST TWO LUGS MARKED “BONDING LUGS” ARE PROVIDED ON THE EXTERNAL SURFACE OR ON THE INSIDE OF THE SUPPLY TERMINAL BOX OR COMPARTMENT. TO REDUCE THE RISK OF ELECTRIC SHOCK, CONNECT THE LOCAL COMMON BONDING GRID IN THE AREA OF THE HOT TUB OR SPA TO THESE TERMINALS WITH AN INSULATED OR BARE COPPER CONDUCTOR NOT SMALLER THAN NO. 6 AWG.

D) ALL FIELD-INSTALLED METAL COMPONENTS SUCH AS RAILS, LADDERS, DRAINS, OR OTHER SIMILAR HARDWARE WITHIN 3 M OF THE SPA OR HOT TUB SHALL BE BONDED TO THE EQUIPMENT GROUNDING BUS WITH COPPER CONDUCTORS NOT SMALLER THAN NO. 6 AWG.

E) SAVE THESE INSTRUCTIONS.

CONTROLS

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.



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).



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).



INITIAL INSTALLATION

SITE PREPARATION

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

1. INDOOR/BASEMENT INSTALLATION

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

Water may accumulate around the hot tub, so the flooring material must have a proper runoff to avoid accumulation of water. When building a new room for the hot tub, 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 hot tub 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. OUTDOOR AND PATIO INSTALLATION

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



Ensure that your deck or foundation will support your hot tub. 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 hot tub, its contents and occupants please refer to the hot tub 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 hot tub outdoors, we recommend a reinforced horizontal concrete pad at least 10-15cm thick.

Install floor drains around your hot tub 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 hot tub 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 hot tub to direct sunlight (not even empty) without proper coverage. The insulated hot tub 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 hot tub and the hot tub equipment.

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

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

3. IN-GROUND / SUNKEN HOT TUB

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

The inspection pit's bottom must be under the bearing point of the hot tub 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 hot tub only the portion below the hot tub'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 hot tub out of the ground are borne by the user. If the aforementioned conditions are not present, setting up the hot tub may fail.

First filling of the hot tub

Proper filling of the hot tub is an important task both technically and chemically. We advise installation and periodic maintenance by the servicing professionals, which includes inspection and refilling of hot tub water. Hot tubs do not contain water softener and hard water damages the equipment. Improper filling of the hot tub 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 hot tub 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 hot tubs equipped with air engine the flare fitting must be connected before running the hot tub for the first time.

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

Next fill the hot tub 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.



INITIAL INSTALLATION

Electrical preparations:

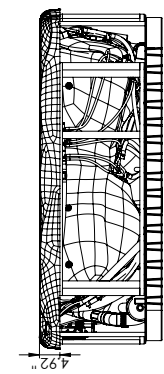
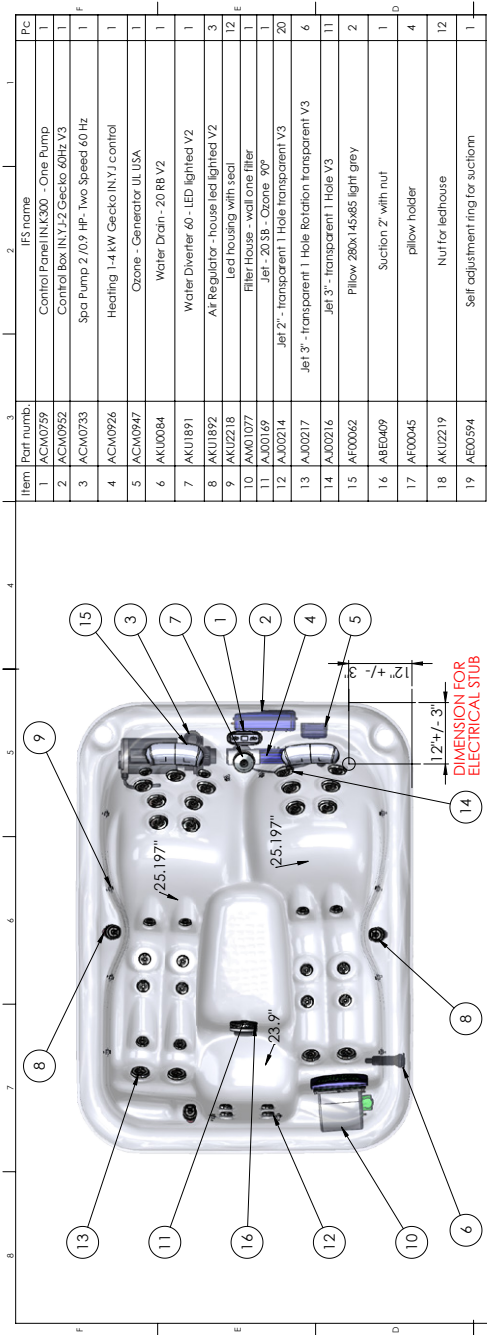
A clearly labeled emergency switch shall be provided as part of the installation. The switch shall be readily accessible to the occupants and shall be installed at least 5 feet (1.52 m) away, adjacent to, and within sight of, the unit.

Before installation the hot tub, the ellectrical system has to be prepared, as detailed in the below table.

