SwimSense

# ACCUCHLOR
## SALT CHLORINE GENERATOR

# Owner's Manual

Installation, Operation & Maintenance







**AC20 - 60-9020**
**AC30 - 60-9030**
**AC40 - 60-9040**

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 & HOW IT WORKS

The AccuChlor Salt Chlorine Generator produces all the chlorine your pool needs directly from ordinary salt dissolved in the pool water – eliminating the need to buy, store, and handle harsh liquid or tablet chlorine. Once salt is added to the pool and the system is set, AccuChlor automatically and consistently maintains the chlorine level you select.

- Reduces the need for harsh chemicals
- Keeps your pool clean with just salt
- Easy to use – simply set it up and add salt
- Accurate flow meter monitors your filter and pool turnover

## How Salt Chlorination 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. You only need to replace salt that is lost through backwashing, splash-out, or draining.

⚠ **NOTE** Salt is not lost to evaporation. When water evaporates it leaves the salt behind. You will generally only need to add salt after adding fresh water, backwashing, or heavy splash-out.

## KEY FEATURES

- **Dedicated controller** – AccuChlor LCD controller displays flow, salt level, output, water temperature, and turnover, and lets you precisely adjust chlorine production.
- **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)
- **App connectivity** – monitor and control your system remotely from your smartphone or tablet with the SwimSense app.
- **Works with your equipment** – see box below.
- **Easy-clean cell** – cell blades are easily cleaned with a simple acid wash.

⚠ **COMPATIBLE WITH PENTAIR® SCG** The AccuChlor cell is compatible with the Pentair® IntelliChlor® SCG (Salt Chlorine Generator) Power Center. It can be run with the included AccuChlor controller, or used as a direct replacement cell on an existing Pentair® SCG power center. See “Compatible Control Systems” in the Installation section.

# SYSTEM COMPONENTS & SPECIFICATIONS

## What's Included

**MASTER CARTON – AC20 SYSTEM (60-9020), AC30 SYSTEM (60-9030) OR AC40 SYSTEM (60-9040)**

**CELL BOX**
AC20 Cell 60-8020, AC30 Cell 60-8030
or AC40 Cell 60-8040

- AccuChlor Cell with 15 ft cable
- Flow cage & O-ring (pre-installed in the cell)
- 2 × 2˝ PVC union sets (coupling nut, tailpiece, O-ring)
- Cell Owner's Manual

**CONTROLLER BOX**
AccuChlor Controller 60-8100

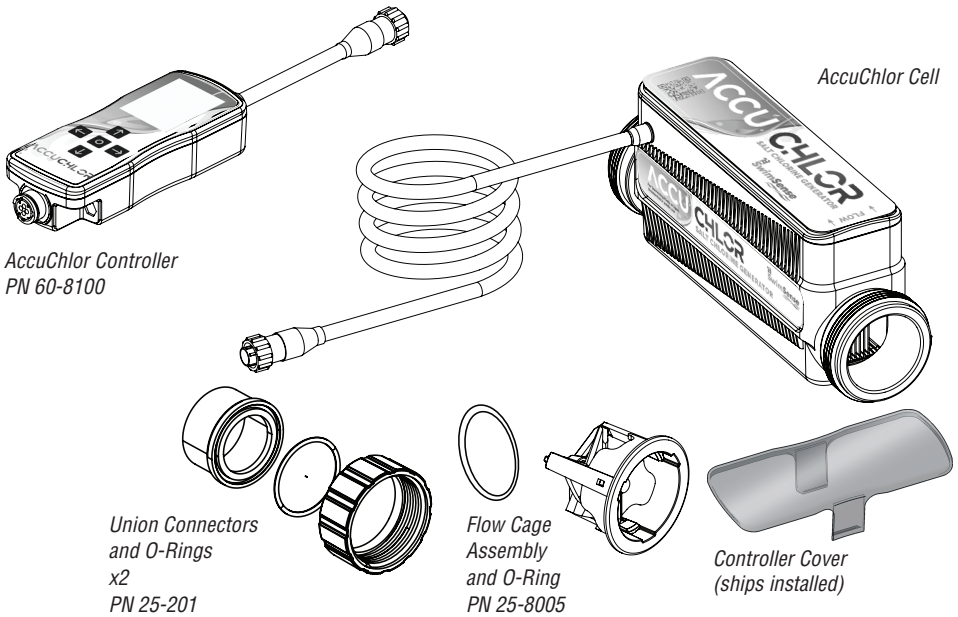
- AccuChlor Controller
- Controller cover (ships installed over the display and buttons)
- Controller Owner's Manual

