



RT30 Owner's Manual



SUPPORT

Be sure to read through the manuals FIRST to be sure each step is completed according the information provided. For the Chlorine Genie to operate properly, it must be set up, operated and serviced properly.

Support is available 9 AM to 5 PM PST Monday through Friday.

Support contact information:

Main Line: 619.685.0691

Email: support@ultimatepoolwater.com

IMPORTANT INFORMATION WHEN CALLING FOR HELP

Genie Serial Number: _____

Genie model and description
or type of installation: _____

Date installed, color of brine tank
and approximate gallons of pool: _____

Email address to contact owner: _____

WARNINGS: READ CAREFULLY

- Do not cover Chlorine Genie unit when in operation. Unit must be well vented. Hydrogen is produced and vented to the atmosphere. If Chlorine Genie is covered, it could result in hydrogen being trapped inside and could cause a fire or explosion or both. This product produces chlorine and should be installed in a well-ventilated area.
- Ultimate Water recommends that installations are done by an Authorized Representative. Please contact Ultimate Water to be connected with an Authorized Rep in your area.
- Rubber gloves and eye protection should be worn when refilling Acid Container, cleaning Chlorine-Generating Cell, adding salt or performing maintenance.
- Only connect Chlorine Genie to a GFCI (Ground Fault Circuit Interrupt) protected 110v-120v outlet receptacle. Do not connect to power using an extension cord.
- When a Float Feeder is installed, only run Chlorine Genie at the times when the pump is running.
- Do not allow the unit to run out of salt as this can damage electrodes and will void Warranty.
- pH discharge is salty and alkaline. Ensure proper disposal and drainage according the RT30 Installation Manual.
- To prevent unit from overheating, set the Amperage Adjustment Knob to read at least 15 amps and not more than 20 amps. Do not run Chlorine Genie unit over 20 amps showing on the Amperage Meter except when acid-cleaning which may cause amps to go over 20 for a brief time.
- The Chlorine Vent Tube outputs chlorine gas, and should be safely vented away from the Chlorine Genie unit as well as other pool equipment, as this gas can damage equipment.