Applicable cable: Copper 90°C (194°F) THHN/THWN	Ampere rating of the supply circuit overcurrent protective	AWG rating of the supply conductor mm2
Atlanta	30 A	6
Boston	50A	6
Jersey	50A	6
Chicago	40A	6
New York	40A	6

MAJOR COMPONENTS OF THE PRODUCT

ATLANTA

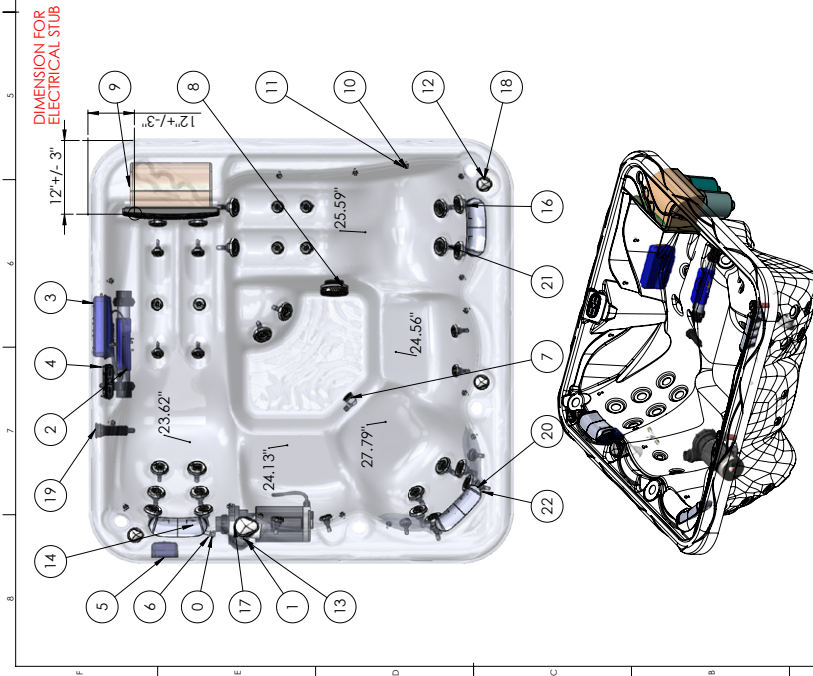
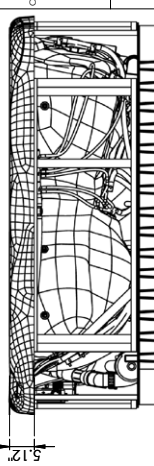


Item	Part numb.	IFS name	Pc
1	ACM0759	Control Panel IN K300 - One Pump	1
2	ACM0952	Control Box IN V2 Gecko 60Hz V3	1
3	ACM0733	Spa Pump 2 /0.9 HP- Two Speed 60 Hz	1
4	ACM0926	Heating 1-4 kW Gecko IN VJ control	1
5	ACM0947	Ozone - Generator UL USA	1
6	AKI0084	Water Drain - 20 RB V2	1
7	AKI1891	Water Diverter 60 - LED lighted V2	1
8	AKI1892	Air Regulator - house led lighted V2	3
9	AKI2218	LED housing with seal	12
10	AM01077	Filter House - wall one filter	1
11	AJ00169	Jet - 20 SB - Ozone 50"	1
12	AJ00214	Jet 2" - transparent 1 Hole transparent V3	20
13	AJ00217	Jet 3" - transparent 1 Hole Rotation transparent V3	6
14	AJ00216	Jet 3" - transparent 1 Hole V3	11
15	AE00042	Pillow 280x145x85 light grey	2
16	ABE0409	Suction 2" with nut	1
17	AE00045	pillow holder	4
18	AKI2219	Nut for ledhouse	12
19	AE00594	Self adjustment ring for suction	1

flow rate gal/min: 103 gal	Dimension SPA: 94" x 63" x 25.5"	El need: 240 V - 24A - 60Hz - 4 kW Heater	Project
1 person ~165.35 lbs	Poids du spa: 407.86 lbs	Control box: GECKO IN V2-IN K300 -4kW	
Water disp.: 496.04 lbs	Hauteur du rebord: 4.92 in	Nombres: WM00735-WM00741	
Minimum water: 180 gal		A3 IM 1.20	page 1 / 1

