SwimSense

ACCUCHLOR
SALT CHLORINE GENERATOR

Cell Owner's Manual

Installation & Maintenance



AC20 Cell - 60-8020
AC30 Cell - 60-8030
AC40 Cell - 60-8040

UL Listed · CE
For Residential &
Commercial Pool Use

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IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed. This manual contains important information about the installation, operation, and maintenance of the AccuChlor Salt Chlorine Generator. Give this manual to the pool owner and/or operator for reference.

DANGER	**HYDROGEN GAS.** Failure to properly install, operate, and maintain this product can result in serious bodily injury or death. Salt chlorine generation produces small amounts of hydrogen gas. Never operate the electrolytic cell without proper water flow and circulation – a buildup of flammable gases can create a hazardous condition.
WARNING	**ELECTRIC SHOCK.** Risk of electrical shock or electrocution. Always disconnect all AC power at the circuit breaker before installing or servicing this product. All electrical wiring must be performed by a licensed or certified electrician in accordance with the National Electrical Code (NEC, NFPA-70), CEC, and all applicable federal, state, and local codes and ordinances.
WARNING	**GFCI PROTECTION.** This product must be connected only to a circuit protected by a ground-fault circuit interrupter (GFCI). The controller and Power Center must be installed at least 5 ft (1.5 m) horizontally from the inside wall of the pool or spa, or as required by local code (3 m / 10 ft in Canada).
WARNING	**PUMP INTERLOCK.** The controller must be interconnected with the pool pump so the generator only operates while the circulation pump is running. Do not wire the generator to run independently of the filter pump.
WARNING	**ACID.** When mixing acid with water for cell cleaning, ALWAYS ADD ACID TO WATER – NEVER ADD WATER TO ACID. Wear rubber gloves and eye protection. Acid can cause severe burns.

GENERAL PRECAUTIONS

- Do not permit children to use or operate this product. Keep chemicals and salt out of the reach of children. Bond all metal components within 5 ft (1.5 m) of the pool/spa to the pool bonding grid using a minimum #8 AWG solid copper conductor (#6 AWG in Canada), per NEC Article 680.
- Use only sodium chloride (NaCl) salt that is at least 99% pure. Do not use rock salt, iodized salt, calcium chloride, or salt containing anti-caking additives (yellow prussiate of soda / sodium ferrocyanide).
- Maintain proper pool water chemistry at all times. Improper water balance can damage the cell, pool surfaces, and equipment, and will void the warranty.
- Do not use dry acid (sodium bisulfate) to lower pH in arid regions with high evaporation; by-product buildup can damage the cell.
- Before installing a saline system on a pool or spa that uses natural stone for coping or adjacent decking, consult a qualified stone installation specialist.
- Do not operate the generator when the pool water temperature is below 50°F (10°C). Cold water reduces cell efficiency and can damage the cell.

CALIFORNIA PROPOSITION 65

⚠ **WARNING:** This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SAVE THESE INSTRUCTIONS

INTRODUCTION

The AccuChlor cell is the part of your AccuChlor Salt Chlorine Generator that makes chlorine. This manual covers installing or replacing the cell, connecting it to the AccuChlor controller, cleaning it, and caring for it. For the controller, the AccuChlor Power Center (including first-time wiring and bonding), the SwimSense app, and adding salt, see the Owner's Manual that came with your controller.

HOW THE CELL WORKS

Salt water flows into the AccuChlor cell through the patented flow cage assembly. Inside the cell, a process called electrolysis passes a low-voltage DC current through the salt (sodium chloride) solution, converting it into chlorine. The freshly chlorinated water then returns to the pool, where it sanitizes the water and reverts back to salt – so the salt is used over and over and is not consumed.

KEY FEATURES

- **Patented flow cage assembly** – an easily replaceable flow unit with ceramic-bearing technology for extended service life. It accurately tracks water flow, monitors pool turnover, and indicates when it is time to clean or replace your filter. (U.S. Pat. 12,312,260)
- **Easy-clean cell** – cell blades are easily cleaned with a simple acid wash.
- **Automatic cell cleaning** – the controller periodically reverses the cell's polarity to shed scale from the blades. The default interval is 4 hours; it can be changed to 3 or 5 hours in the SwimSense app or on the controller.
- **Cold-water protection** – chlorine production is reduced or stopped when the water temperature falls below about 50°F (10°C).

