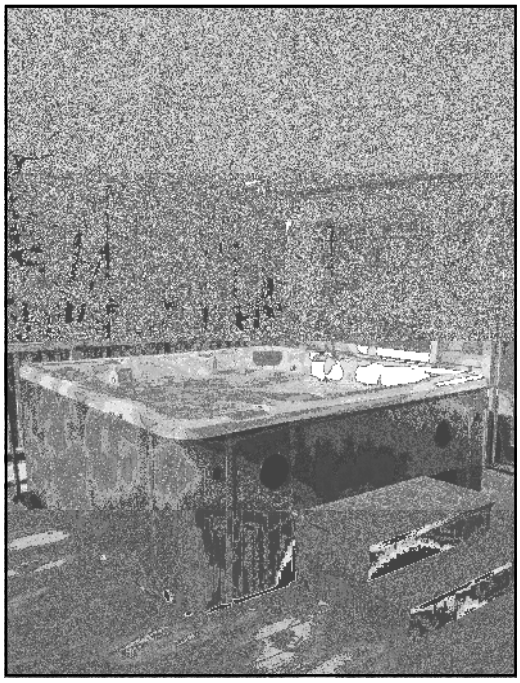
Owners Installation Manual
Portable Spa Hot Tubs

Revised 01/2009



PDC spas

www.pdcspas.com

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.

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 _____

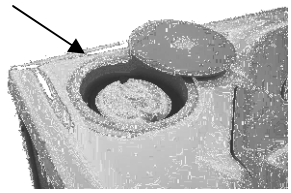
RETAILER PHONE NUMBER _____

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.



FOR AT SERIES UNITS, SERIAL NUMBER PLATE IS BEHIND CABINET PANEL ON FILTER HOUSING CANISTER.

SAVE THIS MANUAL FOR EASY FUTURE REFERENCE !

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

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75 PALMER INDUSTRIAL ROAD
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WWW.PDCSPAS.COM

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.
- 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 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 OF THE 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.

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.

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 104ºF (40º C). WATER TEMPERATURES BETWEEN 100º F (38º C) AND 104º F (40º 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.
- 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 100º F (38º 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 5º F (3ºC).
- **THE USE OF ALCOHOL, DRUGS, OR MEDICATION BEFORE OR DURING SPA USE MAY LEAD TO UNCONSICIOUSNESS WITH THE POSSIBILITY OF DROWNING.**
- PERSONS SUFFERING FROM OBESITY OR WITH A MEDICAL HISTORY OF HEART DISEASE, LOW OR HIGH BLOOD PRESSURE, CIRCULATIORY 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.

- 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 EQUIVELANT 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 COMPLYWITH 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

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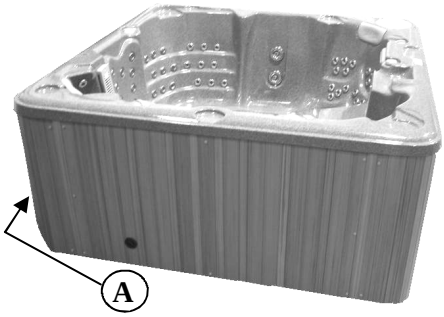
SPA USE LABELS

(A) 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 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.

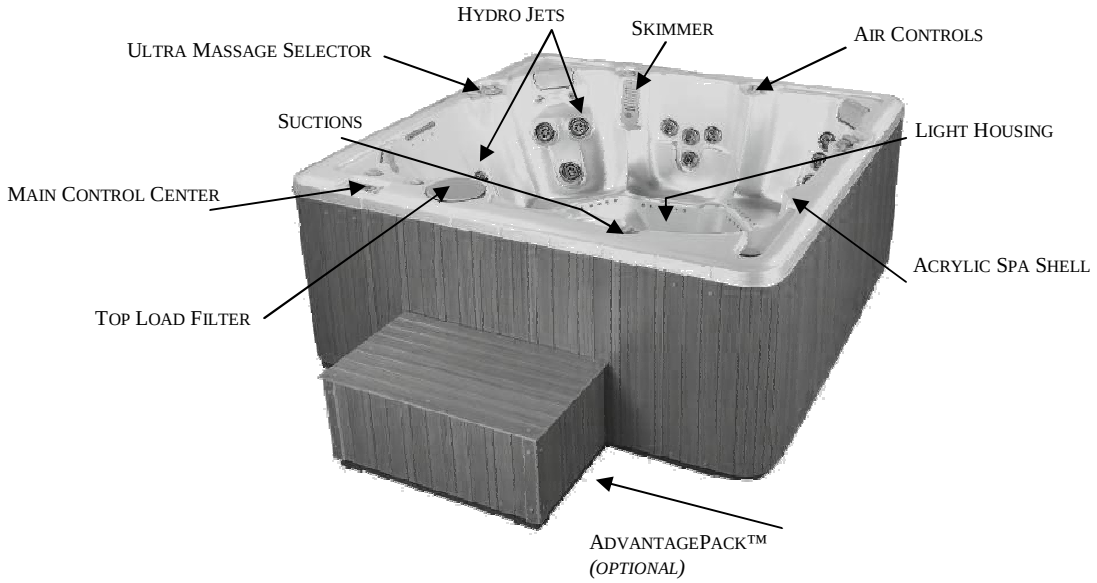
AIR'ASSAGE: THIS APPEARS AS A NUMBER OF TINY HOLES IN THE SEATING AREA WHEREBY THE BUBBLER (BLOWER) PUSHES AIR THROUGH FOR EXTRA THERAPY ACTION, DELIVERING AN ALL-OVER MASSAGE WATER ACTION. STANDARD ON THE LX SERIES.

ULTRA MASSAGE 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.

SPA MOOD LIGHT: UNDERWATER LOW VOLTAGE LIGHT WITH ADDITIONAL TWO CHANGEABLE COLORED LENSES FOR NIGHT TIME SPA ENJOYMENT. STANDARD WITH THE SE SERIES SPAS.

MOTION GLOW LIGHTING: LOW VOLTAGE 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. STANDARD WITH THE LX SERIES, OPTIONAL ON THE SE SERIES SPAS.

ILLUSION LIGHTING: AS AN OPTION ON THE LX SERIES, LED PINPOINT LIGHTS ILLUMINATE WITH UP TO 25 POINTS OF LIGHT, ACCENTING THE LIP OF YOUR SPA WITH COLOR OPTIONS OF ROTATING COLORS OR A STATIONARY COLOR OF YOUR SELECTION.



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 DELUXE GE CONTROL CENTER OPERATES, THE HIGH SPEED OF A DUAL-SPEED PUMP IS ACTIVATED BY THE PUMP1 CONTROL AT SPA SIDE. THE LOWER SPEED (FILTRATION SPEED) IS CONTROLLED BY THIS 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 CONTROL.

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

AIR'ASSAGE (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—ANTERO SPA MODEL

GENERAL **rev. 2009 / 01**

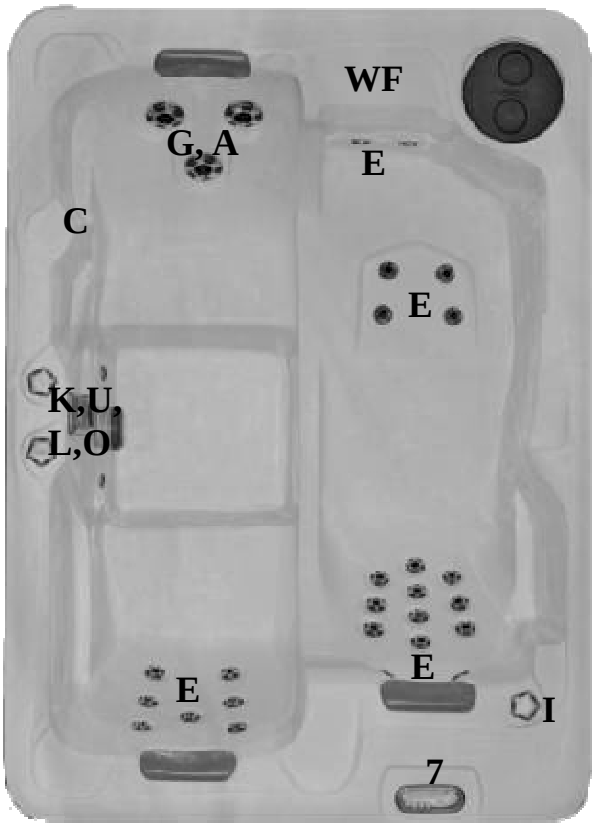
Seating Capacity	3
Shell Material	Acrylic
Dimensions (Domestic)	60” (5’) x 84” (7’) x 33” (2’9”)
Dimensions (Export)	152 cm. x 213 cm. x 84 cm.
Water Capacity	200 Gallons (757 liters)
Dry Weight	450 lbs. (204 kg)
Skirt Material	PermaWood™ or Cedar
Water Flow	187 Gallons per Minute

WATER SYSTEM** (photo ref.)

Water Treatment System		Ozone Ready
Filter		25 sq. ft.
Slide Valves		2
Mega Swirl Jet	A	1
Large Euro Jet w/ Eyeball	E	26
Mega’ssage Jet	G	2
Multi’ssage Jet	P	0
Ozone Jet	O	2
Diverter Valves	V	0
Safety Suction	U	1
Mini Skimmer	K	1
Air Control	I	3
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows		3
Motion Glow™ Light		Optional
Stainless Steel Jetting		Optional
Waterfall Jet	WF	Optional
Waterfall Control Valve	C	Optional
SoundWave™ SE Audio		Optional*
Ozone Water Purification	OZ	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 XM Series	Gecko XE Series
Voltage		240	240	240
Amperage		40	2x16 / 1x32 / 3x16	2x16 / 1x32
Heater (heater location for XM can)	H HXM	4.0 KW	3.8 KW	4.0 KW
Operation System				
Main Spa Side Control	7	Gecko 450 Control	Gecko 450 Control	
Secondary Spa Side Control	8	N/A	N/A	

**** 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—BOULDER SPA MODEL

GENERAL **rev. 2009 / 01**

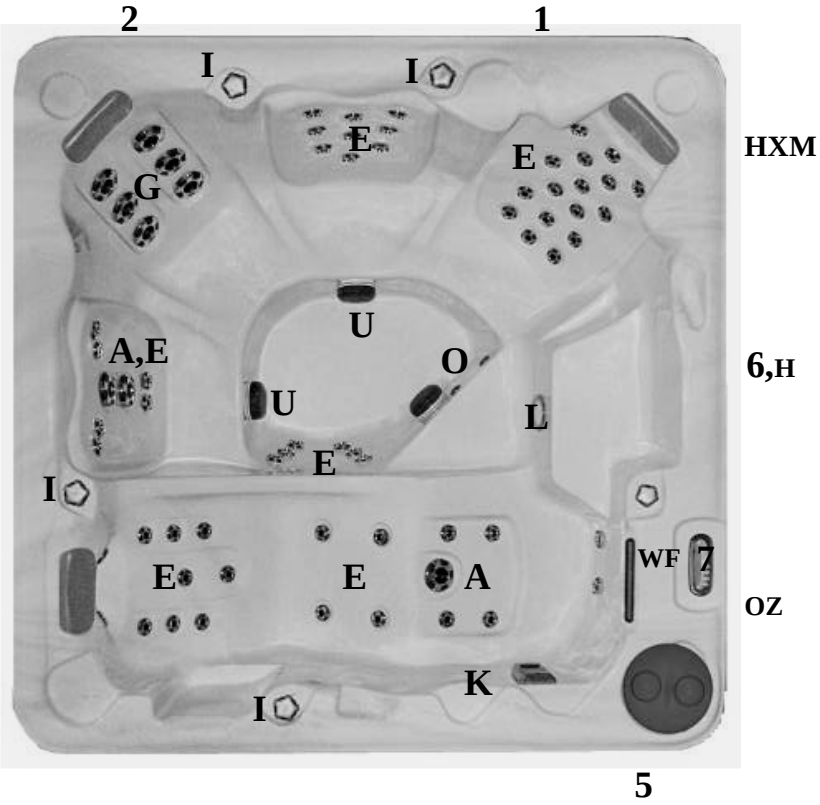
Seating Capacity	6
Shell Material	Acrylic
Dimensions (Domestic)	82” (6’10”) sq. x 36” (3’)
Dimensions (Export)	210 cm. sq. x 92 cm.
Water Capacity	375 Gallons (1,420 liters)
Dry Weight	665 lbs (302 kg)
Skirt Material	PermaWood™ or Cedar
Water Flow	428 Gallons per Minute

WATER SYSTEM** (photo ref)

Water Treatment System		Ozone Ready
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
Multissage Jet	P	0
Diverter Valves	V	0
Safety Suction	U	3
Mini Skimmer	K	1
Air Control	I	4
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows		3
Motion Glow™ Light		Optional
Stainless Steel Jetting		Optional
Waterfall Jet	WF	Optional
Waterfall Control Valve	C	Optional
SoundWave™ SE Audio		Optional*
Ozone Water Purification	OZ	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 XM Series	Gecko XE Series
Voltage		240	240	240
Amperage		40	2x16 / 1x32 / 3x16	2x16 / 1x32
Heater (heater location for XM can)	H HXM	4.0 KW	3.8 KW	4.0 KW
Operation System				
Main Spa Side Control	7	Gecko 450 Series	Gecko 450 Series	
Secondary Spa Side Control	8	N/A	N/A	

