



OWNER'S MANUAL

TABLE OF CONTENTS

TABLE OF CONTENTS	1
IMPORTANT SAFETY WARNINGS	4
LETTER OF INTRODUCTION	5
SPA RECORD KEEPING INFORMATION	6
IMPORTANT SAFETY INSTRUCTIONS	7
DOS AND DON'TS.....	10
HYPERTHERMIA.....	10
SAFETY PRECAUTIONS	11
SAFETY SIGN	11
SPA EQUIPPED SAFETY DEVICES	12
INSTALLATION INSTRUCTIONS	14
SURFACE AND PAD REQUIREMENTS.....	14
ELECTRICAL INSTALLATION REQUIREMENTS.....	15
ELECTRICAL CONNECTIONS.....	18
240V TO 120V CONVERSION.....	20
INITIAL START-UP INSTRUCTIONS	21
OPERATING INSTRUCTIONS	23
CONTROL PANEL TYPES AND MODELS (in.k1000).....	23
CONTROL PANEL OPERATION.....	23
<i>Power</i>	23
<i>Main Screen</i>	23
<i>Start or Stop Accessories</i>	24
<i>Notifications</i>	24
<i>Water Temperature</i>	25
<i>Home Page</i>	25
<i>Settings</i>	25
<i>Water Care</i>	26

<i>Water Care Modes</i>	26
<i>Modifying Schedules</i>	27
<i>Maintenance</i>	27
<i>Error Log</i>	28
<i>Set Date & Time</i>	28
<i>Keypad Settings</i>	29
<i>Electrical Configuration</i>	29
<i>About</i>	29
<i>WiFi</i>	30
CONTROL PANEL TYPES AND MODELS (in.k806).....	31
CONTROL PANEL OPERATION.....	31
<i>Power</i>	31
<i>Main Screen</i>	31
<i>Pump, Blower and Light</i>	32
<i>Water Temperature</i>	32
<i>Settings</i>	32
<i>Water Care</i>	33
<i>Filtration System</i>	33
<i>Modifying Schedules</i>	34
<i>Audio</i>	34
<i>Date & Time</i>	34
<i>Keypad Settings</i>	34
<i>Electrical Configuration</i>	35
<i>About</i>	35
CONTROL PANEL TYPES AND MODELS (in.k460).....	36
CONTROL PANEL OPERATION.....	37
<i>On/Off Mode</i>	38
<i>Standby Mode</i>	38
<i>Economy Mode</i>	38
<i>Filtration System</i>	39
PROGRAMMING THE CONTROL SYSTEM.....	39
CONTROL PANEL TYPES AND MODELS (in.k209).....	42
CONTROL PANEL OPERATION.....	43
<i>Filtration System</i>	44
PROGRAMMING THE CONTROL SYSTEM.....	45
FEATURE OPERATIONS	46
JET SELECTOR VALVES.....	46
AIR CONTROL VALVES.....	46

WATER FEATURE/WATERFALL CONTROL VALVES.....	46
in.stream2 AUDIO SYSTEM.....	46
in.touch SYSTEM.....	46
in.touch BASIC SET-UP INSTRUCTIONS.....	47
WATER BALANCE.....	49
WATER CHEMISTRY.....	49
START-UP PROCEDURES.....	49
WATER QUALITY.....	49
pH CONTROL.....	50
TOTAL ALKALINITY.....	50
WATER TREATMENT.....	51
SANITIZERS.....	51
BROMINE.....	51
CHLORINE.....	51
SUPER CHLORINATION.....	52
SHOCK TREATMENTS (POTASSIUM PEROXYMONOSULFATE).....	52
OZONE.....	52
UV.....	52
WATER TESTING.....	53
STAIN AND SCALE INHIBITOR.....	53
FOAM INHIBITOR.....	53
KEEPING YOUR WATER CLEAN AND SAFE.....	54
SPA CARE.....	55
FILTER CLEANING.....	55
CARE FOR SPA SURFACE.....	55
CARE FOR SPA PILLOW.....	55
CARE OF SPA CABINET (THERMOPLUS CABINET).....	55
CARE FOR THERM-RITE™ SPA COVER.....	56
DRAINING THE SPA.....	56
SPECIAL COLD WEATHER INSTRUCTIONS (WINTERIZING).....	56
THERMAL CREEP.....	57
WARRANTY SERVICE INFORMATION.....	57
TROUBLESHOOTING.....	58
WIRING DIAGRAMS.....	62

IMPORTANT SAFETY WARNINGS

SAVE THESE INSTRUCTIONS

WARNING:

Children should not use spas or hot tubs without adult supervision.

WARNING:

Do not use spas or hot tubs unless all suction guards are installed to prevent body and hair entrapment.

WARNING:

Pregnant, or possibly pregnant, women should consult a physician before using a spa or hot tub.

WARNING:

People with infectious diseases should not use a spa or hot tub.

WARNING:

To avoid injury, exercise care when entering or exiting the spa or hot tub.

WARNING:

Do not use drugs or alcohol before or during the use of a spa or hot tub to avoid unconsciousness and possible drowning.

WARNING:

People using medications and/or having an adverse medical history should consult a physician before using a spa or hot tub.

WARNING:

Water temperature in excess of 100°F (38°C) may be injurious to your health.

WARNING:

Before entering the spa or hot tub, measure the water temperature with an accurate thermometer.

WARNING:

Do not use a spa or hot tub immediately following strenuous exercise.

WARNING:

Prolonged immersion in a spa or hot tub may be injurious to your health.

WARNING:

Maintain water chemistry in accordance with manufacturer's instruction.

WARNING:

Do not permit electric appliances (such as a light, telephone, radio or television) within 5 feet (1.5m) of the spa or hot tub.

WARNING:

The use of alcohol or drugs can greatly increase the risk of fatal hyperthermia in hot tubs and spas.

LETTER OF INTRODUCTION

Dear Valued Customer:

Congratulations! On behalf of the entire L.A. Spas family, thank you for your decision to purchase one of our products.

The following pages contain valuable and helpful information for the care and safe operation of your new spa.

Please take the time to read these instructions carefully. When the spa is properly installed and maintained, your spa will provide years of enjoyable, trouble free operation.

Every effort has been made to ensure the accuracy of this owner's manual, however, L.A. Spas reserves the right to modify and improve the product without notice. This may create minor variations between this manual and your spa. If you have any questions regarding your spa or the owner's manual, please contact your authorized L.A. Spas dealer.

Sincerely yours,

L.A. Spas

SPA RECORD KEEPING INFORMATION

Serial Number Location

The serial number is located in the lower right corner of the equipment access panel on the front of the spa.

PLEASE FILL IN THE INFORMATION BELOW

Spa Information:

Model _____ Color _____ Serial No. _____

Owner Information:

Name _____ Date of Purchase _____

Address _____

City _____ State _____ Zip Code _____

Dealer Information:

Name _____

Address _____

City _____ State _____ Zip Code _____

Telephone No. _____

SAVE THIS INFORMATION FOR FUTURE REFERENCE

TO OFFICIALLY ACTIVATE YOUR WARRANTY YOU MUST GO TO www.laspas.com AND REGISTER YOUR SPA BY CLICKING ON THE REGISTER YOUR SPA LINK UNDER THE CUSTOMER CARE TAB AND FILL OUT ALL THE INFORMATION

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

1. **WARNING** - To reduce the risk of injury, do not allow children to use spa unless they are closely supervised at all times.
2. A wire connector is provided on this unit to connect a minimum 6 AWG (5.15 mm²) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe or conduit within 5 feet (1.5m) of the unit.
3. **(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.
4. **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 spa unless they are supervised at all times.
5. **DANGER** - Risk of injury. The suction fittings in this spa are sized to match the specific water flow created by the pump. If you must replace the suction fittings or the pump, be sure the flow rates are compatible. Never operate spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.
6. **DANGER** - Risk of Electric Shock. Install at least 5 feet (1.5m) from all metal surfaces. As an alternative, a spa may be installed within 5 feet (1.5m) of metal surfaces if each metal surface is permanently connected by a minimum 6 AWG (5.15 mm²) solid copper conductor to the wire connector on the terminal box that is provided for this purpose.
7. **DANGER** - Risk of Electric Shock. Do not permit any electric appliance (such as a light, telephone, radio or television) within 5 feet (1.5m) of the spa.
8. **WARNING** - To reduce the risk of injury:
 - a. The water in a spa should never exceed 104°F (40°C).. Temperatures between 100°F (38°C) and 104°F (40°C) are considered safe for a healthy adult. Lower temperatures are recommended for young children and when spa 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 spa water temperatures to 100°F (38°C).


- c. Before entering spa, measure the water temperature as water temperature regulating devices vary.
- d. The use of alcohol, drugs, or medication before or during spa 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 spa.

SAVE ALL INSTRUCTIONS

NOTE: Check with your state/local code enforcement officer to determine electrical code requirements and compliance. Use a qualified licensed electrician to complete all final spa electrical connections.

Caution: Risk of electrical shock. Read and follow all instructions.

TO AVOID RISK OF ELECTRICAL SHOCK:

1. A green colored terminal or a terminal marked G, GR, Ground, Grounding, or the international symbol  is located on the side of the supply terminal box or compartment. This terminal must be connected to the grounding means provided in the electric supply service panel, using a continuous copper wire equivalent in size to the circuit conductors supplying this equipment.
**IEC Publication 417, Symbol 5019.*
2. At least two lugs marked "BONDING LUGS" are provided on the external surface or on the inside of the supply terminal box or compartment. Connect the local common bonding grid (house-hold ground) in the area of the hot tub or spa to these terminals, using an insulated or bare copper conductor not smaller than No. 6 AWG.
3. All field-installed metal components such as rails, ladders, drains or similar hardware located within 5 ft (1.5m). of the spa or hot tub shall be bonded to the equipment grounding bus with copper conductors not smaller than No. 6 AWG.
4. **NEVER** connect unit to a power supply with a load controller.
5. Install to provide drainage of compartment for electrical components.
6. The electrical supply for this product must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors. This disconnecting means must be readily accessible for operation but installed at least 5 feet (1.5m) from the spa. All electrical connections should comply with local regulations.

DOS AND DON'TS OF SPA CARE

Do:

- **Save these instructions!**
- Replace the cover immediately after use.
- Keep the cover locked when spa is not in use.
- Be aware of the dangers of a wet and slippery surface. Use caution when entering and exiting your spa.
- Have a licensed electrician make all final electrical connections.
- Replace worn, frayed or broken electrical cords.
- Keep the water chemistry correctly balanced. Untreated spa water will cause problems with your spa and equipment as well as being a health risk.
- Clean the spa filter monthly or as needed.
- Position the spa so that all sides remain accessible for maintenance.
- Use a bathing cap for long hair.
- Refer to information on hyperthermia.
- Use only authorized spa care products for the best performance and to keep the water properly balanced.

Don't:

- Use the spa at 104°F (40°C) for long periods of time (more than 30 minutes). **See Hyperthermia**, below.
- Use an extension cord to power your spa.
- Allow anyone to stand on the spa cover. It is not designed to support weight.
- Power the spa unless it is filled with water 5-6 inches below top of spa lip.
- Operate the pump on high speed for extended periods of time with the cover in place. Extended operation can cause heat build-up and interfere with spa operation.

Hyperthermia

The causes, symptoms, and effects of hyperthermia may be described as follows: hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6°F (37°C). The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness, and fainting.

The effects of hyperthermia include:

- a. Failure to perceive heat
- b. Failure to recognize the need to exit spa or hot tub
- c. Unawareness of impending hazard
- d. Fetal damage in pregnant women
- e. Physical inability to exit the spa or hot tub
- f. Unconsciousness resulting in the danger of drowning

WARNING - The use of alcohol, drugs, or medication can greatly increase the risk of fatal hyperthermia.

SAFETY PRECAUTIONS

- a. Always enter and exit a spa slowly
- b. Do not use the spa alone.
- c. Before entering the spa, always measure the water temperature with an accurate thermometer. Tolerance of water temperature regulating devices can vary as much as $\pm 5^{\circ}\text{F}$ (3°C). Always check the spa water temperature before entering.
- d. Since excessive water temperature has a high potential for causing fetal damage during early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperatures to 100°F (38°C). Always consult your doctor prior to using a spa.
- e. Children's body temperature can increase more rapidly than adults in the same water with elevated temperatures above 99°F (37°C). Children should spend less time in water above body temperature than adults.
- f. The use of alcohol, drugs, and/or medication before or during spa use may lead to unconsciousness, hypothermia, serious injury, or the possibility of drowning.
- g. Persons suffering from obesity or with a medical history of heart disease, diabetes, high or low blood pressure, or circulatory system problems should consult with their physician before using the spa.
- h. Persons on medication should consult with their physician before entering the spa since some medication may induce the growth of infectious bacteria if not properly disinfected.
- i. People with infections, sores, or skin abrasions should not use the spa. Warm and hot water temperatures may allow the growth of infections bacteria if not properly disinfected.
- j. Test the GFCI (Ground Fault Circuit Interrupter) unit before each use. (Refer to instructions provided by GFCI manufacturer)
- k. Do not service or repair any equipment without making sure the circuit breaker and/or all power to the spa is turned off.
- l. Cover must be kept on the spa and locked at all times when not in use, especially if children are present.

