

OWNERS MANUAL

revised 05/2016



1.800.451.1420 • www.pdcspas.com

PDC SPAS OWNER'S MANUAL



CONGRATULATIONS ON CHOOSING A QUALITY PDC SPA FOR YOUR BACKYARD RELAXATION!

PLEASE READ THE OWNER'S MANUAL COMPLETELY BEFORE INSTALLING AND USING YOUR NEW SPA. THE PURPOSE OF THIS MANUAL IS TO PROVIDE YOU WITH SAFETY, OPERATIONAL AND INSTALLATION INFORMATION WHICH WILL ALLOW YOU THE FULLEST ENJOYMENT OF THIS FINE PRODUCT.

AT THE TIME OF PRINTING, THIS MANUAL WAS DEEMED AS ACCURATE AS POSSIBLE. PDC SPAS RESERVES THE RIGHT TO CHANGE PRODUCT IN AN EFFORT TO ENHANCE AND IMPROVE, WITHOUT PRIOR NOTICE. TO BE AWARE OF ANY OF THESE POSSIBLE CHANGES, LOG ON TO WWW.PDCSPAS.COM, REFERRING TO THE CUSTOMER CARE SECTION, OR CONTACT YOUR RETAILER DIRECTLY.

OWNERSHIP INFORMATION

NAME _____

ADDRESS _____

INSTALLATION DATE ____ / ____ / ____

MODEL NAME _____

SERIAL # _____

RETAILER NAME _____

RETAILER PHONE NUMBER _____

SERVICE TECHNICIAN CONTACT INFO _____

SERIAL # LOCATION



THE SERIAL NUMBER CAN BE FOUND ON THE INSIDE OF THE FILTER HOUSING ON THE SPA LIP. SIMPLY REMOVE THE PLASTIC FILTER COVER TO REVEAL THE SILVER SERIAL NUMBER PLATE.

**IMMEDIATELY UPON DELIVERY REGISTER YOUR HOT TUB
ON THE PDC SPAS WEB SITE *WWW.PDCSPAS.COM***

**THIS INFORMATION IS VERY IMPORTANT TO ENSURE WARRANTY
COVERAGE AND RECEIVE INFORMATION
FOR POSSIBLE PRODUCT UPDATES.**

SAVE THIS MANUAL FOR FUTURE REFERENCE !



IMPORTANT SAFETY INSTRUCTIONS	
WARNINGS, INSTRUCTIONS FOR ALL SPA MODELS	1-6
SPA USE LABELS	
LOCATION AND REFERENCE	7
SPA PARTS IDENTIFICATION	
SPA PART TERMINOLOGY AND DESCRIPTION	8
SUPPORT EQUIPMENT TERMINOLOGY AND DESCRIPTION	9
SE SERIES SPAS SPECIFICATIONS	10-14
LX SERIES SPAS SPECIFICATIONS	15-20
SPA INSTALLATION	
SPA LOCATION CONSIDERATIONS, INDOORS AND OUTDOORS	21, 22
GENERAL LOCATION CONSIDERATIONS	23
EQUIPMENT LOCATION	24
INSTALLING THE THERMAL COVER	25
WIRING INSTALLATION	
WIRING RECOMMENDATIONS	26
U.S. –STATE-SIDE GUIDELINES	27
EXPORT, IN.XM CE PLATFORM	28, 29
EXPORT, IN.XE CE PLATFORM	30
INITIAL START-UP	
GENERAL GUIDELINES	31
OPERATION SYSTEMS	
IN.K 1000 CONTROL, LX SERIES SPAS	32-36
IN.K 500 CONTROL, SE SERIES SPAS	37, 38
WATER CHEMISTRY GUIDELINES	39, 40
MAINTENANCE RECOMMENDATIONS	41, 42
WINTERIZING YOUR HOT TUB	43
TROUBLESHOOTING	44
RECORDS OF SPA CARE	45

PLASTIC DEVELOPMENT COMPANY, INC.
75 PALMER INDUSTRIAL ROAD
WILLIAMSPORT, PA 17701 USA
570-323-3060 TEL 570-323-8485 FAX
WWW.PDCSPAS.COM



WARNING!

**REPLACE ALL
SAFETY SUCTION COVERS
EVERY 7 YEARS.**

**REPLACE WITH SIMILAR
VGB APPROVED FITTINGS
AT SAME OR HIGHER
FLOW RATINGS.**

**REPLACEMENT
APPLIES TO
ALL SPA MODELS.**



SAFETY INSTRUCTIONS



YOU NOW OWN A HIGH QUALITY PDC SPA BUILT FOR YEARS OF ENJOYMENT AND RELAXATION. IT IS OF PRIME IMPORTANCE THAT YOU UNDERSTAND THE OPERATION OF YOUR SPA AND ENJOY IT WITH SAFETY IN MIND. YOU SHOULD READ THIS MANUAL THOROUGHLY AND UNDERSTAND ALL OF THE SAFETY PRECAUTIONS. USING YOUR SPA WITHIN THESE GUIDELINES ASSURES YEARS OF FUN AND RELAXATION GAINED FROM ADDING A PDC SPA TO YOUR LIFESTYLE.

WARNING

THIS UNIT IS A PROFESSIONAL-GRADE PRODUCT. A KNOWLEDGE OF CONSTRUCTION TECHNIQUES, PLUMBING AND ELECTRICAL INSTALLATION ACCORDING TO CODES ARE REQUIRED FOR PROPER INSTALLATION AND USER SATISFACTION. IT IS RECOMMENDED THAT A LICENSED CONTRACTOR PERFORM THE INSTALLATION. WARRANTY IS VOIDED FOR IMPROPER INSTALLATION RELATED ISSUES.

SAVE THESE INSTRUCTIONS

INCLUDED WITH THIS MANUAL IS A SAFETY SIGN THAT IS TO BE POSTED NEAR THE SPA WHERE ALL OCCUPANTS CAN EASILY READ. THIS SIGN IS INTENDED FOR YOU AND YOUR GUEST'S PROTECTION, SAFETY AND TO ASSURE THEIR SPA ENJOYMENT. TAKE THE TIME TO POINT OUT THE LOCATION OF THE SIGN AND INDICATE THE IMPORTANCE OF THE PRECAUTIONS.

ADHERE THE SIGN WITH SCREWS OR ANOTHER MANNER OF PERMANENT ADHESION. SHOULD YOU REQUIRE ADDITIONAL COPIES OR REPLACEMENTS, SIMPLY CONTACT THE FACTORY DIRECTLY OR YOUR NEAREST RETAILER.



READ AND FOLLOW ALL IMPORTANT SAFETY INSTRUCTIONS

WHEN INSTALLING AND USING THIS EQUIPMENT BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE TAKEN TO REDUCE THE RISK OF ELECTRICAL SHOCK, TO ENSURE SAFE USAGE, AND TO SAFEGUARD THE USER'S HEALTH.

READ AND FOLLOW ALL INSTRUCTIONS!!

THIS UNIT IS A PROFESSIONAL-GRADE PRODUCT. A KNOWLEDGE OF CONSTRUCTION TECHNIQUES, PLUMBING AND ELECTRICAL INSTALLATION ACCORDING TO CODES ARE REQUIRED FOR PROPER INSTALLATION AND USER SATISFACTION. IT IS RECOMMENDED THAT A LICENSED CONTRACTOR PERFORM THE INSTALLATION. WARRANTY IS VOIDED FOR IMPROPER INSTALLATION RELATED ISSUES.

IT IS THE RESPONSIBILITY OF THE HOME OWNER TO ENSURE THAT ALL USERS OF THE SPA ARE ADEQUATELY INFORMED OF ALL PRECAUTIONS.

USE THE SPA ONLY AS DESCRIBED IN THIS MANUAL. THE SPA IS INTENDED FOR HOME USE ONLY. DO NOT USE THE SPA IN A COMMERCIAL OR RENTAL SETTING. ALL WARRANTIES WILL BE VOIDED.

GROUND ALL METAL ELECTRICAL EQUIPMENT

- A GREEN COLORED TERMINAL OR A TERMINAL MARKED G, GR, GROUND, OR GROUNDING, IS LOCATED INSIDE 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. *ACCORDING TO, BUT NOT LIMITED TO: NEC, NFPA 70, SECTION 680.40, UL 1563., CAN/CSA C22.2 No. 281.1M89
- 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 (HOUSEHOLD GROUND) IN THE AREA OF THE SPA TO THESE TERMINALS, USING AN INSULATED OR BARE COPPER CONDUCTOR NOT SMALLER THAN No. 6 AWG.
- ALL FIELD-INSTALLED METAL COMPONENTS SUCH AS RAILS, LADDERS, DRAINS OR SIMILAR HARDWARE LOCATED WITHIN 5 FEET (1.52 M) OF THE SPA OR HOT TUB MUST BE BONDED TO THE EQUIPMENT GROUNDING BUS WITH COPPER CONDUCTORS NOT SMALLER THAN No. 6 AWG.
- ALL METAL SURFACES WITHIN 5 FEET (1.52 M) OF SPA MUST BE BONDED TO THE HOME BONDING GRID.
-

GROUND FAULT CIRCUIT INTERRUPTER PROTECTION (OR EQUIVALENT; RCD, FOR EXPORT INSTALLS)

- ALL PDC SPAS ARE PERMANENTLY INSTALLED UNITS. **GROUND FAULT CIRCUIT INTERRUPTER PROTECTION IS REQUIRED.** ALL SPA EQUIPMENT SYSTEMS MUST BE PROTECTED BY A CLASS A GROUND FAULT CIRCUIT INTERRUPTER (GFCI) OR EQUIVALENT; RCD, FOR EXPORT INSTALLS. A GROUND FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER (NOT SUPPLIED) MUST BE INSTALLED IN THE HOME PANEL BOX BY A LICENSED ELECTRICIAN WHEN MAKING WIRE CONNECTION TO THE SPA SUPPORT PACK EQUIPMENT.

DANGER: RISK OF ELECTRICAL SHOCK:

- INSTALL THE SPA AT LEAST FIVE FEET (1.52 M) FROM ALL UNGROUNDED (UNBOUNDED) METAL SURFACES.
- GROUND FAULT CIRCUIT INTERRUPTER PROTECTION OF THE HOME POWER SUPPLY TO THE SPA IS NECESSARY. YOUR ELECTRICIAN SHOULD EXPLAIN HOW IT WORKS. (SEE SPA MAINTENANCE)
- DO NOT PERMIT ANY ELECTRIC APPLIANCE, SUCH AS A LIGHT, TELEPHONE, RADIO OR TELEVISION, WITHIN FIVE FEET (1.52 M) OF A SPA. KEEP ELECTRICAL APPLIANCES AND EXTENSION CORDS AWAY FROM THE SPA. WATER IS A CONDUCTOR OF ELECTRICITY.

SAFETY INSTRUCTIONS



DANGER: RISK OF ACCIDENTAL DROWNING.

- **EXTREME CAUTION MUST BE EXERCISED TO PREVENT UNAUTHORIZED ACCESS BY CHILDREN. TO AVOID ACCIDENTS, ENSURE THAT CHILDREN CANNOT USE A SPA UNLESS THEY ARE SUPERVISED AT ALL TIMES.**

DANGER: TO REDUCE THE RISK OF DROWNING:

1. **NEVER USE THE SPA ALONE.**
2. **CHILDREN SHOULD NOT USE THE SPA UNLESS THEY ARE SUPERVISED BY AN ADULT**
3. **KEEP PETS AWAY FROM THE SPA AT ALL TIMES.**
4. **ALWAYS REPLACE AND LOCK THE SPA COVER WHEN THE SPA IS NOT IN USE.**

DANGER: TO REDUCE THE RISK OF DROWNING

- **PROLONGED IMMERSION IN THE SPA MAY CAUSE 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:**
 1. **FAILURE TO PERCEIVE HEAT**
 2. **FAILURE TO RECOGNIZE THE NEED TO EXIT THE SPA**
 3. **UNAWARENESS OF IMPENDING HAZARD**
 4. **FETAL DAMAGE IN PREGNANT WOMEN**
 5. **PHYSICAL INABILITY TO EXIT THE SPA**
 6. **UNCONSCIOUSNESS RESULTING IN THE DANGER OF DROWNING**

DANGER: RISK OF INJURY

- **DO NOT REMOVE THE SUCTION FITTINGS. THE SUCTION FITTING IN THIS SPA IS SIZED TO MATCH THE SPECIFIC WATER FLOW CREATED BY THE PUMP. SHOULD THE NEED ARISE TO REPLACE THE SUCTION FITTING OR THE PUMP, BE SURE THAT THE FLOW RATES ARE COMPATIBLE. NEVER OPERATE THE SPA IF THE SUCTION FITTING IS BROKEN OR MISSING. NEVER REPLACE A SUCTION FITTING WITH ONE RATED LESS THAN THE FLOW RATE MARKED ON THE ORIGINAL SUCTION FITTING.**

DANGER: RISK OF ACCIDENTAL DROWNING

- **KEEP HAIR AND BODY PARTS AWAY FROM THE SUCTION GUARD. DO NOT ALLOW LONG HAIR TO FLOAT FREELY IN THE WATER; LONG HAIR SHOULD BE RESTRAINED WITH A BATHING CAP. TO REDUCE THE RISK OF DROWNING FROM HAIR OR BODY ENTRAPMENT, INSTALL A SUCTION FITTING (S) WITH A MARKED FLOW RATE IN GALLONS PER MINUTE THAT EQUALS OR EXCEEDS THE FLOW RATE MARKED ON THE EQUIPMENT ASSEMBLY, IF REPLACEMENT OF SUCTION FITTINGS BECOMES NECESSARY.**

WARNING

- **GROUND FAULT CIRCUIT INTERRUPTER PROTECTION (GFCI) OR EQUIVELANT; RCD, FOR THE SPA SHOULD BE TESTED PRIOR TO EACH USE BY THE HOMEOWNER. WITH THE SPA IN OPERATION, PUSH THE “TEST” BUTTON ON THE GFCI CIRCUIT BREAKER AT THE PANEL BOX. THE SPA SHOULD SHUT DOWN IMMEDIATELY. NOW RESET THE GFCI. THE SPA SHOULD RETURN TO NORMAL OPERATION. IF THE GFCI FAILS TO OPERATE IN THIS MANNER, THERE EXISTS A POSSIBILITY OF ELECTRICAL SHOCK. APPROVED TESTING APPLIES FOR EXPORT PROTECTION DEVICES, I.E. RCD.**
- **DISCONTINUE SPA OPERATION BY DISCONNECTING THE POWER SOURCE AND NOTIFY A QUALIFIED ELECTRICIAN FOR IDENTIFICATION AND CORRECTION OF THE PROBLEM.**

SAFETY INSTRUCTIONS



WARNING

- **TO REDUCE THE RISK OF INJURY, DO NOT PERMIT CHILDREN TO USE THIS PRODUCT UNLESS THEY ARE CLOSELY SUPERVISED AT ALL TIMES.**

WARNING: TO REDUCE THE RISK OF INJURY

- **THE WATER IN A SPA SHOULD NEVER EXCEED 104°F (40° C). WATER TEMPERATURES BETWEEN 100° F (38° C) AND 104° F (40° C) ARE CONSIDERED SAFE FOR A HEALTHY ADULT. LOWER WATER TEMPERATURES ARE RECOMMENDED FOR EXTENDED USE (EXCEEDING 10 TO 15 MINUTES) AND FOR YOUNG CHILDREN.**
- **PREGNANT OR POSSIBLY PREGNANT WOMEN SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA OR HOT TUB. 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 TEMPERATURES TO 100° F (38° C).**
- **BEFORE ENTERING A SPA, THE USER SHOULD MEASURE THE WATER TEMPERATURE WITH AN ACCURATE THERMOMETER SINCE THE TOLERANCE OF WATER TEMPERATURE REGULATING DEVICES MAY VARY AS MUCH AS 5° F (3°C).**
- **THE USE OF ALCOHOL, DRUGS, OR MEDICATION BEFORE OR DURING SPA USE MAY LEAD TO UNCONSCIOUSNESS WITH THE POSSIBILITY OF DROWNING.**
- **PERSONS SUFFERING FROM OBESITY OR WITH A MEDICAL HISTORY OF HEART DISEASE, LOW OR HIGH BLOOD PRESSURE, CIRCULATORY SYSTEM PROBLEMS, OR DIABETES SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA.**
- **PERSONS USING MEDICATION SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA SINCE SOME MEDICATION MAY INDUCE DROWSINESS WHILE OTHER MEDICATION MAY AFFECT HEART RATE, BLOOD PRESSURE, AND CIRCULATION.**
- **ENTER AND LEAVE SPA SLOWLY AND WITH CAUTION. SURFACES AROUND SPA WILL BE WET AND SLIPPERY.**

WARNING

1. **NEVER USE THE SPA ALONE.**
2. **DO NOT BRING ANY OBJECT INTO THE SPA THAT COULD DAMAGE THE SPA SHELL.**
3. **DO NOT SIT ON SPA COVER OR PLACE OBJECTS ON IT; IT IS NOT DESIGNED TO SUPPORT WEIGHT.**
4. **REMOVE ANY WATER OR DEBRIS THAT MAY COLLECT ON THE SPA COVER.**
5. **KEEP ALL CHEMICALS AWAY FROM CHILDREN AND PETS.**
6. **THE PH AND CHEMICAL BALANCE OF THE WATER MUST BE MAINTAINED AS EXPLAINED IN THIS MANUAL. FAILURE TO DO SO MAY CAUSE INJURY TO USERS OR DAMAGE TO THE SPA, AND WILL VOID YOUR WARRANTY.**

WARNING: HEALTH CONSIDERATIONS

- **THE USE OF ALCOHOL, DRUGS, MEDICATION CAN GREATLY INCREASE RISK OF FATAL HYPERTHERMIA.**
- **INDIVIDUALS WITH INFECTIONS AND OPEN SORES OR WOUNDS SHOULD NOT USE THE SPA. BACTERIA THRIVE IN WARM AND HOT WATER. ALWAYS KEEP YOUR SPA DISINFECTED AND MAINTAIN THE PROPER CHEMICAL BALANCE.**
- **SHOWER BEFORE AND AFTER USING THE SPA. THIS WILL REMOVE ANY DEODORANT, PERSPIRATION, OR BODY OILS THAT COULD CONTAMINATE THE WATER. SHOWERING AFTER WILL REMOVE ANY RESIDUAL CHEMICALS AND ANY BACTERIA THAT MAY HAVE BEEN IN THE SPA.**

SAFETY INSTRUCTIONS



- **DO NOT USE THE SPA IMMEDIATELY AFTER STRENUOUS EXERCISE.**
- **IF YOU FEEL PAIN OR DIZZINESS AT ANY TIME WHILE USING THE SPA, DISCONTINUE USE AND CONTACT A PHYSICIAN.**

WARNING: TO REDUCE THE RISK OF INJURY

- **IT IS ESPECIALLY IMPORTANT FOR PERSONS OVER THE AGE OF 35 OR PERSONS WITH PRE-EXISTING HEALTH PROBLEMS, SUCH AS OBESITY, HEART DISEASE, HIGH BLOOD PRESSURE, CIRCULATORY PROBLEMS, OR DIABETES TO CONSULT THEIR PHYSICIAN BEFORE USING THE SPA.**
- **THE SPA JETS PRODUCE A STREAM OF WATER WITH RELATIVELY HIGH PRESSURE. PROLONGED EXPOSURE OF A LOCALIZED AREA OF THE BODY MAY CAUSE BRUISES TO THE SKIN.**
- **NEVER INSERT ANY OBJECT INTO ANY OPENING.**
- **DO NOT USE BREAKABLE CONTAINERS IN OR NEAR THE SPA.**

