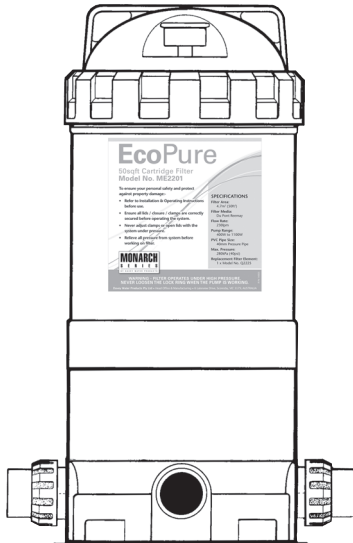


# EcoPure<sup>®</sup>

Cartridge Filter

## INSTALLATION & OPERATING INSTRUCTIONS

50sqft  
75sqft  
100sqft  
150sqft



**IMPORTANT:  
PLEASE READ THIS  
DOCUMENT  
CAREFULLY.**

**Please pass these  
instructions on to the  
operator of this  
equipment.**

**MONARCH**  
S E R I E S  
BY DAVEY WATER PRODUCTS

[davey.com.au](http://davey.com.au)

## **INTRODUCTION**

The installation of this product should be carried out by a person knowledgeable in swimming pool plumbing requirements following the Installation Instructions provided in this manual. Please pass these instructions on to the owner of this equipment.

## **YOUR MONARCH SERIES CARTRIDGE FILTER**

Congratulations on your purchase of a quality product from the Monarch Series range of Pool and Spa Equipment. You are assured of many years of reliable and efficient performance from your Monarch Series Filter backed by a 5 year tank guarantee.\*

Monarch Series EcoPure® Cartridge Filters have been specifically designed for the filtration of spa and swimming pool water. They should not be used for any other purpose without first consulting your Monarch Series Dealer or the Davey Customer Service Centre.

Monarch Series Cartridge Filters provide economy, high performance and convenience in a well-designed pressure filter. The polyester element can be removed quickly for rinse cleaning without water loss. Monarch Series Cartridge Filters feature large filter areas which ensure even water distribution, peak filtration performance and longer filter cycles.

The corrosion-resistant construction of Monarch Series Cartridge Filters provides long-life and durability. Monarch Series Cartridge Filters are capacity matched with Monarch Series pool pumps forming a total pool filtration system that lasts and lasts. Monarch Series Cartridge Filters are also very suitable for use with other pool pumps. Take care to match the pump and filter capacities to gain maximum performance and efficiency.

## **SPARKLING CLEAR WATER DIFFERENCE**

Cartridge filtration is an effective trouble-free proven method of filtration. Pool water enters the filter and passes through a polyester element cartridge. Suspended particles are trapped and the water is returned to the pool. As the build-up of dirt in the element increases, so the water pressure rises and the flow decreases. When the pressure reaches an unacceptable level, the element must be removed and cleaned. (Spray washing with a common garden hose is generally sufficient).

\* Refer to guarantee statement for full details

## **INSTALLATION & OPERATING INSTRUCTIONS LOCATION**

The filter should be placed in its permanent location, preferably as close to the pool as practicable. Position the filter tank and pump on a level concrete slab or similar base. Allow sufficient space around the filter for routine maintenance and provide for adequate ventilation and drainage.

Place the pump in position on the slab and locate the filter alongside with the appropriate pump inlet connection oriented towards the pump. Refer to the specification section for the minimum clearance measurements required for each model.

## **WEATHER PROTECTION**

Monarch Series Cartridge Filters are constructed of corrosion resistant materials. However, to ensure years of reliable performance, it is recommended that the filtration system is adequately protected from the weather.

## **ASSEMBLY**

Assemble the pressure gauge to the filter lid using Teflon tape on the male thread. Do not over-tighten.

## **PIPE CONNECTIONS**

Piping should be independently supported and not impose heavy loads on the filter or pump. Use 40mm or 50mm pipe for pump and pool return lines. 50mm should always be used if length of piping is over 15m.

