26 Model label: Replacement cell for chlorine generating devices:

Sand Filter Pump & Krystal Clear Saltwater System™ Model ECO 20110

Replacement cell for the chlorine generating device
Sand Filter Pump & Krystal Clear Saltwater System™ Model ECO 20110

REGISTRATION NUMBER 32058, *PEST CONTROL PRODUCTS ACT*.
This cell must only be used on this model of chlorine generating device.

READ THE LABEL, THE INSTALLATION MANUAL AND OPERATION MANUAL OF THE CHLORINE GENERATING DEVICE BEFORE USING.

Registrant: Intex Development Co. Ltd., 9th floor Dah Sing Financial Center, 108 Gloucester Road, Wanchai, Hong Kong
Canadian Agent: INTEX RECREATION CORP., 1665 Hughes Way, Long Beach, CA 90810 Phone: 1-800-234-6839

Model label: Chlorine generating devices:

Sand Filter Pump & Krystal Clear Saltwater System™ Model ECO 20110

CHLORINE GENERATOR

CONTROLS BACTERIA AND ALGAE
In
Swimming Pool Waters

DOMESTIC

A maximum of 55 000 L of water can be treated with one
Sand Filter Pump & Krystal Clear Saltwater System™ Model ECO 20110 unit.
Maximum output of hypochlorous acid equivalent to 0.305 kg of free available chlorine per day

For swimming pools, a range of 1-3 ppm of free available chlorine must be maintained.

READ THE LABEL AND OPERATING MANUAL BEFORE USING
KEEP OUT OF REACH OF CHILDREN
REGISTRATION NO. 32058 *PEST CONTROL PRODUCT ACT*

WARNING: operating Sand Filter Pump & Krystal Clear Saltwater System™ Model ECO 20110 without water flow through the cell can cause a build-up of flammable gases which can result in FIRE OR EXPLOSION.

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Canadian Agent: INTEX RECREATION CORP., 1665 Hughes Way, Long Beach, CA 90810 Phone: 1-800-234-6839

SAND FILTER PUMP & KRYSTAL CLEAR SALTWATER SYSTEM MODEL ECO 20110
WITH E.C.O. (ELECTROCATALYTIC OXIDATION)
Saltwater System - 1.1 A; Filter Pump - 6 A

THERMALLY PROTECTED
WEATHERPROOF ENCLOSURE, CSA ENCLOSURE 3,
FOR USE WITH SWIMMING POOLS ONLY.

WARNING
RISK OF ELECTRIC SHOCK.
CONNECT ONLY TO A GROUNDING TYPE RECEPTACLE
PROTECTED BY A CLASS A GROUND FAULT CIRCUIT INTERRUPTER (GFCI).

CAUTION
TO ENSURE CONTINUED PROTECTION AGAINST SHOCK HAZARD, USE ONLY IDENTICAL REPLACEMENT PARTS WHEN SERVICING. THIS PRODUCT IS FOR USE WITH STORABLE ABOVE-GROUND POOLS ONLY. DO NOT USE WITH PERMANENTLY INSTALLED POOLS.

CONFORMS TO
UL STD. 1081
CERTIFIED TO
CSA STD. C22.2
No. 108-01

Intex Industries (Xiamen) Co., Ltd., Xiamen, Fujian, P.R.C.
Made in China
SAND FILTER PUMP & KRYSTAL CLEAR SALTWATER SYSTEM MODEL ECO20110
WITH E.C.O. (ELECTROCATALYTIC OXIDATION)

SIZE: 100mm x 85mm

SAND FILTER PUMP & KRYSTAL CLEAR SALTWATER SYSTEM MODEL ECO20110
WITH E.C.O. (ELECTROCATALYTIC OXIDATION)

CONTROLS BACTERIA AND ALGAE
In Storable Swimming Pool Waters

DOMESTIC

A maximum of 55000 L of water can be treated with one
SAND FILTER PUMP & KRYSTAL CLEAR SALTWATER SYSTEM MODEL ECO20110
WITH E.C.O. (ELECTROCATALYTIC OXIDATION)

Maximum output of hypochlorous acid equivalent to 0.305 kg of free available chlorine per day.

For swimming pools, a range of 1-3 ppm of free available chlorine must be maintained.

READ THE LABEL AND OPERATING MANUAL BEFORE USING
KEEP OUT OF REACH OF CHILDREN

REGISTRATION NUMBER 32058 PEST CONTROL PRODUCTS ACT.

Warning: operating SAND FILTER PUMP & KRYSTAL CLEAR SALTWATER SYSTEM MODEL ECO20110 WITH E.C.O.(ELECTROCATALYTIC OXIDATION)
without water flow through the cell can cause a build-up of flammable gases which can result in FIRE OF EXPLOSION.

Warning: Straining of pool surfaces may occur due to deposits of copper salts. Excessive levels of copper will increase the probability of this occurrence.

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SAND FILTER PUMP & KRYSTAL CLEAR SALTWATER SYSTEM MODEL ECO20110 WITH E.C.O. (ELECTROCATALYTIC OXIDATION)

IMPORTANT SAFETY RULES

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

DO NOT RETURN PRODUCT TO STORE
To purchase parts and accessories or to obtain non-technical assistance, Visit www.intexcorp.com
For technical assistance and missing parts call us toll-free (for U.S. and Canadian Residents):
1-800-234-6839
Monday through Friday, 8:30am to 5:00pm Pacific Time
Don't forget to try these other fine Intex products: Pools, Pool Accessories, Inflatable Pools and In-Home Toys, Airbeds and Boats available at fine retailers or visit our website listed below.
Due to a policy of continuous product improvement, Intex reserves the right to change specifications and appearance, which may result in updates to the instruction manual without notice.
249-*PO-R0-1507
For illustrative purposes only.

