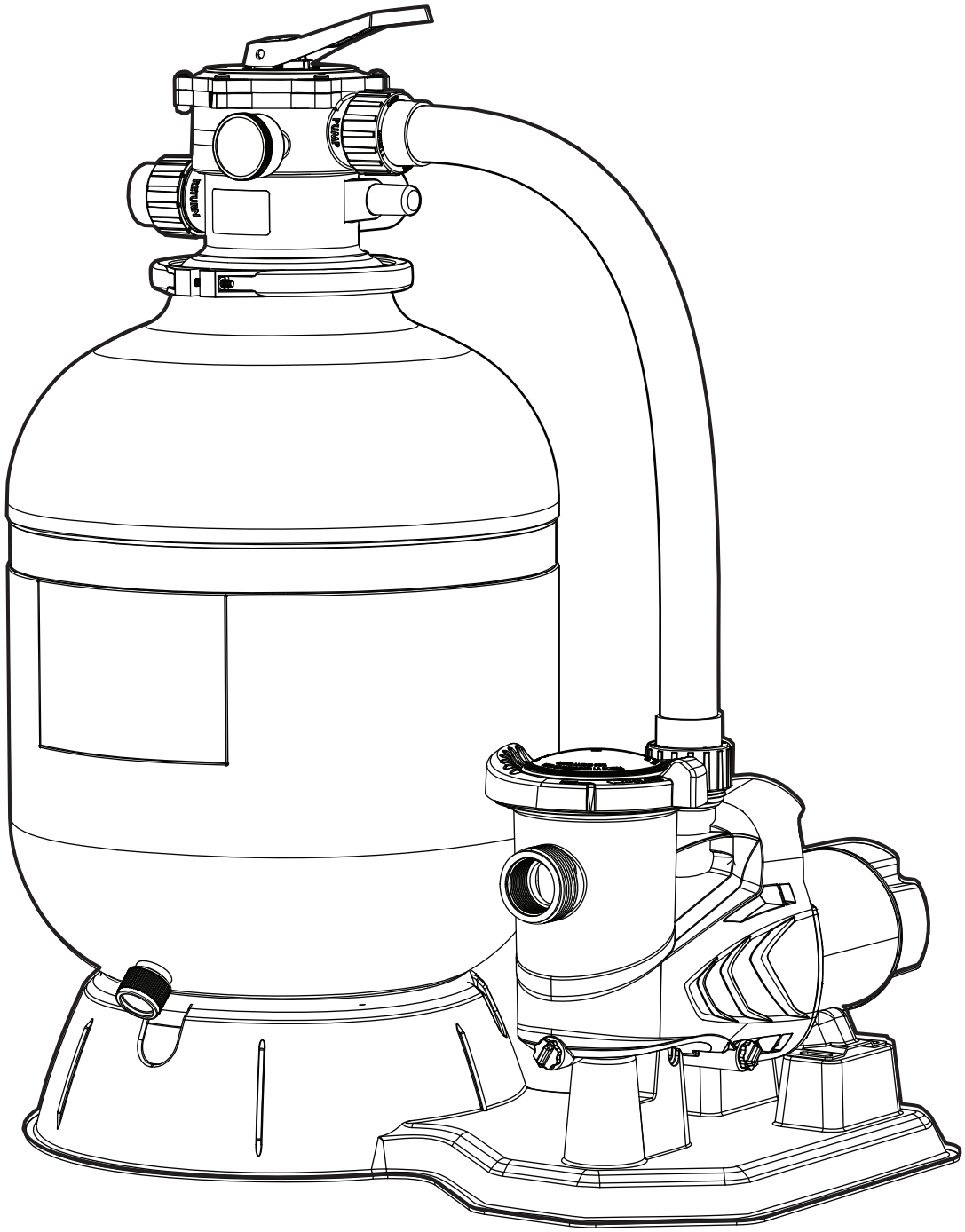
LASER™

LASER™ SAND FILTER SYSTEM

USER MANUAL AND INSTALLATION GUIDE



CARVIN® POOL ÉQUIPEMENT | 4000 boul. Casavant Ouest, Saint-Hyacinthe, Québec, Canada, J2S 9E3
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CARVIN ÉQUIPEMENTS DE PISCINE POOL EQUIPMENT

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INTRODUCTION

Thank you for purchasing the LASER™ Sand Filter System by CARVIN®

We want to help you get the best results from your new product and operate it safely. This manual contains information on how to do that; please read it carefully before installing and using the pool. If a problem should arise, or if you have any questions about your product, consult an authorized CARVIN® retailer or distributor.

READ AND FOLLOW ALL INSTRUCTIONS

Review all instructions provided with the product prior to its installation, startup, operation, shutdown, maintenance or winterizing.

Failure to follow warnings and safety messages may result in property damage or personal injury. The user assumes the bodily or material risks arising from any improper use of this product.

IMPORTANT SAFETY INSTRUCTIONS

Your safety and the safety of others are very important.

This manual provides important safety messages. A safety message alerts you to potential hazards that could hurt you or others. Each safety message is identified by a black box marked, WARNING.

Congratulations! You have purchased one of the most user-friendly pool filter systems available. Ideal for an above-ground pool or in-ground vinyl liner pool, this filter system will provide you with many years of pool enjoyment. This step-by-step installation and maintenance guide will provide the necessary information for you to install your new pool system and easily maintain the equipment.

FILTER MODEL	MAXIMUM FLOW RATE gpm EU/sq. ft. (m3h/m2)	FILTRATION RATE gpm (m3/h)	SAND REQUIRED WEIGHT Lbs (Kilograms)	MAXIMUM PRESSURE PSI (Bars)
L160C	20.0 (48)	27 (6.1)	140 (65)	35 (2.41)
L192C	20.0 (48)	37 (8.4)	200 (91)	50 (3.45)
L225C	20.0 (48)	53 (12.0)	250 (113)	50 (3.45)
L250C	20.0 (48)	66 (15.0)	350 (159)	50 (3.45)

Before installation be sure to read all instructions and warnings carefully. Refer to product label(s) for additional operating instructions and specifications.

INSPECTION
Examine the equipment when received. Notify your dealer or carrier of any damaged or missing parts. Verify that equipment is of size and model specified.