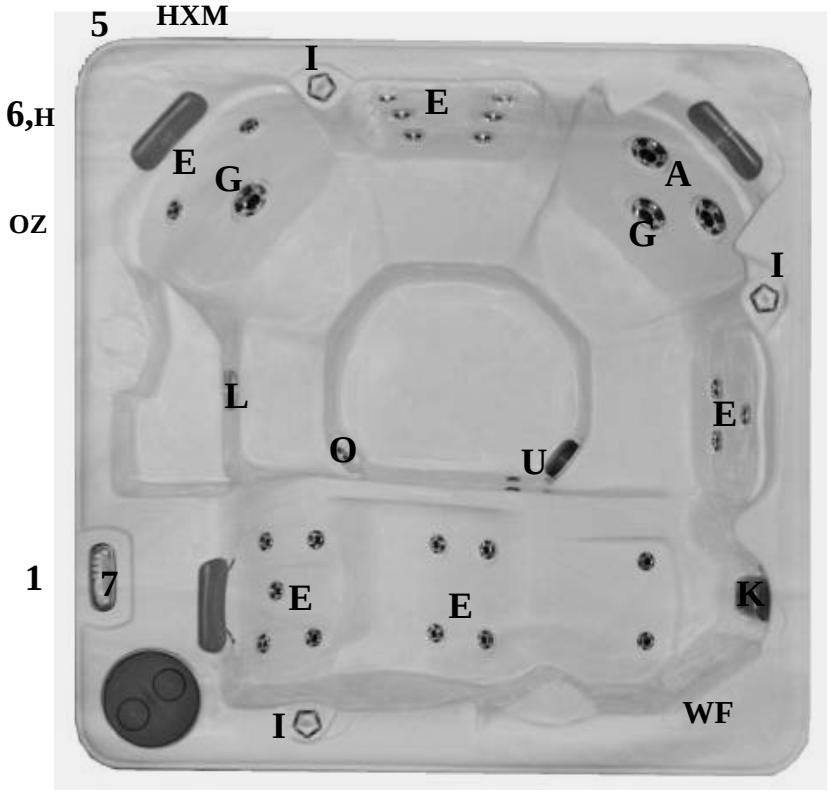
**** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install.**
Equipment location relates to slimline design, AdvantagePack option has major components located beneath end cabinet.
All specifications are accurate at time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

SE SERIES SPECIFICATIONS—COLUMBIA SPA MODEL

GENERAL	rev. 2009 / 01
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™ or Cedar
Water Flow	187 Gallons per Minute

WATER SYSTEM**	(photo ref)	
Water Treatment System		Ozone ready
Filter		25 sq. ft.
Slide Valves		2
Mega Swirl Jet	A	2
Large Euro Jet w/ Eyeball	E	28
Mega’ssage Jet	G	2
Multi’ssage Jet	P	0
Ozone Jet	O	2
Diverter Valves	V	0
Safety Suction	U	1
Mini Skimmer	K	1
Air Control	I	3
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES		
Spa Pillows		3
Motion Glow™ Light		Optional
Stainless Steel Jetting		Optional
Waterfall Jet	WF	Optional
Waterfall Control Valve		Optional
SoundWave™ SE Audio		N/A
Ozone Water Purification	OZ	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 XM Series	Gecko XE Series
Voltage		240	240	240
Amperage		40	2x16 / 1x32 / 3x16	2x16 / 1x32
Heater (heater location for XM can)	H HXM	4.0 KW	3.8 KW	4.0 KW
Operation System				
Main Spa Side Control	7	Gecko 450 Series	Gecko 450 Series	
Secondary Spa Side Control	8	N/A	N/A	

**** 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. 2009 / 01**

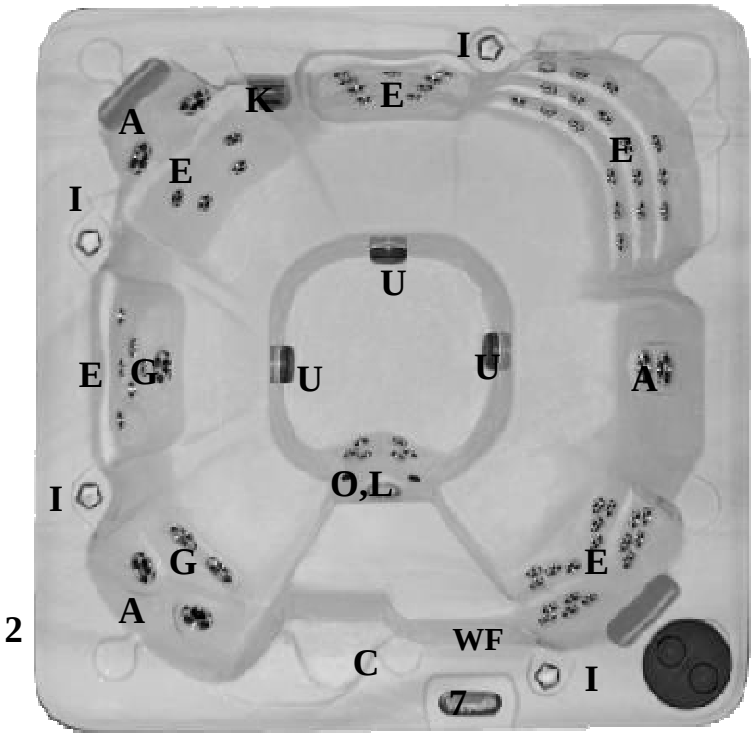
Seating Capacity	8
Shell Material	Acrylic
Dimensions (Domestic)	82” (6’10”) sq. x 39” (3’3”)
Dimensions (Export)	209 cm. sq. x 100 cm.
Water Capacity	425 Gallons (1,609 liters)
Dry Weight	645 lbs. (293 kg.)
Skirt Material	PermaWood™ or Cedar
Water Flow	428 Gallons per Minute

WATER SYSTEM** (photo ref.)

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

SPECIAL FEATURES

Spa Pillows		2
Motion Glow™ Light		Optional
Stainless Steel Jetting		Optional
Waterfall Jet	WF	Optional
Waterfall Control Valve	C	Optional
SoundWave™ SE Audio		Optional*
Ozone Water Purification	OZ	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 XM Series	Gecko XE Series
Voltage		240	240	240
Amperage		50	2x16 / 1x32 / 3x16	2x16 / 1x32
Heater (heater location for XM can)	H HXM	4.0 KW	3.8 KW	4.0 KW
Operation System				
Main Spa Side Control	7	Gecko 450 Series	Gecko 450 Series	
Secondary Spa Side Control	8	N/A	N/A	

**** 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. 2009 / 01**

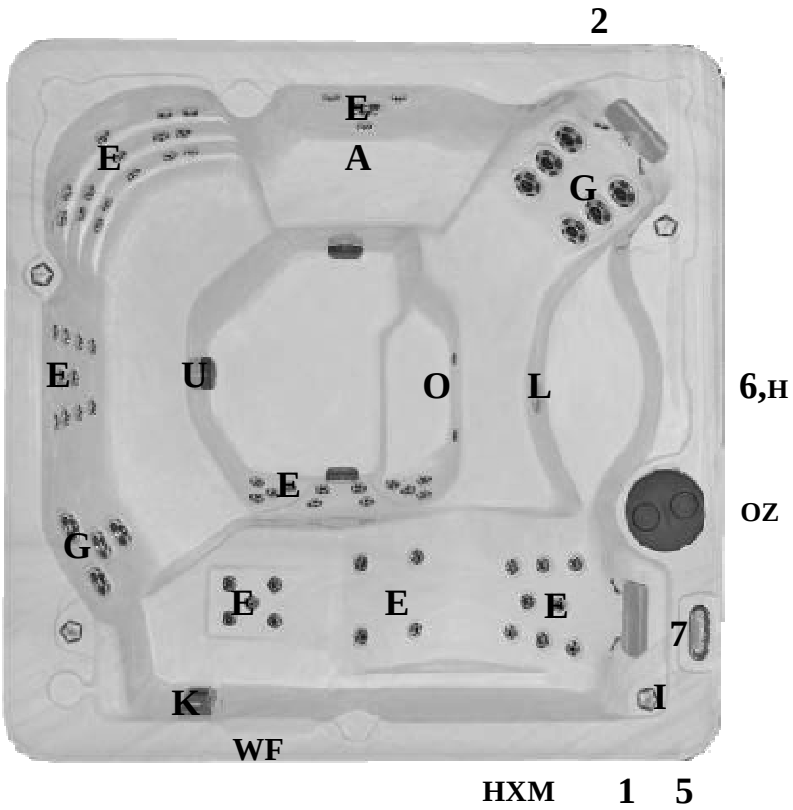
Seating Capacity	7
Shell Material	Acrylic
Dimensions (Domestic)	94” (7’10”) sq. x 39” (3’3”)
Dimensions (Export)	240 cm. sq. x 99 cm.
Water Capacity	520 Gallons (1,968 liters)
Dry Weight	750 lbs. (340 kg.)
Skirt Material	PermaWood™ or Cedar
Water Flow	428 Gallons per Minute

WATER SYSTEM** (photo ref.)

Water Treatment System		Ozone ready
Filter		25 sq. ft.
Slide Valves		4
Mega Swirl Jet	A	1
Large Euro Jet w/ Eyeball	E	63
Mega’ssage Jet	G	10
Multi’ssage Jet	P	0
Ozone Jet	O	2
Diverter Valves	V	0
Safety Suction	U	3
Mini Skimmer	K	1
Air Control	I	4
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows		2
Motion Glow™ Light		Optional
Stainless Steel Jetting		Optional
Waterfall Jet	WF	Optional
Waterfall Control Valve		Optional
SoundWave™ SE Audio		Optional*
Ozone Water Purification	OZ	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 XM Series	Gecko XE Series
Voltage		240	240	240
Amperage		50	2x16 / 1x32 / 3x16	2x16 / 1x32
Heater (heater location for XM can)	H HXM	4.0 KW	3.8 KW	4.0 KW
Operation System				
Main Spa Side Control	7	Gecko 450 Series	Gecko 450 Series	
Secondary Spa Side Control	8	N/A	N/A	

**** 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.

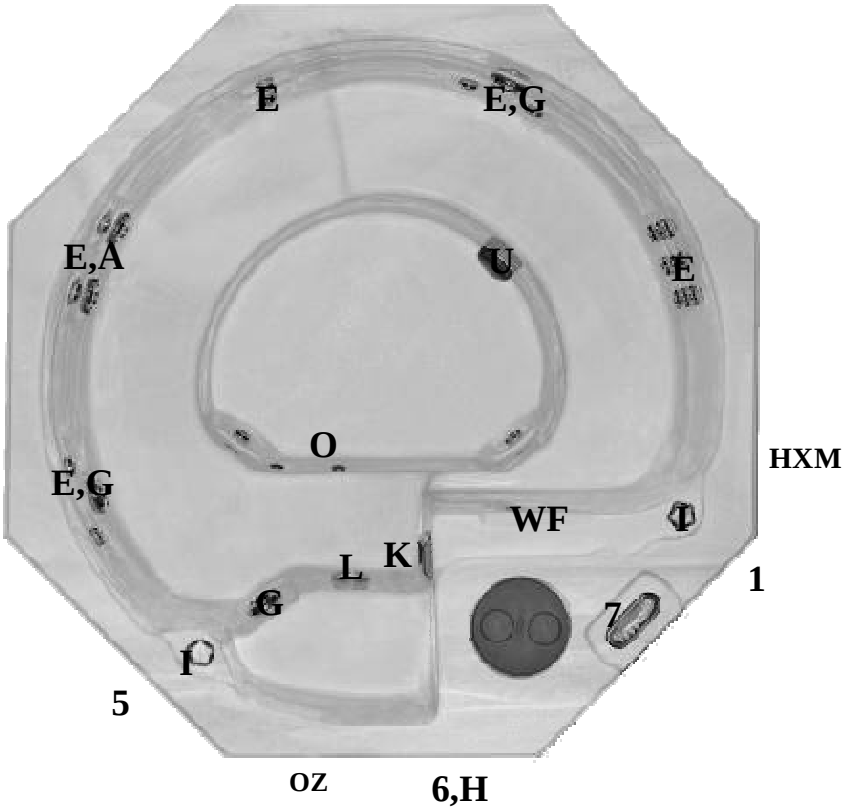
SE SERIES SPECIFICATIONS—VANCOUVER SPA MODEL

GENERAL **rev. 2009 / 01**

Seating Capacity	7
Shell Material	Acrylic
Dimensions (Domestic)	78” (6’6”) oct. x 37” (3’1”)
Dimensions (Export)	201 cm. oct. x 94 cm.
Water Capacity	325 Gallons (1,231 liters)
Dry Weight	575 lbs. (260 kg.)
Skirt Material	PermaWood™ or Cedar
Water Flow	187 Gallons per Minute

WATER SYSTEM** (photo ref.)