SAFETY SIGN

Each spa has been provided with a warning sign that outlines safety precautions. This sign should be permanently placed in a location that is visible to all spa users. This sign has been mounted permanently to the front of the spa. Replacement signs can be obtained from:

MAAX Spas
25605 S. Arizona Ave.
Chandler, AZ 85248

SPA EQUIPPED SAFETY DEVICES

Your spa is equipped with the following safety features:

1. **Overheat Protection** - All pumps and heater are shut off when the water temperature reaches 108.5° F (42.5°C). This protection is turned off when the water temperature drops below 108°F (42.2°C).
2. **High Limit Protection** - When the water temperature reaches 119°F (48°C), the high limit circuit has tripped. All pumps and heater are shut off. This protection requires the power to be reset at the circuit breaker.
3. **Ambient Overheat Protection** - All outputs are shut off when an on-board temperature sensor reaches 194°F (90°C). This protection automatically turns off when the on-board temperature sensor drops back down to 185°F (85°C).
4. **Heater Dry Run Protection** - This protection is a water flow detection algorithm of the heater that prevents the heater from turning on until there is sufficient water flow.
5. **Filter Cycle Overheat Protection** - During the clean step of the filter cycle, the pump associated with the clean cycle may generate enough heat to overheat the water. This protection is only enabled when the water temperature is 2°F (1°C) warmer than the set temperature. If this occurs, the filter cycle duration and circulation pump (if equipped) is reduced to a minimum until the water temperature drops back down to the set temperature. When this protection is triggered, the filter cycle will be reduced to 2 hours a day divided by the filter cycle frequency. If the spa is equipped with a circulation pump, the circulation pump will cycle at a frequency of 2 hours on followed by 4 hours off.
6. **Circulation Pump Overheat Protection** - The circulation pump is designed to run 24 hours a day, however it may generate enough heat to overheat the water. If this occurs, the circulation pump will be shut off for 4 hours, comes back on for 2 hours, and continues this off/on period until the water temperature drops back down to the set temperature. This protection is enabled and will be triggered when the water temperature is 2°F (2°C) warmer than the set temperature. The filter cycles will default to 2 hours. *This feature is available on Premium and Adventure Series models only.*

7. **Smart Winter Mode** - The Smart Winter Mode is used to prevent water from freezing in the plumbing. When SWM is enabled, the system periodically starts a purge of all pumps to ensure there is always warm water in the plumbing. This function is achieved by measuring the temperature of an on-board sensor to estimate the temperature in the equipment area. This protection starts as soon as there is a risk of freezing. The SWM protection will turn back off only after 24 hours without a risk of freezing. The delay between each SWM purge cycle depends on the pumps' idle time (see table below).

Freeze Risk	Temperature Range at On-Board Sensor	Temperature Range in Equipment Area	Max. Idle Time
None	> 62°F (16.7°C)	> 42°F (5.6°C)	N/A
Low	62 - 53°F (16.7 - 11.7°C)	42 - 33°F (5.6 - 0.6°C)	120 minutes
Medium	53 - 48°F (11.7 - 8.9°C)	33 - 28°F (0.6 - 2.2°C)	60 minutes
High	48 - 44°F (8.9 - 6.7°C)	28 - 24°F (-2.2 - -4.4°C)	30 minutes
Severe	< 44°F (6.7°C)	< 24°F (-4.4°C)	15 minutes

8. **Timeouts** - The pumps and light turn off automatically after 30 minutes of continuous operation.

INSTALLATION INSTRUCTIONS

Read all instructions in this manual prior to having your spa installed at the selected location, whether indoors or outdoors.

IMPROPER INSTALLATION MAY RESULT IN EQUIPMENT DAMAGE AND VOID THE WARRANTY.

SURFACE AND PAD REQUIREMENTS

1. L.A. Spas recommends your new spa be placed on a 4" (10 cm) thick reinforced concrete pad or level foundation capable of supporting the total filled weight of your specific spa model. The foundation should support the entire base of the spa and must offer structural integrity for the life of the spa. A typical spa, filled with water, could weigh as much as 3 tons, and if the concrete is not fully cured, it could easily crack. AN UNEVEN OR UNSTABLE FOUNDATION OR THE USE OF SHIMS OF ANY KIND MAY CAUSE THE SPA TO BUCKLE, DISTORT, AND/OR CRACK, AND WILL VOID THE WARRANTY ON YOUR SPA.
2. If your spa is located near water sprinklers, adjust or cap them so the water will not hit the cabinet of the spa.
3. Balconies and decks must be constructed to current state and local codes to safely support the maximum load of your water filled spa and the number of people using the spa. Check with your construction contractor for these safety specifications.
4. Access gates "fencing/wall" must be self-closing and self-locking. Check your local codes for regulations regarding fences and gates.
5. Ensure that the spa installation and location allows a clear and unobstructed access to the spa. It is the responsibility of the owner to provide clear access on **all sides** of the spa for service. Failure to do so may result in additional charges or assessments to service and/or repair the spa.
6. Ensure that water drains away from the spa in order to keep water out of the equipment compartment and away from all electrical components.
7. Assure accessibility is maintained to your spa should the need arise. Your spa is an appliance and may require occasional service. Assure the installation allows access to the equipment area, side panels, and removal of the spa if possible. Construction or reconstruction costs associated with spa removal or re-installation are not covered by the warranty.

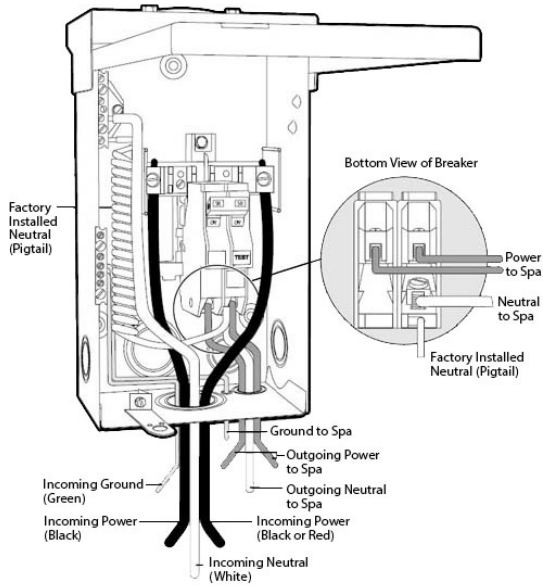
ELECTRICAL INSTALLATION REQUIREMENTS

IMPROPER INSTALLATION MAY RESULT IN EQUIPMENT DAMAGE AND VOID THE WARRANTY.

NOTE: Do not turn on electrical power to your spa until you are told to do so later in the Owner's Manual.

1. We strongly recommend that only a licensed and bonded electrician perform the electrical installation. Improper electrical connections may damage the equipment, cause injury, cause a fire, and void your spa warranty.
2. It is the responsibility of the spa owner to ensure that a qualified electrician performs the electrical installation. This installation must be in accordance with the National Electrical Code; local and state electrical codes; and the manufacturer's instructions.
3. This equipment has been designed to operate on 120V, 240V 60Hz or 230V 50Hz (Export only) alternating current depending on your model.
4. This spa must be connected to a dedicated branch circuit.
5. The electrical supply for this spa must include a suitably rated switch or circuit breaker to open all ungrounded supply conductors to comply with Section 422-20 of the National Electric Code (NEC). A disconnect switch must be located where visible, not less than 5 feet (1.5 m) from the spa and not to exceed 50 feet (15 m) from the spa. This requirement maybe filled with the GFCI circuit breaker and sub-panel.
6. For spa 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 feet (1.5m) away, adjacent to, and within sight of the spa.
7. The electrical circuit to the spa must include a Class A type Ground Fault Circuit Interrupter (GFCI) as required by the NEC or RCD (outside North America).
8. Wire size must be appropriate for your spa and per NEC and/or local codes. Refer to the table below for the electrical ratings. All supply wires must be copper and rated at a minimum of 167°F (75°C). Do not use aluminum wires.
9. Input power wiring and circuit breaker selection:

Typical 240V GFCI (North America Only) and RCD Connections



The appliance should be supplied through a residual current device (RCD) or Ground Fault Interrupter (GFCI) with a rated tripping current not exceeding 30mA. Means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules. Parts containing live voltage, except parts supplied with safety extra-low voltage not exceeding 12V, must be inaccessible to a person in the hot tub. Earthed appliances must be permanently connected to fixed wiring.

IMPORTANT INFORMATION REGARDING ELECTRICAL INSTALLATION

NORTH AMERICA			
Equipment Type	Electrical Rating	Branch Circuit	Circuit Break ¹
2 pumps	240V 40A	3 wires + ground	50A
3 pumps	240V 48A	3 wires + ground	60A
1 pump (120V) ²	120V 16A	2 wires + ground	20A
1 pump	240V 32A	3 wires + ground	40A
2 pumps	240V 40A	3 wires + ground	50A
EXPORT			
Equipment Type	Electrical Rating	Branch Circuit	Circuit Breaker ¹
1 pump	230V 32A	2 wires + ground	32/40A
1 pump with blower	230V 32A	2 wires + ground	32/40A
2 pumps	230V 32A	2 wires + ground	32/40A
2 pumps with blower	230V 32A	2 wires + ground	32/40A
3 pumps	230V 32A	2 wires + ground	32/40A
3 pumps with blower	230V 32A	2 wires + ground	32/40A

1. Circuit breaker amperages may vary according to the area of installation. Please check local electrical codes to verify requirements and assure compliance. Spas purchased not fully equipped may operate at a reduced total amp rating thus allowing installation of a lower rate GFCI/RCD circuit breaker and service installation.
2. Requires a 20A GFCI plug-in cord and/or hard wire connection to a dedicated 20A circuit.

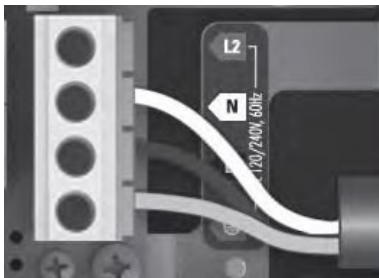
ELECTRICAL CONNECTIONS

To hook up your spa your authorized dealer or licensed electrician should follow these instructions:

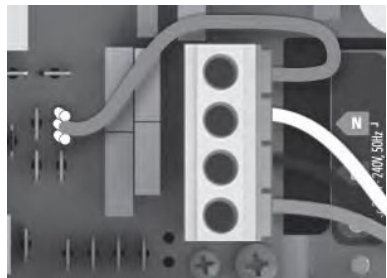
1. Remove the front cabinet panel.
2. Remove the cover for the equipment control pack.
3. Use $\frac{3}{4}$ " flexible non-metallic conduit for a spa requiring 10 AWG or 8 AWG wire. Use 1" flexible non-metallic conduit for a spa requiring 6 AWG wire. Run the conduit from the power source to the spa, through the hole in the left or right front corner of the spa and into the equipment control pack.
4. Pull the wires/cable through the conduit and through the cutout of the equipment control pack. Secure the wires/cable with a 1" strain relief. Make sure only the uncut sheathing is clamped at this opening.
5. Connect the wires to the proper terminals as shown below:

in.yj-2 connections

240V Connection (3 wires + ground)

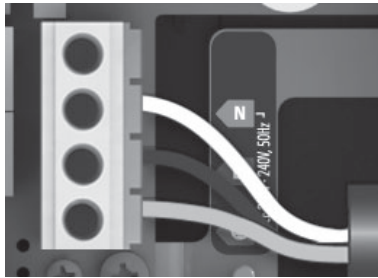


120V Connection



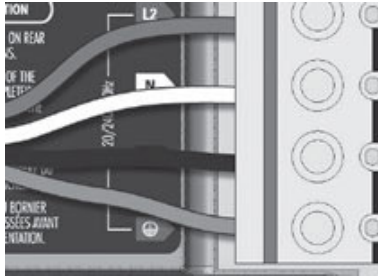
in.yj-2 connection (Export Only)

230V Single-phase only (1x32A)



in.ye-3 connection and in.ye-5 connections

240V Connection (3 wires + ground)



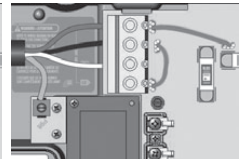
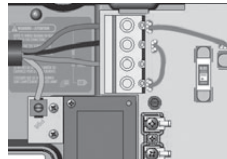
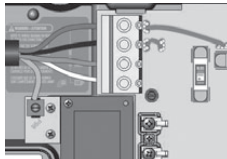
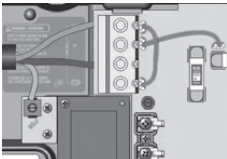
in.ye-3 connection and in.ye-5 connections (Export only)

230V Single-phase
(1x32A)

230V Dual-phase*
(2x16A)

230V Three-phase*
(3x16A)

230V Three-Phase*
Delta



Connect jumpers
(brown wires)
P7 ---> P13
P10 ---> P74

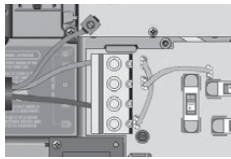
Connect jumpers
(brown wires)
P7 ---> P10
P13 ---> P74

Connect jumpers
(brown wires)
P7 ---> P10
P11 ---> P13

Connect jumpers
(brown wires)
P7 ---> P10
P13 ---> P74

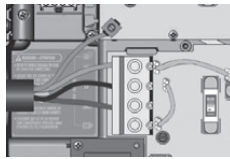
in.yt-7 connections (Export only)

230V Single-phase
(1x32A)



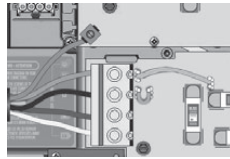
Connect jumpers
(brown wires)
P7 ---> P13
P10 ---> P74

230V Dual-phase*
(2x16A)



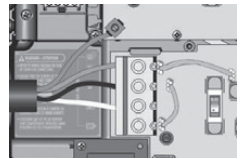
Connect jumpers
(brown wires)
P7 ---> P10
P13 ---> P74

230V Three-phase*
(3x16A)



Connect jumpers
(brown wires)
P7 ---> P10
P11 ---> P13

230V Three-Phase*
Delta



Connect jumpers
(brown wires)
P7 ---> P10
P13 ---> P74

* For Dual and Three-phase connections, make sure to change the proper phase setting in the Electrical Configuration section of the control panel.

6. Secure the wire connections. Push the wires into the equipment control pack.
7. Close the cover on the equipment control and tighten the screws.
8. Electrical hook up is now complete. Do not re-attach the front cabinet panel yet.

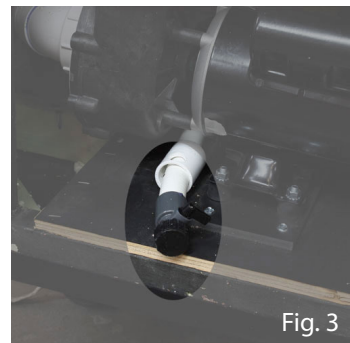
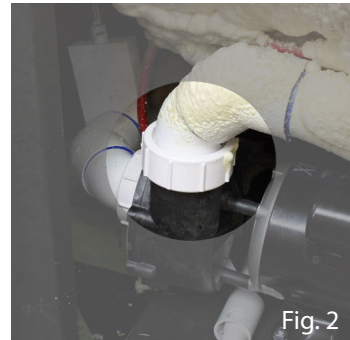
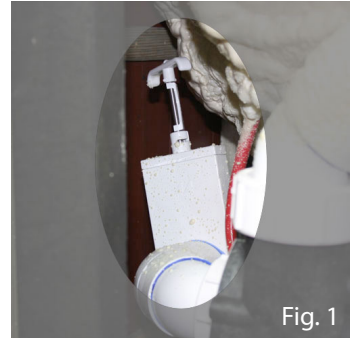
240V TO 120V CONVERSION (Tortola, Cascade and Kona only)

While these models may be converted to run off of a 120 Volt, 20 Amp circuit, the wiring and conversion should be performed by your authorized dealer or by a licensed electrician. A diagram on the control box cover is provided for their reference.

