OWNER'S MANUAL

IMPORTANT SAFETY RULES

Read, understand, and follow all instructions carefully before installing and using this product.

Krystal Clear™ Saltwater System & Filter Pump

Model CS8221 220 - 230 V~,
Model CS8231 230 - 240 V~

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134-*A*-R1-1211

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IMPORTANT SAFETY RULES

Read, Understand and Follow All Instructions Carefully Before Installing and Using this Product.

READ AND FOLLOW ALL INSTRUCTIONS

⚠ WARNING

- To reduce the risk of injury, do not permit children to use this product. Always supervise children and those with disabilities.
- Children must stay away from this product and electrical cord(s).
- Children should be supervised to ensure that they do not play with the appliance.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge. They must at all times be supervised by a knowledgeable and experienced adult responsible for their safety.
- Assembly and disassembly by adults only.
- Risk of electric shock. Connect this product only to a grounding type receptacle protected by a ground-fault circuit interrupter (GFCI) or residual current device (RCD). Contact a qualified electrician if you cannot verify that the receptacle is protected by a GFCI/RCD. Use a qualified electrician to install the GFCI/RCD, which has a maximum rate of 30mA. Do not use a portable residual current device (PRCD).
- Always unplug this product from the electrical outlet before removing, cleaning, servicing or making any adjustment to the product.
- The plug must be accessible after product is installed.
- Do not bury the electrical cord. Locate the cord where it will not be damaged by lawn mowers, hedge trimmers and other equipment.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- To reduce the risk of electric shock, do not use extension cords, timers, plug adaptors or converter plugs to connect unit to electric supply; provide a properly located outlet.
- Do not attempt to plug in or unplug this product while standing in water or when your hands are wet.
- Keep this product more than 2m away from the pool.
- Keep this product more than 3.5m away from the pool (for France only).
- Keep the plug of this product more than 3.5m away from the pool.
- Position this product away from the pool, so as to prevent children from climbing on it and accessing the pool.
- Do not operate this product when the pool is occupied.
- This product is for use with storable pools only. Do not use with permanently installed pools. A storable pool is constructed so that it may be readily disassembled for storage and reassembled to its original configuration.
- This product is intended to be used only for the purposes described in the manual!

FAILURE TO FOLLOW THESE WARNINGS MAY RESULT IN PROPERTY DAMAGE, ELECTRIC SHOCK, ENTANGLEMENT OR OTHER SERIOUS INJURY OR DEATH.

These product warnings, instructions and safety rules provided with the product represent some common risks of water recreation devices and do not cover all instances of risk and danger. Please use common sense and good judgement when enjoying any water activity.

For portable Above-Ground-Pools only

SAVE THESE INSTRUCTIONS

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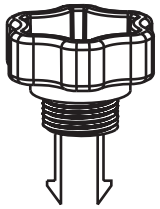
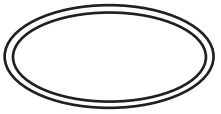
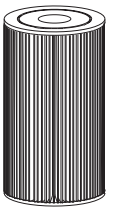
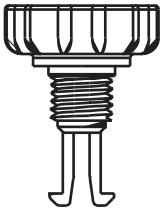
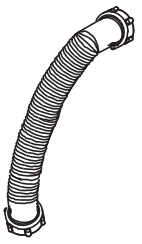
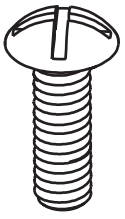
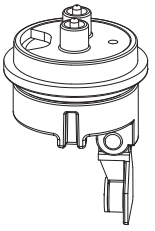
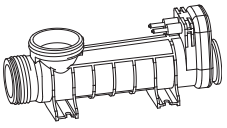
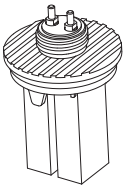
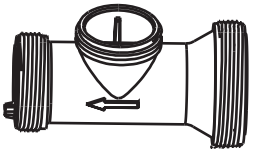
1 	2 	3 
4 	5 	6 
7 	8 	9 
10 	11 	12 
13 	14 	15 

NOTE: Drawings for illustration purpose only. Actual product may vary. Not to scale.

SAVE THESE INSTRUCTIONS

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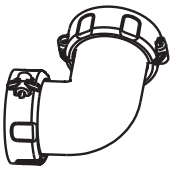
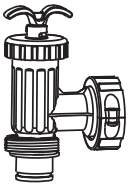
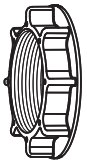
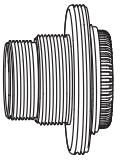
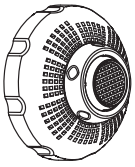
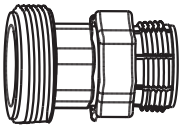
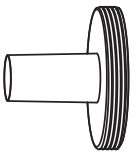
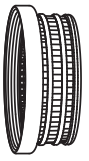
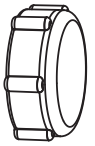
16 	17 	18 
19 	20 	21 
22 	23 	24 
25 	26  * Optional	27  * Optional
28  * Optional	29  * Optional	30 
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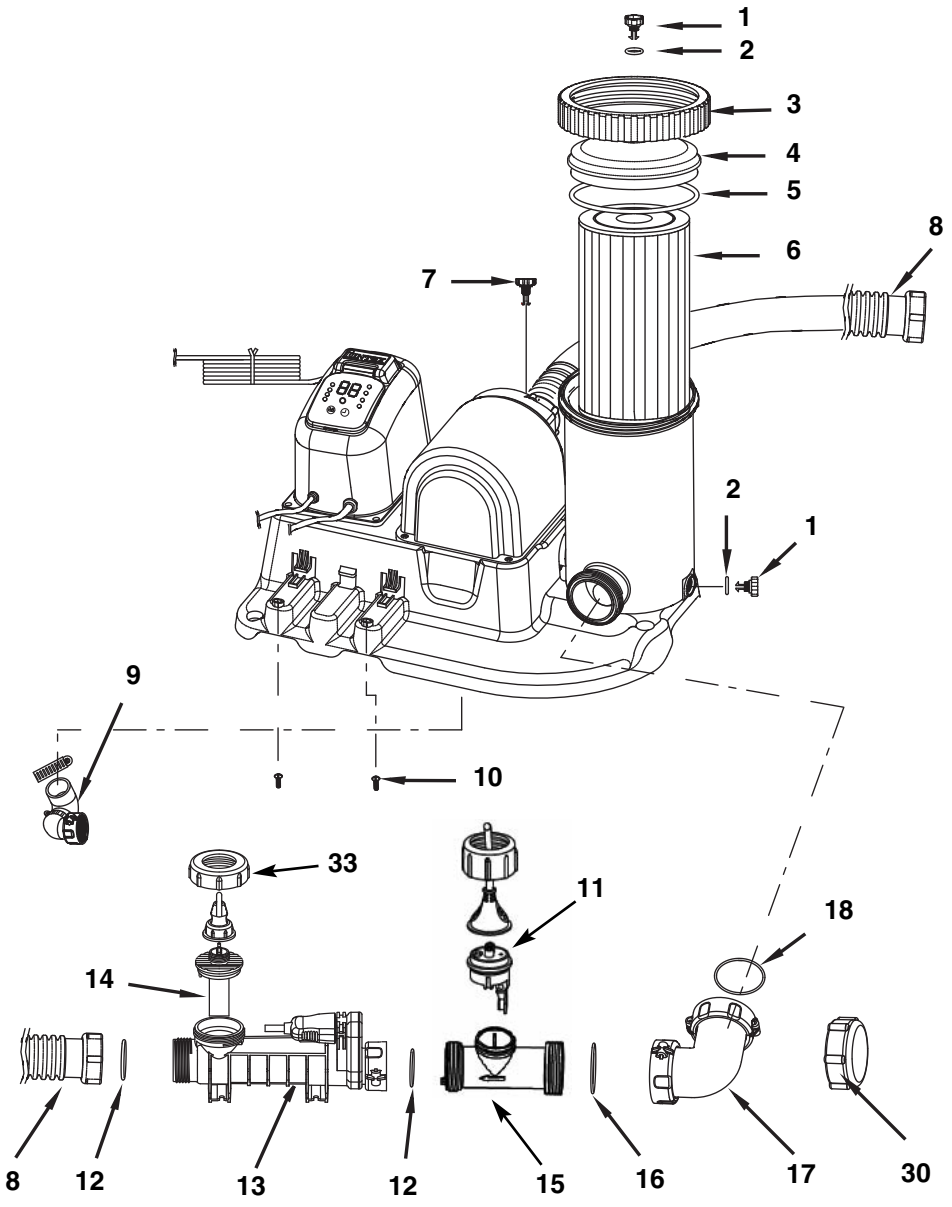
NOTE: Drawings for illustration purpose only. Actual product may vary. Not to scale.

PARTS REFERENCE

Before assembling your product, please take a few minutes to check the contents and become familiar with all the parts.



