

IMPORTANT

SAFETY RULES

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

Krystal Clear™ Sand Filter Pump 14" (360mm) & Saltwater System Model CS15220 CS15230



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IMPORTANT SAFETY RULES

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READ AND FOLLOW ALL INSTRUCTIONS

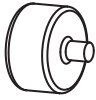
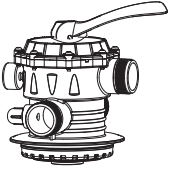

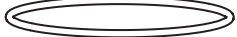








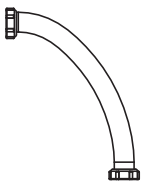

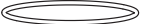
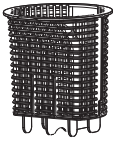


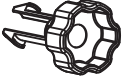

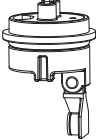
WARNING

- 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 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.
- 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.
- 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.

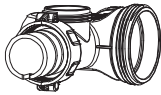
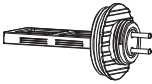
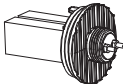



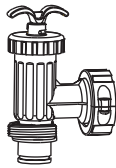


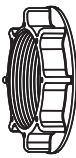



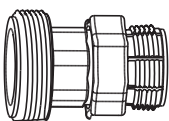
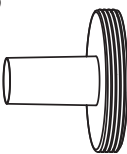

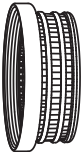


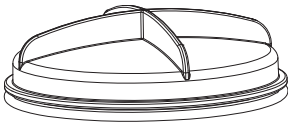
These product warnings, instructions and safety rules provided with the product represent some common risks of water recreation devices and do not cover all instances of risk and danger. Please use common sense and good judgement when enjoying any water activity.

SAFETY RULES

PARTS LIST		
1 	2 	3 
4 	5 	6 
7 	8 	9 
10 	11 	12 
13 	14 	15 
16 	17 	18 
19 	20 	21 

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

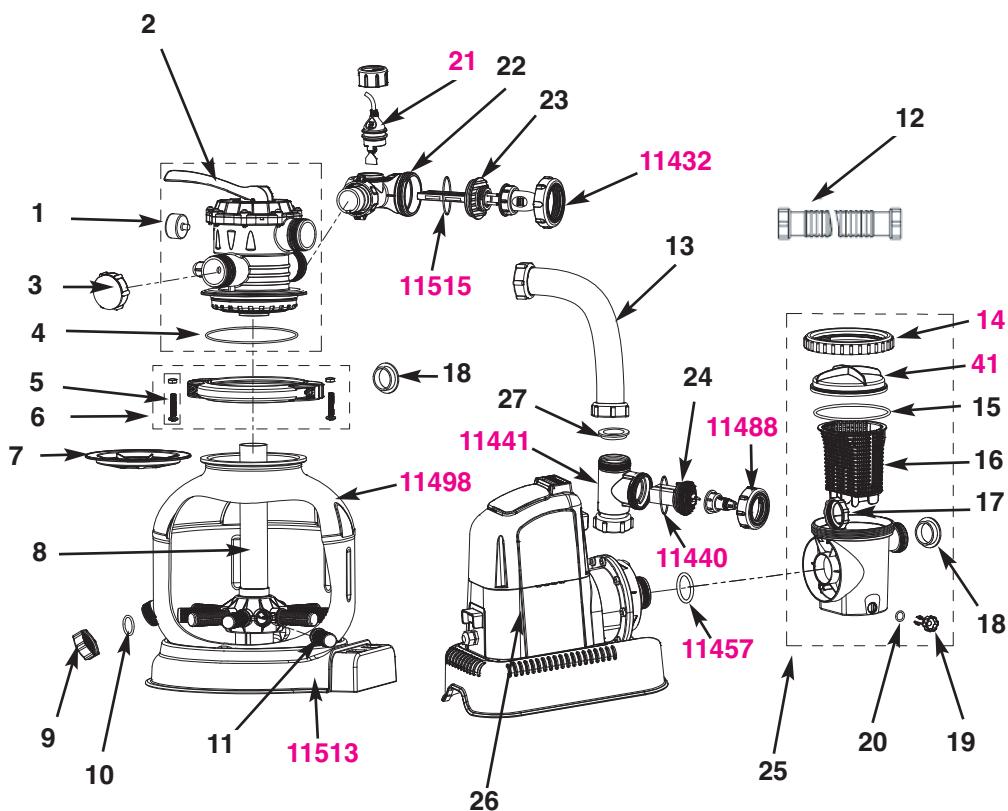
PARTS LIST (continued)

<p>22</p> 	<p>23</p> 	<p>24</p> 
<p>25</p> 	<p>26</p> 	<p>27</p> 
<p>28</p> 	<p>29</p> 	<p>30</p> 
<p>31</p> 	<p>32</p> 	<p>33</p> 
<p>34</p> 	<p>35</p> 	<p>36</p>  <p>Optional</p>
<p>37</p>  <p>Optional</p>	<p>38</p>  <p>Optional</p>	<p>39</p> 
<p>40</p> 	<p>41</p> 	

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.