WARNING: ELECTRICAL CONSIDERATIONS

- **FOR CONTROLS OTHER THAN UNDERWATER LIGHTING CIRCUITS: A GROUND FAULT CIRCUIT INTERRUPTER (OR EQUIVALENT FOR EXPORT INSTALLS) MUST BE PROVIDED IF THIS DEVICE IS USED TO CONTROL AN UNDERWATER LIGHTING FIXTURE. THE CONDUCTORS ON THE LOAD SIDE ON THE GROUND FAULT CIRCUIT INTERRUPTER SHALL NOT OCCUPY CONDUIT, BOXES, OR ENCLOSURES CONTAINING OTHER CONDUCTORS UNLESS THE ADDITIONAL CONDUCTORS ARE ALSO PROTECTED BY A GROUND FAULT CIRCUIT INTERRUPTER (OR EQUIVALENT FOR EXPORT INSTALLS).**
- **THE ELECTRICAL SUPPLY FOR THIS PRODUCT MUST INCLUDE A SUITABLY RATED SWITCH OR CIRCUIT BREAKER TO OPEN ALL UNDERGROUND SUPPLY CONDUCTORS TO COMPLY WITH SECTION 422-20 OF THE U.S. NATIONAL ELECTRIC CODE. THE DISCONNECTING MEANS MUST BE READILY ACCESSIBLE TO THE TUB OCCUPANT BUT INSTALLED AT LEAST 5 FT (1.5 M) FROM THE SPA WATER.**

WARNING: FOR SPAS WITH AUDIO / VIDEO COMPONENTS

1. **CAUTION - RISK OF ELECTRIC SHOCK. DO NOT LEAVE COMPARTMENT DOOR OPEN.**
2. **CAUTION - RISK OF ELECTRIC SHOCK. REPLACE COMPONENTS ONLY WITH IDENTICAL COMPONENTS; AND,**
3. **DO NOT OPERATE THE AUDIO/VIDEO CONTROLS WHILE INSIDE THE SPA.**
4. **WARNING - PREVENT ELECTROCUTION. DO NOT CONNECT ANY AUXILIARY COMPONENTS (FOR EXAMPLE CABLE, ADDITIONAL SPEAKERS, HEADPHONES, ADDITIONAL AUDIO/VIDEO COMPONENTS, ETC.) TO THE SYSTEM.**
5. **THESE UNITS ARE NOT PROVIDED WITH AN OUTDOOR ANTENNAE; WHEN PROVIDED, IT SHOULD BE INSTALLED IN ACCORDANCE WITH ARTICLE 810 OF THE U.S. NATIONAL ELECTRICAL CODE, ANSI/NFPA 70.**
6. **DO NOT SERVICE THIS PRODUCT YOURSELF AS OPENING OR REMOVING COVERS MAY EXPOSE YOU TO DANGEROUS VOLTAGE OR OTHER RISK OF INJURY. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.**
7. **WHEN THE POWER SUPPLY CONNECTION OR POWER SUPPLY CORD(S) ARE DAMAGED; IF WATER IS ENTERING THE AUDIO/VIDEO COMPARTMENT OR ANY ELECTRICAL EQUIPMENT COMPARTMENT AREA; IF THE PROTECTIVE SHIELDS OR BARRIERS ARE SHOWING SIGNS OF DETERIORATION; OR IF THERE ARE SIGNS OF OTHER POTENTIAL DAMAGE TO THE UNIT, TURN OFF THE UNIT AND REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**
8. **THIS UNIT SHOULD BE SUBJECTED TO PERIODIC ROUTINE MAINTENANCE (FOR EXAMPLE, ONCE EVERY 3 MONTHS) TO MAKE SURE THAT THE UNIT IS OPERATING PROPERLY.**

**ADDITIONAL SAFETY CONSIDERATIONS**

- **INSTALL THE SPA TO PROVIDE DRAINAGE FOR COMPARTMENTS OF ELECTRICAL COMPONENTS.**
- **FOR FLOOR RECESSED SPAS: INSTALL TO PERMIT ACCESS FOR SERVICING FROM ABOVE OR BELOW THE FLOOR. SPA EQUIPMENT MUST BE INSTALLED BELOW WATER LEVEL.**
- **WHEN PLANNING YOUR SPA INSTALLATION SITE, PREPARE FOR THE UNLIKELY EVENT OF RAPID SPA DRAINAGE.**
- **DO NOT PLACE SPA IN DIRECT SUNLIGHT WHILE UNIT IS EMPTY OR WHEN SEALED IN SHIPPING MATERIALS. EXCESSIVE HEAT BUILD MAY CAUSE DAMAGE TO SPA AND VOID WARRANTY.**
- **INSTALL SPA SO THAT WATER CAN EASILY BE DRAINED OUT, LOCATING THE SIDE DRAIN VALVE ON THE SPA SPECIFICATION LISTING.**
- **WHEN INSTALLING SPA, ALLOW AMPLE SPACE FOR FUTURE SERVICING, NOTING LOCATION OF ALL SUPPORT EQUIPMENT PER THE MODEL SPECIFICATIONS.**

SAVE THESE INSTRUCTIONS



PDC SPAS
75 PALMER INDUSTRIAL ROAD
WILLIAMSPORT, PA 17701 USA
570-323-3060 TEL 570-323-8485 FAX
WWW.PDCSPAS.COM

CABINET PANEL WARNING SIGN

FOR YOUR REFERRAL AND CONVENIENCE, A WEATHER RESISTANT WARNING SIGN HAS BEEN MOUNTED ON THE CABINET SIDE OF YOUR PORTABLE SPA. BECOME FAMILIAR WITH THE PRECAUTIONS AND EXERCISE SAFETY AND CARE WHILE ENJOYING YOUR SPA. THIS SIGN IS PRINTED IN ENGLISH AND FRENCH EXPOSED, THREE ADDITIONAL LANGUAGES ARE ON THE REVERSE SIDE. SHOULD YOU REQUIRE, EXPOSE THE REVERSE SIDE FOR WARNING IN YOUR NATIVE LANGUAGE.

ENCLOSED WARNING SIGN FOR POSTING

LOCATE THE WEATHER RESISTANT SIGN ENCLOSED WITH THIS MANUAL INTENDED FOR PERMANENT POSTING IN AN AREA NEAR THE SPA VISIBLE TO ALL SPA OCCUPANTS. NOTIFY THE FACTORY OR YOUR RETAILER SHOULD YOU REQUIRE ADDITIONAL SIGNS OR REPLACEMENTS. ENGLISH AND FRENCH VERSIONS ARE ON ONE SIDE, SPANISH, GERMAN, ITALIAN ON THE REVERSE. MOUNT WITH YOUR CHOSEN LANGUAGE FOR EASY VIEWING.



WARNING: READ ALL INSTRUCTIONS BEFORE USING THE SPA. PDC SPAS ASSUMES NO RESPONSIBILITY FOR PERSONAL INJURY OR PROPERTY DAMAGE SUSTAINED BY OR THROUGH THE USE OF THIS PRODUCT.

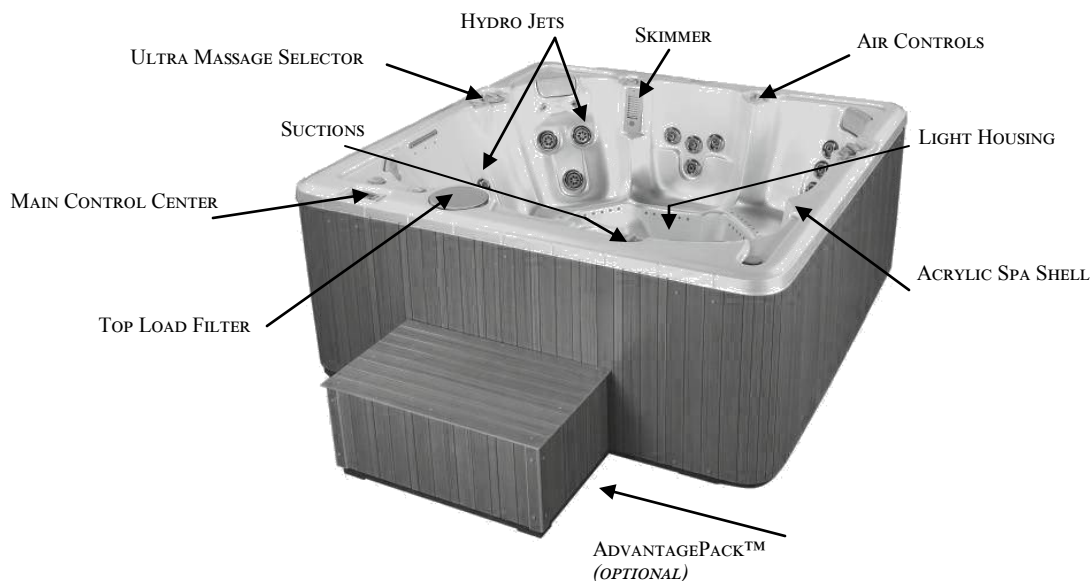
SAVE THIS MANUAL, SIGNS AND INSTRUCTIONS FOR FUTURE REFERENCE.

SPA PARTS IDENTIFICATION



SPA PART TERMINOLOGY AND DESCRIPTION

- HYDRO-JETS:** THESE ARE THE WALL FITTINGS AROUND THE INSIDE PERIMETER OF THE SPA. THEY MIX WATER WITH AIR TO PRODUCE LOCALIZED THERAPY, IN A STRAIGHT STREAM, CIRCULAR MOTION OR IN RANDOM PATTERNS FOR UPPER AND LOWER BACK MASSAGE IN THE LOUNGE AND CONTOURED SEATING AREAS.
- SKIMMER:** THIS WILL APPEAR AT WATER LEVEL AS A SQUARE INLET OR VERTICAL RECTANGLE INLET. THE SKIMMER TRAPS SURFACE DEBRIS. THE WATER LEVEL IN THE SPA SHOULD BE KEPT AT THE CENTER OF THE SKIMMER FOR BEST RESULTS.
- SUCTION:** THIS IS A CIRCULAR FITTING MOUNTED ON THE VERTICAL WALL OF THE FOOTWELL AND SERVES THE SAME FUNCTION AS THE SKIMMER. IT WORKS IN CONJUNCTION WITH THE SKIMMER TO RETURN WATER TO THE SUPPORT EQUIPMENT.
- AIR CONTROLS:** THESE ARE ROUND FITTINGS MOUNTED ON THE LIP OF SPA THAT CONTROL THE AMOUNT OF OUTSIDE AIR MIXED WITH THE INCOMING WATER OF THE HYDRO-JET. YOUR SPA HAS MULTIPLE AIR CONTROLS ON THE SPA LIP THAT CONTROL AIR/ WATER MIX FOR A SEGMENT OF THE JETS.
- AIR'ASSAGE:** THIS APPEARS AS A NUMBER OF TINY HOLES IN THE SEATING AREA WHEREBY THE BUBBLER (BLOWER) PUSHES AIR THROUGH FOR EXTRA THERAPY ACTION, DELIVERING AN ALL-OVER MASSAGE WATER ACTION. STANDARD ON THE LX SERIES.
- ULTRA MESSAGE SELECTOR:** LOCATED ON SPA LIP. TURN TO ADJUST PUMP POWER TO SELECTED JETS WHICH ENHANCES WATER ACTION THROUGH THOSE JETS BY DECREASING WATER ACTION THROUGH OTHERS. STANDARD ON THE LX SERIES.
- HALO LIGHTING:** LOW VOLTAGE UNDERWATER SPA LIGHT, WITH VARYING SHADES OF A COLOR WASH, CONTROLLED AT THE SPASIDE CONTROL PANEL. CHOOSE ROTATION OF COLOR OR STATIONARY COLOR OF YOUR CHOICE.
- LED LIGHTING:** AS AN OPTIONAL FEATURE, LED PINPOINT LIGHTS ILLUMINATE THE VALVES AND CONTROLS AND SPECIFIC POSITIONS ON THE LIP OF THE SPA SHELL, BELOW WATER SURFACE AND CAP HOLDERS. ACCENTING WITH COLOR OPTIONS OF ROTATING COLORS OR A STATIONARY COLOR OF YOUR SELECTION.



SUPPORT EQUIPMENT IDENTIFICATION



SPA PART TERMINOLOGY AND DESCRIPTION

THE SPA SUPPORT PACK CONTAINS UP TO FIVE MAJOR COMPONENTS: EITHER SINGLE OR DUAL SPEED PUMPS, THAT CIRCULATE THE WATER THROUGH THE HYDRO-JETS AND BACK THROUGH THE SUCTIONS; A CARTRIDGE FILTER THAT PHYSICALLY REMOVES DEBRIS FROM THE WATER; AND A BUBBLER (AIR BLOWER) THAT PUSHES AIR THROUGH THE AIR CHANNEL OF THE SPA FOR INCREASED THERAPY. YOUR UNIT WILL ALSO BE EQUIPPED WITH AN ELECTRIC HEATER. ALL COMPONENTS ARE OPERATED BY SWITCHING AT SPA SIDE. WATER IS ROUTED THROUGH THE PUMP, FILTER (USUALLY LOCATED ON THE PRESSURE SIDE OF THE PUMP FOR OPTIMUM FILTRATION), HEATER AND JETS. THE BUBBLER ACTS AS A SEPARATE COMPONENT AND IS USED FOR A SOFT ALL-OVER BODY MASSAGE IN THE LX SERIES SPAS.

PUMP: YOUR NEW SPA HAS BEEN EQUIPPED WITH A PUMP FOR HYDROTHERAPY JET ACTION AND WATER FILTRATION. THE SPA SUPPORT PACK FEATURES A DUAL-SPEED PUMP AND, ON SOME MODELS ONE OR TWO ADDITIONAL SINGLE SPEED PUMPS. THE CONTROL CENTER OPERATES, THE HIGH SPEED OF A DUAL-SPEED PUMP IS ACTIVATED BY THE PUMP1 BUTTON AT SPA SIDE. THE LOWER SPEED (FILTRATION SPEED) IS CONTROLLED BY THE PROGRAMMABLE ELECTRONIC CONTROL. THE FILTRATION TIME REQUIRED TO MAINTAIN WARM, CLEAN WATER MAY VARY FROM SPA TO SPA. GENERALLY, NO LESS THAN SIX HOURS A DAY IS RECOMMENDED. THE PUMP1 BUTTON CAN ACTIVATE THE PUMP AT FULL SPEED AT ANY TIME FOR HYDROTHERAPY, EVEN THOUGH TURNING OFF THE PUMP AT THE PUMP1 BUTTON DOES NOT OVERRIDE THE FILTRATION CYCLE (LOW SPEED). FOR EXAMPLE, IF THE SPA HAS BEEN PROGRAMMED TO CIRCULATE THE SYSTEM AT A TIME WHEN BATHERS ARE EXITING THE SPA, THE PUMP WILL CONTINUE TO OPERATE AT LOW SPEED EVEN THOUGH THE JET BUTTON IS PUSHED. THE CONTROL UNIT WILL SHUT THE PUMP OFF WHEN PROGRAMMED TO DO SO. THE SINGLE-SPEED PUMP(S), IF PRESENT, ARE ACTIVATED BY THE PUMP2 OR PUMP3 BUTTONS ON THE CONTROL.

FILTER: YOUR PDC SPA IS EQUIPPED WITH A TOP-LOAD PRESSURIZED OR SUCTION-SIDE FILTER. THIS ASSURES OPTIMUM WATER FILTERING AND EASE OF CLEANING AT SPA SIDE. REVIEW THE MAINTENANCE SECTION OF THIS MANUAL FOR FILTER CARTRIDGE CLEANING AND REPLACEMENT.

AIR MASSAGE (AIR BUBBLER): THIS EQUIPMENT ACTS INDEPENDENT FROM ALL OTHER SUPPORT EQUIPMENT PACK COMPONENTS. IT PUSHES OUTSIDE AIR THROUGH THE AIR CHANNEL FOR GENERALIZED MASSAGE. IT IS ACTIVATED BY DEPRESSING THE BUBBLER CONTROL AT SPA SIDE. THE BLOWER IS LOCATED BEHIND A CABINET PANEL. MAKE NOTE OF THIS LOCATION, ALONG WITH ALL OTHERS, PRIOR TO INSTALLING.

HEATER: YOUR SPA IS EQUIPPED WITH THERMOSTAT CONTROL AT SPA SIDE. ONCE YOU FIND THE TEMPERATURE YOU ENJOY MOST, LEAVE THE THERMOSTAT AT THAT SETTING, AND THE SPA WILL AUTOMATICALLY MAINTAIN THE CORRECT TEMPERATURE; READY FOR YOUR ENJOYMENT ANY TIME OF THE DAY. AVOID CONSTANT RESETTING OF THE THERMOSTAT; IT IS MORE ECONOMICAL TO MAINTAIN TEMPERATURE, THAN TO LET THE TEMPERATURE FALL AND THEN WAIT DURING HEAT-UP TIME BEFORE SOAKING.

OZONE: ALL SPAS WITH OZONE OPTION FOR SANITATION SHOULD CIRCULATE 16-24 HOURS DAILY. USE THE PROGRAMMABLE ELECTRONIC CONTROL CENTER TO PROGRAM THIS OPERATION.

