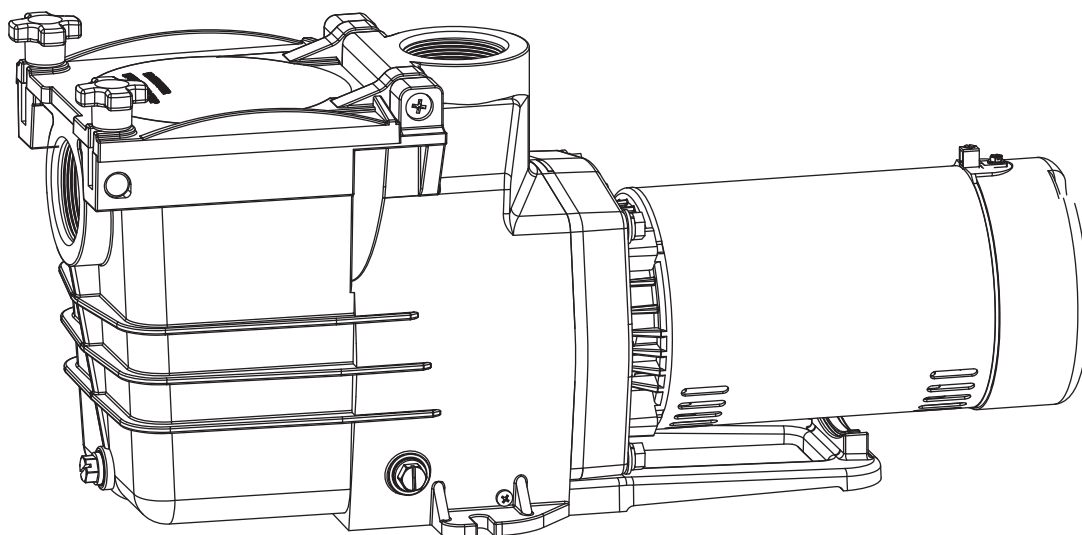




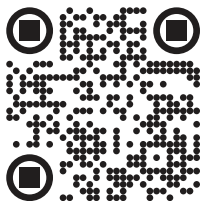
**INGROUND POOL PUMP 1.5 HP
230V 2-SPEED**

SKU: 75406



INSTALLATION AND USER'S GUIDE

75406



⚠ DANGER

**Read all safety warnings and instructions.
Failure to follow the warnings and
instructions may result in electric shock,
fire and/or serious injury. Save all warnings
and instructions for future reference.**

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CUSTOMER SERVICE

If you have any questions about ordering our pool pumps and replacement parts or pool products, please feel free to contact us using the following contact information:

Customer Service and Technical Support

Phone: (909) 628-0880

Email: customer@xtremepowerusa.com

Hours of Operation: Monday – Friday, 9AM – 4PM (CST)

IMPORTANT SAFETY INSTRUCTIONS





IMPORTANT SAFETY INSTRUCTIONS

This guide provides instructions for installing and using the pump. If you have any questions about the equipment, please contact XtremepowerUS.

This guide contains important information about safely installing and operating this product. After installation, make sure to share this information with the owner/operator or leave it with them for their reference.


Legends and Symbols

When you come across the safety-alert symbol on your equipment or in this manual, pay attention to the following signal words and remain vigilant about the potential for personal injury.

-  **DANGER:** Ignoring these hazards can result in death, severe personal injury, or significant property damage.
-  **WARNING:** Indicates potential hazards that can result in severe personal injury, death, or significant property damage. Ignoring these warnings presents a real danger.
-  **CAUTION:** Indicates potential hazards that can result in minor or moderate personal injury, property damage, or actions that are unpredictable and unsafe. Ignoring these cautions presents a potential hazard.
-  **NOTE:** This label indicates important special instructions that are not directly related to hazards.

USE OF NON-XTREMEPOWERUS REPLACEMENT PARTS VOIDS WARRANTY

ATTENTION INSTALLER: This manual contains vital information regarding the installation, operation, and safe use of this variable speed pump. It is essential to provide this manual to the end user of the product. Failure to read and follow all instructions could lead to severe injuries.