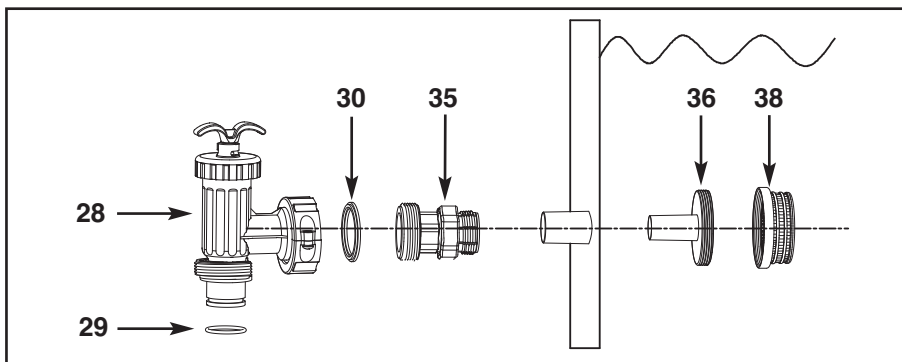
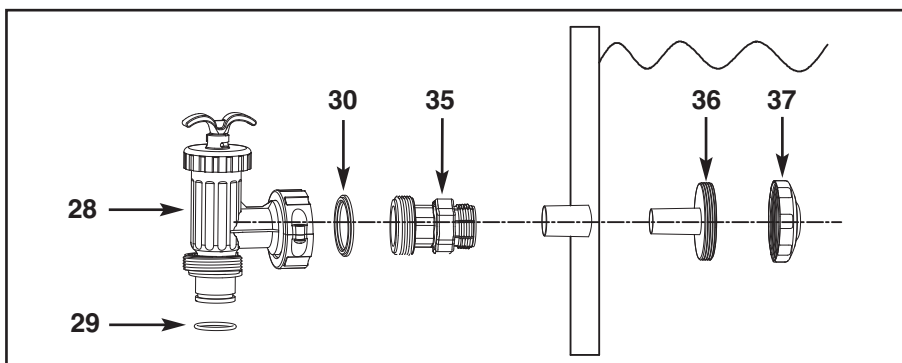
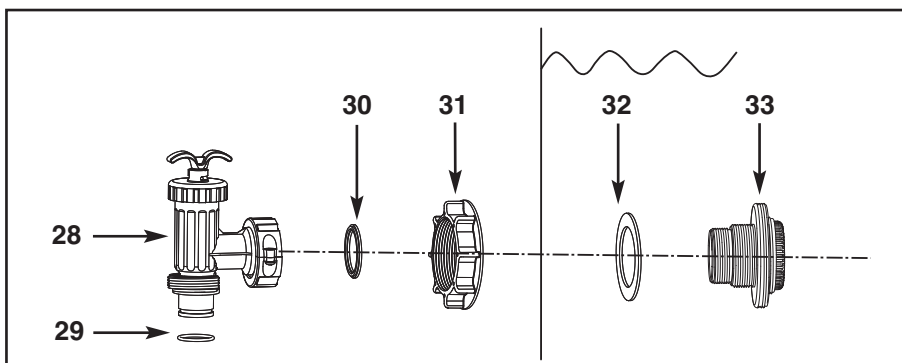
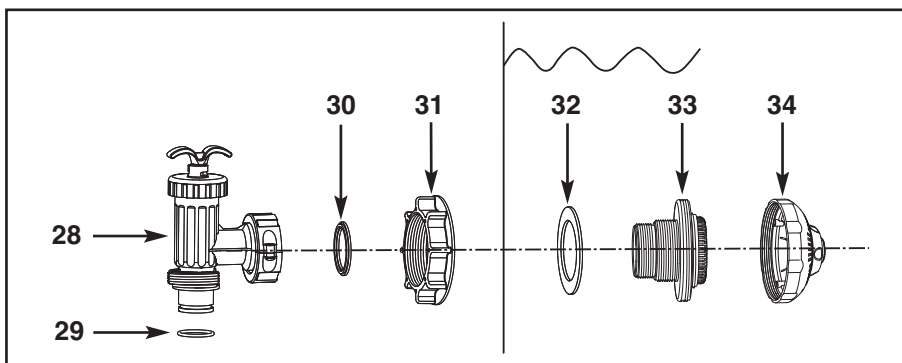


NOTE: Drawings for illustration purpose only. Actual product may vary. Not to scale.

PARTS REFERENCE

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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PARTS REFERENCE (continued)

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

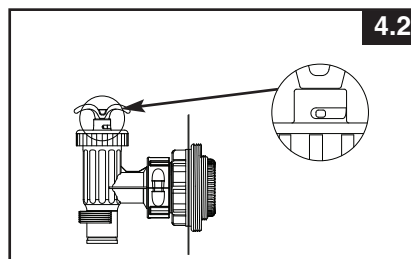
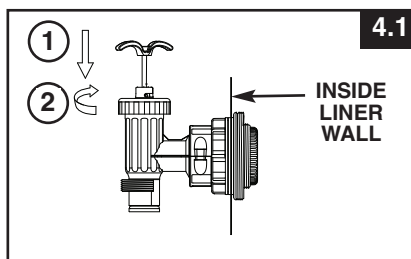
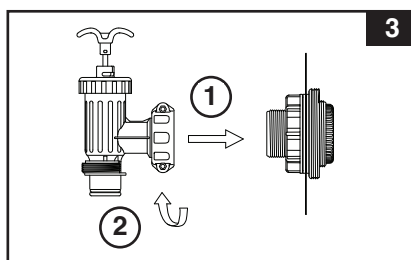
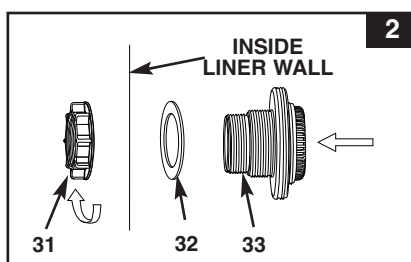
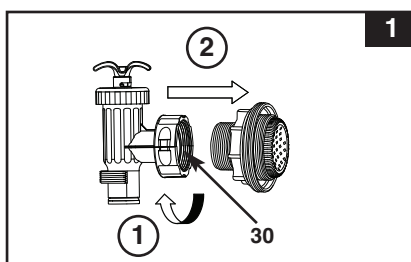
REF. NO.	DESCRIPTION	QTY.	SPARE PART NO.
1	PRESSURE GAUGE	1	11411
2	6-WAY VALVE SET	1	11378
3	DRAIN OUTLET COVER	1	11131
4	TANK O-RING	1	11379
5	SCREW	2	11381
6	CLAMP	1	11380
7	SAND SHIELD	1	11382
8	CENTER PIPE HUB	1	11383
9	DRAIN VALVE CAP	1	11456
10	DRAIN VALVE O-RING	1	11385
11	LATERAL	10	11384
12	HOSE WITH NUTS	2	11010
13	SAND FILTER INTERCONNECTING HOSE	1	11390
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	11389
24	COPPER ELECTRODE	1	11234
25	PRE-FILTER ASSEMBLY	1	11371
26	PUMP MOTOR & CONTROL	1	11466/11466BS
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	11235
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	CHLORINE TEST STRIPS	1	19635
40	COPPER TEST STRIPS	1	11254
41	LEAF TRAP COVER	1	11480