Water Treatment System		Ozone ready
Filter		25 sq. ft.
Slide Valves		2
Mega Swirl Jet	A	2
Large Euro Jet w/ Eyeball	E	19
Mega’ssage Jet	G	3
Multi’ssage Jet	P	0
Ozone Jet	O	2
Diverter Valves	V	0
Safety Suction	U	1
Mini Skimmer	K	1
Air Control	I	2
Spa Light	L	1
Drain Valve	5	1



SPECIAL FEATURES

Spa Pillows		0
Motion Glow™ Light		Optional
Stainless Steel Jetting		Optional
Waterfall Jet	WF	Optional
Waterfall Control Valve	C	Optional
SoundWave™ SE Audio		N/A
Ozone Water Purification	OZ	Optional

ELECTRICAL SYSTEM

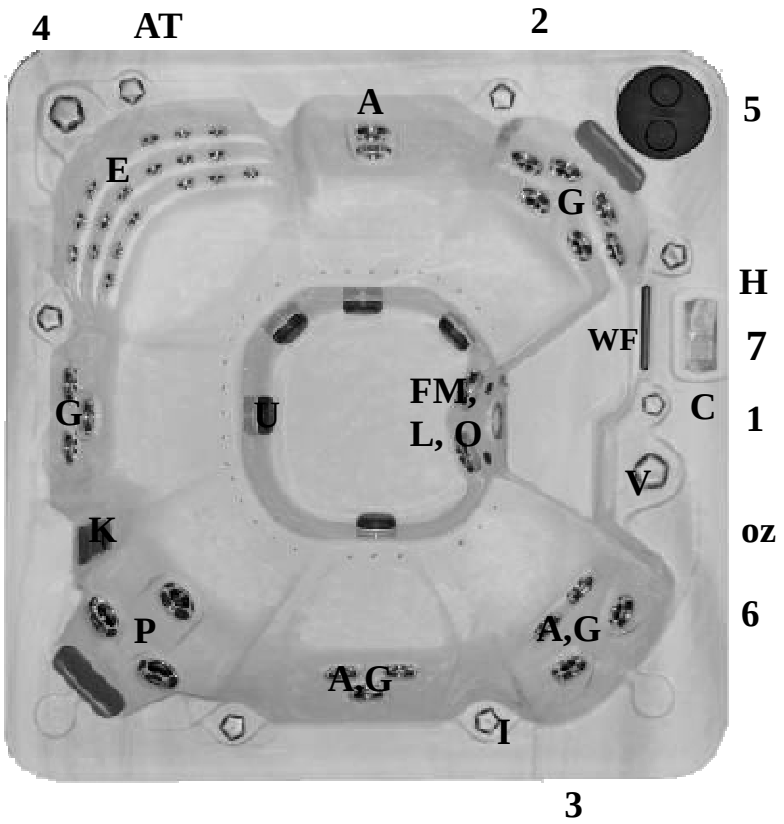
Pump Information	**Reference Number**	**Domestic (60Hz)**	**Export (50Hz)**	
Pump #1 peak (continuous) HP	1	4.0 (2.0) HP	4.0 (.0) HP	
Electronics				
Electrical Can	6	Gecko XE Series	Gecko XM Series	Gecko XE Series
Voltage		240	240	240
Amperage		40	2x16 / 1x32 / 3x16	2x16 / 1x32
Heater (heater location for XM can)	H HXM	4.0 KW	3.8 KW	4.0 KW
Operation System				
Main Spa Side Control	7	Gecko 450 Series	Gecko 450 Series	
Secondary Spa Side Control	8	N/A	N/A	

**** 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—ANTIGUA SPA MODEL

GENERAL **rev. 2009 / 01**

Seating Capacity	8
Shell Material	Acrylic
Dimensions (Domestic)	82” (6’10”) sq. x 39” (3’3”)
Dimensions (Export)	209 cm. sq. x 100 cm. sq.
Water Capacity	425 Gallons (1,609 liters)
Dry Weight	645 lbs (293 kg)
Skirt Material	Permawood™ or Cedar
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	20
Mega’ssage Jet	G	12
Ozone Jet	O	2
Multi’ssage Jet	P	1
Rotopulse	R	2
Shower Head	SH	3
Aromatherapy	AT	1
Foot Jet	FM	2
Diverter Valves	V	2
Safety Suction	U	5
Mini Skimmer	K	1
Air Control	I	5
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows	2
Motion Glow™ Light	Standard
Stainless Steel Jetting	Optional
Waterfall Jet /Control Valve WF, C	Standard
Illusion Lighting	Optional
SoundWave™ LX Audio	Optional*

ELECTRICAL SYSTEM

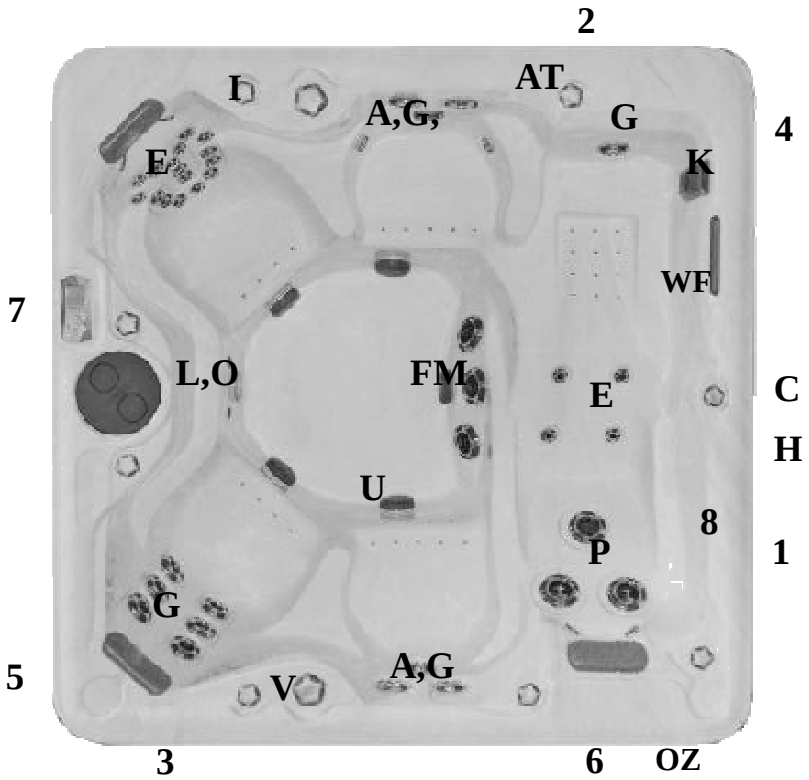
Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	4.0 (2.0) HP	4.0 (2.0) HP
Pump #3 peak (continuous) HP	3	4.0 (2.0) HP	4.0 (2.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		240	240
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 600 Series	Gecko 600 Series
Secondary Spa Side Control	8	Optional (100 Series)	Optional (100 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. 2009 / 01**

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™ or Cedar
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	2
Large Euro Jet w/ Eyeball	E	27
Mega’ssage Jet	G	9
Ozone Jet	O	2
Multi’ssage Jet	P	1
Rotopulse	R	2
Shower Head	SH	3
Aromatherapy	AT	1
Foot Jet	FM	3
Diverter Valves	V	2
Safety Suction	U	5
Mini Skimmer	K	1
Air Control	I	6
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows		3
Motion Glow™ Light		Standard
Stainless Steel Jetting		Optional
Waterfall Jet/Control Valve	WF, C	Standard
Illusion Lighting		Optional
SoundWave™ LX 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		240	240
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 600 Series	Gecko 600 Series
Secondary Spa Side Control	8	Optional (100 Series)	Optional (100 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.

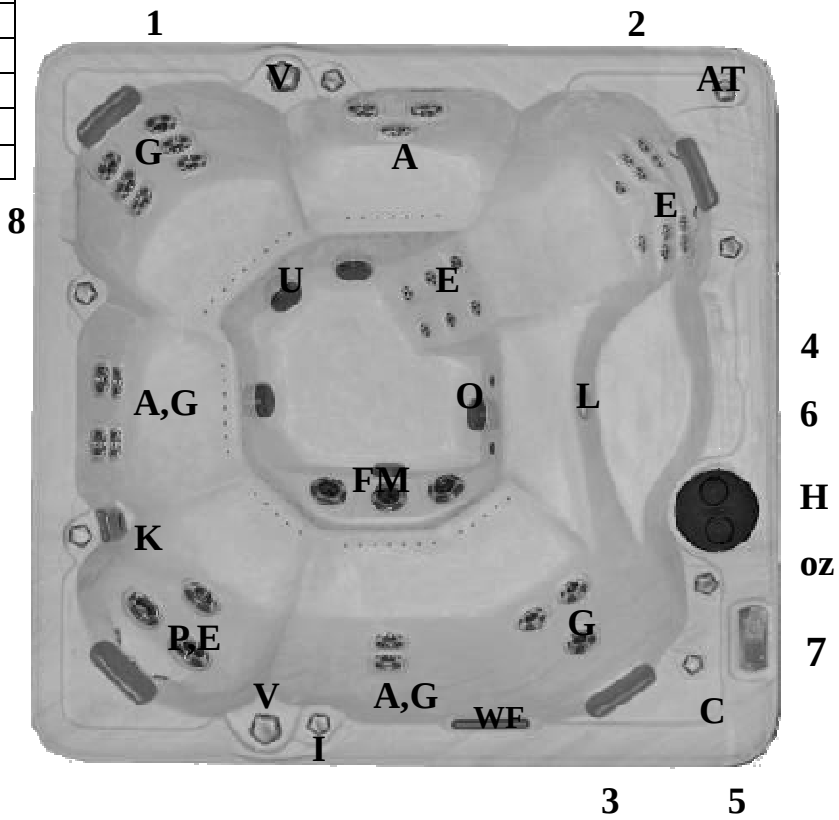
LX SERIES SPECIFICATIONS—BALI SPA MODEL

GENERAL **rev. 2009 / 01**

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™ or Cedar
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	22
Mega’ssage Jet	G	12
Ozone Jet	O	2
Multi’ssage Jet	P	1
Rotopulse	R	2
Shower Head	SH	0
Aromatherapy	AT	1
Foot Jet	FM	3
Diverter Valves	V	2
Safety Suction	U	5
Mini Skimmer	K	1
Air Control	I	6
Spa Light	L	1
Drain Valve	5	1



SPECIAL FEATURES

Spa Pillows		4
Motion Glow™ Light		Standard
Stainless Steel Jetting		Optional
Waterfall Jet/Control Valve	WF,C	Standard
Illusion Lighting		Optional
SoundWave™ LX 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		240	240
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 600 Series	Gecko 600 Series
Secondary Spa Side Control	8	Optional (100 Series)	Optional (100 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.
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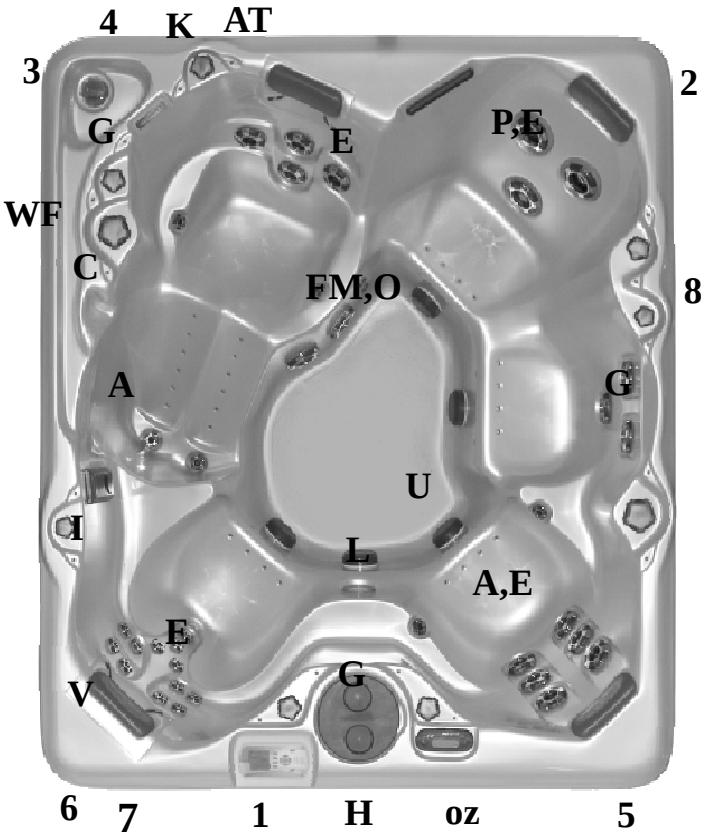
Dimensions are approximate.

LX SERIES SPECIFICATIONS—BISCAYNE SPA MODEL

GENERAL **rev. 2009 / 01**

Seating Capacity	6
Shell Material	Acrylic
Dimensions (Domestic)	90” (7’6”) x 79” (6’7”) x 36” (3’)
Dimensions (Export)	229 cm. x 201 cm. x 92 cm.
Water Capacity	325 Gallons (1,230 liters)
Dry Weight	725 lbs. (329 kg.)
Skirt Material	Permawood™ or Cedar
Water Flow	510 Gallons per Minute



WATER SYSTEM ** (photo ref.)

Water Treatment System	OZ	Ozonator
Filter		25 sq. ft.
Slide Valves		2
Mega Swirl Jet	A	3
Large Euro Jet w/ Eyeball	E	23
Mega’ssage Jet	G	7
Ozone Jet	O	2
Multi’ssage Jet	P	1
Rotopulse	R	2
Shower Head	SH	3
Aromatherapy	AT	1
Foot Jet	FM	2
Diverter Valves	V	2
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	Optional
Waterfall Jet/Control Valve WF, C	1
Illusion Lighting	Optional
SoundWave™ LX 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		240	240
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 600 Series	Gecko 600 Series
Secondary Spa Side Control	8	Optional (100 Series)	Optional (100 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.
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Dimensions are approximate.