 **DANGER** Failure to comply with all instructions and warnings may lead to severe bodily injury or even death. This pump must be installed and serviced exclusively by a qualified pool service professional. Prior to using this pump, installers, pool operators, and owners must carefully review these warnings and all instructions provided in the owner's manual. It is essential to leave these warnings and the owner's manual with the pool owner for their reference and safety.

 **WARNING** For safety reasons, children should not be allowed to use this product.

IMPORTANT SAFETY INSTRUCTIONS

⚠ DANGER

Risk of electrical shock. Connect this product solely to a branch circuit that is safeguarded by a ground-fault circuit interrupter (GFCI). If you are unable to confirm the presence of a GFCI protection on the circuit, please seek assistance from a qualified electrician.

⚠ WARNING

Please note that this unit must only be connected to a supply circuit protected by a ground-fault circuit-interrupter (GFCI). The installation of a GFCI is the responsibility of the installer, and it should be regularly tested for proper functioning. To test the GFCI breaker, simply press the test button, which should interrupt power. Pressing the reset button should restore power. If the GFCI fails to operate as described, it is defective and should be replaced. If the GFCI interrupts power to the pump without pressing the test button, it indicates the presence of a ground current and the possibility of electric shock. In such cases, do not use the pump. Disconnect it immediately and seek the expertise of a qualified service representative to address and rectify the issue before resuming use (to test the GFCI breaker).

⚠ WARNING

This pump is specifically designed for use with permanent swimming pools and, if appropriately marked, can also be used with hot tubs and spas. However, it should not be used with storable pools. A permanently installed pool is one that is built in or on the ground, or within a building, making it incapable of being easily disassembled for storage. On the other hand, a storable pool is designed to be disassembled and reassembled for storage while maintaining its original integrity. Please ensure that this pump is only used with permanent swimming pools and hot tubs or spas if appropriately indicated. Avoid using it with storable pools to prevent potential hazards and ensure optimal performance.

IMPORTANT SAFETY INSTRUCTIONS

GENERAL SAFETY

WARNING

- The pump is not designed to be submersible.
- Never open the inside of the drive or motor enclosure as there is a capacitor bank that retains a 230 VAC charge even when the unit is not powered.
- Prior to servicing the pump, switch OFF the power by disconnecting the main circuit to the pump.
- Exercise caution when installing and programming the pump to limit its performance potential when using old or questionable equipment due to its high flow rates.
- Note that electrical connection requirements may vary from country to country, state to state, and local municipalities. Install the equipment following the National Electrical Code and all relevant local codes and ordinances.
- This appliance is not intended for use by individuals (including children) with reduced physical, sensory, or mental capabilities, or those lacking experience and knowledge.

WARNING

It is imperative that all work related to the pump is carried out exclusively by a qualified service professional, ensuring full compliance with all relevant national, state, and local codes.

- During installation, ensure proper drainage around the pump to prevent water from entering the electrical components.
- Please note that these instructions cover a range of pump models, and as a result, some instructions may not be applicable to a specific model. Nevertheless, all models are designed specifically for use in swimming pool applications.
- To ensure optimal performance, it is crucial to use the proper size pump for the specific application and install it correctly. Only through meticulous sizing and installation can the pump function as intended.
- The use of pumps that are improperly sized, installed, or employed for applications other than their intended purpose can lead to severe personal injury or even death. These risks encompass potential hazards such as electric shock, fire, flooding, suction entrapment, or critical injuries and property damage resulting from structural failures of the pump or other system components. It is essential to strictly adhere to the correct sizing, installation, and designated usage to mitigate these potential dangers and ensure the safety of all users and the surrounding environment.

IMPORTANT SAFETY INSTRUCTIONS

⚠ DANGER

The pump has the potential to generate significant levels of suction within the plumbing system's suction side. This heightened suction presents a considerable risk if individuals come too close to the suction openings. Being near these openings can result in severe injuries caused by the intense vacuum or may lead to entrapment and drowning.



