ZODIAC

TRI CHLORINE GENERATOR

INSTRUCTION MANUAL AND WARRANTY CARD

Part:	Qty:	Description:	
a.	1	TRi Power pack	
b.	1	Chlorine generating cell	
c.	1	Power pack bracket	
d.	2	Reducing bushes	

Congratulations on your purchase of a product from the Zodiac range of pool care products. Zodiac products are designed to let you spend more time enjoying your pool and less on maintenance.

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.

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

Zodiac saltwater chlorine generators are designed for domestic swimming pool use only. Contrary use could affect performance and void warranty.

Operating a chlorine generator 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.

Connect to a circuit that is protected by a ground fault circuit interrupter (GFCI).

For swimming pools, Australian standards recommend a minimum of 1 Part Per Million (ppm) of free available chlorine must be maintained at all times.

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

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 interests 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 Zodiac TRI 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).

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

The installation of the chlorinator should be carried out by a qualified person in accordance with the Australian wiring rules AS/NZS 3000.

The chlorinator power pack should be located in the correct pool zone and connected to supply via a power outlet that is protected by a residual current device (RCD) having a rated residual operating current not exceeding 30mA. The power outlet should have a degree of protection suitable for the pool zone Ensure that equipotential bonding of all parts of the pool installation is carried out.

The following steps will help you get up and running with your new Zodiac TRi Chlorine generator.
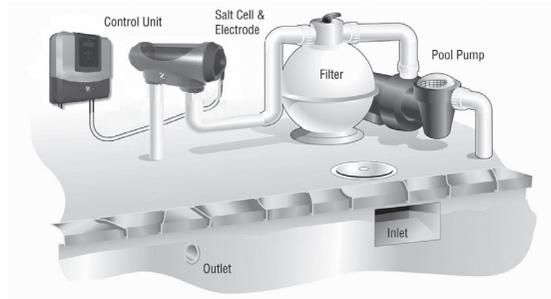
POSITIONING THE POWER PACK

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).

3. Ensure the cell is placed horizontally, with the Inlet pipe connecting to the fitting closest to the cell lead.

4. Using screw barrel fittings (supplied), attach the cell to the pipe. If using 40mm pipe, you will need to fit the cell using the reducing bushes (also supplied).

5. 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.)

6. 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)

7. Once all connections are together press the mains power switch to ON.

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 (Menu) button to enter the MAIN MENU.

4. Use (∧ Scroll) / (Scroll ∨) buttons and scroll to SET CLOCK.

5. Press (Select).

6. Use (∧ Scroll) / (Scroll ∨) buttons to set the hours.

7. Press (Select) to save the hours.

8. Use the (∧ Scroll) / (Scroll ∨) buttons to set the minutes.

9. Press (Select) to save the minutes.

    TRi will then return to the MAIN MENU.

10. Press (Menu) to return to the operating screen.

NOTE: The time is displayed in 24 Hour format

TURNING CHLORINE GENERATION ON

The chlorine generation of the TRi can be controlled in a number of 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 unit (refer to '*The Timers*')

3. Using a connection to an external 'third-party' controller (refer to '*Connecting to a controller*').

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 TRi chlorine generator will continually dose chlorine for a maximum of 30 hours if left running with no 'OFF' time – unless connected to en external controller. After this time the TRi will switch to 'OFF'.

THE TIMERS

The Zodiac TRi chlorine generator 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 chlorine generator 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'.

To program the timer:

1. Press the (Menu) button.

2. Press [Scroll] button to move arrow to 'SET TIMERS'.

3. Press (Select) to enter the 'SET TIMERS' menu.

4. Press [Scroll] / [Scroll] to select the timer you wish to set. (Timer 1 or Timer 2)

5. Press (Select).

6. Press [Scroll] / [Scroll] to set the hours (on time).

7. Press (Select) to save the hours.

8. Press [Scroll] / [Scroll] to set the minutes (on time).

9. Press (Select) to save the minutes.

10. Press [Scroll] / [Scroll] to set the hours (off time).

11. Press (Select) to save the hours.

12. Press [Scroll] / [Scroll] to set the minutes (off time).

13. Press (Select) to save the minutes.

   TRi will return to the 'SET TIMERS' menu.