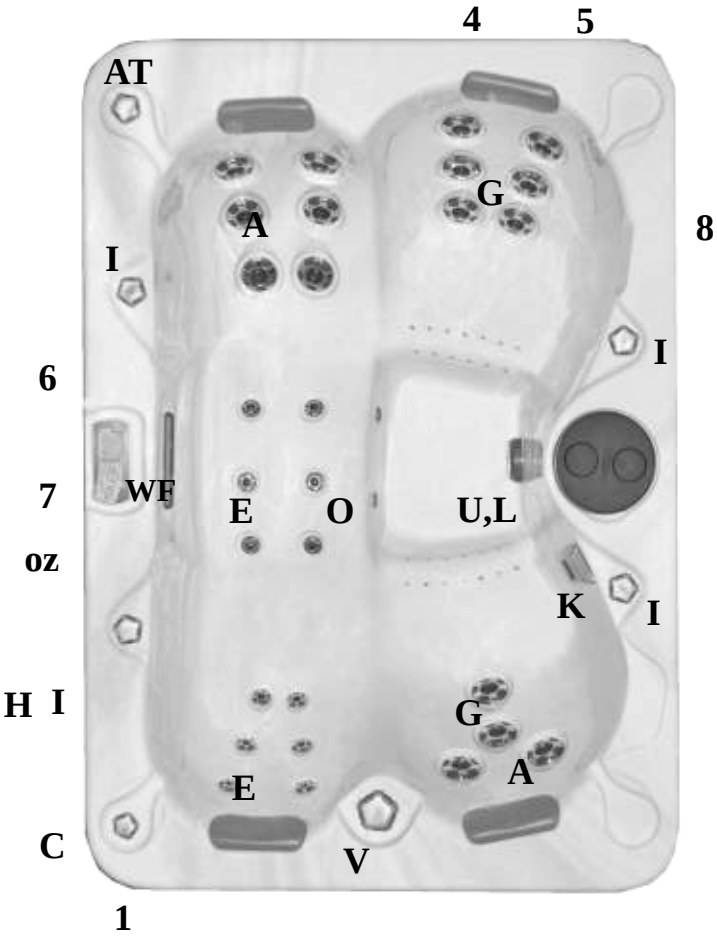
LX SERIES SPECIFICATIONS—CABO SPA MODEL

GENERAL **rev. 2009 / 01**

Seating Capacity	3-4
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™ or Cedar
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	6
Large Euro Jet w/ Eyeball	E	12
Mega’ssage Jet	G	6
Ozone Jet	O	2
Multi’ssage Jet	P	0
Rotopulse	R	0
Shower Head	SH	4
Aromatherapy	AT	1
Foot Jet	FM	0
Diverter Valves	V	1
Safety Suction	U	1
Mini Skimmer	K	1
Air Control	I	4
Spa Light	L	1
Drain Valve	5	1



SPECIAL FEATURES

Spa Pillows	4
Motion Glow™ Light	Standard
Stainless Steel Jetting	Optional
Waterfall Jet/Control Valve WF,C	Standard
Illusion Lighting	Optional
SoundWave™ LX Audio	Optional*

ELECTRICAL SYSTEM

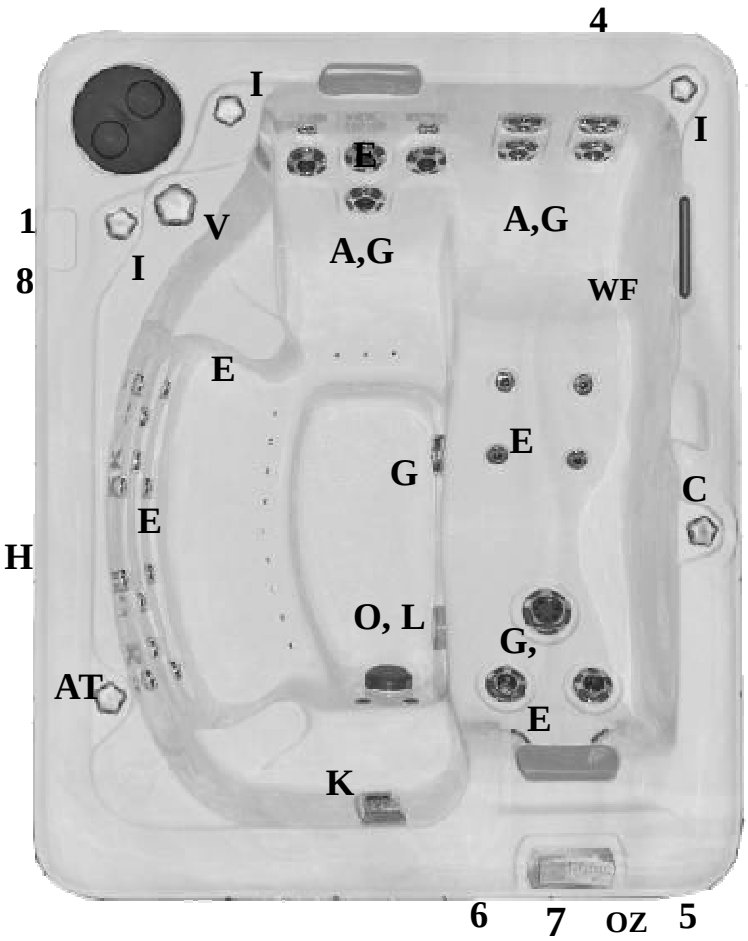
Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	4.0 (2.0) HP	4.0 (2.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		240	240
Amperage		40	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 600 Series	Gecko 600 Series
Secondary Spa Side Control	8	Optional (100 Series)	Optional (100 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—DYNASTY SPA MODEL

GENERAL **rev. 2009 / 01**

Seating Capacity	5
Shell Material	Acrylic
Dimensions (Domestic)	82” (6’10”) x 67” (5’7”) x 31”(2’7”)
Dimensions (Export)	211 cm. x 168 cm. x 79 cm.
Water Capacity	200 Gallons (757 liters)
Dry Weight	575 lbs (261 kg)
Skirt Material	Permawood™ or Cedar
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	2
Large Euro Jet w/ Eyeball	E	21
Mega’ssage Jet	G	2
Ozone Jet	O	2
Multi’ssage Jet	P	1
Rotopulse	R	2
Shower Head	SH	4
Aromatherapy	AT	1
Foot Jet	FM	0
Diverter Valves	V	1
Safety Suction	U	1
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		Optional
Waterfall Jet/Control Valve	WF,C	Standard
Illusion Lighting		Optional
SoundWave™ LX 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		240	240
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 600 Series	Gecko 600 Series
Secondary Spa Side Control	8	Optional (100 Series)	Optional (100 Series Gecko)

**** Not every jet is referenced. Each type of jet is noted for ease of identification. *Note location of audio components prior to install.**
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Dimensions are approximate.

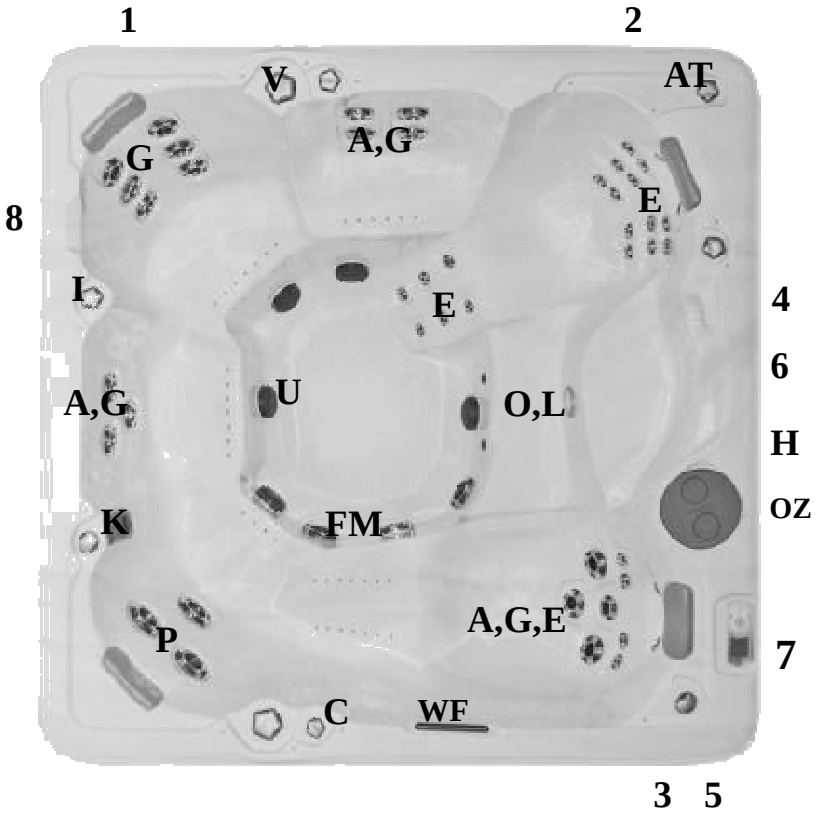
LX SERIES SPECIFICATIONS—FIJI SPA MODEL

GENERAL **rev. 2009 / 01**

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™ or Cedar
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	29
Mega’ssage Jet	G	9
Ozone Jet	O	2
Multi’ssage Jet	P	1
Rotopulse	R	2
Shower Head	SH	4
Aromatherapy	AT	1
Foot Jet	FM	3
Diverter Valves	V	2
Safety Suction	U	5
Mini Skimmer	K	1
Air Control	I	5
Spa Light	L	1
Drain Valve	5	1



SPECIAL FEATURES

Spa Pillows		4
Motion Glow™ Light		Standard
Stainless Steel Jetting		Optional
Waterfall Jet/Control Valve	WF,C	Standard
Illusion Lighting		Optional
SoundWave™ LX Audio		Optional*

ELECTRICAL SYSTEM

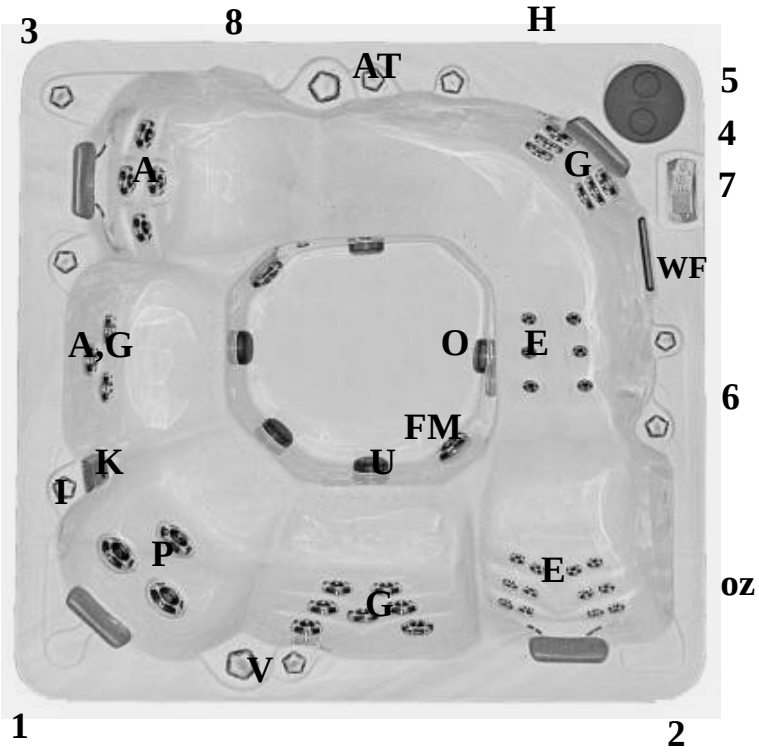
Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	4.0 (2.0) HP	4.0 (2.0) HP
Pump #3 peak (continuous) HP	3	4.0 (2.0) HP	4.0 (2.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		240	240
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 600 Series	Gecko 600 Series
Secondary Spa Side Control	8	Optional (100 Series)	Optional (100 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. 2009 / 01**

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	705 lbs (320 kg)
Skirt Material	Permawood™ or Cedar
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	24
Mega’ssage Jet	G	11
Ozone Jet	O	2
Multi’ssage Jet	P	1
Rotopulse	R	2
Shower Head	SH	3
Aromatherapy	AT	1
Foot Jet	FM	2
Diverter Valves	V	2
Safety Suction	U	5
Mini Skimmer	K	1
Air Control	I	6
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows		4
Motion Glow™ Light		Standard
Stainless Steel Jetting		Optional
Waterfall Jet/ Control Valve	WF,C	Standard
Illusion Lighting		Optional
SoundWave™ LX 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		240	240
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 600 Series	Gecko 600 Series
Secondary Spa Side Control	8	Optional (100 Series)	Optional (100 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.