IMPORTANT SAFETY INSTRUCTIONS
When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

⚠ WARNING **RISK OF SUCTION ENTRAPMENT HAZARD WHICH, IF NOT AVOIDED, MAY RESULT IN SERIOUS INJURY OR DEATH.**

Pumps can quickly generate high suction, which poses the risk of entrapment if improperly connected to suction outlets. Disembowelment, entrapment, or drowning is possible when body parts or hair contact damaged, cracked, missing, or unsecured drain covers and suction outlets. **Pumps and fittings shall be installed in accordance with the latest NSPI or IAF standards, CPSC guidelines, and national, state and local codes, to minimize this risk. Some of these requirements are as follows**. Always consult the latest regulations to ensure that your installation meets the necessary requirements to minimize suction entrapment.

1. All fully submerged Suction Outlet Covers shall be listed to ANSI/APSP/ICC-16-2017 standard.
1. Do not use a pump in an installation where there is only one fully submerged single suction outlet.
2. If main drains are installed in your pool, there must be a minimum of two for each pumping system, and each drain must include a Listed Suction Outlet Cover. Wading pools may have additional requirements to minimize entrapment hazards.
3. Skimmers may supply 100% of the required flow to the pump, and must be vented to atmosphere. A skimmer is not considered a second main drain.
4. When two suction outlets are used, the maximum system flow rate shall not exceed the rating of any one of the listed suction outlet covers installed. When more than two are used, the sum of the ratings shall be at least twice the maximum system flow rate.
5. Each Suction Outlet Cover shall be separated by a minimum of three feet (3'), measured from center of suction pipes.
6. Avoid installing check valves. If check valves must be used, ensure that the installation conforms to applicable standards.
7. Never use the pool or spa if a Suction Outlet Cover is damaged, cracked, missing, or not securely attached. Suction outlet cover must be attached with stainless steel screws supplied with the cover. If screws are lost, order replacement parts from your supplier.

⚠ WARNING Risk of hair and/or body entrapment! This system can create high suction power and should be installed with appropriate vacuum release skimmers or multiple suction fittings or both.

⚠ WARNING To reduce risk of injury, do not permit children to use this product unless they are closely supervised at all times.

⚠ WARNING (For cord & plug connected units) Risk of Electric Shock. Connect only to a grounding type receptacle protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the receptacle is protected by a GFCI.

⚠ WARNING (For cord & plug connected units) Do not bury cord. Locate cord to minimize abuse from lawn mowers, hedge trimmers and other equipment.

⚠ WARNING (For cord & plug connected units) To reduce the risk of electric shock, if the cord is damaged, replace it immediately with the same type of cord which is available from your local dealer. The new cord must be installed by a qualified electrician. Inspect the cord annually.

⚠ WARNING (For cord & plug connected units) To reduce the risk of electric shock, do not use an extension cord to connect unit to electric supply; provide a properly located outlet.

⚠ WARNING Install the system at least five feet (5 ft.) (1.5 m) from the pool to prevent it from being used as a means of access to the pool by young children. Consult the specific regulations and codes that apply to your location.

⚠ WARNING Your filter is a pressure vessel and should never be serviced while under pressure. Always shut off pump to relieve the pressure in the filter prior to servicing the unit.

⚠ WARNING This pump is for use with permanently installed pools and may also be used with tubs and spas if so marked. Do not use with storable pools. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it may be readily disassembled for storage and reassembled to its original integrity.

⚠ WARNING For Canada only: the motor of the filter pump for above-ground pools is equipped with a splash cover and a 25 ft. (7.62 m) three conductor cord ending with a three-pin grounding plug and must be connected only to a grounding type receptacle protected by a ground fault circuit interrupter (GFCI).

OPERATING INSTRUCTIONS

The filter module is equipped with a dial valve which works as follows:

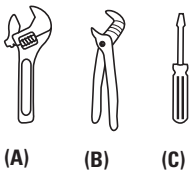
1. **FILTER:** Gives a downward flow through the filter bed. Dirt accumulates in the sand as filtering proceeds, and gradually restricts the flow of water until backwashing is necessary. This position can also be used for vacuuming.
2. **BACKWASH**: Gives an upward flow through the filter bed that removes the dirt from the sand and carries it to the waste outlet.
3. **DRAIN:** Is for pumping water from the pool. It allows the flow from the pump to by pass the filter and go directly to the waste outlet. You can also use this position to vacuum heavy concentrations of debris.
4. **WHIRLPOOL:** By passes the filter to obtain the optimum performance from a hydro-air fitting fed by the filter pump or in the CARVIN water features (No filtration occurs in this position).
5. **WINTERIZE:** Allows air to leave or enter the tank to help priming and draining. Only to be used when pump is off.
6. **RINSE:** Gives a downward flow that settles the filter bed after backwashing and carries any remaining loose dirt to the waste outlet.
7. **TEST:** Closes the dial valve and prevents back flow of water from pool during pump maintenance if filter is below water level.

FILTER SAND

The outstanding filtration and superior dirt-holding capacity of this filter depends on the use of the proper grade of filter sand. It should meet the following specifications:
The filter sand must be free of clay, loam, dirt and organic matter, and must consist of hard, durable, rounded or sub-angular grains of silica sand with no more than 1% of flat or micaceous particles. The grains should have an effective size of 0.44mm with a uniformity coefficient of 1.35. **DO NOT USE "SANDBOX" SAND**.
The filter sand is **NOT** included in the filter module and must be purchased separately. Refer to the table for the quantity required. Do not fill the tank with sand before the filter is in its final position. Keep the sand dry for easy installation. Use only the approved filter sand, otherwise the system may not work satisfactorily.

