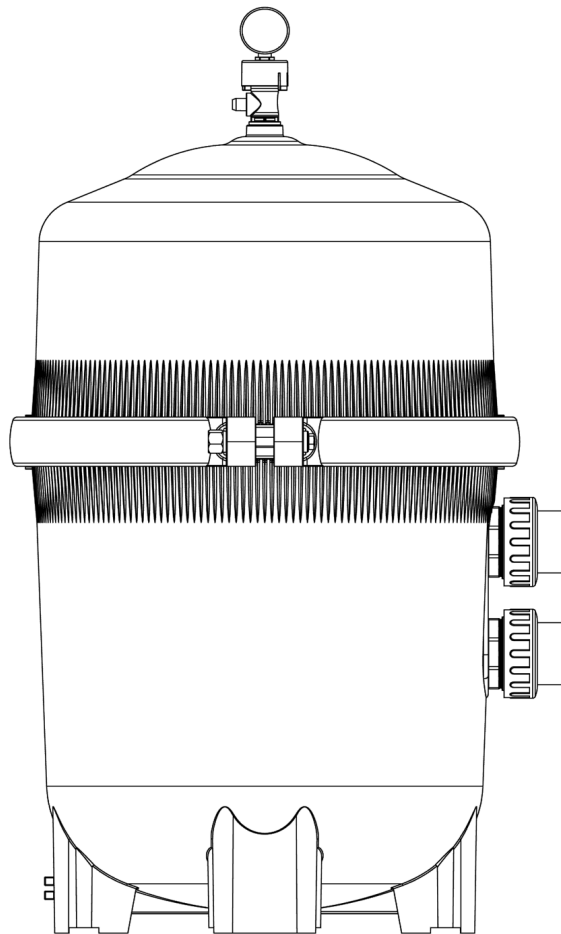




**CARTRIDGE FILTER FOR
POOLS & SPAS**

Mega Cartridge Filter

OWNER'S MANUAL



815-675-7000 or email customersupport@intermatic.com

ATTENTION INSTALLER: THIS MANUAL CONTAINS IMPORTANT INFORMATION ON THE
OPERATION, AND SAFE USE OF THIS EQUIPMENT.
THIS MANUAL IS INTENDED FOR THE END USER OF THIS PRODUCT

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

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Description

This pool filter is designed to remove debris and particulates from permanently installed swimming pools and spas. It is equipped with a removable cartridge that can be easily cleaned or replaced as it becomes clogged.

Unpacking

Inspect this unit before it is used. Occasionally, products are damaged during shipment. If the filter or components are damaged, return the unit to the place of purchase for replacement. Failure to do so could result in serious injury or death.

**READ & FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS
DO NOT DISCARD**

Safety Guidelines

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

⚠ DANGER *Danger indicates an imminent hazardous situation which, if not avoided, WILL result in death or serious injury.*

⚠ WARNING *Warning indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.*

⚠ CAUTION *Caution indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury.*

NOTICE *Notice indicates important information, that if not followed, may cause damage to equipment.*

NOTE: Information that requires special attention.

General Safety Information

CALIFORNIA PROPOSITION 65

⚠ WARNING *This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.*

GENERAL SAFETY

Read all manuals included with this product carefully. Be thoroughly familiar with the controls and the proper use of the equipment.



⚠ WARNING

This filter operates under high pressure.

Incorrectly installed or serviced equipment could explode, causing severe injury, death, and/or property damage.



- Have a trained pool professional perform all pressure tests.
- Do not connect the filter to compressed air under any circumstances.
- Use filter only in a pool or spa installation.
- Do not connect filter to city water or any other external source of pressurized water.
- Do not connect filter to pumps capable of exceeding 50 psi (345 kPa) pressure.
- Do not subject filter to pressure in excess of 50 psi (345 kPa), even when conducting hydrostatic pressure tests. Pressures exceeding 50 psi can cause the tank to rupture and could result in severe injury, death or property damage.
- Air trapped in the system can cause an explosion. Open the air relief valve to vent all air from the system before operating or testing the system.

⚠ WARNING

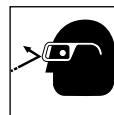
Do not use solvents to clean the filter assembly as they may damage the plastic components.

assembly as they may damage the plastic components.

⚠ WARNING

Wear rubber

gloves, protective clothing and eye-wear when using acids and cleaners. Avoid contact with skin and eyes. If ingested, call local poison control center. Observe all warnings and precautions supplied with acids and cleaners.



**REMINDER: Keep your dated proof of purchase for warranty purposes!
Attach it to this manual or file it for safekeeping.**

General Safety Information (Continued)

⚠ WARNING *Risk of electrical shock or electrocution.*



- Position the filter drain and air relief valve to safely direct drainage and purged air or water away from the pump and other electrical components. Water discharged from an improperly positioned assembly can create an electrical hazard that can cause serious injury, death, and/or property damage.
- Ensure filter grounding and bonding meets local codes and National Electrical Code (NEC) standards. All wiring, grounding, and bonding of associated equipment must be performed by a qualified electrician. Installations must be in accordance with local and national codes.

⚠ WARNING *Risk of falling and drowning.*

- Place equipment at least 4 feet (1.2 meters) from pool (or spa) so that children cannot climb over it into pool.
- Do not stand or play on pool equipment.
- Never leave filter open and unattended. Secure area where filter is installed.
- Keep children away from pool equipment, especially when servicing.

⚠ WARNING *This filter is designed to remove debris and particulates from pool and spa water. Proper water chemistry **MUST** be maintained to keep water clean and avoid spreading diseases. Consult a local pool professional for more information.*

NOTICE *This filter is not designed for backwashing. If unit is plumbed backwards or backwashed, it will damage the filter cartridge and will void the warranty.*

NOTICE

Attention Installer:

This manual contains important information about the installation, operation and safe use of this filter. This information should be furnished to the end user of this equipment.