SAVE THESE INSTRUCTIONS

TABLE OF CONTENTS
SAFETY RULES

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

IMPORTANT SAFETY RULES

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

READ AND FOLLOW ALL INSTRUCTIONS
WARNING

PRECAUTIONS

•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).
•Assembly and disassembly by adults only.
• Risk of electric shock. Connect only to a grounding type receptacle, this product is provided with a ground-fault circuit interrupter. If replacement of the plug or cord is needed, use only identical replacement parts.
•Always unplug this product from the electrical outlet before removing, cleaning, servicing or making any adjustment to the product.
• The unit is provided with a ground-fault circuit interrupter (GFCI). To test the GFCI, push the test button. The GFCI should interrupt power. Push the reset button, power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the pump without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. Do not use this pump. Disconnect the pump and have the problem corrected by a qualified service representative before using.
•Do not bury the electrical cord. Locate the cord where it will not be damaged by lawn mowers, hedge trimmers and other equipment.
•To reduce the risk of electric shock, the supply cord cannot be replaced. If the cord is damaged, the appliance should be replaced immediately.
•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.
•Do not use an appliance leakage current interrupter (ALCI) in place of a GFCI since the ALCI will not protect people.
•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.
• To reduce the risk of entrapment hazard, never enter the pool if suction strainer component is loose, broken, cracked, damaged or missing. Replace loose, broken, damaged, cracked or missing suction strainer components immediately.
• Never play or swim near suction fittings. Your body or hair may be trapped causing permanent injury or drowning.
• To prevent equipment damage and risk of injury, always turn pump off before changing the filter control valve position.
• Never operate this product above the maximum working pressure stated on the filter tank.
• Hazardous Pressure. Improper tank valve cover assembly could cause the valve cover to blow off and cause serious injury, property damage or death.

•Never use the pool if indicated chlorine level is more than 3ppm.
•This product is intended to be used only for the purposes described in the manual!
.•Operating this product without water flowing through the system can cause a build-up of flammable gases which can result in FIRE OR EXPLOSION.

WARNING: Staining of pool surfaces may occur due to deposits of copper salts. Excessive levels of copper will increase the probability of this occurrence.

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

CAUTION

This product is for use with storable pools only. Do not use with permanently-installed pools. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity. A permanently -installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage.

To reduce the risk of electric shock the pool must be installed no closer than 6 feet (1.8 m) from any electrical outlet. Do not place portable appliances closer than 5 feet (1.5 m) from the pool.

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.

PARTS REFERENCE

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

NOTE: Drawings for illustration purpose only. Actual product may vary. Not to scale.
*** If this pump was not purchased as part of a pool set, the above parts can be ordered at www.intexcorp.com if needed.**

SAVE THESE INSTRUCTIONS

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. ECO20110
1	PRESSURE GAUGE	1	11224
2	6-WAY VALVE SET	1	11496
3	DRAIN OUTLET COVER	1	11131
4	TANK O-RING	1	11379
5	SCREW	2	11381
6	CLAMP	1	11380
7	SAND SHIELD	1	11382
8	CENTER PIPE HUB	1	11814
9	DRAIN VALVE CAP	1	11456
10	DRAIN VALVE O-RING	1	11385
11	LATERAL	10	11384
12	HOSE WITH NUTS	2	11009
13	SAND FILTER INTERCONNECTING HOSE	1	11536
14	LEAF TRAP NUT	1	11479
15	LEAF TRAP O-RING	1	11232
16	BASKET	1	11260
17	FILTER HOUSING NUT	1	11261
18	L-SHAPE O-RING	4	11228
19	SEDIMENT RELEASE VALVE	1	10460
20	VALVE O-RING	1	10264
21	FLOW SENSOR	1	11460
22	ELECTROLYTIC CELL	1	11372
23	TITANIUM ELECTRODE	1	11374
24	E.C.O. ELECTRODE	1	11905
25	PRE-FILTER ASSEMBLY	1	11371
26	PUMP MOTOR & CONTROL	1	11913EG
27	L-SHAPE O-RING	1	11439
28*	PLUNGER VALVE (HOSE O-RING & STEP WASHER INCLUDED)	2	10747
29*	HOSE O-RING	2	10262
30*	STEP WASHER	2	10745
31*	STRAINER NUT	2	10256
32*	FLAT STRAINER RUBBER WASHER	2	10255
33*	THREADED STRAINER CONNECTOR	2	10744
34*	ADJUSTABLE POOL INLET NOZZLE	1	11074
35*	ADAPTOR B	2	10722
36*	STRAINER CONNECTOR	2	11070
37*	POOL INLET NOZZLE	1	11071
38*	STRAINER GRID	1	11072
39	TEST STRIPS	1	19635
40	LEAF TRAP COVER	1	11480

41	STRAINER GRID	1	10253
42	ELECTROLYTIC CELL NUT	1	11432
43	TITANIUM ELECTRODE O-RING	1	11585
44	CELL HOUSING	1	11915
45	SAND FILTER PUMP MOTOR INLET O-RING	2	11457
46	ELECTRODE CELL NUT	1	11582
47	SAND FILTER PUMP AND TANK COMBO	1	11803
48	SAND FILTER PUMP TANK BASE	1	11801
49	O-RING ON TITANIUM PLATES	1	11515

" * ": Optional.

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

POOL OUTLET - STRAINER & PLUNGER VALVE SETUP (optional)

Please visit *www.intexcorp.com* for the latest instructional video on the installation and operation of this product.

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 **(33) (see drawing 1).** Be careful not to lose the step rubber washer **(30)**. Place the plunger valve on the ground in a safe place.
2. In a counter-clockwise motion unscrew the strainer nut **(31)** from the threaded connector **(33).** Leave the flat washer **(32)** on the connector **(33)**.
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 **(33)** 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. With the flat side of the strainer nut **(31)** facing the outside wall of the liner in a clockwise motion screw the strainer nut **(31)** back onto the threaded connector **(33) (see drawing 2)**.
5. Finger tighten the strainer nut **(31)** onto the threaded connector **(33)**.
6. Grasp the plunger valve assembly. Make sure the step washer **(30)** is in place.
7. In a clockwise motion screw the plunger valve union back onto the threaded connector **(33) (see drawing 3)**.
8. In a clockwise motion turn the plunger valve handle to close position. Ensure the plunger valve is securely closed. This will prevent water from flowing out during filling of the pool **(see drawing 4)**.

