

# D.E. FILTER FOR POOLS & SPAS FILTRES T.D. POUR PISCINES ET SPAS FILTRO DE D.E. PARA PISCINAS Y TINAS DE HIDROMASAJE

OWNER'S MANUAL 

MANUEL DU PROPRIÉTAIRE 

MANUAL DEL USUARIO



59725-XXXX, 59726-XXXX and 59727-XXXX 815.675.7000 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 use diatomaceous earth (D.E.) to remove debris and particulates from permanently installed swimming pools and spas. D.E. is a form of sedimentary rock that contains fossilized remains of one-celled algae called diatoms. When ground into a powder and applied to a filter element, D.E. makes an excellent filter media by trapping debris in the microscopic holes in the fossils. After it becomes clogged with debris, the spent D.E. can easily be washed away so a new, fresh coat can be applied. This filter is equipped with a cartridgestyle filter element that can be easily removed for cleaning or replacement.

# **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.

# **A DANGER**

Danger indicates an imminently

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.



#### **A 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.

# **▲** WARNING

Wear rubber

gloves, protective clothing and eyewear 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)

**A WARNING**Risk 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.

# **A 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.

**A 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 877-278-2797 to talk to a representative.

# TABLE 1

INDUSTRY STANDARD	POOL / SPA	MINIMUM	IDEAL WATER CHEMISTRY	MAXIMUM
Free Chlorine,	Pool	1.0	2.0 - 4.0	5.0
ppm	Spa	2.0	3.0 - 5.0	10.0
Total Bromine, ppm	Pool/Spa	2.0	4.0 - 6.0	10.0
рН	Pool/Spa	7.2	7.4 - 7.6	7.8
Total Alkalinity, ppm	Pool / Spa	60	80 - 100* 100 - 120**	180
Calcium	Pool	150	200 - 400	1000
Hardness, ppm as CaCO₃	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) Pressure gauge - Relief valve Locking ring Inlet: 2 inch NPT Safety latch 16 -7/8 inch Drain: 2 inch NPT Outlet: 2 inch NPT 3-1/8 inch **←** 12-1/4 inch DIA. **Figure 1 - Filter Dimensions** 6-7/32 inch 8-5/16 inch

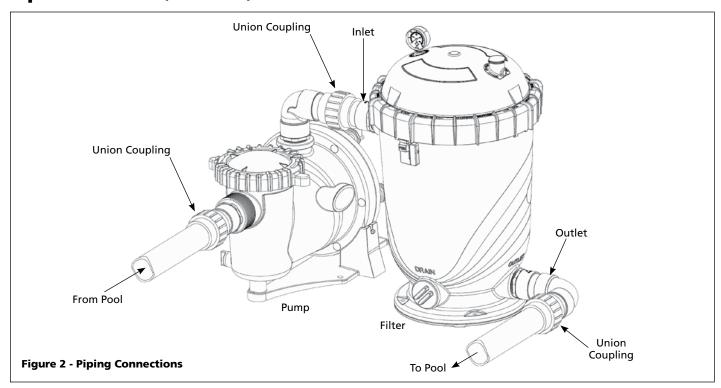
**Table 2: Model Specific Specifications** 

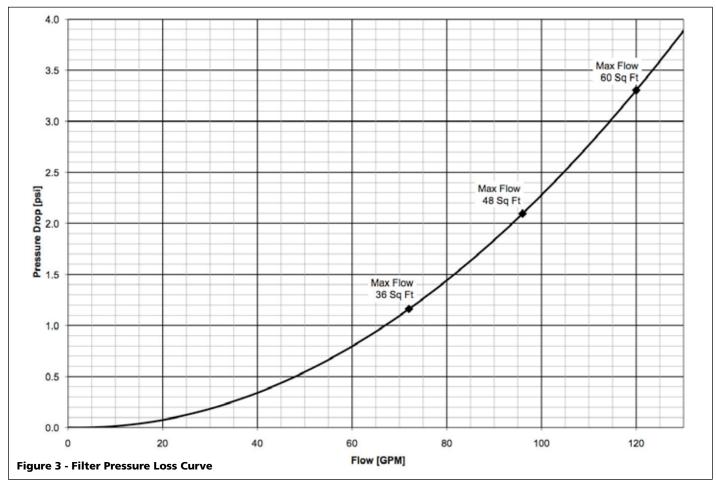
Model Number	59725-XXXX	59726-XXXX	59727-XXXX
Filter Area Sq. Ft. (m²)	36 (3.3)	48 (4.5)	60 (5.6)
Maximum Flow Rate* GPM (LPM) [Gal Turnover 6hr/8hr]	72 (273) [26,000/35,000]	96 (363) [35,000/46,000]	120 (454) [43,000/58,000]
Weight of D.E. Precoat Lbs. (kg)	3.5 (1.6)	4.5 (2.0)	5.5 (2.5)
Minimum Service Clearance** "A" inches (mm)	38-1/4 (972)	45-1/2 (1156)	45-1/2 (1156)
Filter Height "B" inches (mm)	26-5/8 (676)	34 (864)	34 (864)

