

CLEARWATER™
Tri Series

SALT WATER CHLORINATOR OWNER'S MANUAL



ZODIAC

WELCOME TO ZODIAC

ZODIAC: YOUR PARTNER IN POOL CARE

Renowned worldwide for the quality and reliability of our products in the swimming pool industry, Zodiac is proud to be the market leader here in South Africa too. With our Clearwater Technology, expertise and experience, Zodiac brings you the reassurance of top quality equipment in terms of design and performance. A real guarantee of efficiency and peace of mind!

ZODIAC: SUCCESS THROUGH INNOVATION

One of the keys to Zodiac's success is its continuous presence on the cutting edge of innovation and technology. This enables Zodiac to offer products that are efficient, safe, and compliant with the strictest standards and certification requirements. Numerous patents are the result of R&D programmes focusing on quality and performance.

ZODIAC: PEACE OF MIND

Zodiac strives to offer consumers superior quality products and service excellence. With dedicated staff throughout South Africa, you can be certain of premium after-sales service. Should you require assistance on your Zodiac product, need to locate a dealer near you or just wish to find out more information, log onto our website or call our customer help line.

IMPORTANT INFORMATION

YOU MUST READ THIS INFORMATION BEFORE INSTALLATION.
ALWAYS READ THE LABEL AND OPERATION MANUAL
BEFORE USING. PLEASE KEEP YOUR MANUAL AS IT CONTAINS
YOUR WARRANTY.

INDEX

ZODIAC BELIEVES IN SAFETY FIRST	2-3
CLEARWATER TECHNOLOGY	4
INSTALLATION GUIDE	5
USING INBUILT CLOCK AND TIMERS	6-9
CHLORINE OUTPUT LEVELS	10
SETTINGS	11-12
HELP AND TROUBLESHOOTING	13
MAINTENANCE	14
ERRORS AND WARNINGS. WHAT THEY MEAN	15
WARRANTY	16

ZODIAC BELIEVES IN SAFETY FIRST

At Zodiac, we take safety seriously. Always exercise caution when using electrical appliances and follow the instructions. Failure to do so could result in permanent injury, electrocution or drowning.

GENERAL WARNINGS

Clearwater Salt Chlorinators are designed for domestic swimming pool use only. Contrary use could affect performance and void warranty.

Operating a Salt Chlorinator without water flowing through the cell may cause a build up of flammable gases, resulting in fire or explosion.

Keep equipment out of reach of children.

A damaged supply cord should only be replaced by the manufacturer, authorized service agent or electrician.

When installing and using this electrical equipment, always follow basic safety precautions.

Before performing installation, disconnect all power.

Service to Zodiac equipment should only be carried out by qualified and authorized pool professionals.

ZODIAC BELIEVES IN SAFETY FIRST

CHILD SAFETY

Children should not be allowed to operate or perform maintenance on this product.

No one, particularly children, should sit, step, lean, or climb on any of your pool's operational system.

In the interest of child safety, all components of a pool's operational system should be located at least 3 metres away from the pool.

ELECTRICAL HAZARD

To avoid accidental contact with lawn mowers and hedge trimmers, power cords should remain within sight and above ground at all times.

The Power Pack must not come into contact with water and should be installed at least 3 metres from the inside wall of your swimming pool.

Should a lack of water be detected, the unit's electronic flow switch is designed to turn off the system. Interfering with the electronic flow switch could result in personal injury and/or damage to the cell.

One pump per electrical socket only (no ancillary equipment should be connected to the same outlet).

CLEARWATER TECHNOLOGY

Common salt (sodium chloride) is made up of two elements, sodium and chloride. When your chlorinator is installed a measured quantity of salt is dissolved in the pool water to make it slightly salty. As part of the daily filtration cycle, the pool water is passed through an electrolysis cell to produce chlorine which is dissolved instantly into the water. Your chlorinator also produces ozone in the cell, as a by-product.

In simple, non-technical terms, the chlorine instantly starts to destroy bacteria, viruses, and algae and in doing this, reverts to dissolved salt. This cycle continues, with more new chlorine being produced from the salt water in the chlorinator cell, sanitising the pool and changing once more back to dissolved salt.

Each day, when the chlorinator and filtration systems are switched on, dust and debris are trapped by the filter and the chlorinator sanitises the water to make it safe and sparkling clean.