Amperage Meter

Hour Meter

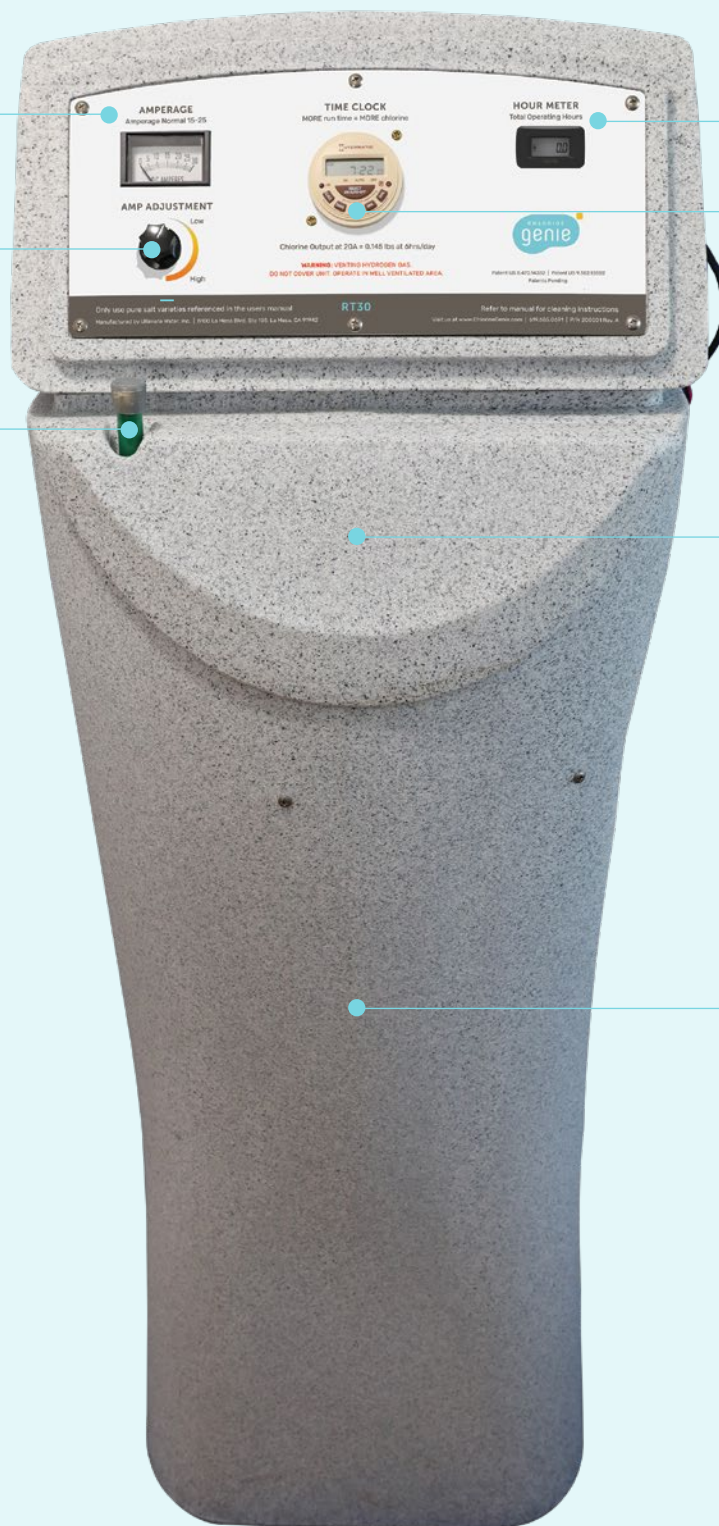
Amperage
Adjustment Knob

Time Clock

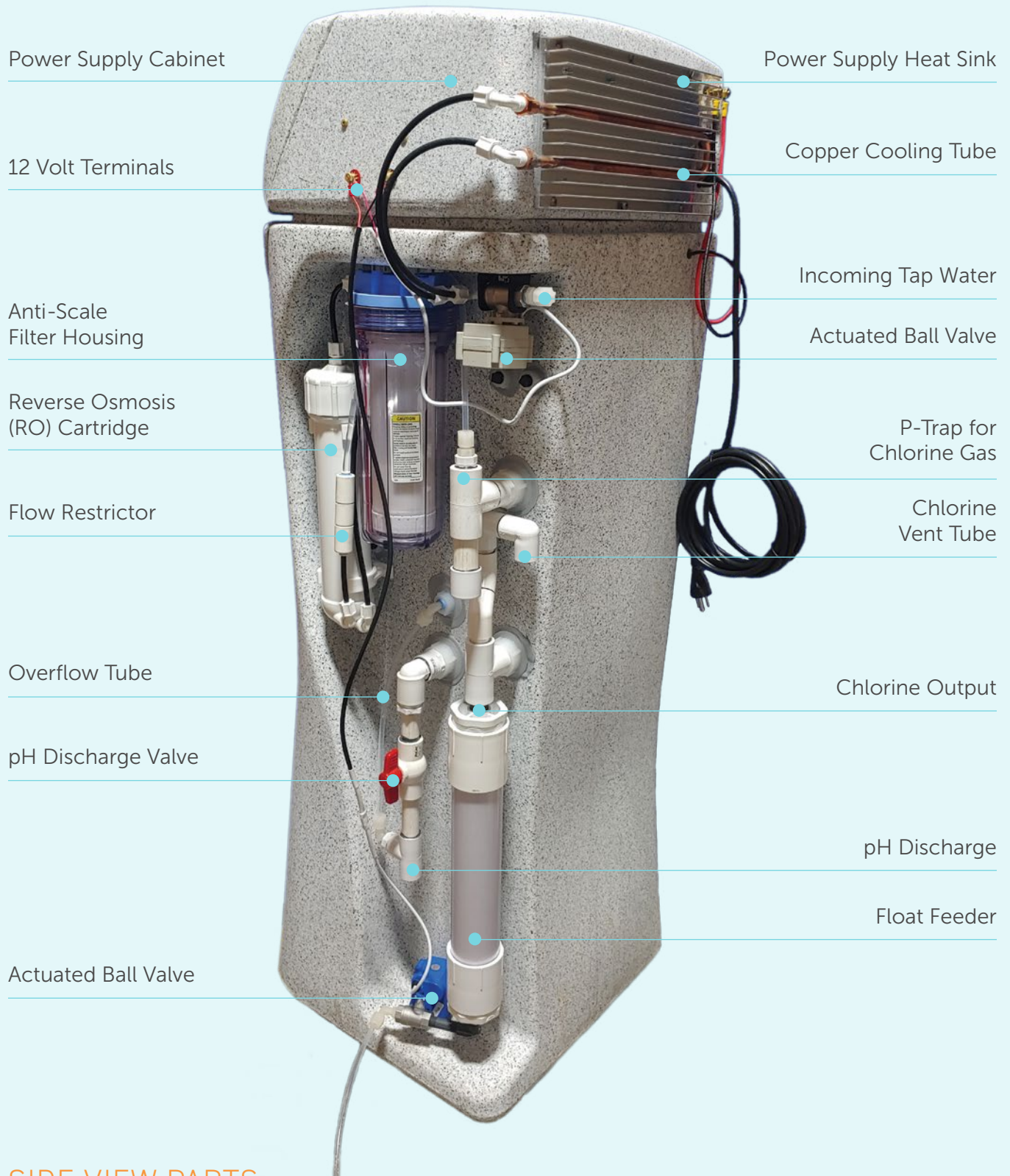
Salt Stick

Salt Lid

Brine Tank



FRONT VIEW PARTS
COMPLETE RT30 UNIT



Power Supply Cabinet

Power Supply Heat Sink

12 Volt Terminals

Copper Cooling Tube

Anti-Scale
Filter Housing

Incoming Tap Water

Actuated Ball Valve

Reverse Osmosis
(RO) Cartridge

P-Trap for
Chlorine Gas

Flow Restrictor

Chlorine
Vent Tube

Overflow Tube

Chlorine Output

pH Discharge Valve

pH Discharge

Float Feeder

Actuated Ball Valve

SIDE VIEW PARTS

COMPLETE RT30 UNIT WITH INSTALLED PLUMBING

TIME CLOCK OPERATION

CONFIGURE RUN SCHEDULE

The Chlorine Genie, running at 15 amps, can produce approximately 5–6 gallons of chlorinated water per hour. Adequate chlorine output is variable by pool size and seasonal variables, but the Chlorine Genie can generally provide sufficient chlorine on a daily, single, 4-6 hour run cycle.

Configure the Chlorine Genie timer to turn the unit on at least 30 minutes after the pump turns on and shut off at least 30 minutes before the pump shuts off. If the Chlorine Genie is running and outputting chlorine while the pump is off, chlorine may build up inside the lint pot which can lead to a chlorine back-up and damage to the pool pump.



1. Locate Time Clock on the unit Faceplate. Locate the clock on the pool pump.
 - Adjust the time of day on the Chlorine Genie Time Clock to ensure the time of day will match the pool pump.
2. Set Clock to time of day (AM or PM):
 - Hold down "CLOCK" button while pressing the "HOUR" button until correct AM/PM hour is displayed.
 - Hold down "CLOCK" button while pressing "MINUTE" button until correct minute is displayed.
 - Release the "CLOCK" button.

3. Set the 'On' time for cycle #1:

- Press the "TIMER" button once to enter run schedule programming mode.
- "1 ON" will appear on the left of the display, indicating that the "ON" time for cycle #1 is ready to be configured.
- Press the "HOUR" button until the correct AM/PM hour is displayed for cycle #1 to turn 'On'.
- Press the "MINUTE" button until the correct minute is displayed for cycle #1 to turn 'On'.

4. Set the 'Off' time for cycle #1:

- Press "TIMER" button again.
- "1 OFF" will appear on the left of the display, indicating that the "OFF" time for cycle #1 is ready to be configured.
- Press the "HOUR" button until the correct AM/PM hour is displayed for cycle #1 to turn 'Off'.
- Press the "MINUTE" button until the correct minute is displayed for cycle #1 to turn 'Off'.

NOTE: The time set between on/off will determine how long the Chlorine Genie will run. For example: Cycle 1 'On' at 11:00 AM and 1 'Off' at 2:00 PM will set the unit to run for 3 hours

5. Press the "CLOCK" button to exit the programming mode and save the run schedule.

6. Press the "SELECT" button to move the black Indicator Bar until it is above the word "AUTO".

NOTE: The "AUTO" setting will automatically turn the unit On/Off per the configured cycle 1.

SET ADDITIONAL CYCLES

- The Timer can be configured with up to 8 different cycles in a 24-hour period. If more than 1 cycle needs to be configured, repeat steps 3-5 to configure cycles 2-8.
- To review all cycles on the program, press the "TIMER" button to scroll through each cycle ('On' and 'Off' times). Press the "TIMER" button 16 times to go through all possible settings - 8 cycles, 2 settings (On/Off) per cycle.
- Change cycle configurations:
 - Press the "TIMER" button until the cycle needing to be changed appears.
 - Set new 'On' or 'Off' time (per steps 3-4).
 - Press "CLOCK" to save new cycle On/Off time.
 - Press the "SELECT" button to move the black Indicator Bar until it is above the word "AUTO".

- Delete a cycle configuration:

NOTE: If any run schedule needs to be deleted, the entire Time Clock will need to be reset.

- Press the small, round button on the right side of the Time Clock.
- The time, and all run cycles, will be deleted - repeat steps 2-6 to set the time and reconfigure the run cycles.

MANUAL OVERRIDE

- The override function is designed for one-off events (cell cleaning, water flow checks, miscellaneous maintenance), allowing the unit to be turned on/off while leaving the system on "AUTO".
 - The "AUTO" setting ensures that the scheduled cycles will run automatically, even if the unit is turned on/off via the override function.
 - The "ON" setting turns the unit on and it will remain on. The scheduled cycles will not run if the unit is set to "ON".
 - The "OFF" setting turns the unit off and it will remain on. The scheduled cycles will not run if the unit is set to "OFF".
- To override while the system is set to "AUTO":
 - Press the "OVR." button.
 - If the system was running, it will turn off. If the unit was not running, it will turn on.
- Resume the unit's scheduled run cycles:
 - Press the "OVR." button.
 - Locate the black Indicator Bar, it should still be above "AUTO". If not, press "SELECT" to move the Indicator Bar to "AUTO".