BOSTON

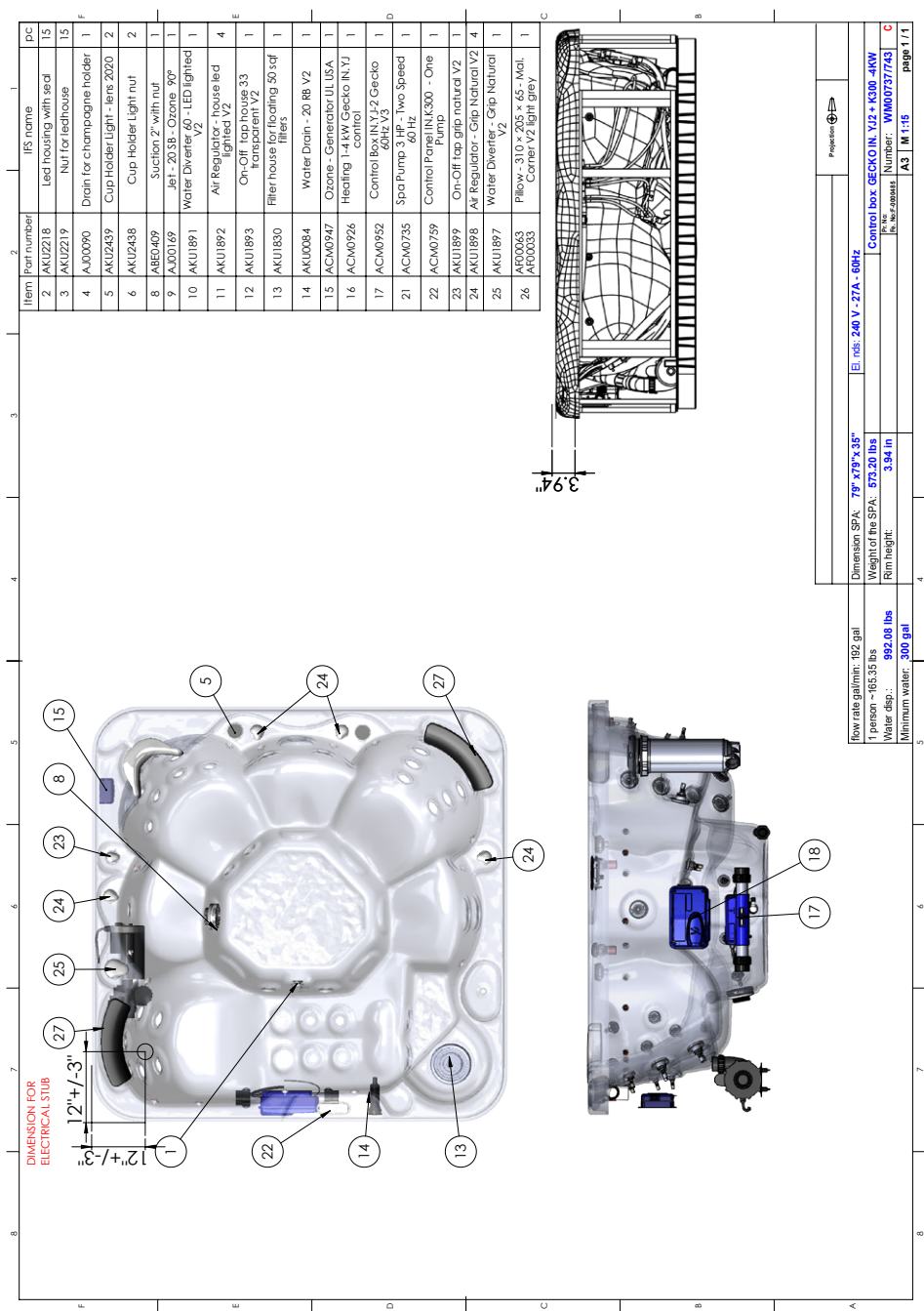
Item	Part number	3	2	1	PC
1	ACM0735		Spot Pump 3 HP - Two Speed 60 Hz	1	
2	ACM0926		Heating 1-4kW Gecko IN/V control	1	
3	ACM0932		Control Box IN/V 2 Gecko 60Hz V3		
4	ACM0939		Control Panel IN/V300 - One Pump	1	
5	ACM0947		Ozone - Generator UL USA	1	
6	ABE0359		Ozone - Injection	1	
7	AJ00169		Jet - 20.38 - Ozone 90"	1	
8	ABE0409		Suction 2" with nut	1	
9	AKU01214		Filter house - wall two filters V2	1	
10	AKU02218		LED housing with seal	16	
11	AKU02219		Nut for ledhouse	6	
12	AKU1892		Air Regulator - house led lighted V2	3	
13	AKU1891		Water Diverter 60 - LED lighted V2	1	
14	AF00045		pillow holder	6	
15	ASE0006-K		Woodcrafter - 4 x 70	8	
16	AF00262		Pillow 280x145x85 light grey	3	
17	AKU1897		Water Diverter - Grip Natural V2	1	
18	AKU1898		Air Regulator - Grip Natural V2	3	
19	AKU0094		Water Drain - 20 RB V2	1	
20	AJ00220		Jet 2" - transparent 1 Hole transparent V3 neutral	20	
21	AJ00223		Jet 3" - transparent 1 Hole rotational transparent V3 neutral	10	
22	AJ00222		Jet 3" - transparent 1 Hole transparent V3 neutral	12	



flow rate gal/min: 192 gal	Dimension SPA: 79" x 79" x 35"	Control box: GeckoN.Y1.2-IN-K3004dwi-1M	Page 1 of 2
1 person - 165.35 lbs	Weight of the SPA: 544.54 lbs	Part No:	
Water disp.: 826.73 lbs	Rim height: 5.12 in	Number: WNM007356/142	C
Minimum water: 252 gal		A3	M 120
			page 1 / 1

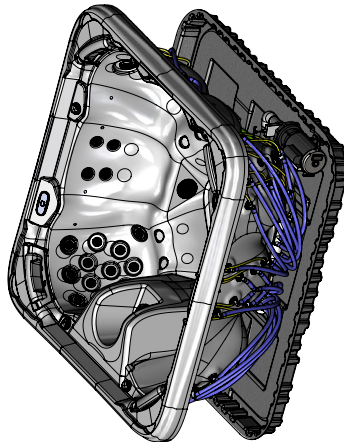
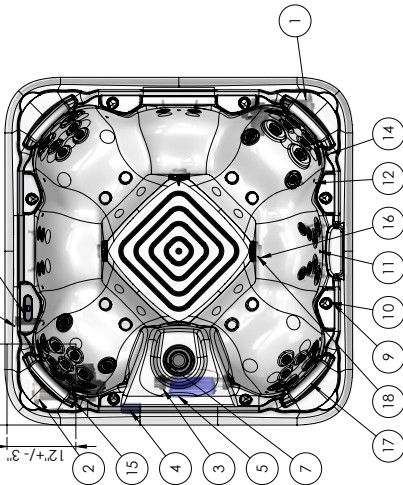
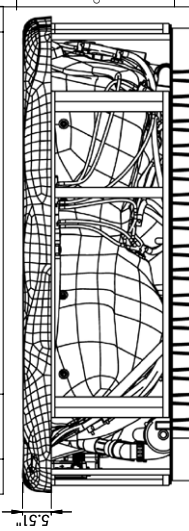
MAJOR COMPONENTS OF THE PRODUCT