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PARTS REFERENCE (continued)

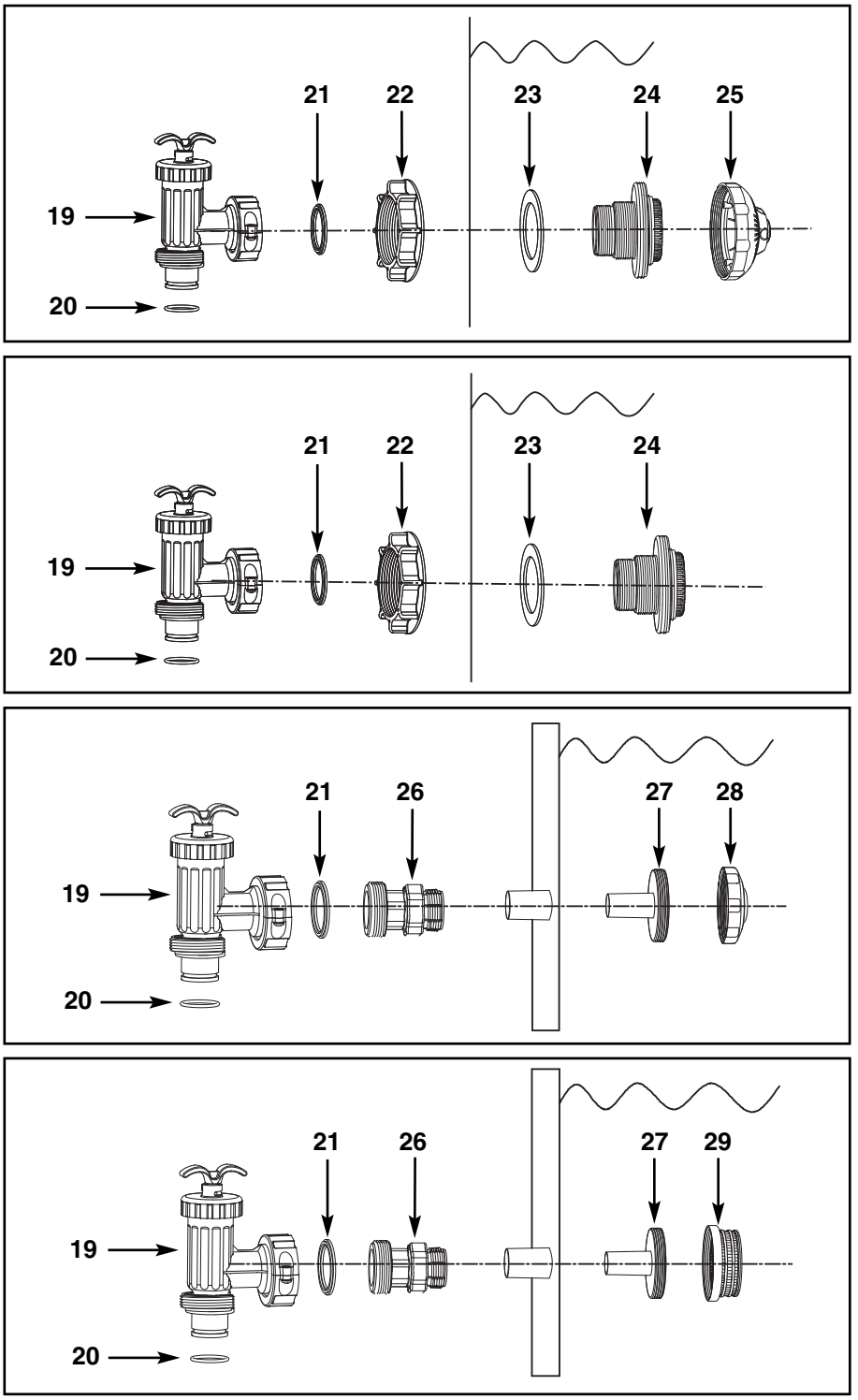
Before assembling your product, please take a few minutes to check the contents and become familiar with all the parts.

REF. NO.	DESCRIPTION	QTY.	SPARE PART NO.
1	AIR RELEASE VALVE/SEDIMENT RELEASE VALVE	2	10460
2	VALVE O-RING	2	10264
3	THREADED FILTER HOUSING COLLAR	1	10491
4	FILTER HOUSING COVER	1	10490
5	FILTER HOUSING O-RING	1	11330
6	FILTER CARTRIDGE (59905)	1	
7	AIR RELEASE VALVE B (WITH O-RING)	1	10725
8	PUMP HOSE WITH NUTS	2	10494
9	WATER TRANSFER HOSE (WITH COLLAR AND 2 HOSE CLAMPS)	1	10726
10	SCREW	2	10713
11	FLOW SENSOR	1	11460
12	O-RING A	2	10712
13	ELECTROLYTIC CELL (WITH TITANIUM PLATES) (O-RING A INCLUDED	1	11233
14	COPPER ELECTRODE	1	11234
15	FLOW SENSOR CONDUIT	1	11251
16	O-RING C	1	10717
17	ANGLE JOINT (O-RING D INCLUDED)	1	10724
18	O-RING D	1	10743
33	COPPER ELECTRODE NUT	1	11488

When ordering parts, be sure to quote the model number and part numbers.

PARTS REFERENCE (continued)

Before assembling your product, please take a few minutes to check the contents and become familiar with all the parts.



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REF. NO.			DESCRIPTION	QTY.	SPARE PART NO.
SMALL AGP	LARGE AGP	COMMON			
		19	PLUNGER VALVE (HOSE O-RING & STEP WASHER INCLUDED)	2	10747
		20	HOSE O-RING		10262
		21	STEP WASHER		10745
	22		STRAINER NUT	2	10256
	23		FLAT STRAINER RUBBER WASHER	2	10255
	24		THREADED STRAINER CONNECTOR	2	11235
	25		ADJUSTABLE POOL INLET NOZZLE	1	11074
26			ADAPTOR B (OPTIONAL)	2	10722
27			STRAINER CONNECTOR (OPTIONAL)	2	11070
28			POOL INLET NOZZLE (OPTIONAL)	1	11071
29			STRAINER GRID (OPTIONAL)	1	11072
		30	CELL COVER	1	11131
		31	CHLORINE TEST STRIPS	1	19635
		32	COPPER TEST STRIPS	1	11254

PARTS REFERENCE

(134) MODEL CS8221/CS8231 SALTWATER SYSTEM & FILTER PUMP ENGLISH 7.5" X 10.3" PANTONE 295U 11/18/2011

HOW THE CHLORINE IS GENERATED

This product is specially designed for above ground pools. It will destroy the bacteria, oxidize bather organics and control algae, which provide you a safe, clean and comfortable swimming pool.

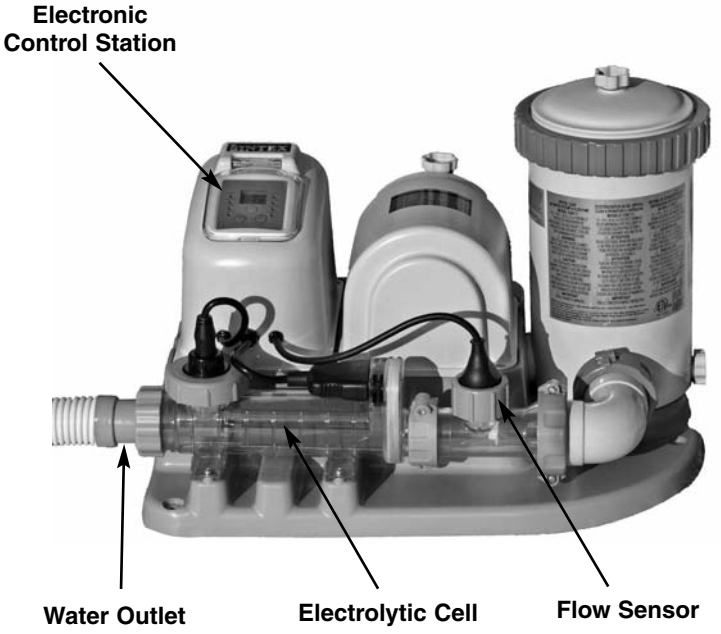
Common salt (sodium chloride) is made up of two elements, sodium and chlorine. During the installation of your Saltwater System/Filter Pump, a measured quantity of salt is dissolved in the pool water to make it slightly salty. The pool water flows through the saltwater system's electrolytic cell to produce HCLO. The HCLO dissolves in the water and instantly starts destroying bacteria and algae. It also oxidizes all other organic materials.

HOW COPPER IONS ARE GENERATED

Low voltage direct current is applied to the copper electrode, and copper ions are generated and dissolved instantly in the water. Copper is an effective algaecide, which will prevent algae from growing in the pool.

PRODUCT SPECIFICATIONS

Wattage:	400W
Ideal Salt Level:	3000 ppm (parts per million)
Maximum Chlorine Output/hour:	12 grams/hour
Copper Ionizer Output Current:	175 mA
Limited Warranty:	see "Limited Warranty"



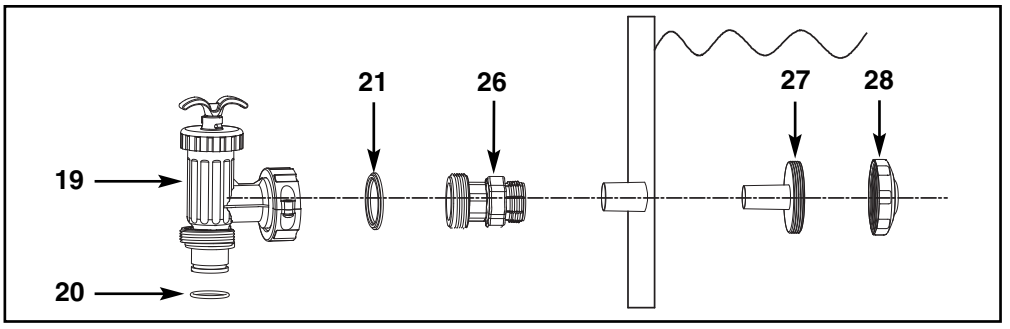
STRAINER & PLUNGER VALVE SETUP

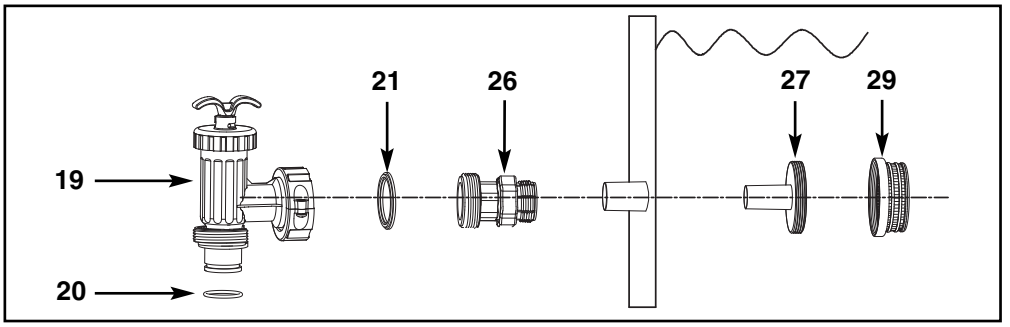
IMPORTANT

The Saltwater System/Filter Pump must be installed as the last piece of pool equipment in the water return line to the pool. This location extends the life of the titanium plates.