Attention User:

SAVE THESE INSTRUCTIONS.

Pool / Spa Chemistry

Maintaining water chemistry at the correct levels is critical for health of pool/spa users and will help prolong the life of pool/spa equipment. This chart contains the recommended levels for a typical pool/spa. If you have questions about maintaining your pool/spa and its chemistry, consult your local APSP/NSPI pool professional or call 815-675-7000 to talk to a representative.

TABLE 1

INDUSTRY STANDARD	POOL / SPA	MINIMUM	IDEAL WATER CHEMISTRY	MAXIMUM
Free Chlorine, ppm	Pool	1.0	2.0 - 4.0	5.0
	Spa	2.0	3.0 - 5.0	10.0
Total Bromine, ppm	Pool/Spa	2.0	4.0 - 6.0	10.0
pH	Pool/Spa	7.2	7.4 - 7.6	7.8
Total Alkalinity, ppm	Pool / Spa	60	80 - 100* 100 - 120**	180
Calcium Hardness, ppm as CaCO ₃	Pool	150	200 - 400	1000
	Spa	100	150 - 250	800
Cyanuric Acid, ppm	Pool/Spa	0	30 - 50	***

* For Calcium Hypochlorite, Lithium Hypochlorite, or Sodium Hypochlorite

** For Sodium Dichlor, Trichlor, Chlorite gas, BCDMH (Bromine Tablets).

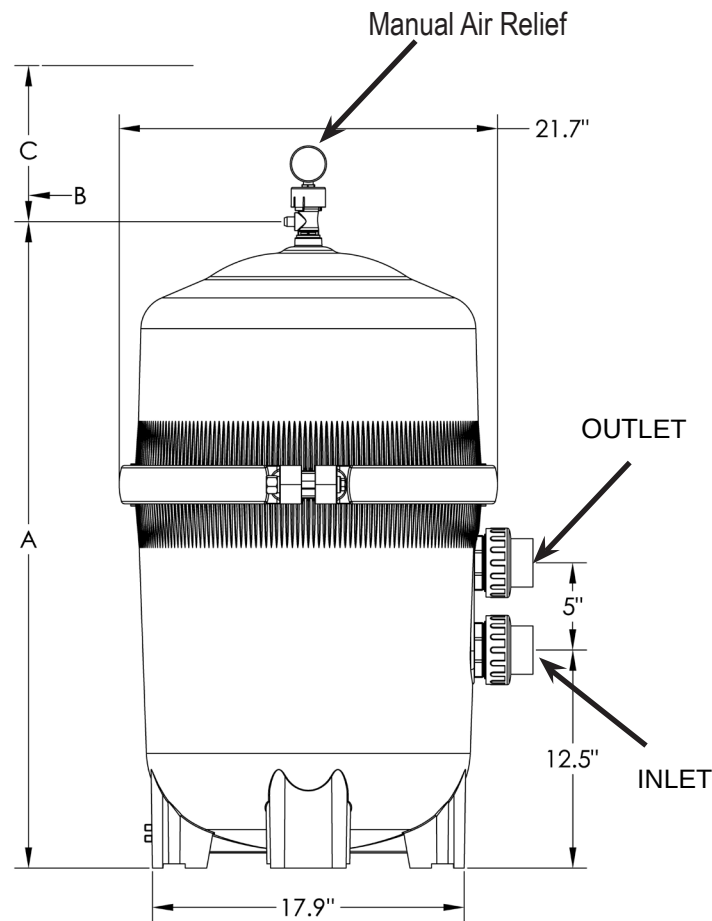
*** Dictated by state or local codes. Typically 100 ppm.

NOTE: PPM = parts per million

Specifications

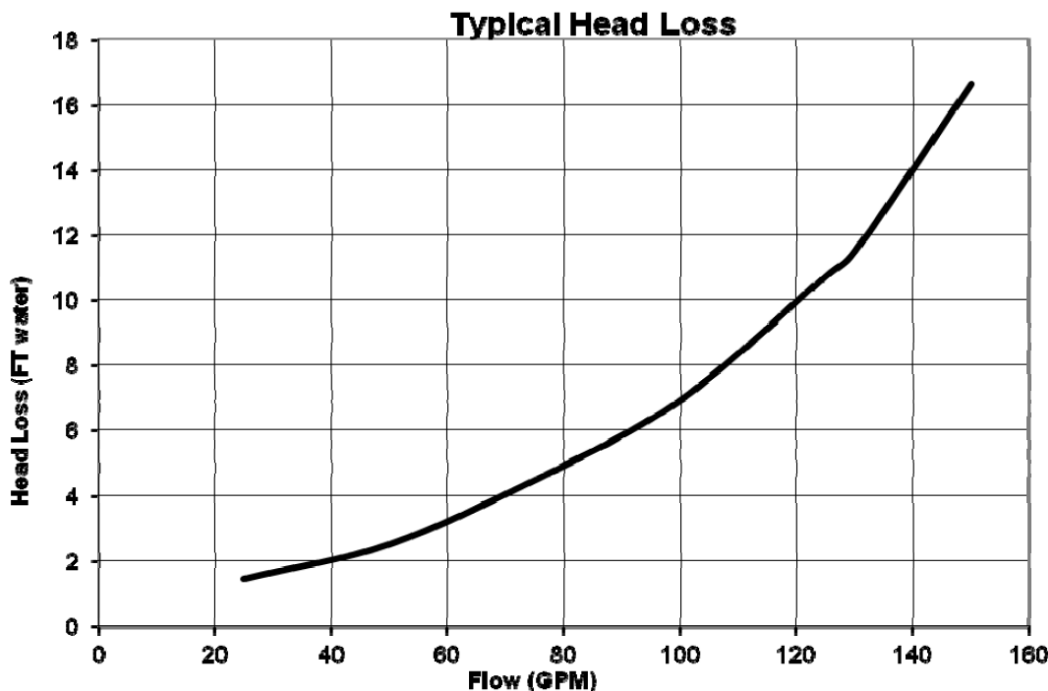
COMMON SPECIFICATIONS

Maximum Operating
Pressure: 50 psi (345 kPa)
Maximum Continuous Water
Temperature: 104° F (40° C)



