

2012-2869  
2012-09-05

CLARITEC  
PURIFIER FOR CONCRETE POOLS  
MODEL PG

DOMESTIC

Uses replacement cartridge: CPG 35

READ LABEL AND REFER TO OWNER'S MANUAL BEFORE USING

Maximum Operating Pressure 345 kPa

To assist in controlling bacteria and algae growth, this device will augment bactericidal and algicidal activity of primary disinfectants such as chlorine in swimming pools and spas.

A minimum of 0.6ppm of available chlorine must be maintained. In the case of regulated pools, Provincial/Municipal regulations must be followed.

Covered by one or more of the following U.S Patents:  
4,608,247 4,935,116 5,352,369  
REG. NO. 25140 P.C.P.ACT

WARNING

Staining of pool surfaces may occur due to deposits of copper salts. Excessive levels of copper will increase the probability of this occurrence.

Zodiac Pool System Inc.  
2620 COMMERCE WAY  
VISTA CA 92081  
UNITED STATES  
1-800-822-7933

## Water Purifier for Pools

### Nature2 Natural Mineral Purifiers for Pools

- Saves time and improves water
- Helps maintain your pool with low chlorine levels\*
- Reduces stinging eyes, dry skin or bleached fabrics

\*Minimum level: 0.6 ppm free chlorine

Claritec®

## The Nature2 Water Purifier

It feels better.

- Reduced chlorine & chemical use.
- Lessens stinging eyes, dry skin & damaged hair.
- Lowers harsh chemical odors.
- Reduces bleached & damaged bathing suits.

Nature2 water is brilliantly clear and soft.  
Conventionally sanitized pools.

It's safe.

- Stable, safe swimming water.
- Compatible with other pool maintenance products.

Absolutely safe for kids!

It works better.

- Patented mineral process controls bacteria.
- Saves time & money.
- No electricity, no moving parts. It's powered by water flow.
- Reduces work & chemical volume.

### Model PA

#### Vinyl Lined Pools

Capacity: Up to 114,000 litres (up to 30,000 U.S. gallons)

Warranty: 5 years (housing)

Cartridge Selection: CPA30ec 18,000-114,000 litres (5,000-30,000 U.S. gallons)

Cartridge Life: Seasonal cartridge

\* A minimum of 0.6 ppm free available chlorine must be maintained.

### Model PG

#### For Concrete Pools

Capacity: Up to 133,000 litres (up to 35,000 U.S. gallons)

Warranty: 5 years (housing)

Cartridge Selection: CPG35 95,000-133,000 litres (25,000-35,000 U.S. gallons)

Cartridge Life: Seasonal cartridge

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L40248

Text label (English) for:

Cartridge For Claritec Purifier For Concrete Pools Model PG (Claritec CPG35)

Nature-2 logo/ Purification Technology

DOMESTIC

- To be used with purifier for concrete pools: PG
- READ LABEL AND REFER TO OPERATING MANUAL BEFORE USING
- Maximum Operating Pressure 345 kPa

To assist in controlling bacteria and algae growth, this device will augment bactericidal and algicidal activity of primary disinfectants such as chlorine in swimming pools and spas.

A minimum of 0.6 ppm of available chlorine must be maintained. In case of regulated pools, Provincial/Municipal regulations must be followed.

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# ZODIAC

## Purifier for Concrete Pools

### Operating Manual



**READ THE LABEL AND OPERATOR'S MANUAL BEFORE USING**

**KEEP OUT OF REACH OF CHILDREN**

**Pool owner, save this manual!**

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

### Specifications

**Capacity:** up to 170,000 L

**Dimensions:** 508 x 292 x 292 mm

**Ports:** 51 mm PVC SKT inlet and outlet or 38 mm FPT (see insert)

**Weight:** 3.3 kg

**Circulation system flow rate:** 114-454 L/min

**Purifier flow rate:** 38-68 L/min (internal bypass)

**Maximum operating pressure:** 345 kPa

**Cartridge dimensions:** 350 x 118 mm

**Replacement cartridge:** G35 95,000 to 133,000 L

**Important:** The proper replacement cartridge model for your purifier is indicated on the label located on the front of your unit.

