

96.07.19

VISION(R)

Premium In-Ground

MODEL

VM

- Use replacement cartridges: CM25
- Professional Installation Recommended
- Refer to Owner's Manual

Nature² (R)

Purification Technology

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 the case of regulated pools, Provincial/Municipal regulations must be followed.

REG. NO. 24577 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.

Serial Number: 12188

(D)Fountainhead Technologies, Inc.

Exclusively manufactured by
Fountainhead Technologies, Inc.
501 Valley St.
Providence, RI 02908

Nature² (R)
Model M Premium
Inground Purifier
Operating Manual

Pool Owner, save this manual!

Builders, leave this manual with the pool owner!

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 Nature² 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 your geographic climate.

Remember, your authorized Nature² dealer can provide professional advice and service.

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Specifications

Capacity: up to 95,000 L

Dimensions: 406 x 241 x 292 mm

Ports: 38 mm FPT threaded connections, inlet and outlet

Weight: 4.5 kg

Circulation system flow rate: 95-303 L/min

Purifier flow rate: 38-68 L/min

Maximum operating pressure: 345 kPa

Cartridge dimensions: 248 x 118 mm

Replacement cartridge:

M25 18,000 to 95,000 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: 3 years (housing)

Nature² Compatibility

Avoid use with the following:

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

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1 Installation

If you decide to install the Nature² Purifier yourself, follow these instructions

Installation

- 1 Decide where to install the Nature² 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 38 mm FPT Inlet and outlet connections on the purifier.
- 3 Connect the outlet from the filter to the purifier's inlet port and secure the connection. All fittings attached to the base must be sealed with a nonpetroleum-base product such as Teflon tape, Permatex #2 or similar thread sealant. Hand tighten any fittings into the base of the purifier. Then, with a wrench, tighten not more than one-half more turn.
- 4 Connect the purifier's outlet port to the pool's return line and secure the connection.
- 5 Screw on the cap until it is snug. Do not overtighten the cap. Check that all connections are secure.

Important: Do not install the Nature² Cartridge yet.

- 6 Start the pump, check for leaks and repair any leaks you find.

Note: If your pool is using a high-head pump with 51 mm plumbing and with flows of 303 L/min or higher, you will need to plumb this purifier on a bypass loop. For instructions on bypass installation, see page 5.

- 7 Proceed with Start-Up Instructions.

2 Start Up

Before starting up a new Nature² 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 Nature² Dealer for specific water balance instructions.

- 2 Install the cartridge after water is balanced.
- 3 Superchlorinate the pool to burn off contaminants and to activate the cartridge. Follow label instructions of superchlorination product being used.
- 4 Run the circulating pump either:
 - 24 hours a day for 4 days, maintaining 1-2 ppm free available chlorine, or
 - 6 hours a day for 14 days, maintaining 1-2 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.

3 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.

Element: pH Range: 7.2-7.8	If it's too low:	The surface of your pool can become etched. Metal parts in the pump and plumbing will corrode.	How to fix:	Add pH increaser.
	If it's too high:	"Scale" forms on the surface of your pool. The water can become cloudy. "Scale forms on pool equipment.	How to fix:	Add pH decreaser.
Element: Calcium Hardness Range: 200-300 ppm	If it's too low:	Water is less stable. In plaster pools, the calcium is taken out of the plaster, causing the surface to deteriorate.	How to fix:	Add calcium hardness increaser.

	If it's too high:	Rough, discolored deposits ("scale") will form on the pool surface and inside pool equipment.	How to fix:	Drain or dilute the pool water. Consult your dealer.
Element: Total Alkalinity Range: 80-120 ppm	If it's too low:	It provides no buffer so that you constantly get fluctuating pH readings, which can damage equipment and pool surfaces.	How to fix:	Use an alkalinity increaser.
	If it's too high:	White deposits ("scale") form on the tile line. The plaster on pool surface becomes rough or discolored. The water becomes cloudy or milky white.	How to fix:	Add acid to bring alkalinity down.

The Nature² Purifier is designed for residential swimming pools only. Not for household use.

4 Follow the Recipe

Low-Chlorine Recipe

(0.6 ppm free available chlorine minimum)

Ingredients:

- Nature² Purifier
- Chlorine granules tablets, liquid or generator
- pH and total alkalinity adjusting chemicals
- Calcium hardness increaser, if needed
- Water test kit
- Cyanuric acid

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:

When:	What to do:
Every day	Run pump and filter at least 6 hours every day.
Once a week	Balance pH and total alkalinity.
Twice a week	Check chlorine residual; add chlorine to maintain a minimum of 0.6 ppm free available chlorine.
As needed	If water is hazy, superchlorinate. Follow product label instructions. Add cyanuric acid to maintain 50 ppm. After heavy use or rainstorms, superchlorination is recommended.

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 ² dealer for optimum run times.
Filtration	Check the pool's filter periodically and clean it as recommended by the manufacturer.