CLEARING THE TIMERS

To clear the timer:

1. Press the (Menu) button.

2. Press (Scroll ^) / (Scroll v) button to scroll to 'SET TIMERS'.

3. Press (Select) to enter the 'SET TIMERS' menu.

4. Press (Scroll ^) / (Scroll v) to scroll to 'CLEAR TIMERS'.

5. Press (Select).

    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 chlorine generator is turned ON, and the external timer fails to switch the mains power off within 24 hours, the Zodiac 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 (On/Off) button to turn the chlorine generator on.

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.

For users who upgrade to the TRi-PRO model, chlorine output will be controlled automatically.
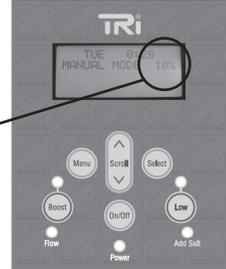
To set Chlorine Output levels:

1. Press the (On/Off) button to turn the chlorine generator on.

2. Press the [∧ Scroll] / [Scroll ∨] 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.

CORRECT SETTINGS FOR YOUR TRI CONTROLLED POOL

	Free Chlorine (ppm)	pH	Total Alkalinity (ppm)	Calcium Hardness (ppm)	Cyanuric Acid (ppm)	Salt Level (ppm)	Sensors
Australian Standard	1 – 3	7.2 – 7.8	80 – 300	90 – 300	30 – 50	4000 - 7000	
Ideal reading/range	1 – 3	7.5	80 – 140	90 – 300	50	4000 ppm at 27°C***	
To increase*	Add chlorine or increase output of equipment	Add buffer or soda ash (sodium carbonate)	Add sodium bicarbonate	Add calcium chloride	Add Cyanuric acid	Add Salt	
To decrease*		Add muriatic acid	Add muriatic acid or dry acid	Partially drain & refill pool	Partially drain & refill pool	Partially drain & refill pool	
Frequency of testing (in peak season)	Weekly	Weekly	Weekly	Weekly	Weekly	Monthly	Quarterly

If you use a Master Control Device (MCD) to control your pool you will need to configure your TRi Chlorine generator to allow "communication" between the two.

You must set the controller type on the TRi before making the wiring connection.

SETTING THE CONTROLLER
(To be done before making a wiring connection)

1.   Switch power to the TRi unit on.

2.   Wait for the start-up sequence to complete.

3.   Press the (Menu) button.

4.   Press the (Scroll) button to scroll down to 'CONTROLLER'.

5.   Press (Select) to enter the controller menu.

6.   Press (Scroll) / (Scroll) to highlight the controller being used.

7.   Press (Select) to save the controller setting.

8.   TRi will return to the main menu.

9.   Press (Menu) to return to the operating screen.

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ATTENTION JANDY 'REV L' OR LATER USERS

It is critical that the controller setting to be set to JANDY L/M if a controller that is a Jandy Aualink 'Rev L' or later, is to be connected. If the incorrect setting is selected, damage can be caused to the Jandy Aqualink Control Unit.

CAUTION WHEN WIRING TO A CONTROLLER

IMPORTANT

Wiring of the controller should be completed by an authorised pool equipment installer.

Before any wiring connections/disconnections ensure mains power is removed from both the controller and the Zodiac TRi unit.

When connected to a controller, the TRi Chlorine generator acts as the 'slave' - responding to requests. This means timer settings are ignored and the output settings cannot be changed, although all other 'menu' functions are still accessible, except for LOW and BOOST modes.

WIRING TO A CONTROLLER

The following instructions should be read in conjunction with the installation guide provided with the Controller.

1. Remove silver 'dress' cover by pressing in at the sides where indicated below and lift.

2. Remove the two screws which attach the lower cover to the main unit:

3. Remove the lower cover from the TRi unit.

   NOTE: If using either pH upgrade or PRO unit – carefully disconnect the ribbon cable from the TRi unit.