	A		REQUIRED CLEARANCE			
			"B" SIDE		"C" ABOVE	
	IN	CM	IN	CM	IN	CM
APF425PRO	37	94	18	46	16	48
APF525PRO	44.3	112.5	18	46	22	56

TOP MANIFOLD CARTRIDGE FILTERS					
MODEL	EFFECTIVE FILTRATION RATE		DESIGN FLOWRATE		Net.Weight
	FT ²	M ²	Residential GPM	Commercial LPM	
APF425PRO	425	39.5	150	568	30
APF525PRO	525	48.8	150	568	35
MAXIMUM WORKING PRESSURE FOR ALL MODELS 50 PSI (3.45 BAR)					



Operating Instructions and Parts List

Installation Procedures

This filter should only be installed by qualified personnel.

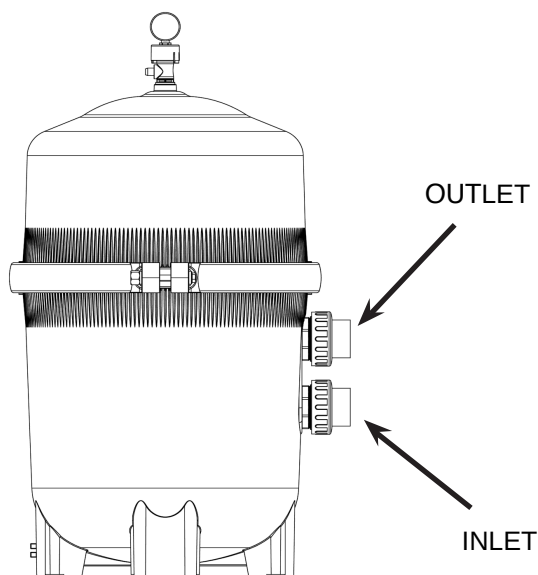
EQUIPMENT INSPECTION

Carefully inspect equipment before installing. Occasionally, products are damaged in transit. Any damaged filter components can cause failure and should be replaced immediately.

1. The filter system should be installed on a level concrete slab or other rigid base. Select a well drained and vented area, one that does not flood when it rains. Position the filter so that the piping connections, and winter drain are convenient and accessible for operation, service, maintenance and winterizing.
2. Position filter body such that all operation and safety labels are visible.
3. Position filter so the filter will drain by gravity.

4. If practical, place pump and filter in the shade to shield it from continuous, direct heat from the sun.
5. Connect the pool suction plumbing between the skimmer, pool suction outlet (from the pool) and the pump.
6. Connect the pump discharge (pump OUTLET) to the filter INLET.

7. Connect the bottom filter port (filter OUTLET) to the pool return plumbing lines.
 8. Do not locate pump controls over or near filter.
- Verify water discharge from the manual air relief valve (MAR) is directed away from electrical devices.
- 9.



Starting the Pump and Filter System

WARNING



Before Starting the Pump

1. Use **ONLY** Original components; Non-Original clamp components may fail in use and cause explosive component separation. Verify that upper and lower filter bodies are properly secured with the filter body clamp. Never rely on hand tightening the clamp nut to the clamp bolt. Using a $\frac{3}{4}$ " socket on a torque wrench, torque clamp nut to clamp bolt to 150 inch-lbs. (See Fig 1) Verify that the filter manual air relief body is in the LOCK position, and no filter components are missing, damaged or not genuine Intermatic components. (See Fig 2)
2. Close filter drain. **NOTE:** Filter plug requires an o-ring seal. (See Fig 4)
3. Open all system valves to allow water from the pool to the filtration system and from the filter to return to the pool.

4. Place the manual air relief valve in OPEN position. (See Fig 2)

Starting Pump

1. When starting system pump, do not stand over or near filter. If water leakage appears at filter tank clamp, immediately turn off all system circulation pumps and all electrical power. Do not return to the filter until all water leakage has stopped. Reassemble the clamp system per the instructions on page 7 in this owner's manual to stop leak.
2. Return to filter to CLOSE manual air relief valve only when a steady stream of water (not air or, air and water mix) is discharged from the manual air relief valve.

OPERATION

WARNING

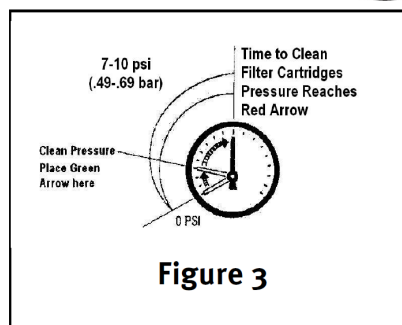


Figure 3

- If system is equipped with an inline

FILTERING

Filtration starts as soon as flow is steady through the filter. As the filter removes dirt from the pool water, the accumulated dirt causes a resistance to flow. As a result, the gauge pressure will rise and the flow will decrease. When the pressure rises between 7 and 10 psi (.49 - .69 bar) above the starting pressure, or when the flow decreases below the desired rate, clean or replace the filter cartridge elements. Once your filter is running and there is a pressure reading, line up the green arrow with the current reading. (See Fig 3) When the pressure rises to or above the red or second arrow, it is time to clean or replace your filter cartridge elements.

By recording the initial starting pressure (with clean filter elements) a determination can be made when the filter cartridge elements should be replaced rather than cleaned. After the filter elements have been cleaned and reinstalled if the starting pressure is higher than 6 PSI above the starting pressure with the new filter cartridge elements, the filter cartridge elements should be replaced the next time the gauge arrow reaches the red arrow.