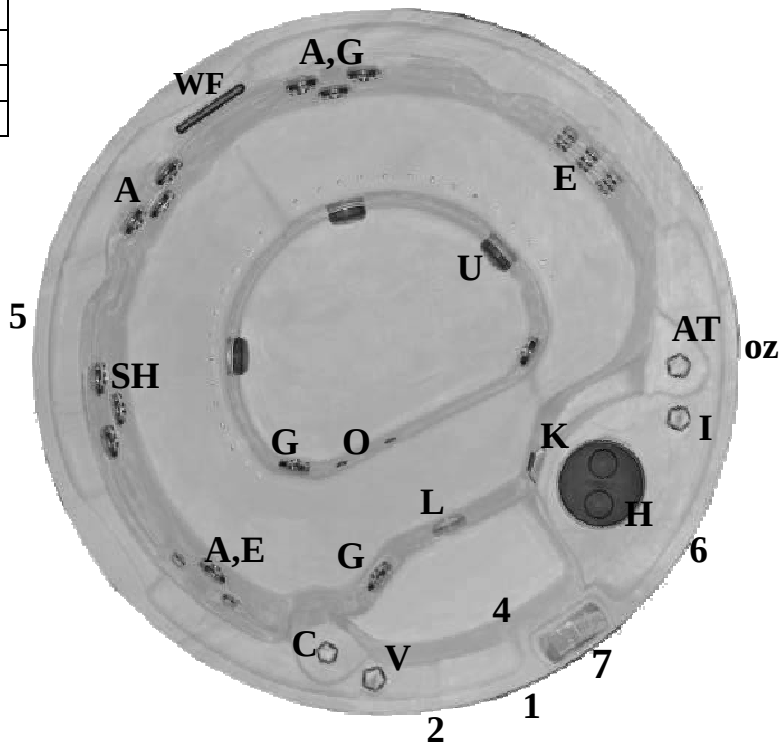
LX SERIES SPECIFICATIONS—RIO SPA MODEL

GENERAL **rev. 2009 / 01**

Seating Capacity	6
Shell Material	Acrylic
Dimensions (Domestic)	83” (6’10”) rd. x 38” (3’1”)
Dimensions (Export)	208 cm. sq. x 94 cm.
Water Capacity	325 Gallons (1,230 liters)
Dry Weight	593 lbs (269 kg)
Skirt Material	Permawood™ or Cedar
Water Flow	306 Gallons per Minute

WATER SYSTEM** (photo ref.)

Water Treatment System	OZ	Ozonator
Filter		25 sq. ft.
Slide Valves		4
Mega Swirl Jet	A	5
Large Euro Jet w/ Eyeball	E	11
Mega’ssage Jet	G	5
Ozone Jet	O	2
Multi’ssage Jet	P	0
Rotopulse	R	0
Shower Head	SH	3
Aromatherapy	AT	1
Foot Jet	FM	0
Diverter Valves	V	0
Safety Suction	U	3
Mini Skimmer	K	1
Air Control	I	2
Spa Light	L	1
Drain Valve	5	1



SPECIAL FEATURES

Spa Pillows		0
Motion Glow™ Light		Standard
Stainless Steel Jetting		Optional
Waterfall Jet/ Control Valve	WF,C	Standard
Illusion Lighting		Optional
Spa Bullet Audio		Optional

ELECTRICAL SYSTEM

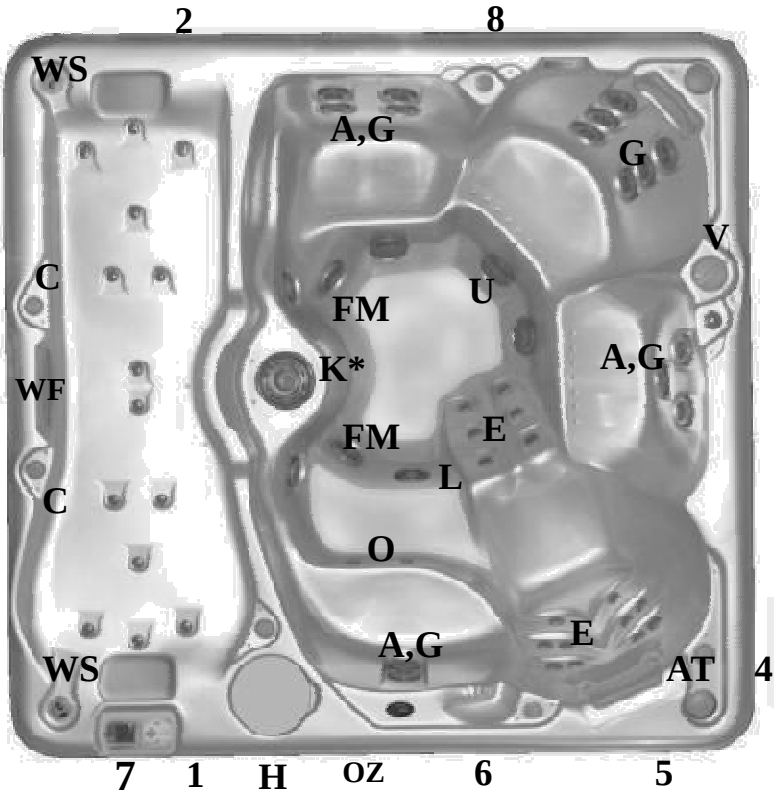
Pump Information	Reference Number	Domestic (60Hz)	Export (50Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	4.0 (2.0) HP	4.0 (2.0) HP
Pump #3 peak (continuous) HP	3	4.0 (2.0) HP	4.0 (2.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		240	240
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 600 Series	Gecko 600 Series
Secondary Spa Side Control	N/A	n/a	n/a

**** 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—SUNRISE SPA MODEL

GENERAL **rev. 2009 / 01**

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	425 Gallons (1,615 liters)
Dry Weight	670 lbs (302 kg)
Skirt Material	Permawood™ or Cedar
Water Flow	428 Gallons per Minute



WATER SYSTEM** (photo ref.)

Water Treatment System	OZ	Ozonator
Filter		25 sq. ft.
Slide Valves		6
Mega Swirl Jet	A	2
Large Euro Jet w/ Eyeball	E	16
Mega’ssage Jet	G	11
Ozone Jet	O	2
Multi’ssage Jet	P	0
Rotopulse	R	0
Shower Head	SH	4
Aromatherapy	AT	1
Foot Jet	FM	2
Diverter Valves	V	1
Safety Suction	U	3
AquaSure™ Dual Filtration	K*	1
Air Control	I	3
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows		4
Motion Glow™ Light		Standard
Stainless Steel Jetting		Optional
Waterfall Jet/ Control Valve	WF,C	Standard
2 Water Spout / Control	WS,C	Standard
Cascading Water Pool		Standard
Illusion Lighting		Standard
SoundWave™ LX 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	6.0 (3.0) HP	6.0 (3.0) HP
Air Bubbler	4	1.5 HP	1.5 HP
Electronics			
Electrical Can	6	Gecko XM Series	Gecko XM Series
Voltage		240	240
Amperage		50	2x16 / 1x32 / 3x16
Heater	H	4.0 KW	3.8 KW
Operation System			
Main Spa Side Control	7	Gecko 600 Series	Gecko 600 Series
Secondary Spa Side Control	8	Optional (100 Series)	Optional (100 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.

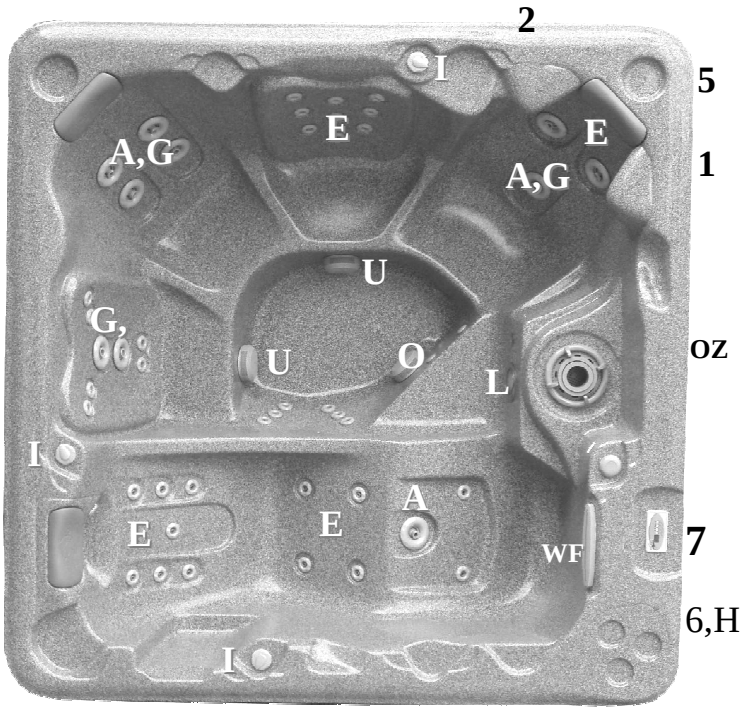
AT SERIES SPECIFICATIONS—MYSTIC SPA MODEL

GENERAL **rev. 8/2008**

Seating Capacity	5
Shell Material	Acrylic
Dimensions (Domestic)	82” (6’10”) sq. x 36” (3’)
Dimensions (Export)	208 cm. sq. x 91 cm. sq.
Water Capacity	375 Gallons (1,420 liters)
Dry Weight	665 lbs (302 kg)
Skirt Material	PermaWood™
Water Flow	250 Gallons per Minute

WATER SYSTEM** (photo ref)

Water Treatment System	OZ	Standard
Filter suction-side		25 sq. ft.
Slide Valves		4
Mega Swirl Jet	A	5
Large Euro Jet w/ Eyeball	E	38
Mega’ssage Jet	G	5
Ozone Jet	O	2
Multissage Jet	P	0
Diverter Valves	V	0
Safety Suction	U	3
Mini Skimmer	K	0
Air Control	I	3
Spa Light	L	1
Drain Valve	5	1



SPECIAL FEATURES

Spa Pillows		3
Motion Glow™ Light		Standard
Stainless Steel Jetting		N/A
Waterfall Jet	WF	Standard
Waterfall Control Valve	C	Standard
SoundWave™ AT Audio		Optional

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)
Pump #1 peak (continuous) HP	1	2.0 (1.0) HP
Pump #2 peak (continuous) HP	2	4.0 (2.0) HP
Electronics		
Electrical Can	6	Gecko XE Series
Voltage		240
Amperage		40
Heater	H	4.0 KW
Operation System		
Main Spa Side Control	7	Gecko 450 Series
Secondary Spa Side Control	8	N/A

**** 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.**

AT SERIES SPECIFICATIONS—ISLE SPA MODEL

GENERAL **rev. 8/2008**

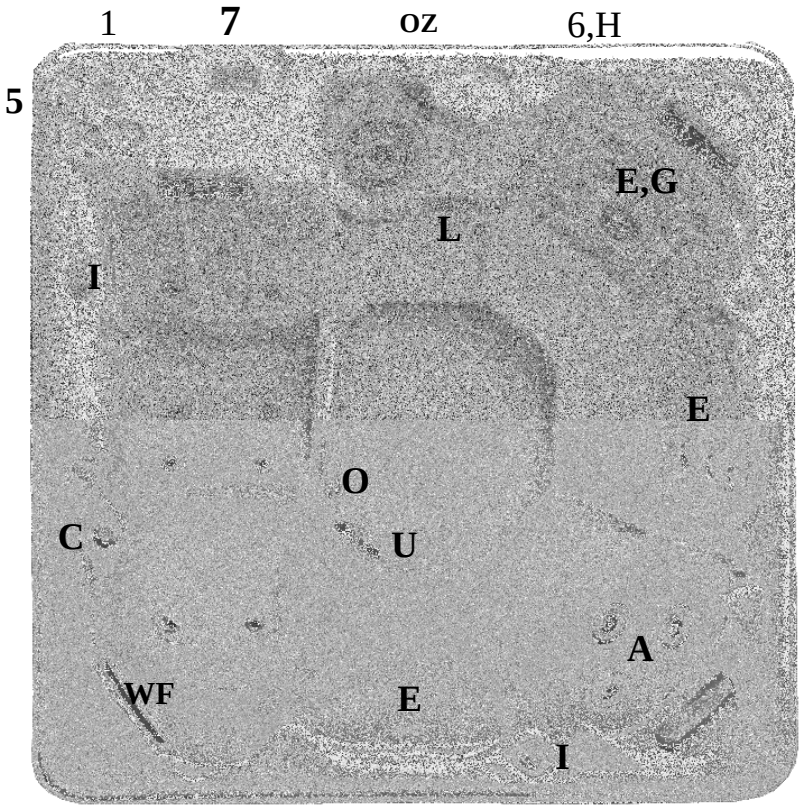
Seating Capacity	5
Shell Material	Acrylic
Dimensions (Domestic)	76” (6’4”) sq. x 31” (2’7”)
Dimensions (Export)	194 cm. sq. x 79 cm.
Water Capacity	275 Gallons (1,041 liters)
Dry Weight	530 lbs. (240 kg.)
Skirt Material	PermaWood™
Water Flow	187 Gallons per Minute

WATER SYSTEM** **(photo ref)**

Water Treatment System	OZ	Standard
Filter suction-side		25 sq. ft.
Slide Valves		2
Mega Swirl Jet	A	3
Large Euro Jet w/ Eyeball	E	27
Mega’ssage Jet	G	1
Multi’ssage Jet	P	0
Ozone Jet	O	2
Diverter Valves	V	0
Safety Suction	U	1
Mini Skimmer	K	0
Air Control	I	3
Spa Light	L	1
Drain Valve	5	1

SPECIAL FEATURES

Spa Pillows		3
Motion Glow™ Light		Standard
Stainless Steel Jetting		N/A
Waterfall Jet	WF	Standard
Waterfall Control Valve	C	Standard
SoundWave™ AT Audio		N/A



ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)
Pump #1 peak (continuous) HP	1	4.0 (2.0) HP
Electronics		
Electrical Can	6	Gecko XE Series
Voltage		240
Amperage		40
Heater	H	4.0 KW
Operation System		
Main Spa Side Control	7	Gecko 450 Series
Secondary Spa Side Control	8	N/A

**** Not every jet is referenced. Each type of jet is noted for ease of identification.**
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.