**Also in the master carton:** this Owner's Manual.

**Sold separately:** AccuChlor Power Center, PN 60-5000 (its mounting hardware comes with it).

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

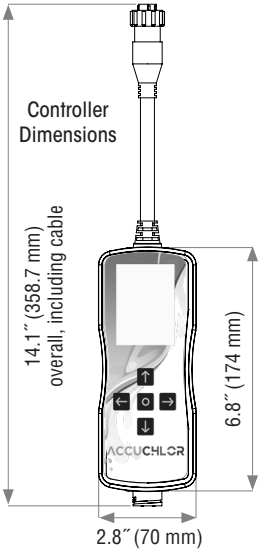
## COMPONENTS



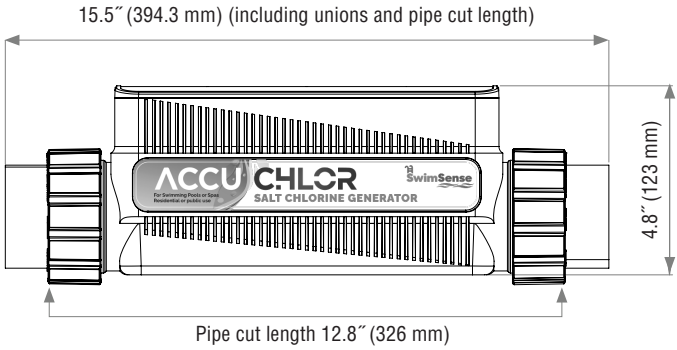
## TECHNICAL SPECIFICATIONS

| SPECIFICATION | RATING | | |
|---|---|---|---|
| **Model** | **60-9020** | **60-9030** | **60-9040** |
| Power input | 120 / 240 VAC, 50/60 Hz | | |
| Power consumption (max) | 120 W | 150 W | 180 W |
| 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) | | |
| Cell cable length | 15 ft | | |
| Cell weight | 5 lbs 7 oz | | |
| Pipe cut-out length | 12.8˝ (326 mm) | | |
| Min operating water temp. | 50°F (10°C) | | |
| Plumbing connection | 2˝ PVC union (adapters available for 1½˝) | | |
| Max operating pressure | 50 PSI (345 kPa) | | |
| Flow sensor | Integrated ceramic-bearing flow cage; monitors flow (GPM) & turnover | | |
| Connectivity | SwimSense app (Wi-Fi) EasyTouch® / IntelliCenter® compatible | | |
| Enclosure rating | Outdoor rated; Power Center: NEMA 3R | | |
| Certifications | cULus Listed (UL 1081, CSA C22.2 No. 218.1) · CE | | |
| Warranty | 60-day limited; 3-year with registration (see Warranty) | | |

## DIMENSIONS




Cell Dimensions




# POOL WATER CHEMISTRY

A salt chlorine generator produces chlorine, but it cannot balance your water for you. Proper water chemistry is essential for effective sanitation, swimmer comfort, and long cell life. Test your water weekly and keep every value within the ranges below.