SE SERIES SPECIFICATIONS—BOULDER SPA MODEL



GENERAL

rev. 2016/05

Seating Capacity	5
Shell Material	Acrylic
Dimensions (Domestic)	82" (6'10") sq. x 36" (3')
Dimensions (Export)	210 cm. sq. x 92 cm.
Water Capacity	375 Gallons (1,420 liters)
Dry Weight	665 lbs (302 kg)
Skirt Material	PermaWood™
Water Flow	428 Gallons per Minute

WATER SYSTEM** (photo ref)

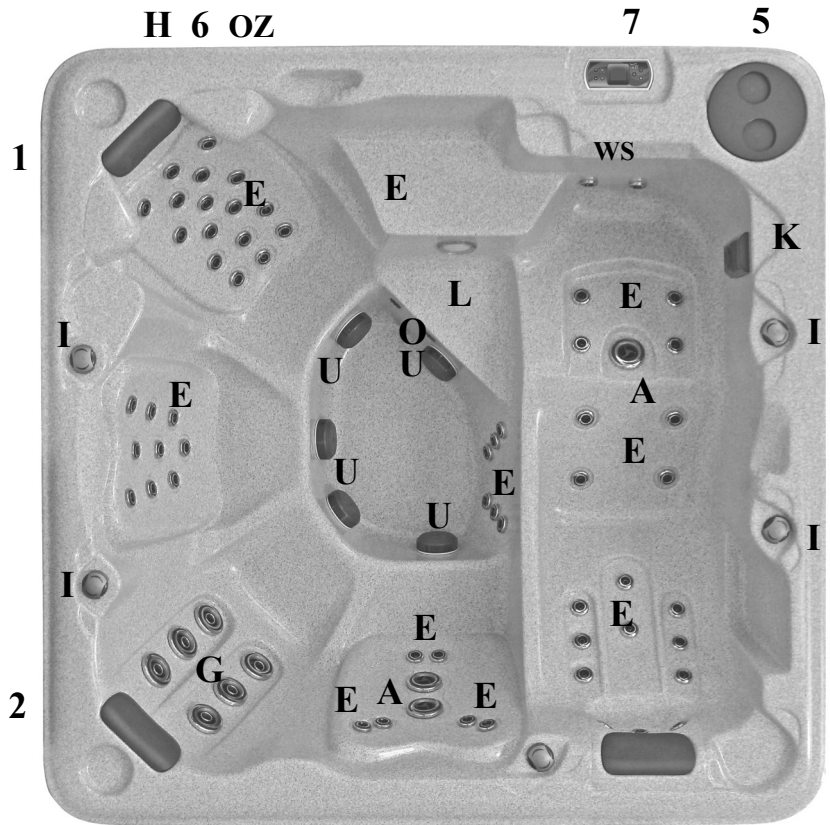
Water Treatment System	OZ	Ozone
Filter		25 sq. ft.
Slide Valves		4
Mega Swirl Jet	A	3
Large Euro Jet w/ Eyeball	E	60
Mega'ssage Jet	G	6
Ozone Jet	O	2
Diverter Valves	V	0
Safety Suction	U	5
Mini Skimmer	K	1
Air Control	I	5
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows		3
Motion Glow™ Light		Standard
Stainless Steel Jetting		Standard
Cascading Spouts	WS	Optional
Water Spout Control Valve		Optional
SoundStream™ Audio		Optional*
Ozone Water Purification		Standard
LED Lighting		Optional

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	6.0 (3.0) HP	6.0 (3.0) HP
Electronics			
Electrical Can	6	Gecko XE Series	Gecko XE Series
Voltage		120/240	240
Amperage		40	2x16 / 1x32
Heater	H	4.0 KW	2.0 KW
Operation System			
Main Spa Side Control	7	Gecko 500 Series	Gecko 500 Series



** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install. Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet. All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice. Dimensions are approximate.

SE SERIES SPECIFICATIONS—COLUMBIA SPA MODEL



GENERAL

rev. 2016/05

Seating Capacity	5
Shell Material	Acrylic
Dimensions (Domestic)	76" (6'4") sq. x 31" (2'7")
Dimensions (Export)	193 cm. sq. x 79 cm.
Water Capacity	275 Gallons (1,041 liters)
Dry Weight	530 lbs. (240 kg.)
Skirt Material	PermaWood™
Water Flow	187 Gallons per Minute

WATER SYSTEM**

(photo ref)

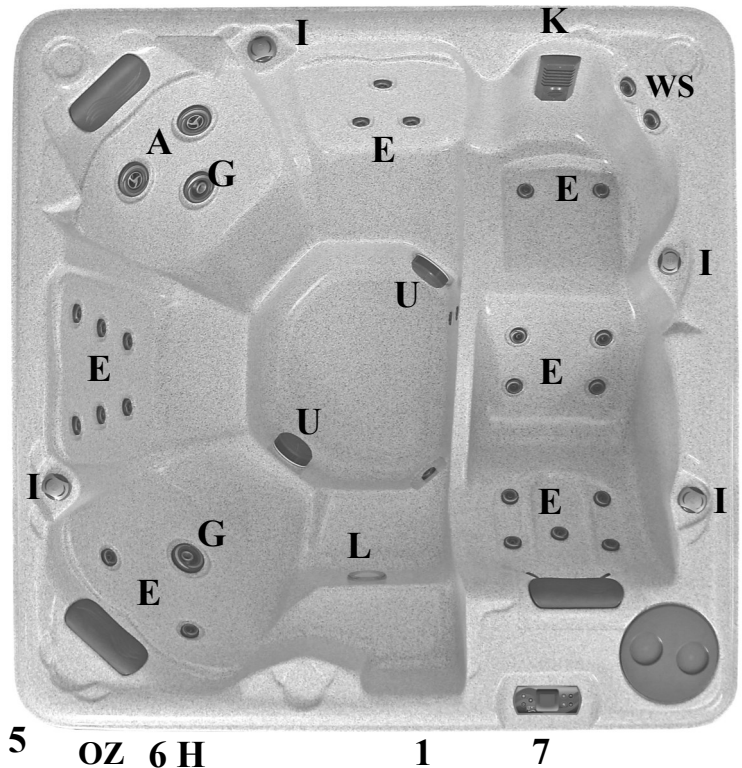
Water Treatment System	OZ	Ozone
Filter		25 sq. ft.
Slide Valves		2
Mega Swirl Jet	A	2
Large Euro Jet w/ Eyeball	E	28
Mega'ssage Jet	G	2
Ozone Jet	O	2
Diverter Valves	V	0
Safety Suction	U	2
Mini Skimmer	K	1
Air Control	I	4
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows	3
Motion Glow™ Light	Standard
Stainless Steel Jetting	Standard
Cascading Spouts	WS Optional
Water Spout Control Valve	Optional
SoundStream™ SE Audio	Optional*
Ozone Water Purification	Standard
LED Lighting	Optional

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	4.0 (2.0) HP	4.0 (2.0) HP
Electronics			
Electrical Can	6	Gecko XE Series	Gecko XE Series
Voltage		120/240	240
Amperage		40	2x16 / 1x32
Heater	H	4.0 KW	2.0 KW
Operation System			
Main Spa Side Control	7	Gecko 500 Series	Gecko 500 Series



** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install.
 Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet.
 All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice.
 Dimensions are approximate.

SE SERIES SPECIFICATIONS—DENALI SPA MODEL



GENERAL

rev. 2016/05

Seating Capacity	7
Shell Material	Acrylic
Dimensions (Domestic)	82" (6'10") sq. x 39" (3'3")
Dimensions (Export)	209 cm. sq. x 100 cm.
Water Capacity	425 Gallons (1,609 liters)
Dry Weight	645 lbs. (293 kg.)
Skirt Material	PermaWood™
Water Flow	428 Gallons per Minute

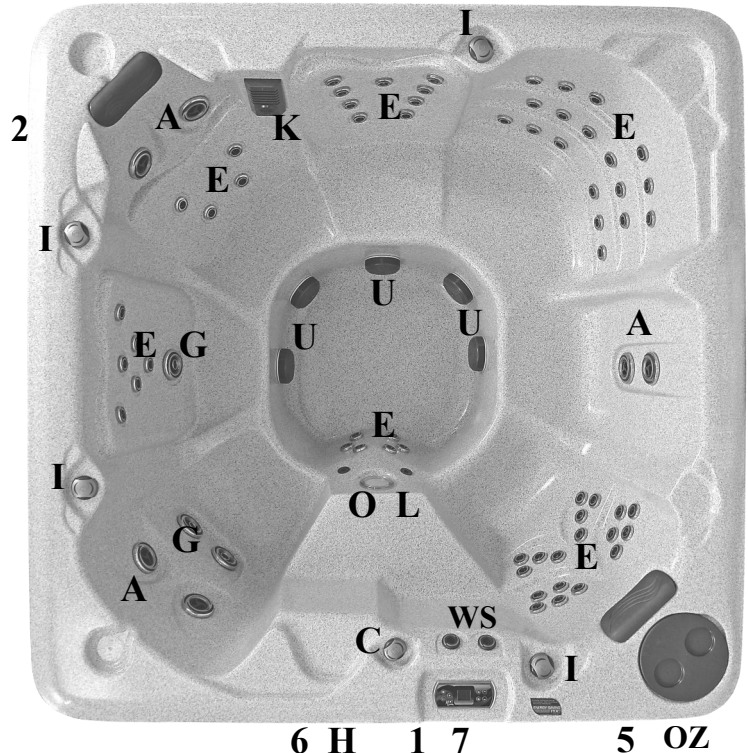
WATER SYSTEM**

(photo ref.)

Water Treatment System	Ozone
Filter	25 sq. ft.
Slide Valves	4
Mega Swirl Jet	A 6
Large Euro Jet w/ Eyeball	E 63
Mega'ssage Jet	G 3
Ozone Jet	O 2
Diverter Valves	V 0
Safety Suction	U 5
Mini Skimmer	K 1
Air Control	I 4
Spa Light	L 1
Drain Valve	5 1

SPECIAL FEATURES

Spa Pillows	2
Motion Glow™ Light	Standard
Stainless Steel Jetting	Standard
Cascading Spouts	WS Optional
Water Spout Control Valve	Optional
SoundStream™ SE Audio	Optional*
Ozone Water Purification	Standard
LED Lighting	Optional



ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	6.0 (3.0) HP	6.0 (3.0) HP
Electronics			
Electrical Can	6	Gecko XE Series	Gecko XE Series
Voltage		120/240	240
Amperage		40	2x16 / 1x32
Heater	H	4.0 KW	2.0 KW
Operation System			
Main Spa Side Control	7	Gecko 500 Series	Gecko 500 Series

** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install.
 Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet.
 All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice.
 Dimensions are approximate.

SE SERIES SPECIFICATIONS—DYNASTY SPA MODEL



GENERAL

rev. 2016/05

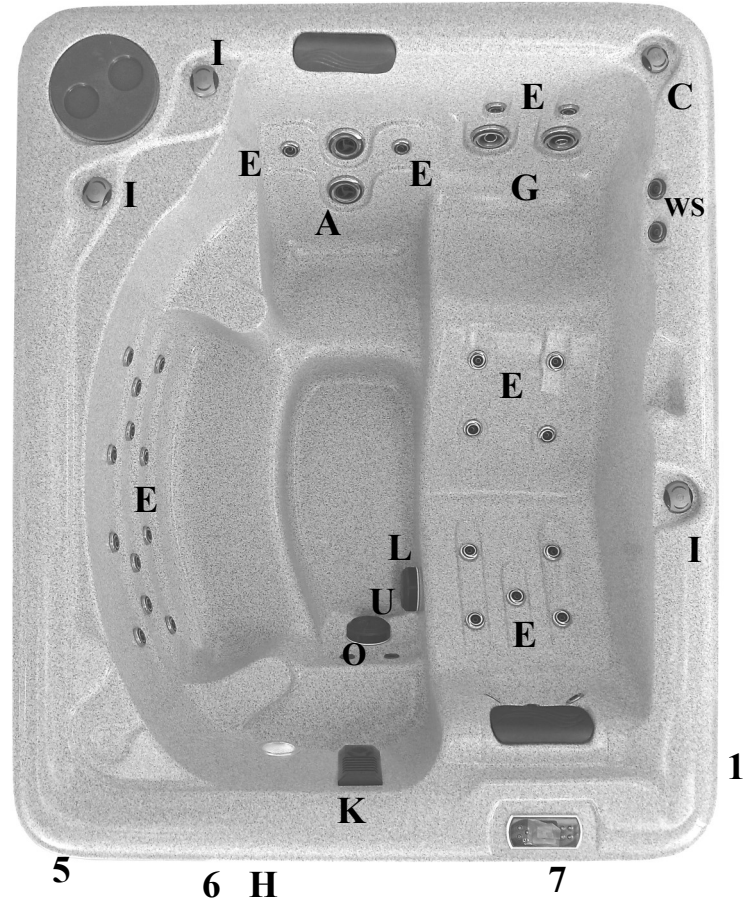
Seating Capacity	4
Shell Material	Acrylic
Dimensions (Domestic)	82" (7') x 67" (5'5") x 31" (2'5")
Dimensions (Export)	208 cm. x 170 cm. x 79 cm.
Water Capacity	200 Gallons (757 liters)
Dry Weight	575 lbs. (261 kg)
Skirt Material	PermaWood™
Water Flow	187 Gallons per Minute

WATER SYSTEM** (photo ref.)

Water Treatment System	Ozone
Filter	25 sq. ft.
Slide Valves	2
Mega Swirl Jet	A 2
Large Euro Jet w/ Eyeball	E 28
Mega'ssage Jet	G 2
Ozone Jet	O 2
Diverter Valves	V 0
Safety Suction	U 2
Mini Skimmer	K 1
Air Control	I 3
Spa Light	L 1
Drain Valve	5 1

SPECIAL FEATURES

Spa Pillows	2
Motion Glow™ Light	Standard
Stainless Steel Jetting	Standard
Cascading Spouts	WS Optional
Water Spout Control Valve	Optional
SoundStream™ SE Audio	Optional*
Ozone Water Purification	Standard
LED Lighting	Optional



ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	4.0 (2.0) HP	4.0 (2.0) HP
Electronics			
Electrical Can	6	Gecko XE Series	Gecko XE Series
Voltage		120/240	240
Amperage		40	2x16 / 1x32
Heater	H	4.0 KW	2.0 KW
Operation System			
Main Spa Side Control	7	Gecko 500 Series	Gecko 500 Series

** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install.
 Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet.
 All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice.
 Dimensions are approximate.

SE SERIES SPECIFICATIONS—EVEREST SPA MODEL



GENERAL

rev. 2016/05

Seating Capacity	6
Shell Material	Acrylic
Dimensions (Domestic)	94" (7'10") sq. x 39" (3'3")
Dimensions (Export)	240 cm. sq. x 99 cm.
Water Capacity	520 Gallons (1,968 liters)
Dry Weight	750 lbs. (340 kg.)
Skirt Material	PermaWood™
Water Flow	428 Gallons per Minute

WATER SYSTEM**

(photo ref.)

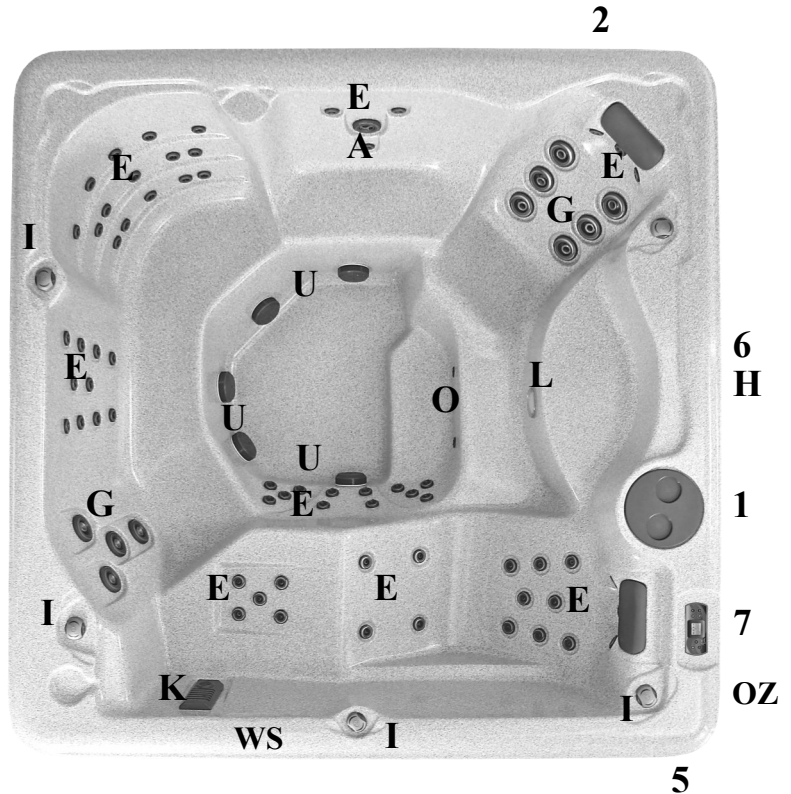
Water Treatment System	OZ	Ozone
Filter		25 sq. ft.
Slide Valves		4
Mega Swirl Jet	A	1
Large Euro Jet w/ Eyeball	E	63
Mega'ssage Jet	G	10
Ozone Jet	O	2
Diverter Valves	V	0
Safety Suction	U	5
Mini Skimmer	K	1
Air Control	I	4
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows	2	
Motion Glow™ Light	Standard	
Stainless Steel Jetting	Standard	
Cascading Spouts	WS	Optional
Water Spout Control Valve		Optional
SoundStream™ SE Audio		Optional*
Ozone Water Purification		Standard
LED Lighting		Optional

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	6.0 (3.0) HP	6.0 (3.0) HP
Electronics			
Electrical Can	6	Gecko XE Series	Gecko XE Series
Voltage		120/240	240
Amperage		40	2x16 / 1x32
Heater	H	4.0 KW	2.0 KW
Operation System			
Main Spa Side Control	7	Gecko 500 Series	Gecko 500 Series



** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install.
 Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet.
 All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice.
 Dimensions are approximate.

LX SERIES SPECIFICATIONS—ARUBA SPA MODEL



GENERAL

rev. 2016/05

Seating Capacity	5
Shell Material	Acrylic
Dimensions (Domestic)	86" (7'2") sq. x 37" (3'1")
Dimensions (Export)	218 cm. sq. x 94 cm.
Water Capacity	375 Gallons (1,420 liters)
Dry Weight	670 lbs. (304 kg.)
Skirt Material	PermaWood™
Water Flow	510 Gallons per Minute

WATER SYSTEM ** (photo ref.)

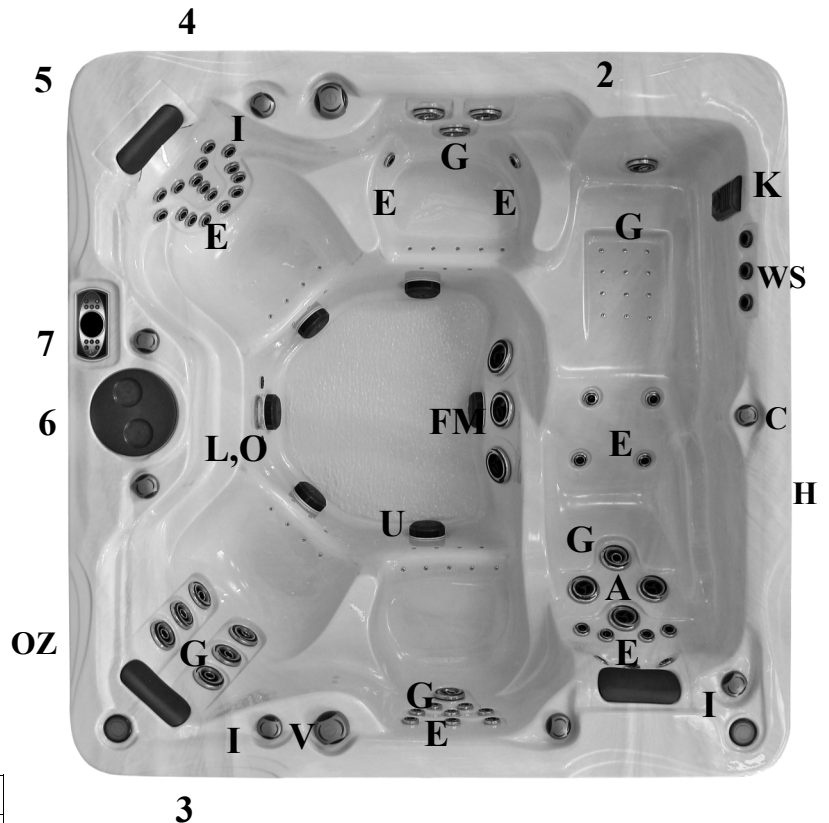
Water Treatment System	OZ	Ozonator
Filter		25 sq. ft.
Slide Valves		6
Mega Swirl Jet	A	4
Large Euro Jet w/ Eyeball	E	40
Mega'ssage Jet	G	11
Ozone Jet	O	2
Foot Jet	FM	3
Diverter Valves	V	2
Safety Suction	U	6
Mini Skimmer	K	1
Air Control	I	6
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows	3
Stainless Steel Jetting	Standard
Cascading Spouts/Control Valve	WS, C
Allure2 LED Lighting	Optional
Halo LED lighting	Standard
SoundStream™ Audio	Optional*

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	4.0 (2.0) HP	4.0 (2.0) HP
Pump #3 peak (continuous) HP	3	4.0 (2.0) HP	4.0 (2.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		120/240	230/400
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 1000 Series	Gecko 1000 Series



** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install.
 Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet.
 All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice.
 Dimensions are approximate.