TOOLS YOU WILL NEED

For most installations all you will need are:



(A) ADJUSTABLE WRENCH
(B) WIDE MOUTH PLIERS
(C) SCREWDRIVER

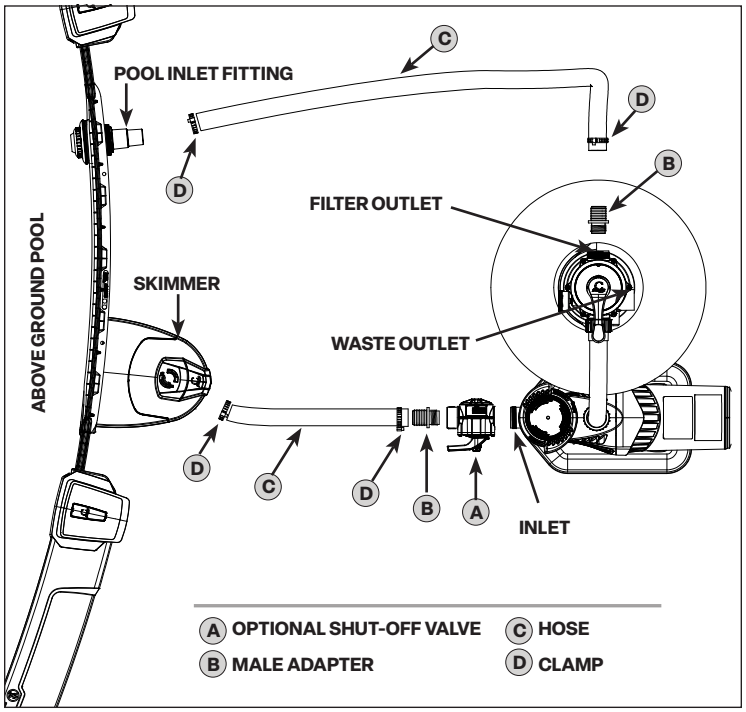
INSTALLATION LOCATION

Install the system as close to pool/spa as possible, but keep at a minimum distance of five feet (1.5 m). (See previous Warning.) Place the system preferably in a dry, well ventilated area away from direct sunlight. It should be on a hard, level surface. Give consideration to: drainage-away from pump, ventilation of pump motor, access for future servicing and winterizing, and protection from the elements.
Pumps without strainer bodies are designed for flooded suction (all suction fittings and suction piping below water level) and will not self-prime. Consequently, the pump must be installed at an elevation that is below water level when pool or spa is filled; however,
if suction line valves are installed, the pump may be located above the water level since the valve can be closed for priming. Keep vertical distance to a minimum if you choose to mount pump above water level. Pumps with strainer bodies are self-priming but should be mounted as close to the water level as possible or below for ease in priming.

1. Although optional, we recommend shut-off valves (**A**) be installed in the pump inlet for easy servicing when the system is installed below the water level of the pool.
2. Install two barbed adapters (**B**) in the following locations: Pump Inlet (or optional shut-off valve) and Filter Outlet.
3. Attach hose (**C**) using hose clamps (**D**) to adapters (**B**) according to the diagram shown below.

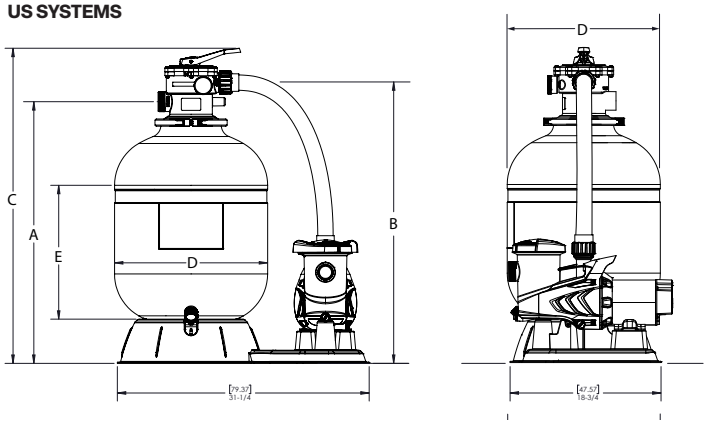
Note: Refer to pool manufacturer or skimmer manufacturer's installation instructions for more detail.

PLUMBING CONNECTIONS

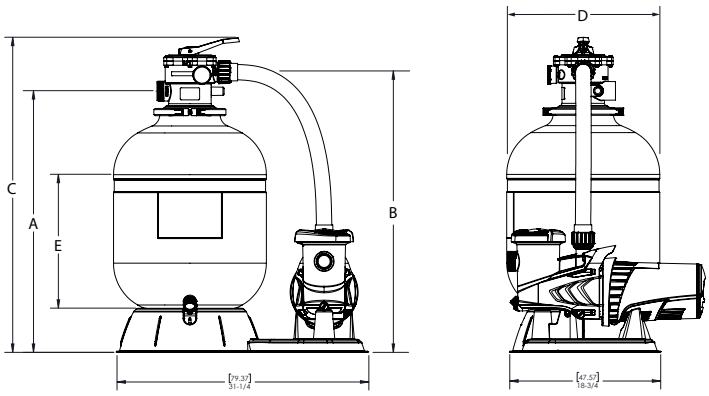


SAND FILTER SYSTEM DIMENSIONS

US SYSTEMS



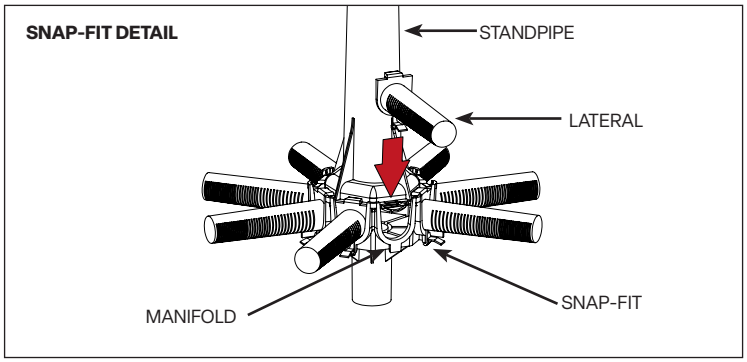
CANADIAN SYSTEMS



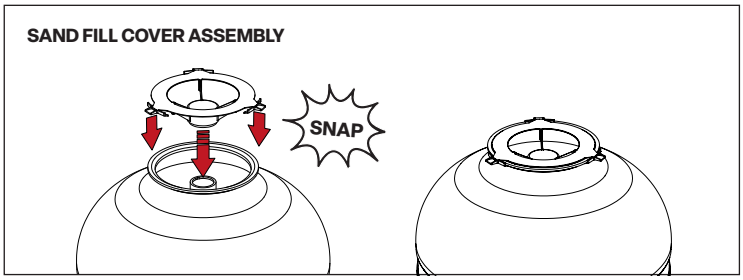
US/CANADA SYSTEMS					
MODEL	**A**	**B**	**C**	**D**	**E**
L160C-7	29" 71,12 cm	31 ⅛" 78,7 cm	35 ⅜" 88,9 cm	16" 40,6 cm	13" 33 cm
L192C-7	32 ½" 82,5 cm	34 ⅞" 86,4 cm	39 ⅛" 99,4 cm	19" 48,3 cm	12 ½" 32 cm
L225C-7	33 ½" 83,8 cm	35 ⅞" 88,9 cm	40 ⅛" 101,6 cm	22 ½" 57,2 cm	11 ½" 29 cm
L250C-7	37 ¼" 94 cm	36 ⅝" 91,4 cm	42 ⅞" 106,7 cm	25" 63,5 cm	13 ½" 34 cm