NOTE: If you forget to undo the override, the unit will still turn on/off per the configured cycles if the system is still on "AUTO".

Example: Cycle #1 is set to "ON" at 9 AM and "OFF" at 2 PM.

The "OVR" button is pressed at 6 AM and the unit is turned on.

The unit skips the 9 AM 'ON' cycle but executes the 2 PM "OFF".

The unit will run from 6 AM – 2 PM.

AMPERAGE ADJUSTMENT

The Amperage Adjustment Knob allows you to fine-tune the levels of electrical current (measured in amperage) flowing to the Chlorine-Generating Cell. This cell produces the chlorine for the pool. The Amperage Adjustment Knob is used to optimize and stabilize the production of chlorine, which ensures consistent chlorine levels in the pool.

- The Amperage Adjustment Knob is used for increasing or decreasing amperage, which optimizes the consistent production of chlorine.
 - The Amperage Meter gives readings in Direct Current (DC) amps ranging from 0 - 30 amps.
 - To ensure normal operation, optimal performance and longer lifespan for the Chlorine Genie, ensure the unit is running between 15 – 20 amps.

NOTE: Amperage Meter will only give reading when the unit is on.

- Do not adjust the chlorine level in the pool with the Amperage Adjustment Knob.
 - Chlorine levels are adjusted by increasing/decreasing Chlorine Genie run time.
 - Review "Time Clock Operation" section for instructions on setting run cycles in order to adjust chlorine levels.
- Amperage can be affected by factors beyond the Amperage Adjustment Knob. If the Chlorine Genie unit does not maintain a consistent reading of 15 - 20 amps, please review the potential causes on the following pages.



AMPERAGE IS BELOW 15 AMPS

- Cause: Amperage Adjustment Knob is set too low.

Effect: The Amperage Adjustment Knob controls the amperage level of the unit - turning the Amperage Adjustment Knob towards "High" will increase amperage.

Resolution: Check the position of the Amperage Adjustment Knob. Rotate the Amperage Adjustment Knob clockwise to increase amperage output, which can be verified on the Amperage Meter.

- Cause: Cold weather or cold water inside the Chlorine Genie unit.

Effect: Cold Water can cause the Chlorine Genie to have a slow start until the water inside the cell warms up, leading to lowered amperage.

Resolution: Allow the unit to warm up for 15-30 minutes. The cold water can lower amperage but the amperage will rise once the unit warms up.

- Cause: Salt Level is low.

Effect: Low salt levels lead to low brine concentration, which conducts less electricity leading to lowered amperage.

Resolution: Ensure there are 80 – 100 lbs. of salt in the Chlorine Genie. If the Salt Stick indicates that the salt is low, add salt and allow the unit to run per the normal run schedule. After 2-3 hours, the salinity of the brine will increase. The saltier the brine, the more amperage produced by the Chlorine Genie. Do not overfill salt as the maximum undissolved salt level is 80-100 lbs.



- Cause: Calcium deposits.

Effects: Calcium deposits can build up inside the cell, insulating the cell's mesh and reducing the cell's conductivity.

Resolution: Check the cathode tube for transparency. If the tube is cloudy then there may be calcium deposits building up and the cell plates may be getting calcium deposits. If there are calcium deposits and amperage is low, it may be time to clean the cell. Follow the instructions below in the section on Cell Cleaning.



- Cause: Poor electrical connection.

Effect: If the cell terminals on the back of the Power Supply Cabinet are loose, there may be a reduction in conductivity and this can lead to a reduction in amperage.

Resolution: Check the electrical connections on the back of the Power Supply Cabinet, ensuring that all connector nuts are securely fastened.

AMPERAGE IS ABOVE 20 AMPS

- Cause: Amperage Adjustment Knob is set too high.

Effect: The Amperage Adjustment Knob controls the amperage level of the unit - turning the Amperage Adjustment Knob towards "Low" will lower amperage.

Resolution: Check the position of the Amperage Adjustment Knob. Rotate the Amperage Adjustment Knob counter-clockwise to decrease amperage output, which can be verified on the Amperage Meter.

- Cause: Residual acid from cell cleaning remains in the unit.

Effect: Acid is a conductor and can temporarily increase amperage after cell cleaning.

Resolution: Monitor for 1 day. The acid should flush itself out of the Chlorine Genie after cell cleaning. If amperage remains high, open the pH valve for 1 minute to allow the Brine Tank to drain. After 1 minute, return the pH valve to the original position.

- Cause: Hot weather or hot water inside the Chlorine Genie unit.

Effect: Hot water inside the Genie may lead to higher amperage due to increased conductivity of warmer water.

Resolution: Change the Chlorine Genie cycle schedule, along with the pump schedule, to run at a cooler time of day. The hot water can raise amperage but the amperage will lower as cooler water from the water source flows through the unit. If this does not appear to be working, or if cooler water is not available, the amperage can be adjusted by manually adjusting the Amperage Adjustment Knob to lower the amperage.

- Cause: Salt level is high.

Effect: When too much salt is added to the brine tank, the salinity of the brine can become too concentrated. The high salt concentration can increase the cell's conductivity increasing the amperage.

Resolution: Monitor for 1 week - the salt level will settle and balance the brine concentration, and the amperage will return to normal. If salt levels do not drop (or significantly too much salt has been added), the Brine Tank will need to be partially drained. To reduce salt level, please review the "Removing Salt" section of this manual.

CLEANING THE CELL

The Chlorine-Generating Cell inside the Chlorine Genie produces chlorine for the pool. For the cell to function correctly, it must be free of calcium deposits that can build up inside the unit due to water hardness and/or impurities in salt. Ensuring that the cell is free from deposits allows the cell to draw consistent amperage (electrical current) and produce the necessary chlorine. Failure to clean the Chlorine-Generating Cell on a routine basis may cause damage that could result in costly servicing.



The primary factor in determining an appropriate cell cleaning schedule is water hardness. Test the water hardness of the incoming water source (not the pool water) using a water hardness test kit (not included). Below is a table containing general guidelines on cleaning frequency.

Water Hardness (ppm)	Recommended Cell Cleaning Frequency
0 – 50	Once per 6 months
50 – 250	Once per 3 months
250 +	Once per month

NOTE: If water hardness is 250 ppm or higher, please contact Ultimate Water Support. A water softener system may need to be installed.

BEFORE YOU BEGIN

Before beginning the cleaning process, please ensure that you have the following tools and supplies:

- Gloves
- Eye Protection
- Air Pump (included in installation kit)
- 31% solution of Muriatic Acid

NOTE: Using Muriatic Acid that is diluted below 31% will not be strong enough to sufficiently clean the cell.

CAUTION: Whenever handling acids, be sure to wear eye protection and hand protection. Should acid contact eyes, immediately flush eyes by holding them open under a gentle stream of running water for a full 15 minutes and then seek immediate medical advice. If acid comes in contact with skin, rinse thoroughly. Avoid breathing fumes from acid.



FILLING THE ACID TANK

1. Remove the Salt Lid from the Brine Tank.
2. Locate the Acid Container inside the Brine Tank.
 - Carefully unscrew the black cap on the top of the Acid Container.
 - Leave the rubber seal in the Acid Container cap in place.
 - Place the cap somewhere safe, do not let the cap fall into the Brine Tank.
3. Add up to one gallon of 31% muriatic acid to the Acid Container.
4. With a clean rag, wipe up any excess acid.
5. Replace the Acid Container cap and screw on tightly.