LX SERIES SPECIFICATIONS—BALI SPA MODEL



GENERAL

rev. 2016/05

Seating Capacity	7
Shell Material	Acrylic
Dimensions (Domestic)	94" (7'10") sq. x 39" (3'3")
Dimensions (Export)	240 cm. sq. x 99 cm.
Water Capacity	650 Gallons (2,460 liters)
Dry Weight	908 lbs (412 kg.)
Skirt Material	PermaWood™
Water Flow	510 Gallons per Minute

WATER SYSTEM ** (photo ref.)

Water Treatment System	OZ	Ozonator
Filter		25 sq. ft.
Slide Valves		6
Mega Swirl Jet	A	6
Large Euro Jet w/ Eyeball	E	47
Mega'ssage Jet	G	11
Ozone Jet	O	2
Foot Jet	FM	3
Diverter Valves	V	2
Safety Suction	U	6
Mini Skimmer	K	1
Air Control	I	6
Spa Light	L	1
Drain Valve	5	1

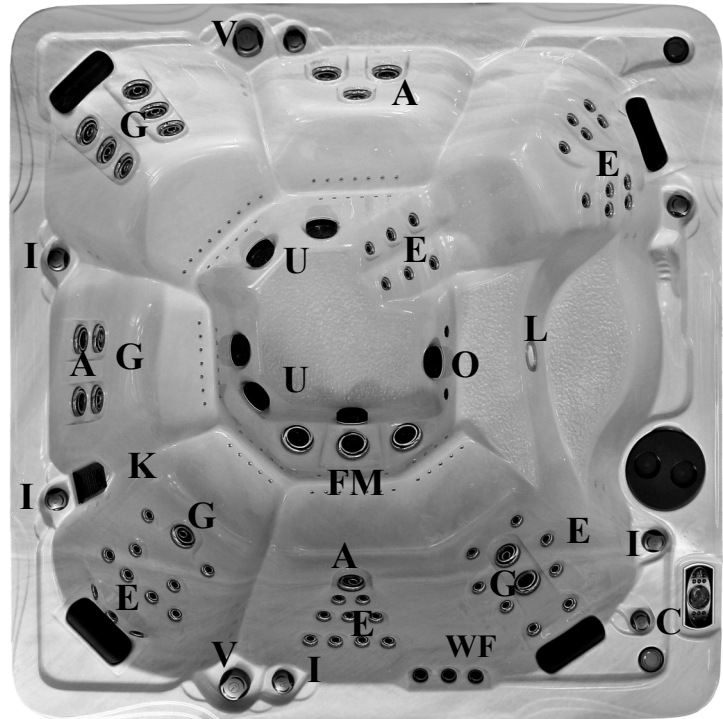
SPECIAL FEATURES

Spa Pillows		4
Stainless Steel Jetting		Standard
Cascading Spouts/Control Valve	WS, C	Standard
Allure2 LED Lighting		Optional
Halo LED lighting		Standard
SoundStream™ Audio		Optional*

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	4.0 (2.0) HP	4.0 (2.0) HP
Pump #3 peak (continuous) HP	3	4.0 (2.0) HP	4.0 (2.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		120/240	230/400
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System		1000	1000
Main Spa Side Control	7	Gecko 1000 Series	Gecko 1000 Series

** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install.
 Equipment location relates to slimline design. AdvantagePack option has major components located beneath end cabinet.
 All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice.
 Dimensions are approximate.



LX SERIES SPECIFICATIONS—BISCAYNE SPA MODEL



GENERAL

rev. 2016/05

Seating Capacity	5
Shell Material	Acrylic
Dimensions (Domestic)	90" (7'6") x 79" (6'7") x 37" (3'1")
Dimensions (Export)	229 cm. x 201 cm. x 94 cm.
Water Capacity	325 Gallons (1,230 liters)
Dry Weight	800 lbs. (363 kg.)
Skirt Material	PermaWood™
Water Flow	510 Gallons per Minute

WATER SYSTEM ** (photo ref.)

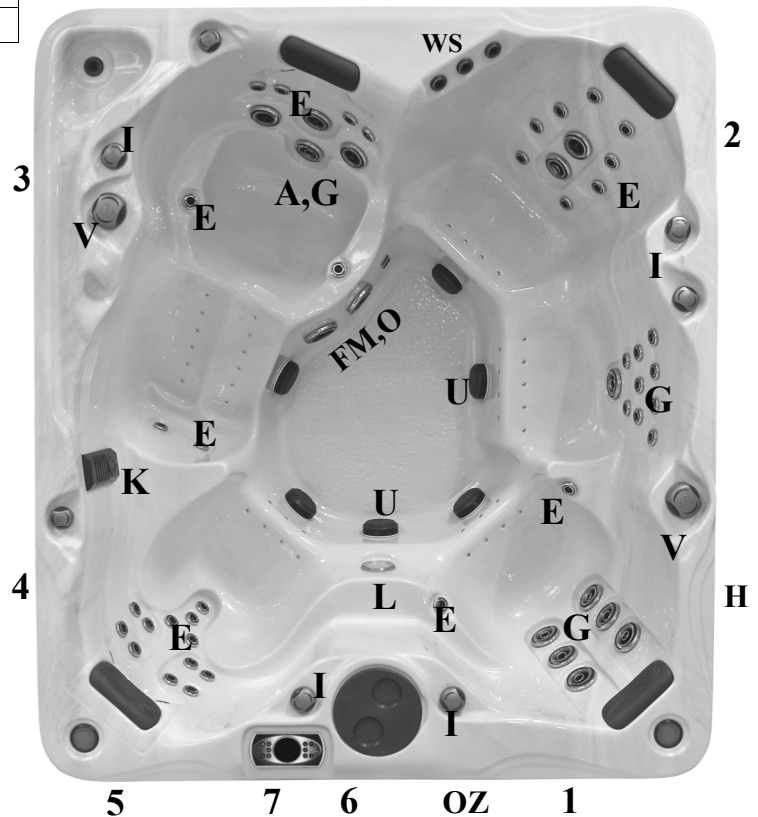
Water Treatment System	OZ	Ozonator
Filter		25 sq. ft.
Slide Valves		6
Mega Swirl Jet	A	4
Large Euro Jet w/ Eyeball	E	45
Mega'ssage Jet	G	9
Foot Jet	FM	2
Ozone Jet	O	2
Diverter Valves	V	2
Safety Suction	U	6
Mini Skimmer	K	1
Air Control	I	5
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows	4	
Stainless Steel Jetting	Standard	
Cascading Spouts/Control Valve	WS, C	Standard
Allure2 LED Lighting	Optional	
Halo LED lighting	Standard	
SoundStream™ Audio	Optional*	

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	4.0 (2.0) HP	4.0 (2.0) HP
Pump #3 peak (continuous) HP	3	4.0 (2.0) HP	4.0 (2.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		120/240	230/400
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System		1000	1000
Main Spa Side Control	7	Gecko 1000 Series	Gecko 1000 Series



** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install. Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet. All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice. Dimensions are approximate.

LX SERIES SPECIFICATIONS—CABO SPA MODEL



GENERAL

rev. 2016/05

Seating Capacity	3
Shell Material	Acrylic
Dimensions (Domestic)	60" (5') x 84" (7') x 33" (2'9")
Dimensions (Export)	152 cm. x 213 cm. x 84 cm.
Water Capacity	220 Gallons (832 liters)
Dry Weight	625 lbs. (283 kg.)
Skirt Material	PermaWood™
Water Flow	187 Gallons per Minute

WATER SYSTEM **

(photo ref.)

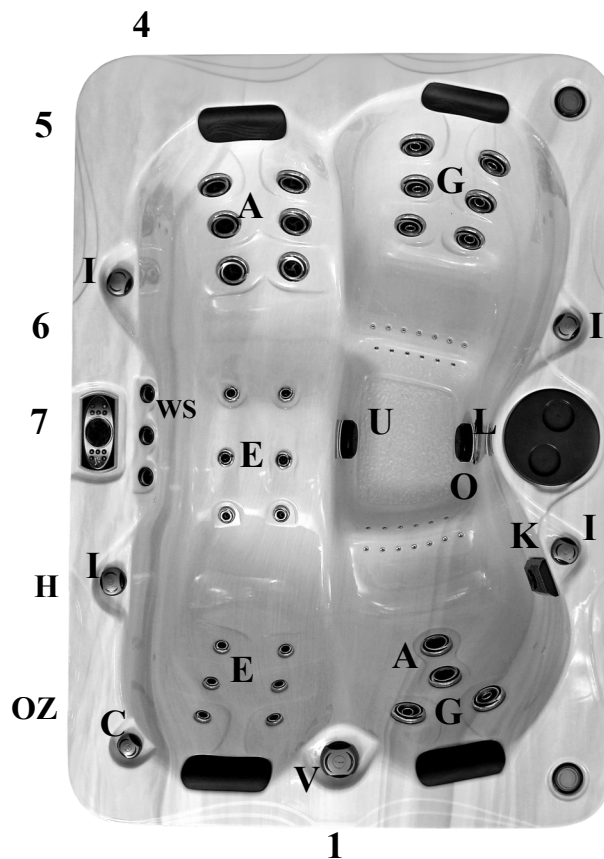
Water Treatment System	OZ	Ozonator
Filter		25 sq. ft.
Slide Valves		2
Mega Swirl Jet	A	8
Large Euro Jet w/ Eyeball	E	12
Mega'ssage Jet	G	8
Ozone Jet	O	2
Diverter Valves	V	1
Safety Suction	U	2
Mini Skimmer	K	1
Air Control	I	4
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows	4
Stainless Steel Jetting	Standard
Cascading Spouts/Control Valve	WS, C
Standard	
Allure2 LED Lighting	Optional
Halo LED lighting	Standard
SoundStream™ Audio	Optional*

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	4.0 (2.0) HP	4.0 (2.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		120/240	230/400
Amperage		40	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System		1000	1000
Main Spa Side Control	7	Gecko 1000 Series	Gecko 1000 Series



** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install. Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet. All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice. Dimensions are approximate.

LX SERIES SPECIFICATIONS—FIJI SPA MODEL



GENERAL

rev. 2016/05

Seating Capacity	6
Shell Material	Acrylic
Dimensions (Domestic)	94" (7'10") sq. x 39" (3'3")
Dimensions (Export)	240 cm. sq. x 99 cm.
Water Capacity	525 Gallons (1,987 liters)
Dry Weight	865 lbs. (392 kg.)
Skirt Material	Permawood™
Water Flow	510 Gallons per Minute

WATER SYSTEM**

(photo ref.)

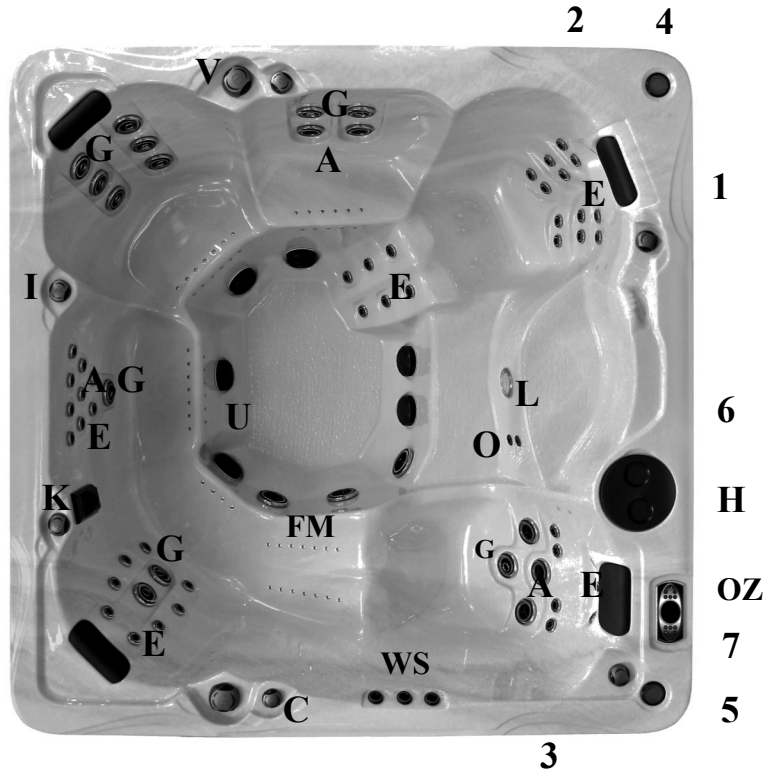
Water Treatment System	OZ	Ozonator
Filter		25 sq. ft.
Slide Valves		6
Mega Swirl Jet	A	5
Large Euro Jet w/ Eyeball	E	45
Mega'ssage Jet	G	12
Ozone Jet	O	2
Foot Jet	FM	3
Diverter Valves	V	2
Safety Suction	U	6
Mini Skimmer	K	1
Air Control	I	5
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows	4
Stainless Steel Jetting	Standard
Cascading Spouts/Control Valve	WS, C
Allure2 LED Lighting	Optional
Halo LED lighting	Standard
SoundStream™ Audio	Optional*

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	4.0 (2.0) HP	4.0 (2.0) HP
Pump #3 peak (continuous) HP	3	4.0 (2.0) HP	4.0 (2.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		120/240	230/400
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System		1000	1000
Main Spa Side Control	7	Gecko 1000 Series	Gecko 1000 Series



** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install.
 Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet.
 All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice.
 Dimensions are approximate.

LX SERIES SPECIFICATIONS—RENO SPA MODEL



GENERAL

rev. 2016/05

Seating Capacity	6
Shell Material	Acrylic
Dimensions (Domestic)	86" (7'2") sq. x 37" (3'1")
Dimensions (Export)	218 cm. sq. x 94 cm.
Water Capacity	375 Gallons (1,420 liters)
Dry Weight	705 lbs (320 kg)
Skirt Material	PermaWood™
Water Flow	510 Gallons per Minute

WATER SYSTEM** (photo ref.)

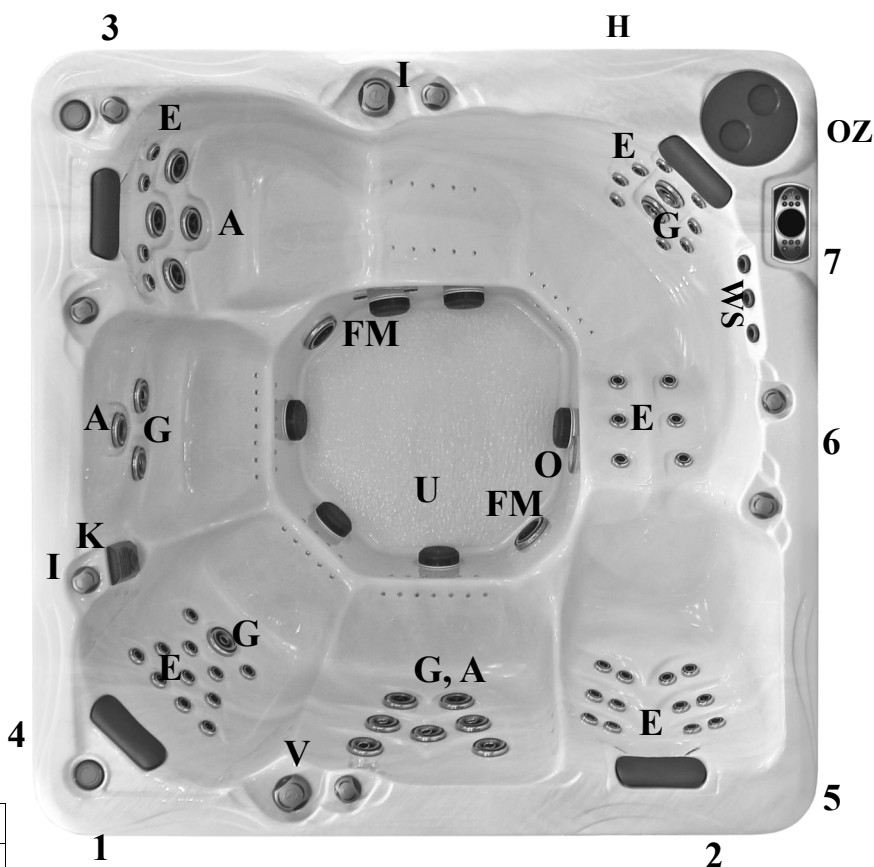
Water Treatment System	OZ	Ozonator
Filter		25 sq. ft.
Slide Valves		6
Mega Swirl Jet	A	6
Large Euro Jet w/ Eyeball	E	47
Mega'ssage Jet	G	10
Ozone Jet	O	2
Foot Jet	FM	2
Diverter Valves	V	2
Safety Suction	U	6
Mini Skimmer	K	1
Air Control	I	6
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows		4
Stainless Steel Jetting		Standard
Cascading Spouts/Control Valve	WS, C	Standard
Allure2 LED Lighting		Optional
Halo LED lighting		Standard
SoundStream™ Audio		Optional*

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	4.0 (2.0) HP	4.0 (2.0) HP
Pump #3 peak (continuous) HP	3	4.0 (2.0) HP	4.0 (2.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		120/240	230/400
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 1000 Series	Gecko 1000 Series



** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install.
 Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet.
 All specifications are accurate at time of print. Manufacturer reserves the option to change product without prior notice.
 Dimensions are approximate.



INSTALLATION GUIDELINES

THE LOCATION OF YOUR SPA IS AN IMPORTANT FACTOR IN GUARANTEEING YOUR MAXIMUM SPA ENJOYMENT. GENERALLY, MOST SPAS ARE INSTALLED OUTDOORS WITH NO CONCERNS REGARDING MOISTURE ACCUMULATION, WATER SPILL-OVER, ETC. WHICH ARE CONSIDERATIONS FOR THOSE LOCATED INSIDE.