POOL INLET - NOZZLE & PLUNGER VALVE SETUP (optional)

1. In a counter-clockwise motion unscrew plunger valve union from the threaded strainer connector **(33) (see drawing 5).** Be careful not to lose the step rubber washer **(30)**. Place the plunger valve on the ground in a safe place.
2. In a counter-clockwise motion unscrew the strainer nut **(31)** from the threaded connector **(33).** Leave the flat washer **(32)** on the connector **(33)**.
3. Install the nozzle and plunger valve at the upper position of pool inlet. From the inside of the pool liner insert the connector **(33)** 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. With the flat side of the strainer nut **(31)** facing the outside wall of the liner in a clockwise motion screw the strainer nut **(31)** back onto the threaded connector **(33) (see drawing 6)**.
5. Finger tighten the adjustable pool inlet nozzle **(34)** and the strainer nut **(31)** onto the threaded connector **(33)**.
6. Grasp the plunger valve assembly. Make sure the step washer **(30)** is in place.
7. In a clockwise motion screw the plunger valve union back onto the threaded connector **(33) (see drawing 7)**.
8. In a clockwise motion turn the plunger valve handle to close position. Ensure the plunger valve is securely closed. This will prevent water from flowing out during filling of the pool **(see drawing 8)**.
9. Adjust the direction of nozzle head pointing away from the pool outlet for a better circulation result **(see drawing 9)**.
10. The pool liner is now ready to fill with water. Consult the above-ground-pool owner’s manual for filling instructions.

PRODUCT SPECIFICATIONS

The sand filter removes suspended particles and sanitize your pool. Pool chemistry is a specialized area and you should consult your local pool service specialist for details.

Power: 110 - 120 Volt AC
Amperage: Saltwater System - 1.1 A; Filter Pump - 6 A
Wattage: Saltwater System - 120 W; Filter Pump - 650 W
Ideal Salt Level: 3000 ppm (parts per million)
Maximum Sanitizer Output/hour: 11 grams/hour
E.C.O. Cell Output Current: 800 mA
Maximum working pressure: 2 bar (30 psi)
Effective filtering area: 0.13 m^2 (1.44 ft^2)
Maximum Flow Rate: 8140 liters/hour (2150 gallons/hour)
Recommended filtering media quantity: No. 20 silica sand 45 Kg (100 Lbs) or glass sand 32 Kg (70 Lbs).
Recommended filtering media (Not included) : No. 20 silica sand or glass sand.
Particle size range 0.45 to 0.85 mm (0.018 to 0.033 inches).
Uniformity Coefficient less than 1.75.
Limited Warranty: see “Limited Warranty”

HOW THE ELECTROCATALYTIC OXIDATION WORKS

The Electrocatalytic Oxidation (E.C.O.) is an Advanced Oxidation Processes (AOPs). When direct current is applied to the electrocatalytic oxidation electrodes, water will be discharged to generate “hydroxyl radicals”. The hydroxyl radical is a powerful oxidant, which oxidizes organic contaminants, and destroys bacteria and algae. Hydroxyl radicals in combination with free available chlorine provide the strongest and safest pool water sanitation.

SETUP INSTRUCTIONS

TOOLS REQUIRED: One (1) Phillips screwdriver
Pump location and mounting:
• The system must be installed on a solid level and vibration-free base.
• Provide a location protected from the weather, moisture, flooding and freezing temperature.
• Provide adequate access, space and lighting for routine maintenance.
• Pump motor requires free circulation of air for cooling.
Do not install the pump in a damp or non-ventilated location.

A team of 2 or more people is recommended for setting up this product.

Motor pre-filtering assembly setup:
1. Remove the sand filter and its accessories from the packaging carefully and inspect for any

visible damage. For missing or damaged parts contact the appropriate Intex Service Center listed in the separate “Authorized service Centers” sheet.
2. In a counter-clockwise motion unscrew the leaf trap cover (14) from the pre-filter housing. Take out the basket (16) and filter housing nut (17) (see drawing 10).
3. Connect the pre-filter housing to the motor water inlet. Note: Align the connector in the pre-filter housing with the water inlet on the motor (see drawing 11).
4. In a clockwise motion screw filter housing nut (17) onto the motor water inlet (See drawings 12.1 & 12.2).

Sand tank installation:
1. Place the tank support base at the selected location.
2. Place the tank on the tank support base (See drawing 14.1).
3. Connect the motor pre-filtering assembly unit to the tank support base (See drawing 14.2).
NOTE: Ensure the pre-filter housing water inlet hose connection is facing towards the pool.
IMPORTANT: 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 14.3.
The product can be mounted on a cement base or onto a wooden platform to prevent accidental falling over.
• The mounting holes are 6.4 mm in diameter and spaced 115 mm apart.
• Use two bolts and lock nuts with a maximum of 6.4 mm in diameter.

Sand loading:
IMPORTANT: Use No. 20 silica sand or glass sand with particle size range 0.45 to 0.85 mm (0.018 to 0.033 inches) and a Uniformity Coefficient less than 1.75.
NOTE: Before loading the tank with sand, ensure the center pipe hub assembly is securely in place at the bottom of the tank, and vertically centered inside the tank.
1. Place the sand shield (7) over the top of the center pipe. Pour the sand into the tank at a slow rate. (see drawing 15).
2. Fill the tank approximately half way, remove the sand shield (7). (see drawing 16).
3. Evenly distribute the sand inside the tank, then fill the tank with some water to provide a cushioning effect when the remaining sand is poured in. This prevents the center pipe hub (8) from excessive shock (see drawing 17). Place the sand shield (7) back and continue to pour the sand into the tank.
4. Sand shall be filled between the “MAX” and “MIN” marked gauge on the center pipe. Evenly spread and level out the sand by hand (see drawings 17 & 18).
5. Remove the sand shield (7).
6. Wash away all sand around the top edge of the tank.

WARNING

Improper tank valve and clamp assembly could cause the valve and clamp to blow off and cause serious injury, property damage or death.