| PARAMETER | IDEAL RANGE | HOW TO ADJUST |
|---|---|---|
| Free chlorine | 1.0 – 3.0 ppm | Raise/lower Output %, or run the pump longer/shorter |
| pH | 7.2 – 7.8 (ideal 7.4–7.6) | Soda ash to raise; muriatic acid to lower |
| Total alkalinity | 80 – 120 ppm | Sodium bicarbonate (baking soda) to raise |
| Salt (NaCl) | 2,700 – 3,400 ppm (ideal 3,200) | Add pool salt; dilute with fresh water if high |
| Stabilizer (cyanuric acid) | 60 – 80 ppm | Add cyanuric acid; protects chlorine from UV |
| Calcium hardness | 200 – 400 ppm | Calcium chloride to raise; dilute to lower (never use calcium chloride as pool salt) |
| Metals (Cu, Fe, Mn) | 0 ppm | Use a metal sequestrant; consult a pool pro |
| Saturation Index | -0.2 to +0.2 | Balance pH, alkalinity, calcium & temperature |

**⚠ WARNING** **CORROSION.** Free chlorine levels above 3.0 ppm and salt levels above 3,600 ppm can corrode metal fixtures, heaters, and ladders. Do not over-chlorinate or over-salt the pool.

## STABILIZER (CYANURIC ACID)

Cyanuric acid protects chlorine from being destroyed by the sun's UV rays. Without adequate stabilizer, the chlorine your AccuChlor produces will burn off quickly and you will see little or no free chlorine residual. Maintain 60–80 ppm (up to 80–85 ppm in hot climates). Test before adding stabilizer and add only enough to reach that range – too much stabilizer reduces chlorine effectiveness.

# SALT REQUIREMENTS & ADDING SALT

## SALT TYPE

- Use only sodium chloride (NaCl) that is at least 99% pure – food-grade or water-softener grade, evaporated, granulated, and non-iodized.
- **DO NOT USE:** rock salt, iodized salt, calcium chloride, or salt containing anti-caking agents (yellow prussiate of soda / sodium ferrocyanide).

## WHEN TO ADD SALT

- New plaster / gunite pools: wait 10–14 days (30 days for some finishes) after start-up before adding salt to allow the surface to cure. Follow your plaster installer's guidance.
- Vinyl and fiberglass pools: salt may be added at start-up.

## HOW TO ADD SALT

1. Test the current salt level and use the salt chart (or the app) to calculate how much salt is required to reach 3,200 ppm.
2. Set the controller output to 0% (or turn the generator off) before adding salt.
3. With the circulation pump running, broadcast the salt evenly across the shallow end or around the pool perimeter. Do not pour salt into the skimmer, main drain, or surge tank.
4. Brush the salt around to help it dissolve and prevent it from piling on the pool floor.
5. Run the filter pump continuously for 24 hours to fully dissolve and evenly distribute the salt.
6. Re-test the salt level (or read it on the controller) and confirm it is within 2,700–3,400 ppm before returning Output to your normal setting.

## SALT DOSAGE CHART

Use the chart below to determine how many pounds of salt to add to reach the ideal level of 3,200 ppm. Find your pool volume in the left column, then read across to your current salt reading. Values are in pounds (lb).

| Pool Volume (gal) | 0 ppm | 1,000 | 1,500 | 2,000 | 2,500 | 3,000 |
|---|---|---|---|---|---|---|
| 5,000 | 133 | 92 | 71 | 50 | 29 | 8 |
| 10,000 | 267 | 183 | 142 | 100 | 58 | 17 |
| 15,000 | 400 | 275 | 213 | 150 | 88 | 25 |
| 20,000 | 534 | 367 | 284 | 200 | 117 | 33 |
| 25,000 | 667 | 459 | 354 | 250 | 146 | 42 |
| 30,000 | 801 | 550 | 425 | 300 | 175 | 50 |
| 40,000 | 1,068 | 734 | 567 | 400 | 234 | 67 |

(1 lb = 0.45 kg)

⚠ **NOTE** Salt is typically sold in 40 lb bags. Values are rounded to the nearest pound and target 3,200 ppm. Always verify with a test and add salt gradually – it is easy to add more, but the only way to reduce salt is to drain and refill with fresh water. To lower a high salt reading, partially drain the pool and refill with fresh water.