CAUTION: Be careful to not spill any acid into the Brine Tank. Any acid in the brine solution may release chlorine gas. If acid is spilled into the unit, step away from the unit for 5 minutes to let the chlorine gas dissipate. Afterwards, lightly rinse the inside of the Brine Tank with fresh water to ensure acid residue does not remain on the pipes or walls, as acid can lead to degradation of components.



MANUALLY TURN THE CHLORINE GENIE UNIT ON

1. If the unit is connected to the pool pump, turn on the pool pump.
2. Locate the Time Clock on the unit's faceplate.
3. Press the "OVR" button to turn the unit on.

IMPORTANT: The pool pump and the Chlorine Genie must be running before pumping the acid through the Chlorine Genie. If the Chlorine Genie is not running, acid will not be pulled into the cell chamber and the cell will not be cleaned.



PUMPING ACID THROUGH THE SYSTEM

Air pressure within the Acid Container pushes acid from the container into two acid reservoirs within the Chlorine Genie. The acid in the reservoirs is used to clear calcium deposits on the Chlorine-Generating Cell and inside the Chlorine Output line.

1. Remove the white plastic nut from the top of the Acid Container cap; be careful not to let the nut fall into the Brine Tank.
2. Insert tip of Air Pump (provided in the installation kit) into the fitting on top of the Acid Container.



3. Pump 2-3 times to create air pressure within the Acid Container.
4. Carefully remove Air Pump from the Acid Container.
5. Securely fasten the nut back onto the Acid Container.
6. Safely store the Air Pump after use.

CAUTION: Remove the Air Pump slowly, as increased air pressure could result in acid blowback (spraying/ misting) out of the Acid Container.

CAUTION: Do not over-pressurize the Acid Container by over pumping. Too much pressure in the system may release acid fumes and cause acid blowback (spraying/ misting) inside the unit. If acid is sprayed anywhere on the Chlorine Genie, rinse the unit with fresh water to remove acid residue from the pipes, wires, and walls of the Brine Tank to wash away the source of acid fumes.



MONITOR THE AMPERAGE METER

- As the muriatic acid reacts with the calcium build-up on the cells and in the tubing, the amperage should immediately decrease.
- If amperage does not decrease, one or both of the below may be the cause:
 1. Acid is not being pushed from the Acid Container to the reservoirs. Check the Acid Reservoir (circled in image to the right) to ensure there is acid filling approximately $\frac{3}{4}$ of the Acid Reservoir. If acid remains in the Acid Container and the Acid Reservoir is not filling, supply an additional 2-3 pumps of the Air Pump into the Acid Tank. Do not pump more than 4-6 times in total.
 2. There are not sufficient calcium deposits inside the Chlorine-Generating Cell to create an amperage-decreasing reaction between the acid and calcium. Continue following the steps to ensure the unit resumes normal operation.



RESUMING NORMAL OPERATIONS

1. After approximately 5 minutes, once the acid has finished reacting with the calcium deposits, the amperage should increase sharply raising the amperage above 20 amps due to acid remaining in the cell.
2. Once amperage increases above 20 amps, turn the Chlorine Genie 'Off' by pressing the "OVR" button on the Genie faceplate.
3. Locate the Indicator Bar on the Time Clock and ensure the unit is set to 'AUTO'.
4. The cleaning process will continue as acid is flushed out of the cell.
5. Check the Amperage Meter every 2 hours until the amperage returns to 15 amps, at which point the cleaning is complete.
6. In total, cleaning will last 2-5 hours and does not require further action/intervention.

NOTE: You may notice foam moving through the Chlorine Genie's tubes. This is normal.

IMPORTANT: If the unit is connected to the pool pump, keep the pool pump on for 30 minutes after cell cleaning has completed and the Chlorine Genie is turned off. There may be excess chlorine in the pump after cleaning the cell, and flushing out the pool pump prevents any damage to the equipment.

ADJUSTING THE POOL pH

The Chlorine Genie does not automatically sense the pH of pool water. It is the owner's responsibility to check the pH level of the pool and adjust as needed. The Chlorine Genie can be used to adjust the pH of the pool via the pH Discharge Valve, which can increase/decrease pH of the water being dispensed from the Chlorine Genie into the pool.

BEFORE YOU BEGIN

- Test the pH of the pool using a pH water test kit (not included).



LOWERING THE pH IF THE pH IS ABOVE 7.8PPM

1. Open the pH Discharge Valve by turning to the vertical position.
2. When the pH Discharge Valve is first opened, approximately 1½ - 2 gallons of water will quickly discharge.
3. After the initial discharge, the discharge will be a slow drip.
4. With the pH Discharge Valve open, a mild acid solution is dispensed to the pool. This will automatically happen as the Chlorine Genie runs.
5. The pH of the pool water will slowly lower as the low pH, acidic solution is dispensed into the pool.
6. Continue to test the pH of the pool water for the next few days.
7. Leave the pH Discharge Valve open until the pH level is between 7.2 – 7.8 ppm (optimal level: 7.4 ppm). This can take up to a month but should be checked weekly.



RAISING THE pH IF THE pH IS BELOW 7.2 PPM

1. Close the pH Discharge Valve by turning to the horizontal position.
2. With the pH Discharge Valve closed, alkaline brine water mixes with the chlorinated liquid and the resulting high-pH liquid is dispensed into the pool.
3. The pH of the pool water will slowly rise as the high pH, alkaline solution is dispensed into the pool.
4. Continue to test the pH of the pool water for the next few days.
5. Leave the pH Discharge Valve open until the pH level is between 7.2 – 7.8 ppm (optimal level: 7.4 ppm). This can take up to a month but should be checked weekly.

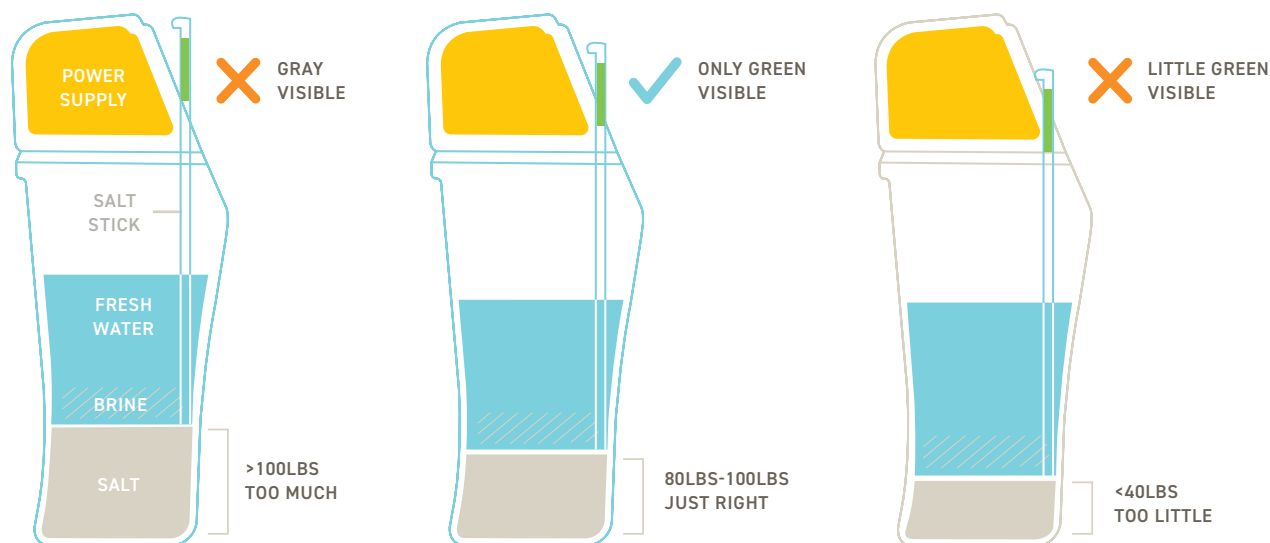


NOTE: The Chlorine Genie produces sodium hydroxide which is used to help manage the pH in the pool. Excess sodium hydroxide needs to be drained from the Chlorine Genie through the pH Discharge Valve to manage the pH in the pool. The sodium hydroxide is an alkaline solution that needs to be discharged properly (away from the unit, other pool equipment, hardscape, plants and structures).

