

Above Ground Pool Pump



Owner's Manual



Use Only Genuine Replacement Parts

WARNING - READ THIS MANUAL BEFORE INSTALLING AND OPERATING SHARKJET PUMP. IT INCLUDES IMPORT-ANT INFORMATION ABOUT SAFE USE OF THIS PRODUCT.

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PLEASE read this manual before installing the pump

Before installation, be sure to read all instructions and warnings carefully. Refer to product dataplate(s) for additionnal operation instruction and specifications

Important Safety Instructions /

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



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/ASME A112.19.8 standard.

2.Do not use a pump in an installation where there is only one fully submerged single suction outlet.

- 3.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.
- 4. 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.
- 5. 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.
- 6. Each Suction Outlet Cover shall be separated by a minimum of three feet (3'), measured from center of suction pipes.
- 7. Avoid installing check valves. If check valves must be used, ensure that the installation conforms to applicable standards.
- 8. 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.

NOTE: For the latest NSPI or IAF Standards, contact the Association of Pool and Spa Professionals (APSP) at www.theapsp.org or (703) 838-0083, ext. 301. For the latest Consumer Product Safety Commission (CPSC) Guidelines, contact the CPSC at www.cpsc.gov or (301) 504-7923. "Guidelines for Entrapment Hazards: Making Pools and Spas Safer" can be viewed at www.cpsc.gov/cpscpub/pubs



To reduce risk of injury, do not permit children to use this product unless they

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.



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



(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.



(For hot tub and spa pumps) Do not install within an outer enclosure or be-

neath the skirt of the hot tub or spa, unless so marked.



(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.



Locate the pump at least five feet (1.5M) from the pool to prevent it being

used as a means of access to the pool by young children. (See ANSI/NSPI-8 1996 "Model Barrier Code For Residential Swimming Pools, Spas and Hot Tubs").

IMPORTANT: This product has been carefully inspected and packed at our factory. As the carrier has assumed full responsibility for its safe arrival, any claim for damage to the shipment, either visible or concealed, must be made on the carrier.

GENERAL

This is a self-priming pump, which means that it can raise water to itself through a dry suction line without using valves, provided the pump case and strainer body are full of water before the motor is started. We recommend the use of a swing check valve in the suction pipe, at or below water level, if the suction lift is more than 5 feet (1.5m) or if the dry suction line would be more than 10 feet (3.0 m) long. This arrangement makes the initial priming easy and keeps the suction pipe primed at all times. The pump is built from glass-reinforced thermoplastic mouldings. These eliminate all corrosion problems and insulate the water passages from the electric motor. A closed impeller, which requires no field adjustment to maintain efficiency, runs inside a multi-vane seperate diffuser .Ample running clearances between impeller and case promote long life and prevent seizure should sand enter the pump. The impeller hub forms an insulating sleeve over the motor shaft and carries the mechanical shaft seal. This seal, which has a pure-carbon rotating face working against a ceramic seat, requires no attention until leakage at the shaft shows that replacement is necessary. For easy routine servicing, the built-in hair and lint strainer has a transparent cover. For easy access to the working parts, the removal of four screws allows the motor, bracket, seal, impeller and diffuser to be withdrawn as a unit. SharkJet assemblies were simplified for ease of maintenance and repair.

INSTALLATION

Locate the pump as close to the pool as possible, but keep at a minimum distance of at least five feet (1.5M) to prevent it being used as a means of access to the pool by young children (See previous Warning). Locate the pump preferably in a dry, shaded, and well-ventilated area. Should it be impossible to put the pump at or below water level, choose the lowest possible position. This simplifies priming, and adds to the pressure developed by the pump. Prepare a hard, level surface that is large enough to accommodate the associated equipment. Bear the following in mind: Drainage of the filter room or pit; Ventilation of the motor; Access for servicing and winterizing the equipment; Protection of the equipment. Make sure the bearing surface is leveled and straight to reduce vibrations.

PIPING

The pump has male / female sockets to receive 1-1/2" (38mm) threaded fittings. Keep the piping as simple as possible, and avoid connecting an elbow directly to the pump inlet (use a length of straight pipe to allow a proper entry of the water). Keep as much of the suction pipe as possible below the water level of the pool. This will reduce the priming time but arrange the pipe to rise continuously toward the pump to prevent high, spots that could form air pockets. Support the pipes independently so that they do not place strain on the pump. Install gate valves in the pump suction and pool return lines close to the filter system for convenient servicing of the equipment. These valves are essential if the equipment is installed below water level. Keep the gate valve in the suction line fully open during operation, and make sure that its gland is kept tight to prevent the entrance of air around the valve stem. Take care during installation to keep the pipes clean, and make sure that the suction system is absolutely airtight.

ELECTRICAL CONNECTIONS

Check that the information on the pump nameplate corresponds to the power supply. Employ a competent electrician to make the wiring installation in accordance with the local electrical code. Every motor requires a fused disconnect switch.