**Cartridge life:** 6 months

**Run time:** 6 hours minimum

**Warranty:** 2 years (housing)

**REG. NO. PCP ACT:** Model NG: 24576 / Model PG: 25140

**DOMESTIC**

### Nature<sup>2</sup> Compatibility

Do not use with the following:

- Copper-based algaecides
- Bromine or bromide chemicals
- Biguanides

### We ask you to take the time to get familiar with this manual.

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 Nature<sup>2</sup> 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 your pool and geographic climate.

Remember, your authorized Nature<sup>2</sup> dealer can provide professional advice and service.

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*Mineral Purifiers for Pools*

# 1 Installation

If you decide to install the Nature<sup>2</sup> Purifier yourself, follow these instructions. The letters in parentheses refer to a diagram on page 5 titled Replacing the Nature<sup>2</sup> Purifier Cartridge.

This model purifier has been equipped with an automatic flow-control device, designed to properly regulate the correct amount of water through the cartridge. Under normal pump and filter pressure conditions on in-ground pool systems, the flow rate to the inlet side of the purifier is 114 to 454 L/min.

**Important:** If your pump system is designed to produce flow rates greater than 303 L/min, you should remove the orange flow control diaphragm (H) from the vessel prior to installation. If your pump system is designed to produce flow rates greater than 454 L/min or if plumbing is greater than 51 mm, then your purifier must be installed in a bypass configuration (see page 5).

## Installation

**1 Decide where** to install the Nature<sup>2</sup> Purifier. It should be installed:

- on a concrete slab to support the weight of the vessel,
- after the filter on the main return to the pool,
- before or after the heater,
- before any chemical dispenser or the discharge of an off-line chemical dispenser.

**2 Locate the 51 mm socket inlet (F) and outlet (J) connections** on the purifier.

**3 Connect the outlet from the filter to the purifier's inlet port (F)** with standard 51 mm PVC Schedule 40" pipe\*; secure the connection with a pipe glue that is compatible with PVC.

**4 Connect the purifier's outlet port (J) to the pool's return line** with the same type of PVC pipe\*; secure the connection with the pipe glue.

**5 Allow sufficient time** for the glue to dry.

**6 Screw on the cap (A)** until it is snug. *Do not overtighten the cap.* Check that all connections are secure.

**Important:** *Do not install the Nature<sup>2</sup> Cartridge (E) yet.*

**7 Start the pump**, check for leaks and repair any leaks you find.

**8 Proceed with Start-Up instructions.**

\*The Nature<sup>2</sup> Purifier can be reduced to accommodate 38 mm plumbing by reducing bushings. These bushings will have no effect on the operation of the purifier.

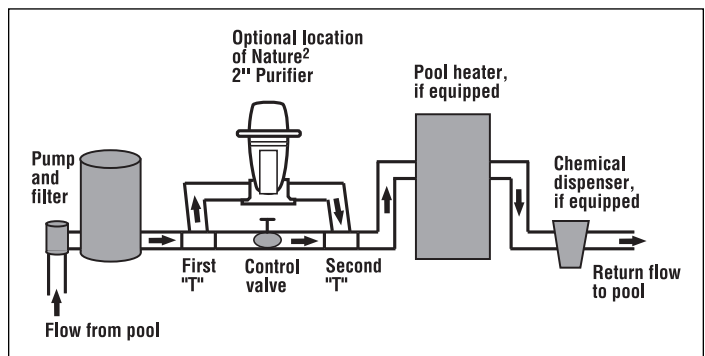
## Bypass Installation

This 51 mm (2 in) Nature<sup>2</sup> Purifier system may need to be installed in bypass to the filtration system if plumbing size is greater than 51 mm (2 in) diameter or if flow rates are greater than 454 L/min.