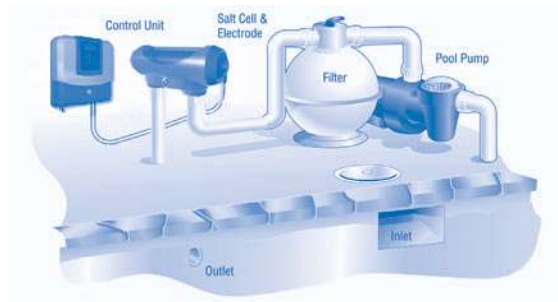
PREFERRED WATER CHEMISTRY READINGS

Salt Concentration	4,000ppm
pH	7.2 - 7.6*
Chlorine Stabiliser (Cyanuric Acid)	40 - 80ppm (up to 100ppm in hotter regions)
Total Alkalinity	80 - 150ppm*
Calcium Hardness	175 - 275ppm*
Free Chlorine	1-3ppm
*Values may vary, within their ranges, depending on pool surface i.e. concrete, fiberglass or vinyl	
ppm: parts per million	

*When using chemicals, always follow manufacturers directions and follow the advice of your pool professional. Always use protective clothing, gloves and glasses.
Store and use chemicals out of reach of children.

INSTALLATION GUIDE

The following steps will help you get up and running with your new Clearwater TRi Series Salt Chlorinator



POSITIONING THE POWER PACK

1. Locate a suitable space for the power pack bracket. It should be installed no further than 1.8 meters away from the cell - ideally in a filtration shed or close to the filtration equipment.

PLEASE NOTE: if fixing to a post it must have a waterproof panel fitted (behind the unit), at least 450mm wide and 470 mm high.

2. Using screws provided, fasten the bracket securely to the wall and position the power pack on the bracket. Plug into power point, but don't turn on the power.

POSITIONING THE CHLORINE GENERATING CELL











PLEASE NOTE: The cell should always be the last device placed on the water pipe (In the return line to the pool).

1. Ensure the cell is placed horizontally, with the Inlet pipe connecting to the fitting closest to the cell lead.
2. Using screw barrel fittings (supplied), attach the cell to the pipe. If using 50mm pipe, you will need to fit the cell using the reducing bushes (also supplied).
3. When connecting the lead from the power pack to the cell match up the corresponding colours and pins, then fit the end cap.
(Note: Either RED wire can be connected to either RED pin on the electrode.)
4. Plug your pool pump into the outlet socket in the bottom of the TRi (this will allow the TRi timer to control the filtration times)
5. Once all connections are together press the mains power switch to ON.

USING INBUILT CLOCK AND TIMERS

When it comes to chlorination, every pool is different. To get what's right for you, you will need to set the unit's clock and timers.

SETTING THE CLOCK

1. Switch power on.
2. Wait for the start-up sequence to complete.
3. Press the  button to enter the MAIN MENU.
4. Use  /  buttons and scroll to SET CLOCK.
5. Press .
6. Use  /  buttons to set the hours.
7. Press  to save the hours.
8. Use the  /  buttons to set the minutes.
9. Press  to save the minutes.

TRi will then return to the MAIN MENU.

10. Press  to return to the operating screen.

NOTE: The time is displayed in 24 Hour format

USING INBUILT CLOCK AND TIMERS

TURNING CHLORINE GENERATION ON

The chlorine generation of the TRi Series can be controlled in two ways:

1. Manually set to an output level, with the operating times determined by an external timer.
2. Using the in-built timers on the TRi Series unit (refer to 'The Timers')

To turn the chlorine generation on manually, press the ON/OFF button. The output level can be set as described in 'Setting the Chlorine Output.'

NOTE: For safety reasons, the Salt Chlorinator will continually dose chlorine for a maximum of 30 hours if left running with no 'OFF' time – unless connected to an external controller. After this time the unit will switch to 'OFF'.

THE TIMERS

The TRi Series Salt Chlorinator comes with two inbuilt timers that switch the filtration and chlorination system on and off as required.

During swimming season, consider running the system for around 8 hours a day. This can be increased to 10 hours during periods of very hot weather.

In winter, it may only be necessary to run your pool's filtration system for 4 hours a day. These shorter periods of activity will lengthen the life of the unit's electrode.

For best year round results, set the unit to operate during the cooler hours of the early morning, evening or when swimmers are using the pool.