INITIAL START-UP INSTRUCTIONS

DO NOT TURN ON THE POWER TO THE SPA WHEN THE SPA IS EMPTY OR PARTIALLY FILLED!

1. Ensure the circuit breaker to the spa is off.
2. Rotate all the jets in the spa to a counterclockwise position (fully open position).
3. Ensure the gate valves are fully open. Pull the "T" handle on the gate valve (located near the jet pump, Fig.1) all the way up. When opened, there will be approximately 2" (5 cm) of metal rod visible. Each pump is supplied with one valve.
4. Check the heater unions, pump unions (Fig.2), and pump plugs to assure that they are tight to prevent the possibility of leakage in the equipment bay.
5. Close and cap the hose bib located in the equipment compartment (Fig.3). This is used for draining the spa.
6. Fill the spa with water to a level of approximately 5" (13 cm) below the top of spa. To prevent the pumps being air locked, it is recommended to fill the water at the filter bucket area.
7. Turn on the circuit breaker. The upper control panel display will alternate between the clock and three dashes ---. The system takes up to 3 minutes to register the water temperature. The display will then alternate between the clock and the water temperature. Set the desired temperature by using the **Up** or **Down** arrow key.



8. Press the **Pump1** key twice to turn pump #1 on high speed. Observe to ensure adequate water flow. Press the **Pump2** key to turn on pump #2 (if equipped). Observe to ensure adequate water flow. Press the **Pump3** key to turn on pump #3 (if equipped). Observe to ensure adequate water flow. DO NOT ALLOW THE PUMPS TO RUN FOR MORE THAN 1 MINUTE WITHOUT WATER FLOWING OUT OF THE JETS. PUMPS WITH DRY RUN PROBLEMS WILL NOT BE COVERED UNDER WARRANTY. If there is no water flow through the jets, the pumps need to be primed to eliminate air lock.

Pump Priming:

- Turn off the power to the spa.
 - Remove the handle from the jet selector valve supplied by the pump you are priming.
 - Loosen the pump union on the suction side of the pump until some water starts gushing out of the pump union.
 - Tighten the pump union.
9. Check to ensure that water is flowing through the system. Observing the footwell for bubbles will determine if there is water flow. If there are no bubbles, turn off the spa, disconnect the hose above the circulation pump and allow any trapped air to escape.
 10. Re-attach the front cabinet panel.
 11. Depending upon the size of the spa and the size of the electrical circuit, heating will occur at a rate of approximately 3°F (1.7°C) per hour.
 12. After completing the above steps, it is necessary to ensure proper water chemistry. See the Water Balance section in the manual.
 13. Because the Aqua Klean® Filtration System is so efficient, the filters should be cleaned every other day for the first two weeks of operation.
 14. Place the spa cover on to conserve energy and to keep it ready for use.

OPERATING INSTRUCTIONS

CONTROL PANEL TYPES AND MODELS

in.k1000 Control Panel



This easy to use control has been programmed to be “plug and play”. Turn the power on, adjust the desired temperature and the system is ready to go. If there are situations that require additional filtering time, the filter settings can be customized to any special requirements. Simple to use and easy to read, the Command Control System makes controlling the spa effortless.

CONTROL PANEL OPERATION

Please note: All pumps and lights have an automatic timeout (shut-off) programmed 30 minutes after the pump or light is activated.

Power

Touch the screen to turn on the keypad. After 30 minutes without activity it will shut off automatically. Follow the instructions on the screen to access the main screen

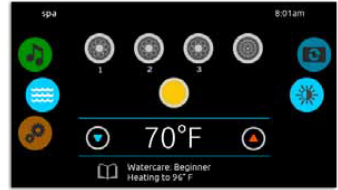


Main Screen

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

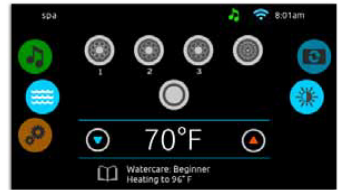
Start or Stop Accessories

To start or stop an accessory, touch the associated icon. Icons will become animated when their accessory is use, 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.



Notifications

A notification area at the top right-hand side of the screen shows the state of certain accessories that comes with the spa.



Notification Icons:

in.touch:

- Indicates that the in.touch module is detected and connected to a Wi-Fi network
- A red cross indicates that the in.touch module is detected but isn't connected to a Wi-Fi network. For more information about the in.touch, refer to the Wi-Fi section (p. 30)



in.stream 2:

- Indicates that the in.stream 2 module is detected and connected.
- A grey icon indicates that the in.stream 2 module is detected but is off.



Reference separate **Audio Set-Up Guide** for details on using your in.stream & in.stream2 audio system.

Water Temperature

The temperature shows at the bottom of the screen gives the actual 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.



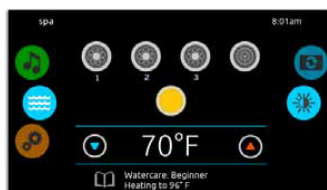
When the set value is lower than the current temperature Cooling to xx.x will appear in the message center below. When the set value is higher than the current temperature, Heating to xx.x will be indicated instead. Normally there is a short delay before the heating starts, during which Heating Suspended is indicated.

Home Page

From the home page you will find the following options:

- in.stream2 (audio system)
- settings

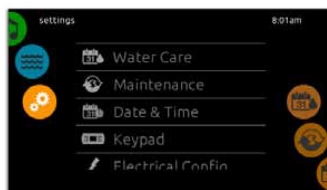
To select an option, slide the left wheel until the desired icon menu is shown in the middle of the screen.



Settings

From the home page you will find the following options:

- Water Care
- Maintenance
- Date & Time
- Keypad
- Electrical Configuration
- Wi-Fi
- About



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

Water Care

The Water Care section will help you set up your ideal filtration and heating settings. Choose between Away from Home, Beginner, Energy Savings, Super Energy and Weekender, depending on your need. Touch the Water care name to choose your setting. A green checkmark will appear on the selected icon to confirm your choice .



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.

**Default value, set in pack low-level*

Water Care Modes:

Away:

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 Savings:

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



Weekender:

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



**Filtration will be reduced when the economy mode is activate.*

Modifying Schedules

To modify a Water Care category, touch the pen at the right end of the desired watercare to open the selected Water Care menu.

You can add schedules by touching the « + » symbol.

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

Touch the Economy tab to change the economy setting and filter cycle tab for the filtration settings (or schedules).

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

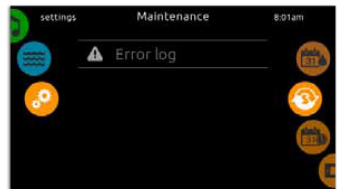
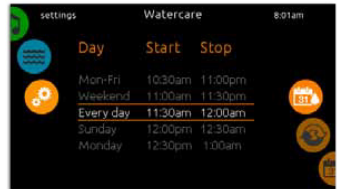
You have several possibilities for the schedule (Mon-Fri, weekend, every day, or single days). The schedules will be repeated every week. The time and duration are set in 30 minute increments. Once you have set the schedule, use the calendar icon to go back. Ensure that you have selected the desired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

Maintenance

From the Maintenance you can access the Following options:

- Error log

To access the desired option simply touch the desired name.



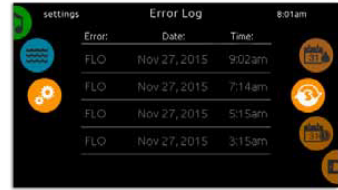
Error Log

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

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

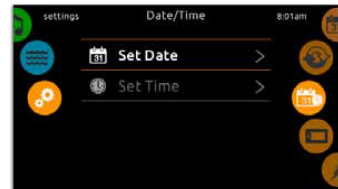
A screen will appear for more information on the selected error.

For more information, see the Error messages section (p. 58).



Date and Time

Here you can adjust the time or the date. Simply touch the option you want to change.



Set Date

Here you can adjust the year, month and date.

Simply scroll 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

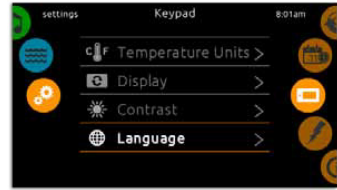
Here you can change the hour, minute and time format.

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



Keypad Settings

Here you can adjust the Temperature Units, Day/Night contrast, and Display orientation and language. Simply touch the option you want to change.



Electrical Configuration

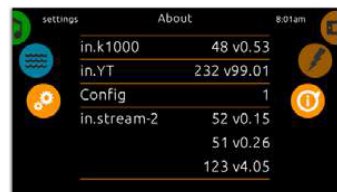
Please do not make changes in this section unless you are a qualified electrician. In this section you can change the low-level configuration, as well as modify the number of phases and the input current.



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

About

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



Wi-Fi

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

To connect your in.touch module to a wireless network, slide the left wheel until the desired menu icon is shown in the middle screen or press on the menu name.

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

Slide Up or Down the list to select your network.

If the Wi-Fi network is password protected enter it when prompted. Use Enter to validate the password.

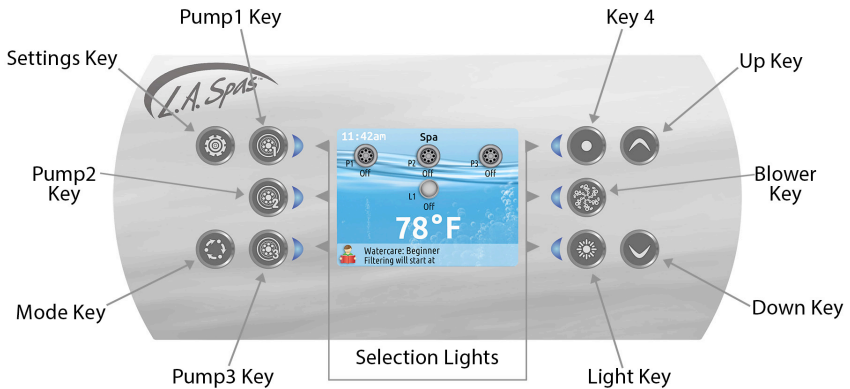
If no password is required the in.touch will connect automatically.

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



CONTROL PANEL TYPES AND MODELS

in.k806 Control Panel



This easy to use control has been programmed to be “plug and play”. Turn the power on, adjust the desired temperature and the system is ready to go. If there are situations that require additional filtering time, the filter settings can be customized to any special requirements. Simple to use and easy to read, the Command Control System makes controlling the spa effortless.

CONTROL PANEL OPERATION

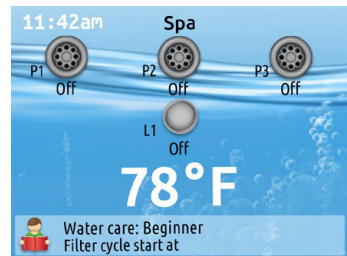
Please note: All pumps and light have an automatic timeout (shut-off) programmed 30 minutes after the pump or light is activated.

Power

Press any key to turn the control panel on. After 30 minutes without activity, it will shut off. The circulation pump and/or heater will continue to operate normally.

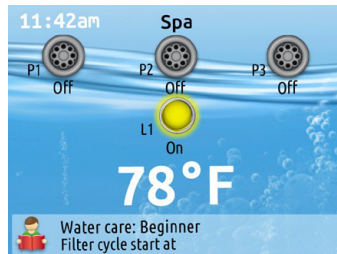
Main Screen

The main screen provides access to pump(s) and water temperature. Any error or maintenance message will be displayed on the bottom of the screen.



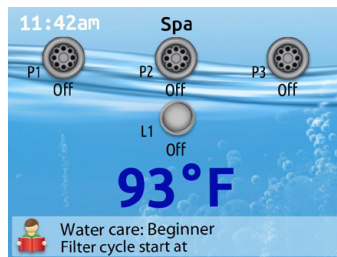
Pump, Blower and Light

To turn on a pump, blower (if equipped), or light, press the associated key. The associated icon will become animated when the device is turned on, and unanimated when turned off. The icon on the screen will reflect the speed or state of the devices running on the spa.



Water Temperature

The temperature shown on the screen (in white) reads the actual water temperature of the spa. Use the Up and Down keys to set the desired temperature. The set temperature will appear in blue. After 3 seconds without any change to the temperature value, the current water temperature will reappear.

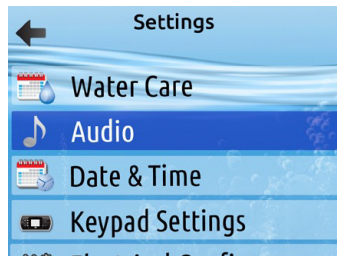


When the set temperature is lower than the current water temperature, Cooling to **XX**°F will appear on the bottom of the screen. When the set temperature is higher than the current water temperature, Heating to **XX**°F will appear. Normally there is a brief delay before the heating starts, during which Heating Suspended is indicated on the screen.

Settings

Access the Settings by a press of the **Settings** key from the home page. The following categories will appear on the Settings menu:

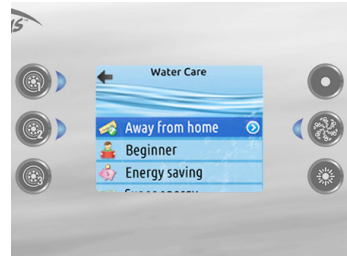
- Water Care
- Audio
- Date & Time
- Keypad Settings
- Electrical Configuration
- About



Use the **Up** and **Down** keys to move up or down in the menu. To select an option, press the lit key beside it (**Pump2** key). At any point, a press of the **Settings** key will return to the home page.

Water Care

The water care section will help to select the ideal filtration and heating settings. Choose from the five factory pre-set modes below. Use the **Up** and **Down** keys to move up or down the menu. To select a mode, press the lit key beside it (**Pump2** key). A checkmark will appear on the selected icon to confirm.



- *Away from home:* In this mode, the spa will always be in economy, the set temperature will be reduced by 20°F and filtration will be reduced.
- *Beginner:* The spa will never be in economy, and will run a normal 8 hours of filtration a day.
- *Energy saving:* The spa will be in economy during the peak hours of the weekdays and resume normal on the weekend.
- *Super energy saving:* The spa will always be in economy during peak hours every day of the week.
- *Weekender:* The spa will be in economy from Monday to Friday and will run normally on the weekend.