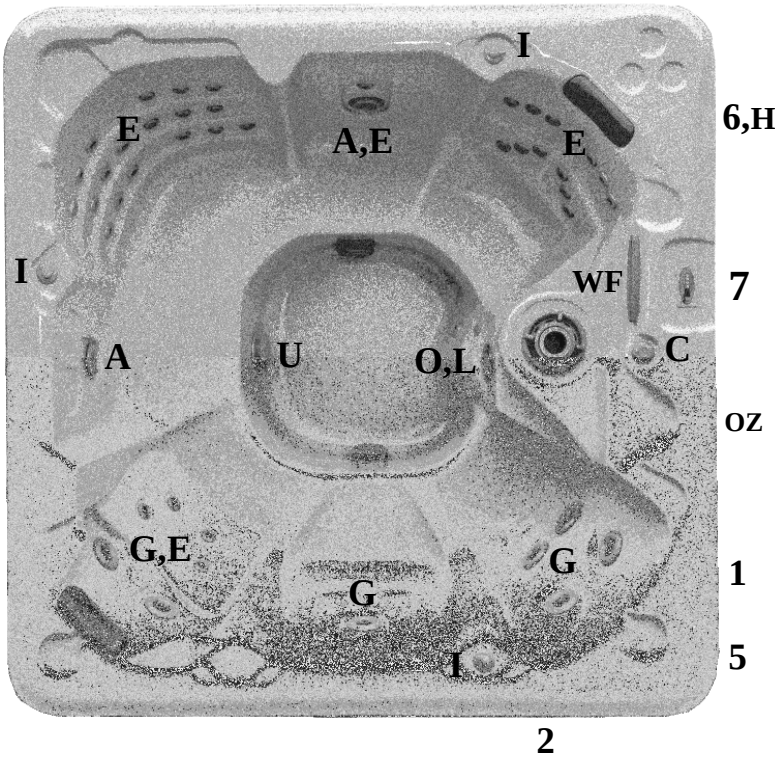
AT SERIES SPECIFICATIONS—MIRAGE SPA MODEL

GENERAL **rev. 8/2008**

Seating Capacity	8
Shell Material	Acrylic
Dimensions (Domestic)	82” (6’10”) sq. x 39” (3’3”)
Dimensions (Export)	208 cm. sq. x 99 cm. sq.
Water Capacity	425 Gallons (1,609 liters)
Dry Weight	645 lbs. (293 kg.)
Skirt Material	PermaWood™
Water Flow	250 Gallons per Minute

WATER SYSTEM** **(photo ref.)**

Water Treatment System		Ozone Standard
Filter suction-side		25 sq. ft.
Slide Valves		4
Mega Swirl Jet	A	2
Large Euro Jet w/ Eyeball	E	39
Mega’ssage Jet	G	7
Multi’ssage Jet	P	0
Ozone Jet	O	2
Diverter Valves	V	0
Safety Suction	U	3
Mini Skimmer	K	0
Air Control	I	3
Spa Light	L	1
Drain Valve	5	1



SPECIAL FEATURES

Spa Pillows		2
Motion Glow™ Light		Standard
Stainless Steel Jetting		N/A
Waterfall Jet	WF	Standard
Waterfall Control Valve	C	Standard
SoundWave™ AT Audio		Optional*

ELECTRICAL SYSTEM

Pump Information	Reference Number	Domestic (60Hz)
Pump #1 peak(Continuous) HP	1	2.0 (1.0) HP
Pump #2 peak(Continuous) HP	2	4.0 (2.0) HP
Electronics		
Electrical Can	6	Gecko XE Series
Voltage		240
Amperage		50
Heater	H	4.0 KW
Operation System		
Main Spa Side Control	7	Gecko 450 Series
Secondary Spa Side Control	8	N/A

**** 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.**

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 (G.F.C.I.)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.

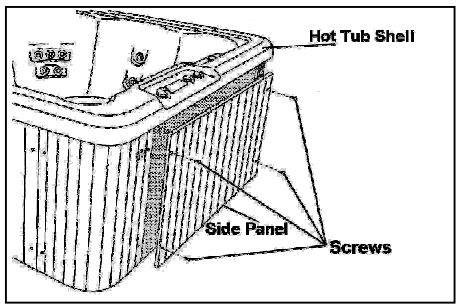
A QUICK DISCONNECT (MANUAL DISCONNECT) IS TO BE INSTALLED BETWEEN 5 - 15 FT (1.5-4.6 M) OF THE SPA AND WITHIN THE LINE OF SIGHT FROM THE HOT TUB. CONSIDER WHERE THIS CAN BE LOCATED WHEN SELECTING AND PREPARING THE SPA SITE. ALL WIRING MUST COMPLY WITH THE U.S. NATIONAL ELECTRIC CODE.

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. ALLOW EASY ACCESS TO ALL COMPONENTS. THIS DESIGN ALSO FEATURES A SIDE DRAIN FOR EMPTYING.

EQUIPMENT LOCATION

FOR SLIMLINE DESIGN SPAS:

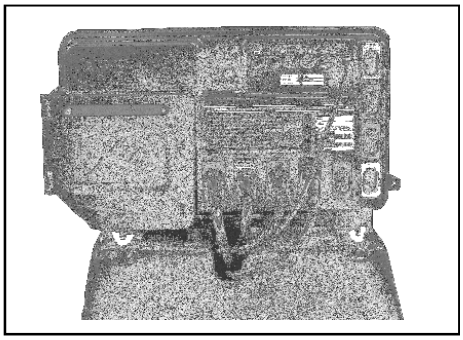
AFTER THE HOT TUB HAS BEEN PLACED IN THE DESIRED LOCATION REMOVE A CABINET ACCESS PANEL USING A SQUARE HEAD SCREWDRIVER. (SEE ILLUSTRATION)



NEXT, PULL AWAY THE CABINET PANEL AND LOCATE THE ELECTRICAL BOX, PUMP (OR PUMPS), AIR BLOWER. NOTE THE HEATER ATTACHED BEHIND THE ELECTRICAL BOX. 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.

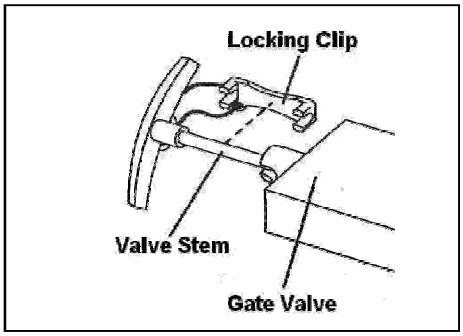
FOR SLIMLINE AND ADVANTAGEPACK DESIGN SPAS:

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 MAY BE USED ON THE SE AND AT SERIES SPAS. REFER TO THE SPA SPECIFICATION PAGE TO IDENTIFY THE CORRECT PLATFORM FOR YOUR SPA UNIT..



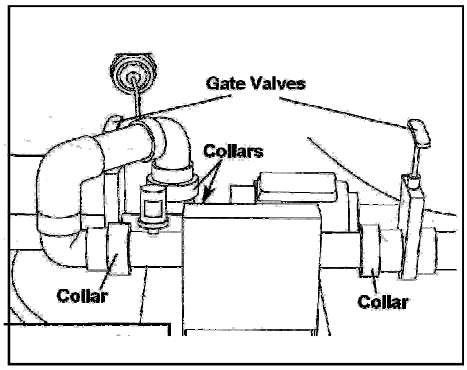
FOR SLIMLINE AND ADVANTAGEPACK DESIGN SPAS:

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



FOR SLIMLINE AND ADVANTAGEPACK DESIGN SPAS:

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



• THE SPA SUPPORT EQUIPMENT MUST BE PLACED AT OR BELOW THE WATER LEVEL OF THE SPA.

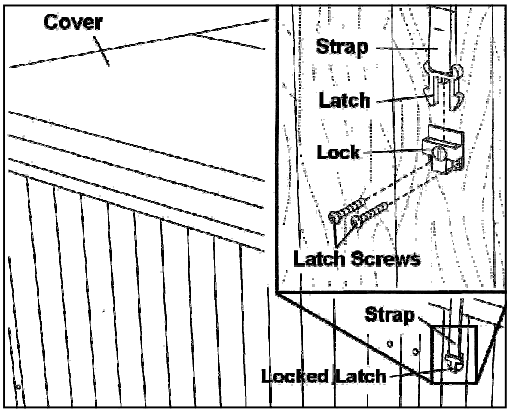
• NEVER PLACE THE EQUIPMENT ABOVE THE SPA WATER LEVEL.

• ALL PDC EQUIPMENT MUST BE IN A SHELTERED ENVIRONMENT THAT WILL PROTECT THE EQUIPMENT FROM RAIN, SLEET, SNOW, AND DIRECT SUNLIGHT.

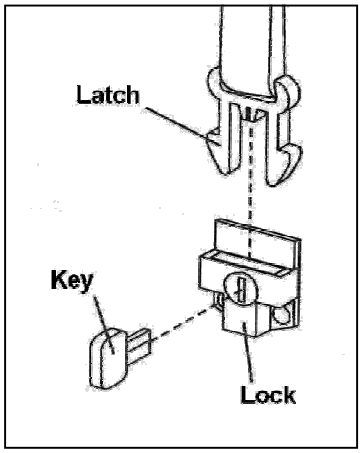
REFER TO SPA SPECIFICATION PAGES IN THIS MANUAL FOR THE LOCATION OF EQUIPMENT FOR THE MODEL YOU HAVE CHOSEN. INSTALLATION AND WIRING IS TO BE COMPLETED BY A QUALIFIED ELECTRICIAN.

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 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.**
- **PRIOR TO EACH USE, TESTING OF THE GFCI (OR EQUIVALENT) IS REQUIRED. REFER TO THE MAINTE NANCE 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)***
- **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

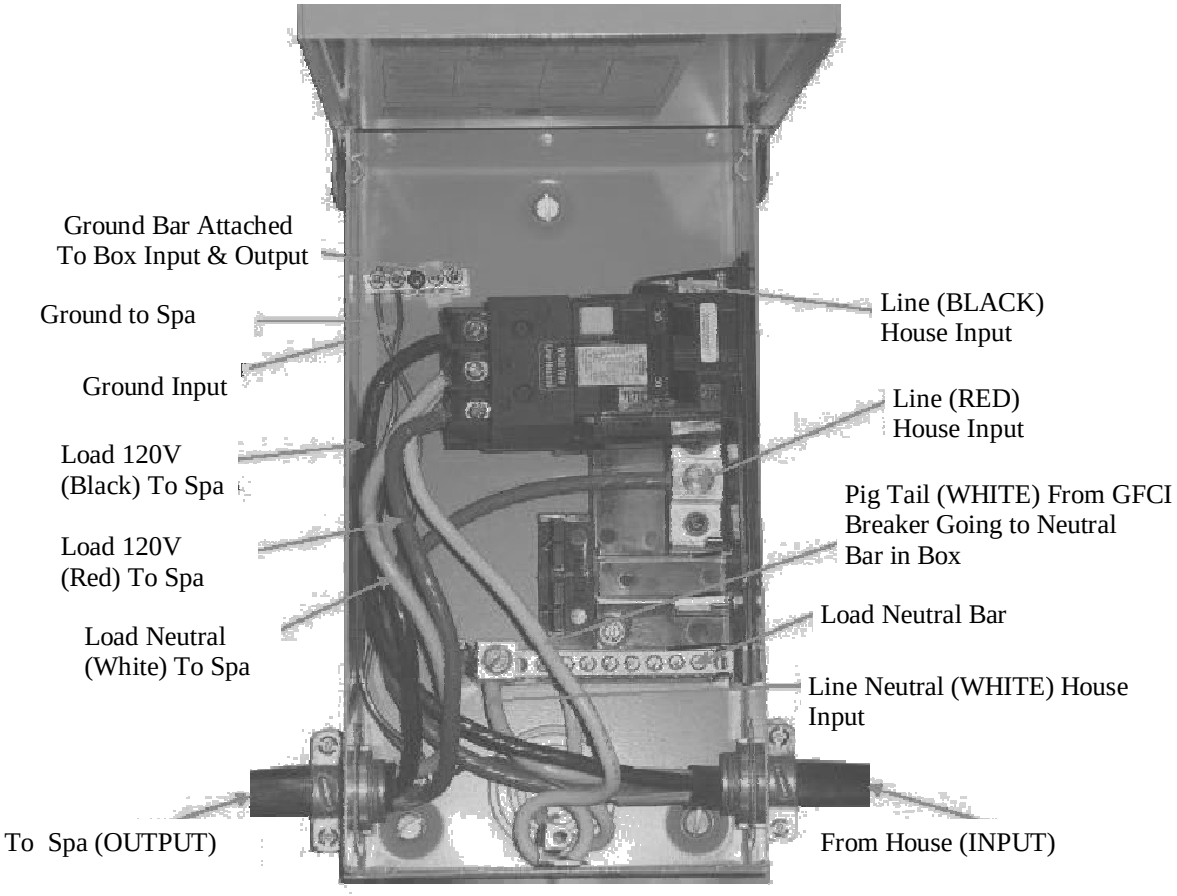
* NATIONAL U.S. CODE RECOMMENDS DISTANCE NOT TO EXCEED 15 FT.

WIRING GUIDELINES - STATE-SIDE (U.S. INSTALLATIONS)

ATTENTION ELECTRICIAN:

ALL PDC 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 SPA OCCUPANTS. THIS DIAGRAM IS A "TYPICAL" INSTALLATION TO BE USED ONLY AS A REFERENCE FOR THE INSTALLING ELECTRICIAN.

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 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.