<sup>\*</sup> Note: Maximum Flow rate = 2.0 GPM /Sq Ft. of filter area. Actual system flow will depend on plumbing size, length, operating pressure, bends, and other system components.

<sup>\*\*</sup> Note: Min. Service Clearance is the height required to remove the filter cartridge from the tank base for service. The height required to just remove the top assembly is less than this height.

# **Specifications** (Continued)





# **Installation Procedures**

This filter should only be installed by qualified personnel.

#### **EOUIPMENT INSPECTION**

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

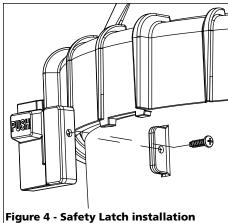
#### **EQUIPMENT LOCATION**

- Mount the filter on a level concrete slab. The base of this filter has four mounting holes to provide for secure anchoring to the slab, (mounting screws are not included).
- Provide a minimum of 6 inches of clearance around the filter from walls or structure to permit visual inspection of the unit.
- Provide sufficient clearance above the filter to remove the filter top assembly for servicing and cleaning. The amount of clearance varies by model. Refer to Table 2 on page 4 for the required clearance.
- Install electrical controls at least 5 feet from the filter.
- Locate equipment out of direct sunlight to prolong the life of the equipment.
- Position the filter so that piping connections, control valves, drain and safety latch are accessible for servicing and winterizing. If necessary, the safety latch can be moved to the opposite side of filter tank to provide easier access (See Figure 4).

**▲** WARNING

Do not operate the filter without the

safety latch in place. Doing so could result in the locking ring loosening from the filter tank, causing system failure.



#### **PLUMBING**

NOTICE

Ensure filter and all piping can be drained for winterizing.

NOTICE

Over-tiahtenina fittings can crack

filter ports.

NOTICE

Do not use pipe thread compounds

to seal connections. They will damage the housing material, causing the connection to crack and leak. Only use thread sealant tape, (or equivalent sealant that is designed for plastics) on threaded connections to filter ports.

- Piping must conform to local/state plumbing and building codes.
- Support pipe independently to prevent strains on the filter.
- For ease of maintenance, install union couplings near inlet and outlet ports.
- Valves installed near both inlet and outlet of filter will isolate the filter and ease servicing.
- Install heater downstream of filter. Install check valve between filter and heater to prevent hot water from backing up into filter if heater does not incorporate one. Damage to filter modules caused by excessive heat will void the warranty.
- A check valve installed before the filter inlet will prevent contaminants from draining back into the pool.
- A valve and piping installed on the drain port will help divert water away from the equipment area when servicing the filter.

If system is equipped with an inline chlorinator or chlorine generating system, install the filter upstream of these items. Install a check valve between the filter and the chlorinator to prevent highly chlorinated water from entering the filter.

#### **ELECTRICAL**

Ensure filter grounding and bonding meets local and national codes.

#### **ASSEMBLY**

This filter is pre-assembled at the factory. The only assembly required at installation is the installation of the pressure gauge and placement of the safety latch.

#### Pressure Gauge

Use thread sealant tape to seal the threads of the gauge. Install the pressure gauge in the 1/4 inch NPT port in the top of the filter (marked "Pressure Gauge").

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.