ASSEMBLY OF SYSTEM

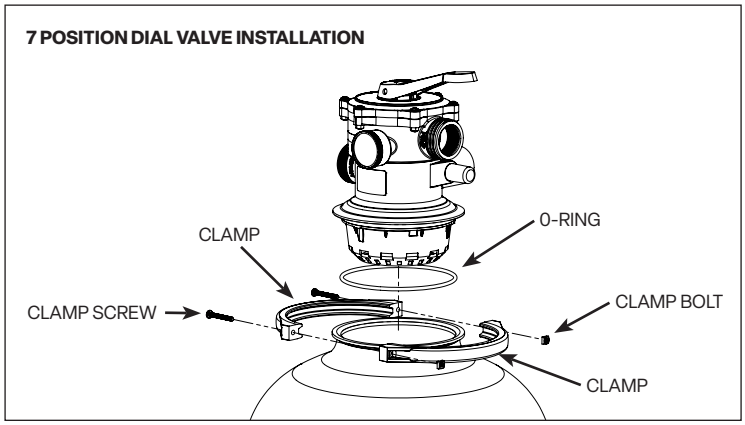
1. Remove all components from the box. Your system includes a 1-piece base (filter base and pump base), or a filter base (Canada only).
2. If the laterals are not installed, hold the standpipe/manifold assembly so that the manifold is located in the middle of the tank. Take one of the lateral flow tubes in your other hand and lower it into the tank, sliding it down the tube and into one of the grooves in the manifold until a snap-fit is obtained. Repeat this action until all eight lateral flow tubes are installed, then lower the complete assembly down to the bottom of the tank. Press it down to ensure that the central tube is seated in depression in the base of the tank.



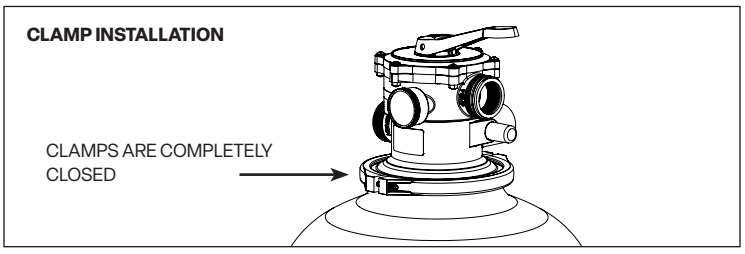
3. Place the sand fill cover over the tank opening to prevent the sand from getting into the stand pipe.



4. Fill the tank approximately 1/2 full of water.
5. Pour the recommended amount of sand into the tank, making sure that the standpipe remains centered and vertical. Level the surface upon completion.
6. Remove the sand-fill cover.
7. Pre-assemble the clamps with one screw and one nut, turning the screw 3-4 turns only.



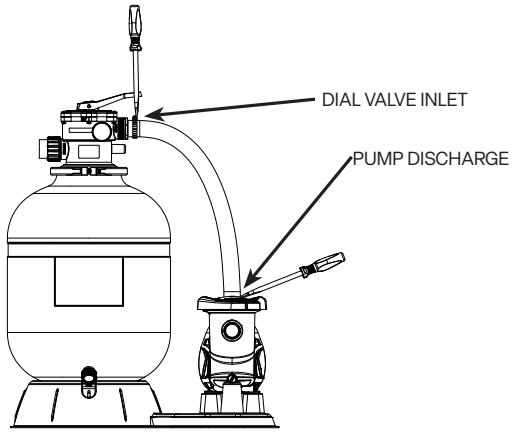
8. Carefully remove all sand particles from the valve mounting surfaces.
9. Place the O-Ring onto the bottom of the valve body.
10. Lower the dial valve carefully into position so that its underside engages with the standpipe. Rotate the valve until the inlet is approximately in line with the pump.
11. Place clamps around tank and valve neck and assemble second screw and nut.
12. Firmly tap with a rubber mallet outside of the clamps as you tighten both screws alternately and evenly.
13. Make sure screws are tightened until clamps are completely closed.



14. Install the pressure gauge into the threaded opening in the dial valve.

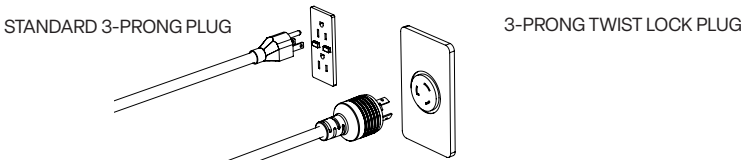
15. Install the backwash adapter, if necessary, to reduce backwash flow. Install 2 threaded adapters into pump discharge and dial valve inlet after wrapping threads with 4 to 8 wraps of Teflon tape. Place one hose clamp over each end of pump to filter hose and push hose on to each adapter. Position clamps over barbed portion of adapter and tighten.

You are now ready to connect the system to your pool.



ELECTRICAL DATA

Refer to information on motor nameplate for electrical service data. If the pump on your system is supplied with a 3-prong 115V plug, then the appropriate female receptacle should be installed. Connect only to a grounding type receptacle protected by a Ground Fault Circuit Interrupter (GFCI). Motors should have fused disconnect switch or circuit breaker and wire size large enough for pump horsepower and distance from power source. Wiring should be done in accordance with applicable codes by a competent electrician.



PLUMBING CONNECTIONS

The provision of gate valves and unions in the pump suction and pool return lines of a permanent installation will make servicing easier and prevent loss of water while routine maintenance is in progress. Pump Installation: Follow the instructions supplied with the pump. Connect the pipes to the filter system as shown on Page 4.
Do not use pipes smaller than the connections provided. Support the plumbing so that it puts no strain on either the pump or the filter.