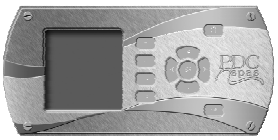
IMPORTANT: 6 GAUGE COPPER WIRE MUST BE USED
TEST GFCI MONTHLY AND PRIOR TO EACH USE.

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 600 Series control on all LX Series Units

IN.XM PLATFORM CONTROL CENTER

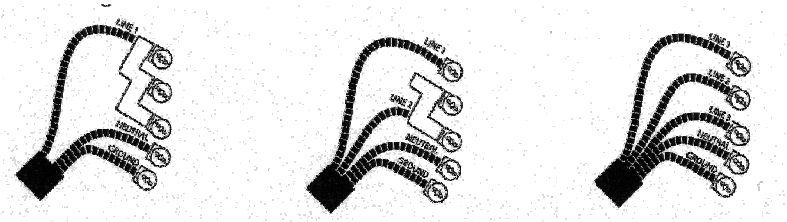
1 x 230 VAC (1 x 32A) single phase,
or
1 x 230 VAC (2 x 16A) dual phase,
or
1 x 230 VAC (3 x 16A) three phase

SE Series upgraded platform, 400 Series control

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

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).



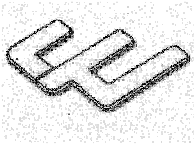
1x230 VAC(1x32A) Single phase | **1x230 VAC(2x16A) Dual phase** | **1x230 VAC(3x16A) Three phase**

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.

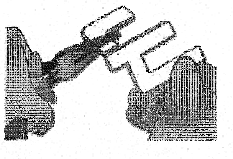
Make sure all accessories are linked to the bonding connector and connected to the pack. Electrical connections should be made only by qualified personnel and in accordance with local regulations.

WIRING INSTALLATION—EXPORT GUIDELINES IN.XM CE



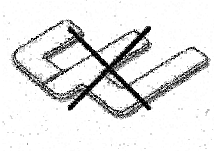
Case 1
Single-phase 1 x 230 VAC
(32 A max)
The installation of electrical circuit jumpers is needed in certain input supply configurations.

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



Case 2
Dual-phase 1 x 230 VAC
(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 VAC
(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

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)

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.

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.

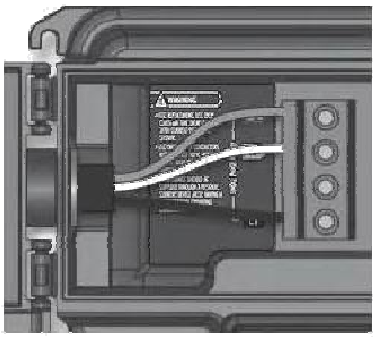
INSTALLATION GUIDELINES for IN.XE CE

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.

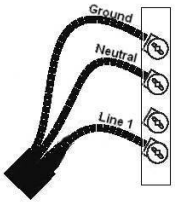
Warning! This product must always be connected to a circuit protected by a residual-current device (RCD) having a rated operating residual-current not exceeding 30 mA. Proper wiring of the electrical service box, RCD and in.xe.ce terminal block is essential! Check your electrical code for local regulations.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

IN.XE PLATFORM CONTROL CENTER

1 x 230 VAC (1 x 32A) single phase,
or
1 x 230 VAC (2 x 16A) dual phase **
(available mid-2008)



In.XE CE 230 VAC
Single phase ONLY



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 VAC nominal
(Single phase input Only; multi-phase not supported)
32 A absolute maximum, 50 Hz nominal.

**** Contact your retailer for electrical specifications and connection instructions when this option becomes available.**

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 TEMPERA TURE 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.

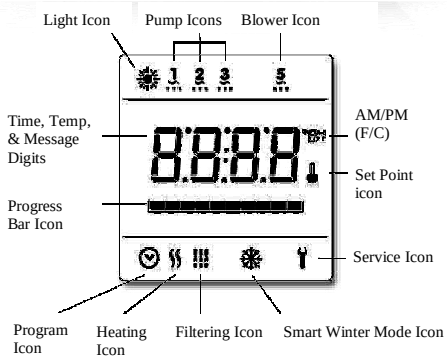
14. COVER THE SPA WITH THERMAL COVER TO MAINTAIN TEMPERATURE AND LOCK FOR SAFETY.

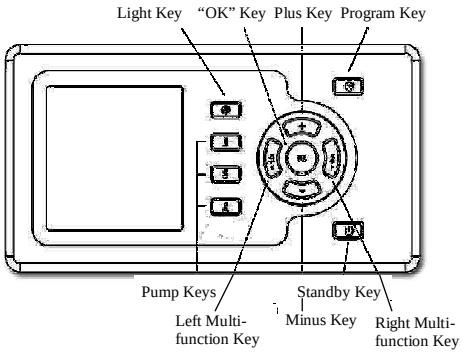
OPERATION SYSTEMS -600 SERIES CONTROL

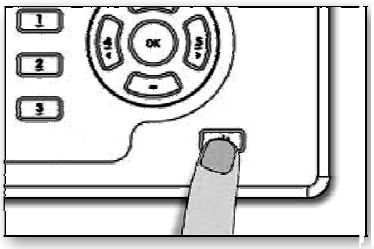
WARNING: READ ALL INSTRUCTIONS BEFORE USING THE SPA. PDC Spas, PDC International assumes no responsibility for personal injury or property damage sustained by or through the use of this product. When installing and using this equipment basic safety precautions should always be taken to reduce risk of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

In.K 100 Partner Control (optional)
This control offers convenience of spa operation at a second location. Operates pumps 1,2,3, and light.

In.K 600 Series Control Window and Icons

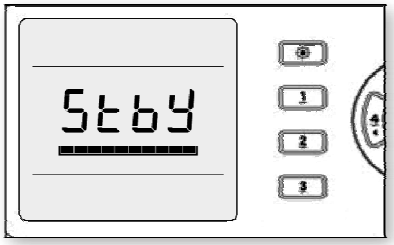






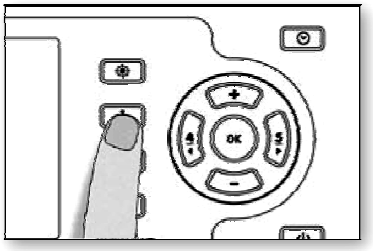
Standby Mode
Use **Standby** key to pause pumps

Progress bar will display the remaining time before the system automatically exits Standby mode (user can also exit Standby mode at any time by pressing again on



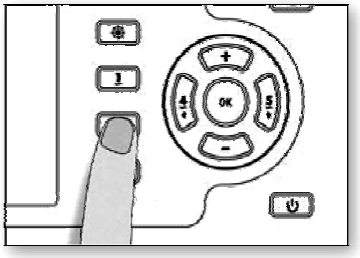
In order to warn the user, the spa light will flash for a few seconds before the exit of Standby mode and restart the pumps. The "Stby" message is also displayed during Standby mode.

** Pump will stay turned on if there is a request for more heat.*



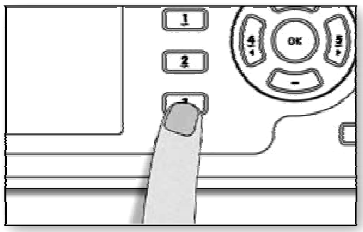
Pump 1 key
Press **Pump 1** key to turn Pump 1 on at low speed. Press a second time to turn pump to high speed. Another press turns pump off.

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). Press another time to turn pump off.

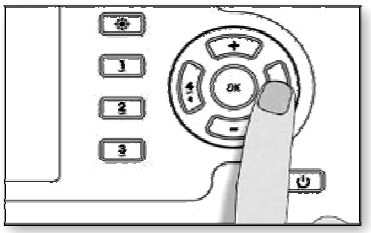
A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.



Pump 3 key
Press **Pump 3** key to turn Pump 3 on at high speed.

Press a second time to turn pump off.

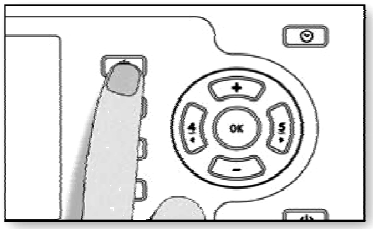
A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.



Blower key
Press **Blower** key to turn blower on.

Press a second time to turn blower off.

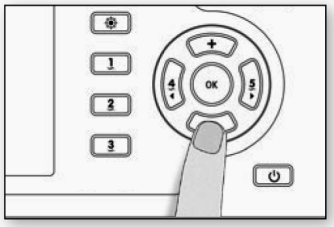
A built-in timer automatically turns blower off after 20 minutes, unless blower has been manually deactivated first.



Light key
Press **Light** key to turn light on.

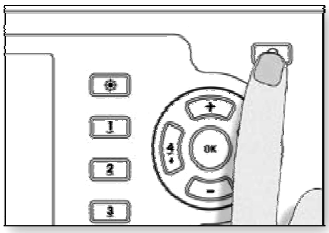
Press a second time to turn light off. Repeatedly turning on/off key toggles between color selections.

A built-in timer automatically turns light off after 2 hours, unless it has been manually deactivated first.



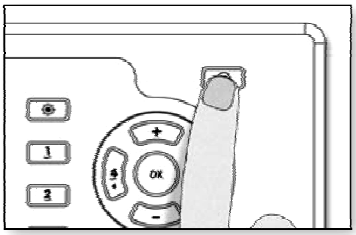
+ / - keys
Use (+) or (-) key to set desired water temperature. The temperature setting will be displayed for 5 seconds to confirm your new selection.

The "set point" icon indicates that the display shows the desired temperature, NOT the current water temperature.



Program key
Use **Program** key to display time or enter Programming menu by pressing , holding key.

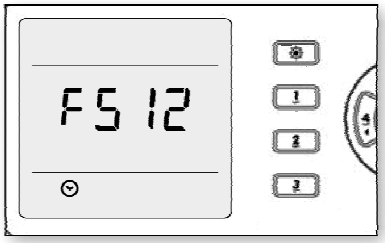
In Programming mode, the following parameters can be set: time, filter cycle's start time, duration, frequency, and the choice of temp. display units.



Setting the time
Enter Programming mode by holding Prog. key pressed down for 3 sec. The display will show the current time setting.

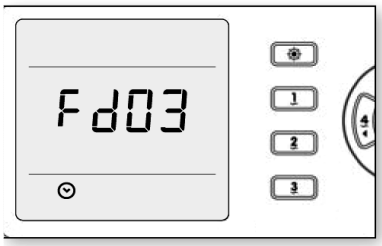
Setting hour: Use (+) or (-) key to change hour setting (AM/PM).

Setting minutes:Press **Ok** key. Use (+) or (-) key to change minutes setting.



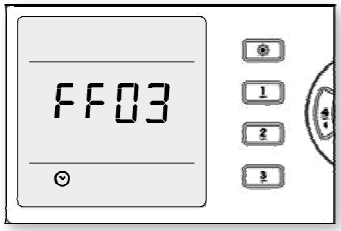
Setting filter cycle start time
To program the filter cycle, enter these parameters: start time, duration and frequency. During a filter cycle, pumps run for one minute to purge the plumbing, then Pump 1 low speed runs for the programmed number of hours.

Press **Ok** key a second time. The display will show FSxx, with "xx" representing the starting hour. Use (+) or (-) key to change setting (01:00- 12:00 AM/PM).



Setting filter cycle duration
Press **Ok** key a third time.

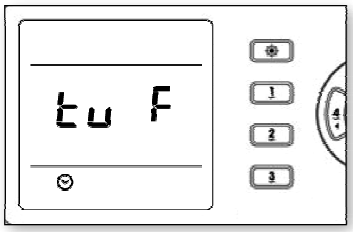
The display will show Fdxx, with "xx" representing the duration in hours. Use (+) or (-) key to change setting (0-12 hours).



Filter cycle frequency
Press **Ok** key a fourth time.

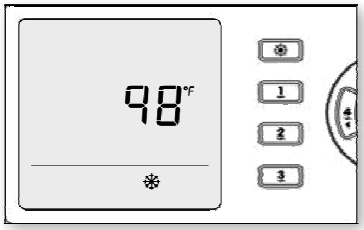
The display will show FFxx, with "xx" representing the number of filter cycles per day (up to 4).

Use (+) or (-) key to change setting.



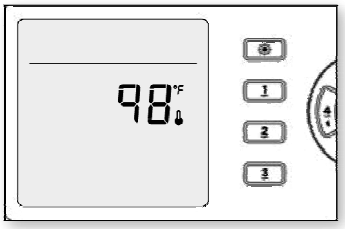
Setting temperature unit
Water temperature can be displayed in either Fahrenheit (˚F) or Celsius (˚C).

- Press **Ok** key a fifth time.
- The display will show either ˚F or ˚C.
- Use (+) or (-) key to change setting.
- Press **Ok** key a last time to go back to normal mode.



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

Cooldown
While performing these tasks, the heater is not allowed to turn on and its icon flashes. The heater is not allowed also to come on throughout the cool down period of the heater element.