Troubleshooting Guide - Consult your Nature² Dealer for additional assistance

	Problem	What to look for	Treatment
Cloudy water Frequently caused by improper start up. See section on Start Up.	Poor filtration	Slow filter turnover rates	1 Backwash and clean filter 2 Run filter for 24 hours. 3 Increase run time per day.
	Algae growth	Hazy pool water; may have slightly green appearance.	Superchlorinate water (with dealer's guidance) and brush pool walls.

	Unbalanced water	1. High hardness 2. High TDS (total dissolved solids) 3. High pH 4. High total alkalinity	Balance the pool water.
Algae 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.	1 Check pH and adjust if necessary. 2 Superchlorinate the water and brush pool walls. 3 Repeat steps 1 and 2 until algae is gone.
	Black algae	Black spots on pool walls	1 Brush affected areas. 2 Superchlorinate water. 3 Add algaecide.
	Mustard algae	Yellow or brown film on steps or walls	4 Vacuum pool. 5 Repeat steps 1 through 4 until algae is gone.
	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.		

Stains	Blue/green	Copper or iron from pool equipment corrosion or water supply	1 Adjust pH and total alkalinity to ideal ranges. 2 Vigorously brush stained areas.
	Red/brown	Iron or manganese from equipment corrosion or water supply.	3 Add sequestrant. 4 Run filter. 5 Twelve hours later, superchlorinate the pool.
	Black	Manganese in water supply.	6 Test and balance water. 7 Test pool water for dissolved metals.
	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.
Scale	Crusty deposits on pool surfaces	High pH and high total alkalinity	Adjust pH and total alkalinity in ideal ranges.

		High TDS (total dissolved solids) or high hardness levels	<p>1. Replace a volume of pool water with water low in calcium and dissolved solids.</p> <p>2 Use sequestrant to prevent scale buildup if high calcium levels are a continuing problem.</p>
Equipment	The purifier leaks	A. O-ring missing or improperly seated	Lubricate O-ring with Teflon or silicone lubricant.
		or	Note: 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 is 55-69 kPa higher than normal)	Clean or backwash filter so operating pressure is always within 48 kPa of a new filter.

Bypass Installation

This 38 mm Nature² Purifier system may need to be installed in bypass to the filtration system if plumbing size is greater than 51 mm diameter or if flow rates are greater than 303 L/min.

If the Nature² 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 fittings attached to the base must be sealed with a nonpetroleum-base product such as Teflon tape, Permatex #2 or similar thread sealant.

The Nature² Purifier is installed on a bypass loop after the filter and always before a chemical dispenser, if equipped, as shown below.

((ILLUSTRATION))

To create the bypass:

- 1 Install a T in the return line to allow water to divert to the Nature² 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 that were closed to isolate the purifier including the control valve.
- 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 high flows or high head pumps in excess of 303 L/min with the Nature² in bypass, do not exceed 10.3 kPa increase in filter back pressure. 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 leaking fittings.
- 6 Follow the start up procedures enclosed with the purifier.

Replacing the Nature² Purifier Cartridge

Every cartridge comes with a label to indicate the date when the cartridge should be replaced. When you buy the cartridge, fix the label to indicate six months from the current date. A cartridge lasts six months 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 housing cap (A) by twisting the cap counterclockwise until the cap is free of the housing base. If the cap is hard to twist, use a board as a twist handle, placing it in the slot at the top of the housing cap.

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 lubricant because it will damage the Nature² Purifier and invalidate your warranty.

5 Insert the new cartridge.

6 Set the O-ring and cap in place and screw the cap clockwise until it is snug. Do not overtighten.

7 Place the new label over the old one and be sure the new one indicates the replacement date, six months in the future.

8 Open any valves that were closed to isolate the Nature² Purifier.

9 Restart your pool's pump. Check for leaks and fix any leaking fittings.

10 Follow the start up procedures described on page 2.

((ILLUSTRATION))

Model VM		
Reference Letter	Part	Part No.
A	Cap	26-0122
B	Cap O-ring	17-0055
C	Cartridge	see front page
D	Housing	26-0100
E	Winter Drain	17-0021

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 superchlorinate 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 are in proper balance.
- 2 Vacuum the pool bottom to remove any debris or other potential contaminants.
- 3 Superchlorinate the pool to clear the water.
- 4 Add a winter algaecide following manufacturer's instructions.

Important: Do not use a winter a algaecide with copper in it. This will void the Nature² 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 (refer to the diagram on page 5).
 - Unscrew the housing cap (a) 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 housing cap and cap O-ring (B) 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.

Warranty

Housing Warranty

The Nature² 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 Fountainhead Technologies, 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 Nature² Dealer. Fountainhead Technologies reserves the right to replace any Purifier instead of repairing it.

Six Month Pro-Rated Cartridge Warranty

Nature² 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 a prorata rebate based on your actual period of use. Please consult your Owners Manual for proper use.

Non-Staining Warranty

Your Nature² 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. Your Nature² Owners Manual will guide you as to how to maintain your pool properly when using the Nature² 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 state to state. Proof of purchase is required to make any claims on the above warranties. so please keep your dated receipt.

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