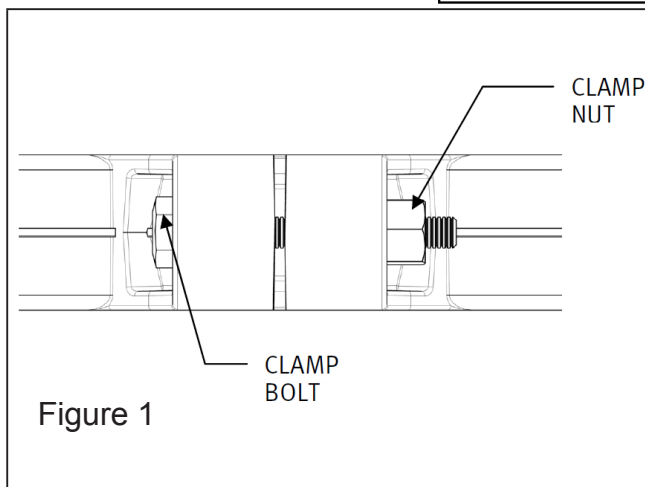


Figure 1

Manual Air Relief shown open

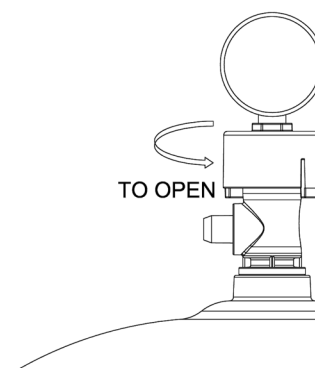


Figure 2

MAINTAINING YOUR FILTER

WARNING



 This product should be installed and serviced only by a qualified pool professional.

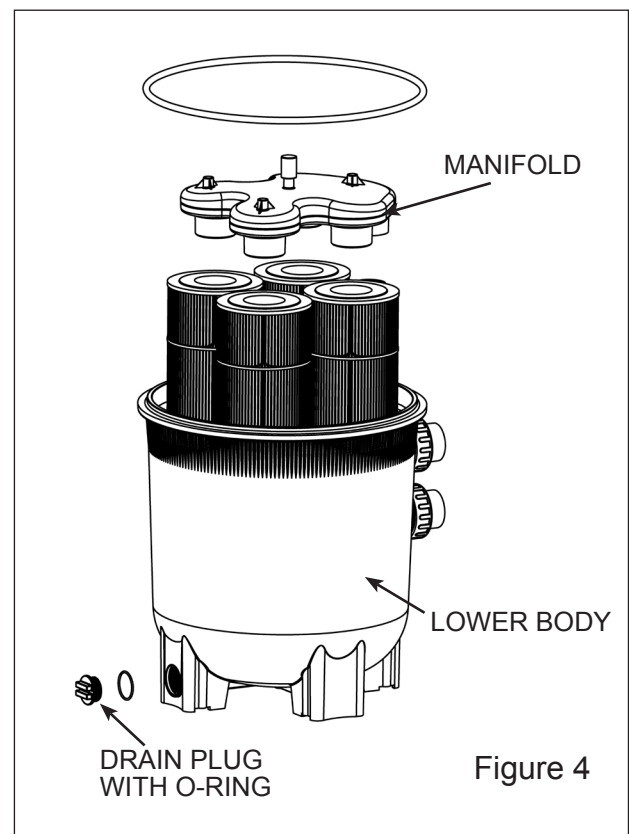
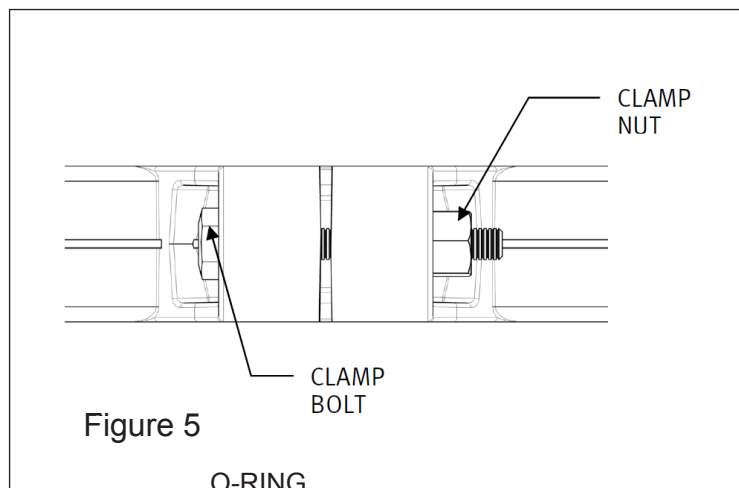
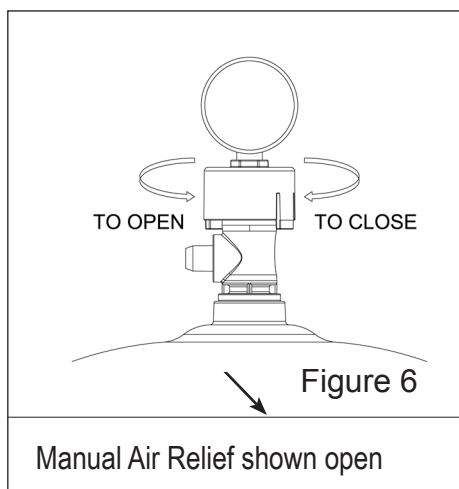
FILTER DISASSEMBLY INSTRUCTIONS

1. Turn off all system circulation pumps and all electric power on the equipment pad.
2. Set all system valves in a position to prevent water flow to the filter.
3. The manual air relief valve must be placed in the OPEN position. (Fig 6)
4. Remove filter drain plug (Fig 4) and drain water from filter.
5. Using 3/4" wrenches or hex sockets, loosen and remove the clamp nut and the clamp bolt. (Fig 5)

6. Holding both ends of the filter clamp carefully spread the clamp ends. Remove the clamp by lifting over the upper filter body. Do not drop the clamp during removal, because the clamp could be damaged. Do not strike the clamp with metal tools as they can damage the clamp.
7. Lift off upper filter body. Do not use the pressure gauge to lift the upper filter body.

