

MAGNA-CHEM

SEMI AUTOMATIC CHLORINATOR - MODEL: CS-1PL

Assembly & Operating Instructions

A. PARTS

Parts for liquid chlorine pump head

- 1pc. 1/4" poly delivery tubing, 4 meters
- 1pc. drum weight and retainer
- 1pc. 1/4" poly tube connector
- 1pc. 1/4" poly non-return valve

Parts for water line connection

- 1pc. 40mm x 1/2 poly pipe tee
- 1pc 1/4" tube x 1/2 bsp - connector injection fitting.

B. DESCRIPTION

MAGNA-CHEM semi automatic pool spa chlorinator is an economical liquid chlorine feeder unit designed to inject chlorine into pools and spas at rates to maintain sparkling clear water all year round. The amount of liquid chlorine delivered into the pool or spa is easily adjusted via the dial setting on the side of the unit. The unit is equipped with a pump head sufficient for all standard sized domestic pools. Larger pump heads are available for pool capacities in excess of 100,000 litres.

A second MAGNA-CHEM semi automatic unit can be installed for the delivery of set amount of pool acids, to help maintain the correct pH levels in the pool.

C. INSTALLATION

1. CONTROL CABINET

Mount the control cabinet on a shelf or wall not more than two meters from the liquid container. The key hole slots in the back of the cabinet are provided for wall mounting. Make sure other equipment is not directly below the chlorinator. Do not mount in exposed area or pool zone.

2. TUBE CONNECTIONS (Also refer to drawings under section H)

Decide where in the 'return to pool line' the poly tee is to be installed. Cut the required lengths of the tubing for the suction and discharge lines. Push the poly-barbed connector in the suction side of the pump and the NON-RETURN valve into the discharge side. Push the cut lengths of the poly tubes onto these fittings.

Fit the end of the SUCTION TUBE through the ceramic weight; fit the drop assembly into the chlorine container.

Fit the end of the DISCHARGE TUBE into the injection fitting in the poly tee. Be sure to push the tubing right through the tee fitting and into the opposite internal wall, then pull back 10mm and tighten the nut.

Note: Pump direction is shown on the faceplate and is in a clockwise direction. The non-return valve must be installed on the discharge side. Be sure to mount the non-return valve in the direction of flow - an arrow is shown on the side of the valve. Refer to the drawing in section H.



3. POLY TEE PIECE

The tee may now be installed into the 'return to the pool' line in the position already chosen. This is accomplished by cutting a piece out of the line and gluing the tee into place.

IMPORTANT - If the 'return to pool' line is below the water level of the pool, be sure to isolate this line before cutting it to avoid loss of water.

4. ELECTRICAL CONNECTION

Plug into 240v ac power outlet with the water filter pump. The lead supplied with the MAGNA-CHEM is fitted with a 'piggy' back plug for ease of installation. Chlorine dosing operations are controlled automatically by the MAGNA-CHEM while the water filter pump is on. Alternatively the MAGNA-CHEM may be used with a separate timer which is set to operate only when the filter pump is running.

D. OPERATION

Ensure that the chlorine container has sufficient liquid chlorine.

I ADJUSTMENTS

1. Switch on the power to the MAGNA-CHEM and water filter pump.
2. Turn the MAGNA-CHEM control dial to Full. The chlorine will rise up the poly suction tube. When the chlorine begins to run down the discharge tube to the injection point, reset the dial to the initial recommended setting.
3. Test the pool for the next 7 days. Adjust the dial to give the desired chlorine level. During heavy bathing periods or excessive rain, the dial setting may need to be increased slightly for that period until normal operating conditions are reached. Remember also that during winter and low pool usage your chlorine usage will decrease.
4. **RECOMMENDED DIAL SETTING** for domestic pools based on 4-6 hours operation per day.

| POOL SIZE | DIAL SETTING |
|------------------|---------------------|
| 50 000L | 1-2 |
| 100 000L | 2-3 |

IMPORTANT - The pool pH level must be kept at the correct level (7.2 to 7.6) for efficient chlorinating.