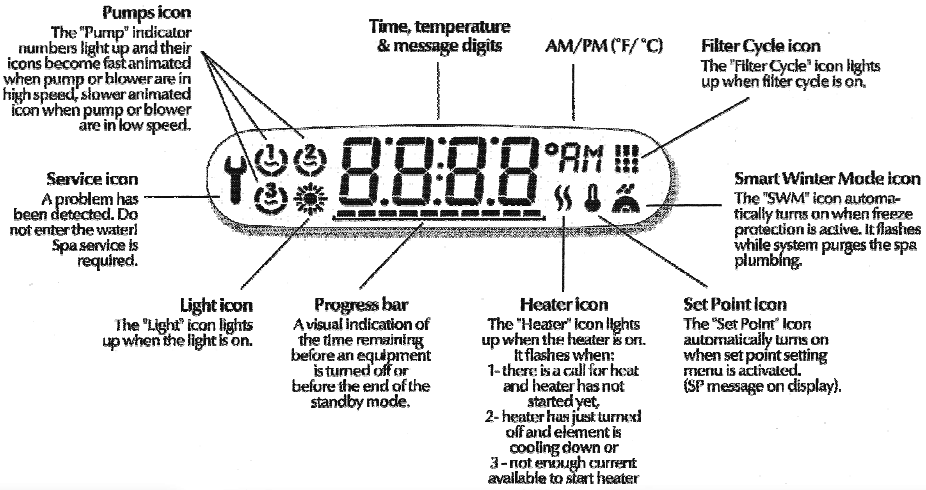


Water temperature regulation
In a regulation cycle, the system first generates water flow through the heater housing and the plumbing, in order to ensure accurate water temperature readings as well as avoiding heater activation in dry conditions.
After verifying pump activation and taking a water temperature reading if required, the system automatically turns the heater on to reach and maintain water temperature at Set Point.

Light icon: The "Light" icon lights up when the light is on.	**Program icon: The "Program" icon lights up when Programming.**
Pumps icons: The "Pump" indicator numbers light up and their icons become animated when pumps are on.	**Progress bar:** A visual indication of the time remaining before an equipment is turned off or before the end of the standby mode.
Smart winter mode icon: The "SWM" icon automatically turns on when freeze protection is active. It flashes while system purges the spa plumbing.	**Set Point icon: The "Set Point" icon automatically turns on when set point setting menu is activated. (SP message on display). It flashes when: 1- there is a call for heat and heater has not started yet, 2- heater has just turned off and element is cooling down or 3- if system is performing a check flow.**
Filter Cycle icon: The "Filter Cycle" icon lights up when filter cycle is on. It flashes when filtering is suspended.	**Service icon:** A problem has been detected. Do not enter the water! Spa service is required.
Heater icon: The "Heater" icon lights up when the heater is on.	

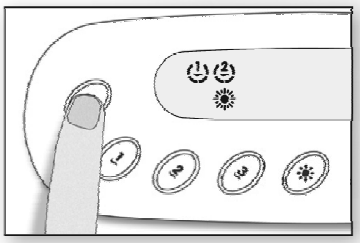
OPERATION SYSTEMS - 400 SERIES CONTROL

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.

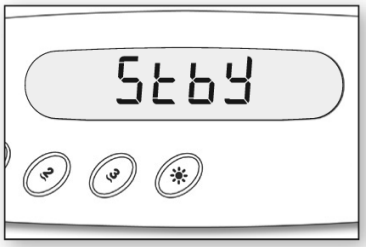


In.K 450 Series Control

Standard control for SE Series and AT Series spa units.

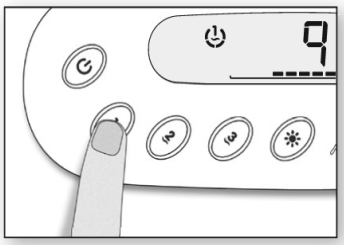


On/Off key
Key may have On/Off, Standby mode. Standby Mode: Use **On/Off** key to pause all pumps. Progress bar (XM platform only) will display the remaining time before the system automatically exits Standby mode (user can also exit Standby mode at any time by pressing again on **On/Off** key.

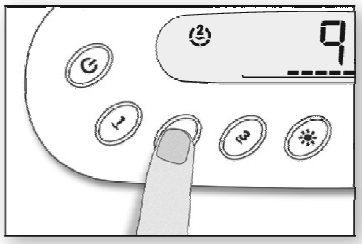


In order to warn the user, the spa light will flash for a few seconds before the exit of Standby mode and restart the pumps. The "Stby" message is also displayed during Standby mode.

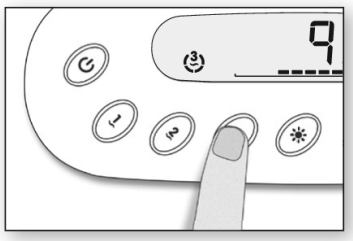
Pump will stay turned on if there is a request for heat.



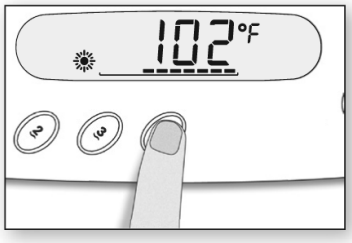
Pump 1 key
Press **Pump 1** key to turn Pump 1 on at low speed. Press a second time to turn pump to high speed (with a dual speed pump). A third time turns pump off.
A built-in timer automatically turns pump off after 20 minutes, unless pump has been



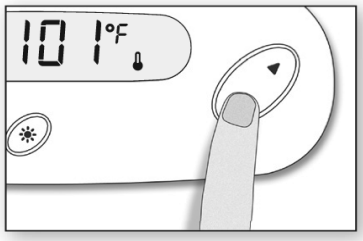
Pump 2 key
Press **Pump 2** key to turn Pump 2 on at low speed. Press a second time to turn pump to high speed (with a dual speed pump). Pressing a third time turns pump off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.



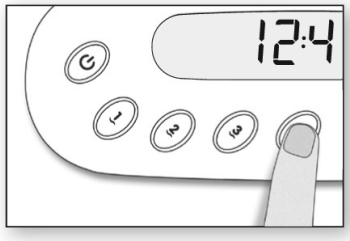
Pump 3/ Blower key
Press **Pump 3/Blower** key to turn Pump 3/Blower on. Press a second time to turn pump off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.



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.



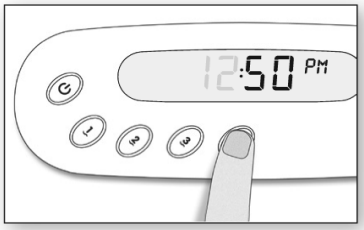
Up / Down keys
Press **Up** or **Down** key to set desired water temperature. The temperature setting will be displayed for 5 seconds to confirm your new selection. The "Set Point" icon indicates that the display shows the desired temperature, NOT the current water temperature.



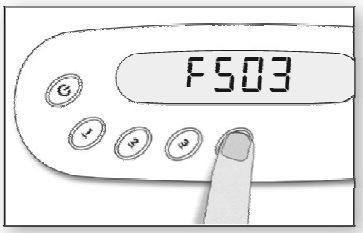
Program key
Use **Program** key to display time or enter Programming menu by pressing and holding key. In Programming mode, these parameters can be set: time, filter cycle start time, filter cycle duration, filter cycle frequency, temperature unit. Note:Light key used as Program key if key not present.

In.K 450 Series Control

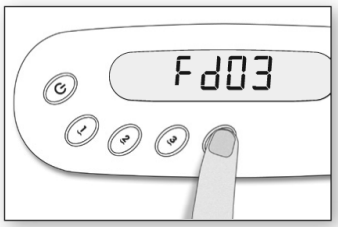
Standard control for SE Series and AT Series spa units.



Setting the time
Enter Programming mode by holding Prog. Key pressed down for 3 sec. The display will show the current time setting.
Setting the hour: Use Up or Down arrows to change the your setting (AM/PM).
Setting the minutes: Press Prog. Key a second time.
Use **Up** or **Down** key to change minutes setting.

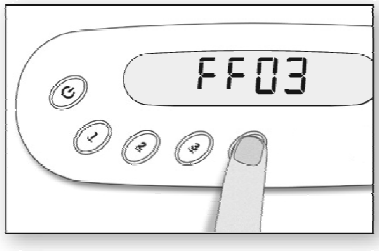


Setting filter cycle start time
To program the filter cycle, you must enter these parameters; the start time, duration and frequency. During a filter cycle, pumps run for one minute to purge the plumbing, then Pump 1 runs for the programmed number of hours. Press Prog. Key a third time. The display will show FSxx, with "xx" representing the starting hour. Use Up or Down key to change setting.



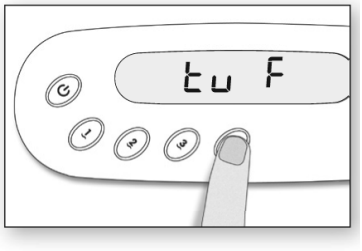
Setting filter cycle duration
Press Prog. key a fourth time. The display will show Fdxx, with "xx" representing the duration in hours.

Use Up or Down key to change setting.



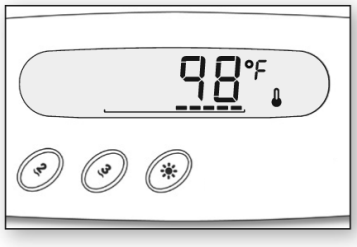
Filter cycle frequency
Press Prog. key a fifth time. The display will show FFxx, with "xx" representing the number of filter cycles per day (up to 4).

Use Up or Down key to change setting.



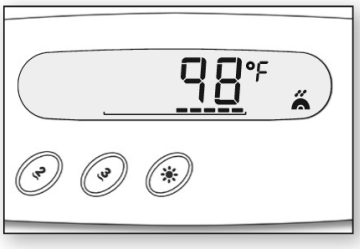
Setting temperature unit
Water temperature can be displayed in either Fahrenheit ("F) or Celsius ("C). Press Prog. Key a sixth time. Display shows either "F or "C.

Use Up or Down key to change setting.



Water temperature regulation
In a regulation cycle, system first generates water flow through the heater housing and the plumbing, to ensure accurate water temperature readings, as well as avoiding heater activation in dry conditions.

After verifying pump activation and taking water temperature reading if required, the system automatically turns heater on to reach and maintain water temperature at Set Point.



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

Cooldown
While performing these tasks, the heater is not allowed to turn on and its icon flashes. The heater is not allowed also to come on throughout the cool down period of the heater element.

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 PROGRESS SIVELY 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 IMPOR TANT 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 DESTROY ING 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 MAY BE EQUIPPED WITH OZONE AS THE SANITIZING AGENT. STANDARD ON THE LX SERIES SPAS AND OPTIONAL ON THE SE SERIES UNITS. 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 CONTOL 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 FOE 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 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.

CEDAR CABINET

WOOD CEDAR CABINET: WITH TIME AND EXPOSURE TO THE ELEMENTS, THE WOOD ON YOUR SPA WILL TEND TO LOSE ITS NEW APPEARANCE. PROTECTING OR REVIVING THE WOOD SURFACES IS A FAIRLY SIMPLE PROCESS. LIGHT SANDING WITH FINE-GRIT SANDPAPER WILL HELP SMOOTH ANY ROUGHNESS, AND REGULAR APPLICATIONS OF A PENETRATING, WOOD PRESERVATIVE WILL ENHANCE AND PROTECT THE RICHNESS OF WOOD.

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 (TOP-LOAD PRESSURIZED SYSTEM ON LX, SE SERIES UNITS)

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. DEPRESS SAFETY TAB NEXT TO THE LID AND 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 THE SAFETY TAB CLICKS INTO PLACE. RE-CHECK BLEEDER VALVE TO BE SURE IT IS CLOSED.

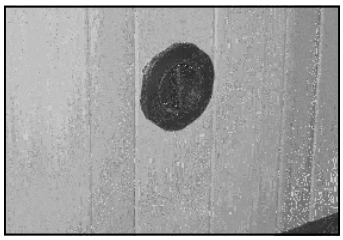
(SUCTION-SIDE SYSTEM ON SUNRISE AND AT SERIES UNITS)

1. SHUT OFF POWER AT THE MAIN OR SUB PANEL.
2. REMOVE THE FILTER HOUSING TOP BY USING THE RAISED PORTIONS OF THE FILTER TOP AND TURNING IT COUNTER CLOCKWISE. AFTER TOP STOPS TURNING, LIFT UP TO REMOVE TOP FROM FILTER.
3. LIFT THE SKIMMER BASKET OUT OF THE FILTER CANISTER.
4. REMOVE THE FILTER FROM THE CANISTER.
5. REPLACE WITH CLEAN FILTER (REVIEW ABOVE FOR CLEANING RECOMMENDATIONS.)
6. PLACE SKIMMER BASKET BACK IN FILTER CANISTER.
6. PLACE FILTER TOP ONTO FILTER CANISTER AND TURN CLOCKWISE UNTIL TOP STOPS.

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.



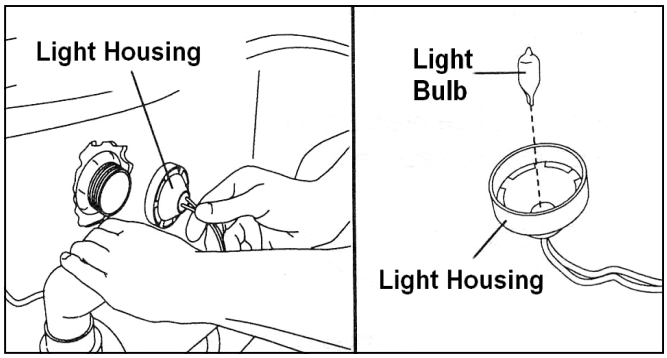
PLUMBING CARE

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 (MOOD LIGHT / 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

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.

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.

TROUBLESHOOTING

A GOOD GENERAL RULE IS TO VISUALLY INSPECT YOUR SPA AND EQUIPMENT AREA FREQUENTLY. IF ANYTHING 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 MASSAGE 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.

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 !

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