SUCTION ENTRAPMENT HAZARD

⚠ WARNING

To minimize the risk of injury caused by suction entrapment hazards, please follow these safety guidelines:

- Use only properly installed and secured ANSI/ASME A112.19.8 approved anti-entrapment suction covers for each drain.
- Ensure that each suction cover is installed at least three (3') feet apart, measured from the nearest point to nearest point.
- Regularly check all suction covers for cracks, damage, and excessive weathering.
- Promptly replace any loose, cracked, damaged, broken, or missing cover with an appropriate certified one.
- Periodically replace drain covers as necessary since they deteriorate over time due to exposure to sunlight and weather.
- Avoid placing hair, limbs, or your body near any suction cover, pool drain, or outlet.

⚠ WARNING

By adhering to these precautionary measures, you can significantly reduce the risk of injury associated with suction entrapment hazards.

⚠ WARNING

To ensure safety, it is of utmost importance that the suction plumbing is installed in strict accordance with the most recent national and local codes governing swimming pools. By adhering to these codes and regulations, we can significantly minimize the hazards associated with the pump's suction and create a secure environment for all pool users.

⚠ WARNING

An emergency shut-off switch for the pump must be prominently labeled and placed in a location that is easy to access and readily apparent. It is crucial to ensure that all users are familiar with the switch's location and understand how to use it effectively in case of an emergency. This measure ensures swift and safe response to any critical situations that may arise during the pump's operation.

INSTALLATION

Inspection

Examine the equipment when received. Notify your dealer or carrier of any damage 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:

1. READ AND FOLLOW ALL INSTRUCTIONS.
2. WARNING - To reduce risk of injury, do not permit children to use this product unless they are closely supervised at all times.
3. WARNING - (For cord & plug connected units). Risk of Electrical 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.
4. WARNING - (For cord & plug connected units). Do not bury cord. Locate cord to minimize abuse from lawn mowers, hedge trimmers and other equipment.
5. WARNING - (For cord & plug connected units). To reduce the risk of electric shock, replace damaged cord immediately.
6. WARNING - (For cord & plug connected units). To reduce the risk of electrical shock do not use an extension cord to connect unit to electrical supply; provide a properly located outlet.
7. CAUTION - (For pumps with a 25 ft. (7.62m cord). This pump is for use with storable pools only. Do not use with permanently installed pools. A storable pool is constructed so that it may be readily disassembled for storage and reassembled to its original integrity. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage.
8. CAUTION - (For pumps with/without 3ft.(91m cord) or 6ft.(1.82m cord). This pump is for use with permanently installed pools and may also be used with hot 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.
9. WARNING - (For hot tub and spa pumps). Do not install within an outer enclosure or beneath the skirt of the hot tub or spa, unless so marked.
10. SAVE THESE INSTRUCTIONS!

Installation Location

Locate pump as close to pool/spa as possible, preferably in a dry, well ventilated area away from direct sunlight. It should be on a hard, level surface. Give consideration to:

1. Drainage - away from pump.
2. Ventilation of pump motor.
3. Access for future servicing and winterizing.
4. 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 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.

INSTALLATION

General Plumbing

FOR SOLVENT WELD CONNECTION

Rigid or flexible PVC pipe can be used. Pipe ends should be clean and free of any flash cause by the cutting operation. Be sure that the proper adhesive is used on the type of pipe specified.

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 adhesive action of certain glues less effective. Check the manufacturer's instructions.

FOR THREADED CONNECTIONS

Rigid or flexible PVC pipe can be used. Pipe ends should be clean and free of any flash cause by the cutting operation. Be sure that the proper adhesive is used on the type of pipe specified.

Pump Plumbing

Suction pipe should be as large or larger that discharge pipe. Avoid using suction pipe small that pump connection.