ADDING SALT

The Chlorine Genie breaks down salt to produce chlorine and hydrogen gas via electrolysis. The hydrogen gas is vented away from the unit, while the chlorine gas is absorbed inside the unit's mixing chamber. The absorption of the chlorine gas in the mixing chamber produces the chlorinated water going into the pool. Maintaining proper salt levels in the Chlorine Genie ensures the unit can produce sufficient chlorine for the pool.

Ultimate Water recommends using pure salt granules without additives. Low grade, impure salts may contain calcium, magnesium and other additives and can cause build-up that shortens the life and efficiency of the unit.



CHECKING SALT LEVEL

- The Salt Stick is a pipe that sits on top of the un-dissolved salt.
- The Salt Stick rests gently on top of the salt in the tank and slowly lowers as the salt is utilized.
- It is important to ensure that the green mark on the Salt Stick remains visible above the Salt Lid.
- If the Salt Stick has fallen and very little green is visible on the Salt Stick, then salt must be added to the Chlorine Genie

IMPORTANT: Do not let the unit run out of salt. Running the unit without salt could cause damage to the cell resulting in expensive repairs.

- If the salt level is too high, the grey color below the green on the Salt Stick will be visible and too much salt has been added.

IMPORTANT: Do not overfill brine tank with salt, doing so could waste salt and cause excess salt to end up in pool. If too much salt has been added, review the "Removing Salt" section below for instructions.

- If additional salt is needed, add enough salt to bring the total amount of salt in the Chlorine Genie to 80 – 100 lbs.

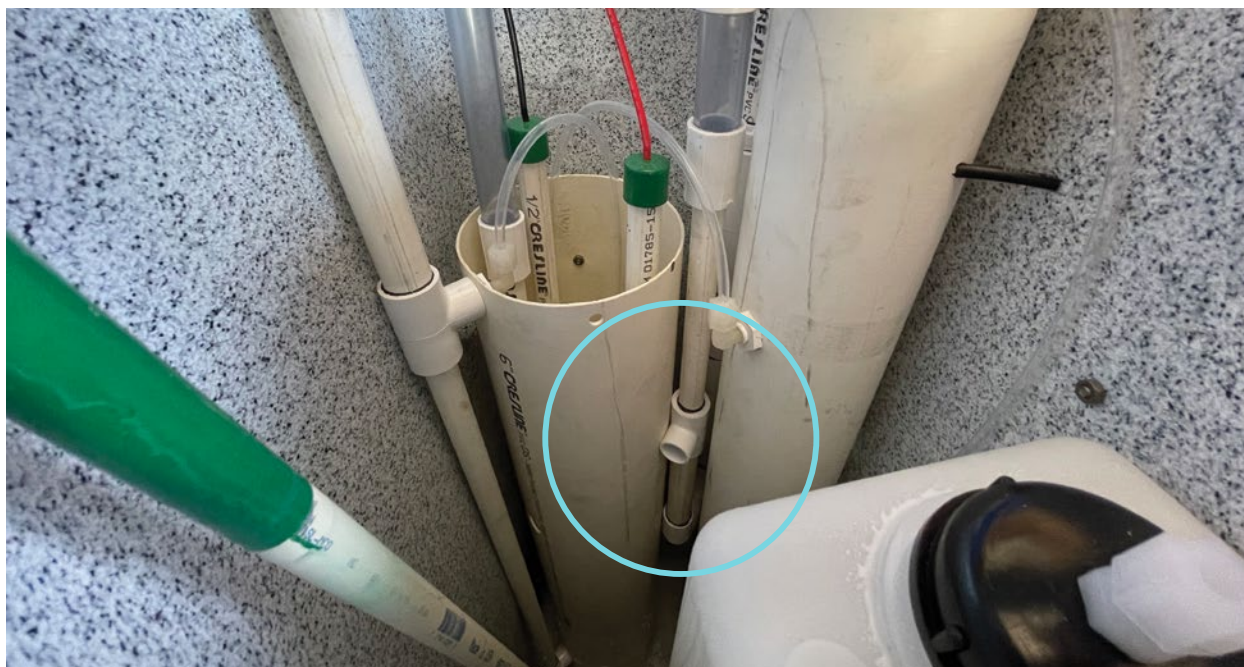


ADDING SALT

1. Locate the pH Discharge Valve.
2. Take note of the position of the pH Discharge Valve (open or closed).
3. Open pH Discharge Valve by turning the value to the vertical position.
4. This lowers the water level in the Brine Tank and prevents saltwater going to pool.
5. Remove the Salt Lid from Brine Tank.
6. Add enough salt to bring the total amount of salt in the Chlorine Genie to 80 – 100 lbs.
7. Do not put salt in the 6" Cell Housing (image above).

IMPORTANT: Ultimate Water recommends using the only purest salt available (pure salt granules with no additives).

8. Place Salt Lid back onto Brine Tank.
9. Lift the Salt Stick up past the green indicator until grey is showing.
10. Let the Salt Stick gently fall straight down until it rests on top of the undissolved salt.
11. Do not push the Salt Stick down into the salt.
12. As the salt dissolves into the water in the brine tank, the Salt Stick will slowly descend.
13. Reset pH Discharge Valve to the original position after salt has been added.



REMOVING SALT

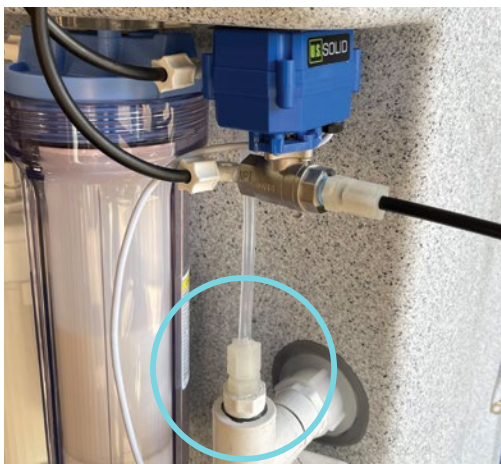
Generally, the Chlorine Genie will utilize excess salt without any action/intervention. If salt levels remain too high after one week (or if significantly too much salt has been added), the Brine Tank will need to be partially drained. Draining water with high brine concentration from the Brine Tank removes saltwater from the unit, and allows additional fresh water to be added which will dissolve excess salt from the bottom of the Brine Tank. Review the steps below.