REPLACEMENT PARTS

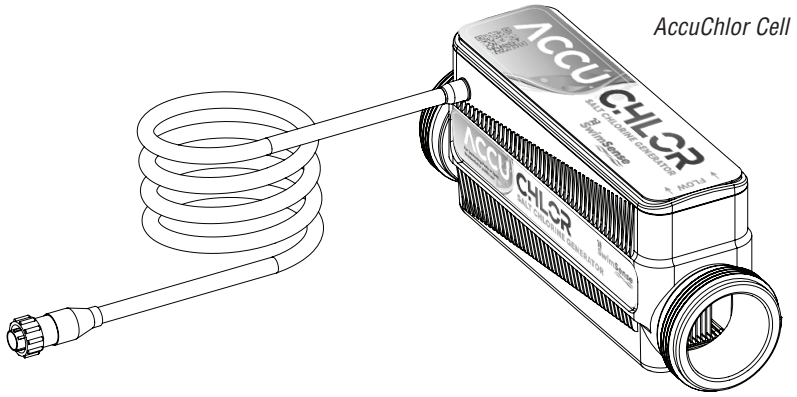
PART	PART NO.	DESCRIPTION
AccuChlor Coupling Set Kit	PN 25-201	Union coupling nut, tailpiece, and O-ring
AccuChlor Flow Cage Kit	PN 25-8005	Flow cage and flow cage O-ring
AccuChlor Acid Wash Kit	PN 25-8102	Stand that holds the cell upright for acid washing

WHAT'S INCLUDED

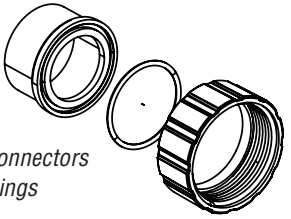
COMPONENT	DESCRIPTION
AccuChlor Cell	Inline electrolytic cell with 15 ft cable. Installs in the pool return line.
Flow Cage & O-Ring	Patented, replaceable flow sensor with ceramic-bearing technology (pre-installed in the cell).
2 × 2″ PVC union sets	Coupling nut, tailpiece, and O-ring – one set for each end of the cell.

⚠ NOTE Confirm all components are present before installing. If any item is missing or damaged, contact your dealer or SwimSense before proceeding.