FOR SOLVENT WELD CONNECTIONS
Rigid or flexible PVC pipe can be used. Pipe ends should be clean and free of any debris caused by the cutting operation. Be sure that the proper adhesive is used on the type of pipe specified. Recommended Adhesives: These are examples only and are not intended to restrict brands:

PVC-PVC CONNECTION	PVC-ABS CONNECTION
OATLEY Uni-Weld Pool-Tite 2300	OATLEY Uni-Weld Pool-Tite 2300
IPS Weld-On 705	IPS Weld-On 705

Note: A primer will assure that adhesive joints are superior. Suregard P-3000 has a purple tracer to qualify in areas where codes specify a primer must be used.

Caution: We recommend that you consider climatic conditions when applying adhesives. Certain atmospheric situations, such as high moisture content, make the adhesive action of certain glues less effective. Check the manufacturer's instructions.

FOR THREADED CONNECTIONS
Use only Teflon tape or equivalent on threaded plumbing connections. Other pipe compounds may damage threads. We do not recommend the use of silicone or petroleum based compounds. DO NOT OVER-TIGHTEN: HAND-TIGHTEN PLUS 1/2 TURN IS SUFFICIENT.

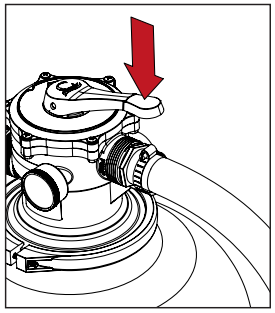
FILTER PLUMBING
If the filter is equipped with union connections, union adapters are needed to complete plumbing connections and may need to be ordered separately.

You are now ready to fill your pool and begin system start-up procedures.

SYSTEM START-UP

⚠ WARNING Do not operate your pump until it has been filled with water (primed).

For above-ground pools with system below the pool water level:



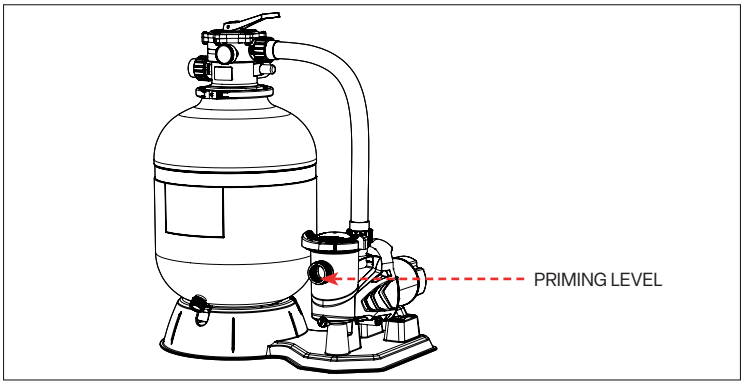
STEP 1

A. Press down on the valve handle and rotate to the **FILTER** position and release. Pool water will flow into the filter tank, pump and strainer. When water level reaches the clear strainer cover on the pump, the filter is ready for operation.

NOTE: If an optional shut-off valve is installed, be sure that it is fully opened.

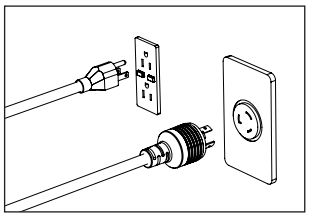
For system install above the pool water level:

B. Unscrew the Ring-Lok nut on the pump and remove the clear strainer cover. Prime the pump by filling the strainer with water to the bottom of the inlet. Replace the clear cover and Ring-Lok nut. HAND-TIGHTEN ONLY.



STEP 2

Turn the motor on (for only a few seconds) by plugging the unit into the Grounded electrical receptacle. When it has been determined that the pump motor is operating properly, stop the pump and proceed to Step 3.

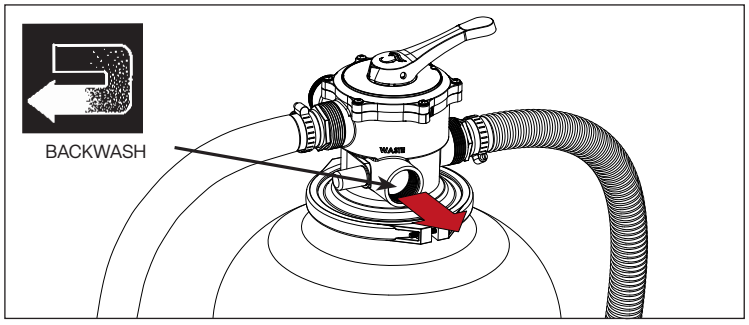


⚠ WARNING **DO NOT USE AN EXTENSION CORD.**

When it has been determined that the pump motor is operating properly, stop the pump and proceed to Step 3.

STEP 3

A) Set dial valve to **DRAIN** position.
B) **Start pump.**
C) After flow has been established, stop pump.
D) Set valve to **BACKWASH** position.



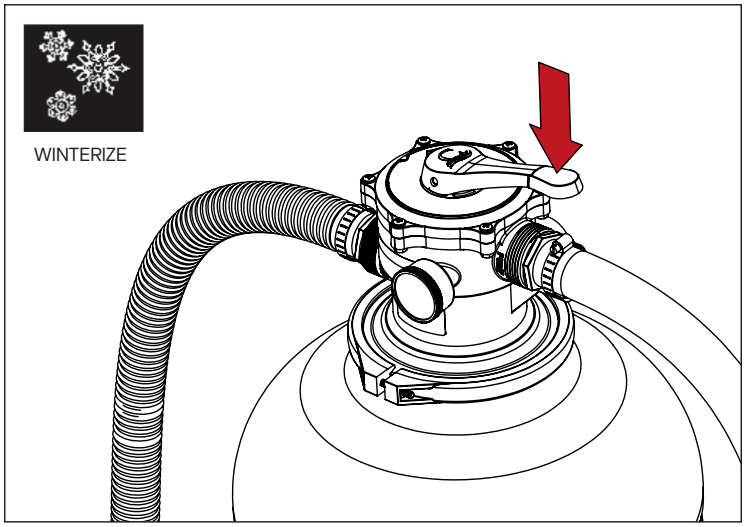
E) Start pump, run for one minute (this action will clean and level the sand bed).
F) Stop pump.
G) Set valve to **RINSE** position, run for a few seconds. Stop pump.
H) Set valve to **FILTER** position.
I) **Start pump** - you are now in the first filtration cycle and your system is filtering your pool. Make a note of pressure gauge reading for future use in determining when to backwash.