JERSEY



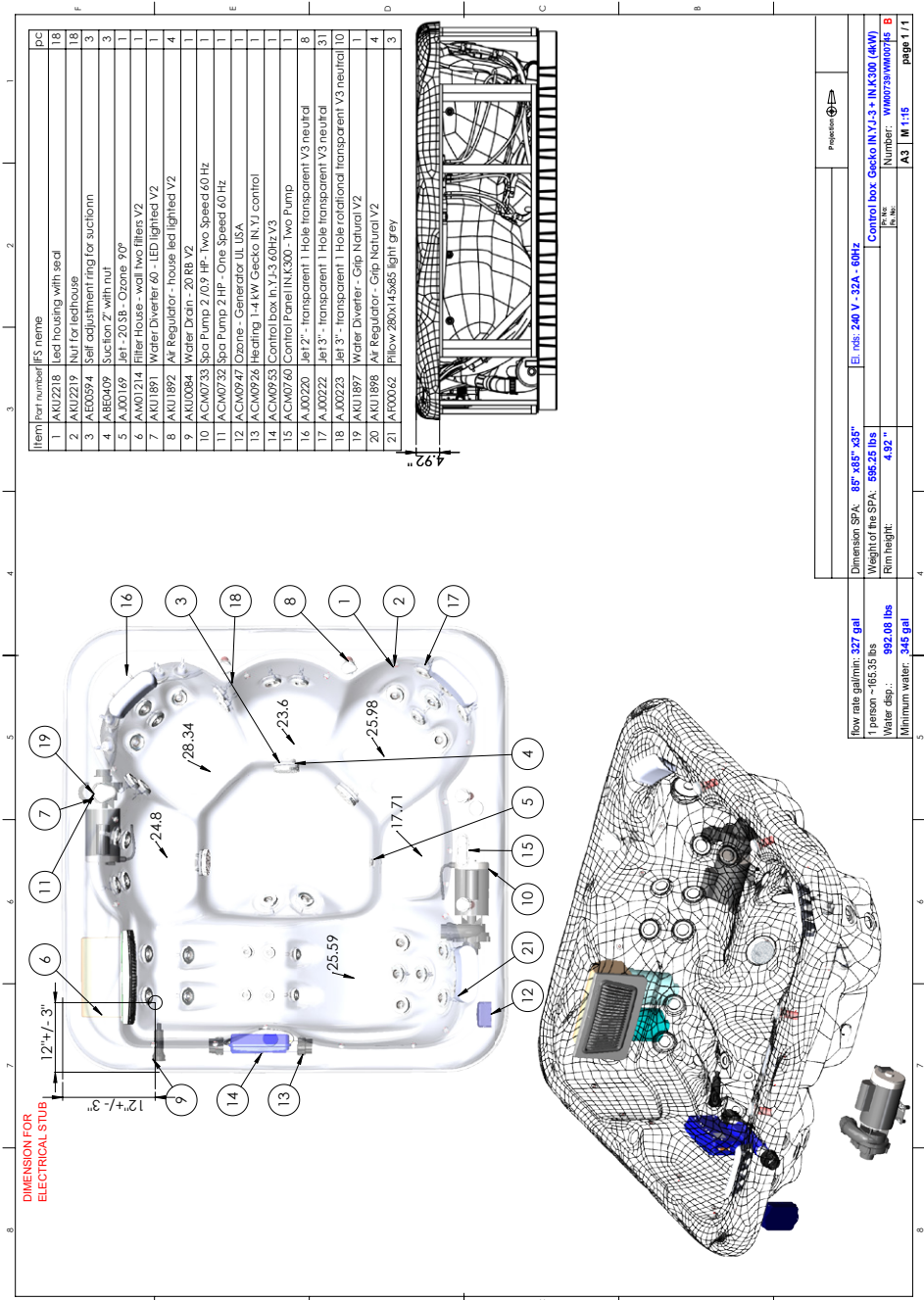
CHICAGO

Item	Part number	IFS name	pc
1	ACI00734	Spa Pump 3 HP - One Speed 60 Hz	1
2	ACI00735	Spa Pump 3 HP - Two Speed 60 Hz	1
3	ACI00726	Heating 1-4 kW Gecko/In VJ control	1
4	ACI00947	Ozone - Generator IU/USA	1
5	ACI00953	Control box IU Y13-60Hz V3	1
6	ACI00759	Control Panel IN1300 - One Pump	1
7	AKU00047	Filter House - 60.3 x 5 x 40.3 S - Slimmer	1
8	AKU00084	Water Drain - 20 RB V2	1
9	AKU1892	Air Regulator - house led lighned V2	7
10	AKU1898	Air Regulator - Grip Natural V2	7
11	AKU1891	Leed housing with seal	12
12	AKU12218	Nut for bedhouse	12
13	AKU0169	Jel - 20.5S - Ozone 90°	1
14	AJ000220	Jel 2° - transparent 1 Hole transparent V3 neutral	37
15	AJ000222	Jel 3° - transparent 1 Hole transparent V3 neutral	13
16	ABE04099	Suction Z° with nut	3
17	AF00042	Phlow - 318 x 113 x 60 - Pd. V2 light grey	4
18	AED0594	Self adjustment ring for suction	3
19	AED06588		3

[illegible]

MAJOR COMPONENTS OF THE PRODUCT

NEW YORK

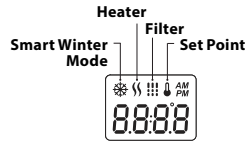


USER INTERFACE - EASY 4

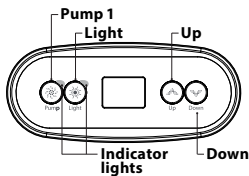
EASY 4

COMPACT FULL-FUNCTION KEYPAD

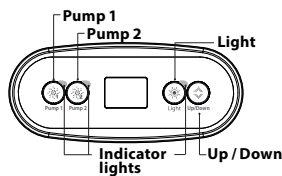
The Quick Reference Card provides an overview of your hot tub's main functions and the operations accessible from your digital keypad. This QRC depicts a generic overlay, custom versions may vary.



1 PUMP MODEL



2 PUMP MODEL



HOT TUB 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 perform quick hot tub maintenance. When Off mode is active, the display will toggle between the "OFF" message, the clock and the water temperature.

The hot tub 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.

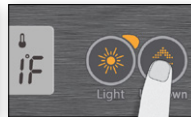
The "Pump 1" indicator lights up when Pump 1 is on. With a dual-speed pump, the indicator will flash when pump 1 is on at low speed.



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.

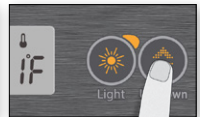
The "Pump 2" indicator lights up when Pump 2 is on. With a dual-speed pump, the indicator will flash when pump 2 is on at low speed.



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 hot tubs 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.

USER INTERFACE - EASY 4

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 hot tub 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 hot tub 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 duration 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 hot tub 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.