Keep the piping as straight and short as possible, and of suitable size. Avoid connecting an elbow directly into the pump inlet (use a length of straight pipe to allow a proper entry for the water). Arrange horizontal runs to slope upward to the pump to prevent high spots that could form air pockets. Support the pipe independently so that it places no strain on the pump. Keep as much of the suction line as possible below the water level to reduce priming time. Install valves and unions in the pump suction and return lines to facilitate servicing. Valves are recommended for throttling

maintenance if the system is installed below deck level. Suction valves are essential for priming all pumps without strainer bodies installed above water level. Pumps with strainer bodies are self-priming, nevertheless, we recommend the use of check valve in the suction pipe at or below the water level if the suction lift is more that five feet or if the dry suction is more that ten feet long. Keep the valve in the suction line fully open during operation.

Electrical Data

Refer to information on motor nameplate fo electrical service data. All motors should have fused disconnect switch or circuit breaker. Be sure wire size is sufficient for pump HP and distance from power source. Wiring should be done in accordance with applicable codes by a competent electrician.

We recommend the installation of a ground fault circuit interrupter for maximum safety.

Pump Start Up

Do not operate pump until it has been primed as water acts to cool and lubricate the seal. For pumps without strainer bodies and located above water, close suction line valve and fill pump with water in order to prime. For pumps with strainer bodies and located above water, prime by removing strainer cover and filling strainer body with water. Pumps located below water level will selfprime if all piping is also below water level. After pump has been

primed, energize motor and open all suction and discharge line valves. It may take some time for pump to remove air from suction lines. If no flow is observed in five minutes, stop the motor and re-prime. If the pump fails to operate, check for air leaks. Refer to Trouble Shooting section.

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

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.

CAUTION Do not retighten strainer Ring-Lok during operation.

CAUTION Do not operate pump with closed suction or discharge valves.

Winterizing

Consult your dealer for advice on winterizing your equipment if freezing temperatures occur in your locality. His knowledge of your equipment makes him the best qualified source of information. Follow his recommendations, and if these include draining the filter system, proceed as follows:

1. If your system does not contain a filter, proceed to step 2.
 - A. For sand filters: BACKWASH for 3 to 5 minutes and set dial valve to WINTERIZE.
 - B. For cartridge filters: Clean the filter element and store in a dry place.
2. Drain system by loosening drain plugs (drain plugs will drain without completely removing the plug from unit) and/or removing pipe caps.

Pump Maintenance

1. Motors are self-lubricating - no lubrication required.
2. Clean hair & lint strainer if you have a strainer body pump.
3. Visually inspect motor for blockage of air vents on motor shell. Remove any debris after breaker off.
4. Shaft seals may become worn and must be replaced if leakage is observed.

Cleaning

Switch power off. Close valves in suction and return line. Unscrew strainer Ring-Lok counterclockwise and remove the strainer cover from hair and lint strainer and lift out strainer basket. Clean and replace the basket. Take care to seat basket properly. Clean O-Ring and re-lubricate with petroleum jelly if necessary. Clean O-Ring seats on cover and strainer. Refit cover and strainer - hand tighten only - and open valves. Put pump back into operation.

CAUTION Do not retighten strainer during operation.

OPERATION

Service & Repair Parts

Refer all service to your local dealer as his knowledge of your equipment makes him the best qualified source of information. Order all repair parts through your dealer. Give the following information when ordering repair parts:

1. Unit nameplate data.
2. Description of part.

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 (calcium or sodium hypochlorite) can be used which should be added daily as it is dissipated by dirt and germs as well as be the sun and 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 7.0 are alkaline and below are acid. A desirable range is 7.2 - 7.4.

SPECIFICATIONS

Input Voltage	230
Input Current	AMP: 5.6 / 2.2
Maximum Continuous Load	6660 GPH (Gallons Per Hour)
Speed	2-Speed / 3450 RPM / 1720 RPM
Horsepower	1.5 HP / 0.45 HP
Ambient Conditions	Storage -40°F to +140°F (-40°C to +60°C)
	Operating +32°F to +104°F (0°C to +40°C)
	Humidity Relative 0 to 95 % non-condensing
HZ	60
H. Max	60 FT
Q. Max	121 GPM
Certification	UL, DOE, CEC
Features	Thermal Protected, Heavy-Duty Long-Lasting Case

TROUBLESHOOTING

⚠ DANGER

Before attempting any corrective actions, ensure that the pump is in the OFF position, and the breaker supplying power to the pump is also turned OFF. To avoid any potential electrical hazards, wait until the remaining power in the capacitor is fully discharged before proceeding with any work on the pump.

