



RC1 Semi-Automatic Controllers

INSTALLATION AND OPERATING INSTRUCTIONS



Melbourne: 03 8796 8600 Gold Coast: 07 5552 2600 Perth: 08 9350 2600

Sydney: 02 9853 2100

Brisbane: 07 3308 5400

Townsville: 07 4750 3100 sales@astralpool.com.au

Adelaide: 08 8152 7600

www.astralpool.com.au

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Congratulations, you have made a good choice in purchasing a RolaChem RC1 controller by Astral Pool.

Swimming pool chemistry is quite interesting and dynamic. There is no one setting that is right for every swimming pool or spa. Let the RC1 settle down over a couple of days and then if necessary alter the setting to suit your pool or spa.

If large quantities of chemicals are dumped in the pool water, this excess quantity should be circulated well and then, allowed to settle down before this machine starts to give true readings.

If you have any questions please contact your Astral Pool supplier or us directly.

Note:

The appliance is not intended for use by young children or infirm person without supervision. Please ensure that young children are supervised to ensure that they do not play with the appliance.

If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

Power to this controller must be either;

- Supplied by an isolating transformer
- Supplied through a residual current device (RCD) with a rated residual operating current not exceeding 30mA

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STARTING UP

Before starting up your RC1 controller, it is advisable that the pool water be balanced. Recommended chemical ranges (depending on pool location and pool surface) are:

CHLORINE: 1 - 3ppm **pH** 7.2 - 7.8
TOTAL ALKALINITY: 80 - 150 mg/L

STABILISER: 30 - 50 mg/L
CALCIUM HARDNESS: 90 - 300 mg/L

INSTALLATION

PLEASE READ ALL THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLING & OPERATING THE UNIT AND LEAVE THE MANUAL ON SITE FOR OWNER/OPERATOR'S USE

ROLA CHEM SYSTEMS SHOULD OPERATE ONLY WHEN THE POOL FILTER IS OPERATING. THE UNIT MUST NOT BE CONNECTED WITHOUT ADEQUATE EARTH CONNECTIONS AND A VOLTAGE OTHER THAN 230-250V

Before installing the unit in position on the wall or post, the length of the PVC tubing provided should be measured and taken into consideration. To avoid loss of water from the system, close all stop valves before cutting any lines.

Connection of lines (see illustration page 4)

Install the "T" pieces into the "return" line. Cut an appropriate piece out of this line and glue the 'T' piece in position, using a PVC adhesive. Thread the PVC tube through the hole in the cap or shoulder of the chemical container and fit the non-return or check valve and the weight. Ensure that the non-return valve is fitted correctly (arrow indicates the direction of flow) Drop the weight, with the non-return valve into the bottom of the container.

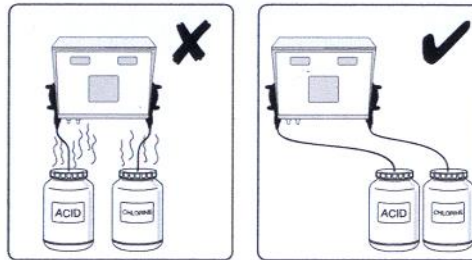
TIP: Soaking the ends of the PVC tubing in hot water or gentle heating with a lighter makes it easier to push onto the barb. When installing chemical containers (especially acid), in filter enclosures, which have no ventilation, it is recommended that the hole in the cap of the container is cut to fit tightly around the tubing, so that fumes from the acid or chlorine will not corrode the equipment. It will be necessary to drill a second hole in the cap fitted tightly with a length of tubing which should then be vented outside the filter enclosure. This procedure is recommended only where the filter enclosure has no ventilation and is to protect the equipment.