OUTDOOR INSTALLATION CONSIDERATIONS

1. LOCAL ELECTRICAL AND PLUMBING CODES.
2. CONSIDER LOCAL CODES PERTAINING TO FENCING, ENCLOSURES, WALLS, ELECTRICAL AND PLUMBING. YOU WILL NEED TO ENSURE THAT YOUR SPA IS AN ADEQUATE DISTANCE FROM POWER LINES, BOTH ABOVE GROUND AND UNDERGROUND. YOUR SPA WILL ALSO NEED TO BE CHILDPROOFED.
3. VIEW FROM HOUSE FOR AESTHETICS AND SUPERVISORY NEEDS.
4. DISTANCE FROM HOUSE FOR WINTERTIME SOAKING.
5. NIGHTTIME LIGHTING.
6. LOCATE THE SPA WITH AN AWARENESS TO SUNLIGHT EXPOSURE, VIEWS, ACCESS, PROPERTY LINES, LIGHTING, WIND DIRECTION, SHIELDING, SEPTIC TANKS, PLANTS, TREES. (CHEMICALS IN THE SPA WATER SPLASHED FROM YOUR SPA MAY DAMAGE NEARBY PLANT LIFE.)
7. CONSIDER THE LOCATION OF THE NEAREST BATHROOM.
8. IF YOUR SPA IS TO BE LOCATED ON A SECOND STORY, BE POSITIVE SUPPORT IS ADEQUATE. CALL YOUR BUILDER.
9. AREA FOR PLACEMENT OF SUPPORT EQUIPMENT WHERE ADEQUATE SPACE WILL BE NEEDED TO GAIN ACCESS TO COMPONENTS FOR MAINTENANCE AND GENERAL SERVICING.
10. BE SURE TO NOTE ANY OTHER CONSIDERATIONS, SUCH AS AESTHETICS OR PRIVACY CONCERNS, THAT MAY AFFECT THE SAFETY OR ENJOYMENT OF USING THE SPA.
11. PROVIDE ADEQUATE DRAINAGE AWAY FROM THE EQUIPMENT AND ADEQUATE ELEVATION TO ALLOW DRAINING BY SIPHON, IF SHOULD BE REQUIRED.
12. LOCATION OF ELECTRICAL SUPPLY. 120/240 VOLT SYSTEMS REQUIRE HARD WIRE INSTALLED FROM THE ELECTRICAL SOURCE TO THE SPA SUPPORT PACK TERMINAL. ALL EQUIPMENT MUST BE GROUND FAULT CIRCUIT PROTECTED AT THE POWER SOURCE. ALL ELECTRICAL WIRING OF THE SPA SUPPORT EQUIPMENT MUST COMPLY WITH THE NATIONAL ELECTRIC CODE.
13. LOCATIONS AT LEAST 5 FT (1.52 M) FROM ALL METAL SURFACES. (A SPA MAY BE INSTALLED WITHIN 5 FEET OF METALS SURFACES PROVIDING EACH METAL SURFACE IS PERMANENTLY CONNECTED BY A No. 8AWG (8.4 MM²) COPPER CONDUCTOR ATTACHED TO THE WIRE CONNECTOR ON THE TERMINAL BOX PROVIDED FOR THIS PURPOSE.) ALL INSTALLATIONS MUST COMPLY WITH ARTICLE 680 OF THE U.S. NATIONAL ELECTRIC CODE AND ANSI/NFPA 70-1984.
14. PLACE THE SPA ON A FIRM, LEVEL SURFACE THAT WILL NOT SHIFT.



INSTALLATION GUIDELINES

INDOOR INSTALLATION CONSIDERATIONS

1. LOCAL ELECTRICAL AND PLUMBING CODES.
2. VENTILATION FANS AND/OR DEHUMIDIFIERS SHOULD BE PROVIDED TO HANDLE THE HIGH HUMIDITY DEVELOPED BY YOUR SPA. WALLS, CEILING AND WOOD TRIM SHOULD BE RESISTANT, ALSO.
3. CHEMICALS WILL VAPORIZE FROM THE WATER AND MAY CAUSE AN ODOR AND POSSIBLY CORROSION TO CERTAIN HOME HARD-WARE. NEVER STORE CHEMICALS INSIDE THE SPA CABINET.
4. DURING THE NORMAL USE OF THE SPA, WATER WILL ESCAPE THE SPA VESSEL. NEVER PLACE THE SPA ON OR OVER ANY MATERIAL WHICH MAY BE DAMAGED BY THIS WATER OR THE CHEMICALS WITHIN THE WATER. KEEP DAMAGEABLE MATERIALS FAR ENOUGH AWAY FROM THE SPA TO AVOID WATER DAMAGE, EVEN IF THE SPA SHOULD LOSE ALL ITS WATER.
5. CONSIDER AND PREPARE FOR THE UNLIKELY EVENT OF RAPID SPA DRAINAGE. IF PLACEMENT OF THE SPA IS PERMANENT, YOU MAY WISH TO PROVIDE FLOOR DRAINS TO ACCOMMODATE DRAINING, ETC. ALWAYS LEAVE ROOM ALL AROUND THE SPA FOR EASY ACCESS IN CASE REPAIRS ARE NECESSARY.
6. CONSIDER AND PREPARE FOR THE UNLIKELY EVENT OF SPA REMOVAL.
7. READ 7-14 IN THE OUTDOOR INSTALLATIONS INFORMATION.
8. DO NOT SET SPA ON FINISHED FLOOR WITHOUT A WATERPROOF BARRIER PROTECTION UNDERNEATH.
9. THE SPA SHOULD HAVE ACCESS TO A POWER SOURCE CAPABLE OF SUPPLYING 240 VOLTS AC POWER. IT MUST BE WIRED DIRECTLY INTO A GROUNDED CIRCUIT WITH A GROUND FAULT CIRCUIT INTERRUPTER (GFCI) OR EQUIVALENT RCD, FOR EXPORT INSTALLS. NO OTHER APPLIANCES SHOULD BE ON THE SAME CIRCUIT.
10. THE SPA SHOULD BE CLOSE TO A SOURCE OF WATER.
11. BE SURE THAT THE LOCATION YOU CHOOSE IS STABLE. IT MUST BE ABLE TO SUPPORT THE WEIGHT OF THE SPA WHEN IT IS FILLED WITH WATER, PLUS THE WEIGHT OF THE OCCUPANTS. THE SPA MAY WEIGH UP TO 6000 LBS (2722 KG.) WHEN IT IS FILLED WITH WATER.
12. DO NOT USE THE SPA ABOVE A FINISHED LIVING AREA, DUE TO THE RISK OF WATER DAMAGE.
13. THE SPA IS NOT DESIGNED FOR IN-FLOOR INSTALLATION. HOWEVER, IT IS COMPATIBLE WITH A DECK SYSTEM THAT IS BUILT FLUSH WITH THE TOP OF THE SPA, PROVIDED YOU LEAVE ACCESS FOR SERVICE.
14. BE SURE TO NOTE ANY OTHER CONSIDERATIONS, SUCH AS AESTHETICS OR PRIVACY CONCERNS, THAT MAY AFFECT THE SAFETY OR ENJOYMENT OF USING THE SPA.

WARNING:

THIS IS A PROFESSIONAL GRADE PRODUCT.

A KNOWLEDGE OF CONSTRUCTION TECHNIQUES, PLUMBING AND ELECTRICAL INSTALLATION ACCORDING TO CODES ARE REQUIRED FOR PROPER INSTALLATION AND USER SATISFACTION. WE RECOMMEND THAT A LICENSED CONTRACTOR PERFORM THE INSTALLATION. OUR WARRANTY DOES NOT COVER IMPROPER INSTALLATION-RELATED PROBLEMS.



GENERAL LOCATION CONSIDERATIONS

REVIEW OUTDOOR INSTALLATIONS AND INDOOR INSTALLATIONS PRIOR TO CHOOSING YOUR SPA LOCATION. YOUR SPA SHOULD BE PLACED ON A LEVEL CONCRETE PAD OR ON A DECK DESIGNED TO SUPPORT 6000 LBS (2722 KG.) OR ON PATIO BLOCKS ON THE GROUND. DO NOT PLACE THE SPA ON A DIRT SURFACE OR DIRECTLY ON THE GROUND. ONCE YOU HAVE A LOCATION SELECTED, THERE ARE SEVERAL ISSUES YOU SHOULD CONSIDER IN PREPARING THE SITE FOR THE HOT TUB INSTALLATION.

A FLAT, LEVEL SURFACE THAT IS STRONG ENOUGH TO SUPPORT YOUR SPA IS REQUIRED. ONCE YOUR SPA IS FILLED, IT HAS CONSIDERABLE WEIGHT. MAKE CERTAIN THE LOCATION YOU CHOOSE CAN SUPPORT A MINIMUM OF 100 LBS (45.4 KG) PER SQUARE FOOT LOAD, PER RECOMMENDED GUIDELINES. STRUCTURAL DAMAGE TO THE SPA RESULTING FROM THE INCORRECT INSTALLATION OF PLACEMENT ON INADEQUATE FOUNDATION IS NOT COVERED IN THE SPA'S LIMITED WARRANTY.

MOST UNITS ARE INSTALLED OUTSIDE, ON GROUND LEVEL, ON EITHER A CONCRETE PAD OR A WOODEN DECK. IF THE SPA IS NOT ON GROUND LEVEL, HAVE A BUILDER DETERMINE IF THE SUPPORT IS ADEQUATE. IF THE UNIT IS PLACED DIRECTLY ON THE GROUND, YOU WILL WANT TO REMOVE THE GRASSY LEVEL, AND PLACE A LAYER OF GRAVEL ON THE SOIL. THE BEST WAY TO LEVEL THE GRAVEL MAY BE WITH THE STRAIGHT EDGE OF A PIECE OF SOLID LUMBER TO ACHIEVE A LEVEL SURFACE. PAVERS PLACED IN A SAND BASE IS ALSO A RATHER QUICK AND CONVENIENT WAY TO PREPARE THE LOCATION SITE. NOTE THAT PAVERS, STEPPING STONES, ETC. STILL HAVE A TENDENCY TO SETTLE AND MAY BECOME UNLEVEL AT SOME POINT. A REINFORCED CONCRETE SLAB SHOULD BE AT LEAST FOUR INCHES THICK WITH THE REINFORCING MESH OR ROD ATTACHED TO A BOND WIRE.

MAKE SURE YOUR DIMENSIONS ARE CORRECT AS YOU PREPARE THE SITE FOR YOUR NEW HOT TUB. CLICK ONTO THE WEB SITE OR CALL YOUR RETAILER FOR DIMENSIONS OF THE MODEL YOU HAVE CHOSEN. ALLOW A PERIMETER OF THE CHOSEN GROUND SURFACE TO EXTEND BEYOND THE SPA ITSELF TO PROVIDE A CLEAN AREA FOR USERS TO GET IN AND OUT OF THE SPA.

THE SPA LOCATION AND THE SPA ITSELF MUST BE LEVEL BEFORE FILLING WITH WATER.

SHOULD YOUR SPA SITE BE A WOODEN DECK, THIS PROVIDES A CLEAN AREA WITH WEATHER AND ROT RESISTANT QUALITIES, IF A PRESSURE-TREATED TYPE LUMBER IS USED. CONSIDER THE LOAD REQUIREMENTS AND CONSULT A BUILDER TO DETERMINE IF YOUR DECK IS OF ADEQUATE STRENGTH.

IF INSTALLING YOUR HOT TUB BELOW GRADE, CONSIDER ADEQUATE DRAINAGE FOR RUN-OFF AND THE UNLIKELY EVENT OF RAPID SPA DRAINAGE.

ALLOW ADEQUATE SPACE TO ACCESS THE EQUIPMENT BEHIND THE FOUR ACCESS PANELS ON THE HOT TUB CABINET. REVIEW THE PAGES IN THIS MANUAL REFERENCING SPA MODEL SPECIFICATIONS FOR THE LOCATION OF THE SUPPORT EQUIPMENT FOR THE MODEL YOU HAVE CHOSEN.

LEAVE AMPLE ACCESS TO THE GFCI CIRCUIT BREAKER FOR TESTING, ETC.

A QUICK DISCONNECT (MANUAL DISCONNECT) IS TO BE INSTALLED BETWEEN 5 - 15 FT (1.5-4.6 M) OF THE SPA AND WITHIN THE LINE OF SIGHT FROM THE HOT TUB. CONSIDER WHERE THIS CAN BE LOCATED WHEN SELECTING AND PREPARING THE SPA SITE. ALL WIRING MUST COMPLY WITH THE U.S. NATIONAL ELECTRIC CODE.

A CABINET SIDE DRAIN HAS BEEN INSTALLED ON THE BOTTOM PORTION OF A CABINET SIDEWALL FOR EASY DRAINING. LOCATE THIS DRAIN AND LEAVE AMPLE ACCESS. YOUR SPA MAY HAVE BEEN CHOSEN WITH THE ADVANTAGEPACK DESIGN; WITH THIS FEATURE, ALL THE EQUIPMENT IS LOCATED BENEATH AN END CABINET. ALLOWING EASY ACCESS TO ALL COMPONENTS. THIS DESIGN ALSO FEATURES A SIDE DRAIN FOR EMPTYING.

SPA INSTALLATION



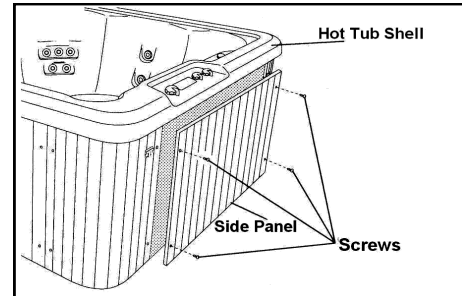
EQUIPMENT LOCATION

AFTER THE HOT TUB HAS BEEN PLACED IN THE DESIRED LOCATION REMOVE A CABINET ACCESS PANEL USING A PHILLIPS HEAD SCREWDRIVER. (SEE ILLUSTRATION)

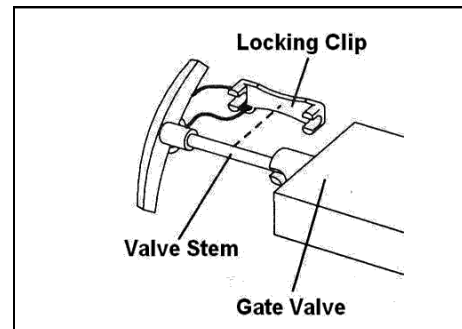
NEXT, PULL AWAY THE CABINET PANEL AND LOCATE THE ELECTRICAL BOX, HEATER, PUMP (OR PUMPS), AIR BLOWER. BE SURE YOU HAVE ALLOWED AMPLE SPACE AROUND THE NECESSARY CABINET SIDES TO ACCESS EQUIPMENT. REVIEW YOUR SPA MODEL SPECIFICATION PAGE IN THIS MANUAL FOR A GUIDE OF EQUIPMENT LOCATION FOR THAT SPECIFIC SPA MODEL.

FOR ADVANTAGEPACK DESIGN SPAS:

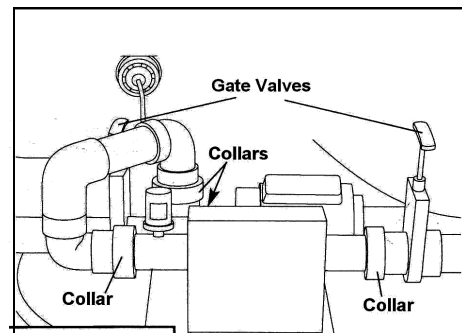
NOTE THE LOCATION OF THE ELECTRICAL BOX, THIS WILL NEED TO BE ACCESSED TO COMPLETE THE WIRING CONNECTION TO THE HOME POWER SOURCE. FOR ADVANTAGEPACK DESIGN UNITS, THIS IS LOCATED BENEATH THE END CABINET WITH OTHER SUPPORT COMPONENTS. PHOTO TO THE RIGHT FEATURES THE XM PLATFORM. NOTE THAT THE XE PLATFORM USED ON THE SE SERIES SPAS. REFER TO THE SPA SPECIFICATION PAGE TO IDENTIFY THE CORRECT PLATFORM FOR YOUR SPA UNIT.



CHECK THAT ALL VALVES: TWO PER PUMP, ARE OPEN AND THE LOCKING CLIP HAS REMAINED SNAPPED ON THE VALVE STEM DURING SHIPMENT. (SEE ILLUSTRATION)



THE SPA EQUIPMENT HAS BEEN ASSEMBLED WITH NUMEROUS COLLARS (UNIONS) FOR EASE OF FUTURE SERVICING. LOCATE AND HAND TIGHTEN ALL COLLARS CHECKING FOR ANY THAT MAY HAVE LOOSENED DURING SHIPMENT. (SEE ILLUSTRATION)

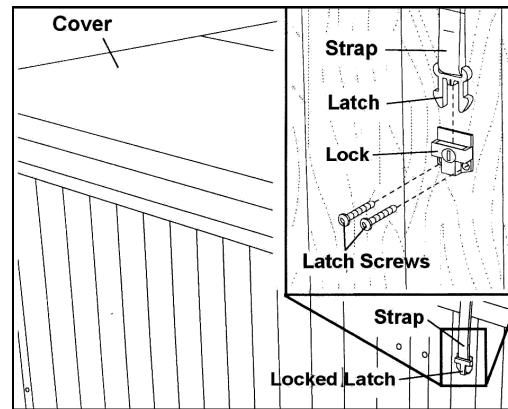


- **THE SPA SUPPORT EQUIPMENT MUST BE PLACED AT OR BELOW THE WATER LEVEL OF THE SPA.**
- **NEVER PLACE THE EQUIPMENT ABOVE THE SPA WATER LEVEL.**
- **ALL PDC EQUIPMENT MUST BE IN A SHELTERED ENVIRONMENT THAT WILL PROTECT THE EQUIPMENT FROM RAIN, SLEET, SNOW, AND DIRECT SUNLIGHT.**

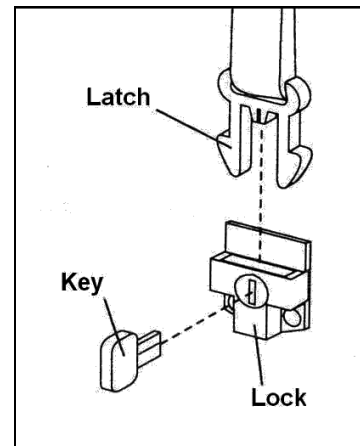
REFER TO SPA SPECIFICATION PAGES IN THIS MANUAL FOR THE LOCATION OF EQUIPMENT FOR THE MODEL YOU HAVE CHOSEN. INSTALLATION AND WIRING IS TO BE COMPLETED BY A QUALIFIED ELECTRICIAN.

INSTALLING THE THERMAL COVER

REMOVE THE SPA COVER FROM THE BOX AND PLACE IT ON THE SPA. PULL DOWN ONE OF THE STRAPS ON THE SPA COVER AND HOLD LATCH AGAINST THE CABINET SIDE PANEL. TO POSITION THE LOCK CORRECTLY, HAVE A SECOND PERSON HOLD THE STRAP TIGHT ON THE OPPOSITE SIDE OF THE SPA COVER. THE SPA COVER MUST BE TIGHT. DO NOT PLACE THE LATCH OVER THE GROOVES OF THE CABINET FINISH. REMOVE THE LATCH FROM THE LOCK, ATTACH THE LOCK TO THE CABINET SIDE PANEL WITH THREE #4 SCREWS PROVIDED. ATTACH THE OTHER THREE LOCKS TO THE CABINET IN THE SAME MANNER.



TO SECURE THE HOT TUB COVER, SNAP THE LATCHES ON THE SPA COVER INTO THE LOCKS ON THE CABINET SIDE PANEL. TO LOCK THE COVER IN PLACE, INSERT THE KEY AND TURN IT CLOCKWISE 1/4 TURN. TO UNLOCK THE LATCHES, INSERT THE KEY AND TURN IT COUNTERCLOCKWISE 1/4 TURN. ALWAYS KEEP THE COVER LOCKED WHEN THE SPA IS NOT IN USE. KEEP THE KEYS IN A SAFE PLACE, OUT OF THE REACH OF CHILDREN.