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

POOL OUTLET - STRAINER & PLUNGER VALVE SETUP

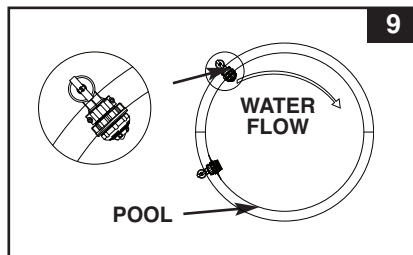
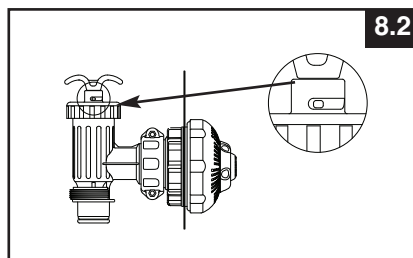
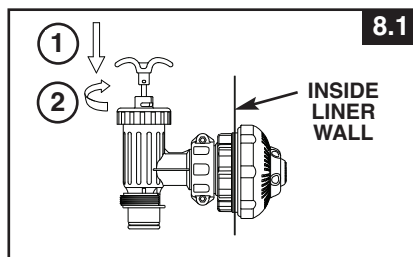
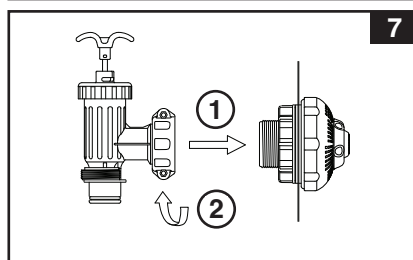
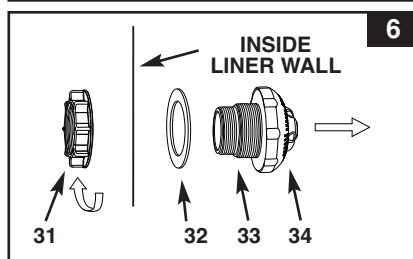
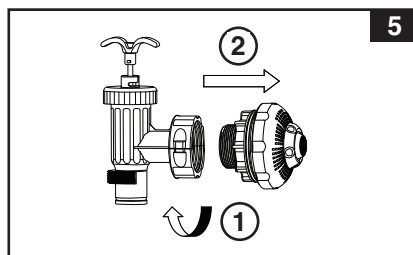
The strainer grid prevents large objects from jamming and/or damaging the filter pump. If your pool has an inflatable top ring, install the strainer, nozzle and plunger valve before inflating the pool liner top ring. The part numbers here onward refer to the parts depicted in the Parts List section of 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. 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 (see drawings 4.1 & 4.2).



POOL INLET - NOZZLE & PLUNGER VALVE SETUP

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. 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 (see drawings 8.1 & 8.2).
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 sanitizes your pool. Pool chemistry is a specialized area and you should consult your local pool service specialist for details.

Power:	220-240 Volt AC
Wattage:	470 W
Ideal Salt Level:	3000 ppm (parts per million)
Maximum Sanitizer Output/hour:	10 grams/hour
Copper Ionizer Output Current:	175mA
Maximum working pressure:	2.4 bar (35 psi)
Effective filtering area:	0.1 m ² (1.1 ft ²)
Maximum Flow Rate:	6050 liters/hour (1600 gallons/hour)
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.
Recommended filtering media quantity:	No. 20 silica sand 25 Kg (55 Lbs) or glass sand 18 Kg (40 Lbs).
Limited Warranty:	see "Limited Warranty"

SETUP INSTRUCTIONS

TOOLS REQUIRED: One (1) Phillips screwdriver

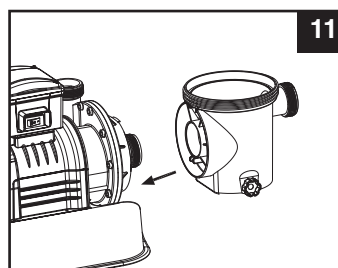
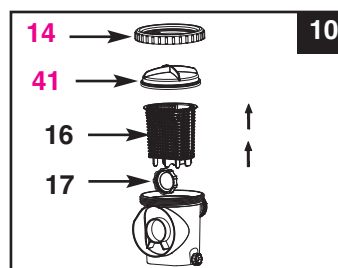
Pump location and mounting:

- 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.

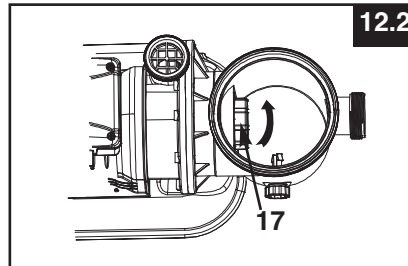
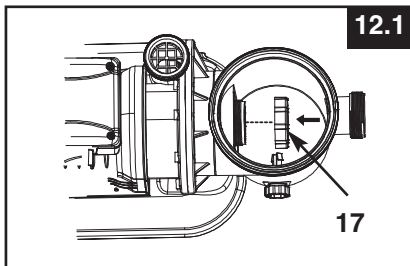
Motor pre-filtering assembly setup:

1. Remove the sand filter and its accessories from the packaging carefully and inspect for any visible damage. If parts are damaged contact your local service center listed at the back of this owner's manual.
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).

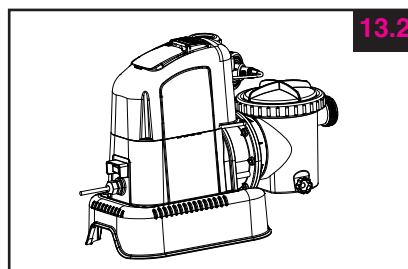
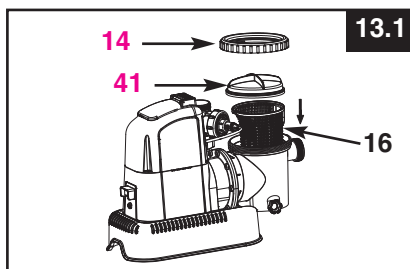


SETUP INSTRUCTIONS (continued)

4. In a clockwise motion screw filter housing nut (17) onto the motor water inlet (See drawings 12.1 & 12.2).



5. Replace the basket (16) and leaf trap cover (14) back to the pre-filter housing (See drawings 13.1 & 13.2).



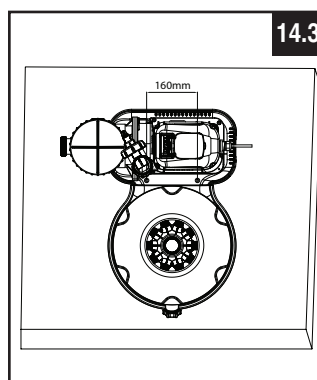
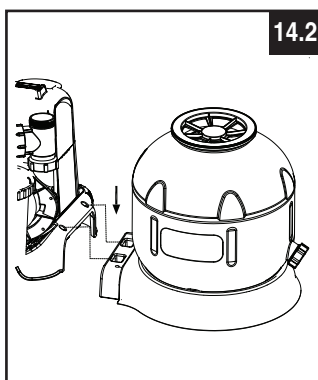
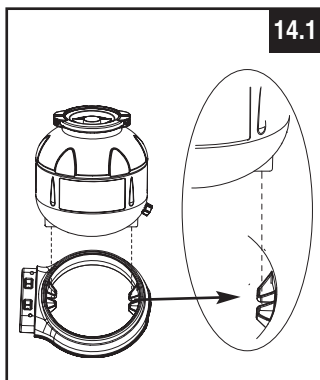
Sand tank installation:

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 160 mm apart.
- Use two bolts and lock nuts with a maximum of 6.4 mm in diameter.