6-way valve installation:

1. Lower the 6-way valve over the tank slowly, and ensure the bypass pipe protruding underneath the 6-way valve fits securely into the center pipe hub **(8)** top opening **(see drawing 19)**.

IMPORTANT: There are three hose connection ports on the 6-way valve, ensure the outlet connection (from filter to the pool) on the valve is facing towards the pool, and the inlet connection (from motor to valve) is aligned with the motor outlet (see drawing 20).

2. Remove the clamp bolt, and install the clamp around the tank and 6-way valve flanges, then replace the clamp bolt and use a phillips screwdriver (not included) to tighten it. **(see drawing 21)**.

3. Connect the sand filter interconnecting hose **(13)** between the 6-way valve inlet and motor outlet, and insert the electrolytic cell **(22)** into the 6-way valve outlet. Hand tighten them securely (**see drawings 22 and 23**).

4. Screw and tighten the flow sensor **(21)** to the electrolytic cell **(22)**, then plug in the electrolytic cell line cord and tighten the nut (**see drawings 24 and 25**).

WARNING

Position this product away from the pool, so as to prevent children from climbing on it and accessing the pool.

The 6-way valve has three hose connection ports.

1. Connect one hose **(12)** end to the pre-filter inlet and the other end of the hose to the lower plunger valve with the strainer. Ensure the hose nuts are securely tighten.

2. Connect the second hose **(12)** between the electrolytic cell outlet and the upper plunger valve with the inlet-nozzle. Ensure the hose nuts are securely tighten.

3. The third hose connection port (drain/waste outlet) on the 6-way valve shall be directed to a proper draining receptacle using a hose or pipe (not provided). Remove the drain cap before attaching the drain/waste hose or pipe.

4. The sand filter pump is now ready to filter the pool.

For NON-INTEX pool:

1. Connect the hose **(12)** to the pool inlet/outlet connection with a large hose clamp. Tighten securely. Remove the drain valve **(3)** from the 6-way valve outlet and connect the hose to the outlet.

For INTEX pool size 4.88m (16') and below:

1. In a counter-clockwise motion unscrew plunger valve union from the threaded strainer connector **(33)**. Be careful not to lose the step rubber washer **(30)**.
2. Grasp the plunger valve assembly. Make sure the step washer **(30)** is in place. Connect adaptor B **(35)** to plunger valve union.
3. Remove wall plug and then insert the strainer **(36 & 38)** into the lower position of protruding hose connection, and the nozzle **(36 & 37)** into the upper position of protruding hose connection. Adaptor B **(35)** fits over the strainer connection **(36)** inserted into the connection. Tighten securely.
4. Remove the drain valve **(3)** from the 6-way valve outlet and connect the hose to the outlet.

OPERATING INSTRUCTIONS

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).
• 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.
• Never operate this product above the maximum working pressure stated on the filter tank.
• Always switch off pump before changing the 6-way valve position.
• Operating this product without water flowing through the system can cause a build up of hazardous pressure which can result in an explosive situation, serious injury, property damage or death.
• Never test this pump with compressed air. Never operate the system with water temperature above 35° C (95° F).

6-way valve positions and function:

Valve Position	Function	Water Flow Direction
FILTER (see drawing 26)	Normal filtration and regular vacuuming of pool	From pump through filter media to pool
BACKWASH (see drawing 27)	Reverses water flow to clean filter media	From pump through filter media to valve waste/drain outlet
RINSE (see drawing 28)	For initial startup cleaning of the sand, and leveling the sand bed after backwashing	From pump through filter media to valve waste/drain outlet
WASTE (see drawing 29)	For vacuuming directly to waste, lowering pool level or to drain the pool	From pump to valve waste/drain outlet bypassing the filter media
RECIRCULATE (see drawing 30)	For circulating water back to pool without going through the filter media	From pump through valve to pool bypassing the filter media
CLOSED (see drawing 31)	**Shuts off all flow to filter and pool** “Do not use this setting with pump running”	

Initial startup and operation:
Before operating, be sure that:
• All the hoses have been connected and tightened securely, and correct amount of filter sand has been loaded.
• The entire system is connected to a grounding type receptacle protected by a ground-fault circuit interrupter (GFCI) or residual current device (RCD).

CAUTION

The filter control valve has a closed position. The pump should never be on when the valve is in the closed position. If the pump is operated with the valve closed, an explosive situation could exist.

1. Turn both plunger valve handles fully counter-clockwise until they stop. This opens the valves to allow water to flow into the sand filter pump.
2. Ensure the drain/waste outlet on the 6-way valve is not covered and directed to a proper draining receptacle.
3. Ensure the pump is off, depress the 6-way valve and turn it to the "**BACKWASH**" position **(see drawings 27 & 32)**.
IMPORTANT: To prevent damage to the 6-way valve, always depress the valve handle before turning. Always switch off pump before changing the 6-way valve position.
4. Switch on the pump **(see drawing 33)**. Water is circulating backward through the sand media and to waste/drain outlet.
Backwash until a clear flow of water is observed in the waste/drain outlet or through the drain sediment window.
NOTE: The initial backwash of the filter is recommended to remove any impurities or fine sand particles in the sand media.
5. Switch off the pump, change the 6-way valve to "RINSE" position **(see drawing 28)**.
6. Switch on the pump and run the pump for about one minute to level out the sand bed after backwashing the sand media.
7. Switch off the pump, change the 6-way valve to "FILTER" position **(see drawing 26)**.
8. Switch on the pump. The system is now operating in the normal filtering mode. Run the pump until the desired pool water clearance is obtained and no more than 12 hours per day.
9. Record the initial pressure gauge reading when the filter media is clean.
NOTE: During initial setup of the system, it may be necessary to backwash frequently due to unusual heavy dirt present in the water and sand. After that, as the filter removes dirt and impurities from the pool water, the accumulated dirt in the sand media will cause the pressure to rise and the flow to diminish. If there is no vacuuming device attached to the system and the pressure gauge reading is in the yellow zone it is time to backwash the sand media, see "BACKWASH" under "initial startup and operation" section.
Vacuuming device (i.e. Intex auto pool cleaner) attached to the system may also cause the flow to diminish and the pressure to rise. Remove any vacuuming device from the system and

check if the pressure gauge reading has dropped from the yellow zone to the green zone.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

SAVE THESE INSTRUCTIONS

Page 16

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. Flashing code “00” appears on the electronic control station’s LED, indicating that the unit is ready to be programmed.