#### Safety Latch

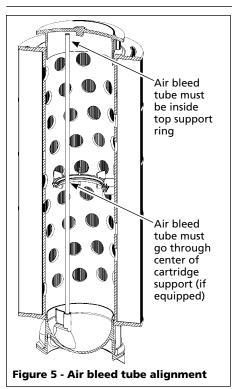
If necessary, the safety latch can be moved to the opposite side of the filter tank to provide easier access (See Figure 4).

#### Air Bleed Tube

When installing the cartridge in the filter base, ensure the tube is inserted in the center portion of the cartridge support, if equipped (See Figure 5). This will help to ensure the tube is correctly positioned inside the top support ring of the filter housing.

#### **NEW POOL/SPA INSTALLATIONS**

- Thoroughly clean a new pool before filling pool and operating filter.
- A typical pool installation requires approximately one week of operation to obtain final clarity.
- After initial cleanup, follow the instructions in the "Cartridge Cleaning section of this owner's manual (Page 8).



# **Initial Start-Up**

**▲ WARNING** 

Do not operate filter at more than

50 psi (345 kPa).

**NOTICE**To prevent damage to the cartridge

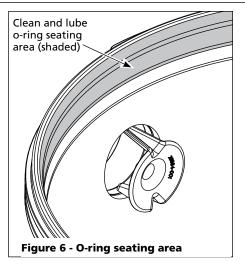
fabric, do not run the filter more than 2-3 minutes without a D.E. pre-coat. Use D.E. that is sold and labeled specifically for pools and spas. Do not use more than the recommended amount of D.E. as it will clog the filter. Do not use less than the recommended amount as it will not fully coat the fabric and will shorten the life of the cartridge.

 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.

- Install the filter cartridge in the base of the tank, being careful to avoid the flow diverter in the inlet. Ensure the air bleed tube is correctly installed (Figure 5). Push down firmly to seal the cartridge.
- 3. Clean the o-ring seating area on the inside of the base (Figure 6). Lightly lubricate with silicone based grease.



#### NOTICE

Only use silicone based grease to

lubricate the o-ring. Other lubricants may damage the o-ring and plastic filter components. Do not lubricate the threads on the tank base or the locking ring, as they may collect debris and hinder removal.

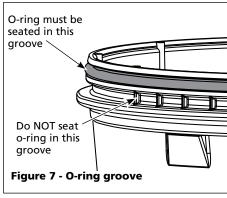
4. Inspect o-ring. Ensure the o-ring is clean and properly seated in the o-ring groove (Figure 7). The o-ring should not be twisted.

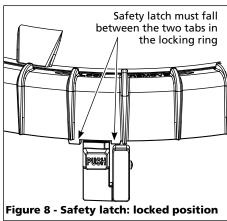
#### NOTICE

Do not remove the o-ring unless it is to

#### be replaced.

- 5. Open the air relief valve by turning it counter-clockwise two full turns.
- 6. Place the top assembly on the filter base, centering it on the cartridge and the base.
- 7. Turn the locking ring counterclockwise until the top assembly falls into place (1/4 turn or less.)
- Holding the locking ring stationary, rotate the top to point the air relief valve in a safe direction (away from the pump and any other electrical components.)
- 9. Secure the locking ring by turning it clockwise until the safety latch clicks into place (approximately 1/2 turn). The latch should fall between the two tabs on the ring (Figure 8). The ring may be slightly loose, but it will tighten when the pump turns on. If the locking ring will not fully engage the latch, turn it counter-clockwise to remove the top assembly and return to step 2, ensuring the cartridge is properly seated and the o-ring is lubricated and properly seated.





- If installed, open the valves separating the filter from the rest of the system.
- 11. Mix a slurry using 1-2 lbs. of D.E. in approximately 4 gallons of water.
- 12. Stand clear of the filter tank.
  Following the pump manufacturer's instructions, start the pump to purge the air from the system.
- 13. Once a steady stream of water flows from the air relief valve, close the valve by pushing it down while turning it clockwise. It should fully tighten in approximately 2 turns.

NOTICE

Do not over-tighten the valve. If the

valve fails to seal, turn the pump off, remove the top assembly and inspect the valve o-ring. Re-seat or replace if necessary.