USER INTERFACE - EASY 4



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 the purge is active.

COOLDOWN

After heating the hot tub 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 An internal hardware error has been detected in the in.xe. Contact dealer or service supplier.
	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 hot tub cover and allow the water to cool down, then shut power off and power your hot tub up again to reset the system.
	AOH Temperature inside the hot tub 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 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 A problem is detected with the temperature probe. Call your dealer or service supplier.
	OH The water temperature in the hot tub has reached 108°F (42°C). Do not enter the water! Remove the hot tub cover and allow the water to cool down to a lower temperature. Call your dealer or service supplier if problem persists.

WATER TREATMENT BASICS

WATER TREATMENT BASICS

The chemical equilibrium of the water

The hot tub 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 skin.

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 hot tub water opaque and cloudy.

As we are dealing with warm water hot tubs, 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 hot tub, 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 hot tub 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 hot tub 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 hot tub.

ATTENTION!

Using alcohol- or acetate based cleaning products for cleaning the hot tub 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.

HOT TUB MAINTENANCE

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

The side coating of the hot tub should be protected from high UV exposure (e.g. HOT TUB BAG) and cedar hot tubs 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 hot tubs wood treatment is recommended yearly.

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

Maintenance is recommended in the following periods:

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

MAINTENANCE

FILTER CARTRIDGE REMOVAL AND CLEANING

Cleaning mechanical contaminations via continuous water circulation and chemical mixture is a basic requirement for proper cleaning of the hot tub water. Every hot tub 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.

Maintenance manual for the control panel of the hot tub:

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

WINTERIZATION

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

The winterization encompasses the following:

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

If the hot tub 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 hot tub:

When you are not using the hot tub, use the thermo cover and fasten it with the buckles. Do not forget! If the hot tub 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 hot tub 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 hot tub 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.

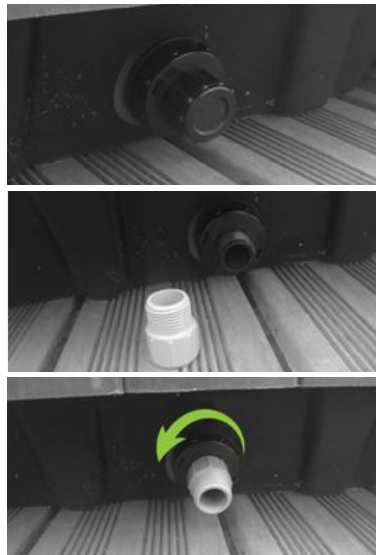
Never use an alkaline detergent or a high-pressure cleaner to clean the filter!



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 hot tub.
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 hot tub.
5. After the water has drained from the hot tub go through the previous steps in a reversed order.

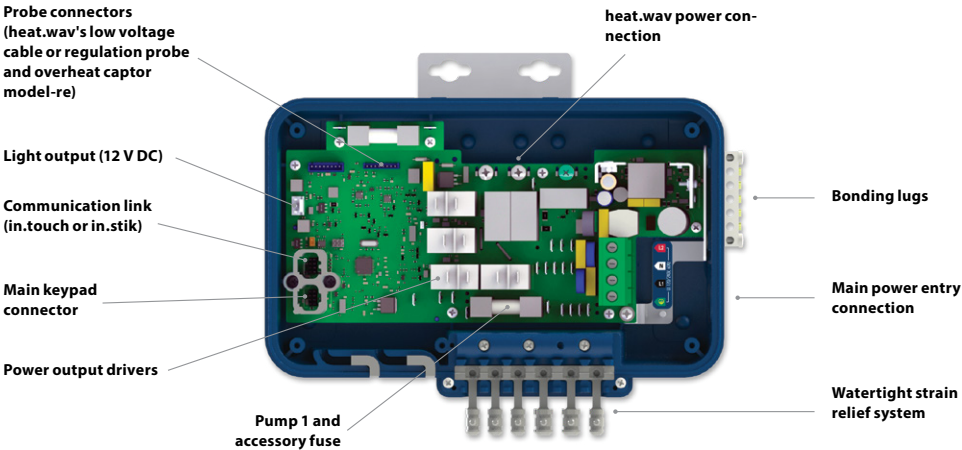


WIRING DIAGRAM - W2000, W2001

W2000, W2001



OVERVIEW



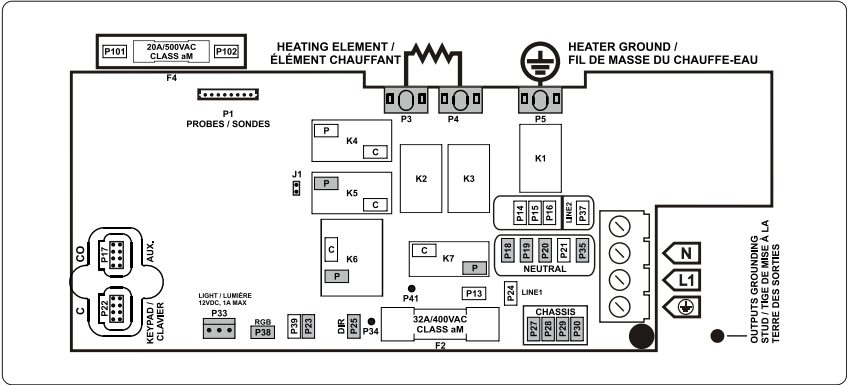
WIRING DIAGRAM - W2000, W2001

CONNECTIONS

CONNECTING HIGH VOLTAGE ACCESSORIES: NORTH AMERICAN MODEL IN.YJ

Wires to connect high voltage accessories must have 0.25" quick-connect terminals.

These tabs require high-voltage accessories to have straight, non-insulated, female quick-connect terminals for all connections, including ground. Depending on where the connections are made on the in.yj pack PCB, 120 V and 240 V 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.



Make sure all accessories are linked to the bonding lug connector located on the side of the hot tub pack.