IMPORTANT: RolaChem pumps dose against a maximum pressure of 150-175 kPA (20-25 psi), avoid excessive pressure situations such as:

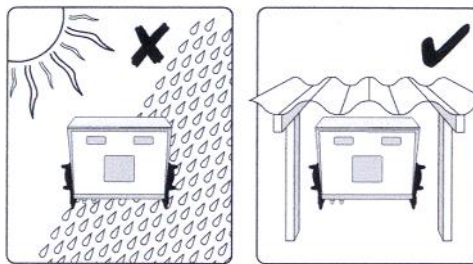
In-floor cleaners (when using for pool applications): The recommended position of the injection point and probe is on the suction line.

- **ACID SHOULD BE DILUTED MINIMUM 1:2, MORE DILUTION IS OK**
- **ALWAYS ADD ACID TO WATER (NOT WATER TO ACID)**
- **NEVER MIX CHEMICALS**

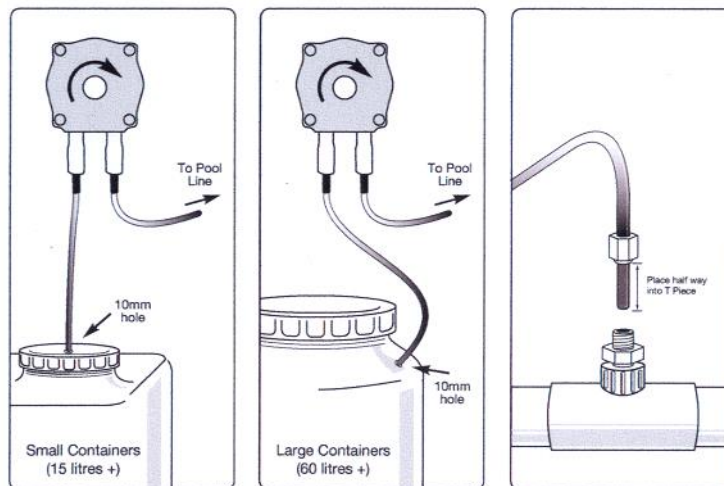
Placement of Chemicals



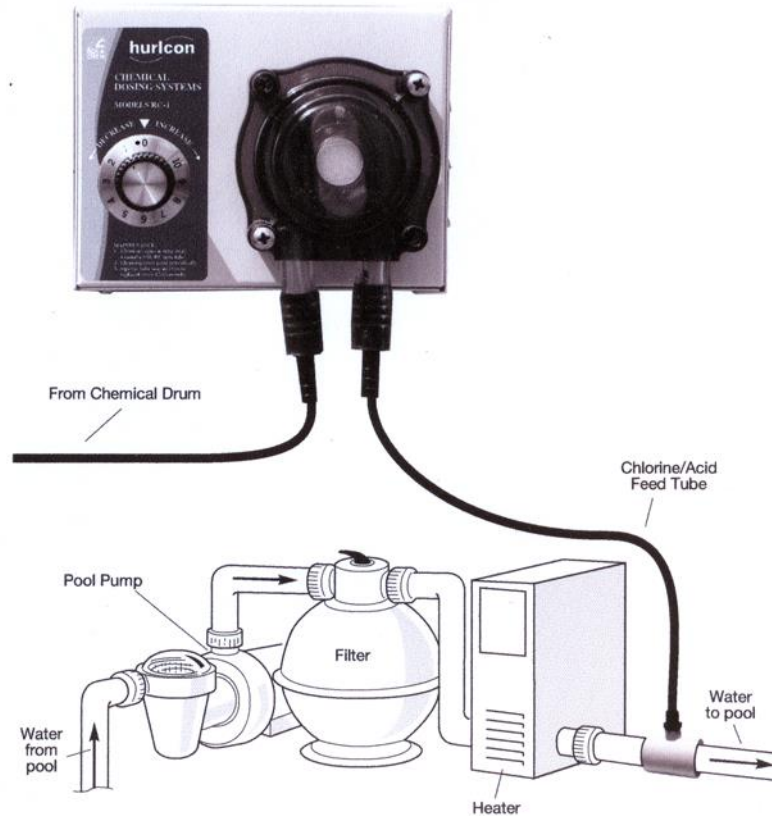
Placement of Rola Chem Unit



Connection of Lines



RC-1 – TYPICAL INSTALLATION



Select number 10 setting on the control dial. The machine will commence to draw the chemical from the controller when the chemical begins to drop down the PVC tubing reset the dial to the desired level. The RC1 has a pre purge built into the machine and therefore has a delay start up of 1 minute.