Caution: The contents of the Brine Tank are alkaline and can result in chemical burns or bleached clothing – be careful not to splash the brine water. Wear eye protection and gloves while removing salt.

1. Open the pH Discharge Valve.
2. Attach one end of a hose to a water pump (not included).
3. Place the pump, and attached hose, into the water and lower to the bottom of the Brine Tank.
4. Locate a proper drainage/sewer location for the alkaline contents from the Brine Tank.
5. Turn pump on and drain approximately half of the Brine Tank.
6. Refill the tank with fresh water from a hose to help break down the remaining, excess salt.
7. Using the salt stick, check the salt level. If normal, follow the steps below. If it remains too high, wait one hour for salt to dissolve and repeat the steps above.
8. Unplug, rinse, and flush out the pump for storage.
9. Return the pH Discharge Valve to the original position.
10. Check the water level inside the Brine Tank and if water is more than 2" below the Overflow Tee, add additional water to the Brine Tank using a hose.

REVERSE OSMOSIS CARTRIDGE MAINTENANCE AND REPLACEMENT

The Reverse Osmosis (RO) Cartridge removes hardness from the incoming water source. Removing hardness from the water entering the Brine Tank prevents cell damage and helps reduce the hardness of the water being dispensed into the pool. Improper maintenance and replacement of the RO Cartridge can reduce the performance of the Chlorine Genie and void the Warranty.



MAINTENANCE

- To validate the RO Cartridge is working properly, test water flow and hardness per the steps below.

PARTS NEEDED (NOT INCLUDED):

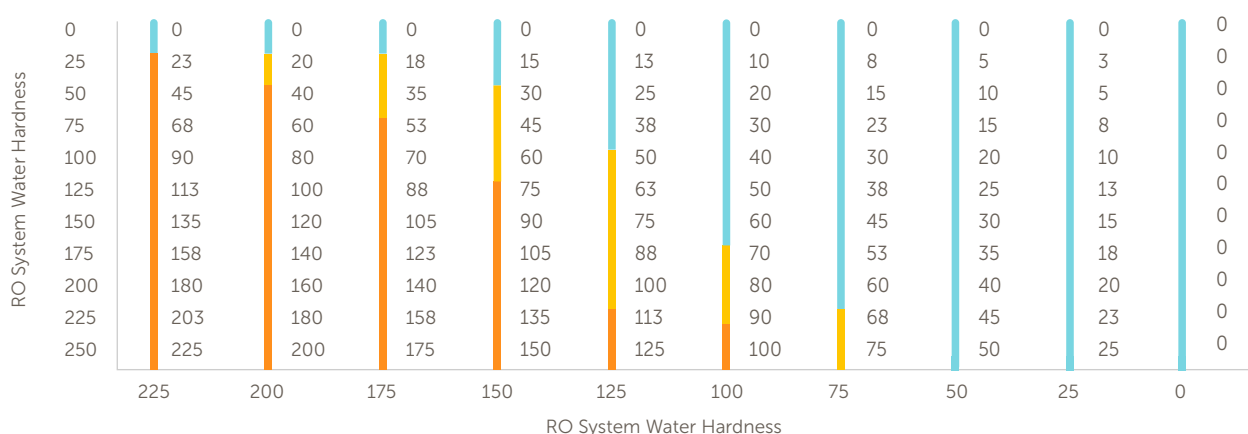
- Water Hardness Test Kit

WATER FLOW

1. Locate the Time Clock on the faceplate of the Chlorine Genie.
 - Ensure the unit is turned on – if the unit is not running, press the "OVR." button on the Time Clock to turn the unit on.
2. Lift the Power Supply Cabinet to expose the inside of the Brine Tank.
3. Locate the 4" Precipitation Tank (circled in image to the left) – a length of Black Water Tubing will be visible near the top.
 - Lift the Black Water Tubing out of the Precipitation Tank until water coming out of the tubing is visible.
4. Measure the water flow:
 - Expected: 3-4 drips per second.
 - Too high: if flow is too high, or if there is a constant stream of water flowing out of the tubing – the RO Cartridge needs to be replaced.
 - Too low: if flow is too low, or there is no water coming out of the tubing – check incoming water source.

WATER HARDNESS

1. Prepare a water hardness test kit (or strips) for 2 tests.
2. Following the instructions on the test kit, test the hardness of the water exiting the Black Water Tubing in the Precipitation Tank.
 - Record water hardness (RO System Water Hardness).
3. Test the hardness of the water from the water source.
4. Locate the PVC tee on top of the P-Trap.
 - Unscrew the plastic nut from the fitting; a light stream of water will be exiting the clear tubing.
5. Following the instructions on the test kit, test water hardness of the water exiting the clear tubing.
6. Record water hardness (Water Source Hardness).
7. Using the table below, determine the hardness reduction rate of the RO Cartridge. Locate the water source hardness in the far left column, and trace to the right to locate the RO System Water Hardness.



- RO Cartridge needs to be replaced
- Monitor closely, RO Cartridge is depleted
- RO Cartridge is sufficiently reducing hardness

NOTE: The closer the RO System Water Hardness is to the Water Source Hardness, the more depleted the RO Cartridge is. If RO System Water Hardness is equal to, or greater than, Water Source Hardness - the RO Cartridge needs to be replaced.

NOTE: If RO System Water Hardness is lower than the Water Source Hardness, but above 250 ppm, contact Support as a water softener system may need to be installed.

8. Locate the Time Clock on the faceplate of the Chlorine Genie.
 - Ensure the unit is not left running - press the "OVR." button on the Time Clock to turn the unit off.
 - Locate the back Indicator Bar on the Time Clock, press "SELECT" until the Indicator Bar is above "AUTO".

REPLACING THE REVERSE OSMOSIS CARTRIDGE

It is recommended to replace the Reverse Osmosis (RO) Cartridge yearly, or sooner if the steps above call for replacement. Contact Support to purchase a replacement RO Cartridge and follow the steps below.

IMPORTANT: each time the RO Cartridge is replaced, the Anti-Scale Filter should be replaced (detailed in ANTI-SCALE FILTER REPLACEMENT section of this manual).

Parts needed (not included):

- 16mm wrench
- Oil can wrench (recommended)
- Adjustable pliers
- To purchase a replacement RO Cartridge visit www.ChlorineGenie.com/shop

RO CARTRIDGE SPECIFICATIONS

Manufacturer:	Applied Membranes Inc.
Model No:	M-C1812A15
Size (diameter x length):	1.8" x 12"
Flow Rate:	15 GPD (57 LPD)
Membrane Type:	CTA (Cellulose Triacetate)
Minimum Salt Rejection:	94%
For Housing:	Standard Residential 2" x 12"
Chlorine Tolerance:	0.3 - 0.5 ppm (1 ppm max.)



1. Locate the Time Clock on the faceplate of the Chlorine Genie.
 - Ensure the unit is not running – if the unit is running, press the "OVR." button on the Time Clock to turn the unit off.
2. Locate the RO Cartridge Housing on the side of the Chlorine Genie unit.
3. Unscrew the plastic nut on top of the RO Cartridge Housing with a 16mm wrench.
 - Do not let the brass insert from the Black Water Tubing fall out.
4. Unscrew the cap on top of the housing – if unable to unscrew by hand, use an oil can wrench to loosen.