# INSTALLATION

**WARNING** **QUALIFIED INSTALLER.** The following tasks must be performed by a licensed or certified electrician and a qualified pool professional, in accordance with the NEC and all local codes, before the system is placed in service.

## 1. MOUNTING THE CONTROLLER

- Mount the AccuChlor Power Center (PN 60-5000, sold separately) vertically near the equipment pad, at least 5 ft (1.5 m) from the pool/spa (3 m in Canada) and 5 ft (1.5 m) above the ground.
- Attach the controller to the Power Center via the connector on the bottom of the Power Center.
- Do not mount the controller inside a sealed enclosure. Allow air space around the unit for cooling.
- Locate the controller so the cell-to-controller cable reaches the cell without strain.

## 2. PLUMBING THE CELL

- Install the AccuChlor 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.
- Cut the return line and install the cell using the supplied 2″ unions and O-rings. 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.

## 3. WIRING

- Disconnect all AC power at the breaker before wiring.
- Connect the Power Center to the load side of the filter-pump timer (or to the automation relay) so the generator only receives power when the circulation pump is running.
- Verify the supply voltage matches the Power Center input (120 or 240 VAC). Protect the circuit with an appropriately rated GFCI breaker.
- Route and secure the cell-to-controller cable. Do not bury the cable directly underground and do not pull it tight at the strain relief.

## 4. BONDING & GROUNDING

- Connect the ground terminal to the service panel ground with a copper conductor sized to the circuit.
- Bond the Power Center and all metal within 5 ft (1.5 m) of the pool to the pool bonding grid using a minimum #8 AWG solid copper conductor (#6 AWG in Canada), per NEC Article 680.



**BONDING LUG**
Bottom of the Power Center. #8 AWG Cu to bonding grid.

## 5. CONNECTING TO AUTOMATION (OPTIONAL)

The AccuChlor controller can connect to the AccuChlor Power Center or to Pentair EasyTouch® and IntelliCenter® systems. After installing the cell, plug the cell cable into the controller, then connect the controller to the Power Center or automation system per that system's instructions. To enable remote monitoring, download the SwimSense app and follow the in-app pairing steps.

## COMPATIBLE CONTROL SYSTEMS

The AccuChlor cell can be driven several ways. Choose the option that matches your equipment:

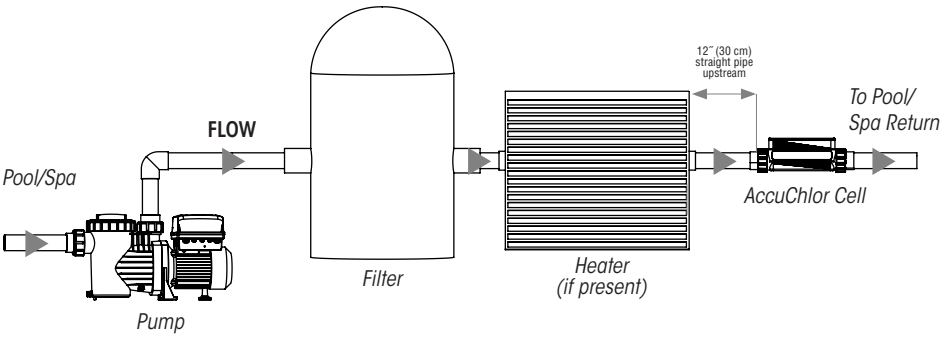
| CONTROL SYSTEM | HOW THE ACCUCHLOR CELL CONNECTS |
|---|---|
| AccuChlor Controller (included) | Plug the cell directly into the AccuChlor controller for the full LCD display, app control, and flow / turnover monitoring. |
| Pentair® IntelliChlor® SCG Power Center | The AccuChlor cell is compatible with the Pentair® Salt Chlorine Generator (SCG) power center and can be used as a direct replacement cell – plug it into the power center in place of the OEM cell. Flow, turnover and app features not available on a Pentair® power center. |
| AccuChlor Power Center (sold separately) | Powers the AccuChlor controller and cell. Wire it to the load side of the pump timer or automation relay. |
| Pentair EasyTouch® / IntelliCenter® | The AccuChlor controller integrates with these automation systems for scheduling and control. |

⚠ **NOTE** When the AccuChlor cell is run from a Pentair® SCG power center, chlorine output is set on the Pentair power center; the AccuChlor controller and app are not required for basic operation.