SETUP INSTRUCTIONS

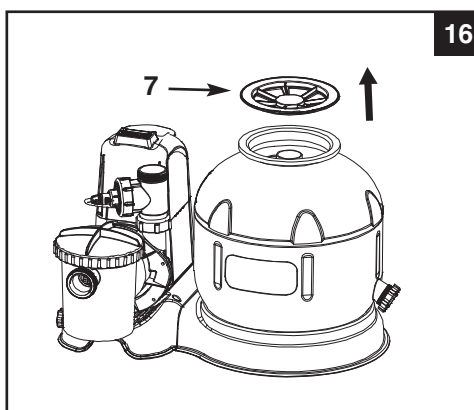
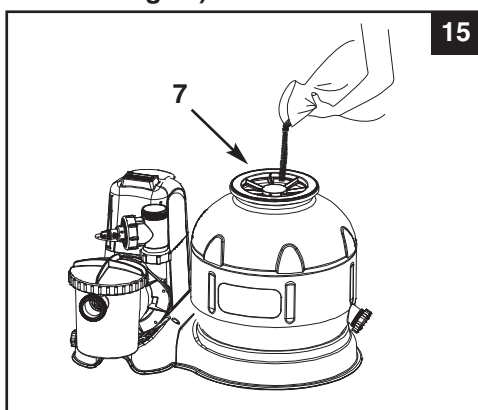
SETUP INSTRUCTIONS (continued)

Sand loading:

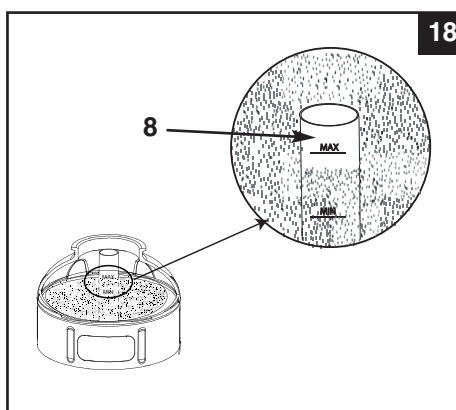
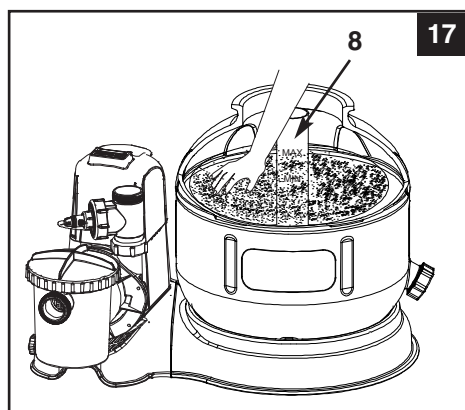
IMPORTANT: Use No. 20 silica sand or glass sand with particle size range 0.45 to 0.85 mm (0.018 to 0.033 inches) and a Uniformity Coefficient less than 1.75.

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.

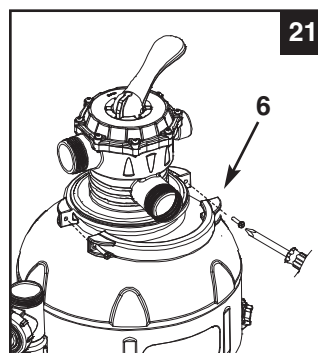
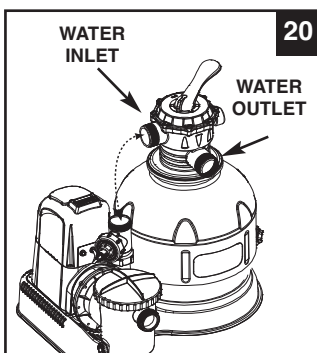
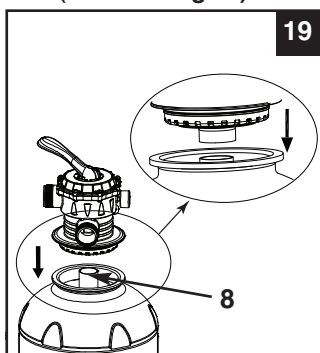
SETUP INSTRUCTIONS (continued)

⚠ WARNING

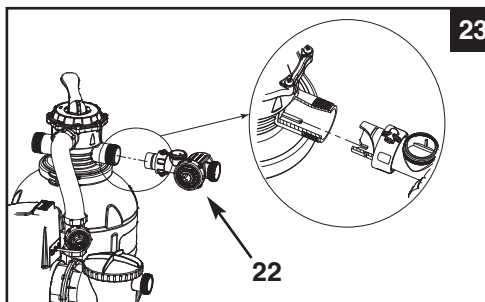
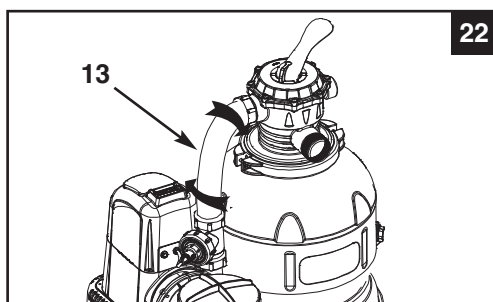
Improper tank valve and clamp assembly could cause the valve and clamp to blow off and cause serious injury, property damage or death.