- 14. Pre-coat the filter by slowly adding the D.E. slurry through the skimmer basket in the pool. Continue to mix the slurry and slowly add to the skimmer basket until the proper amount of D.E. pre-coat is added (refer to Table 2 on page 4).
- 15. Record the filter pressure gauge reading in the "Cartridge Cleaning" section of this owner's manual.

# **Filter Disassembly**

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.

**A 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 filter isolation valves, if installed.
- 3. Open the air relief valve by turning it counter-clockwise two full turns. This will relieve pressure in the tank.
- 4. Remove the drain plug (or open the drain valve) and drain all water from the tank.
- 5. Press the safety latch toward the tank to release it from the locking ring.
- 6. While holding the safety latch in the release position, turn the locking ring counter-clockwise to remove it (approximately 1/2 turn). If the ring is difficult to turn, tap it gently with a rubber mallet to overcome the initial resistance.

# **Cartridge Cleaning**

When to clean the filter: The filter cartridge should normally be removed and cleaned when the pressure gauge reads 10 psi to 12 psi (69 kPa - 83 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.

The cleaning interval is based on pressure rise, not on operation time. Different water conditions will lead to different cleaning intervals.

NOTE: To limit the down time of the filter, keep a second cartridge on hand. This will allow time to properly clean the cartridge and also will allow for immediate replacement should one filter cartridge fail.

**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

- 1. Follow all steps in the "Filter Disassembly" section of this manual.
- 2. With drain plug removed, hose down the cartridge to try and remove as much of the spent D.E. as possible. Flush any foreign material from the inside of the tank before removing the filter cartridge.
- 3. Allow the tank to drain.
- 4. Carefully pull the cartridge straight up from the filter base, avoiding contact with the flow diverter.
- 5. Using a garden hose with a nozzle, clean the cartridge thoroughly. Work from the top down, holding the nozzle at a 45° angle. Spray all the pleats, with emphasis between the pleats, until all dirt, debris and D.E. is gone. Allow the cartridge to drain.
- 6. For cartridges used where perspiration, suntan lotions, and other oils are present, soak the element for at least one hour (overnight is recommended) in one of the following:

- a. Commercial filter cleaner (follow the manufacturer's directions)
- b. Solution of one cup (8 fl oz) trisodium phosphate (TSP) and five gallons water.
- c. Solution of one cup (8 fl oz) dishwasher detergent and five gallons of water.
- 7. Thoroughly rinse the cartridge again to remove cleaning solution and oils.
- 8. Inspect the cartridge for cleanliness and damage. If necessary, repeat the washing process. If the cartridge is damaged, replace it.

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

9. 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.





10. 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

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

# **Filter Assembly**

- Inspect and clean the tank, threads, and o-ring. Replace damaged parts as necessary.
- 2. Install the drain plug in the drain port (or close the drain valve).
- 3. Follow steps 1-14 in the "Initial Start-up" section of this manual.

# **System Inspection**

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

# **▲** WARNING

maintenance.

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.

 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

- 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.
- Check system for signs of leaks. If found, consult the owner's manual of the leaking equipment.
- 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.
- With the air relief valve open, stand clear of the filter and start the pump.

 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 10 psi to 12 psi (69 kPa - 83 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.

 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 (Page 8).
- 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. <u>This will void the warranty</u>.

# **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 (Page 8).
- Improper D.E. Coat: Check cartridge for incomplete or excess D.E. precoat coverage. Refer to "Initial Startup" section of this owner's manual (Page 7).
- Low chlorine residual: Maintain proper chlorine residual (consult local pool professional for recommendation.)
- <u>Dirty or plugged filter cartridge</u>: Thoroughly clean the filter. Follow the instructions in the "Cartridge Cleaning" section of this owner's manual (Page 8).
- <u>Excessive air in filter</u>: 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.
- <u>Cartridge is at the end of its life</u>:
   When cleaning procedure no longer adequately cleans the cartridge, replace the cartridge.
- 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 1-877-278-2797.

#### 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.
- <u>Return valve is not fully open</u>: Fully open return valve
- <u>Piping is too small</u>: 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 1-877-278-2797.

