MagnaPool™

Mineral Pool Science

Installation and Operator Guide

ZODIAC

a better life

THIS KIT CONTAINS:

Part:	Qty:	Description:
a.	1	MagnaPool Control Centre
b.	1	Hydroxinator cell
c.	1	Power pack bracket
d.	2	Reducing bushes

Congratulations On Your Purchase of a MagnaPool System.

MagnaPool is a unique pool system designed to give you the best possible swimming experience with focus on health, beauty and the environment.

The MagnaPool innovation in water science is providing therapeutic and environmentally friendly mineral water for homes and commercial pools around the world.

Let our water science and our wellness philosophy become part of your life.

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.

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

MagnaPool is designed for swimming pool use only. Contrary use could affect performance and void warranty.

Operating 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.

For swimming pools, Australian standards recommend that a suitable level of sanitizer must be maintained at all times (check with your local pool shop for more information).

Service to 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 3.5 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 MagnaPool Control Centre must not come into contact with water and must be installed at least 3.5 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 should be carried out by a qualified person in accordance with the Australian wiring rules AS/NZS 3000.

The Control Centre 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.
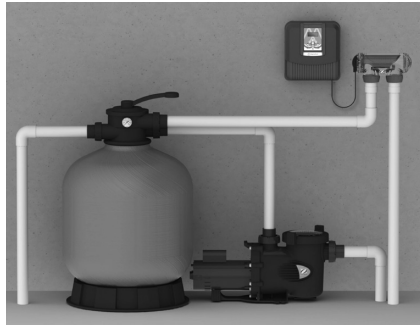
POSITIONING THE CONTROL CENTRE

1. Locate a suitable space for the control centre bracket. It should be installed no further than 1.8 metres 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 470mm 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 HYDROXINATOR CELL

The Hydroxinator cell's function is twofold, it produces Magnesium Hydroxide which keeps your pool crystal clear, plus it produces a sanitizer (chlorine) to keep your pool safe from any bacteria or viruses thereby providing you with a beautifully safe swimming environment.

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 MagnaPool Control Centre (this will allow the built in timer to control the filtration times)

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

Use the following UI buttons to access and select all menus and commands:

ON/OFF

Turn UI power on/off.

UP/DOWN

Scroll up/down within current menu to highlight a specific menu command.

MENU/BACK

Enters into the main menu, and used to go back to previous menu.

SELECT/ENTER

Select/enters current highlighted menu command. Display the next related command or activate the selected function

This section will guide you through setting up the clock and setting timers to suit your sanitizer production requirements.

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 ⬆/⬇ buttons and scroll to SET CLOCK.

5. Press (SELECT).

6. Use ⬆/⬇ buttons to set the hours.

7. Press (SELECT) to save the hours.

8. Use the ⬆/⬇ buttons to set the minutes.

9. Press (SELECT) to save the minutes.

   This will now return to the MAIN MENU.

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

NOTE: The time is displayed in 24 Hour format

SETTING UP FOR OPERATION

MagnaPool Control Centre 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 (refer to '*The Timers*')
3. Using a connection to an external controller (refer to '*Connecting to a controller*').

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

NOTE: For safety reasons, MagnaPool will operate for a maximum of 30 hours if left running with no 'OFF' time – unless connected to en external controller. After this time it will switch to 'OFF'.

THE TIMERS

MagnaPool comes with two inbuilt timers that switch the 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 system 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 ⬇ button to move arrow to 'SET TIMERS'.

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

4. Press ⬆ / ⬇ to select the timer you wish to set. (Timer 1 or Timer 2)

5. Press (SELECT).

6. Press ⬆ / ⬇ to set the hours (on time).

7. Press (SELECT) to save the hours.

8. Press ⬆ / ⬇ to set the minutes (on time).

9. Press (SELECT) to save the minutes.

10. Press ⬆ / ⬇ to set the hours (off time).

11. Press (SELECT) to save the hours.

12. Press ⬆ / ⬇ to set the minutes (off time).

13. Press (SELECT) to save the minutes.

    Will now return to the 'SET TIMERS' menu.