RC1 Dial Setting *						
Pool Volume	Acid Dosing **			Chlorine Dosing		
	1RPM	5RPM	20RPM	5RPM	20RPM	100RPM
25000	2	N/A	N/A	1.5	N/A	N/A
30000	2	N/A	N/A	2	N/A	N/A
40000	2.5	1	N/A	2	N/A	N/A
50000	3	1	N/A	2.5	1	N/A
60000	3.5	1	N/A	3	1	N/A
75000	4	1.5	N/A	3	1	N/A
90000	5	1.5	N/A	4	1.5	N/A
120000	6	2	N/A	5	1.5	N/A
150000	8	2	N/A	6	2	N/A
200000	10	2.5	1	8	2	N/A
250000	N/A	3	1	10	2.5	N/A
300000	N/A	3	1.5	N/A	3	1
500000	N/A	5	2	N/A	5	1.5
	* Based on 8 hours operation per day					
	* Based on 1 part hydrochloric acid to 2 parts water mix.					
	If using different types or concentrations of acid, please consult your pool professional.					

MAINTENANCE

1. The injection point (where the chlorine discharges into the pool line) should be checked periodically for any build up of solid matter like Calcium at the end of the PVC tubing and kept clean. This may otherwise cause blockage hindering the passage of chlorine into the pool and shorten the life of the pump tube and roller block. While unscrewing the black injection nut, take care not to lose the rubber grommet and silver ring.
2. Lubricate the squeeze (pump) tube every 6 months, more often in commercial applications. Use only the recommended lubricant RC Tube Lube, available from Hurlcon, or any compatible silicone lubricant, otherwise damage can result.
3. Depending on usage, the squeeze (pump) tube may need replacement after 1-2 years on a domestic pool installation, after 6 months on a commercial installation. Before replacing the tube make sure that any stop valves in the filter system are closed. Otherwise water loss may occur.

(To replace this tube, remove the retaining screws or wing nuts and the plastic face plate and pull the tube free. Disconnect the squeeze tube from the barbs and reconnect the new squeeze tube, making sure that the new squeeze tube is correctly connected to the PVC tubing as per instructions. Reposition the squeeze tube in the unit as before, lubricate the new squeeze tube with the recommended lubricant. Replace the plastic face plate and retaining screws.

PLEASE DO NOT OVERTIGHTEN THESE SCREWS OR WING NUTS.

USE OF A SUNSCREEN CHEMICAL (CYANURIC ACID) FOR OUTDOOR POOLS IS RECOMMENDED. CHECK WITH YOUR LOCAL POOL SHOP AND USE THE CORRECT DOSAGE. MAKE SURE YOUR POOL WATER IS BALANCED.

TROUBLE SHOOTING GUIDE

TROUBLE	POSSIBLE CAUSE/SOLUTION
RC1 runs continuously on lower settings of the dial and dispenses excess chemicals It should run continuously on "FULL" setting	<ol style="list-style-type: none"> 1. ECM (Time Switch) faulty 2. ECM needs replacement
The roller Block on the inside of the unit rotates but does not dispense chemicals	<ol style="list-style-type: none"> 1. No chemicals in the tank 2. Tubing in the tank coiled up (must maintain a straight line) 3. Injection point blocked 4. Air leak at the connection where the tube from the drum connects onto the pump (squeeze) tube 5. Chemical container airtight (air must enter container) 6. Non return valve fitted incorrectly (check arrow direction) 7. Roller block broken or worn 8. Pump head cracked 9. Squeeze tube needs replacement.
Water returns to the chemical drum	Check points 7, 8 and 9 above. Replace non-return valve, if fitted. If not please fit

MAINTENANCE OF YOUR RC₁ CONTROLLER

Maintenance Schedule: Your new product incorporates moving parts and withstands high velocity water with chemicals in it. Some of these parts will wear in the normal course of use and require regular checks and maintenance. Performing these checks and maintenance will identify parts that have worn and require repair/replacement before further serious damage is sustained. A small amount of regular care and attention to your pool equipment will help ensure long life and trouble free performance.