## ACCUCHLOR PLUMBING & INSTALLATION DIAGRAMS

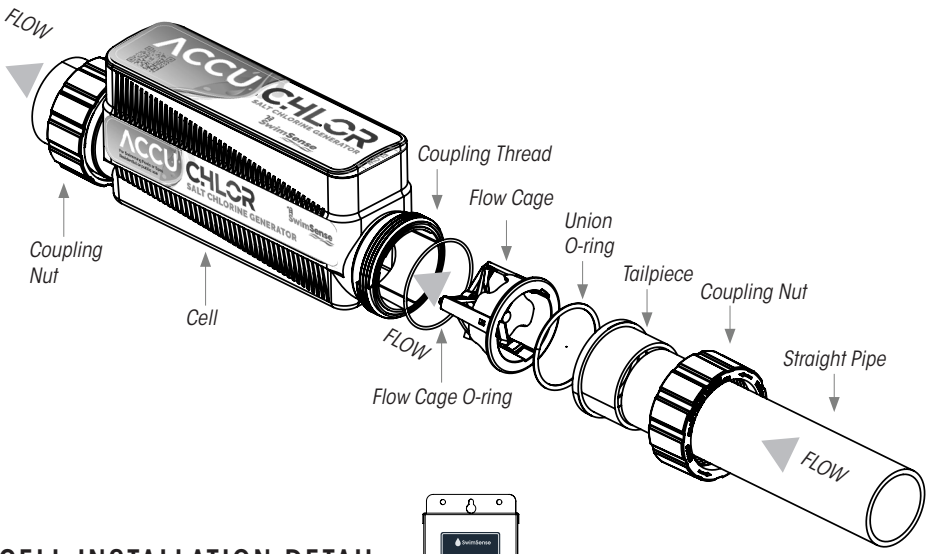
The diagram below shows a typical equipment-pad layout and how the AccuChlor cell is plumbed into the return line. THE CELL IS ALWAYS INSTALLED LAST – after the pump, filter, and heater – so only sanitized water returns to the pool.