CLEANING THE PUMP STRAINER

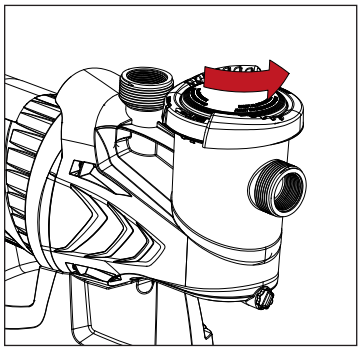
⚠ WARNING To avoid electrical shock, unplug the pump before performing any service or maintenance.

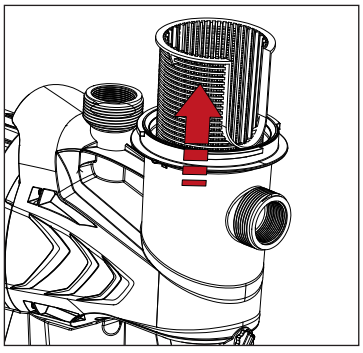
STOP! UNPLUG THE PUMP CORD!

1. **For pools with the filter system located below the pool water level:** Your system is full of water. If you remove the pump strainer cover, water will run out freely from your pool. You must close the shut-off valves, if installed, or make provisions to stop the flow of water from your pool.
2. Press down on the dial valve handle and rotate to **WINTERIZE**, release the handle. This action will allow air into the tank and prevent excessive back-flow through the strainer.

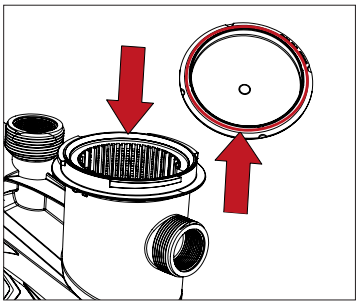


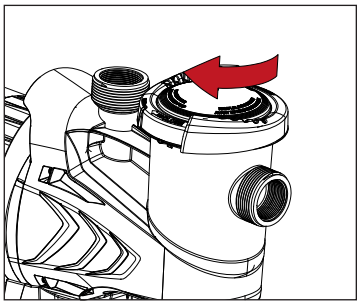
3. Unscrew the strainer Ring-Lok nut and remove the clear strainer cover. **CAUTION:** Some remaining water may spill out of the strainer body when the clear strainer cover is removed if your system is located below pool water level. Lift the basket out of the strainer and remove the debris. Reinstall the basket.





4. Clean the O-Ring on the clear cover and re-lubricate with petroleum jelly. Also, clean all surfaces that come in contact with the O-Ring to assure a good seal.
5. Replace clear cover and strainer Ring-Lok. HAND-TIGHTEN ONLY. Open the optional valves if installed, and rotate dial valve to **FILTER** position.





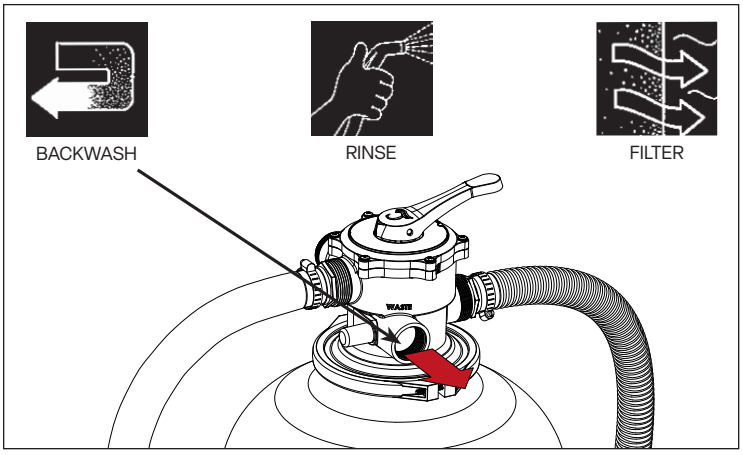
BACKWASH (CLEANING) THE FILTER

⚠ WARNING To avoid electrical shock, unplug the pump before performing any service or maintenance.

IMPORTANT: When the filter system is first placed in service, with service-line valves fully open, note the reading on the pressure gauge. When the gauge reads 6 - 8 PSI above the original reading, it is time to backwash as indicated.

STOP! UNPLUG THE PUMP CORD!

1. Set dial valve to **BACKWASH.**
2. **Start pump.**
3. Observe water flow in sight glass and when clear (usually 2-3 minutes), stop pump.
4. Set valve to **RINSE**, run for a few seconds. This action removes any debris trapped in the filter during backwash.
5. **Stop pump.**
6. Set valve to **FILTER**.
7. **Start pump.** You have now resumed filtering your pool.



WINTERIZING THE FILTER SYSTEM

⚠ WARNING To avoid electrical shock, unplug the pump before performing any service or maintenance.

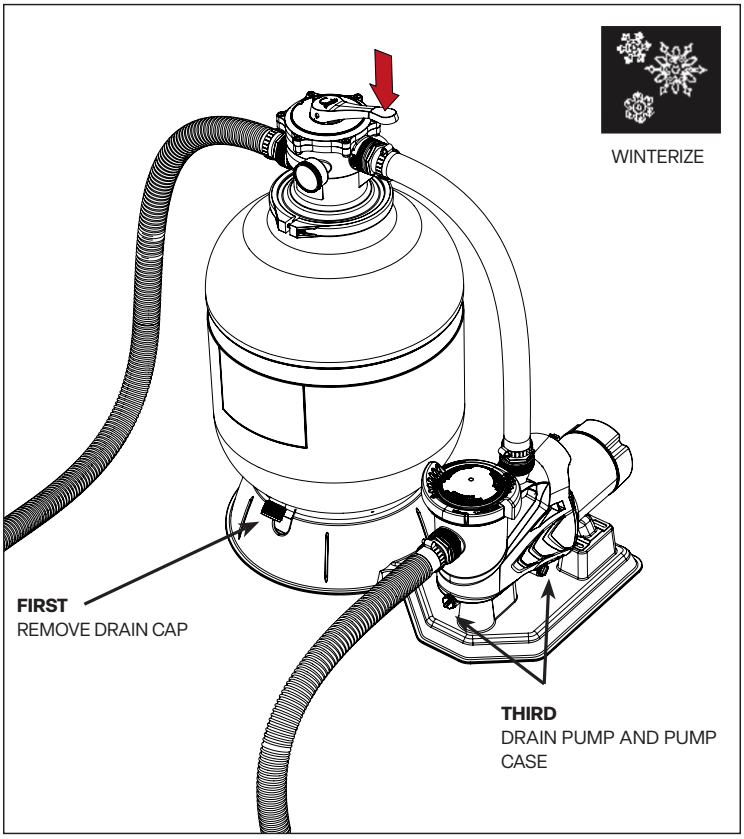
STOP! UNPLUG THE PUMP CORD!
For above-ground pools with the filter system located below the pool water level:
1. You must drain the water in the pool below the skimmer and inlet fitting. Follow pool manufacturer's recommendations for winterizing the pool. Your system is full of water.