ISSUE	CAUSE	CORRECTIVE ACTION
Pump Won't Start	Improper or loose wiring connections; open switches or relays	Check all connections.
	Tripped circuit breakers	Reset tripped breakers.
	Blown fuses.	Replace blown fuses in the Circuit Breakers (Applies to older homes).
	Mechanical binding and electrical overload	Manually check rotation of motor shaft for free movement with no obstruction.
	Using a pump timer	If using a pump timer try overriding, it to ensure the pump is receiving power. Also check the rocker switch on the back of the pump to confirm the power is on either high or low speed so that the timer can turn the pump on and off to the set speed.
Pump Starts then Stops	Undersized wiring	Contact qualified professional to check that the wiring gauge is heavy enough. The wiring should be at least AWG14.
	Loose connections	Check all connections.
	Low voltage at motor or power drop (frequently caused by undersized wiring or extension cord use)	Contact qualified professional to check that the wiring gauge is heavy enough. The wiring should be at least AWG14.
	Overheating	The pump shouldn't be running for more than 8 hours a day. Ensure that it is either well shaded or run during the cooler times of the day to prevent the bearings from drying out quickly.
	Mechanical binding	Manually check rotation of motor shaft for free movement with no obstruction.
	Electrical overload	Ensure proper grounding and wiring voltage.

TROUBLESHOOTING

ISSUE	CAUSE	CORRECTIVE ACTION
Pump Hums but will Not Start	Incorrect Voltage	Check input voltage and wiring connection.
	Incorrect Wiring	Check wiring connections.
	Mechanical binding	Manually check rotation of motor shaft for free movement with no obstruction.
	Pump Ran Dry	Ensure that the pump is properly primed before its first use. Also, check for any leaks at the connections or in your pipes. The pump basket should always be full while the pump is running;
	Capacitor failure	Have the capacitor tested by a pool pump repair company.
Pump Won't Prime	Pump Ran Dry	Ensure that the pump is properly primed before its first use. Also, check for any leaks at the connections or in your pipes. The pump basket should always be full while the pump is running; any loss of water in the basket while running or when the pump turns off indicates a leak somewhere. A backflow device can be installed in the suction line of the pool pipes if needed.
	Empty pump/strainer housing.	Make sure pump/strainer housing is filled with water and cover O-ring is clean. Ensure O-ring is properly seated in the cover O-ring groove. Ensure O-ring is lubricated, and that strainer cover is locked firmly in position. Lubricant will help to create a tighter seal. Lubricant will help to create a tighter seal. Fill with water and observe carefully to check for any leaks.
	Loose connections on suction side and/or outlet side.	Tighten pipe/union connections. (Any self-priming pump will not prime if there are suction air leaks. Leaks will result in bubbles emanating from return fittings on the pool wall or in the strainer basket.)
	Leaking O-ring or packing glands on valves.	Tighten, repair, or replace valves.
	Strainer basket or skimmer basket loaded with debris.	Remove strainer housing cover or skimmer cover, clean basket, and refill strainer housing with water. Tighten cover.