CLEARING THE TIMERS

To clear the timer:

1. Press the (MENU) button.

2. Press ⬆ / ⬇ button to scroll to 'SET TIMERS'.

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

4. Press ⬆ / ⬇ 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 the system using an external time switch. If the system is turned ON, and the external timer fails to switch the mains power off within 30 hours, the system will automatically shut down to prevent any issues occurring.

To set up 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 on.

SETTING THE SANITIZER OUTPUT

The amount of sanitizer 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.
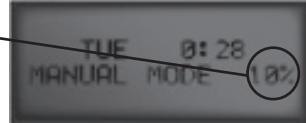
You will need to manually gauge the required output based over a number of weeks observation and testing. A good guide is around 70-80% when in swimming season and reduce to 40-50% during the off season.

To set Output levels:

1. Press the ⏻ button to turn on.

2. Press the ⬆ / ⬇ buttons to set the desired output level.

PLEASE NOTE: if using a pool cover you will need to use LOW mode. Simply press LOW button.

CORRECT SETTINGS FOR YOUR POOL

	Free Chlorine (ppm)	pH	Total Alkalinity (ppm)	Calcium Hardness (ppm)	Cyanuric Acid (ppm)	Mineral 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	5000 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 Minerals	
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

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If you use an automation or controller system to control your pool you will need to configure the MagnaPool Control Centre to allow "communication" between the two.

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

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

1. Switch power to the unit on.

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

3. Press the (MENU) button.

4. Press the ⬇ button to scroll down to 'CONTROLLER'.

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

6. Press ⬆ / ⬇ to highlight the controller being used.

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

8. The system will return to the main menu.

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

ATTENTION JANDY 'REV L' OR LATER USERS

It is critical that the controller setting be set to the correct Zodiac, Jandy or Pentair controller designation. There are a number of different revisions locked into the software. Please see the controller user manual to determine the model and/or revision you are using. If the incorrect setting is selected, it can damage the controller being connected.

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 MagnaPool Control Centre.

When connected to a controller, the MagnaPool Control Centre acts as the 'slave' - responding to requests. This means timer settings are ignored and the output settings cannot be changed through the MagnaPool control centre. 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 blue '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:
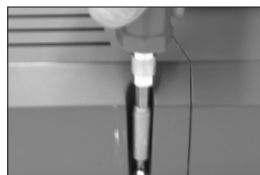
3. Remove the lower cover from the unit.

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

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 codes are outlined below:
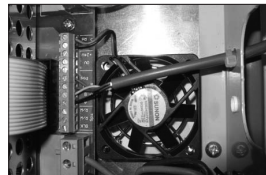
Depending on the make of the Controller, make the following wiring connections:

Polaris EOS / Jandy / Zodiac Aqualink / Aqualink TRi

Green wire (0V) to '0V' terminal on MagnaPool

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

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

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

Pentair Intellitouch

GREEN wire to 'B' terminal on MagnaPool

Red wire to 'POS' terminal on MagnaPool

Yellow wire to 'A' terminal on MagnaPool

Black wire to '0V' terminal on MagnaPool

TESTING THE WIRING CONNECTION

Once a connection has been made between the Controller and the MagnaPool Control Centre, it will need to be tested.

1. Turn on the power to the Controller and the MagnaPool Control Centre.

2. If successful, a 'Ŧ' 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 MagnaPool Control Centre on and check the controller setting (follow instructions under 'SETTING CONTROLLER'.

2. Re-test the connection.

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

CONNECTION TO CONTROLLER FOR POOL/SPA COMBINATIONS

To connect the MagnaPool Control Centre 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.
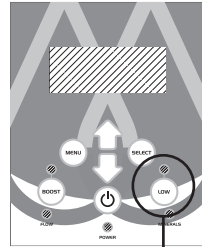
MANUAL SETTING

1. To select Low mode press (LOW).

   This decrease the hydroxinator cell output to 10%.

2. 'Low' will appear on the screen.