Strainer & Plunger Valve Setup (small AGP)

The strainer grid prevents large objects from jamming and/or damaging the filter pump. The plunger valve assembly prevents water from flowing into the filter pump while the filter cartridge is being placed or cleaned. If your pool has an inflatable top ring, install the strainer, nozzle and plunger valve before inflating the pool liner top ring. The parts numbers here onward, refer to the parts depicted in the Parts List section of this manual. To install, do the following:



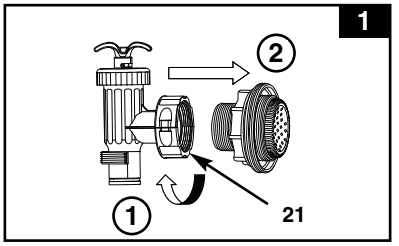


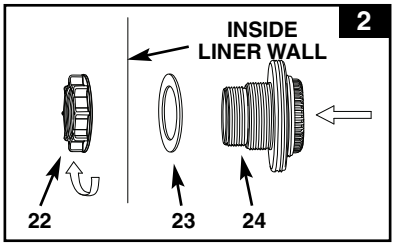
1. Grasp the strainer and plunger valve mechanism.
2. In a counter-clockwise motion unscrew plunger valve union from the threaded strainer connector **(24)**. Be careful not to lose the step rubber washer **(21)**.
3. Grasp the plunger valve assembly. Make sure the step washer **(21)** is in place. Connect adaptor B **(26)** to plunger valve union.
4. Repeat steps 1 through 3 for nozzle and plunger valve mechanism.
5. Remove wall plug and then insert the strainer **(27 & 29)** into the lower position of protruding hose connection, and the nozzle **(27 & 28)** into the upper position of protruding hose connection. Adaptor B **(26)** fits over the strainer connection **(27)** inserted into the connection.
6. Examine the plunger valve to see if the handle is pushed fully down to the "0/1" position. If not, then grasp the handle at the top and push down turning the handle in a clockwise direction until the plastic protruding notch anchor is in the "0/1" position. This will prevent water from flowing out during filling.
7. The pool liner is now ready to fill with water. Consult the above-ground-pool owner's manual for filling instructions.

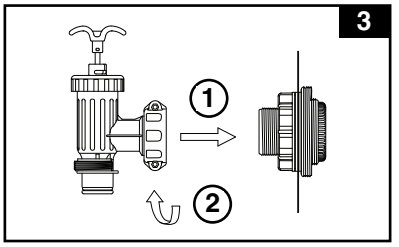
STRAINER & PLUNGER VALVE SETUP (continued)

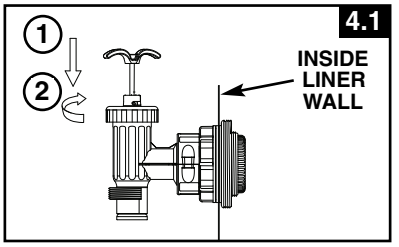
The strainer grid prevents large objects from jamming and/or damaging the filter pump. If your pool has an inflatable top ring, install the strainer, nozzle and plunger valve before inflating the pool liner top ring. The part numbers here onward refer to the parts depicted in the Parts List section of this manual. To install, do the following:

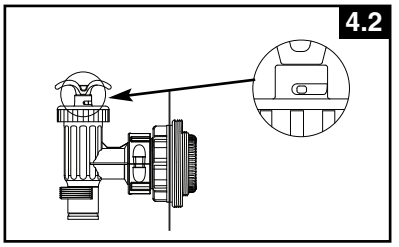
1. In a counter-clockwise motion unscrew plunger valve union from the threaded strainer connector **(24) (see drawing 1).** Be careful not to lose the step rubber washer **(21)**. Place the plunger valve on the ground in a safe place.
2. In a counter-clockwise motion unscrew the strainer nut **(22)** from the threaded connector **(24).** Leave the flat washer **(23)** on the connector **(24)**.
3. Install the strainer and plunger valve at the lower position of pool outlet (marked "+"). From the inside of the pool liner insert the connector **(24)** into one of the pre-cut holes with the washer remaining on the connector to be placed against the inside of the liner wall.
4. Before assembly, lubricate the threads with a petroleum jelly. Then, with the flat side of the strainer nut **(22)** facing the outside wall of the liner in a clockwise motion screw the strainer nut **(22)** back onto the threaded connector **(24) (see drawing 2)**.
5. Finger tighten the strainer nut **(22)** onto the threaded connector **(24)**.
6. Grasp the plunger valve assembly. Make sure the step washer **(21)** is in place.
7. In a clockwise motion screw the plunger valve union back onto the threaded connector **(24) (see drawing 3)**.
8. Examine the plunger valve to see if the handle is pushed fully down to the "0/1" position. If not, grasp the handle at the top and push down, turning the handle in a clockwise direction until the plastic protruding notch anchors in the "0/1" position. This will prevent water from flowing out during filling of the pool **(see drawings 4.1 & 4.2)**.











NOZZLE & PLUNGER VALVE SETUP

1. In a counter-clockwise motion unscrew plunger valve union from the threaded strainer connector **(24) (see drawing 5).** Be careful not to lose the step rubber washer **(21)**. Place the plunger valve on the ground in a safe place.
2. In a counter-clockwise motion unscrew the strainer nut **(22)** from the threaded connector **(24).** Leave the flat washer **(23)** on the connector **(24)**.
3. Install the nozzle and plunger valve at the upper position of the pool inlet. From the inside of the pool liner insert the connector **(24)** into one of the pre-cut holes with the washer remaining on the connector to be placed against the inside of the liner wall.
4. Before assembly, lubricate the threads with a petroleum jelly. Then, with the flat side of the strainer nut **(22)** facing the outside wall of the liner in a clockwise motion screw the strainer nut **(22)** back onto the threaded connector **(24) (see drawing 6)**.
5. Finger tighten the adjustable pool inlet nozzle **(25)** and the strainer nut **(22)** onto the threaded connector **(24)**.
6. Grasp the plunger valve assembly. Make sure the step washer **(21)** is in place.
7. In a clockwise motion screw the plunger valve union back onto the threaded connector **(24) (see drawing 7)**.
8. Examine the plunger valve to see if the handle is pushed fully down to the "0/1" position. If not, then grasp the handle at the top and push down turning the handle in a clockwise direction until the plastic protruding notch anchors in the "0/1" position. This will prevent water from flowing out during filling of the pool **(see drawings 8.1 & 8.2)**.
9. Adjust the direction of the nozzle head pointing away from the pool outlet for a better circulation result **(see drawing 9)**.
10. The pool liner is now ready to be filled with water. Consult the above-ground-pool owner's manual for the filling instructions.

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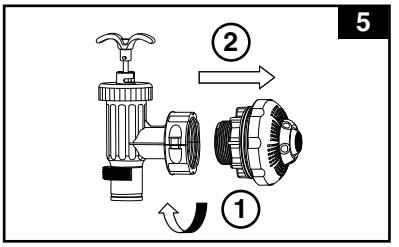

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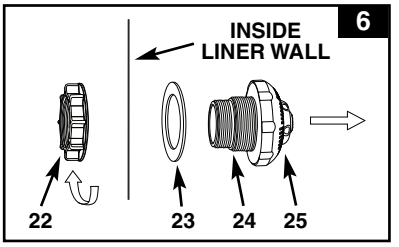

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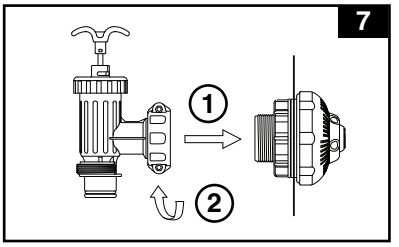

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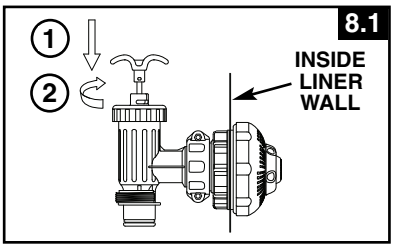

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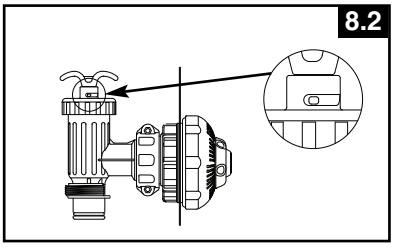

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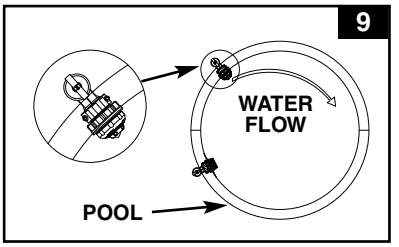


SALTWATER SYSTEM/FILTER PUMP

Saltwater System/Filter Pump

1. Remove the Saltwater System/Filter Pump and hoses from the packaging.
2. Place the Saltwater System/Filter Pump in a location for hose **(8)** connections to the plunger valve assemblies.
   NOTE: Some regional regulations may require the filter pump to be mounted on a stationary platform. There are two mounting holes located in the pump base for this reason. Consult your local authorities for filter pump mounting requirements.
3. Grasp the two pump hoses **(8)** and connect the hose nuts to the Saltwater System/Filter Pump.
4. In a counter-clockwise motion unscrew the threaded filter housing collar **(3)** from the filter housing. Place it in a safe place.
5. The Saltwater System/Filter Pump is an airtight system. In a counter-clockwise motion turn both air release valves **(1 & 7)** 1 - 2 turns to open. **DO NOT remove air release valves as water will expel with force if the motor is turned on and injury may occur.**
6. Grasp and remove the filter housing cover **(4)**. Check to see if a cartridge is inside the housing. If yes, replace the cover, finger tighten the housing collar **(3)** back onto the filter housing.
7. Gently finger tighten the sediment release valve located at the bottom of the housing to be sure that water does not leak out.
8. When the pool is filled connect the hose from the electrolytic cell outlet to the highest strainer assembly. You will find the hose connection at the bottom of the plunger valve assembly. Use the hose nut to attach the hose.
9. Connect the second hose to the middle of the motor housing and to the remaining liner connection.

IMPORTANT

To prevent air lock, open the lower plunger valve (connected inlet hose) first and then the upper plunger valve (connected outlet hose). Open air release valves, lift and lower the inlet hose until water starts to flow out of the air release valves, close air release valves.

SALT & POOL WATER VOLUMES

• **Which kind of salt to use:**

Use only Sodium Chloride Salts

Use only sodium chloride (NaCl) salt that is at least 99.8% pure. It is also acceptable to use water conditioning salt pellets (the compressed forms of evaporated salt). However, it will take a longer time for them to dissolve. **Do not use iodized or yellow (yellow prussiate of soda) colored salt.** Salt is added to the pool water and the electrolytic cell uses the salt to create the sanitizer. So, the purer the salt the better the performance of the electrolytic cell.