REMOVING CARTRIDGES

1. Remove the top Manifold, which is exposed when the upper filter body is removed. (Fig 4)
2. Remove the filter cartridge elements by using slight rocking motion and lifting up.
3. Clean filter cartridge elements



NOTICE

The pressure gauge is the primary indicator of filter performance. Maintain the pressure gauge in good working order. If the gauge is damaged, replace it immediately.

Cartridge Cleaning

When to clean the filter: The filter cartridge should normally be removed and cleaned when the pressure gauge reads 8 psi to 10 psi (55 kPa - 69 kPa) above the start-up pressure noted below:

Installation date: _____

Start-up pressure: _____

Cleaning pressure: _____

In some pools and spas, accessories such as fountains, waterfalls, and pool cleaners may be noticeably affected by the normal decrease in flow as the filter becomes dirty. If so, these systems may require more frequent cleaning (that is, at a pressure increase of less than 10 psi) to operate properly.

NOTICE

When using PHMB (polyhexamethylene biguanide) based sanitizers, such as Baquacil®, special care must be taken when cleaning the cartridge. Cartridges in systems using these sanitizers must be cleaned more frequently and thoroughly than chlorine systems. PHMB based sanitizers also require the use of special PHMB cleaners. Carefully follow the PHMB sanitizer/cleaner manufacturer's instructions when cleaning the filter. Use of any other type of cleansers with PHMB sanitizers will permanently clog the filter and will void the filter warranty

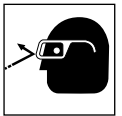
NOTICE

Failure to remove all oils and cleaning solution before soaking cartridge in acid will permanently damage the filter cartridge.

If the filter has a coating of algae, calcium carbonate (residue from calcium hypochlorite), iron or other minerals, soak the cartridge in a solution of one part muriatic acid to twenty parts water (6 fl oz per gallon of water) until all bubbling stops.

⚠ WARNING

Wear rubber gloves, protective clothing and safety goggles when using acid. Do not add water to acid, as splashing of full strength acid could result.

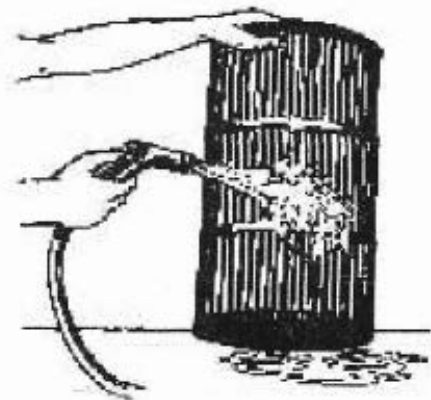


Thoroughly rinse the cartridge to remove all acid solution.

NOTICE

When this procedure no longer adequately cleans the cartridge, discard the cartridge and replace it with a new one.

Carefully follow the steps in the "Filter Assembly" section of this manual.



Filter Re-Assembly Instructions

⚠ WARNING

RE-INSTALLING CARTRIDGES

1. Flush and drain any dirt or debris from the bottom of the lower filter body.
2. Flush any dirt or debris from the upper upper body and from around the manual air relief area.
3. Carefully replace the cartridges over the hubs on the bottom seal plate.
4. Place top manifold securely on top of cartridges, aligning the return pipe with the port in the manifold.

CLEAN SEAL RING AND SEAL SURFACE

1. Remove filter tank seal
2. With a clean cloth, wipe the lower filter body seal surface and clean seal of all dirt and debris. (Fig 4) Do not use a solvent.
3. With a clean cloth wipe the upper filter body seal surface.

⚠ Notice: • Do not use any petroleum solvents to clean filter components.

- Do not lubricate seal.

⚠ WARNING



⚠ This product should be installed and serviced only by a qualified pool professional.

BODY AND CLAMP RE-ASSEMBLY

1. Place the metal reinforced seal on lower filter body. (Fig 4) Place upper filter body on metal reinforced seal and lower filter body in a position which allows all operation and safety labels to be clearly visible and the upper filter body to be centered on the lower filter body. Press down firmly and evenly on the upper filter body to seat the seal. (Fig 7)
2. Replace the filter clamp around the upper and lower filter bodies. Hold the clamp ends to position the clamp on the filter bodies with the clamp ends adjacent to the safety and operation labels on the filter bodies. (Fig 7)
3. Insert clamp bolt through the clamp ends and thread the clamp nut onto clamp bolt with rounded end of the nut (Fig 8) towards the ends of the clamp.

4. Never rely on hand tightening of clamp nut to clamp bolt. Using a 3/4" socket on a torque wrench, torque clamp nut to clamp bolt to 150 inch-lbs. (Fig 9)

⚠ DO NOT HIT OR STRIKE CLAMP WITH HAMMER OR METAL TOOLS.

- 5.

"Starting the Pump and Filter System" (Page 5).

VACUUMING POOL

Vacuuming can be performed directly into the filter whenever needed. Clean cartridges after vacuuming, if required.