WIRING INSTALLATION



WIRING GUIDELINES

ALL EQUIPMENT MODELS ARE 120/240 VOLT, 60 CYCLE FOR STATE-SIDE, U.S. INSTALLATIONS, AND 50 HZ FOR EXPORT, CE, INSTALLATIONS.

- ALL SPAS MUST BE PERMANENTLY CONNECTED.
- ALL SPA SUPPORT SYSTEMS ARE MULTIPLE SUPPLY CIRCUITS.
- ALL SPA SYSTEMS REQUIRE THE INSTALLATION OF A GROUND FAULT CIRCUIT INTERRUPTER PROTECTOR (GFCI) OR EQUIVALENT; RCD, FOR EXPORT INSTALLS, AT THE POWER SOURCE (NOT SUPPLIED) BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH ALL CODES AND REGULATIONS. REFER TO TYPICAL G.F.C.I. INSTALLATION ON FOLLOWING PAGE. PDC SPAS DOES NOT SUPPLY THE GFCI.
- PRIOR TO EACH USE, TESTING OF THE GFCI (OR EQUIVALENT) IS REQUIRED. REFER TO THE MAINTENANCE SECTION OF THIS MANUAL FOR INSTRUCTIONS.
- ALL SPA SUPPORT EQUIPMENT MUST BE BONDED (GROUNDED) TO THE PRESSURE CONNECTOR LOCATED WITHIN THE CONTROL PANEL, AS WELL AS THE BONDING TERMINAL LOCATED ON THE OUTSIDE OF THE CONTROL PANEL. (see wiring schematic below). PDC SPAS DOES NOT SUPPLY THE GFCI.
- DISCONNECT ALL ELECTRICAL SUPPLIES AND CONTACT A QUALIFIED TECHNICIAN BEFORE SERVICING.
- ALL SPA INSTALLATIONS ARE TO BE PERFORMED BY A LICENSED ELECTRICIAN AND IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.

SPA WIRING SCHEMATIC FOR CERTIFIED ELECTRICIANS' REFERENCE ONLY

OPTION 1



OPTION 2



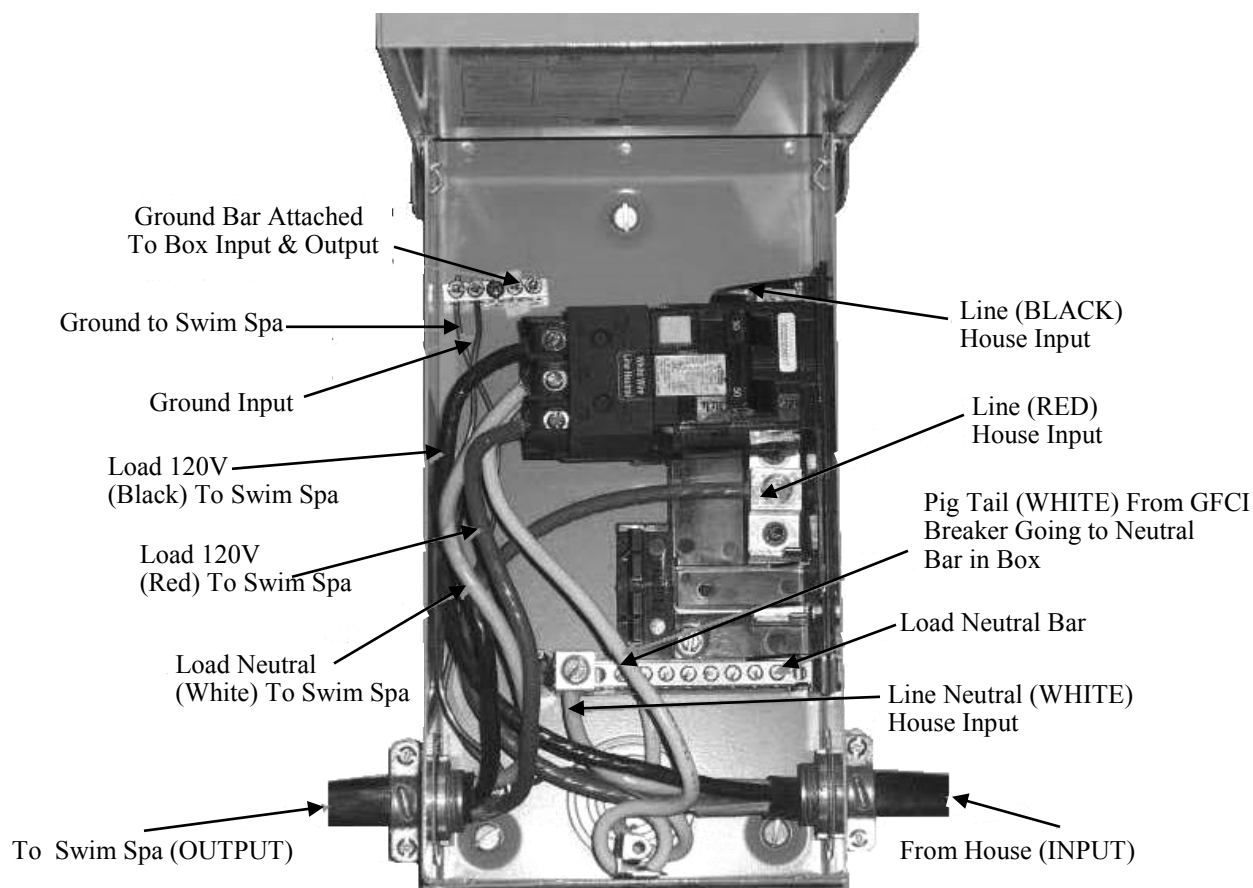
* NATIONAL U.S. CODE RECOMMENDS DISTANCE NOT TO EXCEED 15 FT.

ATTENTION ELECTRICIAN:

All PDC Swim Spa Units must be installed with an approved G.F.C.I. in accordance with all applicable codes. Installation of G.F.C.I. varies among those manufacturers. Follow each manufacturer's guidelines to ensure proper operation and protection of swim spa occupants. This diagram is a "Typical" installation to be used only as a reference for the installing electrician.

IMPORTANT: 6 Gauge Copper Wire MUST Be Used
Test GFCI Monthly and Prior to Each Use.

Typical Installation Breaker Box
Class A 50 amp, 120/240 volt, GFCI



TO BE NOTED: Installation of this GFCI Circuit Breaker, including ampere sizing and choice of wire must be made by a qualified electrician, in accordance with the National Electrical Code, and all applicable federal, state and local codes and regulations in effect at the time of installation.

TO BE NOTED: The white neutral wire from the back of the GFCI Circuit Breaker MUST be connected to an incoming Line Neutral. The internal mechanism of the GFCI requires this Neutral connection for proper GFCI function.

WIRING INSTALLATION—EXPORT GUIDELINES IN.XM CE



INSTALLATION GUIDELINES for IN.XM CE

ALL INSTALLATIONS AND CONNECTIONS ARE TO BE PERFORMED BY A QUALIFIED, LICENSED ELECTRICIAN ONLY AND IN ACCORDANCE WITH LOCAL REGULATIONS. IDENTIFY THE CORRECT CE PLATFORM ON THE SPA UNIT, IN ACCORDANCE WITH THE HOME'S ELECTRICAL OUTPUT, AND FOLLOW THE GUIDELINES BELOW. ENSURE POWER IS TURNED OFF PRIOR TO MAKING ANY ELECTRICAL CONNECTIONS.



Warning!

This product must always be connected to a circuit protected by a residual-current device (RCD) having a rated operating residual-current not exceeding 30 mA. Proper wiring of the electrical service box, RCD and in.xm.ce terminal block is essential! Check your electrical code for local regulations. Only copper wire should be used, never aluminum.



Standard with 800 Series control on all LX Series Units

IN.XM PLATFORM CONTROL CENTER

1 x 230 V~ (1 x 32A) single phase,
or
1 x 230 V~ (2 x 16A) dual phase,
or
1 x 230 V~ (3 x 16A) three phase



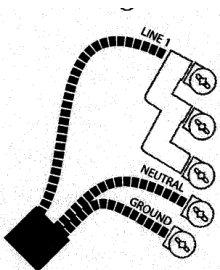
WHEN INSTALLING THE IN.XM.CE POWER BOX WE RECOMMEND THE FOLLOWING:



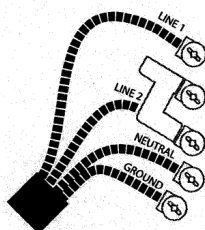
Bonding lug

To install the wiring for the in.xm.ce spa control, you'll need a Phillips screwdriver, a 14 mm (9/16") nut driver or a flat screwdriver. Loosen the 2 screws of the spa pack door and open it. Remove 200 mm (8") of cable insulation. Strip away 25 mm (1") of each wire insulation. Pull the cable through the cutout of the box and use an IEC certified plastic bushing that will maintain the IPX5 rating. Also, the power cord must be in accordance with the national electrical code of the country in which it's to be installed and must maintain IPX5 rating. Make sure that only the uncut sheathing is clamped at this opening. Push the color-coded wires into the terminals as indicated on the sticker, use the 14mm (9/16") wrench or flat screwdriver to tighten the bolts on the terminals. After making sure wire connections are secure, push them back into the box and close the door. Tighten the 2 screws of the spa pack door.

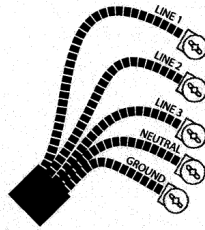
Connect the bonding conductor to the bonding lug on the left side of the in.xm.ce spa pack (a grounded electrode conductor shall be used to connect the equipment grounding conductors).



1x230 V~ (1x32A)
Single phase



1x230 V~ (2x16A)
Dual phase



1x230 V~ (3x16A)
Three phase

An IEC certified bushing that will maintain the IPX5 rating must be used. The power cord must be in accordance with the national electrical code of the country in which the in.xm.ce is to be installed.

Dual phase system: two electrical phases out of a three-phase power system. It's important to note that on a polyphase power system, all electrical phases must share the same neutral.

Make sure all accessories are linked to the bonding connector and connected to the pack. Electrical connections should be made only by qualified personnel and in accordance with local regulations.

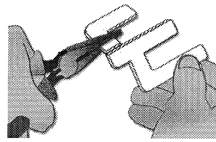
WIRING INSTALLATION—EXPORT GUIDELINES IN.XM CE



Case 1 Single-phase 1 x 230 V~ (32 A max)

The installation of electrical circuit jumpers is needed in certain input supply configurations.

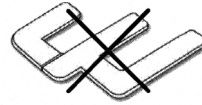
Use uncut jumper as supplied in the case of an input supply wiring.



Case 2 Dual-phase 1 x 230 V~ (2 x 16 A max)

For this input supply wiring, you will need to cut off a portion of jumper piece. Proceed as follows:

Use pliers to firmly hold upper half of the metal jumper, then break off other half.



Case 3 Three-phase 1 x 230 V~ (3 x 16 A max)

Please note that in a three-phase system, no jumper installation is required.



Important!

Safely dispose of the discarded portion in accordance with the local waste disposal legislation in force.

POWERING UP the IN.XM CE



LOW LEVEL CONFIGURATION		SPA COMPONENT			
		PUMP1	PUMP2	PUMP3	BLOWER
LL1	X				
LL2	X	X			
LL3	X	X	X		
LL4	X	X	X	X	

NOTE: Low level programming (LL) has been factory preset. In the course of setting the incoming power should "LL" be shown on screen, there should be no changes made to this setting. Immediately exit the LL menu by pushing the select button. If the LL configuration was changed, refer to chart above to review proper LL settings.

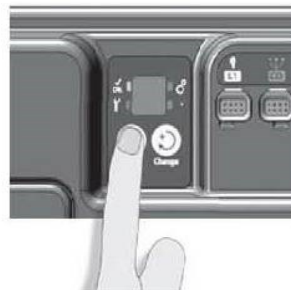


Make sure all accessories are linked to the bonding connector and connected to pack.

Make sure the spa pack door is closed.

Turn on the breaker.

It is important to specify the phase configuration setting at the power supply: single phase (1P), dual phase (2P), or three phase (3P) (see configuration below)



Press **Select** button to select proper phase configuration setting. The in.scan display will show "xP", with "X" representing the number of phases of the electric power system.

RCD	Br
1X32A	1P
2X16A	2P
3X16A	3P

Use **Change** button to go from one parameter to the next.

Press Select button again to make the correct selection.

All receptacles will match the corresponding female connection on the spa pack.

No connections should remain unplugged. Use blank plugs to fill unused connectors.

CONFIGURING the IN.XM CE

Description: Phase setting appears (P) at power up. Press **Change** button to choose proper phase setting. Press **Select** button to lock in proper phase. Breaker setting appears (BR). Press **Change** button to choose proper breaker setting. **Select** button is used to access the phase configuration setting menu (short press) as well as the low level programming menu (press and hold for 5 seconds). Subsequent presses will save changes and display the next option available or exit automatically if it was the last one. Use **Change** button to change the parameters displayed. Note: this procedure has to be performed after every learning mode.

Setting the Learning Mode: The in.xm.ce pack has the ability to verify and "learn" the current consumption of every output connected to it. If an output is replaced, a new learning must be done. Follow these simple steps.

Press and hold **Select** button for 5 seconds to activate low level programming. Once activated, the display shows "LL" ad, I succession, the current preset low level configuration selected.

Press **Change** button repeatedly to select the same preset low level configuration again.

Press **Select** to confirm. You will exit menu automatically. The in.xm.ce will then reset. After resetting, the system starts a "learning sequence" in which each individual output is activated and its peak current displayed and saved.

Note: if unusual current readings, e.g. 4 to 6 amps are detected on high speed of any pump, all pumps must be primed, learning mode restarted.

WIRING INSTALLATION—EXPORT GUIDELINES IN.XE CE



INSTALLATION GUIDELINES for IN.XE CE

ALL INSTALLATIONS AND CONNECTIONS ARE TO BE PERFORMED BY A QUALIFIED, LICENSED ELECTRICIAN ONLY AND IN ACCORDANCE WITH LOCAL REGULATIONS. IDENTIFY THE CORRECT CE PLATFORM ON THE SPA UNIT, IN ACCORDANCE WITH THE HOME'S ELECTRICAL OUTPUT, AND FOLLOW THE GUIDELINES BELOW. ENSURE POWER IS TURNED OFF PRIOR TO MAKING ANY ELECTRICAL CONNECTIONS.



Warning!

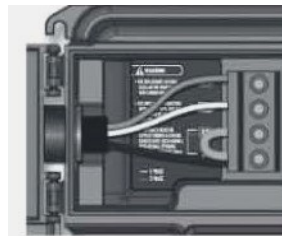
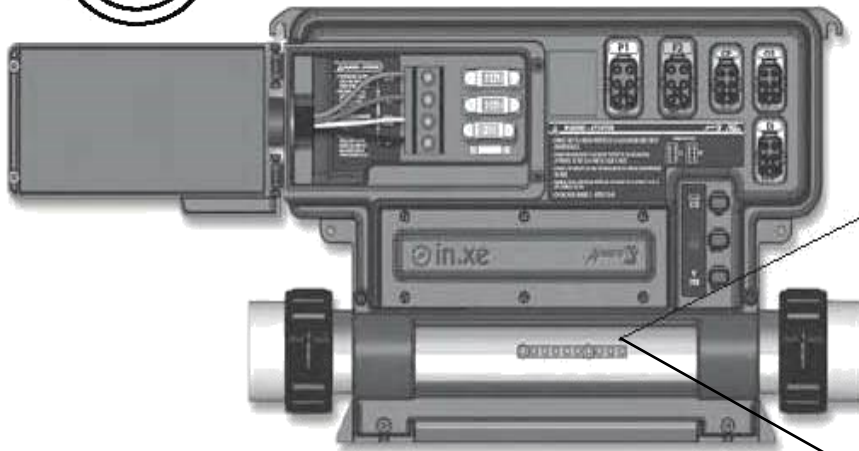
This product must always be connected to a circuit protected by a residual-current device (RCD) having a rated operating residual-current not exceeding 30 mA. Proper wiring of the electrical service box, RCD and in.xe.ce terminal block is essential! Check your electrical code for local regulations. Only copper wire should be used, never aluminum.



SE series standard platform,
500 series control

IN.XE PLATFORM CONTROL CENTER

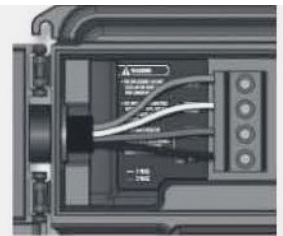
1 x 230 V~ (1 x 32A) single phase,
or
1 x 230 V~ (2 x 16A) dual phase



Single-phase

in.xe.ce 230 V
or 230/400 V

Correct wiring of the
electrical service box,
RCD, and pack terminal
block is essential!



Dual-phase



Warning!
in.xe.ce models must
always be connected
to a circuit protected
by a Residual-Current
Device (RCD) having
a rated operating
residual-current not

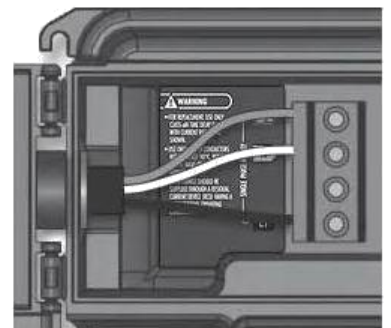
Bonding lug

Correct wiring of the electrical service box, RCD protection device, and pack terminal block is essential!

Contact qualified, licensed electrician.

IN.XE.CE ELECTRICAL SPECIFICATIONS:

Input rating: 230 V~ nominal
(Single phase input Only; multi-phase not supported)
32 A absolute maximum, 50 Hz nominal.



INITIAL START-UP



GENERAL GUIDELINES

1. BE SURE THAT THE POWER IS TURNED OFF AT THE MAIN CIRCUIT BREAKER.
2. CAUTION: ELECTRIC HEATER ELEMENT MUST BE FULLY SUBMERGED IN WATER BEFORE BEING ENERGIZED.
3. FILL SPA TO THE RECOMMENDED LEVEL, ASSURING ALL SUCTION OUTLETS ARE COVERED WITH WATER.
4. MAKE SURE VALVES ON THE SUCTION AND RETURN SIDES OF THE SPA PUMP ARE OPEN TO ALLOW WATER TO FLOW TO AND FROM THE SPA AND SPA SUPPORT SYSTEM.
5. CAREFULLY OPEN THE AIR BLEEDER VALVE FOUND ON THE TOP OF THE FILTER UNTIL WATER FLOWS OUT OF THE TOP OF THE VALVE. CLOSE VALVE. IF THE PUMP IS AIR-LOCKED, LOCATE PUMP #1, LOOSEN RETURN FITTING FROM THE TOP OF THE PUMP A FEW TURNS. AFTER ABOUT 10 SECONDS, TIGHTEN UNION AND CONTINUE START-UP.
6. TURN POWER "ON" AT MAIN CIRCUIT BREAKER.
7. PRESS JET / PUMP BUTTON TO ACTIVATE CYCLE.
8. TURN ALL AIR REGULATOR KNOBS TO "OFF" POSITION.
9. WHEN THE SYSTEM HAS FULLY PRIMED, ALL THE JETS SHOULD BE FREELY ROTATING AND FREE OF EXCESS AIR; EXCEPT THE JETS ATTACHED TO OZONE, IF THIS OPTION IS INCLUDED ON THE SYSTEM. ALLOW THE SYSTEM TO OPERATE FOR FIVE MINUTES IN THIS POSITION.
10. SET THE THERMOSTAT TO THE DESIRED TEMPERATURE TO BEGIN HEATING THE SPA WATER. THE INDICATOR ICON ON THE SPA SIDE CONTROL WILL BE ON WHEN THE SPA IS HEATING.
11. THE ECONOMICAL, GRADUAL HEATING OF THE WATER TAKES PLACE OVER A NUMBER OF HOURS, DEPENDING UPON THE SIZE OF THE SPA, SIZE OF THE HEATER AND THE RECOMMENDED USE OF A PDC SPA COVER. WHEN THE DESIRED TEMPERATURE IS REACHED, NOT OVER 104°F (40°C). LEAVE THE THERMOSTAT AT THIS SETTING, THE TEMPERATURE WILL AUTOMATICALLY BE MAINTAINED. RE-CHECK WATER TEMPERATURE WITH AN ACCURATE THERMOMETER BEFORE ENTERING THE SPA.
12. SET THE FILTRATION PROGRAM TO DESIRED SETTING PER INSTRUCTIONS FOUND IN THE CONTROL CENTER SECTION OF THIS MANUAL.
13. CHEMICALLY TREAT THE SPA WATER. READ THE SECTION ON WATER CHEMISTRY MAINTENANCE AND FOLLOW INSTRUCTIONS ON CONTAINER OF ANY PRODUCT USED.
14. COVER THE SPA WITH THERMAL COVER TO MAINTAIN TEMPERATURE AND LOCK FOR SAFETY.