### TYPICAL EQUIPMENT PAD LAYOUT

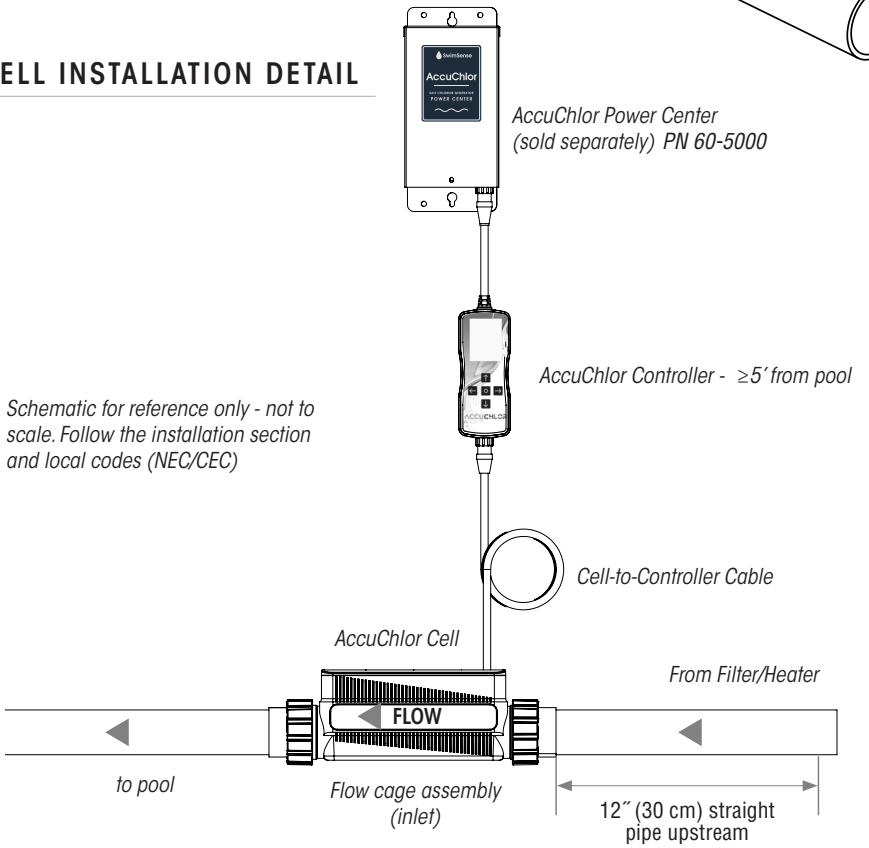



1. Install the AccuChlor cell as the LAST device before water returns to pool.
2. Observe the flow-direction arrow on the cell – water must flow through it correctly.
3. Connect the cell with the supplied 2˝ unions; hand-tighten only (no sealant on union threads).
4. Mount the controller ≥ 5 ft (1.5 m) from the pool and wire it to run only with the pump.

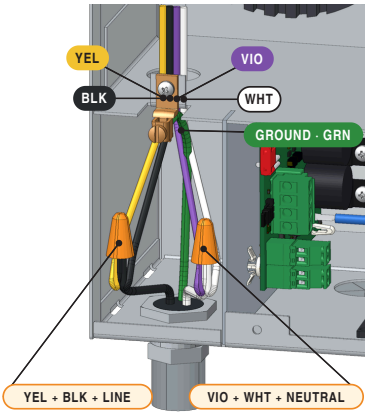
## EXPLODED VIEW OF CELL, FLOW CAGE AND UNION CONNECTIONS



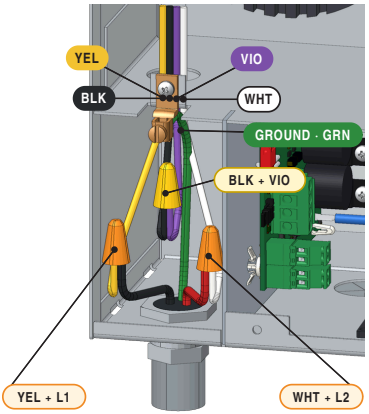

## CELL INSTALLATION DETAIL



## CONNECTING CONTROLLER TO POWER CENTER



120 VAC — windings in parallel



240 VAC — windings in series



Controller on its cord

**CAUTION**

**WRONG CONNECTION DAMAGES THE TRANSFORMER.** 240 VAC on leads connected for 120 VAC will overheat and destroy the transformer. Verify the supply voltage with a meter before energizing.

1. Turn off power at the circuit breaker.
2. Measure the supply voltage, then splice the transformer leads with listed twist-on wire connectors as shown for 120 or 240 VAC. Connect the green ground to the grounding lug and the 8 AWG bonding wire to the external bonding lug. See the AccuChlor Power Center Installation Guide (Model 60-5000).
3. Align the key on the controller cord plug with the connector under the Power Center, push it in fully and turn the coupling ring until it locks hand-tight.
4. Let the controller hang on its cord. Do not fasten it to a wall or place it in an enclosure.
5. Plug the cell cable into the bottom of the controller, then follow Start-Up below.

# START-UP & COMMISSIONING

1. Balance the pool water chemistry first (pH, alkalinity, calcium, stabilizer). Do not run the generator until the water is balanced.
2. Add salt as described on page 7 and run the pump for 24 hours to fully dissolve and distribute it.
3. With the pump running, restore power to the controller. On first power-up the unit performs a self-calibration; the display may show a brief “wait” period.
4. Confirm the controller reads flow (GPM) and a salt level within 2,700–3,400 ppm.
5. Set Output to approximately 50% to start.
6. 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.