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. 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. Boost cycle
h • First time installation, press and hold “BOOST” button for 5 seconds until the indicator lights up and the LED display “80”. This indicates that the saltwater system has started E.C.O. 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.
• The boost operating hours is 8 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 8 x 2 = 16 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.

6. 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 5 minutes. Press any button ( or ) to view the last LED code.

7. 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 bring back the initial automatic operating cycle setting of the Saltwater System:

a) If the LED display shows “FP”, press the  button and the operating hours set previously will begin flashing, press the  button again or simply wait 1 minute, and the LED will stay illuminated. The Saltwater System cycle repeats again.
b) If the unit is OFF, turn the switch ON, the LED display shows “FP”, press the  button and the operating hours set previously will begin flashing, press the button  again or simply wait 1 minute, and the LED will stay illuminated. The Saltwater System cycle repeats again.

OPERATION INSTRUCTIONS (continued)

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 Pump Flow / No Pump 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

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 this salt to create the sanitizer. 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 3500-4000 ppm).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 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) 1 cubic meter = 1000L**
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 dosage 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 3.0 g/L (3000 ppm)		Salt Needed when Low Salt Detected (CODE "91")	
		Gals	Liters	Lbs	Kgs	Lbs	Kgs
INTEX ABOVE GROUND POOLS (AGP's)							
EASY SET POOL	549cm x 107cm (18'x42")	4786	18115	120	55	30	15
	549cm x 122cm (18'x48")	5455	20647	135	60	35	15
	549cm x 122cm (18'x48")	6423	24311	160	75	40	20
	640cm x 132cm (21'x52")	9533	36082	240	110	60	30
	732cm x 132cm (24' x 52")	12481	47241	310	140	80	35
ULTRA FRAME POOL	549cm x 122cm (18'x48")	6423	24311	160	75	40	20
	549cm x 132cm (18'x48")	6981	26423	175	80	45	20
	610cm x 122cm (20'x48")	7947	30079	210	90	50	25
	671cm x 132 cm (22'x52")	10472	39637	260	120	65	30
	732cmx132cm (24'x52")	12481	47241	310	140	80	35
	792cm x 132cm (26'x52")	14667	55515	365	165	90	40
SEQUOIA SPIRIT POOL SET	478cm x 124cm (15'8"x49")	4440	16805	110	50	30	15
	508cm x 124cm (16'8"x49")	5061	19156	125	55	35	15
	569cm x 135cm (18'8"x53")	6981	26423	175	80	45	20
OVAL FRAME POOL	305cm x 549cm x 107cm (10'x18'x42")	2885	10920	70	30	20	10
	366cm x 610cm x 122cm (12'x20'x48")	4393	16628	110	50	30	15
RECT. ULTRA FRAME POOL	274cm x 549cm x 132cm (9'x18'x52")	4545	17203	115	50	30	15
	305cm x 610cm x 132cm (10'x20'x52")	5835	22085	145	65	40	20
	366 cm x 732 cm x 132 cm (12'x24'x52")	8403	31805	210	95	55	25
	488cm x 975cmx132cm (16'x32'x52")	14364	54368	360	165	90	40

INTEX POOLS CYANURIC ACID TABLE

Cyanuric acid is a chemical that reduces the loss of chlorine in water due to ultraviolet rays. To maintain the pool water clear and clean, and to maximize the performance of the device, add cyanuric acid to the pool. We recommend that the cyanuric acid level be maintained at **approximately 1% of the salt, i.e. 45 Kgs (100 Lbs) salt x1% = 0.45 Kgs (1 Lb) cyanuric acid**. If the pool water is dirty, filthy or grimy, DO NOT add chlorine stabilizer (cyanuric acid) as this will slow down the sanitation time of the device. Under this condition you must BOOST your pool water, refer to BOOST cycle steps. Once the pool water has been restored to clear and clean conditions you may add cyanuric acid.

Pool Size		Water Capacity (Calculated at 90% for Frame Pool and 80% for Easy Set & Oval Pool)		Cyanuric Acid Needed for Startup 0.03 g/L (30 ppm)	
		Gals	Liters	Lbs	Kgs
INTEX ABOVE GROUND POOLS (AGP's)					
EASY SET POOL	549cm x 107cm (18'x42")	4786	18115	1.2	0.5
	549cm x 122cm (18'x48")	5455	20647	1.4	0.6
CIRCULAR METAL FRAME POOL	549cm x 122cm (18'x48")	6423	24311	1.6	0.7
	640cm x 132cm (21'x52")	9533	36082	2.4	1.1
	732cmx132cm (24'x52")	12481	47241	3.1	1.4
ULTRA FRAME POOL	549cm x 122cm (18'x48")	6423	24311	1.6	0.7
	549cm x 132cm (18'x52")	6981	26423	1.7	0.8
	610cmx122cm (20'x48")	7947	30079	2.0	0.9
	671cmx132cm (22'x52")	10472	39637	2.6	1.2
	732cmx132cm (24'x52")	12481	47241	3.1	1.4
	792cmx132cm (26'x52")	14667	55515	3.7	1.7
SEQUOIA SPIRIT POOL SET	478cm x 124cm (15'8"x49")	4440	16805	1.1	0.5
	508cm x 124cm (16'8"x49")	5061	19156	1.3	0.6
	569cmx135cm (18'8"x53")	6981	26423	1.7	0.8
OVAL FRAME POOL	305cm x 549cm x 107cm (10'x18'x42")	2885	10920	0.7	0.3
	366cm x 610cm x 122cm (12'x20'x48")	4393	16628	1.1	0.5
RECT. ULTRA FRAME POOL	274cm x 549cm x 132cm (9'x18'x52")	4545	17203	1.1	0.5
	305cm x 610cm x 132cm (10'x20'x52")	5835	22085	1.5	0.7
	366cm x 732cm x 132cm (12'x24'x52")	8403	31805	2.1	1.0
	488cm x 975cm x 132cm (16'x32'x52")	14364	54368	3.6	1.6