6-way valve installation:

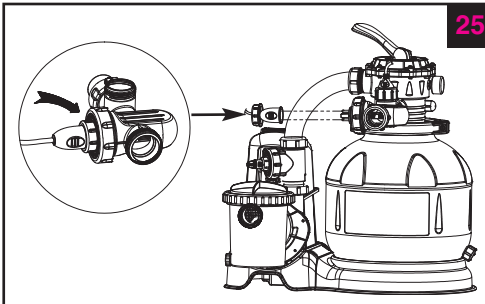
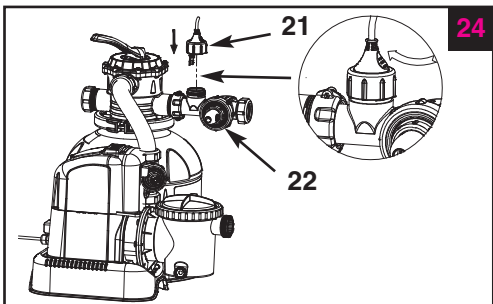
1. Lower the 6-way valve over the tank slowly, and ensure the bypass pipe protruding underneath the 6-way valve fits securely into the center pipe hub (8) top opening (see drawing 19).
IMPORTANT: There are three hose connection ports on the 6-way valve, ensure the outlet connection (from filter to the 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).



SETUP INSTRUCTIONS

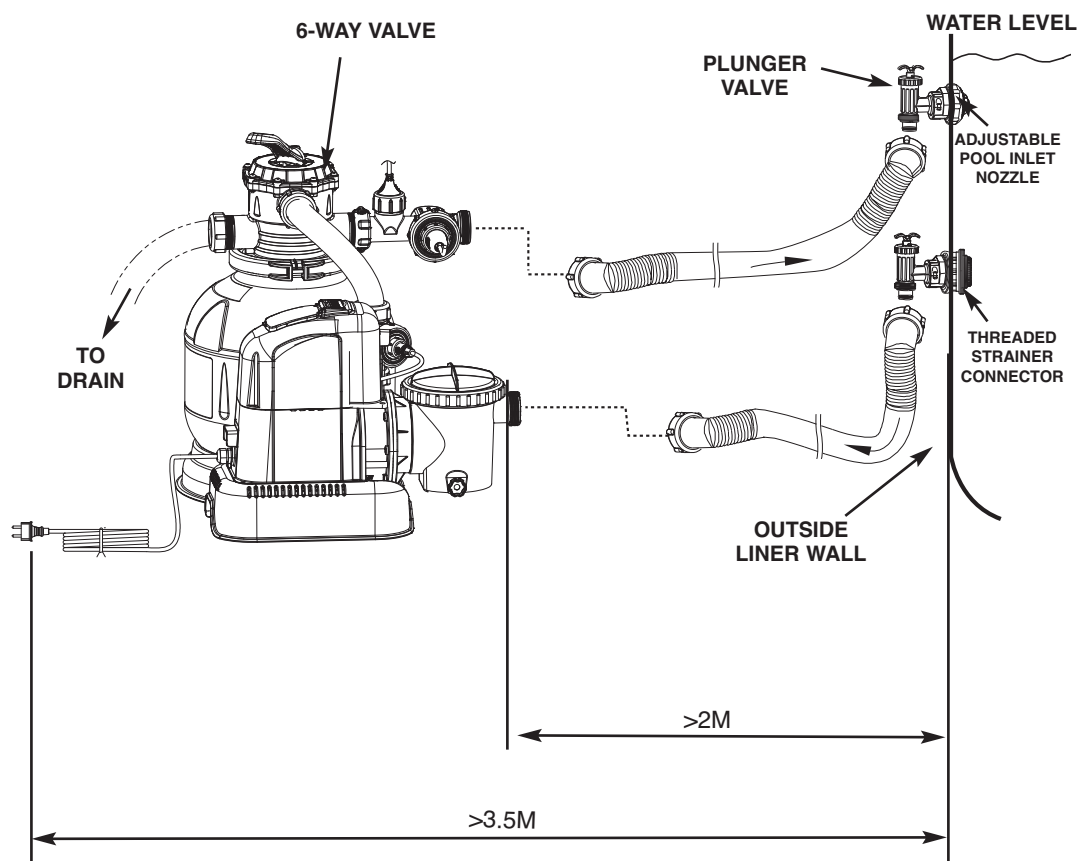
SAND FILTER PUMP HOSE CONNECTION SETUP

⚠ WARNING

- 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.

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 tightened.
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.

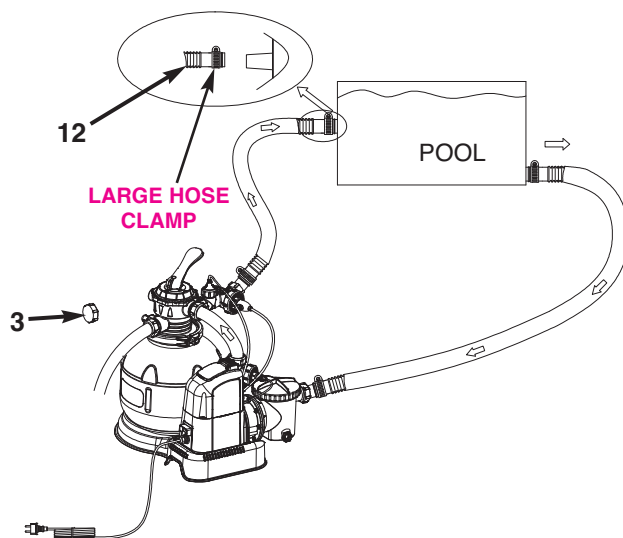


(ILLUSTRATION NOT TO SCALE)

SAND FILTER PUMP HOSE CONNECTION SETUP (continued)

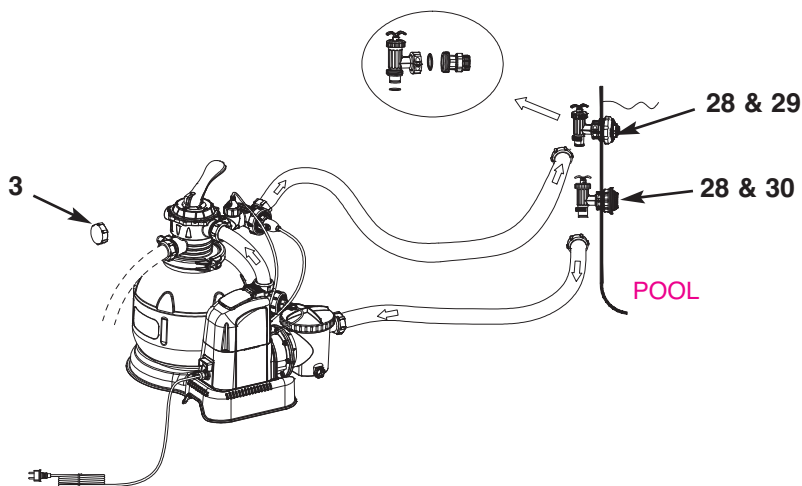
For NON-INTEX pool:

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 16' and below:

1. In a counter-clockwise motion unscrew plunger valve union from the threaded strainer connector (25). Be careful not to lose the step rubber washer (22).
2. Grasp the plunger valve assembly. Make sure the step washer (22) is in place. Connect adaptor B (27) to plunger valve union.
3. Remove wall plug and then insert the strainer (28 & 30) into the lower position of protruding hose connection, and the nozzle (28 & 29) into the upper position of protruding hose connection. Adaptor B (27) fits over the strainer connection (28) 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.