5. Locate the cartridge core inside the RO Cartridge Housing.
 - Using the pliers, grip the top of the core.
 - Pull the cartridge upwards, out of the housing.
 - Dispose of the old cartridge properly.
6. Locate the replacement RO Cartridge and identify the top of the new cartridge (the top will have a black o-ring around the top rim and the bottom will have 2 black o-rings around the male fitting).
 - Carefully place the new cartridge into the housing.
 - Carefully press the cartridge down until the core at the top is below the top rim of the RO Cartridge Housing.
7. Screw the lid of the RO Cartridge Housing back onto the housing.
8. Ensure the brass insert remains in the Black Water Tubing and insert the tubing back onto the top of the housing.
 - Tighten the plastic nut back onto the housing finger-tight.

CAUTION: Do not cross thread and do not over-tighten the plastic nut. Cross-threading or over-tightening may lead to cracks in the nut, stripped threads, and ultimately leaks.

9. Locate the Time Clock on the faceplate of the Chlorine Genie.
 - Ensure the unit is set to "AUTO" – Locate the back Indicator Bar on the Time Clock, press "SELECT" until the Indicator Bar is above "AUTO".

ANTI-SCALE FILTER REPLACEMENT

The Anti-Scale Filter prevents clogging of the Chlorine Genie by dissolving hardness minerals into microscopic particles. Breaking the minerals down allows the Reverse Osmosis Cartridge to filter out remaining hardness, preventing cell damage and hard water from being dispensed into the pool. Without a properly working Anti-Scale Filter, the Reverse Osmosis Cartridge cannot filter out all of the hardness, which can result in reduced performance and life of the Chlorine-Generating Cell as well as hard water in the pool. Scheduled replacement of the Anti-Scale Filter optimizes the performance of all downstream equipment in the Chlorine Genie, and failure to replace the Anti-Scale Filter per recommendation will void the Warranty.

REPLACEMENT

- To replace the Anti-Scale Filter, contact Support to purchase a replacement Anti-Scale Filter and follow the steps below.

IMPORTANT: Each time the RO Cartridge is replaced, the Anti-Scale Filter should be replaced.

Parts needed (not included):

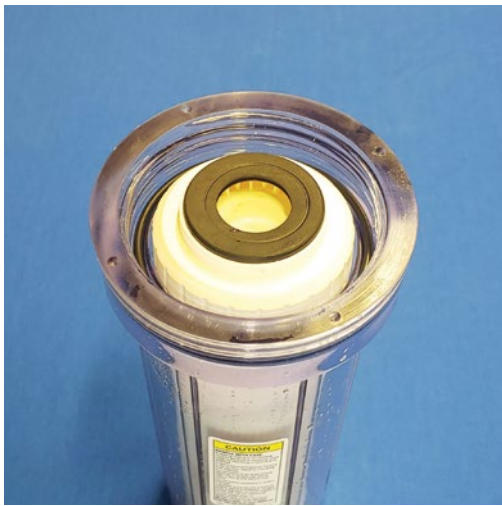
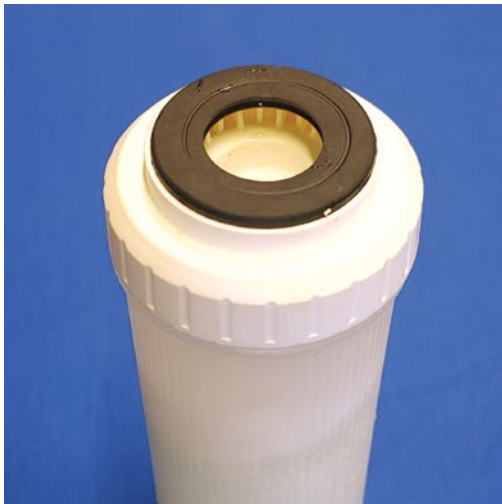
- Anti-Scale Filter
- To purchase a replacement Anti-Scale Filter visit www.ChlorineGenie.com/shop

ANTI-SCALE FILTER SPECIFICATIONS

Manufacturer:	Applied Membranes Inc.
Model No:	C-C2510-NS
For Filter Housing:	10" Standard
Service Flow (Continuous):	0.6 gpm
Peak Service Flow:	1.5 gpm
Max Pressure:	90 psi
Max temperature:	100° F



1. Locate the Time Clock on the Chlorine Genie faceplate.
 - If unit is running, press the "OVR." button to turn the unit off.
 - If unit is not running, leave the unit off.
2. Before continuing, wait 2 minutes to allow the Anti-Scale Filter Housing to depressurize.
3. Locate the Anti-Scale Filter Housing on the side of the Chlorine Genie.
4. Turning clockwise, twist the housing off the blue lid at the top of the housing.



5. Remove the old Anti-Scale Filter from the housing.
 - Dispose of the old filter properly.
6. Dump the water out of the housing.
7. Locate the new, replacement Anti-Scale Filter.
8. Locate the top of the Anti-Scale Filter, identified by a thick, black washer.
 - Slide the new filter into the housing, ensuring the top of the new filter is facing up.
9. Turning counter-clockwise, twist the housing back onto the blue lid of the Anti-Scale Cartridge Housing.
10. Locate the Time Clock on the Chlorine Genie faceplate.
 - Ensure the black Indicator Bar is above the word "AUTO" – press "SELECT" until the system is set to "AUTO".
 - If the unit was running at the beginning of these steps, press the "OVR." button to turn the unit on – the Chlorine Genie will turn off per its' configured run cycle.

WINTERIZING THE UNIT

In areas where the unit is exposed to near freezing temperatures, the unit should be winterized per the steps below. When winterizing the unit, label all fittings before disconnecting and be sure to retain the brass inserts from inside ends of the Black Water Tubing.

Due to the brine concentration inside the Brine Tank, the liquid inside the tank is not susceptible to freezing. However, if the Chlorine Genie will be subjected to prolonged temperatures below 28° F, please contact Support or an Authorized Representative to discuss additional winterizing precautions.

TURNING THE UNIT AND POOL PUMP OFF

1. Locate the Time Clock on the unit's faceplate.
2. Press the "SELECT" button until the Indicator Bar is above the word "OFF".
3. Locate the pool pump; ensure the pump is off while winterizing the Chlorine Genie.



DRAINING THE WATER TUBING

1. Turn off the valve at the water source (or hose bib) that feeds the incoming Black Water Tubing.
2. Locate the Black Water Tubing entering the right side of the Actuated Ball Valve.
3. Carefully unscrew the plastic fitting on the female opening of the Actuated Ball Valve.
4. Remove the Black Water Tubing from the fitting.
5. Remove and retain the brass insert from the end of the Black Water Tubing.
6. Drain all water from the tubing.
7. Replace the brass insert into the end of the Black Water Tubing.
8. Insert the tubing into the female opening of the plastic fitting on the Actuated Ball Valve and carefully screw the plastic nut onto the fitting.