STARTING UP

For 2-speed pumps, start and prime the pump at HIGH SPEED only. Do not change to LOW SPEED before the pump is working properly. At HIGH SPEED (3450 rpm approx.), the motor develops its full horsepower and the pump generates high capacity and pressure. Use high speed for maximum filtration at peak periods and whenever turbidity levels are high. At other times switch to LOW SPEED (1725 rpm approx.). For

backwashing and vacuuming, HIGH SPEED is required. If the pump is supplied as part of a complete filter system, follow the starting-up procedure described in the separate instructions for the complete filter system. In other cases, proceed as follows:

1). Close the gate valves in the suction and return lines. Remove the cover from the hair and lint strainer and fill the pump completely with water. Replace the cover.

2).Open the gate valves in the suction and return lines and start the pump. If the pump fails to produce a full flow of water within four or five minutes, switch off the power and repeat Step 1. If the pump still fails to work, check for air leaks at the strainer cover, suction line connections, and valve stem glands before repeating Step 1.

3). After about ten minutes of operation check the pool return fittings for air bubbles. A continuous flow of air indicates leaks in the suction line. Locate and correct any leaks immediately.

CAUTION! Never run the pump without water in the pump case because lack of water can damage the shaft seal.

CONTROLLING THE OUTPUT

Keep the gate valve in the suction line fully open during operation. Should it be necessary to control the output, use a valve in the return line.

LUBRICATION

The pump requires no lubrication. Refer to manufacturer's recommendations. DRAINING

There are two drain plugs on the pump case. Note that the valves in the suction and return lines must be open to allow complete draining of the pump, but that other provisions may be necessary for draining the filter, heater, and pipe lines.

MAINTENANCE

The pump can be serviced without breaking the pipe connections. Close the gate valves, **SWITCH THE ON/OFF SWITCH TO OFF AND PULL THE PLUG FROM THE RECEPTACLE** before starting work on the pump.

During periods when the pump is not in use, and always during servicing, switch the ON/OFF switch to OFF and pull the plug from the receptacle.

NOTE: THE PUMP SHALL BE SERVICED BY QUALIFIED PERSONNEL ONLY.

MOTOR SPECIFICATIONS

For pump motor specifications. Please refer to the manufacturer specification sticker on the motor.

CLEANING THE STRAINER BASKET

Switch off the power. Close the valves in the suction and return lines. Remove the Strainer Nut and clear cover and lift out the strainer basket. Clean and replace the basket. Take care to clean o-ring and make sure that it is well seated underneath clear cover and place cover back on strainer body. Align and insert Strainer Nut, hand-tightened only (fig.1). Re-open valves. Put pump back into operation.

NOTE: Do not re-tighten Strainer Nut while pump is in operation.



TO DISMANTLE THE PUMP

IMPORTANT: BE SURE THE ELECTRICAL POWER IS DISCON-NECTED BEFORE YOU CONTINUE. Refer to illustrated steps on PAGE 5 to guide you.

INSPECTION

Inspect all parts of the pump for wear or damage, and order replacements as necessary. Check the shaft seal (12) carefully. Look for cracks in the ceramic seat. Check the seal faces for wear and nicks. Flex the rubber parts and check them for holes and cracks. Replace the complete seal if any part is damaged, or if the seal leaks. Do not use old parts.

FREQUENTLY ASKED QUESTIONS "MOTOR DOES NOT START"

Disconnect switch open; Fuses blown or thermal overload open; Motor windings burned out; Defective starting switch inside motor; Disconnected or defective wiring.

"MOTOR DOES NOT REACH FULL SPEED"

Low voltage; Motor windings connected for wrong voltage; Shaft binding or impeller rubbing.

"MOTOR OVERHEATS (Protector trips)"

Low voltage; Motor windings connected for wrong voltage; Inadequate ventilation.

"PUMP DELIVERS NO WATER"

Pump not primed; Closed valve in suction or discharge line; Suction or discharge line plugged; Leakage of air into suction system; Impeller plugged. "LOW PUMP CAPACITY"

Check setting of dial valve; Valve in suction or discharge line partly closed; Suction or discharge line partly plugged; Suction or discharge line too small; Pump running at reduced speed (see above);

Dimensional (Fig. 2)

Plugged basket in skimmer or hair in lint strainer; Dirty filter; Impeller plugged. "LOW PUMP PRESSURE"

Take great care while handling the shaft seal (12) to avoid damage to its

carbon and ceramic sealing faces.DO NOT USE OIL OR GREASE ON THE

SEAL PARTS, because either may damage the thermoplastic material of the pump through overheating or chemical reaction. Make sure that the

pump parts are clean, but be careful not to scratch the surfaces that come

into contact with the seal. . The ceramic and it's rubber housing must be

installed moistened with water by pressing them firmly by hand into the

motor bracket (13). Make sure the flat surface of the ceramic faces the

pump body. Reassemble the pump retracing the steps illustrated on page 5.

Reinstall the pump and run it for 5 minutes to ensure that no water leaks from the pump case (which would indicate improper seal installation). If any water is observed leaking from the pump case, repeat seal installation procedure.

Check setting of dial valve; Pump running at reduced speed (see above); Discharge valve or inlet fitting opened too much; Leakage of air into suction system.