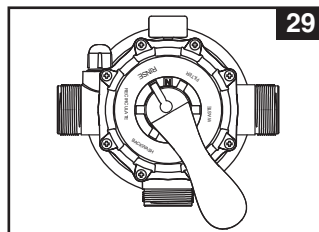
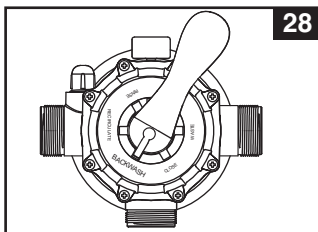
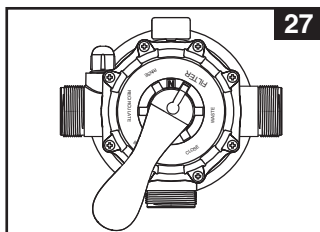
OPERATING INSTRUCTIONS

⚠ WARNING

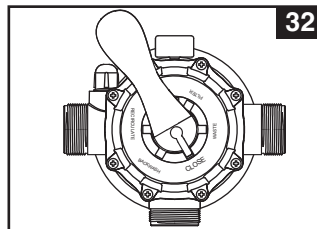
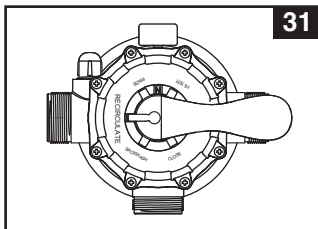
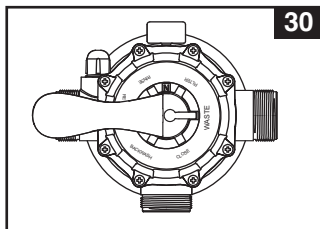
- Risk of electric shock. Connect this product only to a grounding type receptacle protected by a ground-fault circuit interrupter (GFCI) or residual current device (RCD). Contact a qualified electrician if you cannot verify that the receptacle is protected by a GFCI/RCD. Use a qualified electrician 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 27)	Normal filtration and regular vacuuming of pool	From pump through filter media to pool
BACKWASH (see drawing 28)	Reverses water flow to clean filter media	From pump through filter media to valve waste/drain outlet
RINSE (see drawing 29)	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 30)	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 31)	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 32)	Shuts off all flow to filter and pool "Do not use this setting with pump running"	



OPERATING INSTRUCTIONS (continued)



Initial startup and operation:

Before operating, be sure that:

- All the hoses have been connected and tightened securely, and correct amount of filter sand have 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

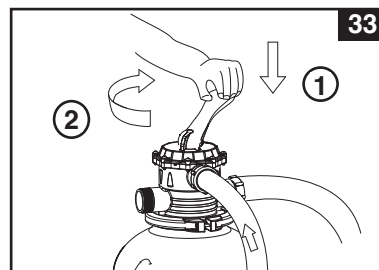
The filter control valve has a closed position. The pump should never be on when the valve is in the closed position. If the pump is operated with the valve closed, and explosive situation could exist.

1. 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 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.

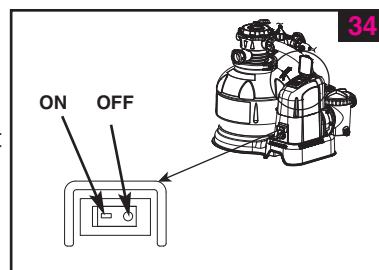
3. Ensure the pump is off, depress the 6-way valve and turn it to the "BACKWASH" position (see drawings 28 & 33).

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 34). 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.



OPERATING INSTRUCTIONS (continued)

5. Switch off the pump, change the 6-way valve to "RINSE" position (**see drawing 29**).
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 27**).
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.

OPERATING INSTRUCTIONS

SALTWATER SYSTEM OPERATION

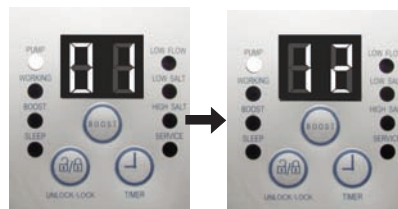
1. Start up the unit:

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.



(1 to 12 hours max per cycle)

NOTE: The Saltwater System will not operate if the filter pump is not operating.

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.

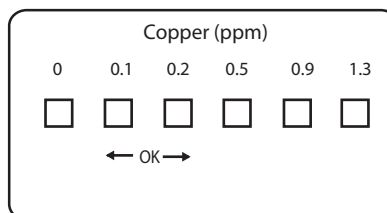
4. Readjust operating time if necessary:

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. 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.



OPERATING INSTRUCTIONS

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 $4 \times 2 = 8$ 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 for 5 seconds until you hear a "beep" and the LED display shows "FP".

The pump is now operating alone. To stop the pump, manually turn the switch OFF. **NOTE:** The pump cannot be operated alone under an automatic timer mode.



IMPORTANT: To keep the initial automatic operating cycle setting of the Saltwater System, turn the switch ON, the LED display shows "FP", then unlock and lock the keypad controls again, see previous steps 2 and 3. The LED display shows the initial input hours and the Saltwater System cycle repeats again.

OPERATING INSTRUCTIONS

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.