4. Remove the small white bung closest to the centre of the lower panel of the TRi unit.

5. Thread the controller cable through the hole (a grommet may be necessary depending on the size of the cable being used).

6. Attach a cable tie to the controller cable as shown in the diagram. The wiring colour coded are outlined below:
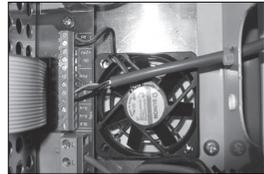
Depending on the make of the Controller, make the following wiring connections:

Polaris EOS/ Jandy Aqualink

Green wire (0V) to '0V' terminal on the TRi

Red wire to the (+V) 'POS' terminal on the TRi

Yellow/White (B) wire to 'B' terminal on TRi

Black wire (A) to 'A' terminal on TRi

Pentair Intellitouch

GREEN wire to 'B' terminal on TRi

Red wire to 'POS' terminal on TRi

Yellow wire to 'A' terminal on TRi

Black wire to '0V' terminal on TRi

TESTING THE WIRING CONNECTION

Once a connection has been made between the Controller and the Chlorine generator, it will need to be tested.

1. Turn on the power to the Controller and the Zodiac TRi.
2. If successful, a 'T' symbol will appear in the top right hand corner of the screen after about 20 seconds.
3. If the controller does not connect, turn power off to both the devices and try again.

VERIFY THE WIRING CONNECTIONS

To verify the connection:

1. Switch the TRi unit on and check the controller setting (follow instructions under 'SETTING CONTROLLER'.
2. Re-test the connection.

   Note: For safety reasons, the Zodiac TRi reverts to the OFF setting if the communication connection is lost.

CONNECTION TO CONTROLLER FOR POOL/SPA COMBINATIONS

To connect a Zodiac TRi unit to Pool or Spa Valves, you will need to make a "splice" into the control lines from the Controller, located inside the controller itself.

For further information, consult the installation manual of the Controller being used.

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 (Low).

   This will drop the chlorine output to around 10%.
2. 'Low' will appear on the screen.
   Note: Low or Winter mode cannot be selected when TRi is being controlled by an external controller.
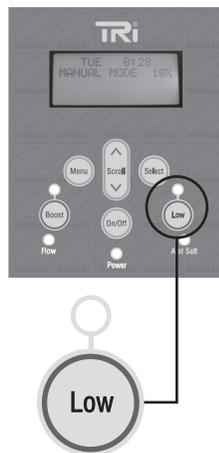
AUTOMATIC SETTING

The Zodiac TRi can be connected to the valves of an automatic pool/spa system.

When the input from the valves is set to 'Low' the TRi will automatically revert to 'Low' mode and the output will be locked at 10%

Details of the wiring connection are outlined in the "*Connection to Automatic Pool/Spa Valve*" section of this manual.

For users who have upgraded to the TRi-pH or TRi-PRO, the automatic pH/ACL control function is disabled when in LOW mode.

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.

NOTE:

The 'BOOST' mode cannot be engaged under the following curcumstances:

1) *If the TRi is in the 'OFF' operating mode. The chlorinator must be 'ON' for BOOST to be engaged.*

2) *If you have upgraded to the TRi-PRO*

3) *Or from the front panel when the TRi is being controlled by an external controller.*

In most cases a BOOST function can be set from the controller menu.

Consult your third party controller manual for more information.
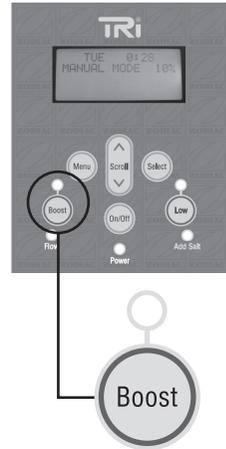
SETTING THE BOOST MODE

To activate the BOOST setting:

Press the (Boost) button.

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

The Zodiac TRi chlorine generator automatically provides a number of inbuilt warnings that can help identify problems and offer solutions.