OR

STOP! UNPLUG THE PUMP CORD!
For in-ground pools with the filter system located above the pool water level:
Follow pool manufacturer's or pool builder's recommendations for winterizing the pool. Your system is full of water.

2. Drain the filter tank by first removing the drain cap and then setting the dial valve to **WINTERIZE**. Replace the drain cap once filter is drained.

3. Drain pump and pump case by loosening the two plugs shown. The pump will drain without completely removing plugs from the pump.



WATER CHEMISTRY

A proper and consistent use of chemicals is necessary to maintain clean, sanitary water, prevent a spread of germ infection and control the growth of algae which can spoil the appearance and enjoyment of your pool or spa. Chlorine is the most commonly used chemical to provide clean, sanitary water. Either dry or liquid chlorine can be used which should be added daily as it is dissipated by dirt and germs as well as by the sun and the wind. It is also important that the correct level of acidity or alkalinity of the pool water be maintained. This is the pH of your pool with pH 7.0 being neutral. Readings above pH 7.0 are alkaline and readings below are acid. A desirable range is pH 7.2 to 7.4. Consult your local pool/spa dealer for complete information on the proper application and use of chemicals.

TROUBLE SHOOTING

SAND BACK TO POOL
Sand too small; Flow too high; Sand bed calcified; Broken laterals; Broken manifold; Loose stand pipe; Too much sand; Dial valve not engaged; Air accumulation in filter.

SAND OUT OF BACKWASH HOSE
No backwash adapter/orifice; Flow too high; Too much sand in tank.

INADEQUATE FILTERING
Dirty make-up water; Improper sand; Sand is low; Algae in filter; Excessive dirt in pool; Calcified sand bed; Heavy swimmer load; Flow rate too high/too low; Backwashing cycle too short; Backwash adapter in wrong location; Backwash line too small.

SHORT FILTER CYCLE
Dirty filter; Improper sand; Sand is low; Algae in filter; Excessive dirt in pool; Calcified sand bed; Heavy swimmer load; Flow rate too high or too low; Backwashing cycle too short; Backwash adapter in wrong location; Channels low.

FILTER LEAKS
Tank cracked; Drain plug not tight; Valve/tank O-Ring damaged.

DIAL VALVE LEAKS
Handle not properly engaged; Valve/tank O-Ring damaged; Valve cover O-Ring damaged; Pressure gauge needs sealant.

ABNORMAL LOSS OF POOL WATER
Leak inside dial valve; Leakage from pool or piping. HIGH PRESSURE IN FILTER Diry filter; Backwash adapter installed in return; Calcified sand bed; Return lines too small.

LOW PRESSURE IN FILTER
Dial valve incorrectly set; Pump running too slow (plugged); Air leakage into pump suction.

MOTOR DOES NOT START:
Disconnect switch open or fuses blown; Motor windings burned out; Defective starting switch inside motor or defective wiring.

MOTOR DOES NOT REACH FULL SPEED
Low voltage; Shaft binding or impeller rubbing. MOTOR OVERHEATS (protector trips): Low voltage; Inadequate ventilation.

PUMP DELIVERS LITTLE, OR NO WATER / LOW PRESSURE
Pump not primed; Leakage of air into suction system; Impeller clogged; Valve in suction or discharge line partly closed; Suction or discharge line partly plugged or too small; Plugged basket in skimmer or hair in lint strainer; Dirty filter.

HIGH PUMP PRESSURE
Discharge valve or inlet fittings closed too much; Return lines too small; Dirty filter.

NOISY PUMP AND MOTOR
Plugged basket in skimmer or hair in lint strainer;Defective motor bearings; Valve in suction line partly closed or line partly plugged; Vacuum cleaner hose plugged or too small; Piping causing strain on pump case; Impeller rubbing on pump case.

