



# ZODIAC



## *Express*

### *Instruction Manual*



APVMA Approval No. 52048/3/0204



*Natural Mineral Purifiers  
for Pools and Spas*

## WARRANTY INFORMATION

Remember to register your warranty within fourteen (14) days from date of purchase.

### **Housing Warranty**

The Zodiac Nature<sup>2</sup> Express Purifier you have purchased was manufactured with care and is warranted to be free of defects in materials and workmanship from the date it was installed to the time limit as specified on the cover page. Your warranty registration card must be completed and mailed to Zodiac Group Australia Pty Ltd to establish your installation date. This warranty does not cover damage caused by abuse, misuse, accidents or any alterations to the purifier. Report claims to your authorised Zodiac dealer. Zodiac Group Australia Pty Ltd reserves the right to replace any purifier instead of repairing it.

### **Six-Month Pro-Rated Cartridge Warranty**

Zodiac Nature<sup>2</sup> Express Purifier cartridges are warranted to be free of defects in materials and workmanship and to perform to your satisfaction for a period of up to six months from the date of installation. This warranty does not cover damage caused by accident, misuse or alterations or by the use of any biguanide products such as Baquacil, copper-based algacides or any products containing bromine or bromide-based chemicals. If the cartridge is defective or does not perform to your complete satisfaction for the entire six months, we will make a pro-rata rebate based on your actual period of use. Please consult your Owners Manual for proper use.

### **Non-Staining Warranty**

Your Zodiac Nature<sup>2</sup> Express Purifier cartridge is warranted not to cause copper staining in your pool. This warranty requires only that you exercise reasonable care of your pool and keep water in balance at all times, and not use copper-based algicide. Your Zodiac Nature<sup>2</sup> Express Owners Manual will guide you as to how to maintain your pool properly when using the Zodiac Nature<sup>2</sup> Express Purifier. This warranty does not cover discoloration to chromium fittings which may discolour slightly over time and are easily cleaned with a mild detergent.

There are no other warranties, expressed or implied. All incidental and consequential damages are excluded from the warranty except where state law is different. This warranty gives you specific legal rights. You may have other rights which vary from state to state. Proof of purchase is required to make any claims on the above warranties, so please keep your dated receipt.

This warranty card will remain the property of Zodiac Group Australia Pty Ltd.

Nature<sup>2</sup> is a registered trademark of Zodiac Pool Care Inc.

This warranty is not valid outside of Australia and New Zealand.

For more information talk to your local pool shop or telephone Zodiac Group Australia: 1300 768 021  
or access our webpage: [www.zodiac.com.au](http://www.zodiac.com.au)

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

*Dear Customer,*

Congratulations on having purchased a Zodiac Nature<sup>2</sup> Express Water Purifier for your pool or spa. You have made a wise decision and you will benefit from your Zodiac Nature<sup>2</sup> Express for many years to come.

There are two major benefits in owning a Zodiac Nature<sup>2</sup> Express. The first is that you will save hundreds of dollars which you otherwise would have to spend on sanitising chemicals for your pool or spa. Not only do you save money, but an even greater benefit which you will experience is the remarkable clarity of the water, and the pleasure and exhilaration of using the pool. By following just a few simple steps, your pool or spa will be a thing of beauty and pleasure, and will win the admiration of your family and friends.

Please take the time to read through your Zodiac Owner's Manual. It is set out in such a way that you can see the simple steps to keep your pool or spa in sparkling clean condition.

If you would like to know more about how your new Zodiac Nature<sup>2</sup> Express works, or about water chemistry matters, you will find that this owner's manual will provide you with useful information.

And don't forget that your Zodiac Nature<sup>2</sup> Express is backed by a comprehensive warranty. The exclusive Zodiac warranty is an expression of the confidence that Zodiac Group Australia Pty Ltd has in its products, and is your reassurance of prompt and expert after-sales service by professional technicians.

Thank you again for choosing a Zodiac Nature<sup>2</sup> Express. We wish you many happy years of bathing in your "Zodiac" pool or spa.

For more information talk to your local pool shop or telephone Zodiac Group Australia: 1300 768 021. Due to constant developments and improvements, specifications may change without notice.