If the pump and filter are located below pool water level, it is necessary to fit isolating valves in the pipe between the pump and the pool, and in the return line from the filter to the pool.



**Barrel unions need to be hand tightened only. No sealant, glues or silicones are required.**

## **1. PUMP TO THE FILTER**

Monarch Series Cartridge Filters are equipped with two inlet ports marked 'INLET'. Select the inlet port most suitable for the installation and plug the other inlet port with the blanking cap provided. Using the barrel unions provided, connect the pool pump delivery piping to the selected inlet port. Tighten by hand only. Ensure the oring on the fitting is clean, lubricated with oring lubricant and in the correct position.

## **2. FILTER TO POOL RETURN**

Using quick connect couplings, connect the pool return piping to the filter fitting marked 'OUTLET'. Tighten the fitting by hand only. Ensure the oring on the fitting is clean, lubricated with oring lubricant and in the correct position.

The filter base is provided with four mounting holes to enable it to be secured, if required.

## **FILTER OPERATION**

1. Make sure the pump is primed according to manufacturer's directions.
2. Be sure all valves are open on suction and discharge lines. Ensure the air bleed valve on the filter lid is open and the lid lock ring is in place and secure.
3. Start the pump. Close the air bleed valve when water is expelled.
4. To determine the correct operating conditions with a clean filter, check that the pressure gauge reading is 80kPa or below.
5. Record the pressure gauge reading or mark the needle position on the face of the pressure gauge.
6. Operate the filter for a sufficient time to circulate the total pool water volume daily. The filter should also be operated at all times the pool is in use and for about one hour afterwards. During winter, the running time may be reduced. Filter operating requirements will vary for spa applications, depending upon the system design, type and size of spa. Consult your builder or spa supplier.
7. When the pressure gauge reading is 50 - 70kPa higher than the 'clean filter' reading as in (4) above, it is time to clean the element/s. (See "Cartridge cleaning procedure")

## CARTRIDGE CLEANING PROCEDURE

When the filter gauge reading is 50 - 70kPa above the clean filter gauge reading, cleaning the element cartridge is required. To perform the cleaning procedure :

1. Switch off the pump.
2. Close isolating valves on suction and discharge lines where fitted.
3. Open the air bleed valve on the filter lid, unscrew the lock ring and remove the filter lid.
4. Lift the element out.
5. In most cases the element can be easily cleaned with a garden hose, using good velocity sprayed directly on the pleats.



**NOTE: Algae, calcium, clay, sun tan oil and body oils can form a coating on the element which may not be easily removed with normal hosing. These materials can be removed by soaking the element in a de-greaser and/or de-scaler. Your local Davey Dealer will be able to recommend suitable products.**



**Failure to undertake regular maintenance may cause damage not covered by warranty.**

## CARTRIDGE RE-ASSEMBLY INSTRUCTIONS

1. Install the cartridge/s & centre pipe so that it is located in the bottom spigot.
2. Ensure the filter lid oring is clean, lubricated with oring lubricant and located in the bottom groove of the lid.
3. Replace the lid and press firmly in place. Screw down the lock ring, hand tight is sufficient - **DO NOT OVERTIGHTEN.**
4. Make sure the pump is primed according to manufacturer's directions.
5. Ensure all valves are open on suction and discharge lines.
6. Start the pump.
7. Close the air bleed valve when water is expelled.

## WATER QUALITY

Maintaining balanced water chemistry is important to the life of your pool pump. This pump is designed to be used with Pool & Spa water, balanced in accordance with Langlier Saturation Index, with a pH level of between 7.2 and 7.6 and is regularly treated with a chlorine sanitising agent with the level not exceeding 3PPM.

Please consult your local pool shop regularly to have your water tested.

## FILTER CARE

The Monarch Series Cartridge Filter is the heart of the pool equipment installation. Proper care and maintenance will add many years of service and enjoyment to your pool. Keep the exterior of the filter clean using a mild detergent and water.