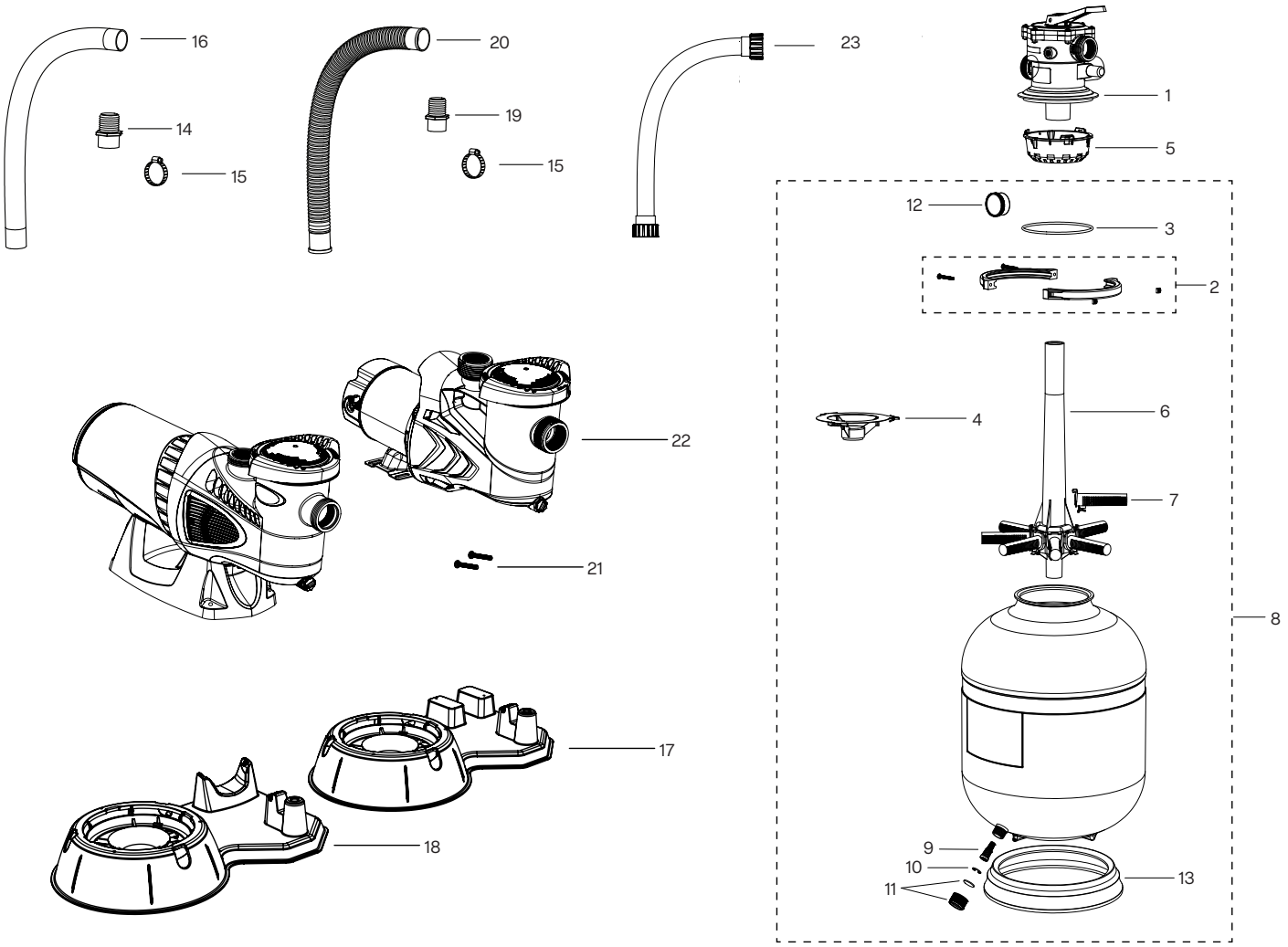
LEAKAGE OF WATER AT SHAFT
Shaft seal requires replacement.

AIR BUBBLES AT INLET FITTINGS
Leakage of air into suction line or strainer; Restriction in suction line; Low water level in pool.

NOTE: If the recommendations in the Trouble Shooting portion of this manual do not solve your particular problem(s), please contact your local dealer for service.

LASER™ SAND FILTER SYSTEM

REPLACEMENT PARTS



#	PART NB.	DESCRIPTION	#	PART NB.	DESCRIPTION
1	39263035R	Dial Valve Assembly DVK-7C+	11	85826300R	Drain Cap w/Gasket
2	85813903K	V-Band Resin Clamp w/bolts		85826300R20	Drain Cap w/Gasket (20/ per bag)
3	47036447R	O-Ring 6¾ X 7⅛" X 3/16"	12	91934182R	Pressure Gauge 0-60 PSI CBM ¼" NPT
4	22363907R	Sand Fill Cover 9869	13	85859300R	Filter Base
5	43281146K	Deflector Basket w/screws (New DVK-7C+ Dial Valve 39263035)-Compatible with DVK-7C, DVK-6C	14	31105307R	Barb connector 1½" MNPT (Tiger Flex Hose)
			15	605480R2	Hose Clamp 1½" SS (2 per bag)
6	42375475R	L160C Standpipe Assembly Snap-Fit	16	31162407R	Tiger Flex Hose 1½" x 24"
	42355192R	L192C Standpipe Assembly Snap-Fit		311600052500	Tiger Flex Hose 1½" x 25"
	42355225R	L225C Standpipe Assembly Snap-Fit		3116000535R	Tiger Flex Hose 1½" x 35"
	42355250R	L250C Standpipe Assembly Snap-Fit	17	12116471R	One-Piece Base (US System)
7	85531102R8	L160C Snap-Fit Lateral (8 per bag)	18	12116482R	One-Piece Base (Canadian System)
	85531203R8	L192C / L225C Snap-Fit Lateral (per bag)	19	31159007R	Barb connector 1½'' MNPT (Gray Hose)
	85531304R8	L250C Snap-Fit Lateral (8 per bag)	20	31158900R	Gray Hose 1½" X 72"
8	94082160R	LASER™ 160C Tank Assembly	21	14402002R2	P.L. Hex Cap screw ¼"-10 x ¾" (2 per bag)
	94082192R	LASER™ 192C Tank Assembly	22	N/A	Pump (Contact your local dealer)
	94082225R	LASER™ 225C Tank Assembly	23	31171101	Filter Hose / Union Assembly 30" (LASER™192 and 225)
	94082250R	LASER™ 250C Tank Assembly		31328934	Filter Hose / Union Assembly 34" (LASER™250)
9	85853300R	Drain Nozzle	24	ETQ221665081115H	Dial Valve replacement Label
10	14255202R	Drain Nozzle Retainer			

CONSUMER INFORMATION

Authorized CARVIN® retailer or distributor personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your retailer or distributor does not solve to your satisfaction, please discuss it with the retailer's or distributor's management. The Service Manager, General Manager, or Owner can help. Almost all problems are solved in this way.

If you are not satisfied with the decision made by the retailer's or distributor's management, contact the CARVIN® technical support.

When you write or call, please provide the following information:

- Product model, serial number and date code.
- Name of retailer or distributor who sold the Product to you.
- The original proof of purchase showing the date of purchase.
- Your name, address and telephone number.
- A detailed description of the problem.
- If sending an email, any relevant photos of the Product and its surroundings.

REPLACEMENT PARTS AVAILABILITY

Replacement parts are available through your CARVIN® retailer or distributor.

WARRANTY

A digital warranty is provided for your product.
https://carvinpool.com/link_waranty

TECHNICAL SUPPORT INFORMATION

After contacting your dealer or distributor, if you have any problems with your Product, contact CARVIN® Technical Support.

AMERICA

Web: carvinpool.com/support
Email: help@carvinpool.com
Phone: 1 (450) 250-4500 option 2
Fax: 1 (450) 250-4501
Toll Free: 1 866 979-4501
Mail: CARVIN® POOL EQUIPMENT
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4000 boul. Casavant West,
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