Filtration System

The spa is factory programmed to filter the water. The schedule and duration depend on the water care mode selected, and can be modified as needed (please see the Modifying Schedules for instructions). The filtration cycles occur in two steps: a purge step and a clean step. During the purge step, typically, all pumps are turned on for one minute to purge the spa plumbing. For the remainder of the filtration cycle, pump #1 low speed will operate to perform the clean step.

The filtration cycle can be suspended by pressing any of the pump keys. The filtration cycle will resume after 40 minutes from the last key pressed.

Modifying Schedules

To modify a Water Care category, scroll to the desired mode, use the lit key to the right (**Blower** key) to open the selected Water Care menu. To add schedules, scroll down to Add, then press the lit key beside it (**Pump2** key). To delete a schedule, press the lit key beside the Trash Can icon on the upper right hand corner of the screen. To modify an existing schedule, use the **Up** and **Down** keys to adjust, and use **Pump2** key to move between parameters. Once the schedule is set, press **Pump1** key to go back.



Audio

For models with the Bluetooth Audio System, the audio controls are integrated into the in.k806 control panel. The setting in this section provides the option to disconnect or unpair the Bluetooth enabled device. For audio operations, please refer to the separate Audio Set-Up Guide owner's manual.



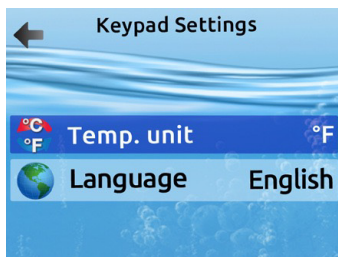
Date & Time

To change the date and time, scroll to the setting to be adjusted, and press **Pump2** key to select. Then use the **Up** and **Down** keys to adjust.



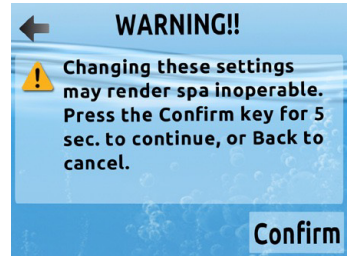
Keypad Settings

Temperature units and language can be changed in this section. Scroll to the setting to be changed, press **Pump2** key to select. Then use the **Up** and **Down** keys to modify.



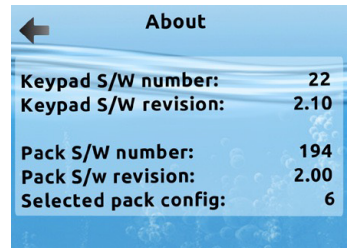
Electrical Configuration

Please do not make any changes in this section. Changes made in this section may cause components to become inoperable.



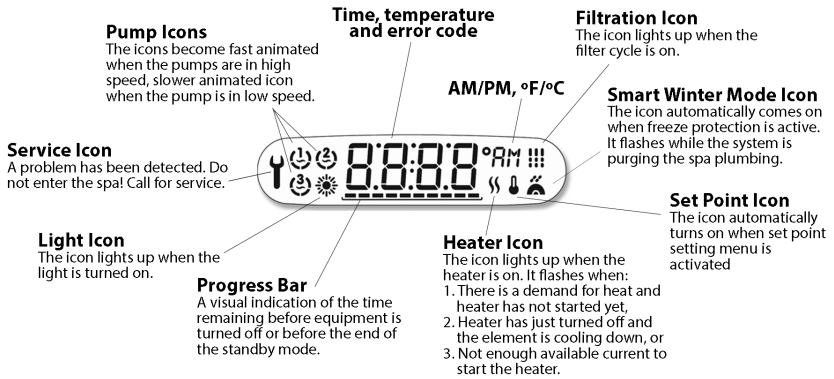
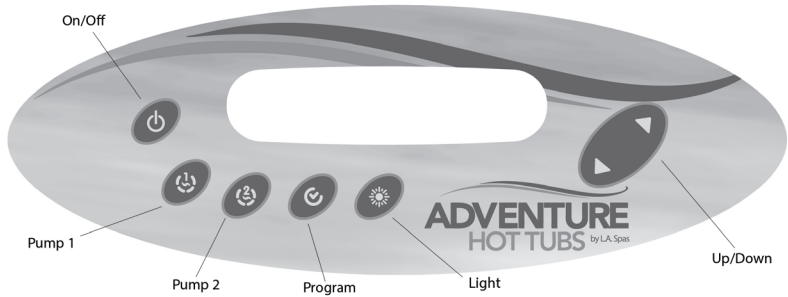
About

This selection displays the software information of the control panel and control pack.



CONTROL PANEL TYPES AND MODELS

in.k460 Control Panel



This easy to use control has been programmed to be “plug and play”. Turn the power on, adjust the desired temperature and the system is ready to go. If there are situations that require additional filtering time, the filter settings can be customized to any special requirements. Simple to use and easy to read, the Command Control System makes controlling the spa effortless.

CONTROL PANEL OPERATION

1. **ON/OFF key**

This key activates On/Off Mode, Standby Mode, or quick enable of the Economy Mode. Please refer to the respective sections below.

2. **Pump1 key**

Press the **Pump1** key to turn on the low speed of jet pump #1. Press the **Pump1** key a second time to turn on the high speed of jet pump #1. A third press of the key to turn the pump off.

3. **Pump2 key**

Press the **Pump2** key once to turn on jet pump #2. Press the **Pump2** key a second time to turn the pump off.

Note: This key may be non-operational in some models.

4. **Program key**

Use the **Program** key to display the time or enter Programming menu by pressing and holding the key for 3 seconds. In Programming mode, the following parameters can be set: time, filter cycle start time, filter cycle duration, filter cycle frequency, and temperature unit. Refer to the Programming the Control System section for the programming instructions.

5. **Light key**

Press the **Light** key once to turn on the LED light. Press the **Light** key a second time to turn off the LED light. To select a specific color, after the LED light has been turned off, press the **Light** key within 10 seconds to change to the next color selection. Continue until the desired color is reached. A total of 10 color settings are available:

- Color Morph (slow color wheel)
- White (all LEDs on)
- Turquoise (blue and green glow)
- Violet (red and blue glow)
- Blue
- Mantis (green and red glow)
- Green
- Red
- Color Flash (color changes every few seconds)
- Strobe

6. Up/Down keys

Press the **Up** key to increase the set temperature. Press the **Down** key to decrease the set temperature. Press the respective key one time for each degree of temperature change. Press and hold the key to adjust the temperature rapidly. The current spa water temperature will remain in the control panel display until a temperature key is pressed. Once the desired water temperature has been set, the spa will begin to heat.

Note: When selecting the spa operating temperature, it is important to factor in the outside ambient temperature. A spa cannot operate at temperatures lower than that of the surrounding conditions, or the operating environment of the spa. For the hot summer months, if cooler water is desired, the Economy mode can be utilized.

ON/OFF MODE

The system is always on by default. Press and hold the **On/Off** key for 5 seconds to shut the system down for 30 minutes. The display will toggle between the OFF and water temperature. Press the **On/Off** key to restart the system before the expiration of the 30 minutes delay.

STANDBY MODE

Quick press and release the **On/Off** key to shut the system down (i.e. to set it to Standby mode) for 30 minutes. The display will toggle between the **SBY** message and water temperature. All keys are then disabled unless the **On/Off** key is pressed again to reactivate the system before the expiration of the 30 minutes delay. In order to warn the user, the spa light will flash for a few seconds before the exit of Standby mode.

ECONOMY MODE

The economy mode is used to reduce power consumption when the spa is not in use. In economy mode, the heater will only engage when the water reaches a temperature equal to 20°F (11°C) below the set temperature during a certain period of the day. The factory default period is from midnight to 6AM. If a different period is desired, please refer to the Programming the Control System section for programming instructions.

While the Economy mode is engaged, the display will toggle between Eco and the water temperature. The Economy mode can be canceled by a press of the **On/Off** key. The display will show **noE**. The Economy mode can also be manually enabled immediately outside the pre-programmed period. It will stop at its next programmed stop time. Press and hold the **On/Off** key for 10 seconds to manually enable the Economy mode.

FILTRATION SYSTEM

The spa is factory programmed to filter two times a day for 1 hour. In most cases, this is sufficient filtration. However, the number of cycles can be modified between 1-4 cycles per day, and the cycle duration can be modified between 0-6 hours per cycle in increments of 1 hour. Refer to the Programming the Control System section for programming instructions.

Filter cycles occur in two steps: a purge and a clean step. During the purge step, typically, all pumps are turned on for one minute to purge the spa plumbing. For the remainder of the filter cycle, pump #1 low speed will operate to perform the clean step.

The filtration cycle can be suspended by pressing any of the jet keys. The filtration icon will blink on the control panel display. The filtration cycle will resume after 40 minutes from the last key press.

PROGRAMMING THE CONTROL SYSTEM

1. Clock

Press and hold the **Program** key for 3 seconds to enter the programming mode. Then press the **Up** or **Down** arrow key to change the hour setting. Once the desired hour is displayed, press the **Program** key again to accept the selection, and move to programming the minute setting. Use the **Up** or **Down** arrow key to change the minute setting. Once the desired minute is displayed, press the **Program** key again to accept the selection and move to programming the filter cycle start time.

2. Filter Cycle Start Time

Press and hold the **Program** key for 3 seconds to initiate the programming mode. Then press the **Program** key twice to access the filter cycle start time programming. The display will show **F5xx**, with "xx" representing the hour. Press the **Up** or **Down** arrow key to cycle through the hour between 0 and 23 in increments of 1 hour. Program default setting is 12, which depicts 12PM start time. For a midnight start time, select 0. Once the desired start time is displayed, press the **Program** key again to accept the selection and move to programming the filter cycle duration.

3. Filter Cycle Duration

Press and hold the **Program** key for 3 seconds to initiate the programming mode. Then press the **Program** key three times to access the filter cycle duration programming. The display will show **Fdxx**, with "xx" representing the duration in hours. Press the **Up** or **Down** arrow key to cycle through 0-6 hours in increments of 1 hour. Program default is 1 hour. Once the desired duration is displayed, press the **Program** key again to accept the selection and move to programming the filter cycle frequency.

It is not recommended to set the filter cycle duration to 0.

4. Filter Cycle Frequency

Press and hold the **Program** key for 3 seconds to initiate the programming mode. Then press the **Program** key four times to access the filter cycle frequency programming. The display will show FFxx, with "xx" representing the number of filter cycles per day. Press the **Up** or **Down** arrow key to cycle through the number of filter cycles, 1-4 cycles. The default setting is 2 cycles per day. Once the desired number of filter cycles is displayed, press the **Program** key again to accept the selection and move to programming the economy mode.

5. Economy Mode

Press and hold the **Program** key for 3 seconds to initiate the programming mode. Then press the **Program** key five times to access the economy mode programming. Press the **Up** or **Down** arrow key to enable or disable the economy mode. The display will show EP 1 when the economy mode is enabled. When the economy mode is disabled, the display will show EP 0. Program default is EP 1. Once the desired setting is displayed, press the **Program** key again to accept the selection and move to programming the economy start time.

6. Economy Start Time

Press and hold the **Program** key for 3 seconds to initiate the programming mode. Then press the **Program** key six times to access the economy start time programming. Press the **Up** or **Down** arrow key to cycle through the hour between 0 and 23 in increments of 1 hour. Program default setting is (E5xx, will be shown on the display), which depicts a midnight start time, with "xx" representing the hour. Once the desired start time is displayed, press the **Program** key again to accept the selection and move to programming the economy duration.

7. Economy Duration

Press and hold the **Program** key for 3 seconds to initiate the programming mode. Then press the **Program** key seven times to access the economy duration programming. Press the **Up** or **Down** arrow key to cycle through 0-24 hours in increments of 1 hour. Program default is 6 hours E6xx will be shown on the display, with "xx" representing the duration in hours). Once the desired duration is displayed, press the **Program** key again to accept the selection and move to programming the temperature unit. It is not recommended to set the economy duration to 0 hour.

8. Temperature Unit

To adjust the temperature unit, press and hold the **Program** key to initiate the programming mode. Then press the **Program** key eight times to access the temperature unit programming. Press the **Up** or **Down** arrow key to toggle between Fahrenheit (°F) and Celsius (°C). Program default is °F. Once the desired temperature unit is displayed, press the **Program** key again to accept the selection and exit the programming sequence.

5. Economy Mode

Press and hold the **Program** key for 3 seconds to initiate the programming mode. Then press the **Program** key five times to access the economy mode programming. Press the **Up** or **Down** arrow key to enable or disable the economy mode. The display will show EP 1 when the economy mode is enabled. When the economy mode is disabled, the display will show EP 0. Program default is EP 1. Once the desired setting is displayed, press the **Program** key again to accept the selection and move to programming the economy start time.

6. Economy Start Time

Press and hold the **Program** key for 3 seconds to initiate the programming mode. Then press the **Program** key six times to access the economy start time programming. Press the **Up** or **Down** arrow key to cycle through the hour between 0 and 23 in increments of 1 hour. Program default setting is (E5xx, will be shown on the display), which depicts a midnight start time, with "xx" representing the hour. Once the desired start time is displayed, press the **Program** key again to accept the selection and move to programming the economy duration.

7. Economy Duration

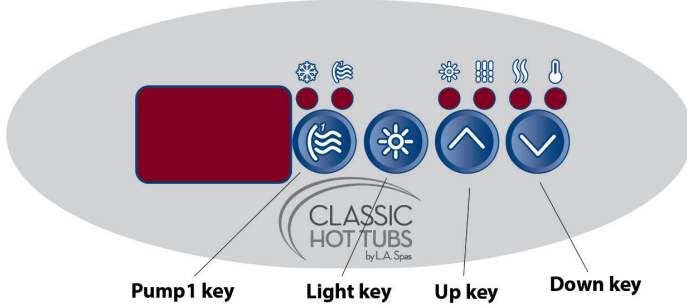
Press and hold the **Program** key for 3 seconds to initiate the programming mode. Then press the **Program** key seven times to access the economy duration programming. Press the **Up** or **Down** arrow key to cycle through 0-24 hours in increments of 1 hour. Program default is 6 hours E6xx will be shown on the display, with "xx" representing the duration in hours). Once the desired duration is displayed, press the **Program** key again to accept the selection and move to programming the temperature unit. It is not recommended to set the economy duration to 0 hour.