   Note: Low or Winter mode cannot be selected when controlled by an external controller.
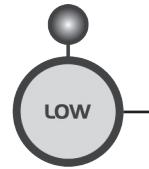
AUTOMATIC SETTING

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

When the input from the valves is set to 'Low' the system 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.

At times your pool may require a larger than normal dose of sanitizer. The Boost function is used to add sanitizer rapidly.

In BOOST mode, output settings are temporarily overridden and the system runs for 24 hours at 100% Production.

In 'TIMER' mode, the circulation pump will run for 24 hours, before automatically reverting to previous output / timer settings.

In 'MANUAL' mode, the Hydroxinator 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 circumstances:

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

2) *From the user interface when the system 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.
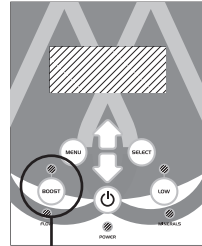
SETTING THE BOOST MODE

To activate the BOOST setting:

Press the (BOOST) button.

'BOOST' will be displayed on the screen.

The MagnaPool Hydroxinator 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 ⬆ / ⬇ 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 ⬆ / ⬇ 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 system will automatically revert 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 Hydroxinator cell 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 electrode will benefit from cleaning.

To clean your electrode:

1. Switch off the filter pump and the MagnaPool Hydroxinator, 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. We recommend using Zodiac Salt Chlorinator Cell Cleaner to clean the electrode. However you can mix your own by carefully adding one (1) part of Hydrochloric (Muriatic) acid to ten (10) parts water. Stronger solutions will shorten 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 MagnaPool on.

8. Confirm output and settings on the control centre. Timer settings will be automatically retained.
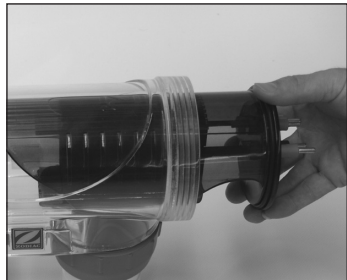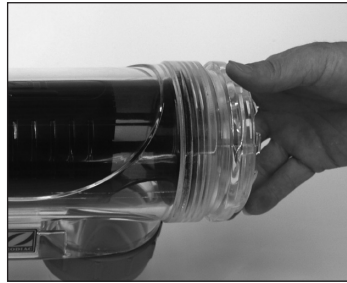
NO FLOW

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

CHECK MINERALS

Diagnosis: Mineral levels have dropped below the optimum amount, this can sometimes be dependant on water temperature. Cold water is less conductive and the warning light may activate in cold water.

Always maintain minerals at suitable levels. If the light should activate and the water temperature is at swimming temperature, it is recommended to add a bag of MagnaPool Minerals to the water. Above 5000ppm is optimal if you don't know what your mineral level is or how to test it, consult your local pool care professional.

CHECK POWER SUPPLY

Diagnosis: There could be a problem with the control centre. 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 sanitizer production should resume as normal.

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

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

Your Local Dealer:

Express Warranty*

Zodiac Group Australia Pty Ltd (**Zodiac Australia**) warrants that the MagnaPool Hydroxinator (including control centre and cell) will be free from defects in materials and workmanship for the period of 3 years from the date of purchase.

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

Conditions

1 This express warranty only applies if the Product has been purchased from a dealer authorised by Zodiac Australia to supply it (**Authorised Dealer**).

Purchase from an Authorised Dealer ensures that the product is a genuine Zodiac product, that it is the version designed for Asia Pacific conditions, and that the Purchaser has access to appropriate technical knowledge and advice.

2 Zodiac Australia's liability under this express warranty is limited, at its option, to the repair or replacement of the Product or the payment of the cost of having the Product repaired or replaced.

3 This express warranty does not apply in the following circumstances:

(a) if the Product has not been installed in accordance with Zodiac's installation instructions;

(b) if the Product has been modified other than as authorised by Zodiac Australia or if a component part has been replaced by a part that is not a genuine Zodiac product;

(c) if a defect results from use of the Product outside recommended operating conditions; or

(d) if a defect results from damage (including damage to any internal electronics) caused by a power surge or lightning strike.