DIRECT OUTPUT	
Voltage	120 V 240 V
Green / ground	P27 P27
Black / line	P25 P25
White / common	P18 P14

DIRECT OUTPUT	
Voltage	120 V 240 V
Green / ground	P28 P28
Black / low speed	K6-P K6-P
Red / high-speed	K7-P K7-P
White / common	P19 P15

PUMP 2 (IN.YJ-3 ONLY)	
Voltage	120 V 240 V
Green / ground	P29 P29
Black / low speed	K5-P K5-P
White / common	P20 P16

OZONE (WORKING WITH PUMP 1 LOW SPEED)	
Voltage	120 V 240 V
Green / ground	P30 P30
Black / line	P23 P23
White / common	P35 P37

LIGHT (12 V DC, 1A)*	
Switch	P33

HEAT.WAV-YJ	
Green / ground	P5
Black / line	P3
White / common	P4

RGB LEDs IN.LU.ME (1A)*	
Switch	P38

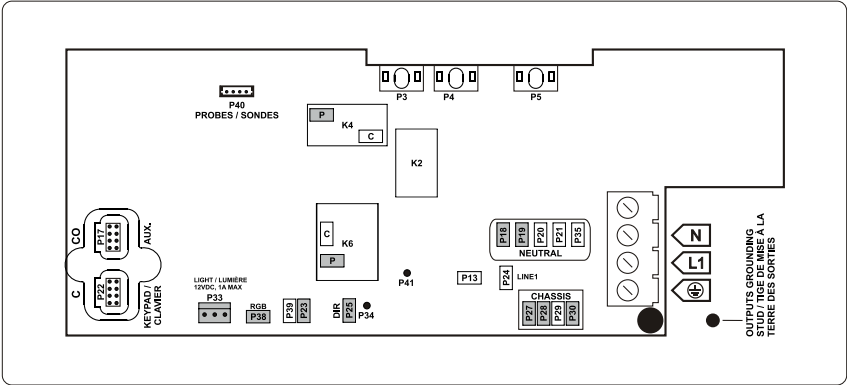
* Combination of both outputs is limited to 1A.
This table shows typical connections. OEMs may have a different connection scheme.

WIRING DIAGRAM - W2000, W2001

CONNECTIONS

CONNECTING HIGH VOLTAGE ACCESSORIES: NORTH AMERICAN HEAT RECOVERY MODEL IN.YJ-RE

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 hot tub pack.

DIRECT OUTPUT		DIRECT OUTPUT		OZONATEUR		Light (12 V DC, 1A)*	
Voltage	120 V	Voltage	120 V	Voltage	120 V		
Green / ground	P27	Green / ground	P28	Green / ground	P30	Switch	P33
Black / line	P25	Black / low speed	K6-P	Black / line	P23		
White / common	P18	Red / high-speed	K4-P	White / common	P35		
		White / common	P19				

RGB LEDs IN.LU.ME (1A)*

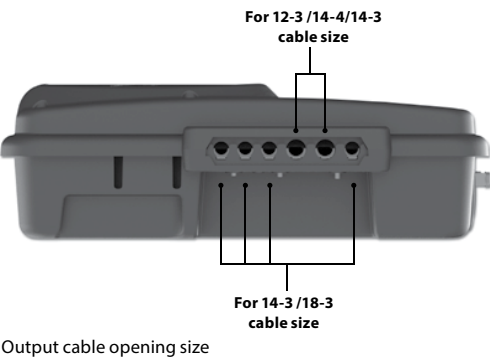
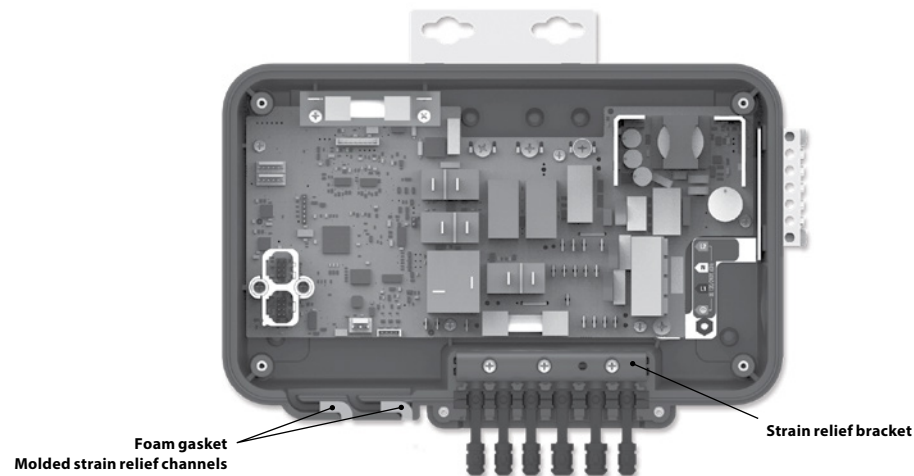
Switch	P38
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* Combination of both outputs is limited to 1A.
This table shows typical connections. OEMs may have a different connection scheme.

WIRING DIAGRAM - W2000, W2001

CONNECTIONS

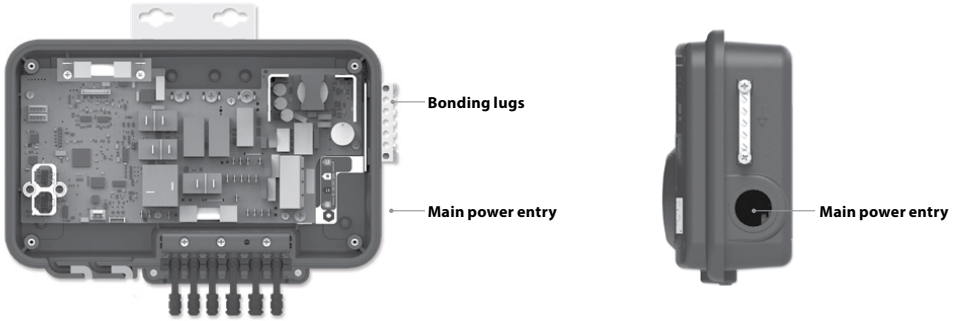
COMPLETING THE INSTALLATION



WIRING DIAGRAM - W2000, W2001

ELECTRICAL WIRING

ELECTRICAL WIRING: ALL MODELS



WARNING!