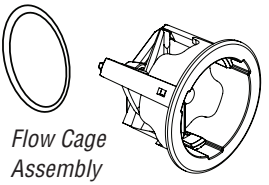
COMPONENTS



AccuChlor Cell



Union Connectors and O-Rings x2 PN 25-201

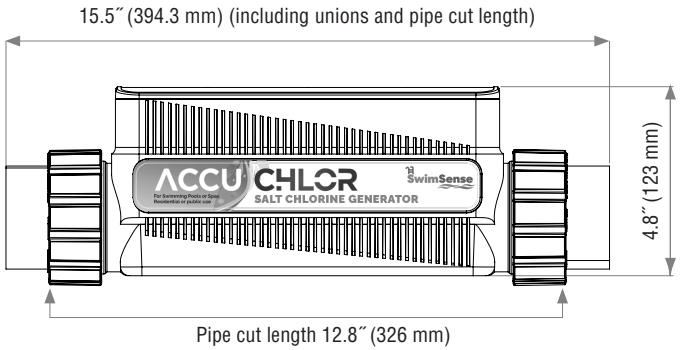


Flow Cage Assembly and O-Ring PN 25-8005

SPECIFICATIONS

SPECIFICATION	AC20 CELL	AC30 CELL	AC40 CELL
Cell part number	60-8020	60-8030	60-8040
Use with	AccuChlor Controller, PN 60-8100		
Cell output (max)	39 VDC @ 3.1 A	39 VDC @ 3.8 A	39 VDC @ 4.6 A
Chlorine per 24 hours	0.70 lb (318 g)	1.00 lb (454 g)	1.40 lb (635 g)
Rated pool capacity	Up to 20,000 gallons	Up to 30,000 gallons	Up to 40,000 gallons
Operating salt range	2,700–3,400 ppm (ideal 3,200 ppm)		
Minimum flow	22 GPM (83 L/min)		
Max operating pressure	50 PSI (345 kPa)		
Min operating water temp.	50°F (10°C)		
Plumbing connection	2″ PVC union (adapters available for 1½″)		
Pipe cut-out length	12.8″ (326 mm)		
Cell cable length	15 ft		
Cell weight	5 lbs 7 oz		
Flow sensor	Integrated ceramic-bearing flow cage; monitors flow (GPM) & turnover		
Certifications	cULus Listed (UL 1081, CSA C22.2 No. 218.1) · CE		
Warranty	60-day limited; 3-year with registration (see page 12)		

DIMENSIONS



INSTALLING THE CELL

REMOVING THE OLD CELL

1. Turn off the pump and relieve system pressure at the filter air-relief valve. Turn off power at the breaker.
2. Unplug the cell cable from the bottom of the controller.
3. Loosen the union nuts and remove the old cell.
4. Inspect the union O-rings and tailpieces. Replace any O-ring that is worn, flattened, or cracked (new union sets are included with the cell).

PLUMBING THE NEW CELL

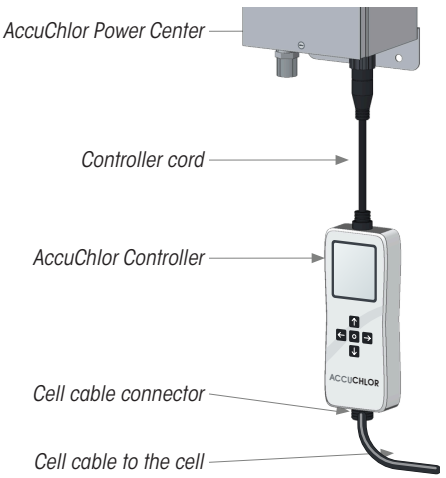
- Install the cell in the pool return line, downstream of (after) all other equipment – filter, pump, heater, and any solar – so it is the last device before the water returns to the pool.
- Observe the flow-direction arrow / "FLOW" marking on the cell. Water must flow through the cell in the indicated direction: it enters at the flow cage end, where the cable exits.
- Seat a union O-ring at each end of the cell and hand-tighten the union nuts for a watertight seal – do not use a wrench or pipe sealant on the union threads.
- Provide at least 12˝ (30 cm) of straight pipe upstream of the cell / flow cage so the flow sensor reads accurately. Requires at least 22 GPM (83 L/min) through the cell to operate.
- Install the cell horizontally (label up) or vertically (water flowing upward). Never install it upside down.

DANGER

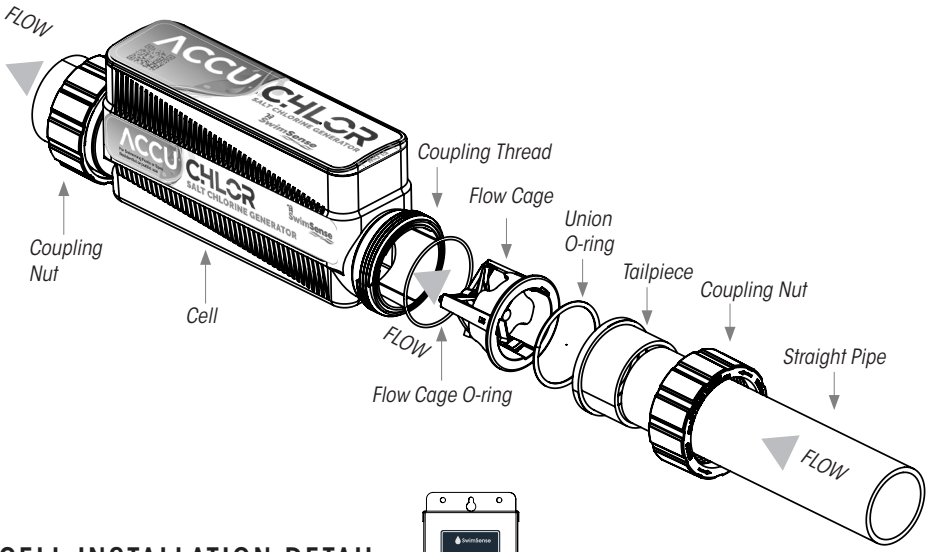
HYDROGEN GAS. Never install the cell so it can trap gas, and never energize the cell without water flow. Hydrogen gas produced during electrolysis can accumulate and create an explosion hazard if the cell runs dry.