• **Optimum Salt Levels**

The ideal salt level in the pool water is between 2500-3500 ppm (parts per million). The optimal level is 3000 ppm.

A too low salt level will reduce the efficiency of the saltwater system and result in low sanitizer production. A high salt level may generate a salty taste to the pool water (this may occur at a salt level above 3500-4000ppm). Too high of a salt level may damage the power supply and cause corrosion to pool metal fixtures and accessories. The Salt Table page of this manual, shows the correct dosage of salt needed. The salt in the pool is constantly recycled. Salt loss occurs only when pool water is physically removed from the pool. Salt is not lost due to evaporation.

• **Adding Salt**

1. Switch on the unit, then press and hold both  and  button for 5 seconds, the LED flashes "FP". The unit is now in a Filter pump working mode and switch the filter pump on to start the water circulation.
2. Keep the Saltwater System turned off.
3. Determine the amount of salt to be added (see "Salt Table").
4. Evenly spread the proper amount of salt around the inside perimeter of the pool.
5. Avoid clogging the filter by not adding salt through the skimmer.
6. Brush the pool bottom to speed up the dissolving process. Do not allow salt to pile up on the bottom of the pool. Run the filter pump 24 consecutive hours to thoroughly dissolve the salt.
7. After 24 hours and if all the salt is dissolved, turn on the Saltwater System, press  button until you hear a "beep", code "00" flashing (see "System Operation" section steps 2 to 4) and set the saltwater pool system to desired operating time (see "Operating Time Table").

• **Removing Salt**

If too much salt has been added, the unit will beep and display "Code 92" (see "Alarm Codes"). You will need to lower the salt concentration. The only way to do so, is to partially drain the pool and refill it with fresh water. Drain and refill approximately 20% of the pool's water until the "Code 92" disappears.

• **Pool Volume Calculation**

Types of Pool	Gallons (pool size in feet)	Cubic Meters (pool size in meters)
Rectangular	Length x Width x Average Depth x 7.5	Length x Width x Average Depth
Circular	Length x Width x Average Depth x 5.9	Length x Width x Average Depth x 0.79
Oval	Length x Width x Average Depth x 6.0	Length x Width x Average Depth x 0.80

INTEX POOLS SALT TABLE

This table shows the amount of salt needed to achieve and maintain the optimal 3000 ppm salt level.

Pool Size		Water Capacity (Calculated at 90% for Frame Pool and 80% for Easy Set & Oval Pool)		Salt Needed for Startup 3.0g/L (3000ppm)		Salt Needed when Low Salt Detected (CODE "91")	
		(Gals)	(Liters)	(Lbs)	(Kgs)	(Lbs)	(Kgs)
INTEX ABOVE GROUND POOLS (AGP's)							
EASY SET® POOL	15' x 33" (457cm x 84cm)	2587	9792	65	30	20	10
	15' x 36" (457cm x 91cm)	2822	10681	65	30	20	10
	15' x 42" (457cm x 107cm)	3284	12430	80	35	20	10
	15' x 48" (457cm x 122cm)	3736	14141	95	45	20	10
	16' x 42" (488cm x 107cm)	3754	14209	95	45	20	10
	16' x 48" (488cm x 122cm)	4273	16173	110	50	30	15
	18' x 42" (549cm x 107cm)	4786	18115	120	55	30	15
	18' x 48" (549cm x 122cm)	5455	20647	135	60	35	15
	18' x 52" (549cm x 132cm)	5894	22309	150	65	40	20
CIRCULAR METAL FRAME POOL	15' x 36" (457cm x 91cm)	3282	12422	80	35	20	10
	15' x 42" (457cm x 107cm)	3861	14614	100	45	20	10
	15' x 48" (457cm x 122cm)	4440	16805	110	50	30	15
	16' x 48" (488cm x 122cm)	5061	19156	125	55	30	15
	18' x 48" (549cm x 122cm)	6423	24311	160	75	40	20
	18' x 52" (549cm x 132cm)	6981	26423	175	80	45	20
	20' x 52" (610cm x 132cm)	8638	32695	220	100	60	25
	24' x 48" (732cm x 122cm)	11483	43462	290	130	75	35
	24' x 52" (732cm x 132cm)	12481	47241	310	140	85	40
ULTRA FRAME® POOL	16' x 48" (488cm x 122cm)	5061	19156	125	55	35	15
	18' x 52" (549cm x 132cm)	6981	26423	175	80	45	20
SEQUOIA SPIRIT® POOL SET	16'8" x 49" (508cm x 124cm)	5061	19156	125	55	35	15
	18'8" x 53" (569cm x 135cm)	6981	26423	175	80	45	20
OVAL FRAME POOL	18' x 10' x 42" (549cm x 305cm x 107cm)	2885	10920	65	30	20	10
	20' x 12' x 48" (610cm x 366cm x 122cm)	4393	16628	110	50	30	15
	24' x 12' x 48" (732cm x 366cm x 122cm)	5407	20465	135	60	35	15
	28' x 12' x 48" (853cm x 366cm x 122cm)	6420	24300	160	75	40	20
RECT. ULTRA FRAME POOL	18' x 9' x 52" (549cm x 274cm x 132cm)	4545	17203	115	50	30	15
	24' x 12' x 52" (732cm x 366cm x 132cm)	8403	31805	210	100	55	25
	32' x 16' x 52" (975cm x 488cm x 132cm)	14364	54368	360	165	95	45

INTEX POOLS OPERATING TIME TABLE (WITH CYANURIC ACID)

Pool Size		Water Capacity (Calculated at 90% for Frame Pool and 80% for Easy Set & Oval Pool)		Operating Time (hours) at different ambient/air temperatures		
		(Gals)	(Liters)	10 - 19°C (50 - 66°F)	20 - 28°C (68 - 82°F)	29 - 36°C (84 - 97°F)
INTEX ABOVE GROUND POOLS (AGP's)						
EASY SET® POOL	15' x 33" (457cm x 84cm)	2587	9792	1	1	1
	15' x 36" (457cm x 91cm)	2822	10681	1	1	1
	15' x 42" (457cm x 107cm)	3284	12430	1	1	2
	15' x 48" (457cm x 122cm)	3736	14141	1	2	2
	16' x 42" (488cm x 107cm)	3754	14209	1	2	2
	16' x 48" (488cm x 122cm)	4273	16173	2	2	2
	18' x 42" (549cm x 107cm)	4786	18115	2	2	2
	18' x 48" (549cm x 122cm)	5455	20647	2	2	3
	18' x 52" (549cm x 132cm)	5894	22309	2	2	3
CIRCULAR METAL FRAME POOL	15' x 36" (457cm x 91cm)	3282	12422	1	1	2
	15' x 42" (457cm x 107cm)	3861	14614	1	2	2
	15' x 48" (457cm x 122cm)	4440	16805	2	2	2
	16' x 48" (488cm x 122cm)	5061	19156	2	2	2
	18' x 48" (549cm x 122cm)	6423	24311	2	2	3
	18' x 52" (549cm x 132cm)	6981	26423	2	2	3
	20' x 52" (610cm x 132cm)	8638	32695	3	3	4
	24' x 48" (732cm x 122cm)	11483	43462	4	4	5
	24' x 52" (732cm x 132cm)	12481	47241	5	5	6
ULTRA FRAME® POOL	16' x 48" (488cm x 122cm)	5061	19156	2	2	2
	18' x 52" (549cm x 132cm)	6981	26423	2	2	3
SEQUOIA SPIRIT® POOL SET	16'8" x 49" (508cm x 124cm)	5061	19156	2	2	2
	18'8" x 53" (569cm x 135cm)	6981	26423	2	2	3
OVAL FRAME POOL	18' x 10' x 42" (549cm x 305cm x 107cm)	2885	10920	1	1	1
	20' x 12' x 48" (610cm x 366cm x 122cm)	4393	16628	2	2	2
	24' x 12' x 48" (732cm x 366cm x 122cm)	5407	20465	2	2	3
	28' x 12' x 48" (853cm x 366cm x 122cm)	6420	24300	2	2	3
RECT. ULTRA FRAME POOL	18' x 9' x 52" (549cm x 274cm x 132cm)	4545	17203	2	2	2
	24' x 12' x 52" (732cm x 366cm x 132cm)	8403	31805	3	3	4
	32' x 16' x 52" (975cm x 488cm x 132cm)	14364	54368	6	6	7

INTEX POOLS CYANURIC ACID TABLE

Cyanuric acid is a chemical that reduces the loss of chlorine in water due to ultraviolet rays. To maintain maximum performance, we recommend that the cyanuric acid level be maintained at approximately 1% of the salt, i.e. 100 Lbs (45 Kgs) salt x1% = 1 Lbs (0.45 Kgs) cyanuric acid.

Pool Size		Water Capacity (Calculated at 90% for Frame Pool and 80% for Easy Set & Oval Pool)		Cyanuric Acid Needed for Startup 0.03g/L (30ppm)	
		(Gals)	(Liters)	(Lbs)	(Kgs)
INTEX ABOVE GROUND POOLS (AGP's)					
EASY SET® POOL	15' x 33" (457cm x 84cm)	2587	9792	0.6	0.3
	15' x 36" (457cm x 91cm)	2822	10681	0.7	0.3
	15' x 42" (457cm x 107cm)	3284	12430	0.8	0.4
	15' x 48" (457cm x 122cm)	3736	14141	0.9	0.4
	16' x 42" (488cm x 107cm)	3754	14209	0.9	0.4
	16' x 48" (488cm x 122cm)	4273	16173	1.1	0.5
	18' x 42" (549cm x 107cm)	4786	18115	1.2	0.5
	18' x 48" (549cm x 122cm)	5455	20647	1.4	0.6
	18' x 52" (549cm x 132cm)	5894	22309	1.5	0.7
CIRCULAR METAL FRAME POOL	15' x 36" (457cm x 91cm)	3282	12422	0.8	0.4
	15' x 42" (457cm x 107cm)	3861	14614	1.0	0.4
	15' x 48" (457cm x 122cm)	4440	16805	1.1	0.5
	16' x 48" (488cm x 122cm)	5061	19156	1.3	0.6
	18' x 48" (549cm x 122cm)	6423	24311	1.6	0.7
	18' x 52" (549cm x 132cm)	6981	26423	1.7	0.8
	20' x 52" (610cm x 132cm)	8638	32695	2.2	1.0
	24' x 48" (732cm x 122cm)	11483	43462	2.9	1.3
	24' x 52" (732cm x 132cm)	12481	47241	3.1	1.4
ULTRA FRAME® POOL	16' x 48" (488cm x 122cm)	5061	19156	1.3	0.6
	18' x 52" (549cm x 132cm)	6981	26423	1.7	0.8
SEQUOIA SPIRIT® POOL SET	16'8" x 49" (508cm x 124cm)	5061	19156	1.3	0.6
	18'8" x 53" (569cm x 135cm)	6981	26423	1.7	0.8
OVAL FRAME POOL	18' x 10' x 42" (549cm x 305cm x 107cm)	2885	10920	0.7	0.3
	20' x 12' x 48" (610cm x 366cm x 122cm)	4393	16628	1.1	0.5
	24' x 12' x 48" (732cm x 366cm x 122cm)	5407	20465	1.4	0.6
	28' x 12' x 48" (853cm x 366cm x 122cm)	6420	24300	1.6	0.7
RECT. ULTRA FRAME POOL	18' x 9' x 52" (549cm x 274cm x 132cm)	4545	17203	1.1	0.5
	24' x 12' x 52" (732cm x 366cm x 132cm)	8403	31805	2.1	1.0
	32' x 16' x 52" (975cm x 488cm x 132cm)	14364	54368	3.6	1.6