8. Temperature Unit

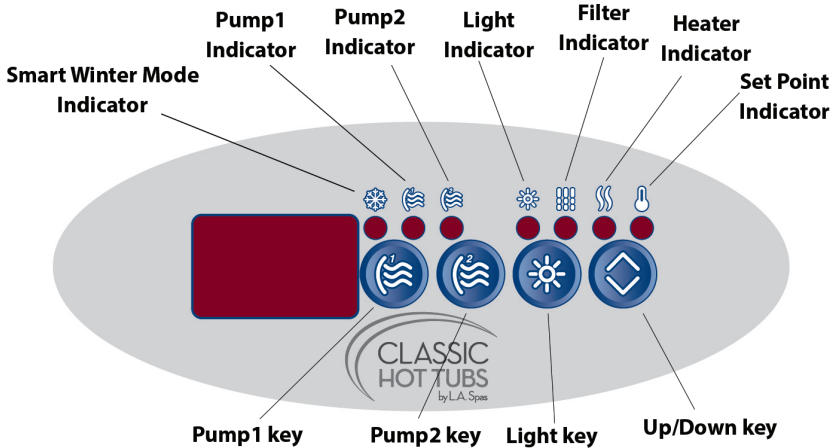
To adjust the temperature unit, press and hold the **Program** key to initiate the programming mode. Then press the **Program** key eight times to access the temperature unit programming. Press the **Up** or **Down** arrow key to toggle between Fahrenheit (°F) and Celsius (°C). Program default is °F. Once the desired temperature unit is displayed, press the **Program** key again to accept the selection and exit the programming sequence.

CONTROL PANEL TYPES AND MODELS

in.k209 Control Panel



Classic Series Control Panel: in.k209 - Two Pumps



These easy to use controls have been programmed to be “plug and play”. Turn the power on, adjust the desired temperature and the system is ready to go. If there are situations that require additional filtering time, the filter settings can be customized to any special requirements. Simple to use and easy to read, the Command Control System makes controlling the spa effortless.

CONTROL PANEL OPERATION

Please note: All pumps and lights have an automatic timeout (shut-off) programmed 30 minutes after the pump or light is activated. Pump #1 low speed will remain running if there is a call for heat, and will continue to do so until the set temperature is reached.

1. **Pump1 key**

Press the **Pump1** key to turn on the low speed of jet pump #1. Press the **Pump1** key a second time to turn on the high speed of jet pump #1. A third press of the key to turn the pump off. The **Pump1** indicator will flash when jet pump #1 is on low speed, and will be on solid when the jet pump #1 is on high speed.

4. **Pump2 key**

Press the **Pump2** key once to turn on jet pump #2. Press the **Pump2** key a second time to turn the pump off. The **Pump2** indicator will be on when the jet pump #2 is on.

Note: This key may be non-operational in some models.

5. **Light key**

Standard incandescent lamp: Press the **Light** key once to turn the light on. Press the **Light** key a second time to turn the light off. The Light indicator will be on when the light is on.

LED lighting option: Press the **Light** key once to turn on the LED light. Press the **Light** key a second time to turn off the LED light. The Light indicator will be on when the LED light is on. To select a specific color, after the LED light has been turned off, press the **Light** key within 10 seconds to change to the next color selection. Continue until the desired color is reached. A total of 10 color settings are available:

- Color Morph (slow color wheel)
- White (all LEDs on)
- Turquoise (blue and green glow)
- Violet (red and blue glow)
- Blue
- Mantis (green and red glow)
- Green
- Red
- Color Flash (color changes every few seconds)
- Strobe

6. Up/Down keys

For the one-pump control panel: Press the **Up** key to increase the set temperature. Press the **Down** key to decrease the set temperature. Press the respective key one time for each degree of temperature change. Press and hold the key to adjust the temperature rapidly.

For the two-pump control panel: Press and hold the **Up/Down** key to increase or decrease the set temperature. Release the key when the desired set temperature has been reached. If the **Up/Down** key is pressed and held within 5 seconds from the release of the key, the set temperature will decrease or increase the opposite way. For example, if the set temperature was ascending prior to the release of the **Up/Down** key, the set temperature will now descend when the Up/Down key is pressed and held within 5 seconds.

The current spa water temperature will remain in the control panel display. When adjusting the set temperature, the Set Point indicator will be on. Once the desired water temperature has been set, the spa will begin to heat, and the Heater indicator will be on.

Note: When selecting the spa operating temperature, it is important to factor in the outside ambient temperature. A spa cannot operate at temperatures lower than that of the surrounding conditions, or the operating environment of the spa. For the hot summer months, if cooler water is desired, the Economy mode can be utilized.

FILTRATION SYSTEM

The spa is factory programmed to filter two times a day for 1 hour. In most cases, this is sufficient filtration. However, the number of cycles can be modified between 1-4 cycles per day, and the cycle duration can be modified between 0-6 hours per cycle in increments of 1 hour. Refer to the Programming the Control System section for programming instructions.

Filter cycles occur in two steps: a purge and a clean step. During the purge step, typically, all pumps are turned on for one minute to purge the spa plumbing. For the remainder of the filter cycle, pump #1 low speed will operate to perform the clean step.

The filtration cycle can be suspended by pressing any of the jet keys. The filtration icon will blink on the control panel display. The filtration cycle will resume after 40 minutes from the last key press.

PROGRAMMING THE CONTROL SYSTEM

1. Filter Cycle Duration:

To set the duration of the filter cycle, press and hold the **Light** key until the display shows **dx** ("x" represents the duration in hours). Press the **Up** or **Down** arrow key to cycle through 0-6 hours in increments of 1 hour. Program default is 1 hour. Once the desired duration is displayed, press the **Light** key again to accept the selection and move to programming the filter cycle frequency. It is not recommended to set the filter cycle duration to 0.

2. Filter Cycle Frequency:

To adjust the number of filter cycles per day, press and hold the **Light** key to initiate the programming mode. Then press the **Light** key again. The display will show **Fx** ("x" represents the number of cycles per day). Press the **Up** or **Down** arrow key to cycle through the number of filter cycles, 1-4 cycles. The default setting is 2 cycles per day. Once the desired number of filter cycles is displayed, press the **Light** key again to accept the selection. The system will start the filtration cycle immediately.

3. Temperature Unit:

To adjust the temperature unit, press and hold the **Light** key to initiate the programming mode. Then press the **Light** key twice to access the temperature unit programming. Press the **Up** or **Down** arrow key to toggle between Fahrenheit (°F) and Celsius (°C). Program default is °F. Once the desired temperature unit is displayed, press the **Light** key again to accept the selection and exit the programming sequence.

FEATURE OPERATIONS

JET SELECTOR VALVES (DIVERTER VALVES)

Your spa may be equipped with a jet selector valve (diverter valve). This valve can be used to divert jet power from one area in the spa to another area. This valve is fully adjustable and can be used to suit the user's desired effect. The valve may be slightly harder to turn when the jet pump is on high speed. This is normal due to high rate of water flow and pressure present in the valve.



AIR CONTROL VALVES

Your spa may be equipped with air controls. The air control is an on/off valve that allows air to be introduced into a specific jet configuration resulting in a more vigorous jet action. This valve looks similar to the jet selector valve (diverter valve), however it is smaller in size, and it has the word AIR on the handle. Turn the valve handle clockwise to turn the air on, and counterclockwise to turn the air off. Opening the valve increases jet pressure and closing the valve decreases the jet pressure.



WATER FEATURE/WATERFALL CONTROL VALVE

Your spa may be equipped with a waterfall or water feature(s) that is controlled by a water feature/waterfall control valve. This valve looks identical to the air control valve but without the word AIR on the handle. Turn the valve handle clockwise to turn the water feature(s) on, and counterclockwise to turn the water feature(s) off.



in.stream2 AUDIO SYSTEM

Your spa may be equipped with a stereo system. Please refer to the separate Audio Set-Up Guide for the operation of the stereo system.

IN.TOUCH SYSTEM

Your spa may be equipped with the in.touch WiFi system. This system allows the use of an Apple™ or Android™ device to control the spa. Please continue to the next page for basic set-up instructions.

in.touch BASIC SET-UP INSTRUCTIONS

The in.touch module has a built in WiFi transceiver that allows you to communicate with your favorite devices. The following steps will show you how to connect with your spa.

Set Up

Download Application:

in.touch world allows you to use the Internet anywhere in the world to control your spa.



in.touch home allows you to control your spa using your home WiFi network.



Both versions of the app can be found at the App Store for iOS devices and the Google Play Store for Android devices - search for gecko in.touch then click on the version you want to install.

Set the Point-to-Point Connection: For the first use, you must connect directly to the in.touch module using an iOS device or a computer with in.touch PC Setup or in.touch MAC Setup. After the connection has been established you can use your home WiFi network if you wish.

iOS devices:

1. Connect to the in.touch network in WiFi setting on your device
2. Start the in.touch application by tapping on it
3. Add your spa when prompted

Android users:

1. Download in.touch PC Setup.exe or in.touch Mac Setup.zip onto your computer. (file can be found at www.geckoalliance.com/intouch).
2. Take your computer 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.)
3. Install software (PC) or unzip file (Mac)
4. Follow the on screen instructions.
5. Choose the same network for your Android as you did for your in.touch.

Start the Application:

Open the in.touch application. You will then be prompted to add your spa to the list to connect the in.touch app with your spa. Choose your spa from the list of Visible Spas, and name it (eg. Home). You are now able to use the in.touch app to control your spa.

The following instructions are for iOS users only:

Configuration (iOS Users Only)

1. Go to Settings in the in.touch app and select WiFi Connection.
2. Choose the network that you want your spa to connect to (i.e. your home WiFi). If the network has a passcode, enter it when prompted.

As long as all hardware (router etc.) and passwords remain unchanged you will not have to repeat this process.

Home Network

Go to the WiFi settings section on your iDevice and choose the same network (if your device does not connect automatically).

Internet (world edition only)

If your iDevice has direct access to the internet (i.e. 3G or 4G connection), it will connect automatically.

If you would like to use WiFi and it does not connect automatically, go to the WiFi settings on your device to connect to your desired network.

A green icon with the word "Linked" beside it will appear at the top right hand corner of the My Spas page to confirm your connection.

To download the complete techbook with more detailed instructions and troubleshooting tips, please go to www.geckoalliance.com/in.touch



WATER BALANCE

WATER CHEMISTRY

Maintaining proper water chemistry is imperative to maintaining safe water and preventing possible damage to your spa and spa components.

START-UP PROCEDURES

1. Fill spa to correct level (approximately 5" below the top of spa). Keep spa cover open while treating water.
2. When utilizing the Aqua Klean® filter bag, you may add stain and scale control, or a similar sequestering agent, such as Metal Gone.
3. Test and adjust total alkalinity – run pump for ½ hour.
4. Test and adjust pH – run pump for ½ hour.
5. If sanitizing with bromine, add sodium bromide with jets running (*see Bromine section*).
 - a. Fill and set bromine floater or adjustable bromine feeder and place in the spa water.
 - b. Shock water with potassium peroxydisulfate (such as "Renew") with jets running.
6. If sanitizing with chlorine, use only a granular "Dichlor" compound (*see Chlorine section*).
 - a. Fill and set chlorine floater or chlorine feeder and place in the spa water.
 - b. Shock water with potassium peroxydisulfate (such as "Renew") with jets running.
7. Run pump for ½ hour.
8. Wait ½ hour after introducing the last water treatment (e.g. Metal Gone, Renew, Chlorine) before closing spa cover.

WATER QUALITY

Your spa is equipped with a specially designed Aqua Klean® filter system. Filtering the water helps maintain water cleanliness and clarity. While the filter traps most solid materials, it is still necessary to add a sanitizer such as bromine or chlorine to the water in order to control bacteria, algae, and to oxidize any organic materials in the water.

We recommend that you purchase your chemicals from your authorized L.A. Spas dealer. The dealer can also advise you on alternative methods for water sanitation. **Use of incorrect chemicals can be dangerous and may void the warranty on your spa.**

Aqua Klean® Patent No. 6,685,843

pH CONTROL

All water has a pH value determined by a scale of 0-14, which is a measure of the acid to alkaline relationship. While a pH reading of 7.0 is considered neutral, a lower reading is considered acidic and a higher reading is alkaline. The proper pH for spa water is between 7.2-7.6. High pH (above 7.8) can reduce sanitizer efficiency, cloud the water, promote scale formation on spa surface and equipment and interfere with filter operations. When pH is too high, add a pH decreaser. Low pH (below 7.2) is equally damaging and can cause equipment corrosion, water that is irritating, and rapid sanitizer dissipation. Add pH increaser to adjust the level. Follow the chemical manufacturer's directions and procedures when adding chemicals to spa water.

NOTE: Always add pH adjuster with jets operating and circulate all chemicals for at least 30 minutes. Remember that good pH control and sanitation are absolutely essential for proper spa water treatment.

TOTAL ALKALINITY

Total alkalinity is the amount of carbonate, bicarbonate, and hydroxyl ions in the water. Total alkalinity affects and buffers the pH of the water. With high total alkalinity (above 160), pH resists adjustment. With low total alkalinity (below 130), pH is unstable and difficult to keep in the ideal range. Proper total alkalinity levels allow other spa chemicals to work effectively.

WATER TREATMENT

SANITIZERS

The importance of maintaining an adequate level of sanitizer in your spa cannot be overemphasized. Warm water presents a fertile environment for the growth of bacteria and viruses. This growth is prevented when adequate sanitizer levels are continuously maintained.

WARNING – Sanitizers such as tri-chlor (tablets or sticks), calcium hypochlorite, sodium hypochlorite, and any chemical that dissolves on or remains un-dissolved in contact with the spa surface will damage your spa surface and will void the warranty completely.

BROMINE

Bromine is the most common sanitizer used in spas. Adjust the floater to maintain a total bromine level of 3.0-5.0 ppm. If the reading is below the minimum, raise the level before using the spa. If the reading is above 5.0 ppm, allow ppm to drop to the proper range before using the spa. Brominating tablets are a convenient and effective source of bromine for your spa. Do not drop bromine tablets directly into the water as this may damage the spa surface. A chemical “floater” safely and properly dispenses the tablets into the spa water. When used properly, brominating tablets will keep your water clean, clear, and odor-free. To ensure maximum effectiveness, add ½ oz. of sodium bromide per 100 gallons of water every time you fill your spa. This will establish a bromide reserve.