Zodiac chlorinators and hydroxinators are designed and tested in accordance with International Standard EN 61000-6-1 immunity measurements. They are designed to tolerate minor fluctuations (2000 volts) in power supply that can be reasonably expected to occur in the energy grid. They will not tolerate power surges outside these limits nor will they withstand lightning strikes.

4   Without limiting 3 above, products sold by Zodiac Australia are designed for use with swimming pool water balanced in accordance with Australian Standard AS3633-1989 with a pH range of 7.0 - 7.8. Maximum chlorine readings should not exceed 4ppm. Where pool water is not maintained within these parameters, Zodiac Australia will not be responsible under this express warranty for any resulting damage, including damage caused by corrosion, scaling or stress loading.

5   Replacement parts supplied under this express warranty are warranted to be free from defects in materials and workmanship for the remainder of the warranty period or for 12 months from the supply of the replacement, whichever is longer.

6   Warranty claims relating to replacement of the electrodes for LM series, C series, Duo Clear and D series chlorinators are subject to the following pro-rata pricing procedure. The Purchaser must pay for the replacement electrode a proportion of the cost equal to that proportion of the warranty period during which the original electrode functioned effectively. The warranty period for the replacement electrode is the remainder of the warranty period for the original electrode or 12 months from the supply of the replacement, whichever is longer. The Purchaser must pay full cost for any replacement electrodes after the first replacement.

Product warranty registration

7   Purchasers should register their Products as soon as conveniently possible after purchase by completing a Product Warranty Registration Form and posting it to Zodiac Australia at the address shown on the Form or by registering online at www.zodiac.com.au.

8   Product registration must occur, and proof of purchase must be received by Zodiac Australia, prior to any warranty work being approved. Where applicable, a serial number, installation date and name of installer is required as part of the registration process.

How to make a warranty claim

9 The Purchaser must telephone or email Zodiac Australia Customer Service and obtain a warranty ID number for the warranty claim.

Contact details are:

Zodiac Group Australia Pty Ltd
219 Woodpark Road
Smithfield NSW 2164

Customer Service
Telephone: 1800 688 552
Email address: aftersales@zodiac.com

10 Zodiac Australia reserves the right to determine, in relation to each warranty claim, whether the Product should be returned to the Authorised Dealer at the address where the Purchaser purchased the Product or whether warranty service will be provided in the field, repaired at a Zodiac workshop or at the premises of an authorized Zodiac warranty agent.

11 If it is necessary for the Purchaser to incur freight charges in making a valid claim under this warranty, Zodiac Australia will reimburse the Purchaser for charges reasonably incurred upon proof of the charges.

Please Note:

You must always use genuine Zodiac MagnaPool minerals with the MagnaPool system, failure to do so will void warranty

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Additional guarantees, rights and remedies

Australian Purchasers - Guarantees under the Australian Consumer Law

12 The benefits of this express warranty are in addition to other guarantees, rights and remedies Australian consumers have under the Australian Consumer Law.

13 Zodiac Australia products come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Purchasers in other Countries

14 The laws and regulations of other countries may confer on Purchasers in those countries additional rights and remedies. To the extent that they cannot be excluded or modified, Purchasers have the benefits of those rights and remedies in addition to the benefits of this express warranty. To the full extent that it is permissible to do so, those additional rights and remedies are excluded or modified so as to be consistent with Zodiac Australia's express warranty.

INCONSISTENCY WITH WARRANTY STATEMENTS IN PRODUCT MANUALS OR OTHER DOCUMENTS ACCOMPANYING PRODUCTS

If any warranty statements in a Zodiac Australia product manual or other document are inconsistent with the above Express Warranty and Guarantees, the above overrides and replaces the inconsistent statements.

![MagnaPool™ Mineral Pool Science]

![ZODIAC]

ZODIAC CUSTOMER SERVICE CENTRE

Zodiac Group Australia:

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NSW 2164 Australia

Tel: 1800 688 552
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Email: aftersales@zodiac.com.au
www.zodiac.com.au

Due to constant developments and improvements,
specifications may change without notice.
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