II SUPER CHLORINATING

To super chlorinate your pool, simply adjust the dial to double the normal setting for one filter period. At the conclusion of the filter period return the dial to its normal setting.

E. SERVICING

1. Clean the injection point periodically.
2. Lubricate the squeeze tube regularly with an approved lubricant, every three months.
3. Replace the squeeze tube periodically. Every twelve months.
4. Check the chlorine probe periodically. Clean with a MILD acid solution.
5. The chlorine probe should be checked every twelve months.



F. TROUBLE SHOOTING

FEEDER NOT PUMPING

1. Check for power to MAGNA-CHEM
2. Check that the suction tube is at the bottom of chlorine container.
3. Check squeeze tube for leaks.
4. Check suction and delivery tubes for leaks.
5. Check that the control dial is not set too low.
6. Check for empty chlorine drum.
7. Check for blockage at injector point.

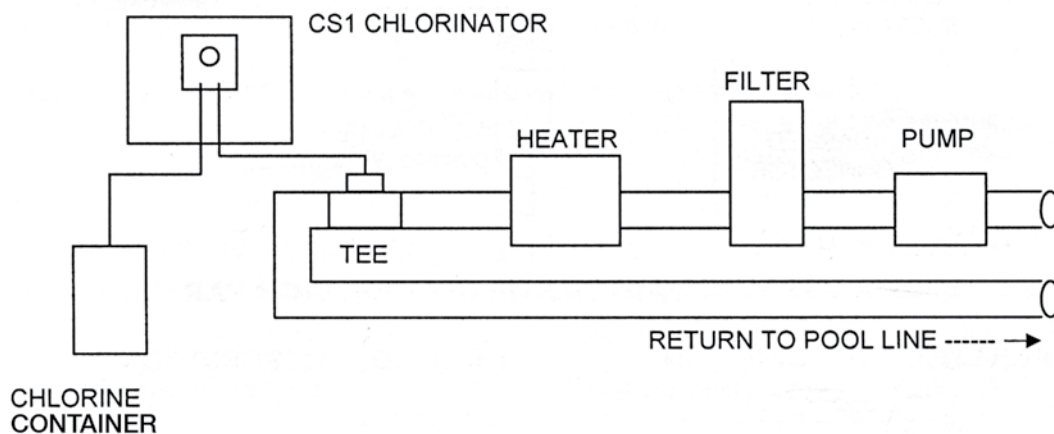
POOR CHLORINE LEVEL / POOL CONDITION

1. Check pool water condition / quality. See advised settings under pool chemical composition.
2. Check chlorine strength.
3. Check for secure probe connection.
4. Check chlorine container.
5. Is the probe clean? Check and clean if necessary with a mild solution.

ELECTRICAL FAULT FINDING

1. Check for power to the unit.
2. Switch interrupter switch to FULL.
3. Check for power to the interrupter switch. If none, power lead may be faulty.
4. Check for power from interrupter switch (load terminal and neutral). If none, interrupter switch may be faulty.
5. Check for power at motor. If power is available at motor, and the motor does not work, the motor may need replacing.
6. Check all terminals and plugs for tight connection.