If the Nature<sup>2</sup> Purifier is to be installed below the water level of the pool, precautions must be taken to prevent the pool from draining during installation and during cartridge change. Valves should be installed to isolate the system during these situations.

All PVC fittings must be attached to the Nature<sup>2</sup> base using standard PVC cement. The purifier should be set on a firm base.

The Nature<sup>2</sup> Purifier is installed on a bypass loop after the filter and always before a chemical dispenser, if equipped, as shown below.



## To create the bypass:

**1 Install a "T" in the return line** to allow water to divert to the Nature<sup>2</sup> Purifier. This "T" is then connected to the inlet of the purifier.

**2 Install a control valve in the return line** after the first "T" and before the second "T".

**3 Fully open any valves (including the control valve) that were closed** to isolate the purifier.

**4 Start the pump** allowing water to pass through the newly plumbed system. The control valve in the return line between the two "T"s will control the flow through the purifier.

**Note:** For flows in excess of 454 L/min with the Nature<sup>2</sup> in bypass, do not exceed a 10.3 kPa increase in filter backpressure. Once 10.3 kPa is reached in this situation the flow is correct through the purifier.

**5 Check the purifier** for leaks and fix or replace any fittings.

**6 Follow the start up procedures.**

## 2 Balance 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 dealer to recommend a pool test kit for water balance.

<b>Element:</b> pH <b>Range:</b> 7.2-7.8	<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. The water can become cloudy. "Scale" forms on your pool equipment.	<b>How to fix:</b>	Add pH decreaser.
<b>Element:</b> Calcium Hardness <b>Range:</b> 200-300 ppm	<b>If it's too low:</b>	Water is less stable. In plaster pools, the calcium is taken out of the plaster, causing the surface to deteriorate.	<b>How to fix:</b>	Add calcium hardness increaser.
	<b>If it's too high:</b>	Rough, discolored deposits ("scale") will form on the pool surface and inside pool equipment.	<b>How to fix:</b>	Drain or dilute the pool water. <b>Consult your dealer.</b>
<b>Element:</b> Total Alkalinity <b>Range:</b> 80-120 ppm	<b>If it's too low:</b>	It provides no buffer so that you constantly get fluctuating pH readings, which can damage equipment and 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 discolored. The water becomes cloudy or milky white.	<b>How to fix:</b>	Add acid to bring alkalinity down.

## 3 Start Up

**Before starting up** a new Nature<sup>2</sup> Cartridge, clean debris and algae out of the pool and equipment.

**Important:** *Do not install* the new cartridge until the pool water is chemically balanced.

**1 Balance pool water** before installing purifier cartridge.

- pH 7.2-7.8
- Calcium hardness 200-300 ppm
- Total alkalinity 80-120 ppm

Consult your Nature<sup>2</sup> Dealer for specific water balance instructions.

**2 Install the cartridge** after water is balanced.

**3 Shock the pool** to burn off contaminants and to activate the cartridge. Follow label instructions of shock product being used.

**4 Run the circulating pump** either:

- 24 hours a day for 4 days, maintaining 1-3 ppm free available chlorine, or
- 6 hours a day for 14 days, maintaining 1-3 ppm free available chlorine.

**5 Let free available chlorine residual drop** but not below a minimum of 0.6 ppm once start-up period is completed.

## 4 Follow the Recipe

**Low-Chlorine Recipe**  
(0.6 ppm free available chlorine minimum)

*Once the 4-day or 14-day start-up period is done, allow the free available chlorine residual to drop but not below 0.6 ppm, then:*

### Ingredients:

- Nature<sup>2</sup> Purifier
- Chlorine granules, tablets, liquid or generator
- pH and total alkalinity adjusting chemicals
- Calcium 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 a minimum of 0.6 ppm free available chlorine.
  - If water is hazy, superchlorination. Follow product label instructions.
  - After heavy use or rainstorm, superchlorination is recommended.
  - Add cyanuric acid (stabilizer) to maintain 50 ppm.