OPERATION SYSTEMS –1000 SERIES CONTROL



WARNING: READ ALL INSTRUCTIONS BEFORE USING THE SPA. PDC Spas, PDC International assumes no responsibility for personal injury or property damage sustained by or through the use of this product. When installing and using this equipment basic safety precautions should always be taken to reduce risk of electrical shock, ensure safe usage, and safeguard the user's health.

In.K 1000 Series Control

Standard control on LX Series spas



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

mode selection
wheel (settings and
accessories)



direct to function
selection wheel
(settings and
additional options)

on-screen
system message
and reminder

interactive display icons
(main spa functions)

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.



Power

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

Keypad functions



Start or stop accessories

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



Notifications

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

Notification icons

in.touch: (optional)



- 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.

in.stream 2: (optional)



- Indicates that the in.stream 2 module is detected and connected.



- A grey icon indicates the in.stream 2 module is detected but is off.

Keypad functions



Water Temperature

The temperature shown 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 temp, Heating to xx.x will be indicated instead. Normally there is a short delay before the heating starts, during which Heating Suspended is indicated.

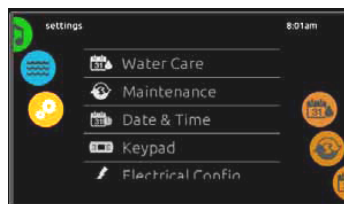


Home Page

From the home page you will find the following options:

- *in.stream 2 (optional)*
- *settings*

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

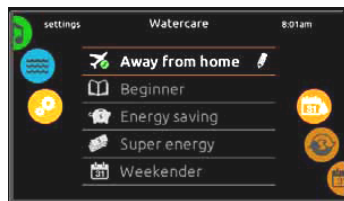


Settings

From the home page you will find the following options:

- *Water Care*
- *Maintenance*
- *Date & Time*
- *Keypad*
- *Electrical Config*
- *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; pump 1.

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 day hours 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*.

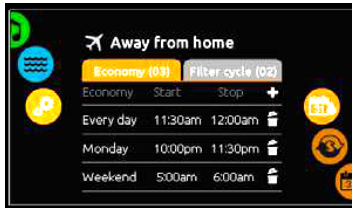


Weekender:

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 active.

Keypad functions



Modifying Schedules

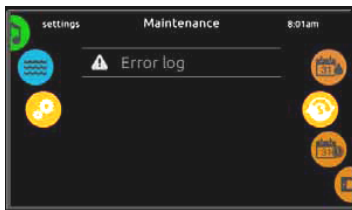
To modify a Water Care category, touch the pen at the right end of the desired water-care to open the selected Water Care menu.

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.

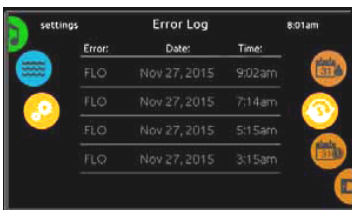


Maintenance

From the Maintenance you can access the following options:

- Error log

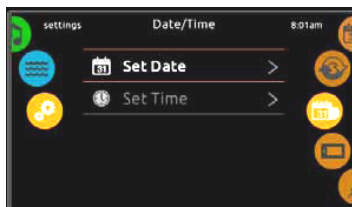
To access the desired option simply touch the desired name.



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 with more information on the selected error.

For more information, see the Error messages section.



Date and time

Here you can adjust the time or the date.

Simply touch the option you want to change

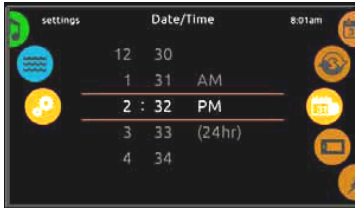


Set date

Here you can adjust the year, month and date.

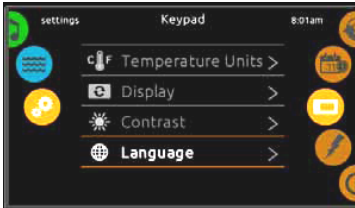
Simply scroll up and down the column you want to change, and select the desired value. When done, touch the calendar icon at the right of the screen.

Keypad functions



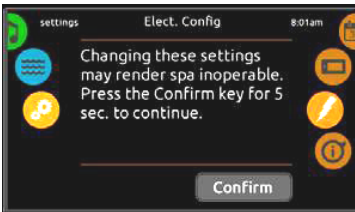
Set Time

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.



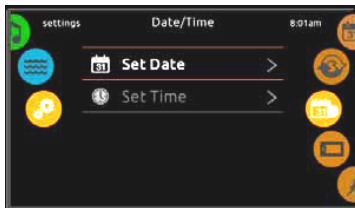
Keypad Settings

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.



About

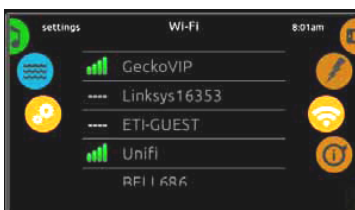
This section shows information about the in.k1000 software number, and the revision numbers of the different components of your system.



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.



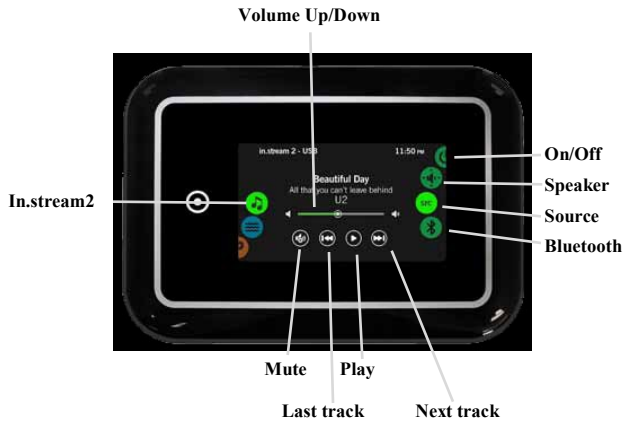
WiFi (optional)

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 icon menu 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.

Keypad functions

in.stream 2 functions (optional)

This menu is available only if the in.stream was selected in the audio configuration menu.



Press the Mode key to access your in.stream.

If you are using a device with Bluetooth, it must be connected for functions to work. Please note that the Play/Pause and Change Track functions apply to devices using Bluetooth technology only, and will not work when AUX is selected as the source.

Turning power On/Off

Go to ON/OFF Sub Menu to turn the in.stream on or off.

Selecting the source

In the Source Sub menu, the following sources are available: Bluetooth, FM, USB, AUX. Simply select the desired one.

Play/Pause audio

Press the Play/Pause button to start or pause the audio.

Adjusting the volume

Slide the volume icon or touch the mute button to mute or unmute.

Changing tracks

Use the Last Track and Next Track keys to change tracks.

Disconnect or Unpair Bluetooth

These options can be found under the Bluetooth Sub menu.

Speaker

In the Speaker Sub menu; adjust the Balance, Fade and Sub Woofer by sliding the appropriate slider.

Error Messages

The list below shows the different error messages that can appear on the home screen.

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

OPERATION SYSTEMS - 500 SERIES CONTROL

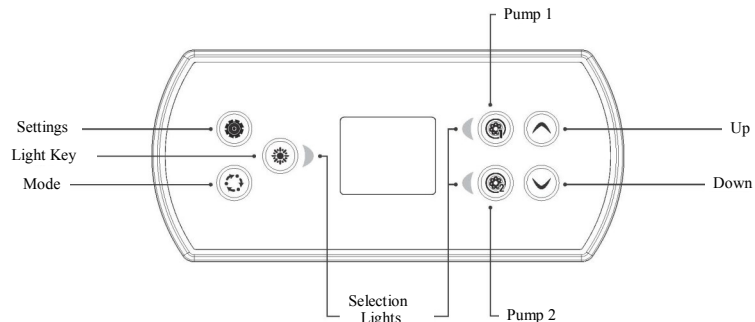


WARNING: READ ALL INSTRUCTIONS BEFORE USING THE SPA. PDC Spas, PDC International assumes no responsibility for personal injury or property damage sustained by or through the use of this product. When installing and using this equipment basic safety precautions should always be taken to reduce risk of electrical shock, ensure safe usage, and safeguard the user's health.



In.K 500 Series Control

Standard control for SE Series spa models



Power

Press any button to turn the keypad on. After 30 minutes without activity it will automatically shut off.

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, press the associated button. Icons will become animated when their accessory is turned on, and inanimate 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 states, press the button until it reaches the desired state.

Pump 1 key

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

Pump 2 key

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



Light key

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

Water Temperature

The temperature shown at the top of the screen gives the actual water temperature. Use the up/down button to set the desired temperature. The set point will appear in blue at the bottom. After 3 seconds without any change to the set temperature value, the keypad will resume normal display.

Settings

In this section you will find: Water Care, Audio (if installed), Maintenance, Date and Time, Keypad, Wi-Fi Config*, Restore*, About.

*Reserved for qualified electricians and installers. Use the arrow keys to move up and down, the light key to select. Press the settings key to go to home page.

Modifying Schedules

Use the **Arrow keys** to scroll through the selections. To see or modify a category use the lit button on the right (key 1) to open the selected menu. Use the arrow keys to choose a schedule to modify, the Light key to move between parameters. Once you have set the schedule use Key 1 to go back. In the water care option you will see the setting.



Water Care

To set up your desired filtration and heating settings press the **Light** key. A checkmark will appear on the selected icon to confirm. In energy saving mode the set point will be reduced by 20 degrees F, which means that the heating system will not be engaged unless the temperature falls to 20 degrees below the spa's set temperature.



Water Care Modes

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

Beginner: Never in economy mode and will run normal 8 hrs filtration daily.

Energy Savings: Economy mode during peak hrs of day and resume normal mode on week-end.

Super Energy Savings: Always in economy mode during peak hrs

Weekender: Economy mode Mon—Fri. Runs normal on weekend.



Audio

The audio selection in the settings menu gives you the option to disconnect or unpair your Bluetooth enabled device. It is also possible to select Source to use a device connected by auxiliary cable or Bluetooth wireless connection.

The in.stream Settings menu gives you a Bluetooth disconnect option, an Off/On switch and an audio control on

fader, balance and sub-woofer.

The Audio option will only appear in the menu for keypads that are set up for an in.stream connection. The in.stream2 is automatically detected at power-up.

Press the Mode key to access your in.stream2.

Turn Power Off/On, and Disconnect, and Fader, Balance and Subwoofer can be found under the Audio section in the Settings menu.

Adjust volume with Up/Down keys.

Use the Last Track and Next Track keys to change the tracks or FM stations.



Maintenance

From the settings page you can access the following options: Maintenance reminders Standby

Use the Up and Down keys to make a selection, press the Light key to confirm selection.



Maintenance Reminders

This will remind you of things like rinsing your spa or cleaning the filter. Each task has its own duration. The maintenance reminder menu allows you to verify the time left before requirement and reset once complete. Use the Up and Down key to move through the list. To reset a task select it by pressing the Light key.



Standby

This allows you to service your spa, the pumps will stop automatically for 30 minutes and automatically start back up after that duration. The screen will alert you when standby mode is enabled.

Press the Pump 1 key to leave standby mode and restart the spa.



Date and Time

Use the arrows to choose the setting that you would like to adjust and select it by pressing the Light key. Use the Arrow buttons to change the parameters and the Light key to move between parameters. Pressing Key 1 will take you back to the main settings menu.



Keypad Settings

Use the Arrow keys to move to the setting that you wish to change. Use the Light key to modify the selection. The display orientation can be changed by selecting the contextual options using the Arrow keys to adjust the orientation.



Topside Rim Light

Selecting this will turn on or off the topside rim light.



About

This selection shows information such as the software number and the revision numbers on the different components of your system.



WiFi

To connect in.touch module to a wireless network, use Up/Down keys to the WiFi option in the Settings menu and Light key to select. Available networks will appear with color coded connection icons.



WATER CHEMISTRY MAINTENANCE

pH CONTROL:

CHEMICALLY BALANCED WATER DEPENDS PRIMARILY ON:

1. THE AMOUNT OF ACID OR BASE IN THE WATER (pH),
2. THOSE CHEMICALS THAT HELP MAINTAIN OR STABILIZE pH (TOTAL ALKALINITY) AND,
3. THOSE CHEMICALS THAT CAUSE SCALING (CALCIUM HARDNESS). DESCRIBED AS A MEASURE

OF RELATIVE ACIDITY OR ALKALINITY OF WATER, pH IS MEASURED ON A NUMBER SCALE FROM 0 - 14. THE MID-POINT, 7, IS SAID TO BE PRECISELY NEUTRAL, ABOVE WHICH ALKALINITY BECOMES PROGRESSIVELY GREATER AND BELOW WHICH ACIDITY BECOMES PROGRESSIVELY GREATER. PROPERLY BALANCED SPA WATER SHOULD HAVE A pH BETWEEN 7.2-7.8, A TOTAL ALKALINITY OF 75-150 PPM AND AN OPTIMUM RANGE OF 100 -400 PPM OF CALCIUM HARDNESS. WITHIN THESE LIMITS, YOUR SANITIZING CHEMICALS AND FILTERING FUNCTIONS WILL BE MOST EFFECTIVE. TEST KITS ARE AVAILABLE TO MEASURE THE pH AND SHOULD BE REPLACED ON AN AT LEAST ANNUAL BASIS TO ASSURE ACCURACY.

DISINFECTION:

THE HIGH TEMPERATURE AND INCREASED VELOCITY OF THE WATER, AS WELL AS THE HEAVY BATHER LOADS, ALL CONTRIBUTE TO THE ORGANIC CONTAMINATION OF SPA WATER. IT IS VERY IMPORTANT TO MAINTAIN AN EFFECTIVE RESIDUAL OF SANITIZING AGENT, TO SHOCK TREAT AT PERIODIC INTERVALS AND, IF NEEDED, TO CONTROL ALGAE GROWTH.

BROMINE IS THE BEST-SUITED SANITIZER FOR SPA WATER. ALTHOUGH CHLORINE IS POPULAR AS A SWIMMING POOL SANITIZER, THE HIGH TEMPERATURES AND AERATION OF A SPA GREATLY ACCELERATE CHLORINE LOSS. FREE CHLORINE REACTS WITH ORGANIC MATERIALS TO FORM COMBINED CHLORINE, WHICH IS A POOR DISINFECTANT THAT CAUSES OFFENSIVE ODORS AND OFTEN CAUSES EYE BURN. BROMINE IS SIMILAR TO CHLORINE, ALTHOUGH IN THE FREE AND COMBINED FORM IT IS AN EFFECTIVE SANITIZING AGENT AND CAUSES NO OFFENSIVE ODOR OR EYE BURN. IT IS EASIER TO MAINTAIN A BROMINE RESIDUAL THAN CHLORINE AND IT IS EFFECTIVE OVER A WIDER pH RANGE THAN CHLORINE.

THE TEST FOR BROMINE SHOULD READ 1 PPM IN A RESIDENTIAL SPA. DEPENDING UPON BATHER LOAD, AMOUNT OF USAGE, TYPE OF WATER, ULTRAVIOLET EXPOSURE, ETC., THE AMOUNT OF CHEMICALS NEEDED WILL VARY. ON A WEEKLY BASIS, A "SHOCK" TREATMENT SHOULD BE USED TO DESTROY ORGANIC CONTAMINATION NOT READILY DESTROYED BY NORMAL ADDITIONS OF THE SANITIZING AGENT. THIS IS ACCOMPLISHED BY USING A POWERFUL, LONG-LASTING OXIDIZING AGENT CAPABLE OF DESTROYING THE ORGANIC CONTAMINANTS SO THE SANITIZER CAN BE EFFECTIVE IN KILLING BACTERIA.

CONTACT YOUR CHEMICAL SUPPLIER FOR THE BEST "SHOCKING" AGENT IN CONJUNCTION WITH THE LINE OF CHEMICALS BEING USED. FOR SPAS INSTALLED OUTSIDE AND DIRECTLY IN SUNLIGHT, ALGAE GROWTH MAY BE A PROBLEM. IF THIS OCCURS, CONTACT YOUR RETAILER OR CHEMICAL MANUFACTURER FOR ADVICE ON THE BEST AGENT AVAILABLE TO HANDLE THIS PROBLEM.

REMEMBER!:

1. BEFORE USING CHEMICALS, READ THE LABELS AND FOLLOW DIRECTIONS CAREFULLY.
2. ALWAYS ADD THE CHEMICALS DIRECTLY TO THE SPA WATER, EITHER IN A SUITABLE FEEDER, DISTRIBUTED OVER THE SURFACE OF THE WATER, OR POURED INTO THE WATER, PREFERABLY WITH THE PUMP AND BUBBLER ON.
3. NEVER ADD CHEMICALS TO THE SPA WHILE PEOPLE ARE USING IT.
4. MAINTAINING TEMPERATURE BETWEEN 95-104°F (35-40°C) IS ESSENTIAL AS A HEALTH FACTOR FOR BATHERS AND IS HELPFUL IN CONTROLLING WATER PROBLEMS.
5. THE BOTTOM LINE TO PROPER WATER MAINTENANCE IS TO ADHERE TO A REGULAR SCHEDULE OF TESTING CHEMICAL LEVELS AND MAINTAINING THEM.



WATER CHEMISTRY MAINTENANCE (cont'd.)

OZONE:

YOUR SPA IS EQUIPPED WITH OZONE AS THE SANITIZING AGENT. THIS UTILIZES ULTRAVIOLET LIGHT AND OFFERS A “HANDS-FREE” ROUTINE TO SPA WATER CARE. THE pH MUST BE MAINTAINED AND SHOCKING MAY BE NEEDED AFTER HEAVY BATHER LOADS. WITH THE USE OF OZONE, THE PERIODIC DRAINING MAY BE NEEDED LESS FREQUENTLY, AND THE BROMINE ODOR NO LONGER AN ISSUE. IT IS SUGGESTED THAT 24-HOUR CIRCULATION IS REQUIRED TO EFFECTIVELY SANITIZE THE WATER, AND A CHLORINE SHOCK USED PERIODICALLY. CONTACT YOUR CHEMICAL SUPPLIER FOR MORE INFORMATION.