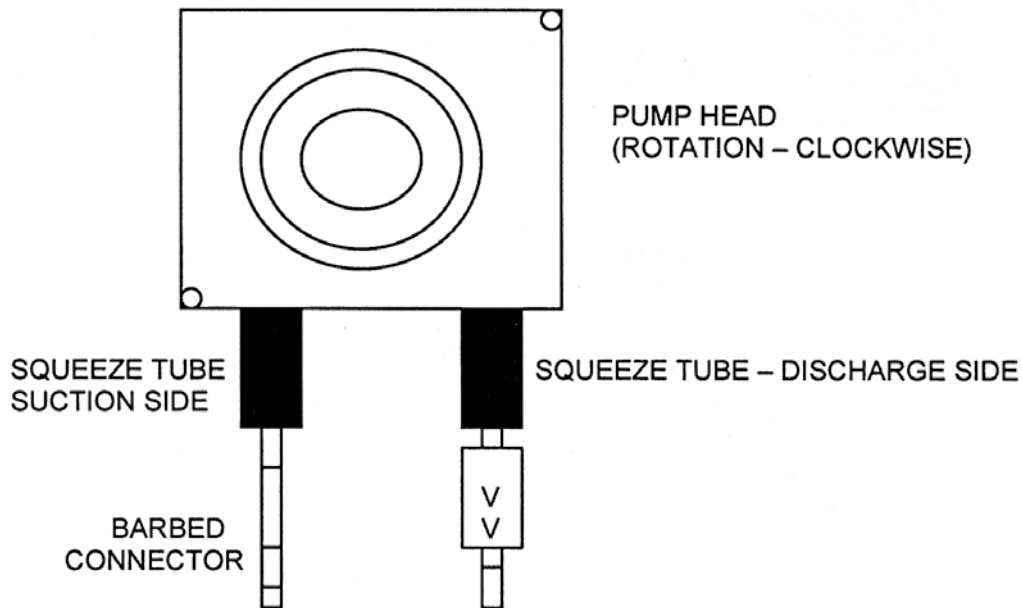
MAGNA-CHEM CS1 SETUP ASSEMBLY



G. NOTES

1. It is strongly advised that a stabiliser (isocyanuric acid) be used when using liquid chlorine.
2. The use of copper-based algaecides is not recommended as this may cause scaling/coating of the probe.
3. The use of powdered chlorine may cause scaling of the probe - not recommended.
4. Very hard water may cause probe scaling.
5. Operate the controller at the same time every day.

H. PUMP HEAD TUBE CONNECTIONS



I. MAGNA-CHEM CS1 SEMI-AUTOMATIC CHLORINATOR PARTS LIST

| PART NO. | UNIT PARTS | PART NO. | ACCESSORIES |
|----------|-------------------------|----------|--------------------------|
| 5050012 | MOTOR 5RPM AC | 5050011 | TUBE LUBE 50g |
| 5050016 | PUMP HEAD SIZE 2 | 5050010h | POLY TUBE 1/4" PER METER |
| 5050017 | PUMP FACE PLATE SIZE 2 | 5050010g | CHLORINE INJECTOR |
| 5050018 | TRI ROLLER BLOCK SIZE 2 | 5050023 | POLY TEE 40mm X 1/2" |
| 5050010a | SQUEEZE TUBE SIZE 2 | 5050021 | RETAINER |
| 5050030 | POWER LEAD C/W ADAPTER | 5050022 | DRUM WEIGHT |
| | | 5050010c | POLY BARBED CONNECTOR |
| | | 5050034 | INTERUPTOR SWITCH |

WARRANTY

All POOL RANGER PTY LTD products are warranted against defects in material and workmanship for a period of twelve (12) months from the date of purchase. Warranty applies only to the repair or replacement, repairing or adjusting such parts when the unit is returned to the factory (complete with probes and serial number intact), freight prepaid, and found to be defective upon factory inspection. The warranty period on probes is three (3) months. Rubber and synthetic products such as o'rings, diaphragms and tubing are not covered by this warranty. Warranty does not cover liability resulting from performance of this equipment nor the labour to replace this equipment. Modifications and repairs by unauthorised persons, product misuse and abuse voids this warranty. Shipping damage is not covered by warranty.

Please complete and return this registration form to the address shown below:

Name: _____

Address: _____

Suburb: _____ State: _____ Postcode: _____

Date of Purchase: _____ Purchased From: _____

Unit Purchased: _____ Serial Number: _____

RETURN TO:

Pool Ranger Pty Ltd

PO Box 1611,

Mona Vale NSW 1660