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 POOL (AGP's)						
EASY SET POOL	549cm x 107cm (18' x 42")	4786	18115	2	2	3
	549cm x 122cm (18' x 48")	5455	20647	2	3	4
CIRCULAR METAL FRAME POOL	549cm x 122cm (18' x 48")	6423	24311	3	3	4
	640cm x 132cm (21' x 52")	9533	36082	4	5	6
	732cm x 132cm (24' x 52")	12481	47241	6	6	7
ULTRA FRAME POOL	549cm x 122cm (18' x 48")	6423	24311	3	3	4
	549cm x 132cm (18' x 52")	6981	26423	3	4	5
	610cm x 122cm (20' x 48")	7947	30079	4	4	5
	671cm x 132cm (22' x 52")	10472	39637	5	5	6
	732cm x 132cm (24' x 52")	12481	47241	6	6	7
	792cm x 132cm (26' x 52")	14667	55515	7	8	8
SEQUOIA SPIRIT POOL SET	478cm x 124cm (15'8" x 49")	4440	16805	2	2	3
	508cm x 124cm (16'8" x 49")	5061	19156	2	3	4
	569cm x 135cm (18'8" x 53")	6981	26423	3	4	5
OVAL FRAME POOL	305cm x 549cm x 107cm (10' x 18' x 42")	2885	10920	1	1	2
	366cm x 610cm x 122cm (12'x20'x48")	4393	16628	2	2	3
RECT. ULTRA FRAME POOL	274cm x 549cm x 132cm (9' x 18' x 52")	4545	17203	2	2	3
	305cm x 610cm x 132cm (10'x20'x52")	5835	22085	3	3	4
	366cm x 732 cm x 132 cm (12' x 24' x 52")	8403	31805	4	4	5
	488cm x 975 cm x 132 cm (16' x 32' x 52")	14364	54368	7	7	8

SAVE THESE INSTRUCTIONS

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	**Litres**	**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

CYANURIC ACID TABLE FOR COMMON NON-INTEX POOLS

Water Capacity		Cyanuric Acid Needed for Startup 0.03 g/L (30 ppm)	
Gals	**Liters**	**Lbs**	**Kgs**
2000	7500	0.50	0.23
4000	15000	1.00	0.45
6000	22500	1.50	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

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	3
6000	22500	3	3	4
8000	30000	4	4	5
10000	37500	5	5	6
12000	45500	6	6	7
14000	53000	7	7	8

MOTOR PRE-FILTER CLEANING AND MAINTENANCE

1. Make sure the filter pump is switched off, then disconnect the power cord from the electrical outlet.
2. Turn both plunger valve handles fully clockwise until they stop. This closes the valve, prevents the water from flowing out of the pool.
3. Release the pressure first by opening the sediment release valve **(19)** located on the lower side of the pre-filter housing **(see drawing 34)**.
4. In a counter-clockwise motion unscrew the leaf trap cover **(14)**, then remove the basket **(16)** and leaf trap O-ring **(15)** from the pre-filter housing **(see drawing 35)**.
5. Empty and flush the basket using a garden hose, may use a plastic brush to remove deposits from the basket. Do not use metal brush.
6. Clean and rinse the inside of the pre-filter housing and the leaf trap O-ring with a garden hose.
7. Reinstall the leaf trap O-ring, basket and leaf trap cover to the pre-filter housing.
8. Close the sediment release valve **(19)** back

FLOW SENSOR CLEANING

1. In a counter-clockwise motion unscrew the collar of the flow sensor **(21)** and remove it from the electrolytic cell conduit **(22)**. 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 over tighten

ELECTROLYTIC CELL CLEANING

The titanium electrode and E.C.O. electrodes have a self cleaning function incorporated into the electronic control's programming. In most cases this self cleaning action will keep the electrodes working at optimum efficiency. If the pool water is hard (high mineral content) the electrodes may require periodic manual cleaning. To maintain maximum performance, we recommend that you open and visually inspect the titanium and E.C.O. electrodes **(4 & 5)** monthly.
The following steps are some instructions on how to clean your cell.

1. Switch off the unit, unplug the power cord from the electrical socket.
2. Disconnect the hose **(12)** from the electrolytic cell **(22)** outlet and cover the outlet with the drain outlet cover **(3)** from the 6-way valve **(see drawings 36 and 37).**
3. Remove the electrolytic cell from the 6-way valve outlet by unscrewing the electrolytic cell **(22)** collar **(see drawing 38)**.
4. Pour kitchen grade vinegar into the cell to immerse the titanium plates **(see drawing 39)**. Soak for about 1 hour and then flush with a high-pressure garden hose.
5. Reverse steps 2 to 4 to reconnect the electrolytic cell.

E.C.O. ELECTRODE CLEANING

1. Switch off the unit, unplug the power cord from the electrical socket.
2. In a counter-clockwise motion, unscrew the electrical plug collar from the E.C.O. electrode cell, and remove the electrical plug from electrode cell **(see drawings 40 and 41)**.
3. Unscrew the E.C.O. electrode cell collar, then remove the electrode cell and place it on a bucket.
4. Pour kitchen grade vinegar into the bucket until the E.C.O. electrode cell is immersed **(see drawing 43)**. Soak for 1 hour and then flush with a high-pressure garden hose.

MAINTENANCE (continued)

INTEX® TEST STRIPS (PACKED WITH THE PRODUCT)

The Test Strips can test the “Free Chlorine”, “pH”, “Calcium Hardness” and “Total Alkalinity” levels at the same time. We recommend that you test the water chemistry daily, and maintain the chlorine concentration at 1.0 - 3.0 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.