CONNECTING THE CELL TO THE CONTROLLER

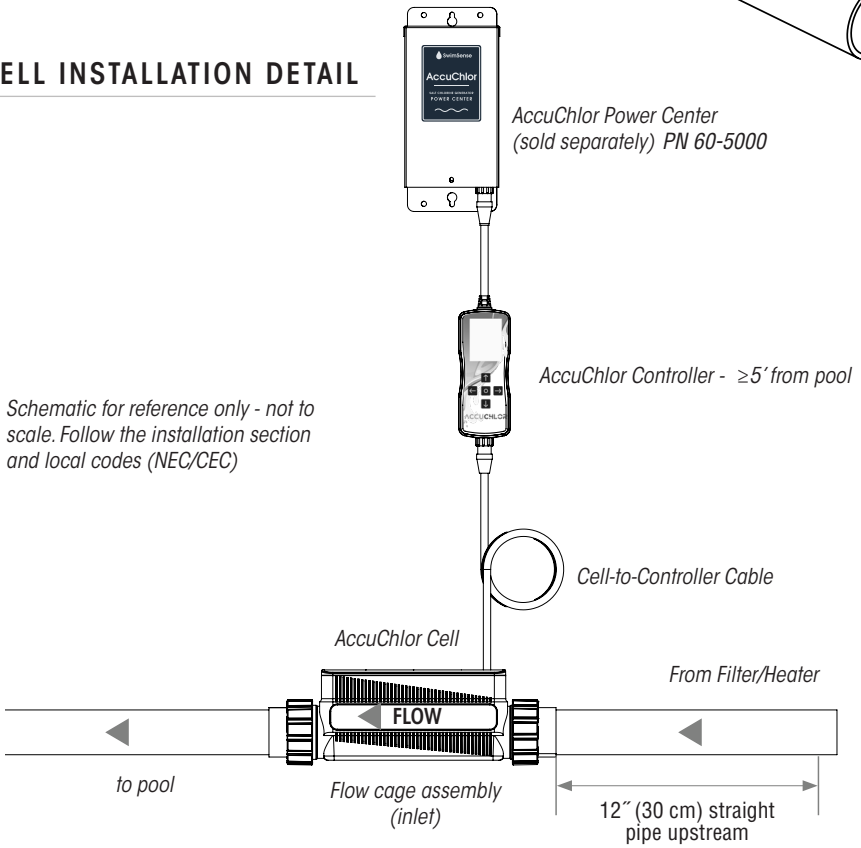
1. Turn off power at the circuit breaker.
2. Route the cell cable to the controller and secure it. Do not bury the cable directly underground and do not pull it tight at the strain relief.
3. Plug the cell cable into the connector on the bottom of the controller. Align the key, push the plug in fully, and turn the coupling ring until it locks hand-tight.
4. Let the controller hang on its cord from the AccuChlor Power Center. Do not fasten it to a wall or place it in an enclosure.
5. Continue with Start-Up on page 8.



EXPLODED VIEW OF CELL, FLOW CAGE AND UNION CONNECTIONS



CELL INSTALLATION DETAIL



START-UP

1. Check that the pool water is balanced and the salt level is 2,700–3,400 ppm (ideal 3,200 ppm).
2. With the pump running, restore power to the controller.
3. Check the unions for leaks.
4. Confirm the controller reads flow (GPM) and a salt level within 2,700–3,400 ppm.
5. After 24 hours, test the free chlorine. Adjust Output up or down in small steps (5–10%) and re-test after each 24-hour period until free chlorine holds steady at 1.0–3.0 ppm.
6. Write the new cell's serial number and your start-up readings in the Start-Up Record on page 10.