## INDEX

|                                      | Page      |
|--------------------------------------|-----------|
| <b>SPECIFICATIONS .....</b>          | <b>1</b>  |
| <b>INSTALLATION.....</b>             | <b>2</b>  |
| <b>START UP.....</b>                 | <b>4</b>  |
| <b>BALANCING THE WATER .....</b>     | <b>5</b>  |
| <b>CHLORINE RECIPE .....</b>         | <b>6</b>  |
| <b>LOW MAINTENANCE SYSTEMS .....</b> | <b>7</b>  |
| <b>PARTS REFERENCE.....</b>          | <b>8</b>  |
| <b>TROUBLESHOOTING .....</b>         | <b>9</b>  |
| <b>NOTES .....</b>                   | <b>11</b> |

## SPECIFICATIONS

**Pool Owner, save this manual!**

**Builders, leave this manual with the pool owner!**

We believe the more you know, the more enjoyable and healthy your family's swimming experience will be and the more you will reduce the time, effort and cost of maintaining your pool. Pool owners who switch from chemical programs to the Zodiac Nature<sup>2</sup> Express purification technology spend less time maintaining their pools.

Every pool has its own characteristics of water type, amount of sunlight, etc. Discuss with your dealer the right 'recipe' of water management to fit the particular circumstances of the pool and your geographic climate.

Remember, your authorised Zodiac dealer can provide professional advice and service.

### SPECIFICATIONS

|                               |   |
|-------------------------------|---|
| Capacity:                     | up to 100,000 litres                    |
| Vessel Dimensions:            | Length above pipe 19cm<br>Diameter 12cm |
| Weight including clamp:       | 1.2 kg                                  |
| Circulation system flow rate: | 115 - 460 lpm                           |
| Maximum operating pressure:   | 50psi/g                                 |
| Cartridge Dimensions:         | 12 x 13cm                               |
| Replacement Cartridge:        | Express 40,000-100,000 litres           |
| Cartridge Life:               | 6 months                                |
| Run time:                     | 6 hours minimum per day                 |
| Warranty:                     | 3 years (housing)                       |

### ZODIAC NATURE<sup>2</sup> EXPRESS INCOMPATIBILITY

Avoid use with the following;

- Copper-based algaecides
- Bromine or bromide chemicals
- Biguanides (Baquacil or Soft Swim)

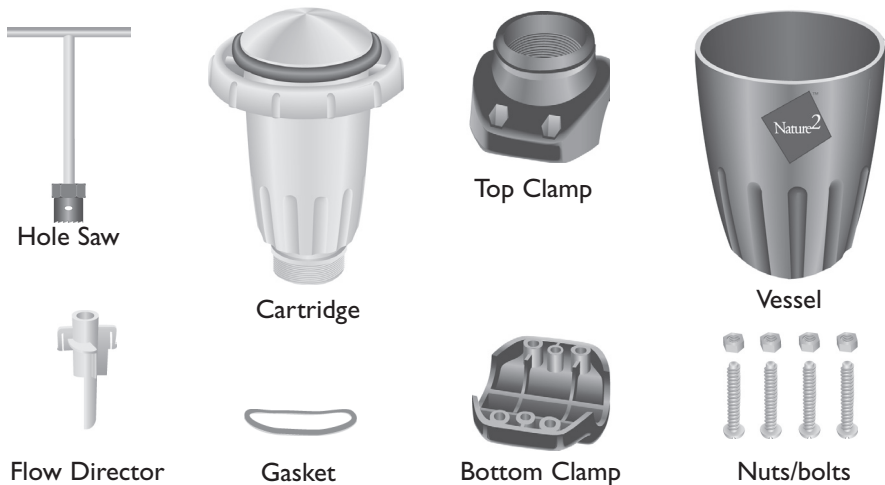
## INSTALLATION

**Thank you for purchasing the Zodiac Nature<sup>2</sup> Express. Please take a moment to read though the entire manual.**

Zodiac Nature<sup>2</sup> Express can be used with every type of chemical treatment available except bromine and bromine based chemicals, biguanide products (Baqacil or Soft Swim) and copper based algacides.

Zodiac Nature<sup>2</sup> Express consists of 8 parts:

1. Hole Saw
2. Vessel
3. Top Clamp
4. Bottom Clamp
5. Gasket
6. Flow Director
7. Cartridge
8. Stainless Steel nuts and bolts.



### INSTALLATION:

1. Before installing the Zodiac Nature<sup>2</sup> Express System onto the pipe, remove debris and algae out of the pool and clean your pool filter.
2. All swimming pools, including Zodiac Nature<sup>2</sup> Express pools, require properly balanced water. Do not install the Zodiac Nature<sup>2</sup> Express until your pool water is chemically balanced. Maintain the pH between 7.2 and 7.8, the calcium hardness between 200PPM and 400PPM and the total alkalinity between 80PPM and 150PPM. Consult your Zodiac dealer for specific water balance instructions.