CHLORINE

Chlorine is a water sanitizer also, however it is more sensitive to pH than bromine. To be effective, you must have a pH range of 7.2-7.6. Any reading outside this range will greatly reduce chlorine effectiveness.

Use a chlorine test kit or test strip to maintain a reading of 2.0-3.0 ppm of free chlorine. If the reading is below the minimum, raise the level before using the spa. If the reading is above 5.0 ppm, allow ppm to drop to the proper range before using the spa. Read the instructions on your chlorine container carefully, or consult your local L.A. Spas dealer if you are having difficulty adjusting your chlorine level.

The best chlorine for your spa is a granular “Dichlor” compound. It dissolves quickly in moving water and has a nearly neutral pH. Add chlorine while jets are running and let the jets run for ½ hour. Generally, heavily contaminated water can be disinfected using large chlorine doses, in the range of 8-10 ppm, but a more practical method is to drain the spa and refill it with fresh water.

The effectiveness of chlorine is decreased when the cover is left off the water for two reasons: (1) sunlight decays chlorine rapidly, and (2) organic debris is blown into the spa and taxes the effectiveness of the chlorine. In addition, the higher the water temperature, the faster chlorine will decay.

NOTE: Two or more individuals in a spa may reduce the level of sanitizer rapidly.

SUPER CHLORINATION

Super chlorination quickly oxidizes the spa water to burn out wastes such as perspiration, hairspray, lotions, etc. that cannot be removed by the spa filter. This waste build-up reduces the power of the sanitizer, making the water dull and irritating to the eyes and skin. It may also produce an odor. When this occurs, the free chlorines have become chloramines which are much less effective as a sanitizer. This can be eliminated by super chlorination as needed. An application of 5 times the normal chlorine dosage will act as an adequate treatment.

SHOCK TREATMENTS (POTASSIUM PEROXYMONOSULFATE)

Even with regular sanitization, shock treatment may be necessary on occasion. Shock is recommended over super chlorination because it does not add additional sanitizer to the water. It is also effective in oxidizing wastes and will reduce chloramines or bromamines. Follow the manufacturer's instructions listed on the label.

OZONE

Your spa maybe equipped with an ozone generator. L.A. Spas requires that only their ozone generator be used on spas due to the design of the mixing chamber system. Ozone related failures due to use of other manufacturer's ozone generators will not be covered under warranty. Ozone delivery occurs when the circulation pump is running.

UV

Equipping your spa with an Ozone system that includes the Ozonator or UV Sanitizer is a smart decision. The use of ozone in conjunction with spa sanitizing and water balancing chemicals helps to provide you with a cleaner, healthier spa, reduces chemical usage, and protects your skin from chemically induced irritation.

WATER TESTING

It is recommended that you test your spa water regularly with an accurate test kit or test strip. These are available from your local authorized L.A. Spas dealer. Be sure to follow the chemical manufacturer's instructions for chemical use.

STAIN AND SCALE INHIBITOR

Staining and scaling may be a common problem in spas. Because the water is hot, scale may be deposited more quickly. The circulation of water can cause the erosion of metals from spa equipment, which can stain interior surfaces. A weekly dose of a stain and scale fighter will help control these problems.

A sequestering agent, such as Metal Gone, can be added to the spa water when filling a spa (for the first time or when draining and refilling). This will help eliminate metals in your water and increases the life of your spa equipment.

FOAM INHIBITOR

Soap residue from a user's body, hair, and swimsuit combined with rapid circulation of spa water may cause foaming in your spa. Foam inhibitors will suppress foam, but cannot remove soap from the water. When foaming occurs, a shock treatment can oxidize the soap in your water and help prevent this condition. If foam remains a problem, change the water. Consult the directions on the foam inhibitor container for usage amount. When adding chemicals to your spa water, add to the center of the spa with the pump operating. Never add chemicals directly into the skimmer. Make sure the water is heated. Never add chemicals to cold water, as this will affect the chemical reaction.

Store all chemicals in a cool dry location and in such a manner to prevent contact by children or pets.

You should consult your local authorized L.A. Spas dealer prior to any chemical use.

KEEPING YOUR WATER CLEAN AND SAFE

Monday		Friday	
Test:	Bromine/Chlorine pH Total Alkalinity	Test:	Bromine/Chlorine pH Total Alkalinity
Adjust:	Follow steps 1 - 4	Adjust:	Follow steps 1 - 4
Add:	Stain & Scale control	Add:	Stain & Scale control

Step 1: Adjust total alkalinity – ideal range is between 130-160. Test water, follow directions on manufacturer's label, and add the required amount of spa chemicals with the jets on. Wait 30 minutes before performing additional tests.

Step 2: Adjust pH – ideal range is between 7.2-7.6. Test water, follow directions on manufacturer's label, and add the required amount of spa chemicals with the jets on.

Step 3: Adjust bromine/chlorine – ideal range is between 2-3 ppm chlorine and 3-5 ppm bromine (4-6 ppm for heavy spa usage). Fill bromine floater or adjustable feeder and shock spa as necessary.

Step 4: Stain and scale control – once a week add the required amount of spa chemicals with jets on.

NOTE: The chemical chart above is a simple schedule for moderate spa use. Depending on the usage, chemical balancing may be required more often.

SPA CARE

FILTER CLEANING

Always make sure the spa is off before removing and cleaning the Aqua Klean® filter bags. We recommend the Aqua Klean® filter bags to be cleaned every two weeks to avoid a decrease in jet performance. On initial start-up, the filters should be cleaned every other day for the first two weeks of operation.

To clean the filter bags, place them into the washing machine. Use ¼ cup of bleach, wash with warm water in gentle cycle. Do not machine dry.

Aqua Klean® Patent No. 6,685,843

CARE FOR SPA SURFACE

L.A. Spas have a very high quality finish. Stains and dirt will generally not adhere to the surface. After draining the spa, wipe the surface with a soft damp cloth (or sponge) using household soap or liquid detergent. Stubborn dirt and stains maybe removed by using Spic & Span adequately dissolved in water. Be sure to rinse detergent well as this will cause suds when refilling the spa.

CARE FOR SPA PILLOWS

Due to the nature of a spa's environment, spa pillows are exposed to chemicals, which in turn can affect the pillow's useful life. To be extra careful, we encourage you to always remove the spa pillows when adding chemical treatments to your spa's water. The spa pillows can then be re-installed to the spa when the chemical level is at the recommended parts per million (PPM). For most spas, this is between 3-5 PPM.

Furthermore, spa pillows should be cleaned regularly. To do this, remove the pillows from your spa, and then wipe the pillows with a soft damp cloth using mild dish washing soap and warm water. Rinse off the excess soapy water, and then simply re-install the pillows onto your spa.

CARE OF SPA CABINET (THERMOPLUS CABINET)

Your ThermoPlus cabinet requires little or no maintenance of any kind. To clean, simply wipe cabinet with a clean towel and mild detergent soap solution.

CAUTION – Do not use any cleaning products containing abrasives or solvents. Do not stain, paint or otherwise cover the cabinet with any substance since these can and will damage the ultraviolet clear coat used on the surface of the ThermoPlus spa skirt and void your warranty.

CARE FOR THERM-RITE™ SPA COVER

Your Therm-Rite™ spa cover is an extremely durable foam insulated product. When your spa is not in use, it is highly recommended that the cover tie downs always be utilized to discourage unsupervised children from entering the spa and to minimize heat loss. See your Therm-Rite™ spa cover Owner's Manual for proper installation instructions.

Spa covers should be cleaned regularly. To clean the cover, simply wipe the cover using a clean towel with a mild detergent or soap solution. Do not use any cleaning products containing abrasives or solvents since these could damage the cover surface and void your warranty. You may wax the spa cover surface as desired. Use a spa wax only. This adds a protective coating on the finish of your spa cover. Follow the instructions on the label of the wax product. Lastly, consult your L.A. Spas Authorized Dealer for further questions regarding your Therm-Rite™ spa cover.

DRAINING THE SPA

1. Turn power off to spa.
2. Attach a hose to the hose bib located in the equipment area of your spa. Open the valve and allow the water to drain away from the spa.
3. Clean the spa surface (see care of spa surface in this section).
4. Refill spa, and follow initial start-up procedures to reheat the spa.

SPECIAL COLD WEATHER INSTRUCTIONS (WINTERIZING)

Winter can be one of the most enjoyable times of the year to enjoy your spa. As it is difficult to get water out of the plumbing lines, WE DO NOT RECOMMEND DRAINING YOUR SPA FOR THE WINTER. However, if you decide not to use your spa during the winter, we recommend you winterize as follows:

1. If you drain your spa, turn off the main power to the spa. Drain as completely as possible. You may want to use a wet-vacuum or high-pressure blower to evacuate as much water as possible.
2. When the spa is completely empty, leave the hose bib open and open the pump drain plug located on the bottom side of the front end of the pump. Loosen all pump unions and fittings to allow air and water to expand freely within the system. This should help prevent water from freezing and damaging pipes and fittings. The idea is to try to eliminate water from any sealed areas in the system.

Should you have a heavy snowfall during the winter months, you may want to build a protective cover cap for the spa cover. This may be done with a ½" or ¾" piece of plywood and a few 2" x 4" cross members.

Although your spa is equipped with an automatic freeze protection, a power outage can cause your spa equipment system to freeze quickly. During freezing conditions, check your spa frequently to ensure proper operation. Be sure to check your spa after any power failure to ensure the spa is operational.

For additional information on winterizing your spa, contact your local L.A. Spas dealer.

THERMAL CREEP

Your spa is manufactured with energy-efficient components and systems that capture heat generated by the equipment, then transfers that heat back to the spa water. In warmer weather or in situations with extended run times, "Thermal Creep" may occur. Thermal Creep is a condition whereby the actual water temperature is higher than the set temperature. To manage "Thermal Creep" you may:

1. Vent your cover: Newer covers have removable center seal padding. To remove this padding, open the Velcro on one side of the vinyl pouch and slide the white padding out. If your spa does not have removable center seal padding, you may instead place a folded cloth about ¾" (2cm) thick under all four corners of the cover before you lock it down. Opening the cover at night will also quickly cool the water down if desired.
2. Open all air controls.
3. Set your filtration cycles to run during the cooler times of the day or at night.
4. Reduce the length of your filter cycles.
5. Visit your local dealer for additional guidance.

Thermal Creep only occurs in well-insulated hot tubs. It is not an indication that something is wrong with your spa or the equipment.

WARRANTY SERVICE INFORMATION

Your L.A. Spas warranty gives you specific coverage. Be sure you read your warranty carefully and return your completed warranty card to your L.A. Spas dealer upon completion of installation. You may also register your new spa's warranty online at:

www.laspas.com/customer-care/

The warranty does not cover problems resulting from misuse, abuse, or neglect, and it does not cover problems caused by improper installation or perceived problems caused by failure to read the spa owner's manual.

TROUBLESHOOTING

HEATING SYSTEM

Symptom	Problem	Corrective Action
Spa water cold / spa not heating	<ol style="list-style-type: none"> 1. Temperature setting is not at user select. Power reset caused default setting 2. Spa in economy mode 3. Dirty filters 4. Air lock 5. Jets closed obstructing flow 6. Pump gate valve closed 7. Equipment malfunction 	<ol style="list-style-type: none"> 1. Increase temperature 2. Reset to standard mode. 3. Clean filters 4. Prime pump (see page 10) 5. Open jets 6. Open gate valve 7. Call for service
Spa water too warm / spa heating above set point	<ol style="list-style-type: none"> 1. Temperature setting too high 2. Too much filtration 3. Thermal Creep 4. Dirty filters 5. Overheat or high limit occurred 6. Equipment malfunction 	<ol style="list-style-type: none"> 1. Decrease temperature 2. Reduce the number of filter cycles and/or the filter cycle duration 3. Refer to Thermal Creep Section (p. 48) 4. Clean filters 5. Call for service 6. Call for service
Spa temperature erratic	<ol style="list-style-type: none"> 1. Water level low 2. Spa in economy mode 3. Dirty filters 4. Jets closed obstructing flow 5. Pump gate valve closed 6. Equipment malfunction 	<ol style="list-style-type: none"> 1. Fill with water to 5" (13cm) below the top of spa 2. Reset to standard mode 3. Clean filters 4. Open jets 5. Open gate valve 6. Call for service

WATER SYSTEM

Symptom	Problem	Corrective Action
Pulsating jets	<ol style="list-style-type: none"> 1. Water level low 2. Dirty filters 3. Filter intake / pump intake restricted 4. Pump gate valve closed 5. Equipment malfunction 	<ol style="list-style-type: none"> 1. Fill with water to 5" (13cm) below the top of spa 2. Clean filters 3. Remove obstruction 4. Open gate valve 5. Call for service
No jet action or action is poor	<ol style="list-style-type: none"> 1. Jets are turned off 2. Diverter valve turned 3. Water level low 4. Dirty filters 5. Pump gate valve closed 6. Air lock 	<ol style="list-style-type: none"> 1. Turn jets on by turning jet face 2. Turn the diverter valve clockwise or counterclockwise 3. Fill with water to 5" (13cm) below the top of spa 4. Clean filters 5. Open gate valve 6. Prime pump (see page 26)

ELECTRICAL SYSTEM

Symptom	Problem	Corrective Action
Spa will not turn on in any mode	<ol style="list-style-type: none"> 1. No power 2. Equipment malfunction 	<ol style="list-style-type: none"> 1. Check circuit breaker and/or GFCI 2. Call for service
Spa turns on by itself	<ol style="list-style-type: none"> 1. Normal automatic daily filtration cycle 2. Spa required heat to maintain temperature 3. Freeze protection engaged 4. Equipment malfunction 	<ol style="list-style-type: none"> 1. No action required 2. No action required 3. No action required 4. Call for service
Light is out	<ol style="list-style-type: none"> 1. Automatic time out has shut off light. 2. Burned out light bulb 	<ol style="list-style-type: none"> 1. Press Light key again to start another cycle. 2. Replace light bulb
Pump shuts down unexpectedly while in use	<ol style="list-style-type: none"> 1. Automatic timeout has shut pump off 2. Motor overheated and protective device has shut down pump 	<ol style="list-style-type: none"> 1. Press Jets keys again to start another cycle 2. Allow pump to cool. If the pump does not restart when Jets key is pressed, call for service

ERROR MESSAGES

Message	Corrective Action
Hardware error was detected (Thermal fuse)	Reset power to spa. Check for operations of all pumps and accessories. If error code remains, call for service.
High Limit circuit has tripped!	DO NOT ENTER WATER. Add cold water to spa and let the heater cool down, reset power to spa.
No Flow condition; or No Flow condition for more than 2 hours	Reset power to spa. Make sure that the pump associated to the heater is running. Check and clean filters and reset the power to see if the error message goes away. Air locked, prime the pump (see page 22).
Spa temperature is too high	Remove spa cover. Add cold water.
Temp probes or detection circuit are defective	Reset power to spa, if error code remains, call for service.
Elevated internal temperature	Turn off power to the spa to allow the equipment compartment to cool. If error message occurs again, call for service.
Input voltage issue	Call a certified electrician to verify power line quality.