MAINTENANCE & CELL CLEANING

ROUTINE MAINTENANCE SCHEDULE

TASK	FREQUENCY	TARGET / ACTION
Test free chlorine	Weekly	1.0 – 3.0 ppm
Test pH	Weekly	7.2 – 7.8
Test total alkalinity	Monthly	80 – 120 ppm
Check salt level	Monthly	2,700 – 3,400 ppm
Test stabilizer	Quarterly	60 – 80 ppm
Test calcium hardness	Quarterly	200 – 400 ppm
Inspect the cell	Quarterly	Check for scale/debris; clean if needed
Clean the flow cage sensor	Annually / as needed	Rinse and gently clean the sensor

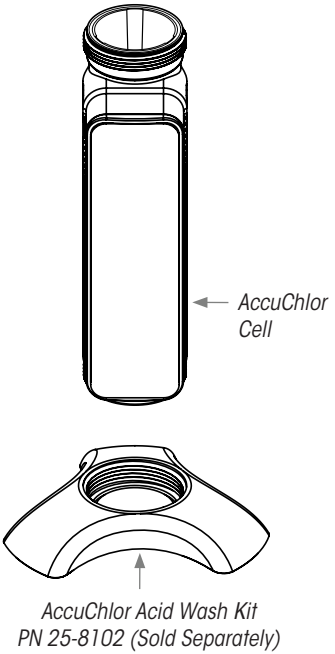
INSPECTING THE CELL

- Turn off the pump and relieve pressure at the filter air-relief valve
- Turn off power at the breaker before removing the cell.
- Loosen the unions and remove the cell. Look inside for light-colored, crusty or flaky scale on the blades and for debris caught between the plates.
- Light debris can be flushed out with a high-pressure garden hose. Use only a plastic or wood tool – never metal – and never scrape the coating on the plates.

ACID-WASHING THE CELL

WARNING **ACID.** Always add acid to water, never water to acid. Wear rubber gloves and eye protection. Perform cleaning outdoors in a well-ventilated area.

1. Turn off the pump and relieve system pressure at the filter air-relief valve. Turn off power at the breaker.
2. Remove the cell from the plumbing.
3. Remove the flow cage before acid washing.
4. Thread the cell, outlet end down, into the AccuChlor Acid Wash Kit stand so it stands upright.
5. Mix a 4:1 solution of water to muriatic acid (1 gal water to 1 qt acid), adding the acid to the water.
6. Pour the solution into the cell until the blades are covered, keeping the cable connector dry. Soak until foaming stops (30 minutes max).
7. Neutralize and dispose of the acid solution per local regulations.
8. Rinse the cell thoroughly with a high-pressure hose and inspect. Repeat once if scale remains.
9. Reinstall the cell, observing the flow-direction arrow, and hand-tighten the unions.



AccuChlor Acid Wash Kit PN 25-8102 (Sold Separately)

NOTE Frequent scale buildup indicates high calcium hardness or high pH. Rebalance the water to reduce recurring buildup and prolong cell life.

CLEANING THE FLOW CAGE SENSOR

Once a year, or if flow readings become erratic, remove and inspect the flow cage assembly. Rinse it clean and gently clear any debris from the sensor and impeller. The flow cage is a patented, easily replaceable part — if the ceramic bearing or impeller is worn, replace the flow cage assembly rather than the entire cell.

WINTERIZING & SPRING START-UP

WINTERIZING

- In regions with freezing temperatures, drain all water from the pump, filter, and the supply and return lines before freezing conditions occur.
- Remove the cell, clean it, and store it indoors. If desired, install a spool piece (dummy cell) to maintain circulation while the cell is out.
- The controller can remain mounted through winter, but disconnect power while the system is drained.

SPRING START-UP

NOTICE	**WATER CHEMISTRY FIRST.** Do NOT turn the AccuChlor on until the pool water chemistry has been rebalanced to the proper levels and the salt level is confirmed within range.

- Reinstall the cell, restore circulation, and confirm there are no leaks.
- Balance the water, verify salt (2,700–3,400 ppm), then restore power and set Output to about 50%.

START-UP RECORD

Write these down at start-up and again once Output is dialed in, so changes are easy to spot later.