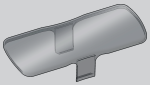
**NOTE** It typically takes two to three adjustments over several days to dial in the correct Output setting. Increase Output during hot weather and heavy bather loads; decrease it in cooler weather.

# OPERATION & CONTROLS

The AccuChlor controller has an LCD display and a set of navigation buttons – up, down, left, right, and a center Select button – used to read system status, adjust output, and move through menus.

## READING THE DISPLAY

| READING | WHAT IT MEANS |
|---|---|
| Flow (GPM) | Rate of water flowing through the cell, measured by the flow cage. Confirms adequate circulation. |
| Salt (PPM) | Current salt concentration in the water. Keep within 2,700–3,400 ppm (ideal 3,200). |
| Output (%) | The chlorine production level you have set, from 0% to 100%. |
| Temperature (°F or °C, set in Settings) | Current pool water temperature. Below 50°F (10°C) the cell reduces or stops production to protect itself. |
| Turnover (%) | Progress of a full pool turnover based on measured flow — helps you confirm filtration and know when to clean or replace the filter. |



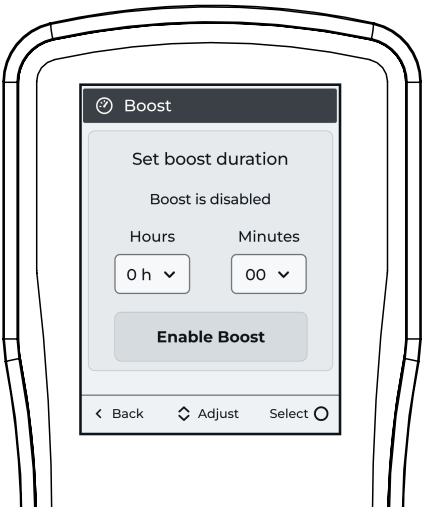
**⚠ NOTE** The controller ships with a clip-on cover over the display and buttons. Unclip the cover and lift it off before using the buttons.

## ADJUSTING CHLORINE OUTPUT




- Use the arrow buttons to select Output, then increase or decrease the percentage. Higher Output produces more chlorine.
- Start at 50% and adjust in 5–10% steps, re-testing free chlorine after 24 hours until it holds at 1.0–3.0 ppm.
- Three things control how much chlorine reaches your pool: the Output % setting, the number of hours the pump runs each day, and the salt level. Adjust pump run time and Output together for best results.

## BOOST / SUPER-CHLORINATE




Use Boost mode to temporarily run the generator at maximum output for a period (for example, after heavy use, a rainstorm, or cloudy water). The controller returns to your normal Output automatically when the Boost period ends. Boost can be set from 15 minutes up to 24 hours.

## MENUS & SETTINGS




Use the center Select button to enter the menu and the arrow buttons to navigate. From the menu you can change display units (°F/°C), set the clock and pump schedule, view diagnostics (flow, salt, temperature, cell current), and pair the unit with the SwimSense app. The pump schedule is used only to calculate turnover; the controller does not switch the pump.

## AUTOMATIC CELL CLEANING (REVERSE POLARITY)

AccuChlor periodically reverses the electrical polarity of the cell to shed scale from the cell blades automatically. This self-cleaning cycle helps extend the time between manual cleanings but does not replace periodic inspection and acid washing when needed. The default interval is 4 hours; you can change it to 3 or 5 hours in the SwimSense app or on the controller.

## COLD-WATER CUTOFF

To protect the cell, AccuChlor automatically reduces or stops chlorine production when the water temperature falls below about 50°F (10°C). This is normal. In cold weather, supplement with manually added chlorine if the pool remains in use.

# CONTROLLER SCREEN MAP

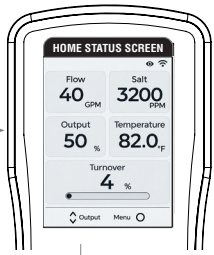
The map below shows every screen on the AccuChlor controller and how to move between them. From the Home status screen, press Select to open the Menu, then use the arrow buttons to reach Pool Config, Diagnostics, Settings, Boost, or Wi-Fi. Press Back (◀) at any time to return to the previous screen.