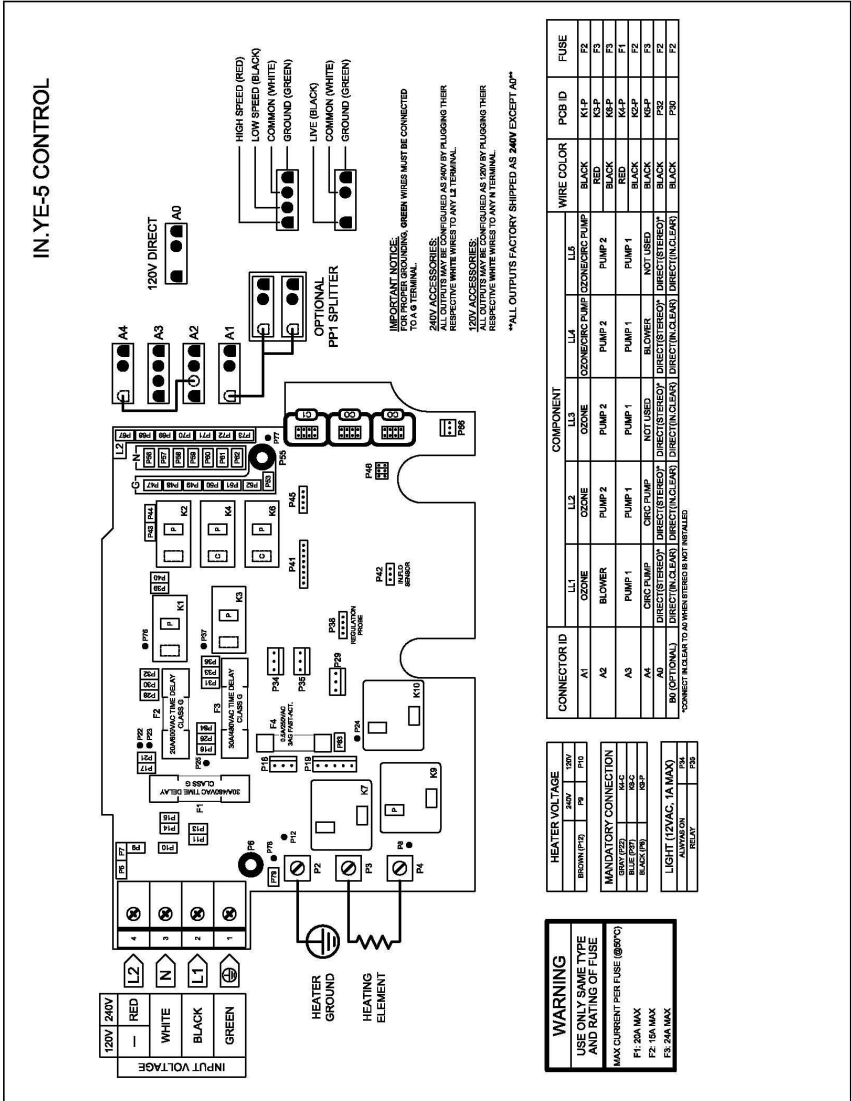
ERROR CODES

Error Code	Description	Corrective Action
Hr	A hardware error was detected in the control pack.	Reset power to spa. Check for operations of all pumps and accessories. If error code remains, call for service.
HL	The high limit circuit has tripped.	DO NOT ENTER WATER. Add cold water to spa and let the heater cool down, reset power to spa.
FLO	Occurs when no flow is detected at the heater.	Reset power to spa. Make sure that the pump associated with the heater is running. Check and clean filters and reset the power to see if error message goes away. Air locked, prime the pump (see page 22). RUNNING THE SPA WITHOUT FILTERS IS FOR TESTING PURPOSES ONLY, NEVER USE SPA WITHOUT FILTERS.
OH	Water temperature is above 108°F (42°C). DO NOT ENTER THE SPA.	Remove the spa cover. Add cold water.
Prr	Temperature probe is defective	Reset power to spa, If error code remains, call for service.
ROH	Temperature conditions inside the equipment area are above 194°F	Turn off power to the spa to allow equipment compartment to cool. If error message occurs again, call for service.

WIRING DIAGRAMS

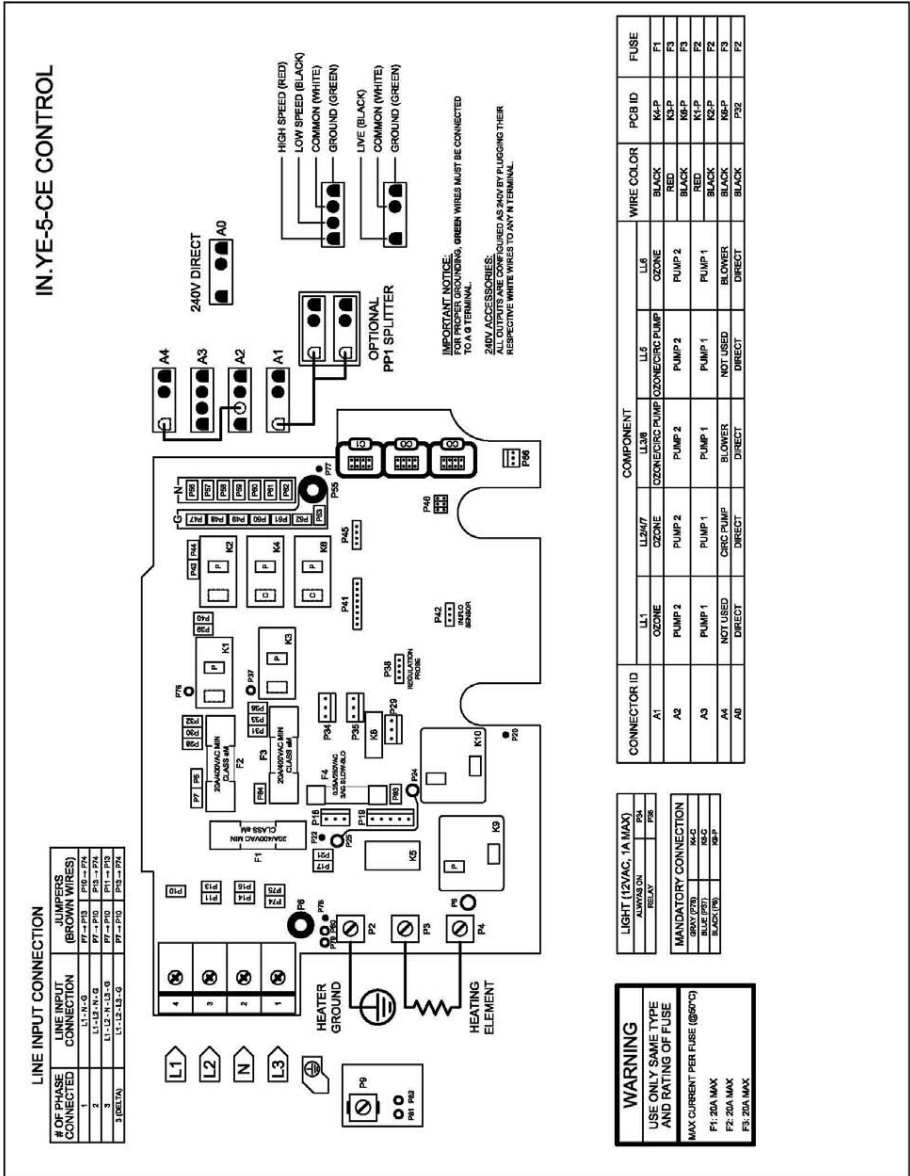
In.ye-5 control pack: **NORTH AMERICA ONLY**

Electrician: To determine which control pack is used, review white sticker containing bar code on control system inside of spa cabinet. No user serviceable parts. All connections must be made by a qualified, licensed electrician.



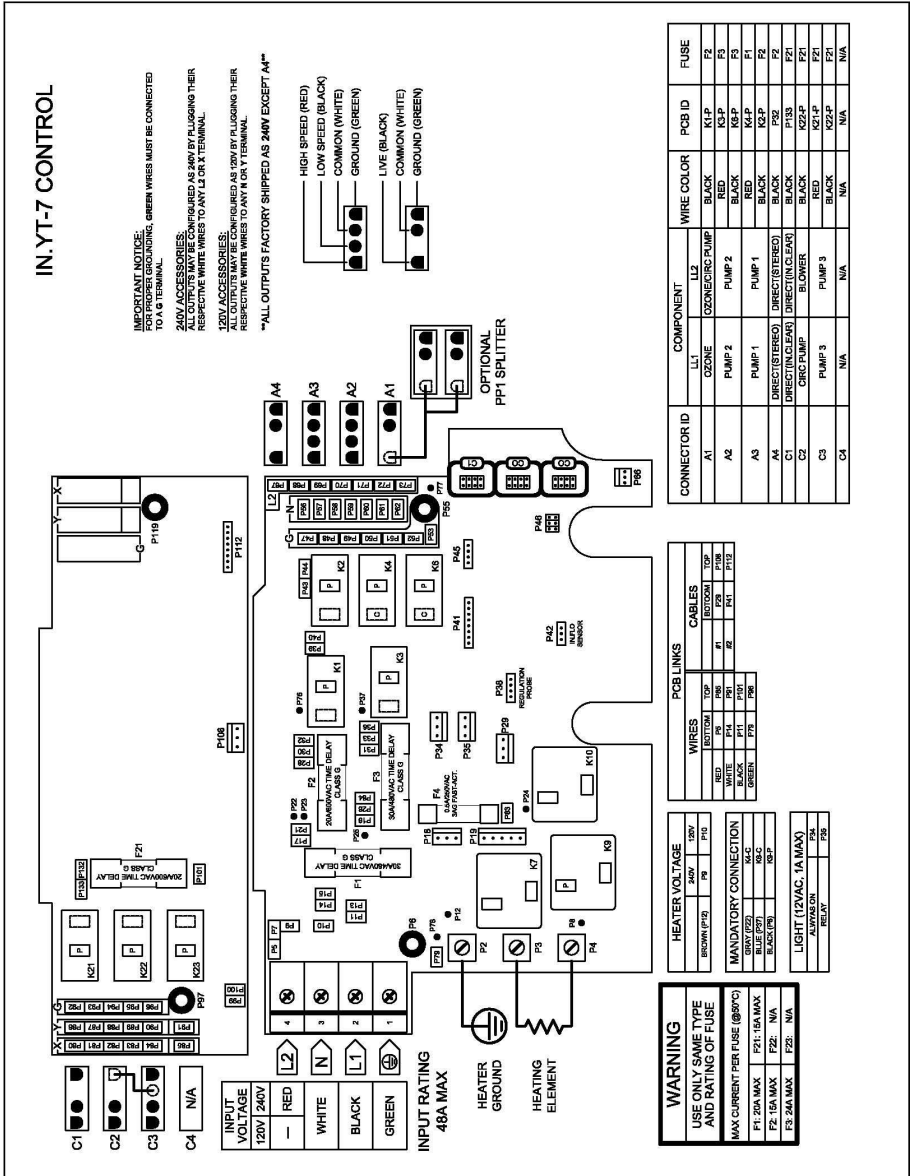
In.YE-5-CE control pack: EXPORT ONLY

Electrician: To determine which control pack is used, review white sticker containing bar code on control system inside of spa cabinet. No user serviceable parts. All connections must be made by a qualified, licensed electrician.



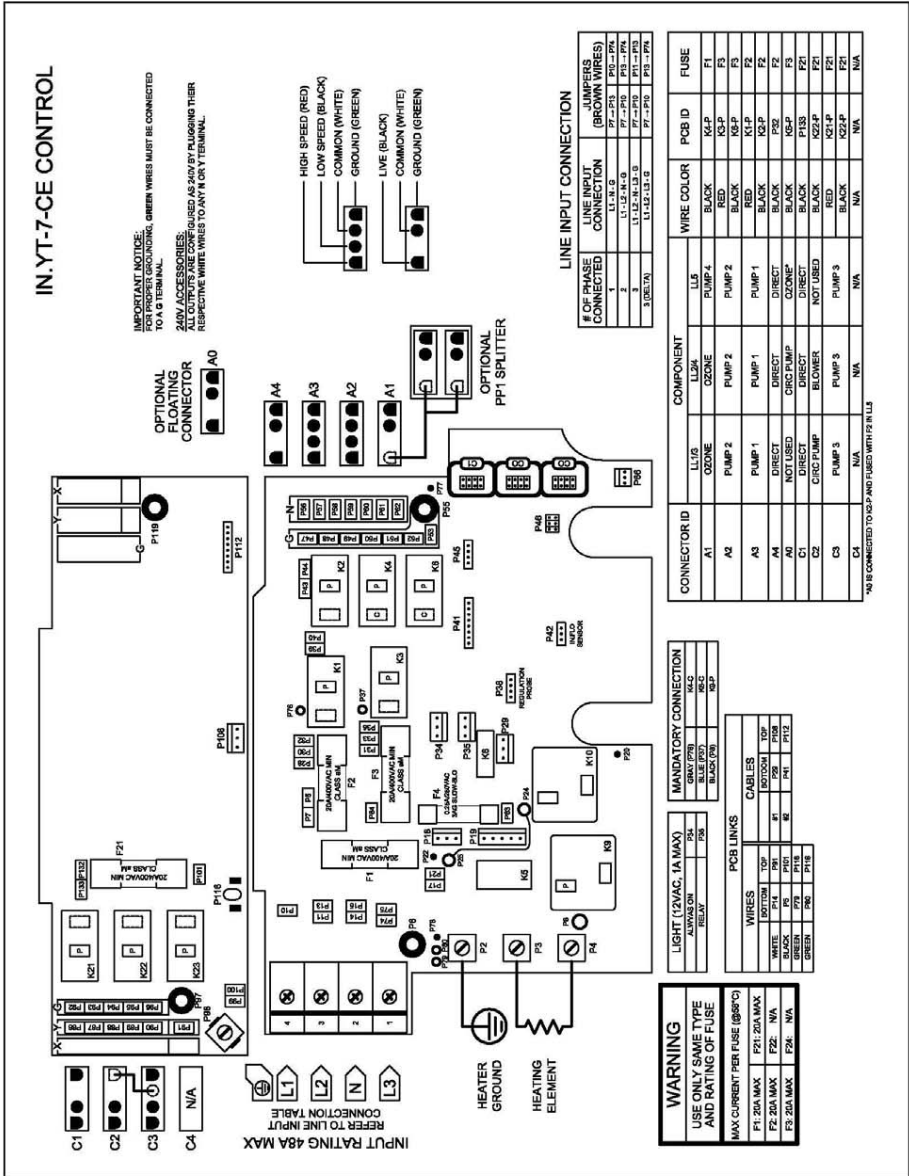
IN.YT-7 control pack: **NORTH AMERICA ONLY**

Electrician: To determine which control pack is used, review white sticker containing bar code on control system inside of spa cabinet. No user serviceable parts. All connections must be made by a qualified, licensed electrician.