## INSTALLATION

3. The Zodiac Nature<sup>2</sup> Express System can be installed vertically or horizontally, even upside down - whichever is most convenient for your pool installation.
4. Make sure you turn off the pump and filter system and shut off valves to avoid emptying pool.
5. To install and assemble the Zodiac Nature<sup>2</sup> Express unit, choose a position after the filter but before any chlorine injection system or salt water chlorination system, that may be fitted to your pool system.
6. Position the top shell and clamp on the place chosen, with the gasket supplied, fitting between the top clamp and the pipe to make a good seal. Place the bottom clamp on the other side of the pipe and bolt the two halves together, with the four stainless steel nuts and bolts supplied. Make sure that the arrows on the top clamp are facing in the direction of the water flow back to your pool
7. Using the hole saw and with the use of a drill, drill a hole in the pipe through the opening at the bottom of the top shell, place the flow director into the hole, at the bottom of the top shell making sure it fits into the slot the right way. The inside curve of the flow director must face towards the water flow from the filter, then screw cartridge into the unit and set date or installation on dial.
8. Turn pump on and check for any leaks.



## START UP

### START UP:

1. Super oxidise or 'shock' the pool. On the first day, super-oxidise the water with 500 grams dry or 4 litres liquid chlorine per 40,000 litres of water, to burn off contaminants and to activate the purifier cartridge.

Important: Initial super-oxidation with chlorine is required.

2. Activate the Zodiac Nature<sup>2</sup> Express - run the pump and filter system, with the Zodiac Nature<sup>2</sup> Express installed for 24 hours per day for 4 days or for 6 hours per day for 14 days.

3. Maintain a 1ppm to 2ppm residual chlorine level throughout the 4 day or 14 day activation period. Test your chlorine level regularly.

4. Allow the free chlorine level to drop to 1 ppm after the activation period is complete.

**NOTE:** Higher free chlorine levels are required for indoor and stabilised pools. Follow the chlorine manufacturers directions on the product label.

5. Follow the chlorine maintenance recipe listed on page 6.

**NOTE:** The Zodiac Nature<sup>2</sup> Express cartridge will need to be replaced every six months.

6. The Zodiac Nature<sup>2</sup> Express must be in operation in the pool, that is the filter/pump system must operate for at least 6 hours every day to be effective.



## BALANCING THE WATER

### BALANCING THE WATER:

To find out if your pool water is balanced:

- take a water sample to your dealer to be tested regularly, or
- ask your Zodiac dealer to recommend a pool test kit for water balance.

|   |                          |  |                    |   |
|---|--------------------------|--|--------------------|---|
| <b>Element: pH</b><br>Range: 7.2-7.6<br>7.0-7.6 fibreglass pools                    | <b>If it's too low:</b>  | The surface of your pool can become etched. Metal parts in the pump and plumbing will corrode.   | <b>How to fix:</b> | Add pH increaser:                                       |
|   | <b>If it's too high:</b> | 'Scale' forms on the surface of your pool.<br>The water can become cloudy.<br>Equipment can be damaged.  | <b>How to fix:</b> | Add pH decreaser:                                       |
| <b>Element: Total Hardness</b><br>Range: 200-400 ppm<br>Salt Chlorinates 100-300ppm | <b>If it's too low:</b>  | Water is less stable.<br>In plaster pools, the calcium is taken out of the plaster,  | <b>How to fix:</b> | Add calcium hardness increaser:                         |
|   | <b>If it's too high:</b> | Rough, discoloured deposits ('scale') will form on the pool surface and inside pool equipment.   | <b>How to fix:</b> | Drain or dilute the pool water:<br>Consult your Dealer: |
| <b>Element: Total Alkalinity</b><br>Range: 80-150 ppm                               | <b>If it's too low:</b>  | It provides no buffer so that you constantly get fluctuating pH readings, which can damage equipment & pool surfaces.                              | <b>How to fix:</b> | Use an alkalinity increaser:                            |
|   | <b>If it's too high:</b> | White deposits ('scale') form on the tile line. The plaster on pool surface becomes rough or discoloured. The water becomes cloudy or milky white. | <b>How to fix:</b> | Add acid to bring alkalinity down.                      |

## CHLORINE RECIPE

### Chlorine Recipe

Once the 4-day or 14-day start-up period is done, allow the free-chlorine residual to drop to 1 ppm (by reducing the amount of chlorine you add) then:

#### Ingredients:

- Zodiac Nature<sup>2</sup> Express Purifier
- Chlorine granules, tablets, liquid or generator
- pH and total alkalinity adjusting chemicals
- Total hardness increaser, if needed
- Water test kit
- Cyanuric acid

#### When:

Every day

Once a week

Twice a week

As needed

#### What to do:

Run pump and filter at least 6 hours every day.