SALT CALCULATION FORMULA FOR ALL POOLS

Salt Needed for Startup (Lbs)	Salt Needed for Startup (Kgs)	Salt Needed when Low Salt Detected (Lbs)	Salt Needed when Low Salt Detected (Kgs)
Water Capacity (Gals) x 0.025	Water Capacity (Liters) x 0.003	Water Capacity (Gals) x 0.0067	Water Capacity (Liters) x 0.0008

SALT TABLE FOR COMMON NON-INTEX POOLS

Water Capacity		Salt Needed for Startup		Salt Needed when Low Salt Detected (CODE "91")	
(Gals)	(Liters)	(Lbs)	(Kgs)	(Lbs)	(Kgs)
2000	7500	50	20	10	5
4000	15000	100	45	25	10
6000	22500	150	65	40	20
8000	30000	200	90	55	25
10000	37500	250	110	70	30
12000	45500	300	135	80	35
14000	53000	350	160	95	45

OPERATING TIME TABLE FOR COMMON NON-INTEX POOLS

Water Capacity		Operating Time (hours) at different ambient/air temperatures		
(Gals)	(Liters)	10 - 19°C (50 - 66°F)	20 - 28°C (68 - 82°F)	29 - 36°C (84 - 97°F)
2000	7500	1	1	1
4000	15000	2	2	2
6000	22500	2	2	3
8000	30000	3	3	4
10000	37500	4	4	5
12000	45500	5	5	6
14000	53000	6	6	7

CYANURIC ACID TABLE FOR COMMON NON-INTEX POOLS

Water Capacity		Cyanuric Acid Needed for Startup 0.03g/L (30ppm)	
(Gals)	(Liters)	(Lbs)	(Kgs)
2000	7500	0.5	0.23
4000	15000	1.0	0.45
6000	22500	1.5	0.68
8000	30000	2.0	0.90
10000	37500	2.5	1.13
12000	45500	3.0	1.37
14000	53000	3.5	1.59

FILTER PUMP OPERATION

1. Make sure the unit is switched off. The switch is located on the control station.
2. Connect the power cord to a GFCI/RCD protected electrical outlet.

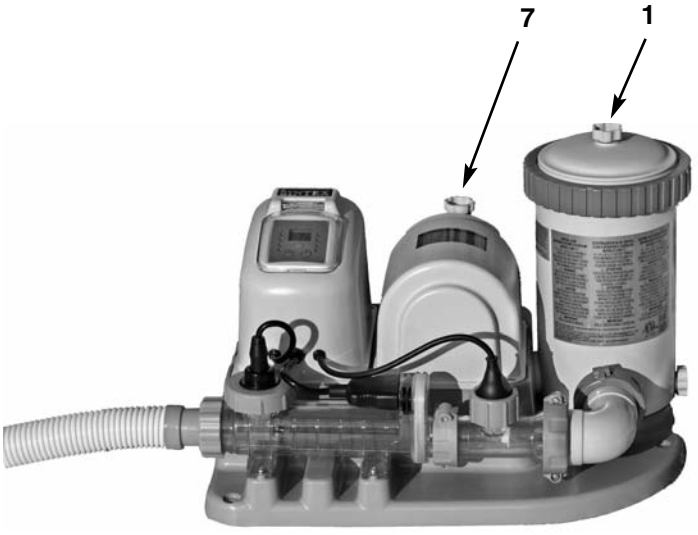
⚠ WARNING

Risk of electric shock. Connect this product only to a grounding type receptacle protected by a ground-fault circuit interrupter (GFCI) or residual current device (RCD). Contact a qualified electrician if you cannot verify that the receptacle is protected by a GFCI/RCD. Use a qualified electrician to install the GFCI/RCD, which has a maximum rate of 30mA. Do not use a portable residual current device (PRCD).

IMPORTANT

To prevent air lock, open the lower plunger valve (connected inlet hose) first and then the upper plunger valve (connected outlet hose). Open air release valves, lift and lower the inlet hose until water starts to flow out of the air release valves, close air release valves.

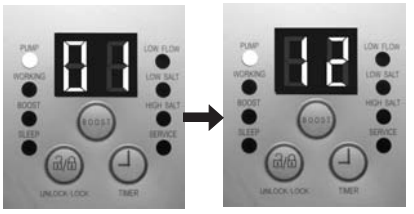
3. Grasp a plunger valve handle. Turn the handle counter-clockwise, pull up until it stops, and then turn it clockwise until the metal protruding notch anchor is in the "0/1" position. Repeat for the second plunger valve. This opens the valves, allowing water to flow into the unit.
4. With water flowing into unit, the water pressure will allow the air trapped inside to escape from the air release valves **(1 & 7)**. When all the air has escaped water will flow out of the valves **(1 & 7)**. When this occurs gently finger tighten the valves in a clockwise direction.
5. Turn on the switch. The filter pump is now filtering the water.
6. The green "Pump" light on the control panel will light up, that indicates the filter pump is running.



SALTWATER SYSTEM OPERATION

1. **Start up the unit:**
Plug the power cord into the electrical outlet and test the GFCI/RCD (circuit breaker). Switch on the unit. With the Filter Pump turned "ON" and operating. The green "Pump" light on the control panel will be on and flashing code "00" appears on the electronic control station's LED, indicating that the unit is ready to be programmed. This is normal.

2. **Set operating hours for Saltwater System:**
With code "00" flashing, press button to set the desired operating hours. See the "Operating Time Table" for the required operating hours related to each pool size. Pressing will increase the time from 01 to 12 hours maximum. If you have selected too many hours keep pressing to repeat the cycle. The built-in timer will now activate your Saltwater System, at the same time each day, for the number of hours you have set.
NOTE: The Saltwater System will not operate if the filter pump is not operating.

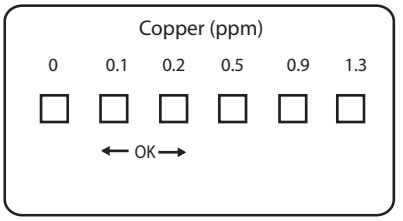


(1 to 12 hours max per cycle)

3. **Lock keypad controls:**
With the desired hour value showing, press button until you hear a "beep". The green "WORKING" indicator on the control panel will light up within a few seconds to indicate that the saltwater system has started sanitizer production. Locking the control buttons into this setting prevents unauthorized changing of the operating cycle.
NOTE: If you forget to lock the keypad controls, the system will automatically lock it and start working 1 minute later.

4. **Unlock & Readjust operating time if necessary:**
The operating hours can be re-adjusted if necessary. Press button until you hear a "beep" to unlock the keypad and the current programmed time will flash. Repeat steps 2 to 3.

5. **Test the copper concentration in the pool water.**
The Saltwater System recommends a copper level of 0.1 to 0.2 ppm. This is easily tested by the copper ion test strips provided. If the test result is 0.1~0.2ppm, go directly to step 7.



SALTWATER SYSTEM OPERATION (continued)

6. **Boost cycle**

- If the test result is below 0.1ppm, press and hold "BOOST" button for 5 seconds until the indicator lights up and the LED display display "80". This indicates that the saltwater system has started copper ion and more chlorine sanitizer production.
  You can press and hold the "BOOST" button for another 5 seconds until the indicator is off, which will cancel the Boost cycle.
  Note: Once the system has started copper ion and more chlorine sanitizer production, the boost button can't be re-set until the power switch is off.

- The boost operating hours is 4 times the amount of time programmed into the system, i.e. if your saltwater system operating time is 2 hours, the boost procedure will run 4 x 2 = 8 hours. After boost procedure has been completed, the system will automatically switch to the normal working mode.

- After a heavy rain or if the pool is dirty, press the "BOOST" button to shock the pool again.

7. **Test pool water regularly:**
Once the copper level appears to be balanced, test the pool water every week to maintain the proper sanitizer level.
It's very important that the free chlorine is between 0.4-1.5 ppm and copper ion concentration is between 0.1~0.2 ppm. When the copper level is below 0.1 ppm, repeat step 6.
NOTE: A High copper ion concentration may cause blonde hair to exhibit a green hair. To prevent this, wear a swimming cap during swimming, and wash hair with special shampoo after using the pool.
See "Troubleshooting Guide".

8. Stand-by/power saving mode:

- When the cycle ends, the green "SLEEP" indicator on the control panel lights up and the LED display flashes "93". The system is now in Stand-By mode. After a while, it shuts down and sets itself in a Power Saving mode. The system will automatically turn itself back on in 24 hours, starting its daily cycle of chlorine production.

- The "SLEEP" indicator stays on, while the system is in the Power Saving mode. The LED display however, goes blank after 1 hour. Press any button (or) to view the last LED code.

9. Running the pump alone without the Saltwater System:

To run the pump alone without the Saltwater System function, press and hold both and buttons until you hear a "beep", the LED display will show "FP". The pump is now operating alone. NOTE: The pump cannot be operated alone under an automatic timer mode. To stop the pump, manually turn the switch OFF.
IMPORTANT: To keep the initial automatic operating cycle setting of the Saltwater System, turn the switch ON, the LED display will show "FP", and then press until you hear a "beep".
The LED display will now show the initial input hours and the Saltwater System cycle will repeat again.