To access the HELP menu:

1. Press the (Menu) button.

2. Using the ⌃Scroll / Scroll⌄ buttons, scroll to the 'HELP/DIAG' menu.

3. Press (Select) to enter the 'HELP/DIAG' menu.

4. Once in the 'HELP/DIAG' menu, use the ⌃Scroll / Scroll⌄ buttons to scroll to the error/warning that has been displayed.

5. Press (Select).

   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 (Menu) button.

To keep your TRi Unit in the best possible condition it is recommended 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 chlorine generator, 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. Dispose of the cleaning solution at an approved Council Depot and never into storm water or sewage drains.

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.
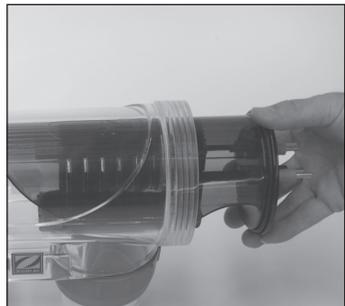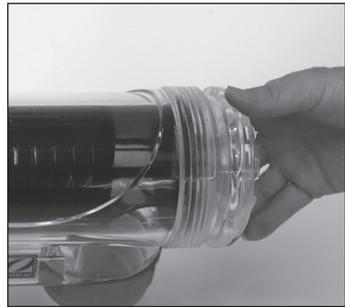
NO FLOW

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.

Additional information about this product can be found at zodiac.com.au

For further information and assistance please consult your local pool professional.

Your Local Dealer:

TRi Saltwater Chlorine generator Warranty*

Your Zodiac TRi Saltwater Chlorine generator has been manufactured with the greatest of care and from the best available materials. Please refer to the fine print should you need to make a warranty claim.

Chlorine generator (excluding cell electrodes) Warranty

The manufacturer warrants for a period of 3 years from the date of purchase, in respect of defects found to be solely due to faulty materials or workmanship that it will repair or replace at its option such faulty materials or parts free of charge.

Electrode Warranty

The cell electrodes and their special coatings are covered by a 3 year warranty, please refer to fine print for exclusions and exceptions.

Should you have any issues please consult your local pool care professional.

*The warranty applicable to commercial application is limited to 12 months from the date of installation.

ZODIAC WARRANTY TERMS AND CONDITIONS

Subject to the terms and conditions set out below, Zodiac Group Australia Pty Ltd (ABN 87 002 641 965) ("Zodiac") agrees to repair or replace at Zodiac's cost the Zodiac product which this warranty card accompanies ("the Product"), and any Zodiac component supplied with it, originally purchased by you from a Zodiac Authorised Dealer when the Product does not perform in accordance with the manufacturer's specifications or is otherwise defective during the relevant Warranty Period(s) from the date of purchase. Specific warranty periods for individual products (including any extended warranty offered) are stated on the relevant product documentation concerning those specific products. This warranty only covers factory imperfections in materials and workmanship and does not cover normal wear and tear. Other exclusions apply — see below.

Warranty Claim Procedure

1. No claim under this warranty will be recognised unless the Zodiac product registration card is completed online at www.zodiac.com.au or returned to Zodiac Registration Dept, GPO Box 2637, Sydney NSW 2001, *within fourteen (14) days of the day of purchase.*

2. Any claim must be limited to those claims which may be asserted under the scope of this warranty outlined in this document. Claims should be lodged as soon as possible after any defect in the Product is discovered.

3. To make a warranty claim, the Product must be returned, to the Zodiac Authorised Dealer where the product was purchased. When submitting a claim, always supply serial number, evidence of purchase date, retailer and a brief description of the problems/defects encountered. We suggest you contact your Zodiac Authorised Dealer in the first instance, who will assist you in making a warranty claim.

4. When outside of the manufacturers build date a proof of purchase (i.e. bill of sale, invoice or purchase receipt) may be required when making a claim under this warranty.

5. Zodiac reserves the right to replace the Product or relevant part with the same or equivalent Product or part, rather than repair it. Where a replacement is provided the Product or part replaced becomes the property of Zodiac. Zodiac may replace parts with refurbished parts.