DISCONNECTING THE CHLORINE GENIE FROM THE POOL PUMP

1. Locate the Actuated Ball Valve on the bottom of the Float Feeder.
2. Carefully unscrew the plastic nut on the elbow on the Actuated Ball Valve. A 16mm wrench (not included) can be used if the nut is too tight.
3. Remove the Teflon Tubing from the plastic elbow fitting. A small amount of chlorinated water may leak.
4. Trace the Teflon Tubing to the end connected to the lint pot of the pool pump.
5. Remove the 1/4" Male Adapter Straight from the lint pot, with the Teflon Tubing still attached to the Adapter Straight.
6. Plug the lint pot with the original 1/4" lint pot plug (not included, removed and retained during installation of the Chlorine Genie).
7. Resume the pump's run schedule (if pump was on prior to these steps, turn back on).
8. Locate pH Discharge Valve.
9. Open the pH Discharge Valve (turn to the vertical position) to drain any remaining water in the pH Discharge pipe.



DISCONNECTING THE REVERSE OSMOSIS CARTRIDGE HOUSING & ANTI-SCALE HOUSING

NOTE: The Reverse Osmosis Cartridge Housing and the Anti-Scale Cartridge contain fresh water and need to be removed to avoid damage caused by water freezing inside the cartridges.

1. Locate the Reverse Osmosis (RO) Cartridge Housing.
2. Disconnect the three water connections from the housing, and retain the brass inserts from the water tubing (circled in image to the left).
3. Pull the RO Housing away from the Chlorine Genie to release the housing from the clips, and store the housing in a location not susceptible to freezing.
4. Locate the Anti-Scale Housing.
5. Unscrew the housing and dump the water out.
6. Remove the white Anti-Scale Cartridge from inside the housing and store the cartridge in a location not susceptible to freezing.
7. Screw the housing back onto the Chlorine Genie.

FINAL STEPS

1. Locate the Float Feeder.
2. Unscrew the Float Feeder from the Chlorine Genie at top of the Float Feeder.
3. Tip the housing to the side to allow any water to drain out, but DO NOT turn completely upside down.

Caution: Do not tilt the Float Feeder completely upside-down, as the float pin inside the Float Feeder can fall out and become damaged.

4. Screw the Float Feeder back onto the Chlorine Genie.
5. Locate the Time Clock on the Chlorine Genie faceplate.
6. Press the "SELECT" button until the black indicator bar is above "OFF" – the Chlorine Genie will not run again until the unit is set to "AUTO" or "ON".

IMPORTANT: When reconnecting the RT30 after the winter/off-season, refer to the RT30 Installation Manual for instructions on reconnecting all disassembled/ disconnected components.

RECOMMENDED MAINTENANCE

MAINTENANCE SCHEDULE:

To optimize performance and extend the lifespan of the Chlorine Genie, follow the Recommended Maintenance per the schedule below.

Recommended Maintenance is based on a once per day, 4-6 hour run schedule (approximate yearly Operating Hours: 2,000 hours). If the Chlorine Genie has a longer/shorter run schedule, adjust accordingly. Failure to comply with Recommended Maintenance voids the Warranty.

FREQUENCY	RECOMMENDED MAINTENANCE
Monthly (150 Operating Hours)	Salt Level Maintenance Maintain proper salt levels in the Chlorine Genie, review the ADDING SALT section of this manual. Never add more than 40 lbs of salt at any one time.
	Cell Maintenance Clean cell monthly if water hardness is 250+ ppm*
Quarterly (500 Operating Hours)	Cell Maintenance Clean cell quarterly if water hardness is 50-250 ppm
Bi-Yearly (1,000 Operating Hours)	Cell Maintenance Clean cell bi-yearly if water hardness is 0-50 ppm
	RO Cartridge Maintenance Review the REVERSE OSMOSIS CARTRIDGE MAINTENANCE AND REPLACEMENT section of this manual.
Yearly (2,000 Operating Hours)	Replace RO Cartridge Review the REVERSE OSMOSIS CARTRIDGE MAINTENANCE AND REPLACEMENT section of this manual. For replacement cartridge, contact Support.
	Replace Anti-Scale Filter Review the ANTI-SCALE FILTER REPLACEMENT section of this manual. For replacement filter, contact Support. Replace filter every time RO Cartridge is replaced.
March	Daylight Savings Time Maintenance The Chlorine Genie Time Clock does not change per Daylight Savings time changes. Check to ensure the Chlorine Genie and pool pump time-of-day are aligned.
November	Daylight Savings Time Maintenance The Chlorine Genie Time Clock does not change per Daylight Savings time changes. Check to ensure the Chlorine Genie and pool pump time-of-day are aligned.

* if water hardness is above 250 ppm, contact Support - a water softener system may need to be installed.

CONSUMABLES:

To optimize performance and extend the lifespan of the Chlorine Genie, use the recommended consumables.

All recommended consumables can be sourced by visiting www.ChlorineGenie.com/Shop

WARRANTY INFORMATION

THIS WARRANTY APPLIES ONLY CHLORINE GENIE RT30 UNITS:

1. Manufactured by Ultimate Water, Inc. and installed after January 01, 2021
2. Installed and properly maintained according to the RT30 Installation Manual and RT30 User Manual

Ultimate Water, Inc. takes pride in the consistent, high quality materials and manufacturing of each Chlorine Genie unit. Ultimate Water provides this Warranty for the Chlorine Genie and its parts to be free from defects in materials and workmanship for 10,000 Operating Hours (Estimated Years*: 5), with the exception of the Chlorine-Generating Cell which has a Warranty Term of 6,000 Operating Hours (Estimated Years*: 3).

*Estimated Years are based on these typical Operating Hours in a residential setting. Units that run for more hours, or fewer hours, may experience longer or shorter Estimated Years covered by the Warranty. It is for this reason that this Warranty is measured in Operating Hours and the Estimated Years are only provide as an estimate for convenience and reference.

WARRANTY TERMS EXPLAINED:

The Chlorine Genie Warranty Terms are based on total Operating Hours of the unit. Operating Hours are measured by the Hour Meter on the faceplate of the Chlorine Genie. Tampering with the Hour Meter voids the warranty.

Typical residential installations will run 4-6 hours per day, 365 days per year.

The Chlorine Genie Warranty Terms are based on adherence to the Recommended Maintenance – refer to the RECOMMENDED MAINTENANCE section of this manual. Failure to comply with these schedules voids the Warranty.

LIMITATIONS AND EXCLUSIONS:

Damage to the CHLORINE GENIE or any of its parts by acts of God, including but not limited to earthquake, freeze, flood, etc. or any damage including but not limited to damage caused by fire, misuse, breakage or abuse whether chemical, accidental, intentional or by vandalism, negligence, or failure to follow instructions in the RT30 User Manual and RT30 Installation Manual, voids this Warranty. Failure to follow routine maintenance procedures, including, but not limited to, cleaning the cell, maintaining the proper salt level and winterizing the unit, voids this Warranty. Letting the unit run out of salt could damage the cell and will void this Warranty.

This Warranty does not include loss of chemicals or water if pool needs to be drained, nor damage to any surroundings, property or pool systems including but not limited to pool surface, equipment, plumbing, coping, hardscape or landscape.

This Warranty is expressly IN LIEU of any other express or implied warranty, including any implied WARRANTY OF MERCHANTABILITY or FITNESS, and of any other obligation on the part of Ultimate Water, Inc.



CHLORINE GENIE, manufactured by Ultimate Water, Inc.

Main Line: 619.685.0691 Fax: 619.436.1892

Patent #US 8,470,143B2; 9,382,138B2 & Patent Pending

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