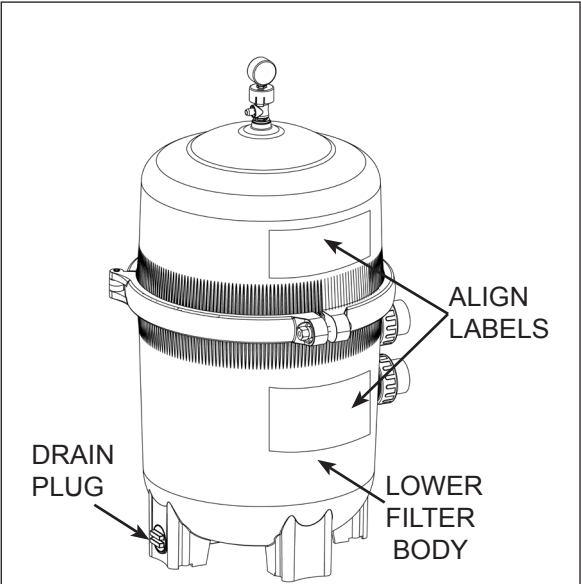


Figure 7

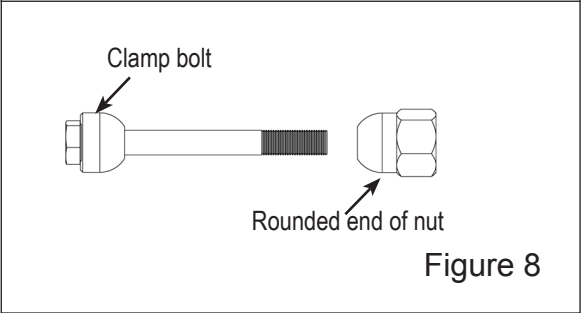


Figure 8

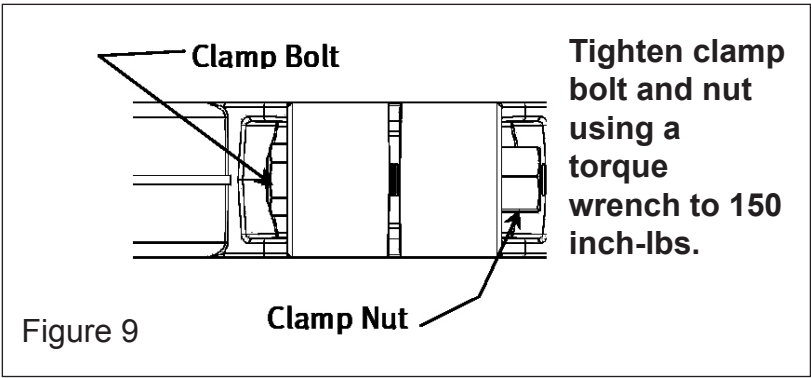


Figure 9

REMOVING THE MANUAL AIR RELIEF VALVE

⚠ WARNING



⚠ This product should be installed and serviced only by a qualified pool professional.

Your Filter comes with a Manual Air Relief Valve (MAR) preinstalled from the factory.

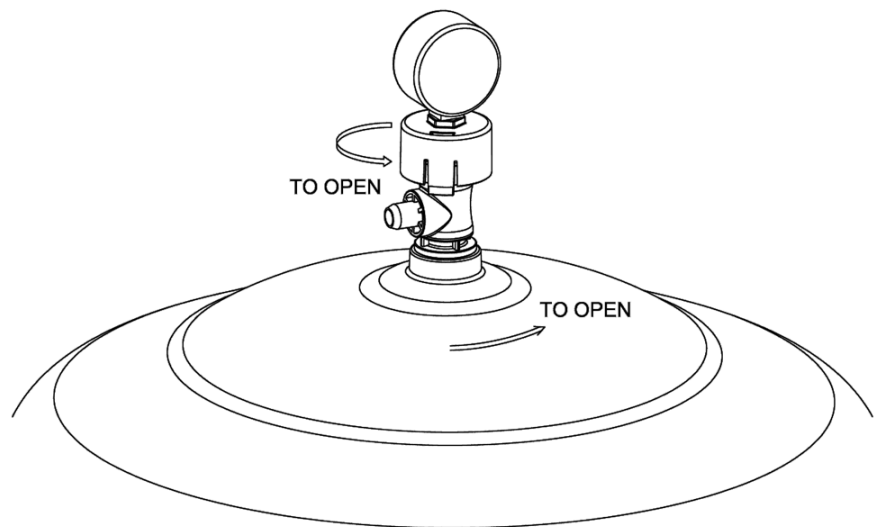
For Qualified pool professionals only: If MAR valve needs to be serviced, follow these instructions carefully.

1. Turn off all system circulation pumps and all electric power on the equipment pad.
2. Set all system valves in a position to prevent water from flowing to the filter.
3. The manual air relief valve must be placed in the OPEN position.
4. Wait until all water leakage has stopped.
5. The air relief valve can be removed by screwing the whole parts counter clockwise.

⚠ This product should be installed and serviced only by a qualified pool professional. RE-INSTALLATION OF THE MANUAL AIR RELIEF VALVE

1. Check the o-ring seals, replace as needed.
2. With a clean cloth, wipe upper filter body and o-ring groove. Remove all dirt and debris.
3. Align the notch in the MAR Flange with notch on top of the upper filter body.
4. Press the MAR straight down into the upper filter body.
5. Turn the MAR clockwise until the indicator is aligned with the "LOCK" position on the upper filter body.
6. Verify the MAR discharge points away from all electrical connections.

Figure 10



System Inspection

The pool circulation system should be frequently inspected for debris and signs of leaks.

⚠ WARNING *Any time the system is opened, air must be bled from the filter using the air relief valve. Air trapped in the system can cause an explosion.*

1. **Ensure pump is OFF.** Turn off any automatic controls and lock out / tag out switches and / or circuit breakers to ensure the system cannot inadvertently turn on.

⚠ WARNING *Verify power is removed from the system. Disconnect, tag and lock out power source before attempting to install, service, relocate or perform any maintenance.*

2. Close system isolation valves, if installed.
3. Remove debris from the pool skimmer basket.
4. Open the air relief valve to release any pressure in the system.
5. Check system for signs of leaks. If found, consult the owner's manual of the leaking equipment.
6. Remove pump trap cover and basket; remove debris. Refer to the pump owner's manual for more specific information.
7. Replace the pump basket and trap cover according to the pump owner's manual.
8. Open system isolation valves, if installed.
9. With the air relief valve open, stand clear of the filter and start the pump.
10. Once a steady stream of water flows from the air relief valve, close the valve.