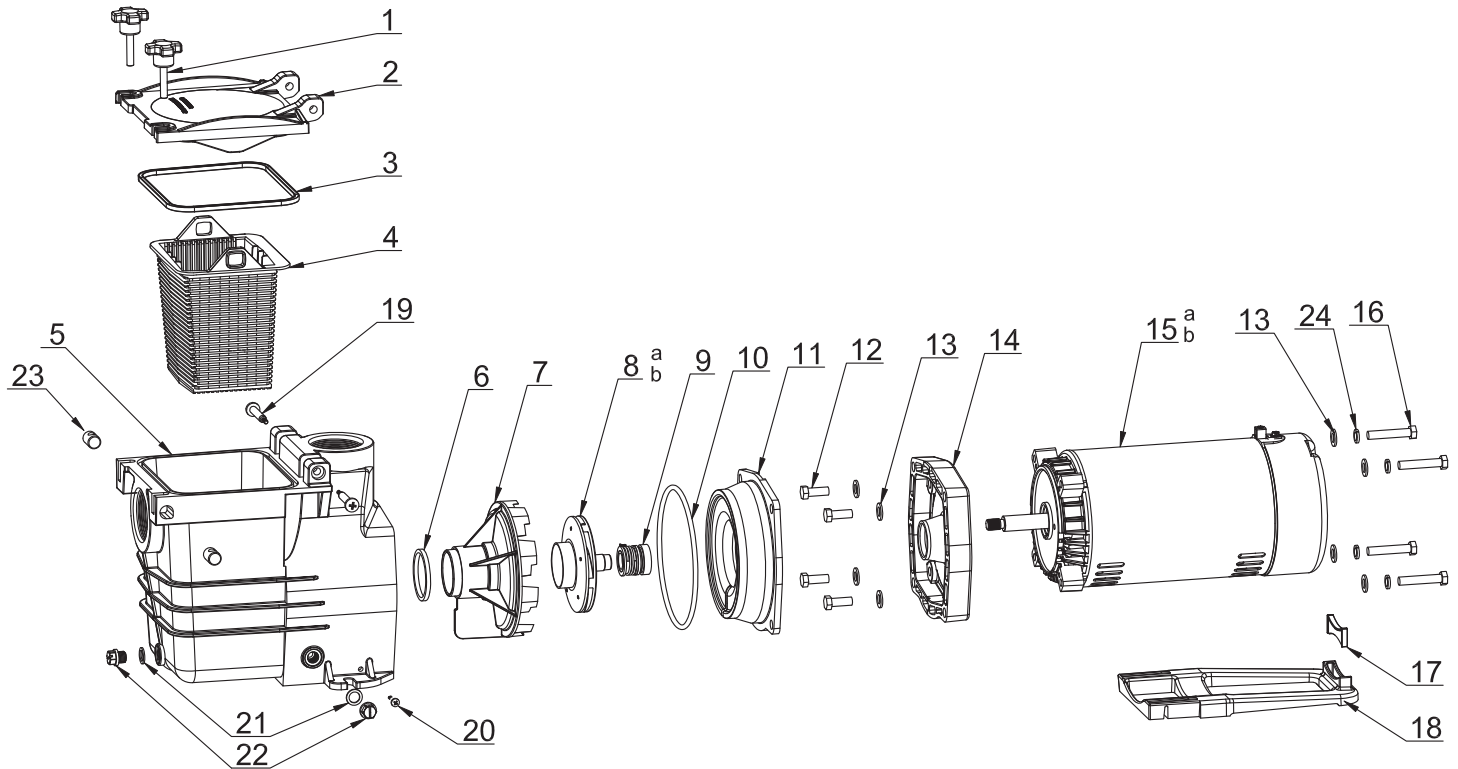
TROUBLESHOOTING

ISSUE	CAUSE	CORRECTIVE ACTION
Pump Won't Prime (Cont)	Suction side clogged.	<p>Contact a qualified repair professional.</p> <p>Block off the bottom port of the skimmer to determine if pump will develop a vacuum. You should have 5"-6" of vacuum at the strainer cover (Only your Pool dealer can confirm this with a vacuum gauge). You may be able to check by removing the skimmer basket and holding your hand over the bottom port with skimmer full and pump running. If no suction is felt, check for line blockage.</p> <ol style="list-style-type: none"> 1) If pump develops a vacuum, check for blocked suction line or dirty strainer basket. An air leak in the suction piping may be the cause. 2) If pump does not develop a vacuum and pump has sufficient "priming water": <ol style="list-style-type: none"> a. Re-check strainer housing cover and all threaded connections for suction leaks. Disconnect from the breaker and check if all system hose clamps are tight. b. Check voltage to ensure that the motor is rotating at full RPM's. c. Open housing cover and check for clogging or obstruction in suction. Check impeller for debris. Remove and replace shaft seal only if it is leaking.
	Clogged or restricted strainer or suction line and/or outlet line.	<p>Contact a qualified repair professional.</p>
Low Flow	The pump's location is either too high above the pool water level and/or too far from the pool.	Make sure that the pump height and lines are not further than the manufacturer's recommended maximum distance.
	Undersized pool piping.	Correct piping size.
	Plugged or restricted discharge line of filter, valve partially closed (high gauge reading).	Sand filters – backwash as per manufacturer's instructions; D.E. filters – backwash as per manufacturer's instructions; Cartridge filters – clean or replace cartridge.