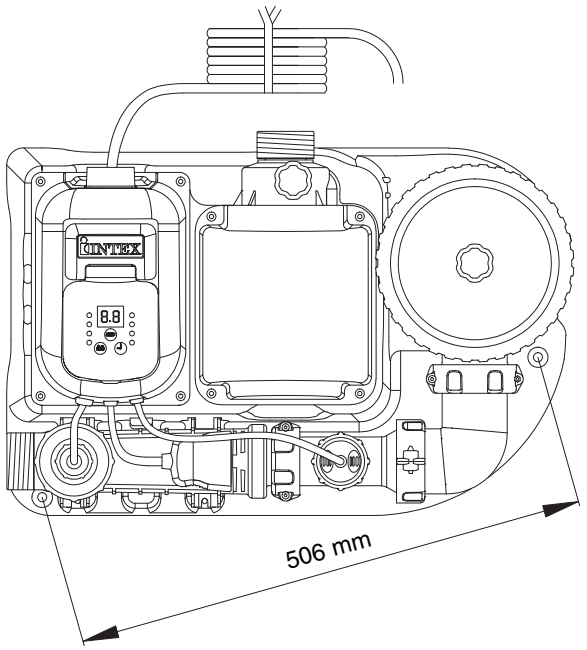
LED CODE CHART

LED Reading	Definitions
FP	Filter Pump Working Mode
80	Boost Mode
00	Stand-By Mode (Start-up)
01	Minimum Operating Hour (1 hour remaining)
02	Operating Hours (2 hours remaining)
03	Operating Hours (3 hours remaining)
04	Operating Hours (4 hours remaining)
05	Operating Hours (5 hours remaining)
06	Operating Hours (6 hours remaining)
07	Operating Hours (7 hours remaining)
08	Operating Hours (8 hours remaining)
09	Operating Hours (9 hours remaining)
10	Operating Hours (10 hours remaining)
11	Operating Hours (11 hours remaining)
12	Maximum Operating Hours (12 hours remaining)
90	Alarm Code (Low Water Flow / No Flow)
91	Alarm Code (Low Salt Level)
92	Alarm Code (High Salt Level)
93	Stand-By Mode (Operating Process finished)
"BLANK"	No Power or "Power Saving Mode" waiting to start next Saltwater System cycle.

SALTWATER SYSTEM/FILTER PUMP STATIONARY MOUNTING OPTION

Some countries, especially in the European community, require the product to be secured to the ground or to a base in a permanent upright position. Check your local authorities to determine if there is a regulation in your area regarding above-the-ground swimming pool filter-pumps. If yes, then the product can be mounted to a platform using the two holes located in the base. See drawing below.

The product can be mounted on a cement base or onto a wooden platform to prevent accidental falling over. Total assembly must exceed 18kg. The European norm EN 60335-2-41 requires this product be secured to the ground or to a base.



1. The mounting holes are 6.4 mm in diameter and spaced 506 mm apart.
2. Use two bolts and lock nuts with a maximum of 6.4 mm in diameter.

MAINTENANCE

⚠ WARNING

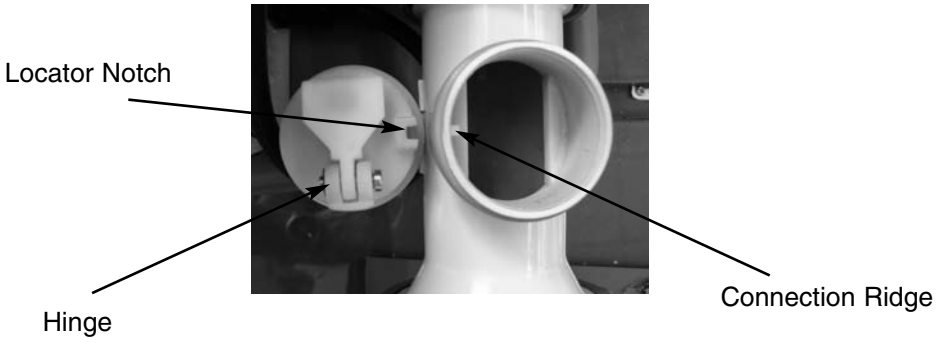
Always unplug this product from the electrical outlet before removing, cleaning, servicing or making any adjustment to the product.

IMPORTANT

Close plunger valves on your pool or insert black hat-like plugs in strainer opening to prevent water spillage. Open plunger valves or remove plugs when maintenance is completed.

FLOW SENSOR CLEANING

1. In a counter-clockwise motion unscrew the collar of the flow sensor **(11)** and remove it from the flow sensor conduit **(15)**. See "Part Reference".
2. If deposits and debris are seen on the surface of the flow sensor, then use a garden hose to wash it off.



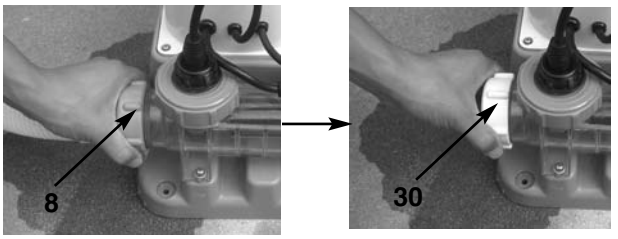
3. If flushing with water does not remove the deposits, use a plastic brush to clean the surface and the hinge if necessary. Do not use a metal brush.
4. After the flow sensor has been inspected and cleaned, align the locator notch on the flow sensor to the connection ridge in the conduit. Now turn the collar in a clockwise motion, tightening the sensor back into its position. Do not overtighten.

ELECTROLYTIC CELL CLEANING

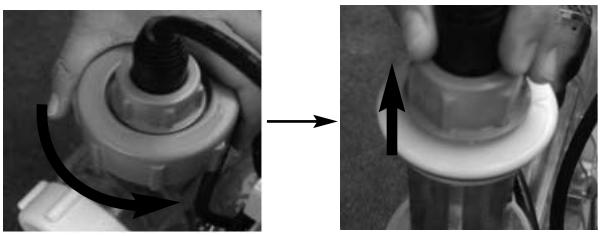
The electrolytic cell **(13)** has a self cleaning function incorporated into the electronic control's programming. In most cases this self cleaning action will keep the cell working at optimum efficiency. If the pool water is hard (high mineral content) the cell may require periodic manual cleaning. To maintain maximum performance, we recommend that you open and visually inspect the electrolytic cell **(13)** once every month.
The following steps provide instructions on how to clean your cell.

MAINTENANCE (continued)

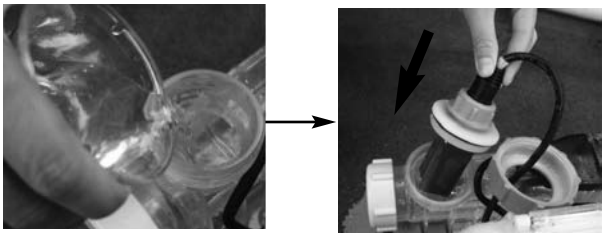
1. Switch off the unit, unplug the power cord from the electrical socket.
2. Grasp a plunger valve handle. Turn the handle counter-clockwise, push down until it stops and then turn it clockwise until the plastic protruding notch anchor is in the "0/I" position. Repeat for the second plunger valve. This prevents the water from flowing out of the pool.
3. Disconnect the hose with nut **(8)** from the Saltwater System, and assemble the cell cover **(30)** at the side of the cell.



4. In a counter-clockwise motion, unscrew the collar of the copper electrode **(14)** and remove it from the electrolytic cell **(13)**. Lift up the copper electrode.



5. Pour kitchen grade vinegar into the cell to immerse the titanium plates. Then put the copper electrode back in the cell, soak them for about one hour until no colored areas remain.



6. Open one side of the cell cover **(30)**, drain and properly dispose of the vinegar. Connect the hose which goes from the pool to the cell. Flush the cell with the pool water.

7. Reverse steps 3, 4, 5 and 6 to reconnect the electrolytic cell.

MAINTENANCE (continued)

CLEANING OR REPLACING FILTER CARTRIDGES

It is recommended that the filter cartridge be replaced at least every 2 weeks.

1. Make sure the unit is turned off, and disconnect the power cord from the electrical outlet.
2. Grasp a plunger valve handle. Turn the handle counter-clockwise, push down until it stops and then turn it clockwise until the plastic protruding notch anchor is in the "0/1" position. Repeat for the second plunger valve. This prevents the water from flowing out of the pool.
3. Gently turn both air release valves **(1 & 7)** once or twice in a counter-clockwise direction. The housing cover can now be easily removed.
4. In a counter-clockwise direction remove the filter housing collar **(3)**. Place it in a safe location.
5. Remove the housing cover **(4)**.
6. Now remove the used filter cartridge.
7. Examine the inside of the filter housing.
8. If dirt or sediment is located on the bottom of the housing then:
   - **A**. In a counter-clockwise motion gently unscrew and remove the sediment valve **(1)** located at the bottom of the housing. Place it in a safe place.
   - **B**. With a bucket of water or a garden hose pour water into the housing flushing out the sediment.
   - **C**. Screw back the sediment valve **(1)** in a gentle clockwise motion. Do not over-tighten.
9. Place a new cartridge filter in the housing.
10. Return the housing cover **(4)** to its installed position and in a clockwise direction rescrew the housing collar **(3)** onto the filter housing.
11. Turn both plunger valve handles in a counter-clockwise direction, pull up until they stop, and then turn them clockwise until the metal protruding notch anchor is in the "0/1" position.
12. Reconnect the power cord.
13. Turn on the unit.
14. When the trapped air has escaped through the air release valves gently retighten the valves **(1 & 7)** in a clockwise direction.

MAINTENANCE (continued)

INTEX® COPPER ION TEST STRIPS (PACKED WITH THE PRODUCT)

The Copper Ion Test Strips can be used to test the copper ion concentration in the water.

Directions and Use

1. Dip the entire strip into the water for 3 seconds, then remove it.
2. Hold the strip level for 15 seconds. Do not shake excess water from the strip.
3. Now compare the copper ion strip pad to the color chart on the packaging label.

INTEX® 3-WAY TEST STRIPS (PACKED WITH THE PRODUCT)

The 3-Way Test Strips can test the "Free Chlorine", "pH", and "Total Alkalinity" levels at the same time. We recommend that you test the water chemistry weekly, and maintain the chlorine concentration at 0.4-1.5 ppm.