POOL CARE & CHEMICALS

• All pools require care to keep the water clear and hygienically clean. With proper chemical control, your filter will help attain this objective. Consult your pool supply dealer for instructions regarding the proper use of chlorine, algaecide and other chemical agents required for sparkling clear water.
• Keep pool chemicals away from children.
• Do not replenish chemicals in pool while pool is occupied. Skin or eye irritations could occur.
• Daily pH checking and chemical treatment of the water is very important and cannot be overemphasized. Maintenance of proper pH levels are required when filling the pool as well as during the season. Consult your local swimming pool supply store for instructions.
• The season's first filling of the pool may have brackish water requiring extra water additives and extra filtering time. Do not allow swimming in pool until the pH level is balanced. Consult your local swimming pool supply store for instructions.
• Chlorinated water may damage lawns, gardens or shrubbery as children play in the pool and splash water outside the pool. Lawn areas underneath the pool liner will be destroyed. Note that some types of grass may grow through the liner.
• Filter run time depends on pool size, weather and usage level. Experiment with various run times so as to produce clean clear water.

POOL MAINTENANCE & CHEMICAL DEFINITIONS

Preferred Water Chemistry Reading

	Swimming pool
Free available chlorine	1.0 - 3.0 ppm
pH	7.2 - 7.8
Total alkalinity	100 - 120 ppm
Calcium hardness	200 - 300 ppm
Cyanuric acid (stabilizer, used in outdoor pools only)	30-100 ppm

Consult with local swimming pool dealer for water treatment.

Free Chlorine - Is the chlorine 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 - Eye & skin irritation, difficulty balancing water and poor chlorine efficiency. Scale will form and will cause the water to become cloudy.

Stabilizer - Stabilizers extend the life of chlorine in swimming pools.

(Cyanuric Acid)

• Do not add pool chemicals directly to the skimmer. This may damage the cell.
• Maintaining a salt and sanitizer level above the recommended range can contribute to the corrosion of the 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 trichlor, TCCA or dichloro.
• The life expectancy of the electrode is 3000 hours under normal use conditions

When replacing the electrode, only use replacement electrodes having a label that clearly states that it is a replacement electrode for the chlorine generating Krystal Clear Saltwater System Model ECO 2110, REGISTRATION NUMBER 32058, PEST CONTROL PRODUCTS ACT.

LONG TERM STORAGE & WINTERIZATION

CAUTION

Allowing the water to freeze will damage the sand filter and void the warranty. If anti-freeze solution is needed, use only propylene glycol. Propylene glycol is non-toxic and will not damage plastic system components; other anti-freezes are highly toxic and may damage plastic components in the system.

1. Before emptying your pool for long term storage, or relocation, be sure the water is directed towards an acceptable drain water receptacle away from the house. Check local regulations for specific directions regarding disposal of swimming pool water.
2. Switch off the unit, and disconnect power cord from electrical outlet.
3. When the pool is empty, disconnect all hoses from pump and plunger valves and remove the strainers/plunger valves from the pool wall.
4. In a counter clockwise motion unscrew the drain valve cap **(9)** from the drain valve to thoroughly drain the tank. The drain valve is located at the bottom of the filter tank.
5. Disassemble the pump motor from the tank base.
6. Leave sand filter pump pieces and hoses outside to thoroughly air dry.
7. Coat the following o-rings and washers with petroleum jelly for long term storage:
- L-shape o-ring **(27).**
- o-ring A **(18).**
- Pump hose O-rings **(29)**.
- Strainer valve assembly step washers **(30)**.
- Flat strainer rubber washers **(32)**.

8. Depress the 6-way valve handle and rotate so as to set the pointer on the valve top “N” position. This allows the water to drain from the valve. Leave the 6-way valve in this inactive

position.
9. It is best to place all dry pieces and pump motor in the original packaging for storage. To avoid condensation or corrosion problem, do not cover or wrap pump motor with plastic bags.
10. Store the pump motor and accessories in a dry place. The storage's temperature should be controlled, between 0 degrees Celsius (32 degrees Fahrenheit) and 40 degrees Celsius (104 degrees Fahrenheit).

TROUBLESHOOTING GUIDE		
PROBLEM	CAUSE	SOLUTION
FILTER MOTOR FAILS TO START	• The power cord is loose. • The GFCI circuit breaker is tripped. • Motor too hot and overload protection is shut off. • Stand-by/power saving mode.	• 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 and restart again. • See “Saltwater system operation”.
FILTER DOESN’T CLEAN POOL	• Without cyanuric acid. • Improper chlorine or pH levels. • No filtering media in tank. • Wrong 6-way valve setting position. • Excessively dirty pool. • Dirty or sand on pool floor. • The basket is restricting the water flow.	• See “Cyanuric acid table”. • Adjust the sanitizer and pH level. Consult your local swimming pool supply stores. • Load with filter sand, see “sand loading instructions”. • Set valve to “ FILTER” position. • Operate the filter for longer periods. • Use Intex pool vacuum to clean bottom of pool. • Clean the basket.
FILTER DOESN'T PUMP WATER OR FLOW IS VERY SLOW	• Clogged inlet or discharge. • An air leak on the intake line. • Excessively dirty pool. • Sand media clogged with dirt. • Nozzle and strainer connections are reversed. • Crusting or caking on the	• Clear any obstructions in the intake hose by discharging it inside pool wall. • Tighten hose nuts, check hoses for damage, check pool water level. • Clean the pre-filtering basket more often. • Backwash filter. • Install the nozzle at the upper position of the pool inlet, and the

	filtering sand surface. • Pool vacuuming device attached to the system.	strainer at the lower position of the pool outlet. • Remove about 1” of sand if necessary. • Remove any pool vacuuming device attached to the system line.
PUMP DOESN'T WORK	• Low water level. • Strainer screen plugged up. • An air leak on the intake hose. • Faulty motor or the impeller is jammed.	• Fill pool to correct water level. • Clean strainer screens at pool inlet. • Tighten hose nuts, check hose for damage. • Contact Intex Service Center.
6-WAY VALVE/ COVER LEAKING	• Sand tank O-ring missing. • Sand tank o-ring dirty. • Flange clamp not tight. • 6-way valve damage.	• Remove 6-way valve cover and ensure O-ring is in place. • Clean sand tank o-ring with garden hose water. • Tighten the clamp with wrench supplied. • Contact Intex service center.
HOSE LEAKING	• Hose nut not securely tight. • Hose connection fitting o-ring/L-shape o-ring missing.	• Tighten or reinstall hose nut. • Ensure o-ring/L-shape o-ring is in place and not damaged.
PRESSURE GAUGE DOESN’T WORK	• Clogged inlet of the pressure gauge. • Pressure gauge damage.	• Clear any obstructions in the intake by unscrewing it from the 6-way valve. • Contact Intex service center.
SAND IS FLOWING BACK INTO THE POOL	• Sand is too small. • Sand bed is calcified.	• Use only No. 20 silica sand with particle size range 0.45 to 0.85 mm (0.018 to 0.033 inches) and a Uniformity Coefficient less than 1.75. • Change sand.