## ACCUCHLOR CONTROLLER – SCREEN MAP

How to move between screens on the AccuChlor handheld controller

**Select/enter the highlighted option**
*Press Select on the center button to open a menu or confirm a value*

**▲▼◄► Navigate the list/adjust a value**
*◄ Back returns to the previous screen*




◄ back

press Select

**MENU**

Select an option– ▲▼navigate,
Select opens the five screens below

| | |
|---|---|
| 1 POOL CONFIG | • Pool Size, Pool Type<br>• Min / Max Chlorine |
| 2 DIAGNOSTICS | • IP address • MAC address<br>• Signal (dBm) • Transmit Power (dBm) • Status – read-only |
| 3 SETTINGS | • Units (°F/°C), Clock, Pump Schedule, Output, System |
| 4 BOOST | • Set hours and minutes, then select Enable Boost<br>• Runs at 100% output for a set period |
| 5 Wi-Fi | • Network/SSID Connection status<br>• Signal strength – pair with the SwimSense app |

# THE SWIMSENSE APP

SCAN HERE TO DOWNLOAD
SWIMSENSE APP
app.swimsenseusa.com/app

The SwimSense app lets you monitor and control your system from your smartphone or tablet. View live flow, salt, output, temperature, and turnover; adjust chlorine output; and receive alerts – all remotely.

1. Download the SwimSense app from the Apple App Store or Google Play.
2. Ensure the controller is powered and within range of your home Wi-Fi network.
3. Pair the controller with the app and join your Wi-Fi network:

    1) On the controller, press the center button to open the Menu.
    2) Scroll down to Wi-Fi and select it.
    3) Select Wi-Fi setup.
    4) Select Begin.
    5) Open the SwimSense app and go to Settings.
    6) Tap Add Device, then tap Continue.
    7) When the app connects to the controller, choose your home Wi-Fi network (2.4 GHz only).
    8) Once Wi-Fi connects, the Configuring Device screen appears. No action is needed.

4. Once paired, your live system readings appear on the app dashboard, and you can adjust Output and Boost remotely.

⚠ **NOTE** Keep the app and controller firmware up to date for the latest features and reliability improvements.

# 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 |

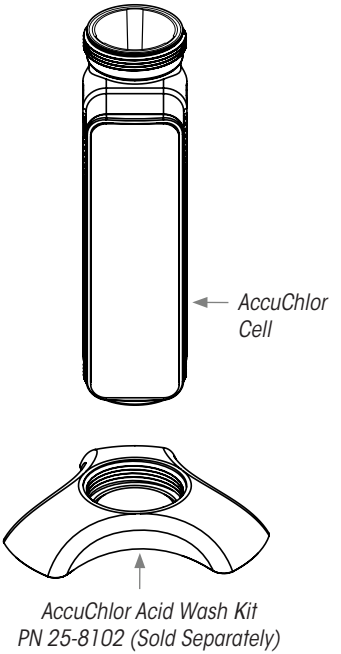
## INSPECTING THE CELL

- 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 conditions. If a problem persists after these steps, contact your dealer or SwimSense technical support.

| SYMPTOM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| No display / controller dark | No power; pump not running; timer off | Confirm the pump is running and the breaker/timer is on; verify wiring and voltage |
| “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 16) 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 |
| App won’t connect | Wi-Fi range or pairing issue | Move within Wi-Fi range, re-pair in the app, update firmware |

⚠ **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

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**FCC COMPLIANCE STATEMENT**

**Contains FCC ID: 2AC7Z-ESP32WROOM32E**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by SwimSense LLC could void the user's authority to operate the equipment.

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

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

RF exposure: this equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. Install and operate it with a minimum distance of 20 cm (8 in) between the controller and your body.



**For further information or consumer technical support, visit our website at www.swimsenseusa.com**

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