# 5 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 Nature<sup>2</sup> dealer for optimum run times.

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

## Troubleshooting Guide Consult your Nature<sup>2</sup> Dealer for additional assistance.

	<b>Problem</b>	<b>What to look for</b>	<b>Treatment</b>
<b>Cloudy water</b> 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.	Shock 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> Algae may be caused by insufficient levels of oxidizer and/or inadequate water circulation.	Green algae	Pea green color; attaches to pool walls; sometimes colors the entire body of water	<ol style="list-style-type: none"> <li>1 Check pH and adjust if necessary.</li> <li>2 Shock 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	<ol style="list-style-type: none"> <li>1 Brush affected areas.</li> <li>2 Shock 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>
	Mustard algae	Yellow or brown film on steps or walls	<ol style="list-style-type: none"> <li>1 Brush affected areas.</li> <li>2 Shock 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>
<b>Note:</b> Regular algaecide treatments are recommended for outdoor pools that experience persistent algae problems. Do not use algae treatments containing either copper or sodium bromide.			
<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, shock 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.	<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, shock the pool.</li> <li>6 Test and balance water.</li> <li>7 Test pool water for dissolved metals.</li> </ol>
	Black	Manganese in 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, shock the pool.</li> <li>6 Test and balance water.</li> <li>7 Test pool water for dissolved metals.</li> </ol>
	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 calcium 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 or	Lubricate O-ring with Teflon or silicone lubricant. <b>Note:</b> Do not use petroleum-based lubricants (will void warranty). Be sure O-ring is seated properly before securing housing cap.
		B. Faulty plumbing	Repair source of leak in plumbing.
	No flow to purifier	Dirty filter (one indication: pressure 55-69 kPa higher than normal)	Clean or backwash filter so operating pressure is always within 48 kPa of a new filter.



# Replacing the Nature<sup>2</sup> Purifier Cartridge

Use the month indicator ring (M) on the top of the unit to identify the date on which the cartridge should be replaced.

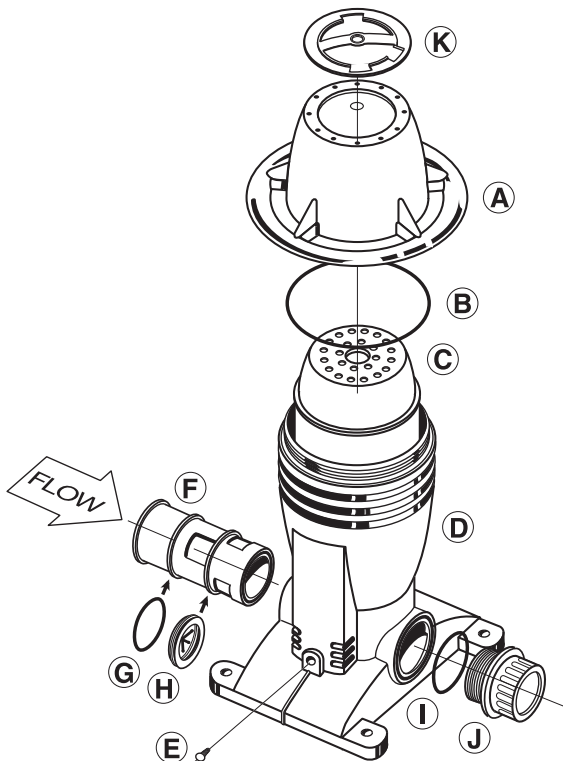
A cartridge lasts six months from the date of installation under normal operating conditions.

## 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 locking ring (A)** by twisting counterclockwise until the ring is free of the housing base.
- 4 **Lift out the old cartridge** and, if necessary, lubricate the O-ring (B).