#### **Low Flow / Low Pressure**

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

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

- <u>Drain and skimmer valves are not</u>
   <u>fully open</u>: Fully open the drain and
   skimmer valves
- <u>Piping is blocked upstream from the filter</u>: 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:

- Improper D.E. precoat: Check cartridge for incomplete or excess D.E. precoat coverage. Refer to "Initial Start-Up" section of this owner's manual (Page 7).
- 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).
- <u>Low chlorine residual</u>: Maintain proper residual (consult local pool professional.)
- <u>Chemical imbalance in water</u>: 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.
- <u>High iron content in water</u>: 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.

#### **Water Not Clear**

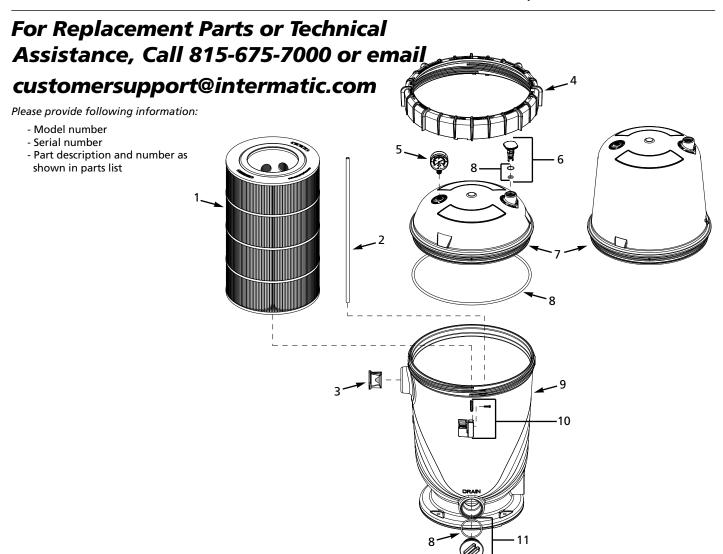
A number of factors can affect water clarity. The following causes should be checked:

 Improper D.E. precoat: Check cartridge for incomplete or excess D.E. precoat coverage. Refer to "Initial Start-Up" section of this owner's manual (Page 7).

- <u>Chemical imbalance in water</u>: Check pool chemistry (refer to Table 1 on page 3). Consult local pool professional.
- <u>Low chlorine residual</u>: Maintain proper chlorine residual (consult local pool professional for recommendation).
- <u>Damaged filter cartridge</u>: If cartridge is torn or punctured, replace it.
- <u>High iron content in water</u>: 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 10 psi to 12 psi (69 kPa - 83 kPa)].



		Part Number by Model		
Item	Description	59725-XXXX	59726-XXXX	59727-XXXX
1	Filter Cartridge	62559-AQP1	62560-AQP1	62561-AQP1
2	Breather Tube	68028-AQP1	68029-AQP1	68029-AQP1
3	Flow Diverter	28584-AQP1	28584-AQP1	28584-AQP1
4	Locking Ring	28576-AQP1	28576-AQP1	28576-AQP1
5	Pressure Gauge	06913-AQP1	06913-AQP1	06913-AQP1
6	Air Relief Valve Assembly (Includes O-rings)	28585-AQP1	28585-AQP1	28585-AQP1
7	Filter Top	28580-AQP2	28581-AQP2	28581-AQP2
8	O-Ring Kit (Includes Lubricant)	19079-AQP1	19079-AQP1	19079-AQP1
9	Filter Base	28574-AQP1	28574-AQP1	28574-AQP1
10	Safety Latch Assembly (Includes Screw)	05736-AQP1	05736-AQP1	05736-AQP1
11	Drain Plug Assembly, 2 inch (Includes O-ring)	28583-AQP1	28583-AQP1	28583-AQP1

# **Limited Warranty**

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

Please call the manufacturer at 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 the manufacturers' written instructions. All maintenance and service must be performed by service agents approved by the manufacturer. 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 the manufacturer or 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 of the manufacturer 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 by the manufacturer. This Limited warranty applies only within the continental USA. For warranty outside the continental USA, contact the manufacturer.

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 TO the manufacturer. Use this form only to maintain your records.				
MODEL NO	SERIAL NO	INSTALLATION DATE		