1. THERE IS NO TEST KIT AVAILABLE TO TEST OZONE PRESENCE IN SPA WATER, ALTHOUGH A 24-HOUR CIRCULATION PERIOD IS RECOMMENDED FOR CLEAN, CLEAR WATER. A CLEAN, “AFTER RAIN” SMELL WILL BE PRESENT WHEN YOU OPEN YOUR SPA COVER AS AN INDICATOR THAT THE OZONE IS DOING IT’S JOB.
2. A PROPER pH MUST BE MAINTAINED AND A ROUTINE BROMINE OR CHLORINE SHOCK IS SUGGESTED.
3. THE OZONE SYSTEM WITH YOUR SPA HAS AN EVERLITE™ INDICATOR MOUNTED ON THE CORNER OF THE SPA CABINET. THIS EMITS A BLUE LIGHT WHEN THE OZONE UNIT IS FUNCTIONING. EVERLITE WILL ONLY BE LIT WHEN UNIT IS IN FILTRATION CYCLE. REFER TO CONTROL INFORMATION AND ICON CHART FOR FURTHER INSTRUCTIONS.

OZONE UNIT

Location varies with spa model.
Refer to specifications for
location and take note during
installation positioning.

**BASIC WATER CHEMISTRY CHART**

PROBLEM	DESCRIPTION	CAUSE	REMEDY
Green Algae	Green Water Green spots on surface Slippery surface	Low ozone, bromine, or chlorine levels Low algaecide levels	Superchlorinate Brush spa; removing algae Vacuum spa; removing algae Increase oxidizer residual
Black Algae	Black spots on spa surface	Low oxidizer levels Low algaecide levels.	Superchlorinate Brush spa; removing algae Vacuum spa; removing algae Increase oxidizer residual
Unpleasant Odor, Burning Eyes	Chlorine-like odor. Burning sensation in eyes.	Combined chlorine and/or pH out of balance	Superchlorinate. Balance pH to 7.2-7.6
Colored Water	Water in newly-filled spa turns black, blue, or brown when treated with ozone	Copper, iron, or manganese in water being oxidized by chlorine or ozone	Adjust pH to 7.2-7.6 Run filter continuously Vacuum settled material Use sequestering agent for prevention
Hard Water	Cloudy water Scaling	Excessive hardness of makeup water or building up of dissolved minerals in the water caused by continued use of spa chemicals.	Clean filter Filter continuously Adjust pH to 7.2-7.6 Use scale inhibitor Dilute with makeup water



TESTING THE G.F.C.I. (EQUIVALENT RCD FOR EXPORT INSTALLATIONS)

GROUND FAULT CIRCUIT INTERRUPTER (G.F.C.I.) PROTECTION FOR THE SPA SHOULD BE TESTED PRIOR TO EACH USE BY THE HOMEOWNER. WITH THE SPA IN OPERATION, PUSH THE "TEST" BUTTON ON THE G.F.C.I. BREAKER AT THE PANEL BOX OR ON THE POWER CORD. THE SPA SHOULD SHUT DOWN IMMEDIATELY. NOW RESET THE G.F.C.I. THE SPA SHOULD RETURN TO NORMAL OPERATION. IF THE G.F.C.I. FAILS TO OPERATE IN THIS MANNER, THERE EXISTS A POSSIBILITY OF ELECTRICAL SHOCK.

DISCONTINUE SPA OPERATION BY TURNING OFF POWER AND DISCONNECTING THE POWER SOURCE AND NOTIFY A QUALIFIED ELECTRICIAN FOR IDENTIFICATION AND CORRECTION OF THE PROBLEM.

THE SPA SURFACE

TO PRESERVE THE SHEEN OF YOUR SPA'S SURFACE, CLEAN AND SANITIZE THE ACRYLIC SURFACE WITH RUBBING ALCOHOL. AVOID USING ABRASIVE CLEANSERS. IF YOU ARE NOT CERTAIN AS TO THE SUITABILITY OF A PARTICULAR CLEANSER, CONSULT YOUR DEALER. DO NOT USE SOAP, AS IT CAN CAUSE SUDSING.

PERMA-WOOD CABINET

YOUR SPA MAY BE CONSTRUCTED FROM A WOOD ALTERNATIVE MATERIAL DESIGNED TO BE DURABLE, TOUGH, AND VIRTUALLY MAINTENANCE-FREE. IT MAY REQUIRE PERIODIC CLEANING WITH A NON-ABRASIVE CLEANER.

THE COVER

USING THE OPTIONAL INSULATING SPA COVER ANYTIME THE SPA IS NOT IN USE WILL SIGNIFICANTLY REDUCE YOUR OPERATING COSTS, HEAT-UP TIME AND MAINTENANCE REQUIREMENTS. TO PROLONG THE LIFE OF THE COVER, HANDLE IT WITH CARE AND CLEAN IT REGULARLY USING MILD SOAP AND WATER. PERIODIC TREATMENTS WITH A VINYL CONDITIONER WILL HELP PROTECT AGAINST DETERIORATION CAUSED BY UV RAYS FROM THE SUN. NEVER ALLOW ANYONE TO STAND OR SIT ON THE COVER, AND AVOID DRAGGING IT ACROSS ROUGH SURFACES. KEEP COVER LOCKED WHEN NOT IN USE.

THE FILTER

SPA WATER FILTRATION BEGINS AS SOON AS THE FLOW IS STEADY THROUGH THE PUMP. THE TOP LOAD PRESSURIZED FILTER ASSURES OPTIMUM CLEANING CAPACITY. AS THE FILTER CARTRIDGE REMOVES DIRT FROM THE WATER, THE ACCUMULATED DEBRIS WILL CAUSE A RESISTANCE TO FLOW. WHEN THIS IS NOTICED, ALONG WITH CLOUDY WATER, CLEAN OR REPLACE THE FILTER ELEMENT AS NOTED BELOW.

1. SHUT OFF POWER AT THE MAIN OR SUB PANEL.
2. OPEN THE SMALL, BLACK BLEEDER VALVE ON TOP OF THE FILTER COVER SLIGHTLY TO RELEASE PRESSURE. (BE SURE TO RE-CLOSE THE VALVE SNUGLY BEFORE REACTIVATING THE SPA.)
3. REMOVE THE BLACK LOCK RING. LIFT THE DOME LID AND REMOVE THE FILTER ELEMENT. CLEAN ANY DEBRIS FROM THE FILTER HOUSING. SOAK THE FILTER ELEMENT IN A FILTER CLEANSING SOLUTION AVAILABLE FROM YOUR SPA RETAILER.

RINSE THE FILTER ELEMENT DOWN WITH A GARDEN HOSE OR PRESSURE HOSE, AND REPLACE IN THE FILTER HOUSING. (IT IS RECOMMENDED TO HAVE AN EXTRA FILTER CARTRIDGE ON HAND SO THAT A CLEAN ELEMENT WILL ALWAYS BE AVAILABLE WHILE THE SOILED ELEMENT IS BEING CLEANED. THIS WILL MINIMIZE DOWNTIME OF THE SPA DURING THE CLEANING PROCEDURE.) WHEN REPLACING THE ELEMENT INTO THE HOUSING, BE SURE THAT THE O-RING IS IN PLACE AND CLEAR TO ASSURE A SNUG FIT OF THE FILTER DOME LID TO PREVENT LEAKAGE. HAND TIGHTEN THE LOCK RING UNTIL SNUG. RE-CHECK BLEEDER VALVE TO BE SURE IT IS CLOSED.

MAINTENANCE RECOMMENDATIONS



PERIODIC SPA WATER DRAINING

AFTER A CERTAIN TIME, YOU MAY FIND THAT THE ADDITION OF CHEMICALS WILL NOT CLARIFY OR ELIMINATE ODORS IN THE SPA. THIS IS AN INDICATION THAT THE WATER NEEDS TO BE DRAINED AND REPLACED. GENERALLY, DEPENDING UPON BATHER LOAD AND WATER CHEMISTRY MAINTENANCE, THIS MAY NEED DONE EVERY 3 MONTHS. WITH THE USE OF OZONE, THIS MAY NEED DONE LESS FREQUENTLY.

1. REDUCE SET TEMPERATURE TO 59°F (15°C).
2. TURN OFF ALL POWER.
3. CONNECT A GARDEN HOSE TO THE RECESSED DRAIN VALVE FOUND ON THE SIDE OF YOUR SPA CABINET, BY SLOWLY PULLING THE CAP OUT ALL THE WAY (APPROXIMATELY 2") AND TURN CAP COUNTERCLOCKWISE TO REMOVE. ATTACH THE HOSE AND PUSH VALVE 1", THIS WILL START THE DRAINING PROCESS. AFTER DRAINING THE SPA, REPLACE THE CAP AND PUSH THE VALVE ALL THE WAY IN.
(SEE PHOTO.) NOTE: UNSCREW THE LARGE NUT AROUND THE DRAIN VALVE TO REMOVE THE CABINET PANEL FROM THE SPA FOR SERVICING, IF NECESSARY.
4. CLEAN CARTRIDGE FILTER AS NOTED PREVIOUSLY IN THIS SECTION REGARDING MAINTENANCE RECOMMENDATIONS.
5. CLEAN SPA SHELL WITH NON-SUDSING CLEANSER.
6. FOLLOW INSTRUCTION UNDER START-UP.



PLUMBING CARE

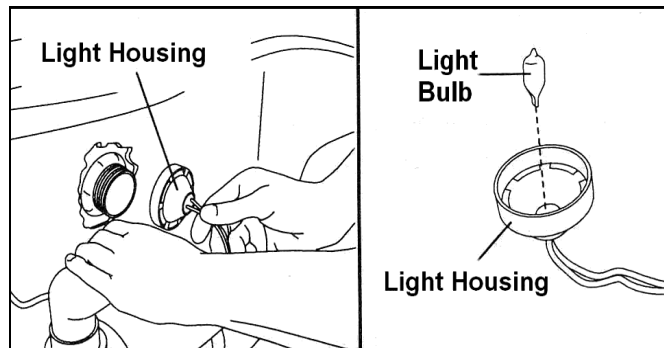
ALL SPAS ARE PLUMBED WITH PLASTIC JETS, PIPES AND FITTINGS WHICH ARE GLUED TOGETHER. THESE PLASTIC PARTS AND THEIR MANY GLUE JOINTS ARE SUBJECTED TO HARSH TREATMENT. EVERY SPA IS TESTED WITH WATER TO ASSURE THERE ARE NO LEAKS WHEN IT LEAVES THE FACTORY; HOWEVER, SOMETIMES SPAS DEVELOP A LEAK CAUSED BY SHIPPING VIBRATION. OVER THE YEARS, YOUR SPA IS SUBJECTED TO MANY HOT-COLD CYCLES AND THE HIGH PRESSURE GENERATED BY THE POWERFUL JET PUMP, WHICH TOGETHER STRESSES THE PIPES AND JOINTS. PDC SPAS ARE DESIGNED TO BE OWNER SERVICEABLE WITH EASY-ACCESS PANELS ON ALL 4 SIDES OF THE PORTABLE SPA WHICH ALLOW QUICK AND THOROUGH INSPECTION AND REPAIR OF THE PLUMBING SYSTEM. SHOULD A LEAK OCCUR, FOLLOW THESE INSTRUCTION TO MAKE THE REPAIR.

1. REMOVE SIDE PANEL TO LOCATE LEAK. MARK THE LEAK WITH A MARKING PEN.
2. TURN OFF ALL POWER. DRAIN SPA BELOW LEAK, ALLOW PLASTIC PARTS TO DRY.
3. CONTACT QUALIFIED SERVICE TECHNICIAN TO REPAIR PLUMBING.

REPLACING THE LIGHT BULB

IF THE UNDERWATER LIGHT BULB SHOULD BURN OUT (MOTION GLOW LIGHTING) YOU WILL NEED TO REMOVE THE ACCESS PANEL TO REPLACE IT.

(REFER TO THE MANUAL SECTION REGARDING REMOVAL). BE SURE THE POWER IS "OFF". LOCATE THE LIGHT HOUSING, TURN THE HOUSING COUNTERCLOCKWISE AND REMOVE FROM SPA SHELL. TO REPLACE THE BULB, PULL THE OLD BULB FROM THE HOUSING AND INSERT NEW ONE. RE-ATTACH THE LIGHT HOUSING TO SPA SHELL. REPLACE CABINET PANEL AND ENDS.
(SEE ILLUSTRATIONS)



WINTERIZING YOUR HOT TUB



COLD WEATHER USE

IF YOUR SPA IS TO BE USED DURING THE WINTER MONTHS IN COLD CLIMATE WHERE THE DANGER OF FREEZING EXISTS, CERTAIN PRECAUTIONS SHOULD BE TAKEN TO AVOID DAMAGE. AN INCREASED CIRCULATION CYCLE, AND USE OF A RIGID FOAM COVER ARE SUGGESTED. CONTACT YOUR DEALER FOR ADVICE.

COLD WEATHER SHUT-DOWN

MANY SPA OWNERS FIND THAT OUTDOOR WINTERTIME SOAKING IS QUITE ENJOYABLE, AND PDC CERTAINLY SUGGESTS THE USE OF A SPA YEAR-ROUND, ALTHOUGH CERTAIN SITUATIONS DO REQUIRE CLOSING THE UNIT FOR THE WINTER MONTHS (I.E., VACATION HOMES). IF THE SPA WILL NOT BE USED FOR A PERIOD OF TIME, PERFORM THE FOLLOWING WINTERIZING PROCEDURES:

1. TURN HEAT ALL THE WAY DOWN AND TURN OFF AT THE BREAKER.
2. DRAIN SPA OF ALL WATER.
3. REMOVE ANY REMAINING WATER WITH SPONGE.
4. TO REMOVE WATER FROM THE AIR CHANNEL; THE LX SERIES SPAS EQUIPPED WITH THE AIR'ASSAGE DESIGN, TURN POWER BACK ON. TURN "BUBBLER" ON FOR SEVERAL MINUTES TO SPRAY OUT WATER. WIPE OUT SPA AND REPEAT AS NECESSARY. SHUT OFF ALL ELECTRICAL POWER TO UNIT.
5. FILTER SHOULD BE DRAINED, REMOVED AND CLEANED. STORE IN A DRY PLACE.
6. PUMP, MOTOR AND ALL CONNECTING LINES SHOULD BE DRAINED FULLY TO PROTECT FROM FREEZING. BLOW AIR THROUGH ALL CONNECTION LINES TO REMOVE WATER. YOU MAY WISH TO USE A NON-TOXIC RV TYPE ANTIFREEZE TO GUARANTEE FREEZE PREVENTION. BE SURE TO READ THE MANUFACTURER'S INSTRUCTIONS AND REMOVE ALL ANTI-FREEZE BEFORE THE NEXT SPA USE.
7. COVER THE SPA WITH A WATERPROOF RIGID COVER TO PROTECT IT FROM SNOW, ICE AND WIND.



A GOOD GENERAL RULE IS TO VISUALLY INSPECT YOUR SPA AND EQUIPMENT AREA FREQUENTLY. IF ANY THING LOOKS BROKEN, WORN, OR INCORRECT, CONTACT YOUR ELECTRICIAN OR SPA RETAILER. A SIMPLE REPAIR MAY PREVENT AN INJURY OR MORE SERIOUS PROBLEMS REQUIRING EXPENSIVE REPAIRS. IF YOUR SPA IS NOT OPERATING, CHECK THE FOLLOWING:

1. ALL EQUIPMENT IS IN-OPERATIVE

- CHECK POWER SOURCE G.F.C.I. BREAKER. (OR EQUIVALENT)
- CHECK TO ASSURE SPA HAS DEDICATED CIRCUIT.
- CHECK THE “TEST” AND “RESET” BUTTONS ON G.F.C.I. (OR EQUIVALENT)
- CHECK INTERNAL FUSES.

2. PUMP DOES NOT WORK

- CHECK ALL ITEMS ABOVE.
- CHECK FILTER; CLEAN OR REPLACE CARTRIDGE.
- CHECK FOR BLOCKAGES (RESTRICTIONS) AT SUCTIONS, SKIMMER AND PUMP.
- PUSH “PUMP” BUTTON(S) TO CHECK IF HIGH SPEED IS FUNCTIONING, ON A DUAL-SPEED PUMP.

3. INADEQUATE JET ACTION

- MAKE SURE JETS ARE TURNED ON.
- MAKE SURE AIR CONTROLS ARE OPEN.
- CHECK FOR RESTRICTIONS (BLOCKAGES) IN JETS AND/OR MAIN SKIMMER AND PUMP.
- CHECK WATER LEVEL.
- PUSH “PUMP” BUTTON(S) TO CHECK IF HIGH SPEED IS FUNCTIONING ON A DUAL-SPEED PUMP.
- CHECK TO BE SURE THE ULTRA MESSAGE SELECTOR (DIVERTER VALVE) IS IN CENTER POSITION. (STANDARD ON LX SERIES SPAS.)

4. NO HEAT

- CHECK ALL STEPS UNDER PART “1”.
- CHECK TEMPERATURE SETTINGS.
- CHECK FOR CLOGGED FILTER ELEMENT AND OTHER RESTRICTIONS.
- CHECK WATER LEVEL.
- CHECK IF PUMP IS RUNNING.

5. NO BUBBLER

- CHECK ALL STEPS UNDER PART “1”.
- BLOWERS GENERALLY NEED NO MAINTENANCE. REPLACEMENT IS NORMALLY THE SOLUTION.

6. NO LIGHT

- CHECK “LIGHT” BUTTON.
- CHECK G.F.C.I. (OR EQUIVALENT) “TEST” AND “RESET” BUTTONS.

7. WATER IS CLOUDY

- INCREASE CIRCULATION CYCLE.
- TEST WATER CHEMISTRY.
- CLEAN/REPLACE FILTER CARTRIDGE.

8. PUMPS HAVE STARTED FOR 1 MINUTE SEVERAL TIMES

- THIS IS A FEATURE OF THE SMART WINTER MODE PROTECTING YOUR SPA FROM THE COLD BY TURNING PUMPS ON FOR 1 MINUTE SEVERAL TIMES A DAY TO PREVENT FREEZING IN PIPES.

IF ABOVE CHECKS DO NOT SOLVE THE PROBLEM, CONTACT A QUALIFIED SERVICE TECHNICIAN.

RECORDS AND CONTACT INFORMATION**ELECTRICIAN**

COMPANY NAME _____

CONTACT NAME _____

ADDRESS _____

PHONE, E-MAIL ADDRESS _____

BUILDER, MASON

COMPANY NAME _____

CONTACT NAME _____

ADDRESS _____

PHONE, E-MAIL ADDRESS _____

SERVICE TECHNICIAN

COMPANY NAME _____

CONTACT NAME _____

ADDRESS _____

PHONE, E-MAIL ADDRESS _____

GENERAL NOTES

SAVE THIS MANUAL FOR FUTURE REFERENCE !



75 Palmer Industrial Road
Williamsport, Pennsylvania 17701
USA

1.800.451.1420 tel
1.570.323.8485 fax
www.pdcspas.com
www.pdcspasinternational.com