Directions and Use

1. Dip the entire strip into the water and remove immediately.
2. Hold the strip level for 15 seconds. Do not shake excess water from the strip.
3. Now compare the strip pad to the color chart on the packaging label. If necessary, adjust the chemical level in the pool water. It is very important, to use the proper technique when testing the water's chemical level. Read and follow the written strip instructions carefully.

LONG TERM STORAGE

1. Disconnect the power cord from the electrical outlet.
2. After the pool is completely empty, disconnect the Saltwater System from the hoses by reversing the installation instructions.
3. Air-dry the unit before you store it. This might be a good time to visually inspect and clean the electrolytic cell.
4. Store the unit and accessories in a dry place. The temperature should be controlled, between 32 degrees Fahrenheit (0 degrees Celsius) and 97 degrees Fahrenheit (36 degrees Celsius).
5. The original package can be used for storage.

POOL MAINTENANCE & CHEMICAL DEFINITIONS

Preferred Water Chemistry Reading			
	Minimum	**Ideal**	**Maximum**
Copper Ions	0	0.1 - 0.2 ppm	0.2 ppm
Free Chlorine	0	0.4 - 1.5 ppm	3.0 ppm
Combined Chlorine	0	0 ppm	0.2 ppm
pH	7.2	7.4 - 7.6	7.8
Total Alkalinity	100 ppm	100 - 140 ppm	140 ppm
Calcium Hardness	150 ppm	200 - 400 ppm	500 - 1000 ppm
Stabilizer (Cyanuric Acid)	10 ppm	30 - 50 ppm	100 ppm

Consult with local swimming pool dealer for water treatment.
HCLO - A very effective killer of algae and bacteria known as hypochlorous acid.

Free Chlorine -	Is the sanitizer (HCLO) residual present in pool water.
Combined Chlorine -	Is formed by the reaction of free Chlorine with ammonia wastes. Result if too high - Sharp chlorinous odor, eye irritation.
pH -	A value that indicates how acidic or basic a solution is. Result if too low - Corroded metals, eye & skin irritation, destruction of total alkalinity. Result if too high - Scale formation, cloudy water, shorter filter runs, eye & skin irritation, poor Chlorine efficiency.
Total Alkalinity -	Indicates the degree of the water's resistance to change in pH. It determines the speed and ease of pH change, so always adjust total alkalinity before adjusting the pH level. Result if too low - Corroded metals, eye & skin irritation. Low alkalinity will cause the pH to be unstable. Any chemical added to the water will have an affect on pH. Result if too high - Scale formation, cloudy water, eye & skin irritation, poor Chlorine efficiency.
Calcium Hardness -	Refers to the amount of calcium and magnesium dissolved in the water. Result if too high - Scale will form and will cause the water to become cloudy.
Stabilizer - (Cyanuric Acid)	Stabilizers extend the life of Chlorine in swimming pools.

- Do not add pool chemicals directly to the skimmer. This may damage the cell.
- Maintaining a high salt and sanitizer levels above recommended range can contribute to corrosion of pool equipment.
- Check the expiry date of the test kit as the test results may be inaccurate if the kit is used after that date.
- If, due to heavy pool usage, it is required to increase the sanitizer level, then use a chemical based on Trichloro-s-triazinetrione or sodium dichloro-s-triazinetrione dihydrate.

TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
FILTER MOTOR FAILS TO START	• The motor is not plugged in. • Switch is not turn on. • The GFCI circuit breaker is tripped. • Motor too hot and overload protection is shut off.	• Filter cord must be plugged into a 3 wire outlet that is protected by a Class A Ground Fault Circuit Interrupter, or RCD. • Reset circuit breaker. If circuit breaker trips repeatedly, your electrical system may have a defect. Turn off circuit breaker and call an electrician to correct the problem. • Let motor cool down.
FILTER DOESN'T CLEAN POOL	• Improper sanitizer or pH levels. • Filter cartridge is dirty. • Damaged cartridge. • Excessively dirty pool. • The strainer screen is restricting the water flow.	• Adjust the sanitizer and pH level. Consult your local swimming pool supply stores. • Clean or replace cartridge. • Check the cartridge for holes. Replace if damaged. • Operate the filter for longer periods. • Clean the strainer screen at the inlet.
FILTER DOESN'T PUMP WATER OR FLOW IS VERY SLOW	• Clogged inlet or discharge. • An air leak on the intake line. • Scale or buildup on cartridge. • Excessively dirty pool. • Dirty filter cartridge.	• Clear any obstructions in the intake hose by discharging it inside pool wall. • Tighten hose nuts, check hoses for damage, check pool water level. • Replace cartridge. • Clean cartridge more often. • Clean inside the plunger valve. • Pull valve handle to full upright position.
PUMP DOESN'T WORK	• Low water level. • Strainer screen plugged up. • An air leak on the intake hose. • An air lock inside the cartridge chamber and motor chamber. • Service light on.	• Fill pool to correct water level. • Clean strainer screens at pool inlet. • Tighten hose nuts, check hose for damage. • Clear any sticks or leaves in the intake hose. • Turn and pull valve handle to full upright position. • Unscrew two air release valve on the chamber to fullfill water. • Contact Intex Service Center.
TOP COVER LEAKING	• O-ring missing. • Cover is not tight. • Filter cartridge is dirty.	• Remove cover & check for O-ring. • Tighten cover (Manually). • Replace or clean cartridge.
HOSE LEAKING	• Hose nuts are not well-fitted.	• Tighten or reinstall hose nut.
AIR LOCK	• There's air trapped in the pump housing and inlet hose. • The inlet and outlet hoses connection are reversed.	• Open air release valves, lift and lower the inlet hose until water starts to flow out of the valve, then close it. • The lower position of pool outlet connects to filter pump water inlet. The upper position of pool inlet connects to filter pump water outlet.

TROUBLESHOOTING GUIDE

TROUBLESHOOTING GUIDE (continued)

PROBLEM	CAUSE	SOLUTION
INSUFFICIENT CHLORINE	• Insufficient operating hours of the Saltwater System. • The salt level in the pool water is less than 2000ppm. This is insufficient. • Chlorine loss due to intense sunlight exposure. • The bather load has increased. • Clogged or dirty electrolytic cell.	• Increase the daily Saltwater System operating time. See "Operating Instructions". • Check the salt level with the Test Kit. Adjust as needed. See "Salt & Pool Water Volumes". • Use a pool cover when the pool is not in use and/or when the unit is operating. • Increase the daily Saltwater System operating time. See "Operating Instructions". • Remove the cell for inspection, clean it if necessary. See "Maintenance".
INSUFFICIENT COPPER ION LEVEL	• Insufficient operating hours. • The PH is too high. • The bather load has increased. • Clogged or dirty copper electrode. • Copper electrode defective.	• Increase operating time per day. See "Operating Instructions". • Use PH decrease chemical to adjust, contact your local pool chemical store. • Increase the operating time per day. See "Operating Instructions". • Remove the cell for inspection, clean it if necessary. See "Maintenance". • Contact Intex Service Center.
POOL IS STAINED	• High copper ion concentration.	• Drain about 20% of the pool water and add fresh water to decrease the copper ion concentration below 0.2ppm. • Add aluminum sulfate: 1000 liters water need around 2g (1000 gals need 0.27 ounce) or aluminum potassium sulfate: 1000 liters water need around 3g (1000 gals need 0.4 ounce) to pool. • Use a lemon based cleaning product (preferably containing citric acid). Don't scrub with aggressive cleaning products because this might etch the underlying surface.
WHITE FLAKES IN THE WATER	• Excessive calcium hardness is present in pool water.	• Drain about 20 to 25% of the pool water and add fresh water to decrease the calcium hardness. Inspect the electrolytic cell for scale buildup. Clean the electrolytic cell if necessary.
NO LED DISPLAY	• No power supply. • RCD/GFCI has not reseted. • A power fuse has blown. • LED failure. • Incorrect switching, press two buttons (and) together.	• Plug the cell cord firmly into the cell housing receptacle. • Reset the RCD/GFCI. • Contact Intex Service Center. • Contact Intex Service Center. • Shut down and turn on the power again, re-set the time. See "Operating Instructions".
GREEN HAIR	• High copper ion concentration.	• Drain about 20% of the pool water and add fresh water to decrease the copper ion concentration below 0.2ppm. • Add aluminum sulfate: 1000 liters water need around 2g (1000 gals need 0.27 ounce) or aluminum potassium sulfate: 1000 liters water need around 3g (1000 gals need 0.4 ounce) to pool. • Use 'Ultra-Swim' shampoo, or shampoo containing chelating agents.

IMPORTANT

If you continue to experience difficulty, please contact our Consumer Service Department for assistance. See back cover for contact information.

TROUBLESHOOTING GUIDE (continued)

LED PANEL CODE	PROBLEM	SOLUTION
LED Panel Code Flash & Alarm On (**NOTE**: Always turn off the power before cleaning and servicing).		
	**1**. Circulation line is blocked.	• If your unit has plunger valves, ensure that they are open. • Clear your filter cartridge and cell from debris and dirt. See "Maintenance". • Release all trapped air in the circulation line. See the filter pump manual.
	2. Incorrect inlet and outlet hose direction.	• Check the direction of the inlet and the outlet hose. Reverse the hoses if necessary. See "Set Up Instructions".
	3. Incorrectly installed flow sensor conduit.	• Check that the arrow on the flow sensor conduit, points in the same direction as the one on the cell. Reverse the flow sensor conduit if necessary.
	4. Scale on the flow sensor.	• Clean the flow sensor, paying special attention to the hinge. See "Maintenance".
	5. Flow sensor cord is loose.	• Plug the flow sensor firmly into the flow sensor receptacle.
	6. Inner timer confliction between filter pump and saltwater system.	• Reset both timers on the filter pump and saltwater system.See "Boost Cycle".
	7. Flow sensor failure.	• Contact Intex Service Center.
	**1**. Dirt or scale on titanium plates.	• Remove the electrolytic cell for inspection. Clean it if necessary. See "Maintenance".
	2. Low salt level / No salt.	• Add salt. See "Salt & Pool Water Volumes".
	3. Electrolytic cell cord is loose.	• Ensure that the cell cord is plugged firmly into the cell housing receptacle.
	4. Possible electrolytic cell failure.	• Contact Intex Service Center. Replace the cell if needed.
	**1**. High salt level.	• Partially drain the pool and refill it with fresh water. See "Salt & Pool Water Volumes".
	**1**. Display and all lights are off - the system does not power up.	• Household voltage is too high or too low (± 20%). Check the voltage is within the range stated on the device housing. • Contact Intex Service Center.