Balance pH and total alkalinity.

Check chlorine residual; add chlorine to maintain 1 ppm of free chlorine.

**NOTE:** Higher free chlorine levels are required for indoor and stabilised pools. Follow the chlorine manufacturers directions on the product label.

If water is hazy, superoxidise with 500 grams chlorine granules, or 4 litres liquid chlorine or 500 grams nonchlorine oxidiser per 40,000 litres. Add cyanuric acid to maintain 50 ppm. After heavy use or rainstorms, superoxidation is recommended.

### LOW MAINTAINENCE SYSTEMS:

Apart from using manual applications of chlorine granules, liquid or tablets, Zodiac Nature<sup>2</sup> Express used with automatic chlorine systems can reduce pool maintenance substantially.

#### Automatic Liquid Chlorinators

During the Zodiac Nature<sup>2</sup> Express start up period, the chlorinator should be set to keep the chlorine level up to 1-2ppm. When this period has been completed turn the chlorinator down low so that it keeps the free chlorine level at 1 ppm.

**NOTE:** Higher free chlorine levels are required for indoor and stabilised pools. Follow the chlorinator manufacturer's directions.

## LOW MAINTAINENCE SYSTEMS

### Salt Chlorinators.

During the Zodiac Nature<sup>2</sup> Express start up period, the chlorinator should be kept at a high level to keep the chlorine in the pool up to 1-2ppm. When this period has been completed, turn the salt chlorinator down so that the free chlorine in the pool is 1 ppm. This will increase the life of the salt chlorinator cell.

Both of these methods will help to make the pool almost maintenance free and maintain the water balance of your pool at the optimum. During hot and humid weather and when the pool has heavy bather loads, the chlorinators may need to be temporarily adjusted upwards, to maintain the water balance.

**NOTE:** Higher free chlorine levels are required for indoor and stabilised pools. Follow the chlorinator manufacturer's directions.

### PROVIDE FILTRATION / CIRCULATION

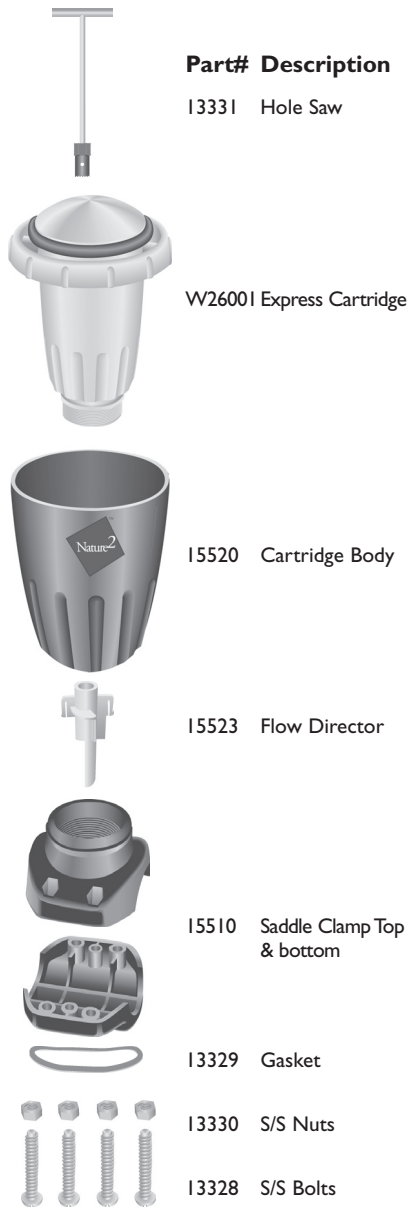
**To manage:** **You need to:**

**Circulation** Follow the manufacturer's directions for keeping the circulating pump in good working order and operate it at least six hours a day. Consult your Zodiac dealer for optimum run times.

**Filtration** Check the pool's filter periodically and clean it as recommended by the manufacturer.



## PARTS REFERENCE



### REPLACING THE ZODIAC NATURE<sup>2</sup> EXPRESS CARTRIDGE

Use the month indicator ring (M) on the top of the unit to identify the date on which the cartridge should be replaced. A cartridge lasts six months under normal operating conditions, four months if operated 24 hours a day.

#### To replace the cartridge:

- 1 Shut off your pool's pump and filter.
- 2 Close any valves between the filter and pool to prevent draining the pool.
3. Unscrew the cartridge
4. Thread in the new cartridge
5. Position the month indicator ring (M) on the unit.
6. Open any valves that were closed to isolate the Zodiac Nature<sup>2</sup> Purifier.
7. Restart your pool's pump. Check for leaks and fix any leaking fittings.
8. Follow the start up procedures described on page 3.