**Important:** Use only a silicone-based, high viscosity grease. Do not use a petroleum-based because it will damage it will damage the Nature<sup>2</sup> Purifier and invalidate warranty.

- 5 **Insert the new cartridge.**
- 6 **Set the cap and locking ring in place** and screw the ring clockwise until it is snug. *Do not overtighten.*
- 7 **Position the month indicator ring (M)** on the cap so that the current month is visible in the installation window.
- 8 **Open any valves that were closed** to isolate the Nature<sup>2</sup> Purifier.
- 9 **Restart your pool's pump.** Check for leaks and fix any leaking fittings.
- 10 **Follow the start up procedures** described on page 3.



# Winterizing Your Pool

Use these steps as a guide. Consult your dealer for specific information on your area.

## Warm Climate

- 1 **Reduce the number of hours the pump runs** since the cooler weather decreases the spread of algae and other pollutants.
- 2 **There is no need to shock** the pool during cool weather unless the water becomes cloudy (as may occur after a winter storm). See Cloudy Water in Troubleshooting section.

## Cold Climate

- 1 **Check total alkalinity and pH** of pool to make sure that they are in proper balance.
- 2 **Vacuum the pool bottom** to remove any debris or other potential contaminants.
- 3 **Shock** the pool to clear the water.
- 4 **Add a winter algacide** following manufacturer's instructions.

**Important:** Do *not* use a winter algacide with copper in it. This will void the Nature<sup>2</sup> no-stain warranty.

- 5 **Backwash the filter.**
- 6 **Drain part of the pool water.** The amount to drain varies from one part of the country to another. Consult your dealer for advice.
- 7 **Winterize the purifier** as follows:
  - Unscrew the locking ring (A) and remove cap from the purifier base.
  - Remove the winter drain plug (E) and drain the water completely out of the base of the purifier.
  - Lift out the purifier cartridge and dispose of it.
  - Set the cap O-ring (B), the cap and locking ring in place and screw it tight.
  - Store the purifier with your pool equipment, indoors if possible.
- 8 **Winterize the pipes** with pool antifreeze following manufacturer's instructions.
- 9 **Drain the water** out of all equipment (pump, filter, etc.).
- 10 **Store** all baskets, hoses and cleaning equipment, indoors if possible.
- 11 **Cover the pool** with a winter cover.

## Reference

Reference Letter	Part	Part No.
A	Cap	26-0122
B	Cap O-ring	17-0061
C	Cartridge	see front page
D	Housing	26-0100
E	Winter Drain	17-0021
F	Inlet Port	26-0108
G	Inlet O-ring	17-0035
H	Flow Control	17-0050
I	Outlet O-ring	17-0040
J	Outlet Port	26-0107
K	Month Indicator Ring	26-0112

# Warranty

## **Housing Warranty**

The Nature<sup>2</sup> Purifier you have purchased was manufactured with care and is warranted to be free of defects in materials and workmanship for 2 years from the date it was installed. Your warranty registration card must be completed and mailed to Zodiac Pool Care, Inc. 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 authorized Nature<sup>2</sup> dealer. Zodiac Pool Care, Inc. reserves the right to replace any purifier instead of repairing it.

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

Nature<sup>2</sup> Purifier cartridges are warranted to be free of defects in materials and workmanship and to perform to your satisfaction for a period of six months from the date of installation. This warranty does not cover damage caused by accident, misuse or alteration or by the use of any biguanide products, copper-based algaecides 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 prorated rebate based on your actual period of use. Please consult this Owners Manual for proper use.

## **Non-Staining Warranty**

Your Nature<sup>2</sup> 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 a copper-based algaecide. This Nature<sup>2</sup> Owners Manual will guide you as to how to maintain your pool properly when using the Nature<sup>2</sup> Purifier. This warranty does not cover discoloration to chromium fittings which may discolor 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 province to province. Proof of purchase is required to make any claims on the above warranties, so please keep your dated receipt.



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