READING	AT START-UP	AFTER DIAL-IN
Date		
Flow (GPM)		
Salt (ppm)		
Output (%)		
Free chlorine (ppm)		
pH		
Water temperature (°F)		

Cell serial no. _____ Controller serial no. _____

TROUBLESHOOTING

Use the table below to diagnose common cell conditions. If a problem persists after these steps, contact your dealer or SwimSense technical support. For the controller, wiring, and the app, see the Owner's Manual that came with your controller.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
"No flow" or low flow (GPM)	Pump off, low water, dirty filter, closed valve, or debris in flow cage	Run the pump, clean the filter, open valves, and clear/clean the flow cage
"Add salt" / low salt	Salt below ~2,700 ppm	Test and add salt to reach 3,200 ppm; confirm reading after 24 hours
"High salt" warning	Salt above range (over ~3,600 ppm)	Partially drain and refill with fresh water to lower salt
Salt reads low but test is correct	Scaled cell or cold water	Clean cell, re-check
Little or no free chlorine	Output too low; low stabilizer; short pump run time; warm water; scaled cell	Raise Output, add stabilizer to 60–80 ppm, extend pump time, clean the cell
Green/cloudy water despite output	High chlorine demand, algae, or low stabilizer	Use Boost/super-chlorinate, balance water, and confirm stabilizer level
Scale on cell blades	High calcium hardness or high pH	Acid-wash the cell (page 9) and rebalance the water
Production stops in cold weather	Cold-water cutoff active (below ~50°F/10°C)	Normal protection; supplement with manual chlorine if the pool is in use
Erratic flow / turnover readings	Debris or wear in the flow cage sensor	Clean the flow cage; replace the flow cage assembly if worn (Flow Cage Kit, PN 25-8005)
Water leaks at a union	Union O-ring missing, dirty, or worn; union nut not fully tightened	Turn off the pump, reseat or replace the O-ring (Coupling Set Kit, PN 25-201), and hand-tighten the nut

⚠ **NOTE** Recording your normal flow, salt, and output values at start-up makes it easier to spot changes later.

SwimSense LLC – Limited Warranty & Product Registration

SwimSense LLC manufactures its products to the highest standards of workmanship, materials, and engineering to deliver value and peace of mind.

LIMITED WARRANTY

SwimSense LLC warrants its products to be free from defects in materials and/or workmanship for a period of sixty (60) days, parts only, from the original date of purchase or installation, as demonstrated by proof of purchase. The customer agrees to prepay all shipping charges for products returned to SwimSense LLC.

Proof of purchase is required for warranty service. If proof of purchase is unavailable, the product's manufacturing date will be used as the purchase date.

EXTENDED WARRANTY

To receive an extended product warranty of three (3) years from the original date of installation, the customer must register the product within sixty (60) days of the product's purchase date.

Visit warranty.swimsenseusa.com for information regarding registration, coverage, and possible warranty exclusions applicable to your specific pool and spa equipment.

SwimSense LLC shall not be responsible for transportation, removal, repair, installation labor, or any other costs incurred in obtaining warranty replacement or repair.

The express limited warranty stated above constitutes the entire warranty provided by SwimSense LLC with respect to its pool products and is in lieu of all other warranties, express or implied, including warranties of merchantability or fitness for a particular purpose. In no event shall SwimSense LLC be responsible for any consequential, special, or incidental damages of any nature.

GENERAL WARRANTY TERMS AND CONDITIONS – Denial of Warranty Claims

A warranty claim may be denied under any of the following circumstances:

- Water chemistry out of range, freeze damage, scaled cell.
- Damage caused by careless handling, improper repacking, or shipping.
- Damage caused by misapplication, misuse, abuse, or failure to install or operate the product in accordance with the owner's manual and specifications.
- Accidental damage, fire, acts of God, or other circumstances beyond the control of SwimSense LLC.

**Supersedes all previous publications*

SwimSense

For further information or consumer technical support, please visit
swimsenseusa.com | warranty@swimsenseusa.com
SwimSense LLC | 1021 S Rogers Circle #2
Boca Raton FL 33487

SCAN FOR WARRANTY INFO