NOTICE

Do not over tighten valve. If the valve fails to seal, turn the pump off, remove the top assembly and inspect the valve o-ring. Reseat or replace if necessary.

11. When the system has returned to normal operation, check the filter operating pressure. If the filter pressure is 8 psi to 10 psi (55 kPa - 69 kPa) above the start-up pressure, the filter needs to be cleaned. Refer to the "Cartridge Cleaning" section of this owner's manual (Page 8).

Winterizing

Protect the filter from freezing. If possible, take the system indoors for storage.

1. **Ensure pump is OFF.** Turn off any automatic controls and lock out / tag out switches and / or circuit breakers to ensure the system cannot inadvertently turn on.

⚠ WARNING *Verify power is removed from the system. Disconnect, tag and lock out power source before attempting to install, service, relocate or perform any maintenance.*

2. Clean the filter. Refer to the "Cartridge Cleaning" section of this owner's manual.
3. Remove the filter cartridge and store in a warm, dry area. Protect the cartridge from sunlight.
4. Cover the filter with plastic or a tarp to prevent water from entering the assembly and freezing.

NOTICE

Failure to follow the above steps could cause the filter assembly to expand and crack. This will void the warranty.

Troubleshooting Guide

Short Cycle Time

Cycle time will vary between installations and different areas of the country. The following remedies are for cycle times shorter than normal:

- New pool/spa installation: Until the water in a new pool is completely filtered, cycle time will be short due to plaster dust and construction debris. Thoroughly clean the cartridge. Refer to the "Cartridge Cleaning" section of this owner's manual.
- Low chlorine residual: Maintain proper chlorine residual (consult local pool professional for recommendation.)
- Dirty or plugged filter cartridge: Thoroughly clean the filter. Follow the instructions in the "Cartridge Cleaning" section of this owner's manual.
- Excessive air in filter: Vent all air from the filter tank and check system for suction pipe leaks or low water level. Also, check and clean air bleed tube (See Figure 5).

- Chemical imbalance in water: Check pool chemistry (refer to Table 1 on page 3). Consult local pool professional.
- Algae in system: Apply heavy dose of chlorine or algicide as recommended by the pool manufacturer and/or local professional.
- Cartridge is at the end of its life: When cleaning procedure no longer adequately cleans the cartridge, replace the cartridge.

Low Flow / High Pressure

Resistance in or after the filter will reduce the flow and increase the pressure inside the filter. Check the following to remedy this problem:

- Dirty or plugged filter cartridge: Thoroughly clean the filter. Follow the instructions in the "Cartridge Cleaning" section of this owner's manual (Page 8).
 - Piping is blocked downstream from the filter: Remove the obstruction.
 - Return valve is not fully open: Fully open return valve
 - Piping is too small: Use larger pipe. Consult pool manufacturer.
 - Filter is undersized / pump is oversized: Use a filter with higher square footage or use a smaller HP pump. Consult a customer service representative for sizing information at 815-675-7000.
- Drain and skimmer valves are not fully open: Fully open the drain and skimmer valves
 - Piping is blocked upstream from the filter: Remove the obstruction.

Plugged Cartridge

Over time, the filter media will become clogged and will not perform properly. If the cartridge cannot be cleaned, replace it. If the cartridge needs replacement often, check the following:

- Insufficient cleaning: Closely follow the instructions in the "Cartridge Cleaning" section of this owner's manual (Page 8).
- Excessive air in filter: Vent all air from the filter tank and check system for suction pipe leaks. Also, check and clean air bleed tube (See Figure 5).
- Low chlorine residual: Maintain proper residual (consult local pool professional.)
- Chemical imbalance in water: Check pool chemistry (refer to Table 1 on page 3). Consult local pool professional.
- Algae in system: Apply heavy dose of chlorine or algicide as recommended by the pool manufacturer and/or local professional.
- High iron content in water: Consult local pool professional.
- Improper use of powdered chlorine tablets containing binders: Consult local pool professional.
- Cleaning with incorrect chemicals when using PHMB sanitizers: Replace the filter cartridge. Only use cleaners specifically made for PHMB sanitizers.

Low Flow / Low Pressure

Resistance before the filter will reduce the flow and pressure inside the filter. Check the following to remedy this problem:

- Skimmer basket(s) clogged: Thoroughly clean the skimmer basket(s).
- Pump plugged: Thoroughly clean the suction trap in the pump.

Water Not Clear

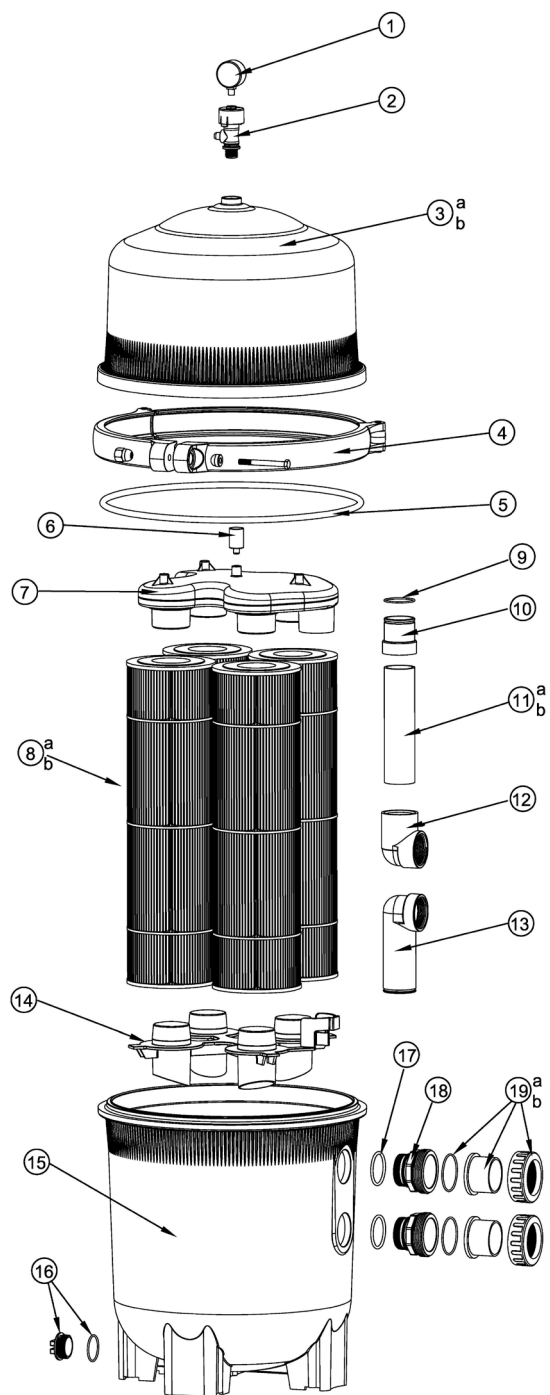
A number of factors can affect water clarity. The following causes should be checked:

- Chemical imbalance in water: Check pool chemistry (refer to Table 1 on page 3). Consult local pool professional.
- Low chlorine residual: Maintain proper chlorine residual (consult local pool professional for recommendation).
- Damaged filter cartridge: If cartridge is torn or punctured, replace it.
- High iron content in water: Consult local pool professional.
- Improper use of powdered chlorine tablets containing binders: Consult local pool professional.
- Algae in system: Apply heavy dose of chlorine or algicide as recommended by the pool manufacturer and/or local professional.

Automatic Pool Cleaner Stops Working

Pool cleaners may be noticeably affected by the normal decrease in flow as the filter becomes clogged. If the filter stops working, thoroughly clean the cartridge. Refer to the "Cartridge Cleaning" section of this owner's manual (Page 8). If the pool cleaner performs better after the filter is cleaned, clean the filter more often than recommended [Note: pressure increase from start-up may be less than 8 psi to 10 psi (55 kPa - 69 kPa)].

Item	Part No.	Description	QTY
1	42500-001	Pressure Gauge	1
2	42501-001	Manual Air Relief Assembly	1
3A	42502-001	Upper Filter Body (425)	1
3B	42502-002	Upper Filter Body (525)	1
4	42503-001	Clamp System	1
5	42504-001	O-Ring	1
6	42505-001	Air Relief Filter	1
7	42506-001	Top Manifold	1
8A	42507-001	Cartridge Element (425)	4
8B	42507-002	Cartridge Element (525)	4
9	42508-001	O-Ring	1
10	42509-001	Adaptor	1
11A	42510-001	Outlet Pipe	1
12	42511-001	Outlet Elbow	1
13	42511-002	Inlet Elbow	1
14	42512-001	Bottom Seal Plate	1
15	42513-001	Lower Filter Body	1
16	42514-001	1 1/2" Drain Plug w/ O-Ring	1
17	42515-001	O-Ring	2
18	42516-001	Bulkhead Fitting	2
19A	42517-001	Union Connection Kit	2



Limited Warranty

For one (1) year from the date of purchase, will repair or replace, at its option, for the original owner any parts of its filters ("Product") which are found upon examination to be defective in materials or workmanship. This Limited Warranty covers labor for a period of one (1) year.

Please call 815-675-7000 for instructions. Be prepared to provide a receipt, the model number and serial number when exercising this limited warranty.

Purchaser must pay all transportation charges on Products or parts submitted for repair or replacement.

All non-warranty service charges are the responsibility of the original owner. Failure to pay for non-warranty service charges will void this Limited Warranty.

This Limited Warranty does not cover Products that have been damaged as a result of accident, freezing, abuse, misuse, neglect, improper installation, improper maintenance or failure to operate in accordance with written instructions. All maintenance and service must be performed by service agents approved. Any unauthorized alteration or repairs will void this Limited Warranty.

THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE (1) YEAR FROM THE DATE OF PURCHASE. THIS IS THE EXCLUSIVE REMEDY AND ANY LIABILITY FOR ANY AND ALL INDIRECT OR CONSEQUENTIAL DAMAGES OR EXPENSES WHATSOEVER IS EXCLUDED.

Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusions or limitations of incidental or consequential damages, so the above limitations might not apply to you. This limited warranty gives you specific legal rights, and you may also have other legal rights which vary from state to state.

In no event, whether as a result of breach of contract warranty, tort (including negligence) or otherwise, shall its suppliers be liable for any special, consequential, incidental or penal damages including, but not limited to loss of profit or revenues, loss of use of the products or any associated equipment, damage to associated equipment, cost of capital, cost of substitute products, facilities, services or replacement power, downtime costs, or claims of buyer's customers for such damages.

This Limited Warranty does not include freight charges for equipment or component parts, to and from the factory, services such as maintenance or inspection, repair or damage due to negligence such as freezing conditions, incorrect installation, nor acts of God. The liability shall not exceed the repair or replacement of defective parts under this Limited Warranty. This Limited Warranty also does not include unnecessary service calls due to erroneous operational reports, external valve positions, or electrical service. If a non-warranty service call is made, and the homeowner is unwilling to pay for the service call, this Limited Warranty will be voided. This Limited Warranty is voided if the product is repaired or altered by any persons or agencies other than those authorized. This Limited warranty applies only within the continental USA. For warranty outside the continental USA.

You **MUST** retain your purchase receipt along with this form. In the event you need to exercise a warranty claim, you **MUST** present a **copy** of the purchase receipt at the time of service. Please call 815-675-7000 for service or return authorization and instructions.

DO NOT MAIL THIS FORM. Use this form only to maintain your records.

MODEL NO. _____ SERIAL NO. _____ INSTALLATION DATE _____