LED CODE CHART

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 3.0g/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	15	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	25	10
	16' x 42" (488cm x 107cm)	3754	14209	95	45	25	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	25	10
	15' x 48" (457cm x 122cm)	4440	16805	110	50	30	15
	16' x 48" (488cm x 122cm)	5061	19156	125	55	35	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
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
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

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	2
	15' x 36" (457cm x 91cm)	2822	10681	1	1	2
	15' x 42" (457cm x 107cm)	3284	12430	1	2	2
	15' x 48" (457cm x 122cm)	3736	14141	2	2	3
	16' x 42" (488cm x 107cm)	3754	14209	2	2	3
	16' x 48" (488cm x 122cm)	4273	16173	2	3	3
	18' x 42" (549cm x 107cm)	4786	18115	2	3	3
	18' x 48" (549cm x 122cm)	5455	20647	3	3	4
	18' x 52" (549cm x 132cm)	5894	22309	3	3	4
CIRCULAR METAL FRAME POOL	15' x 36" (457cm x 91cm)	3282	12422	1	1	2
	15' x 42" (457cm x 107cm)	3861	14614	2	2	3
	15' x 48" (457cm x 122cm)	4440	16805	2	3	3
	16' x 48" (488cm x 122cm)	5061	19156	3	3	4
	18' x 48" (549cm x 122cm)	6423	24311	3	4	5
	18' x 52" (549cm x 132cm)	6981	26423	4	4	5
	20' x 52" (610cm x 132cm)	8638	32695	4	5	6
	24' x 48" (732cm x 122cm)	11483	43462	7	7	8
ULTRA FRAME® POOL	16' x 48" (488cm x 122cm)	5061	19156	3	3	4
	18' x 52" (549cm x 132cm)	6981	26423	4	4	5
SEQUOIA SPIRIT® POOL SET	16'8" x 49" (508cm x 124cm)	5061	19156	3	3	4
	18'8" x 53" (569cm x 135cm)	6981	26423	4	4	5
OVAL FRAME POOL	18' x 10' x 42" (549cm x 305cm x 107cm)	2885	10920	1	1	2
	20' x 12' x 48" (610cm x 366cm x 122cm)	4393	16628	2	3	3
	24' x 12' x 48" (732cm x 366cm x 122cm)	5407	20465	3	3	4
RECT. ULTRA FRAME POOL	18' x 9' x 52" (549cm x 274cm x 132cm)	4545	17203	2	3	3
	24' x 12' x 52" (732cm x 366cm x 132cm)	8403	31805	5	5	6

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
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
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

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

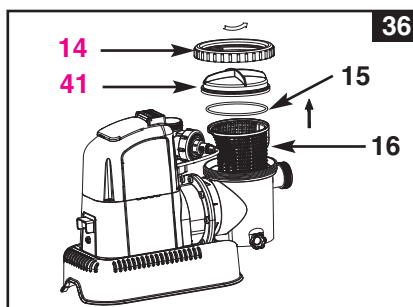
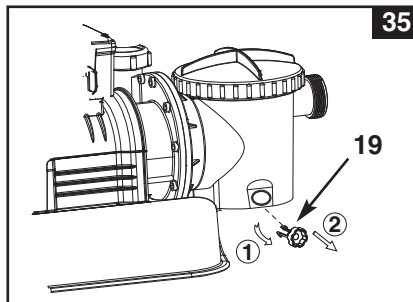
Water Capacity		Operating Time (hours) at different ambient/air temperatures		
(Gals)	(Liters)	10 - 19°C (50 - 66°F)	20 - 28°C (68 - 82°F)	29 - 36°C (84 - 97°F)
2000	7500	1	1	1
4000	15000	2	2	3
6000	22500	3	3	4
8000	30000	5	5	6
10000	37500	6	6	7
12000	45500	7	8	9
14000	53000	9	9	10

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

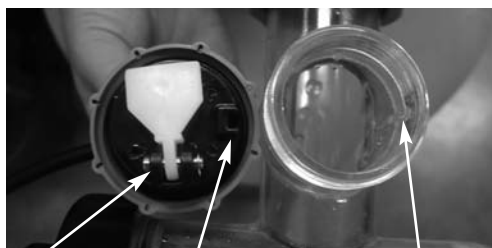
MOTOR PRE-FILTER CLEANING AND MAINTENANCE

1. Make sure the filter pump is switched off, then disconnect the power cord from the electrical outlet.
2. 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 anchors in the "0/1" position. Repeat for the second plunger valve. This 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 35).
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 36).
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.



Hinge Locator Notch Connection Ridge

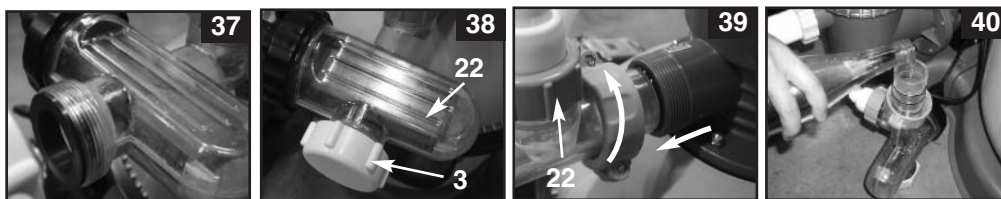
3. If flushing with water does not remove the deposits, use a plastic brush to clean the surface and the hinge if necessary. Do not use a metal brush.
4. After the flow sensor has been inspected and cleaned, align the locator notch on the flow sensor to the connection ridge in the conduit. Now turn the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

ELECTROLYTIC CELL CLEANING

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 **(22)** once every month.

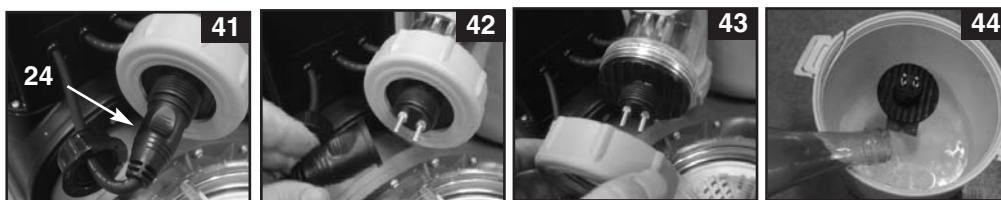
The following steps are some instructions on how to clean your cell.

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 37 and 38)**.
3. Remove the electrolytic cell from the 6-way valve outlet by unscrewing the electrolytic cell **(22)** collar **(see drawing 39)**.
4. Pour kitchen grade vinegar into the cell to immerse the titanium plates **(see drawing 40)**. 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.



COPPER 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 copper electrode cell, and remove the electrical plug from electrode cell **(see drawings 41 and 42)**.
3. Unscrew the copper electrode cell collar, then remove the electrode cell and place it on a bucket.
4. Pour kitchen grade vinegar into the bucket until the copper electrode cell is immersed **(see drawing 44)**. Soak for 1 hour and then flush with a high-pressure garden hose.
5. Reverse steps 2 to 4 to reconnect the copper electrode cell.