"HIGH PUMP PRESSURE"

SHAFT SEAL REPLACEMENT

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; Suction 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 at connections; Cover of hair and lint strainer not airtight; Restriction in suction line; Low water level in pool.









Replacement Parts (Fig. 9)



FIG NO.	PIÈCE NO.	DESCRIPTION
1	42-1679-70-R	Strainer nut (1/4 turn)
2	39-0789-03-R	Strainer cover
3	47-0352-41-R	Strainer cover O-ring
4	16-1052-15-R	Strainer basket
5 5a	16-1102-12-R 16-1102-90-R	Strainer body 12.0' clock discharge 1-1/2" Strainer body 9.0' clock discharge 1-1/2"
6	31-1609-06-R2	Drain Plug with O-ring (2 Per Bag)
7	47-0361-08-R	SharkJet Strainer Body Main O-ring
8	47-0214-06-R	Diffuser O-ring
9	06-0517-39-R	Sharkjet Diffuseur
10	10-1462-0/-R	Floating eye seal
11	05-3760-09-R 05-3759-02-R 05-1234-05-R 05-3853-07-R	Impeller for 3/4 hp motors Impeller for 1 hp motors Impeller for 1.5 hp motors Impeller for 2 hp motors
12	10-0802-08-R	Shaft mechanical seal
13	02-1347-51-R	Motor Bracket US for above ground pool pump
14	14-1296-13-R4	Hex Cap Machine Screw 3/8-16 x 1" - StnStl 316 (4 per bag)
15	22-3403-05-R	Flinger
10		Motor (Ask your local pool retailer)
10	14-4301-17-K4 21 1507 02 D	Statniess steel (310) huits 3/8 - 10 X 21/04 httk. (4 per bag) 0. O'clock connector
10	17 022-R	9 O Clock connector O ring
20	22 /257 00 D	6 Et Cord with regular 3 prong plug
20 20A	23-4856-00-R	3 Ft. Cord with twist lock plug

CARVIN POOL EQUIPMENT INC. Garantie limitée

Carvin Pool Equipment Inc. ("Carvin") warrants "Carvin" pool products to be free of defects in material and workmanship for a period of **24** months fromthe date of purchase with the following exceptions:

Light Bulbs: Full Moon Watercolor LED light bulbs are warranted for 12 months from the date of purchase; incandescent bulbs are warranted for 90 days from the date of purchase.

Miscellanious: Filter elements, DE grids, white-goods, strainer baskets, strainer basket "flap" and "priming tube", pressure gauges, square rings, o-rings, gaskets, and all re-placement parts are warranted for 12 months from the date of purchase.

Chlorine Generation System: Salt Chlorine generation systems are covered by a limited warranty of 24 months; 100% during the first year, 50% during the second year from the date of purchase.

StarLight/StarBright/StarWhite: The LED light is warrantied for a period of 24 months. The remote control and the AC adapter are warrantied for 12 months from the date of purchase.

CONDITIONS IN ORDER TO EXERCISE THE WARRANTY

In order to activate this 24 months warranty, "Carvin products must registered with "Carvin" by either of the following methods:

1- Mail-in Warranty Registration Card

2- Online at, www.carvinpool.com

All defects must be denounced within 72 hours in order to avoid the spreading to other equipment, failing which; the present warranty will not be honoured. This warranty is non transferable and extends only to the original retail buyer and only during the time in which the original retail buyer occupies the site where the product was originally installed. "CARVIN" warranty obligation with regard to equipment which it does no itself manufacture is limited to the warranty actually extended to "CARVIN" by its suppliers (i.e. motors).

This warranty applies to products used in swimming pools, spas, & aquaculture applications only and does not apply to any product which has been subjected to negligence, alteration, accident, abuse, misuse, improper installation, abrasives, corrosion, improper voltage supply, vandalism, civil disturbances, or acts of God (including but not limited to damage caused by freezing, lightning strikes, and other damage caused by catastrophic events). The only warranties authorized by "CARVIN" are those set forth herein. "CARVIN" does not authorize other persons to extend any warranties with respect to its products, nor will "CARVIN" assume liability for any unauthorized warranties made in connection with the sale of its products. "CARVIN" will not be responsible for any statements that are made or published, written or oral, which are misleading or inconsistent with the facts as published in the literature or specifications furnished by

WARRANTY CLAIM PROCEDURE

Warranty claims shall be made by contacting the installer/seller, builder, dealer, or retailer (point of purchase) or the "CARVIN" pool products distributor in your area. All equipment must be inspected by a local "CARVIN" authorized representative or at the factory before warranty is authorized. All charges or expenses for freight to and from the factory, removal and reinstallation of the products, or installation of a replacement product are the responsibility of the purchaser unless otherwise expressly authorized in writhing by "CARVIN". "CARVIN", at its discretion, may repair or replace free of (F.O.B. factory in St-Hyacinthe, Québec, Canada) any product that proves defective within the warranty period, or it may issue credit in the amount of the invoice of the defective equipment in lieu of its repair or replacement. . "CARVIN" reserves its right to substitute new or improved equipment on any replacements.

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