PROGRAMMING THE TIMERS

To activate the timer, you will need to enter both an ON and OFF time. If no OFF time is entered, the unit will switch off at the default time of 12:00am (0:00).

You will know that a valid time has been entered when a "T" Symbol is displayed in the top right hand corner of the LCD display when the unit is displaying the 'operating screen'.

USING INBUILT CLOCK AND TIMERS

TO PROGRAM THE TIMER:








1. Press the  button.
2. Press  button to move arrow to 'SET TIMERS'.
3. Press  to enter the 'SET TIMERS' menu.
4. Press  /  to select the timer you wish to set. (Timer 1 or Timer 2)
5. Press .
6. Press  /  to set the hours (on time).
7. Press  to save the hours.
8. Press  /  to set the minutes (on time).
9. Press  to save the minutes.
10. Press  /  to set the hours (off time).
11. Press  to save the hours.
12. Press  /  to set the minutes (off time).
13. Press  to save the minutes.

TRi will return to the 'SET TIMERS' menu.

USING INBUILT CLOCK AND TIMERS

CLEARING THE TIMERS

To clear the timer:


1. Press the  button.
2. Press  /  button to scroll to 'SET TIMERS'.
3. Press  to enter the 'SET TIMERS' menu.
4. Press  /  to scroll to 'CLEAR TIMERS'.
5. Press .

A confirmation message will appear on the screen.

EXTERNAL TIME CLOCK

At times, it may be desirable to control chlorine generation using an external time switch. If the unit is turned ON, and the external timer fails to switch the mains power off within 24 hours, the TRi will automatically stop chlorinating in order to prevent over chlorination.

To set the chlorine generator to run from an external clock:

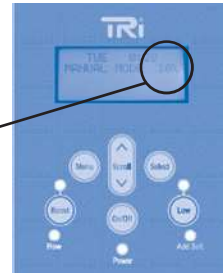
1. Clear the Timer by following the procedure outlined in '*Clearing the Timers*'.
2. Press the  button to turn the unit on.

CHLORINE OUTPUT LEVELS




SETTING THE CHLORINE OUTPUT

The amount of chlorine required by your pool is dependent on a number of factors including the size of the pool, the number of users and the climate.

Output will appear as a percentage on the screen readout, monitor the level according to the reading over time will help ensure optimum output.



To set Chlorine Output levels:

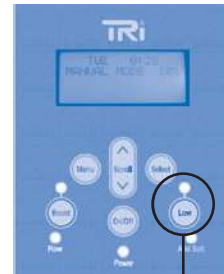
1. Press the  button to turn the chlorine generator on.
2. Press the  /  buttons to set the desired output level.

PLEASE NOTE: if using a pool cover you will need to reduce the chlorine production substantially, please use LOW mode if you use a cover. Simply press LOW button.


SETTINGS

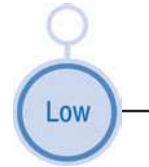
SETTING THE MODE TO LOW: IMPORTANT IF USING A POOL COVER

If your pool has a cover, you should set the output level to “low”. This is also known as “winter” mode. Reducing your chlorine output will help prevent damage to your pool’s cover and other equipment.



MANUAL SETTING

1. To select Low mode press .
This will drop the chlorine output to around 10%.
2. 'Low' will appear on the screen.



THE BOOST SETTING

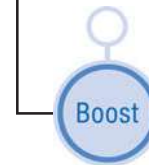
At times your pool may require a larger than normal application of chlorine. The Boost function is used to rapidly add chlorine. In BOOST or “Superchlorinate” mode, output settings are temporarily overridden and the chlorine generator runs for 24 hours at 100% Chlorine Production. In 'TIMER' mode, the circulation pump will run for 24 hours, before automatically reverting to previous output / timer settings. In 'MANUAL' mode, the chlorine generator will run at 100% for a cumulative total of 24 hours before reverting to the previous output setting.

SETTING THE BOOST MODE

To activate the BOOST setting:





Press the  button.

'BOOST' will be displayed on the screen and chlorine generation will commence.



SETTING THE LANGUAGE PREFERENCE








To set your language preference:

1. Press the  button.
2. Using the  /  buttons, scroll to the 'LANGUAGE' menu.
3. Press  to set your language menu.

HELP AND TROUBLESHOOTING


The Clearwater TRi Series automatically provides a number of inbuilt warnings that can help identify problems and offer solutions.