## TROUBLE SHOOTING

Reduced flow of water to the pool generally indicates the filter is ready to be cleaned. Check the filter pressure gauge. (See section on 'Filter Operation'). If cartridge cleaning is required, perform the steps described earlier in 'Cartridge Cleaning Procedure'. If there is still reduced flow after cleaning, check for blocked or plugged lines which could restrict the volume of water entering the pool.



**Dirt & debris returning to your pool may indicate the pressure relief valve has been activated. Remove & clean the element and check that valve inside base of filter is free of foreign matter.**

In the event of installation or operation difficulties with your Monarch Series Filtration Equipment, contact the supplier from whom the filter was purchased or contact the Davey Customer Service Centre for assistance.

## REMOVAL OF THE FILTER



**Danger HIGH PRESSURE. Relieve internal pressure before adjusting locking rings or opening filter.**

Should it be necessary to remove the filter, the following procedure should be followed :

1. Switch off the pump and remove the plug from the power point.
2. Open the air bleed valve on the filter lid.
3. Close isolating valves where fitted.
4. Remove:
  - piping connection to the pump
  - piping connection to the pool return
5. Remove filter.



**NOTE:** When making any enquiries about your Davey Filtration Equipment, be certain to quote the Model Number from the nameplate on the equipment.



To avoid explosion and possible severe or fatal injury, filter pressure must not exceed 280kPa. Do not test filter with compressed air. Check that all clamps and fasteners are in good condition and are firmly secured before pressurising system. Never adjust clamps or fasteners while filter is pressurised.



**DANGER - Hazardous suction.** Do not block water entry into filtration system with any part of your body as the pressure can trap hair or body parts, causing severe injury or death. Do not block suction. Turn off pump immediately if someone becomes trapped.



**Caution!** Do not add chemicals directly to the pool skimmer. Adding undiluted chemicals may damage pump and filter and void warranty.



Small children using the pool or spa must **ALWAYS** have close adult supervision.



**Routine Maintenance tasks – to maximise the life of your pool equipment & personal safety, use this checklist once a week. Turn pump off first.**

- a. Make sure that any pressure gauges are in working condition and the operating pressure is within limits as specified on the product.
- b. Make sure that each suction inlet, and main drain has a cover that is securely attached and in safe working condition.
- c. Make sure that all skimmer covers are securely attached and in safe working condition. These should be replaced every 3 to 4 years.
- d. Remove any obstructions or debris from the main drain cover.
- e. Ensure the skimmer baskets and the pump hair and lint pots are free of leaves and debris at least once a week.
- f. Remove obstructions and combustibles from around the pump motor.
- g. Make sure all wiring connections are clean and that all wiring and electrical equipment is in good condition. Damaged wiring must be repaired or replaced by a qualified electrician as soon as damage is discovered.
- h. Check water balance and sanitiser levels at your local pool shop.

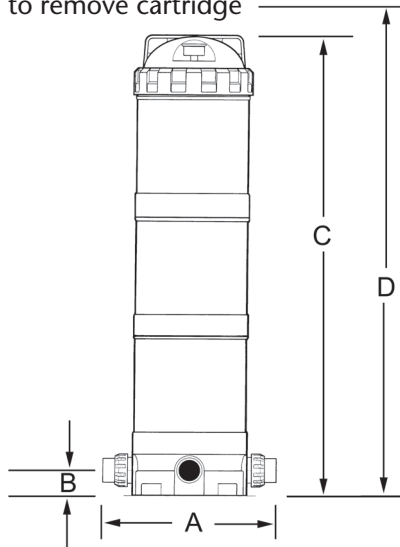


**WARNING! Pump suction is hazardous and can trap and drown or disembowel bathers. Do not block suction. Do not use or operate swimming pools, spas or spa baths if a suction cover is broken, missing or loose. Two suction covers and inlets must be provided into every pump to avoid suction entrapment.**