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.

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			
	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.

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 - 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 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.

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

TROUBLE	CAUSE	SOLUTION
FILTER MOTOR FAILS TO START	<ul style="list-style-type: none"> The power cord is loose. The GFCI/RCD circuit breaker is tripped. Motor too hot and overload protection is shut off. Stand-by/power saving mode. 	<ul style="list-style-type: none"> Line 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 the motor cool down and restart again. See "Saltwater system operation".
FILTER DOESN'T CLEAN POOL	<ul style="list-style-type: none"> Without cyanuric acid. Improper chlorine or pH levels. No filtering media in tank. Wrong 6-way valve setting position. Excessively dirty pool. Dirt or sand on pool floor. The basket is restricting the water flow. 	<ul style="list-style-type: none"> See "Cyanuric acid table". Adjust the chlorine 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	<ul style="list-style-type: none"> 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 filtering sand surface. Pool vacuuming device attached to the system. 	<ul style="list-style-type: none"> 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 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	<ul style="list-style-type: none"> Low water level. Strainer screen clogged up. An air leak on the intake hose. Faulty motor or the impeller is jammed. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Sand tank o-ring missing. Sand tank o-ring dirty. Flange clamp not tight. 6-way valve damage. 	<ul style="list-style-type: none"> Remove 6-way valve cover and ensure the 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	<ul style="list-style-type: none"> Hose nut not securely tight. Hose connection fitting o-ring/L-shape o-ring missing. 	<ul style="list-style-type: none"> Tighten/reinstall hose nut. Ensure o-ring/L-shape o-ring is in place and not damaged.
PRESSURE GAUGE DOESN'T WORK	<ul style="list-style-type: none"> Clogged inlet of the pressure gauge. Pressure gauge damage. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Sand is too small. Sand bed is calcified. 	<ul style="list-style-type: none"> 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.

TROUBLESHOOTING GUIDE (continued)

PROBLEM	CAUSE	SOLUTION
INSUFFICIENT CHLORINE	<ul style="list-style-type: none"> • Without cyanuric acid. • 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. 	<ul style="list-style-type: none"> • 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".
INSUFFICIENT COPPER ION LEVEL	<ul style="list-style-type: none"> • Insufficient operating hours. • The PH is too high. • The bather load has increased. • Clogged or dirty electrolytic cell. • Copper electrode defective. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • High copper ion concentration. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Excessive calcium hardness is present in pool water. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • No power supply. • RCD/GFCI has not reseted. • A power fuse has blown. • LED failure. • Incorrect switching, press two buttons ( and ) together. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • High copper ion concentration. 	<ul style="list-style-type: none"> • 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.

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.	<ul style="list-style-type: none"> If your unit has plunger valves, ensure that they are open. Clear your basket and cell from debris and dirt. See "Maintenance". Depress the 6-way valve, release all trapped air in the circulation line.
	2. Incorrect inlet and outlet hose direction.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Clean the flow sensor, paying special attention to the hinge. See "Maintenance".
	4. Flow sensor cord is loose.	<ul style="list-style-type: none"> Plug the flow sensor firmly into the flow sensor receptacle.
	5. Flow sensor failure.	<ul style="list-style-type: none"> Contact Intex Service Center.
	1. Dirt or scale on titanium plates.	<ul style="list-style-type: none"> Remove the electrolytic cell for inspection. Clean it if necessary. See "Maintenance".
	2. Low salt level / No salt.	<ul style="list-style-type: none"> Add salt. See "Salt & Pool Water Volumes".
	3. Electrolytic cell cord is loose.	<ul style="list-style-type: none"> Ensure that the cell cord is plugged firmly into the cell housing receptacle.
	4. Possible electrolytic cell failure.	<ul style="list-style-type: none"> Contact Intex Service Center. Replace the cell if needed.
	1. High salt level.	<ul style="list-style-type: none"> Partially drain the pool and refill it with fresh water. See "Salt & Pool Water Volumes".
	2. Possible electrolytic cell failure.	<ul style="list-style-type: none"> Contact Intex Service Center. Replace the cell if needed.
	1. Display and all lights are off - the system does not power up.	<ul style="list-style-type: none"> Household voltage is too high or too low ($\pm 20\%$). Check the voltage is within the range stated on the device housing. Contact Intex Service Center.

COMMON POOL PROBLEMS

PROBLEM	DESCRIPTION	CAUSE	SOLUTION
ALGAE	<ul style="list-style-type: none"> • Greenish water. • Green or black spots on pool liner. • Pool liner is slippery and/or has a bad odor. 	<ul style="list-style-type: none"> • Chlorine and pH levels need adjustment. 	<ul style="list-style-type: none"> • Super chlorinate with shock treatment. Correct pH to your pool store's recommended level. • Vacuum pool bottom. • Maintain proper chlorine level.
COLORED WATER	<ul style="list-style-type: none"> • Water turns blue, brown, or black when first treated with chlorine. 	<ul style="list-style-type: none"> • Copper, iron or manganese in water being oxidized by the added chlorine. This is Common. 	<ul style="list-style-type: none"> • Adjust pH level to the recommended level. • Run filter until water is clear.
FLOATING MATTER IN WATER	<ul style="list-style-type: none"> • Water is cloudy or milky. 	<ul style="list-style-type: none"> • "Hard water" caused by a too high pH level. • Chlorine content is low. • Foreign matter in water. 	<ul style="list-style-type: none"> • Correct the pH level. Check with your pool dealer for advice. • Adjust the chlorine level.
CHRONIC LOW WATER LEVEL	<ul style="list-style-type: none"> • Level is lower than on previous day. 	<ul style="list-style-type: none"> • Rip or hole in pool liner or hoses. • The drain valves are loose. 	<ul style="list-style-type: none"> • Repair with a patch kit. • Finger tighten all caps.
SEDIMENT ON POOL BOTTOM	<ul style="list-style-type: none"> • Dirt or sand on pool floor. 	<ul style="list-style-type: none"> • Heavy use, getting in and out of pool. 	<ul style="list-style-type: none"> • Use Intex pool vacuum to clean bottom of pool.
SURFACE DEBRIS	<ul style="list-style-type: none"> • Leaves, insects etc. 	<ul style="list-style-type: none"> • Pool too close to trees. 	<ul style="list-style-type: none"> • Use Intex pool skimmer.

IMPORTANT

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

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 or 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 Sand Filter Pump & 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 Sand Filter Pump & 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.

Sand Filter Pump & 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	AREAS	LOCATION
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