Disconnect power before starting electrical work. Wiring must be completed by a qualified electrician and must be done in accordance with the local electrical code.

Do not use a wire gauge bigger than 8 AWG.

To complete the electrical connections of the in.yj control system you will need a Phillips screwdriver and a flat-head screwdriver.

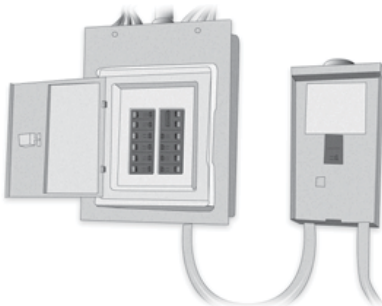
Remove the screws from the system control lid and remove it.

Remove 5 1/2" (142 mm) of cable insulation.

Strip away 1/2" (15 mm) of insulation from each wire.

Pull the cable through the cutout of the box and secure it with a 3/4" NPT strain relief* (hole diameter 1.09" (27.6 mm)). Ensure that the NPT strain relief clamps around the outer sheath of the cable.

*** For CE/AUS/NZ use an IEC certified plastic bushing that will maintain the IPX5 rating.**



Main electrical box

GFCI panel



WARNING!

For units for use in other than single-family dwellings, a clearly labeled emergency switch shall be provided as part of the installation. The switch shall be readily accessible to the occupants and shall be installed at least 5' (1.52 m) away, adjacent to, and within sight of the unit.

This product must always be connected to a circuit protected by a ground fault interrupter.

Proper wiring of the electrical service box, GFCI and in.yj terminal block is essential!

Check your electrical code for local regulations. Only copper wire should be used, never aluminum.

Disposal of the product



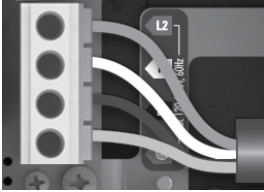
The appliance (or the product) must be disposed of separately in accordance with the local waste disposal legislation in force.

WIRING DIAGRAM - W2000, W2001

ELECTRICAL WIRING

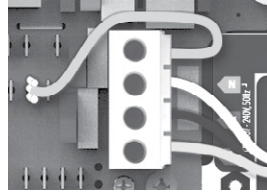
ELECTRICAL WIRING: NORTH AMERICAN MODEL

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



120 V (3 WIRES)

DO NOT REMOVE THE BROWN WIRE. 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.



240 V (4 WIRES)

Remove the brown wire and 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 securely 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 hot tub pack (a grounded electrode conductor should be used to connect the equipment grounding conductors).

WIRING DIAGRAM - W3000

W3000



WIRING DIAGRAM - W3000

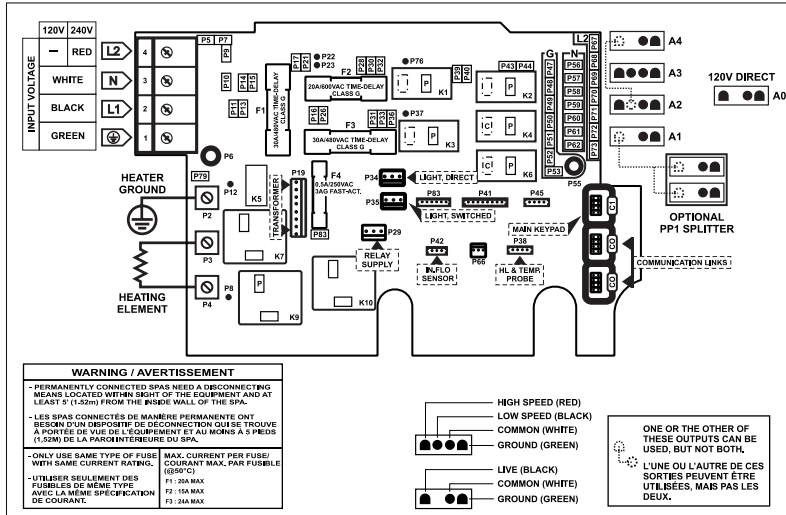
CONNECTIONS

CONNECTING HIGH VOLTAGE ACCESSORIES: ALL MODELS

Two options are available with Y Series hot tub packs for connecting high voltage accessories: 0.250" quick-connect terminals, or AMP connectors conform to industry standards.

CONNECTING HIGH VOLTAGE ACCESSORIES: NORTH AMERICAN MODEL IN.YE

For the connection to the 0.250 inch terminals, the high voltage accessories must be provided with female quick connect terminals, straight and non-insulated for all types of connections, including the ground. Accessories of 120 V or 240 V may be connected to the corresponding terminals of the printed circuit of the in.ye. Refer to the following tables for correct connections. Note that all female terminals must be correctly and completely seated on the printed circuit terminals for proper current ratings.



DIRECT OUTPUT 1

(A0 / Floating connector) (in.ye-5 only)

Voltage	120 V	240 V
Green / ground	P47	P47
Black / line	P32	P32
White / common	P56	P67

PUMP 1 (A3)

Voltage	120 V	240 V
Green / ground	P49	P49
Black / low speed	K2-P	K2-P
Red / high speed	K4-P	K4-P
White / common	P58	P69

PUMP 2 (A2)

(in.ye-5 only)

Voltage	120 V	240 V
Green / ground	P50	P50
Black / low speed	K6-P	K6-P
Red / high speed	K3-P	K3-P
White / common	P59	P70

PUMP 3 (A4)

(in.ye-5 only)

Voltage	120 V	240 V
Green / ground	P48	P48
Black / line	K6-P	K6-P
White / common	P57	P68

CIRCULATION PUMP* (A1)

Voltage	120 V	240 V
Green / ground	P51	P51
Black / line	K1-P	K1-P
White / common	P60	P71

PUMP 2 (A2)

(in.ye-3 only)

Voltage	120 V	240 V
Green / ground	P50	P50
Black / low speed	K2-P	K2-P
White / common	P59	P70

LIGHT (12 V AC, 1A MAX.)