Replacement or repair of the Product or a part does not extend or restart the Warranty Period(s). Zodiac replacement parts come with separate warranties for the part itself. Alternatively Zodiac may, in its sole discretion, elect to refund the purchase price paid in lieu of replacing or repairing a defective Product via their authorized dealer network.

6. Zodiac and/or its Authorised Service Centres may seek reimbursement of any costs incurred by them (including labour charges) when the Product or relevant part is found to be in good working order or if the warranty claim is invalid.

General Exclusions and Limitations

7. This warranty will not apply in any of the following circumstances:

    (a) If the factory-applied serial number has been altered or removed from the Product.

    (b) Damage, malfunction or failure resulting from alterations, accident, misuse, abuse, fire, liquid spillage, mis-adjustment of customer controls, use on an incorrect voltage, power surges and dips, thunderstorm activity, acts of God, voltage supply problems, tampering, unauthorised repairs or other acts by any persons (including any repairs by persons other than Zodiac authorised service personnel), use of defective, incompatible or non-genuine parts or accessories, exposure to abnormally corrosive conditions or entry by any insect, vermin or foreign object in the Product.

    (c) Damage arising during transportation, installation or while moving the Product.

    (d) Any failure, to the extent that the failure is not a failure of the Product to perform in accordance with its specifications or results from a defect in its materials or workmanship.

    (e) Replacement or repair of any lost or stolen parts or accessories.

    (f) Discoloration of the Product caused by prolonged UV exposure or reaction to chemicals used in the pool water. Zodiac products are designed so that discolouration will not affect their operating ability.

    (g) Damage to or malfunction of the Product resulting from excess chlorination or improper water chemistry balance, including where swimming pool water is not balanced in accordance with Zodiac's recommendations.

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(h) Replacement of parts which fail or become defective as a result of improper installation, negligence, misuse, abuse or tampering by unauthorised repair personnel.

(i) Damage to pool liners due to age, pool water imbalance improper installation and corrosion of the supporting walls and/or irregularities in the pool base. The use of this Product in such an environment is at the pool owner's sole risk.

(j) Abrasion to hoses or damage caused by misuse or improper installation.

(k) Damage where the Product is used outside of recommended operating conditions or where Zodiac's instructions regarding installation, operation, maintenance or servicing of the Product are not followed.

8. This warranty gives you specific legal rights You also have certain rights under Federal or State legislation which are not able to be excluded, restricted or modified by this warranty. All other conditions, warranties, terms and obligations in respect of the Product, express or implied by law are excluded, other than as expressly set out in this warranty.

9. To the extent permitted by law, Zodiac's liability for any claim arising from a breach of any term, condition or warranty implied by statute which cannot by law be excluded (except for a breach of section 69 of the *Trade Practices Act 1974*) is limited, at Zodiac's option, to the repair or replacement of the Product or the payment of the cost of having the Product repaired or replaced. Any such implied term, condition or warranty will be limited to the duration of the Warranty Period.

10. (whether material or personal) arising out of or in connection with any defect of the Product or any negligence by Zodiac, including, but not limited to, injuries to persons, damages to property or loss of use.

11. Zodiac's aggregate liability in respect of all claims under this warranty shall not exceed the original purchase price of the Product or, at Zodiac's option, the cost of replacing the Product.

Freight Charges

12. Zodiac may, in its sole discretion, accept responsibility for the payment of freight to and from your chosen delivery address within Australia. In the event that no-one is available to sign for the goods being collected or delivered, a delivery fee may be charged and must be paid prior to any goods being returned to you.

13. If you have not collected any replacement or repaired Product or paid relevant delivery fees within 12 months of making a warranty claim, Zodiac will be under no obligation to return the Product and may dispose of it as Zodiac sees fit.

General Conditions

14. Zodiac assumes no responsibility for any warranties or representations made by other individuals or businesses beyond the express terms contained in this warranty.

15. This warranty is not transferable and does not apply to subsequent owners of the Product.

ZODIAC

Zodiac is a registered trademark of Zodiac Group Australia Pty Ltd
ABN 87 002 641 965

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Due to constant developments and improvements,
specifications may change without notice.
Improper use could affect performance and void warranty.

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