## Troubleshooting Guide

Consult your Nature2 Dealer for additional Assistance.

|  | Problem          | What to look for   | Treatment   |
|--|------------------|--|---|
| <b>Cloudy water</b><br>Frequently caused by improper start up. See section on Start Up.                    | Poor filtration  | Slow filter turnover rates   | <ol style="list-style-type: none"> <li>1 Backwash and clean filter.</li> <li>2 Run filter for 24 hours.</li> <li>3 Increase run time per day.</li> </ol>  |
|  | Algae growth     | Hazy pool water; may have slightly green appearance.   | Superchlorinate water (with dealer's guidance) and brush pool walls.  |
|  | Unbalanced water | <ol style="list-style-type: none"> <li>1. High hardness</li> <li>2. High TDS (total dissolved solids)</li> <li>3. High pH</li> <li>4. High total alkalinity</li> </ol> | Balance the pool water.   |
| <b>Algae</b><br>Algae may be caused by insufficient levels of oxidizer and/or inadequate water circulation | Green Algae      | Pea green colour; attaches to pool walls; sometimes colours the entire body of water.  | <ol style="list-style-type: none"> <li>1 Check pH and adjust if necessary.</li> <li>2 Superchlorinate water and brush pool walls.</li> <li>3 Repeat steps 1 and 2 until algae is gone.</li> </ol> |
|  | Black Algae      | Black spots on pool walls  | 1 Brush affected areas.   |
|  | Mustard Algae    | Yellow or brown film on steps or walls   | <ol style="list-style-type: none"> <li>2 Superchlorinate water.</li> <li>3 Add algaecide.</li> <li>4 Vacuum pool.</li> <li>5 Repeat steps 1 through 4 until algae is gone.</li> </ol>             |

**Note:** Regular algaecide treatments are recommended for outdoor pools that experience persistent algae problems. Do not use algae treatments containing either copper or sodium bromide. Persistent algae problems can be caused by high phosphate levels in the pool water. Your pool retailer can check this and advise remedies.

## TROUBLE SHOOTING

|                  |                                  |  |  |
|------------------|----------------------------------|--|--|
| <b>Stains</b>    | Blue/green                       | Copper or iron from pool equipment corrosion or water supply.              | <ol style="list-style-type: none"> <li>1 Adjust pH and total alkalinity to ideal ranges.</li> <li>2 Vigorously brush stained areas.</li> <li>3 Add sequestrant.</li> <li>4 Run filter.</li> <li>5 Twelve hours later, superchlorinate the pool.</li> <li>6 Test and balance water.</li> <li>7 Test pool water for dissolved metals.</li> </ol> |
|                  | Red/brown                        | Iron or manganese from equipment corrosion or water supply.                |  |
|                  | Black                            | Manganese in water supply.   |  |
|                  | Metal tarnishing                 | High native mineral content in water; unbalanced water.                    | Clean with soft cloth and mild detergent. Test water for minerals; use a sequestrant; maintain water balance.  |
| <b>Scale</b>     | Crusty deposits on pool surfaces | High pH and high total alkalinity  | Adjust pH and total alkalinity to ideal ranges.  |
|                  |                                  | High TDS (total dissolved solids) or high hardness levels                  | <ol style="list-style-type: none"> <li>1 Replace a volume of pool water with water low in hardness and dissolved solids.</li> <li>2 Use sequestrant to prevent scale buildup if high hardness levels are a continuing problem.</li> </ol>  |
| <b>Equipment</b> | The purifier leaks               | A. O-ring missing or improperly seated<br><br>or<br><br>B. Faulty plumbing | Lubricate O-ring with silicone lubricant.<br><b>Note:</b> Do not use petroleum-based lubricants (will void warranty). Be sure O-ring is seated properly before securing housing cap.<br><br>Repair source of leak in plumbing.   |
|                  | No flow to purifier              | Dirty filter (one indication: pressure is 8-10 psi higher than normal)     | Clean or backwash filter so operating pressure is always within 7 psi of a new filter.   |

NOTES

NOTES



# ZODIAC



ABN 87 002 641 965  
PO Box 7238  
Wetherill Park, NSW 2164 Australia  
Customer Care Line: 1300 768 021 Fax: 1300 781 688  
[www.zodiac.com.au](http://www.zodiac.com.au)  
© 2004 Zodiac Group Australia Pty Ltd

W90477