SAVE THESE INSTRUCTIONS

TROUBLESHOOTING GUIDE (continued)		
PROBLEM	CAUSE	SOLUTION
INSUFFICIENT CHLORINE	• Without cyanuric acid. • Insufficient operating hours of the Saltwater System. • The salt level in the pool water is less than 2000 ppm. This is insufficient. • Chlorine loss due to intense sunlight exposure. • The bather load has increased. • Clogged or dirty electrolytic cell. • High UV level exposure.	• See “Cyanuric acid table”. • 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”. • Cover the pool with a pool cover for 2 days with the device running and then test the water using the test strips. • If the pool is clean and clear, add stabilizer to the water and then test the water.
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 reset. • A power fuse has blown. • LED failure.	• Plug the cell cord firmly into the cell housing receptacle. • Reset the RCD/GFCI. • Contact Intex Service Center. • Contact Intex Service Center.

SAVE THESE INSTRUCTIONS

TROUBLESHOOTING GUIDE (continued)		
LED PANEL CODE	PROBLEM	SOLUTION
LED Panel Code Flash & Alarm On (NOTE: Always turn off the power before cleaning and servicing).		
90 	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.
	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. Scale on the flow sensor.	•Clean the flow sensor, paying special attention to the hinge. See “Maintenance”.
	4. Flow sensor cord is loose.	• Plug the flow sensor firmly into the flow sensor receptacle.
	5. Device is set and operating in backwash, rinse or waste mode.	•Ignore the alarm, finish the backwash, rinse or waste operation the turn the power switch OFF and ON again to reset the alarm.
	6. Flow sensor failure.	• Contact Intex Service Center.
91 	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.
92 	1. High salt level.	• Partially drain the pool and refill it with fresh water. See “Salt & Pool Water Volumes”.

	2. Possible electrolytic cell failure.	• Contact Intex Service Center. Replace the cell if needed.
	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.

COMMON POOL PROBLEMS

PROBLEM	DESCRIPTION	CAUSE	SOLUTION
ALGAE	• Greenish water. • Green or black spots on pool liner. • Pool liner is slippery and/or has bad odor.	• Chlorine and pH levels need adjustment.	• Super chlorinate with shock treatment. Correct pH to your pool store's recommended level. • Vacuum pool bottom. • Maintain proper chlorine level.
FLOATING MATTER IN WATER	• Water is cloudy or milky.	• "Hard water" caused by a too high pH level. • Chlorine content is low. • Foreign matter in water.	• Correct the pH level. Check with your pool dealer for advice. • Adjust the chlorine level.
CHRONIC LOW WATER LEVEL	• Level is lower than on previous day.	• Rip or hole in pool liner or hoses. • The drain valves are loose.	• Repair with a patch kit. • Finger tighten all caps.
SEDIMENT ON POOL BOTTOM	• Dirt or sand on pool floor.	• Heavy use, getting in and out of pool.	• Use Intex pool vacuum to clean bottom of pool.
SURFACE DEBRIS	• Leaves, insects etc.	• Pool too close to trees.	• Use Intex pool skimmer.

IMPORTANT

If you continue to experience difficulty, please contact our Consumer Service Department for assistance. See separate “Authorized Service Centers” sheet.

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.

For additional information on safety, please visit

- **The Association of Pool and Spa Professionals: The Sensible Way to Enjoy Your Aboveground/Onground Swimming Pool www.nspi.org**
- **American Academy of Pediatrics: Pool Safety for Children www.aap.org**
- **Red Cross www.redcross.org**
- **Safe Kids www.safekids.org**
- **Home Safety Council: Safety Guide www.homesafetycouncil.org**
- **Toy Industry Association: Toy Safety www.toy-tia.org**

SAFETY IN YOUR POOL

Safe swimming depends on constant attention to the rules. The "NO DIVING" sign within this manual can be posted near your pool to help keep everyone alert to the danger. You may also wish to copy and laminate the sign for protection from the elements.

LIMITED WARRANTY

Your Sand Filter Pump & Krystal Clear Saltwater System™ Model ECO 20110 ® 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 Sand Filter Pump & Krystal Clear Saltwater System™ Model ECO 20110 and accessories listed below.

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
Titanium Electrode Warranty – 1 Year
E.C.O. electrode Warranty – 1 Year
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 the separate “Authorized Service Centers” sheet. The Service Center will determine the validity of the claim. If the Service Center directs you to return the product, please carefully package the product and send with shipping and insurance prepaid to the Service Center. Upon receipt of the returned product, the Intex Service Center will inspect the item and determine the validity of the claim. If the provisions of this warranty cover the item, the item will be repaired or replaced at no charge.

Any and all disputes regarding the provisions of this Limited Warranty shall be brought before an informal dispute settlement board and unless and until the provisions of these paragraphs are carried forth, no civil action may be instituted. The methods and procedures of this settlement board shall be subject to the rules and regulations set forth by the Federal Trade Commission (F.T.C.). 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 states, 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.

DO NOT GO BACK TO THE PLACE OF PURCHASE FOR RETURN OR REPLACEMENT. IF YOU ARE MISSING PARTS OR NEED ASSISTANCE, PLEASE CALL US TOLL-FREE (FOR U.S. AND CANADIAN RESIDENTS): 1-800-234-6839 OR VISIT OUR WEBSITE: WWW.INTEXSTORE.COM.

Proof of Purchase must accompany all returns or the warranty claim will be invalid.