Always on	P34
Relay	P35

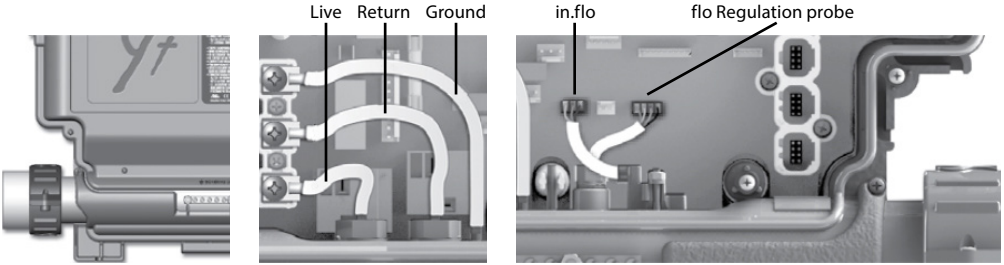
* Ozonator and circulation pump can be combined on the same output via the optional splitter PP1.

This table shows typical connections. OEMs may have a different connection scheme.

WIRING DIAGRAM - W3000

CONNECTIONS

HEAT.WAV WATER HEATER CONNECTIONS



All Y Series systems come with a high performance heat.wav heater. With no pressure switch, it features in.flo integrated dry-fire protection.

The heat.wav heater is factory configured for 240 V / 4 kW, but it can be converted to a dedicated 120 V / 1 kW by simply adding a cable connection. (120 V conversion is available on North American in.ye-3 models only).

The heat.wav heater is also offered in 240 V / 5,5 kW or 240 V / 2 kW versions.

heat.wav specification summary:

- Supports 120 V or 240 V
- Incoloy® heater element
- Protected by external breaker (not fused)*

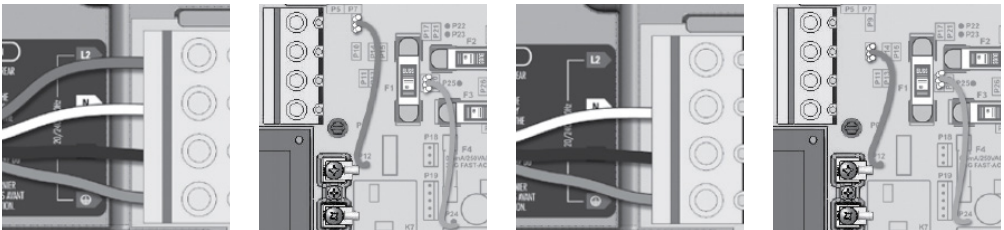
** Note: European models are 230-240 V only and are fuse protected.*

Part numbers:

9917-101959 (cable for conversion)

9920-101449 (5.5 kW heat.wav heater)

All heater connections are accessible when the cover is removed. Connections include the in.flo dry-fire protection, hi-limit/regulation probe connectors, power and ground cable connections.



Connections for 120 V heaters (1 kW)

BROWN wire must be correctly connected between P12 and P10.

For early North American version installations the YELLOW wire must be between P25 and P20.

The ORANGE wire must be between P24 and P16.

Connections for 240 V heaters (North American installations only).

BROWN wire must be correctly connected between P12 and P9.

Note: To convert model to a 120 V system, the white (common) accessory wire must be moved. See wiring diagram for details.

BREAKER SETTING

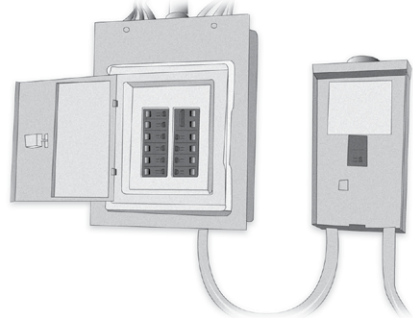
POWER UP AND BREAKER SETTING

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 hot tub 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)

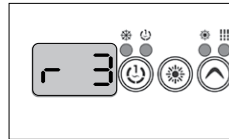


Lamp test

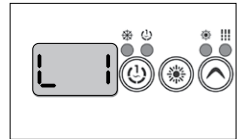
All segments and LEDs light up.



Software number



Software revision



Low-level selected

Low-level selected from the low-level menu.

FREQUENTLY ASKED QUESTIONS

QUESTIONS CONCERNING CLEANING, WATER TREATMENT, AND MAINTENANCE

What should I do if the filter of the hot tub 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 hot tub?

Yes, thoroughly.

Should the side cover of the hot tub 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).

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 hot tub 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 hot tub 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 hot tub with an antialgae chemical containing free active chlorine, then drain, clean, rinse, and refill the hot tub.

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 hot tub?

Building a floor drain is mandatory!

TECHNICAL DATA OF THE PRODUCT, USAGE

What type of water circulation engine is used for massage hot tubs?

Our massage hot tubs are equipped with Laing low power (110W) energy saving, silent circulating motor pumps.

What is the maximal temperature that does not damage the hot tub?

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 hot tub, lower temperature is recommended. Always check the water temperature before the child steps into the hot tub 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 hot tub should be winterized. After draining the hot tub 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 hot tub 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 hot tub be controlled remotely?

Our premium category massage hot tubs come with a 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 hot tub anywhere, adjust the water temperature, circulation, lighting, and check the status of the hot tub from afar.

The jet of the hot tub 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 times 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 hot tub 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 hot tub? 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 hot tub for a longer period of time (3-4 weeks).

Does the hot tub switch back to the last used setting if there is a power outage?

When connecting the hot tub 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 hot tub 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 hot tub 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 hot tub 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 hot tub.

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