TROUBLESHOOTING

ISSUE	CAUSE	CORRECTIVE ACTION
Low Flow (Cont)	Air leak in suction (bubbles issuing from return fittings).	Re-tighten using Teflon tape.
	Plugged, restricted, or damaged impeller.	Contact a qualified repair professional. Clear blockage and replace the impeller seal.
Noisy Pump	Air leak in suction piping, cavitation caused by restricted or undersized suction line or leak at any joint, low water level in pool, and unrestricted discharge return lines.	Correct suction condition or throttle return lines, if practical. Holding hand over return fitting will sometimes prove this point or putting in a smaller eyeball fitting.
	Vibration due to improper mounting, etc.	Mount the pump on a level surface and secure the pump to the equipment pad.
	Foreign matter in pump housing. Loose stones/debris hitting impeller could be cause.	Clean the pump housing.
	Squealing sounds that are getting louder over time	Bearings may become noisy over time if not properly maintained. They can be re-greased and should be done with regular pump maintenance, depending on usage. Check for leaks in the seals that may allow water, including chemicals, to work into the bearing ring and wipe out the grease. Any leaking seals should be replaced at once.

PARTS LIST



Drawing No.	Part No.	Description	QTY
1	P75406-010	Handle Screws	2
2	P75406-020	Cover	1
3	P75406-030	Gasket	1
4	P75406-040	Basket	1
5	P75406-050	Pump Housing 2"	1
6	P75406-060	O-Ring	1
7	P75406-070	Diffuser	1
8a		Impeller For 90555	1
8b		Impeller For 75406	1
9	P75406-090	Seal Assembly	1
10	P75406-110	O-Ring	1
11	P75406-120	Pump Cover	1
12	P75406-130	Screw 3/8-16UNC*25.4mm	4

Drawing No.	Part No.	Description	QTY
13	P75406-140	Gasket M10	8
14	P75406-150	Over Cover	1
15a		1.0HP Motor for 90555	1
15b	P75406-170	1.5HP Motor for 75406	1
16	P75406-180	Screw 3/8-16UNC*50.8mm	4
17	P75406-190	Foot Insert Wife Pump	1
18	P75406-200	Mounting Foot	1
19	P75406-210	Screw ST4.8*15	2
20	P75406-220	Screw ST4.8*25	2
21	P75406-230	Drain Plug Gasket	2
22	P75406-240	Drain Plug	2
23	P75406-250	Reseller	2
24	P75406-260	Spring Washer	4

DISCLAIMER

PLEASE READ THE FOLLOWING CAREFULLY

The manufacturer and/or distributor have provided the parts list and assembly diagram in this manual for reference purposes only. They do not make any representation or warranty to the buyer that they are qualified to make repairs to the product or replace any parts of the product. In fact, the manufacturer and/or distributor expressly state that all repairs and parts replacements should be undertaken by certified and licensed technicians, and not by the buyer.

The buyer assumes all risk and liability arising from their repairs to the original product or replacement parts or arising from their installation of replacement parts. It is strongly advised that qualified professionals handle any repairs or replacements to ensure safety and proper functioning of the product. Improper installation and operation may result in injury, property damage, or voiding of warranty. The manufacturer and/or distributor shall not be held responsible for any accidents, damages, or malfunctions resulting from the buyer's installation and operation of the product. It is essential to follow all safety guidelines and recommendations provided in this manual and to seek professional assistance if unsure about the installation or operation procedures.