To protect against extremes of temperature, your unit is vented to allow expensive electronics to cool. Ants and some insects are often attracted to the warmer, dry environment inside the enclosure. We recommend that, with power turned off, you spray a surface insecticide on the surfaces surrounding the control to prevent ant and insect ingress. Repeat every three months or as necessary.

Timing	Maintenance Check	Service action (if required)
Three Monthly	<p>Check Hoses and connections for leaks</p> <p>Check for insects/ants</p>	<p>Isolate Pump, turn power off, Disconnect hosesnd</p> <p>Spray a surface insecticide on the surfaces around the unit to prevent ant and insect ingress.</p>
Six Monthly	<p>Inspect Peristaltic Pump Squeeze tube condition for cracks, wear and tear</p>	<p>. Replace as required</p>

Important note: Regular maintenance is important to ensure long life and trouble free performance of your pool equipment. If unable to perform the maintenance yourself, contact your local AstralPool office who will arrange a trained service technician to perform the maintenance for you.

WARRANTY

Your Astral Pool RC₁ is covered against defects in materials and workmanship from the date of purchase (plus 30 days to allow for installation) for a period of 12 months. The warranty covers infield labour within capital city metropolitan areas or within a 20km radius of an authorized Astral Pool service agent.

This warranty is subject to the conditions and limitations listed herein. All warranties apply to the original purchaser of the product and are not transferable to new owners. You must notify Astral Pool upon the failure of any component within the warranty period to make a valid claim.

The warranty offered is only valid when the equipment has been used in a normal manner, for the purpose for which it was intended and in accordance with the operating and instruction manual. The replacement of maintenance items used in routine general maintenance are not covered by this warranty. Maintenance items may include (but not limited to);

- Supply tube
- Squeeze tube

This warranty does not cover any equipment that has been improperly installed, misused, neglected, damaged whether intentionally or accidentally, or repaired/replaced without authorization from Astral Pool or altered in any way from its original form.

Extreme operating conditions beyond the control of Astral Pool such as improper power supply, extreme temperatures or other conditions that adversely affect the performance or life of the equipment will void the warranty. Insect infestation or penetration by sand, dust or other foreign bodies will void warranty.

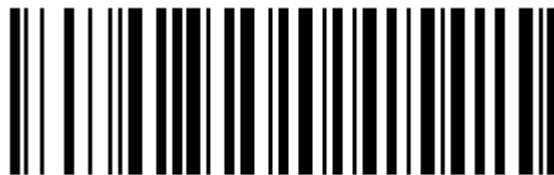
Where in field labor warranty is provided, a 20km radius from an authorized Astral Pool agent is applied. If the location of the equipment is outside this area, travel charges will apply. If your request for a service call is deemed to be non warranty, you will be charged for a diagnostic service call.

Astral Pool reserve the right to repair or replace defective components or products at its sole discretion.

Astral Pool shall have no liability for incidental or consequential damages or delays caused either directly or indirectly by any malfunction of or defect of or failure of the equipment.

Where the equipment is installed in commercial situations including (but not limited to) hotels, motels, caravan parks, health clubs, public pools, body corporate installations, etc the warranty is limited to 12 months.

Proof of Purchase must be retained for all warranty claims. Warranty will not be considered without Proof of Purchase. No person is authorized to make any representation or warranty on behalf of Astral Pool without express written consent from Astral Pool.



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sales@astralpool.com.au
www.astralpool.com.au