GENERAL AQUATIC SAFETY

Water recreation is both fun and therapeutic. However, it involves inherent risks of injury and death. To reduce your risk of injury, read and follow all product, package and package insert warnings and instructions. Remember, however, that product warnings, instructions and safety guidelines cover some common risks of water recreation, but do not cover all risks and dangers.

For additional safeguards, also familiarize yourself with the following general guidelines as well as guidelines provided by nationally recognized Safety Organizations:

- Demand constant supervision. A competent adult should be appointed as a "lifeguard" or water watcher, especially when children are in and around the pool.
- Learn to swim.
- Take the time to learn CPR and first aid.
- Instruct anyone who is supervising pool users about potential pool hazards and about the use of protective devices such as locked doors, barriers, etc.
- Instruct all pool users, including children what to do in case of an emergency.
- Always use common sense and good judgement when enjoying any water activity.
- Supervise, supervise, supervise.

LIMITED WARRANTY

Your Krystal Clear™ Saltwater System has been manufactured using the highest quality materials and workmanship. All Intex products have been inspected and found free of defects prior to leaving the factory. This Limited Warranty applies only to the Krystal Clear™ Saltwater System and accessories listed below.
The following provision is only valid within the European member states countries: The legal regulation of Directive 1999/44/EC will not be effected by this Intex warranty.

The provisions of this Limited Warranty apply only to the original purchaser and is not transferable. This Limited Warranty is valid for the period noted below from the date of the initial retail purchase. Keep your original sales receipt with this manual, as proof of purchase will be required and must accompany warranty claims or the Limited Warranty is invalid.

Krystal Clear™ Saltwater System Warranty – 2 Years
Hoses, Plunger Valves & Fittings Warranty – 180 days

If a manufacturing defect is found within the periods noted above, please contact the appropriate Intex Service Center listed in this manual. The Service Center will determine the validity of the claim.

IMPLIED WARRANTIES ARE LIMITED TO THE TERMS OF THIS WARRANTY AND IN NO EVENT SHALL INTEX, THEIR AUTHORIZED AGENTS OR EMPLOYEES BE LIABLE TO THE BUYER OR ANY OTHER PARTY FOR DIRECT OR CONSEQUENTIAL DAMAGES OR LIABILITIES. Some countries, or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This Limited Warranty does not apply if the products are subject to negligence, abnormal use or operation, accident, improper operation, improper voltage or current contrary to operating instructions, or to damage by circumstances beyond Intex's control, including but not limited to, ordinary wear and tear and damage caused by exposure to fire, flood, freezing, rain, or other external environmental forces. This Limited Warranty applies only to those parts and components sold by Intex. The Limited Warranty does not cover unauthorized alterations, repairs or disassembly by anyone other than Intex Service Center personnel.

The costs associated with the loss of pool water, chemicals or water damage are not covered by this warranty. Injury or damage to any property or person is not covered by this warranty.

For service questions or to order replacement parts, please contact the appropriate office listed below or visit www.intexdevelopment.com for answers to most frequently asked questions.

AREAS	LOCATION
• ASIA	INTEX DEVELOPMENT CO. LTD. 9TH FLOOR, DAH SING FINANCIAL CENTRE, 108 GLOUCESTER ROAD, WANCHAI, HONG KONG TEL: 852-28270000 FAX: 852-23118200 E-mail: xmservicesupport@intexcorp.com.cn Website: www.intexdevelopment.com
• EUROPE	INTEX TRADING B.V. POSTBUS 1075, 4700 BB ROOSENDAAL, THE NETHERLANDS TEL: 31-(0)165-593939 FAX: 31-(0)165-593969 E-mail: service@intexcorp.nl Website: www.intexcorp.nl
• FRANCE	UNITEX / INTEX SERVICE FRANCE S.A.S Z.A. DE MILLEURE BOIS DU BAN - N°4 71480 LE MIROIR TEL: 08 90 71 20 39 (0,15€/min) FAX: 03 84 25 18 09 Website: www.intex.fr
• GERMANY	STEINBACH VERTRIEBSGMBH C/O WEBOPAC LOGISTICS GMBH INTER-LOGISTIK-PARK 1-3 87600 KAUFBEUREN TEL: 0180 5 405 100 200 (0,14€/min aus dem Festnetz, Mobilfunk max. 0,42€/min) FAX: + 43 (7262) 61439 E-mail: service@intexcorp.de Website: www.intexcorp.de
• ITALY	A & A MARKETING SERVICE VIA RAFFAELLO SANZIO 19 20852 VILLASANTA (MB) TEL: 199 12 19 78 FAX: +39 039 2058204 E-mail: info@intexitalia.com Website: www.intexitalia.com
• UK	JOHN ADAMS LEISURE LTD MARKETING HOUSE, BLACKSTONE ROAD, HUNTINGDON, CAMBS. PE29 6EF. UK TEL: 0844 561 7129 FAX: 01480 414761 E-mail: sales@johnadams.co.uk Website: www.intexspares.com
• SWITZERLAND	GWM AGENCY GARTEN-U. WOHNMÖBEL, RÄFFELSTRASSE 25, POSTFACH, CH-8045 ZURICH/SWITZERLAND TEL: 0900 455456 or +41 44 455 50 60 FAX: +41 44 455 50 65 E-mail: gwm@gwm.ch Website: www.gwm.ch, www.gwmsale.ch
• SPAIN / PORTUGAL	Nostrum Iberian Market S.A. Av. de la Albufera, 321 28031 Madrid, Spain TEL: +34 902101339 FAX for Spain: +34 9 029 089 76 Email for Spain: sat@intexiberian.com FAX for Portugal: +351 707 506 090 Email for Portugal: spv-pt@intexiberian.com Website: www.intexiberian.com
• AUSTRALIA	HUNTER PRODUCTS PTY LTD LEVEL 1, 225 BAY STREET, BRIGHTON, VICTORIA, AUSTRALIA TEL: 61-3-9596-2144 or 1800-224-094 FAX: 61-3-9596-2188 E-mail: enquiries@hunteroverseas.com.au Website: www.hunterproducts.com.au
• NEW ZEALAND	HAKA NEW ZEALAND LIMITED UNIT 4, 11 ORBIT DIVE, ALBANY, AUCKLAND 0757, NEW ZEALAND TEL: 649-4159213 / 0800 634434 FAX: 649-4159212 E-mail: geoff@hakanz.co.nz Website: www.hakanz.co.nz
• MIDDLE EAST REGION	FIRST GROUP INTERNATIONAL AL MOOSA GROUP BUILDING, 1ST FLOOR, OFFICE 102 & 103, UMM HURAIR ROAD, KARAMA, DUBAI, UAE TEL: 00971-4-800INTEX(46839) / +971-4-3373322 FAX: 00971-4-3375115 E-mail: intex@firstgroupinternational.com. Website: www.firstgroupinternational.com
• SOUTH AFRICA	WOOD & HYDE 15-17 PACKER AVENUE, INDUSTRIA 2, CAPE TOWN, SOUTH AFRICA 7460 TEL: 0-800-204-692 (Toll Free) or 27-21-505-5500 FAX: 27-21-505-5600 E-mail: ygoldman@melbro.co.za
• CHILE / URUGUAY	COMEXA S.A. EL JUNCAL 100, PARQUE INDUSTRIAL PORTEZUELO, QUILICURA, SANTIAGO, CHILE. TEL: 600-822-0700 E-mail: serviciotecnico@silfa.cl

AREAS	LOCATION
• ARGENTINA	JARSE INDUSTRIAL Y COMERCIAL S.A MANUEL GARCIA 124 (CP1284) CIUDAD AUTÓNOMA DE BUENOS AIRES, ARGENTINA. TEL: 011-4942-2238 (interno 139); TEL: 011-4942-2238(interno 145) E-mail: Martín Cosoleto: mcosoleto@jarse.com.ar E-mail: Daniel Centurion: dcenturion@jarse.com.ar Website: www.jarse.com.ar
• PERU	COMEXA S.A. AVENIDA COMANDANTE ESPINAR 142, MIRAFLORES, LIMA, PERÚ TEL: 446-9014
• SAUDI ARABIA	SAUDI ARABIAN MARKETING & AGENCIES CO. LTD. PRINCE AMIR MAJED STREET, AL-SAFA DISTRICT, JEDDAH, KINGDOM OF SAUDI ARABIA TEL: 966-2-693 8496 FAX: 966-2-271 4084 E-mail: toy@samaco.com.sa Website: www.samaco.com.sa
• AUSTRIA	STEINBACH VERTRIEBSGMBH AISTINGERSTRAßE 2 4311 SCHWERTBERG TEL: 0820 - 200 100 200 (0,145€/min aus allen Netzen) FAX: + 43 (7262) 61439 E-mail: service@intexcorp.at Website: www.intexcorp.at
• CZECH REPUBLIC / EASTERN EUROPE	INTEX TRADING S.R.O. BENESOVSKA 23, 101 00 PRAHA 10, CZECH REPUBLIC TEL: +420-267 313 188 FAX: +420-267 312 552 E-mail: info@intexcorp.cz
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• DENMARK	K.E. MATHIASEN A/S SINTRUPVEJ 12, DK-8220 BRABRAND, DENMARK TEL: +45 89 44 22 00 FAX: +45 86 24 02 39 E-mail: intex@keleg.dk Website: www.intexnordic.com
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• HUNGARY	RECONTRA LTD./RICKI LTD. H-1113 BUDAPEST, DARÓCZI ÚT 1-3, HUNGARY TEL: +361 372 5200/113 FAX: +361 209 2634 E-mail: service@recontra.hu
• BRASIL	KONESUL MARKETING & SALES LTDA RUA ANTONIO DAS CHAGAS, 1.528 - CEP. 04714-002, CHÁCARA SANTO ANTONIO - SÃO PAULO - SP - BRASIL TEL: 55 (11) 5181 4646 FAX: 55 (11) 5181 4646 E-mail: sacintexbrasil@uol.com.br
• ISRAEL	ALFIT TOYS LTD MOSHAV NEHALIM, MESHEK 32, 49950, ISRAEL TEL: +972-3-9076666 FAX: +972-3-9076660 E-mail: michald@chagim.co.il