In.YT-7-CE control pack: **EXPORT ONLY**

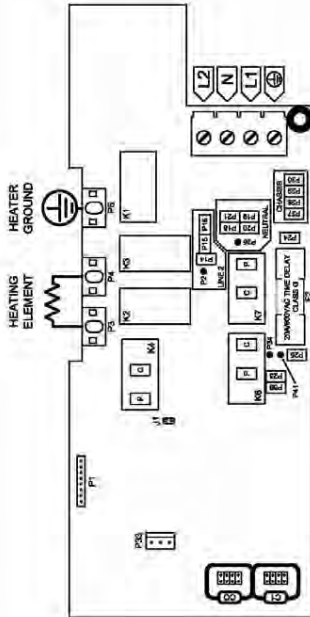
Electrician: To determine which control pack is used, review white sticker containing bar code on control system inside of spa cabinet. No user serviceable parts. All connections must be made by a qualified, licensed electrician.



In.yj-2 control pack: NORTH AMERICA ONLY

Electrician: To determine which control pack is used, review white sticker containing bar code on control system inside of spa cabinet. No user serviceable parts. All connections must be made by a qualified, licensed electrician.

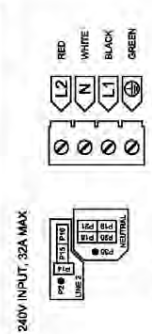
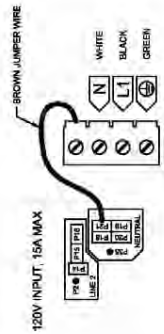
IN.YJ-2 CONTROL



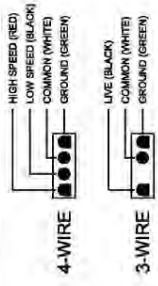
IMPORTANT NOTICE:
FOR PROPER GROUNDING, GREEN WIRES MUST BE CONNECTED TO A CHASSIS TERMINAL.

240V ACCESSORIES:
ALL OUTPUTS MAY BE CONFIGURED AS 240V BY PLUGGING THEIR RESPECTIVE WHITE WIRES TO P11, P14 & P17 TERMINAL.

120V ACCESSORIES:
THESE ACCESSORIES ARE CONFIGURED AS 120V BY PLUGGING THEIR RESPECTIVE WHITE WIRES TO ANY NEUTRAL TERMINAL.



WARNING:
BROWN JUMPER WIRE BETWEEN L1 AND P11 MUST BE REMOVED.



WARNING
USE ONLY SAME TYPE AND RATING OF FUSE
MAX CURRENT PER FUSE (60°C)
F2-16A MAX

LIGHT (250DC, 500MA MAX)
- 250MS ON

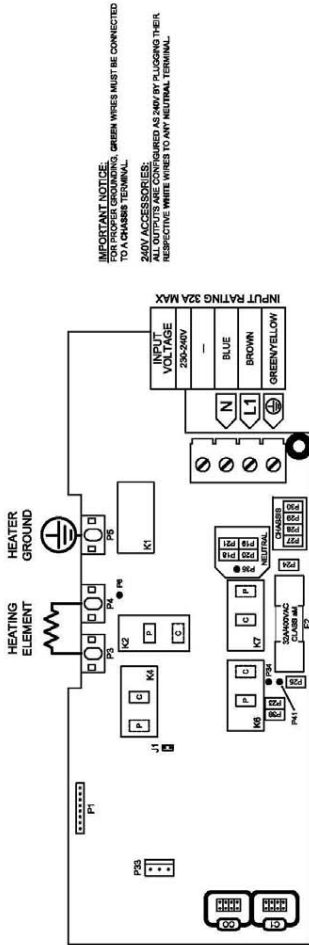
KINETIC PROTECTION
ACTIVATED - I1 INSTALLED
INACTIVATED - I1 REMOVED

CONNECTOR	COMPONENT	WIRE COLOR	POS ID	FUSE
4-WIRE	PUMP	RED	K1P	F2
	ODD	BLACK	K1S	F2
3-WIRE (OPTIONAL)	DIRECT(T)RECO	BLACK	P25	F2
		BLACK	P25	F2

IN.yj-2-CE control pack: EXPORT ONLY

Electrician: To determine which control pack is used, review white sticker containing bar code on control system inside of spa cabinet. No user serviceable parts. All connections must be made by a qualified, licensed electrician.

IN.YJ-2-CE CONTROL



IMPORTANT NOTICE:
FOR PROPER GROUNDING, GREEN WIRES MUST BE CONNECTED TO A CHASSIS TERMINAL.

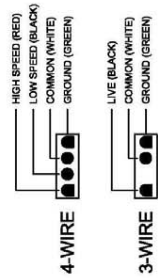
24V ACCESSORIES:
ALL OUTPUTS ARE CONFIGURED AS 24V BY PLUGGING THEIR RESPECTIVE WHITE WIRES TO ANY INTERNAL TERMINAL.

LIGHT (12VDC, 500mA MAX)
ALWAYS ON P18

KINETIC PROTECTION
NOT INSTALLED J1 REMOVED
INSTALLED J1 REMOVED

WARNING
USE ONLY SAME TYPE AND RATING OF FUSE
MAX CURRENT PER FUSE @80°C
F2 32A MAX

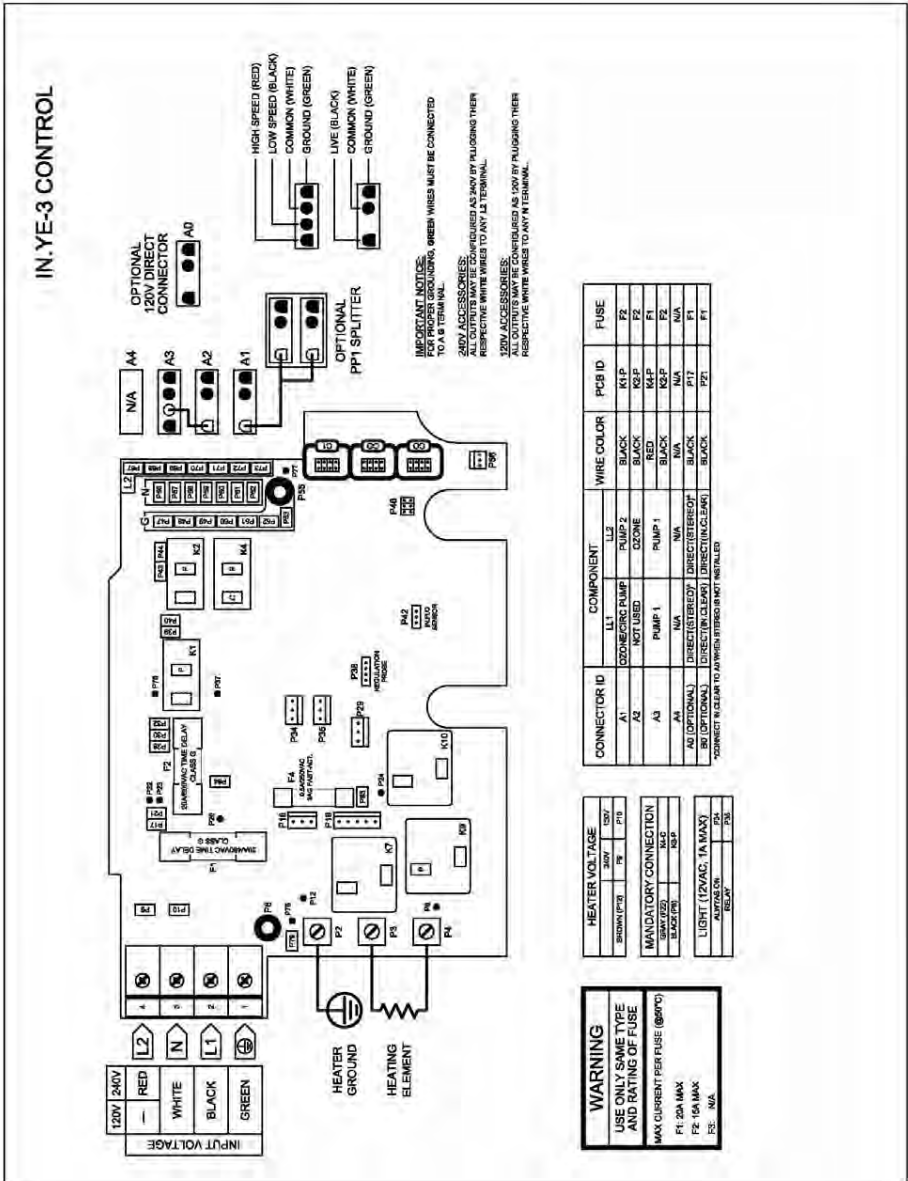
MANDATORY CONNECTION
GRAY (24V) DC
DC



CONNECTOR	COMPONENT	WIRE COLOR	PCB ID	FUSE
4-WIRE	PUMP	RED	K7P	F2
		BLACK	K6P	F2
3-WIRE	COMMON	BLACK	K7P	F2
3-WIRE (OPTIONAL)	DIRECT(RED)	BLACK	P7B	F2

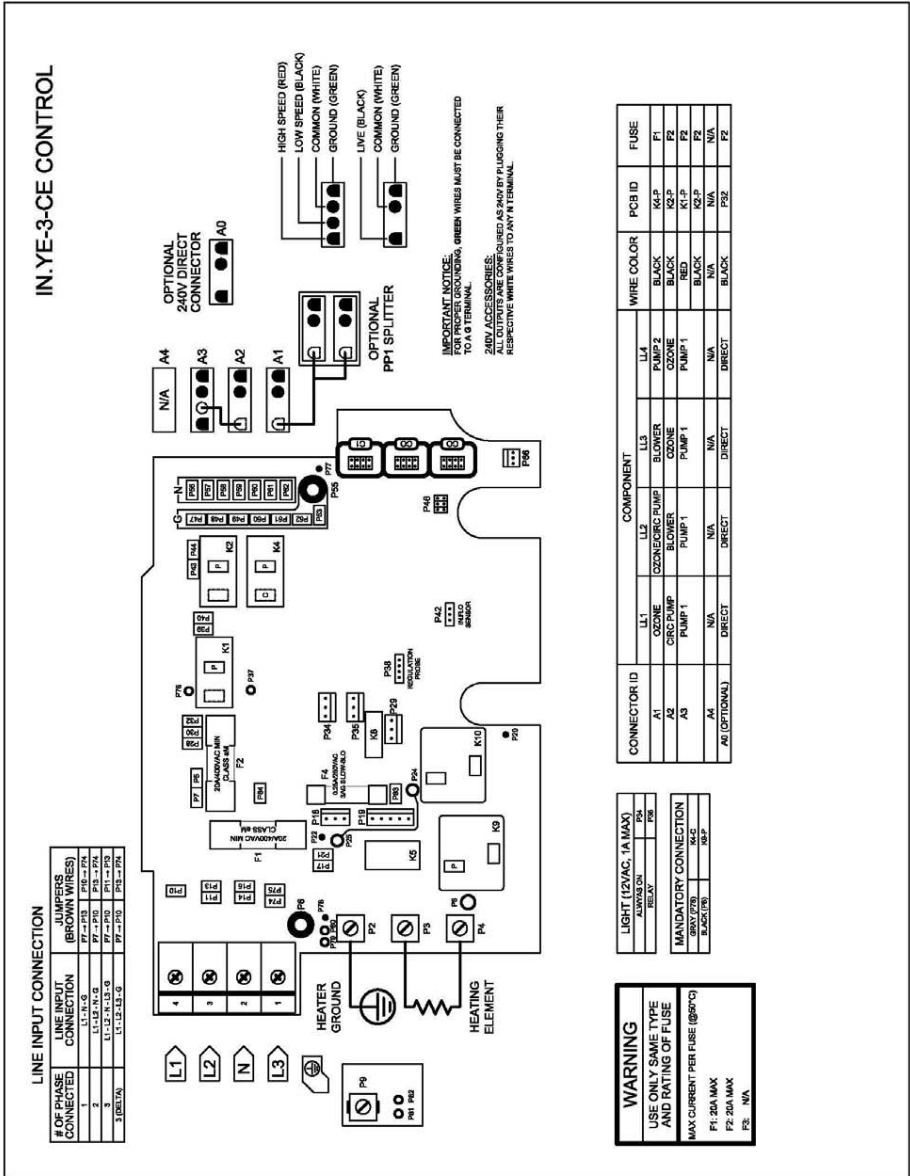
In.ye-3 control pack: NORTH AMERICA ONLY

Electrician: To determine which control pack is used, review white sticker containing bar code on control system inside of spa cabinet. No user serviceable parts. All connections must be made by a qualified, licensed electrician.



In.ye-3-CE control pack: **EXPORT ONLY**

Electrician: To determine which control pack is used, review white sticker containing bar code on control system inside of spa cabinet. No user serviceable parts. All connections must be made by a qualified, licensed electrician.



Your L.A. Spas dealer:



25605 South Arizona Avenue, Chandler, Arizona 85248
©2016 MAAX Spas Industries Corp., Printed in U.S.A.



MEMBER