To access the HELP menu:

1. Press the  button.
2. Using the  /  buttons, scroll to the 'HELP/DIAG' menu.
3. Press  to enter the 'HELP/DIAG' menu.
4. Once in the 'HELP/DIAG' menu, use the  /  buttons to scroll to the error/warning that has been displayed.
5. Press .

A number of suggested solutions are momentarily displayed, in order of priority.

After displaying, the TRi automatically reverts back to the 'HELP/DIAG' menu.

6. To exit to the default operating screen wait ~5 seconds
OR press the  button.

MAINTENANCE

To keep your TRi Unit in the best possible condition it is recommended that regular maintenance should be performed.

INSPECTING AND CLEANING THE ELECTRODE

In areas that experience calcium hardness the TRi electrode will benefit from cleaning.

To clean your electrode:

1. Switch off the filter pump and Salt Chlorinator, close necessary valves and unplug the cell terminal cap.
2. Unscrew the retaining ring and remove the electrode. If calcium buildup is present, immerse the electrode in cell cleaning solution without immersing the terminals.
3. If you do not use commercial cleaning solution, you can mix your own by carefully adding one (1) part of Hydrochloric (Muriatic) acid to ten (10) parts water. Stronger solutions will shorten terminal life.
4. Allow the cleaning solution to dissolve the calcium deposits for about 10 minutes.
6. Rinse the electrode in clean water and re-fit the electrode in the cell housing.
7. Replace the cell head and plug assembly and reset valves and switches. Turn pump and TRi on.
8. Confirm chlorine output and settings on the power pack. Timer settings will be automatically retained.



ERRORS AND WARNINGS. WHAT THEY MEAN.

NO FLOW

Diagnosis: Insufficient water flow in the cell.
This could mean the circulation pump has ceased to function, or the filter needs cleaning. The chlorine output will be turned off at this time.

CHECK SALT

Diagnosis: Salt level is between 3000 and 4000 ppm, depending on the water temperature.

Always maintain a salt level above 4000ppm. If you don't know what your salt level is or how to test it, consult your local pool care professional.

OUTPUT FAULT

Diagnosis: There could be a problem with the power supply. Turn power off at the power point and consult your local pool care professional.

CLEANING

Diagnosis: The cell is in the process of reversing polarity.
Wait approximately 5 minutes and chlorine production should resume as normal.

WARRANTY

CHLORINATOR WARRANTY

Your Clearwater Salt Chlorinator has been manufactured with the greatest of care and from the best available materials.

The Chlorinator, excluding the electrodes, is covered by a manufacturing defects warranty for a period of 36 months. Parts will be replaced or repaired at the discretion of the manufacturer. The warranty period begins on the date of manufacture as encoded on the product, unless proof of purchase is supplied.

This warranty will be voided if parts other than ZODIAC approved parts are used for repairs.

PRO RATA CELL ELECTRODE WARRANTY

The Electrodes are covered by a 12 month unconditional warranty, plus a further 24 month pro rata warranty, whereby the manufacturer will contribute to the cost of a replacement cell electrode on a sliding scale, based on the age of the unit, which will be determined by the date encoded on the product, unless proof of purchase is provided.

Thank you for choosing ZODIAC. We wish you many happy years of enjoyment in your "Clearwater" pool.

Don't forget to complete purchase details on pg17 of this manual and return your Reply Paid Warranty Card to ZODIAC Pool Care South Africa (Pty) Ltd.

Note: This product is designed and manufactured for domestic/residential use only. Use on commercial or non residential pools voids all warranties. NB. Parts damaged by power surges or lightning are not considered as warranty.

PRIVATE BAG X127
HALFWAY HOUSE 1685
CUSTOMER CARE HELPLINE
0860 ZODIAC
(0860 963 422) www.zodiac.co.za

RECORD OF PURCHASE DETAILS

RECORD YOUR ZODIAC SALT WATER CHLORINATOR PURCHASE DETAILS HERE:

Tri Series

Date of purchase: _____

Purchased from: _____

Suburb: _____

Province: _____

Postal code: _____

Tri Series Serial No:

Please quote this number when you contact us

KEEP YOUR OWNER'S MANUAL FOR YOUR RECORDS