## SPECIFICATIONS

D = Clearance to remove cartridge



## TECHNICAL DATA

Max Flow Rate Model	4 Hour (lpm)	6 Hour Turnover	Max Operating Turnover	Max Operating Temp Pressure	Filtration Area (sq metres) (kPa)	Filtration Area (°C)	(sq feet)
Q2201MN	230	55,000	83,000	280	45	4.75	50
Q2202MN	325	78,000	117,000	280	45	7.0	75
Q2203MN	400	96,000	144,000	280	45	9.5	100
Q2204MN	490	117,000	176,000	280	45	14.25	150

## DIMENSIONS (mm)

Model	A	B	C	D
Q2201MN	410	60	540	835
Q2202MN	410	60	540	835
Q2203MN	410	60	635	1200
Q2204MN	410	60	820	1555

All dimensions in mm unless otherwise stated.





# Davey® Repair or Replacement Guarantee

In the unlikely event in Australia or New Zealand that this Davey product develops any malfunction within warranty periods beginning from the date of original purchase due to faulty materials or manufacture, Davey will at our option repair or replace it for you free of charge, subject to the conditions below.

## Davey Guarantee Period

Tank - Five Years

Other Components - One Year

Should you experience any difficulties with your Davey product, we suggest in the first instance that you contact the Davey Dealer from which you purchased the Davey product. Alternatively you can phone our Customer Service line on 1300 367 866 in Australia, or 0800 654 333 in New Zealand, or send a written letter to Davey at the address listed below. On receipt of your claim, Davey will seek to resolve your difficulties or, if the product is faulty or defective, advise you on how to have your Davey product repaired, obtain a replacement or a refund.

Your Davey Guarantee naturally does not cover normal wear or tear, replacement of product consumables (i.e. mechanical seals, bearings or capacitors), loss or damage resulting from misuse or negligent handling, improper use for which the product was not designed or advertised, failure to properly follow the provided installation and operating instructions, failure to carry out maintenance, corrosive or abrasive water or other liquid, lightning or high voltage spikes, or unauthorized persons attempting repairs. Where applicable, your Davey product must only be connected to the voltage shown on the nameplate.

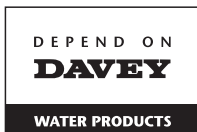
Your Davey Guarantee does not cover freight or any other costs incurred in making a claim. Please retain your receipt as proof of purchase; you **MUST** provide evidence of the date of original purchase when claiming under the Davey Guarantee.

Davey shall not be liable for any loss of profits or any consequential, indirect or special loss, damage or injury of any kind whatsoever arising directly or indirectly from Davey products. This limitation does not apply to any liability of Davey for failure to comply with a consumer guarantee applicable to your Davey product under the Australian or New Zealand legislation and does not affect any rights or remedies that may be available to you under the Australian or New Zealand Consumer Legislation.

In Australia, 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.

Should your Davey product require repair or service after the guarantee period; contact your nearest Davey Dealer or phone the Davey Customer Service Centre on the number listed below.

For a complete list of Davey Dealers visit our website ([davey.com.au](http://davey.com.au)) or call:



Davey Water Products Pty Ltd  
Member of the GUD Group  
ABN 18 066 327 517

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### AUSTRALIA

**Customer Service Centre**  
6 Lakeview Drive,  
Scoresby, Australia 3179  
Ph: 1300 367 866  
Fax: 1300 369 119  
Website: [davey.com.au](http://davey.com.au)

### NEW ZEALAND

**Customer Service Centre**  
7 Rockridge Avenue,  
Penrose, Auckland 1061  
Ph: 0800 654 333  
Fax: 09 527 7654  
Website: [daveynz.co.nz](http://daveynz.co.nz)

P/N Q916334-2 supersedes P/N Q916334-1

\* Installation and operating instructions are included with the product when purchased new. They may also be found on our website.