

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.



# Pool Pumps

## Description

This swimming pool pump is designed for use with permanently installed pools only.

## Unpacking

After unpacking the unit, carefully inspect for any damage that may have occurred during transit. Check for loose, missing or damaged parts.

## IMPORTANT SAFETY INSTRUCTIONS

**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.

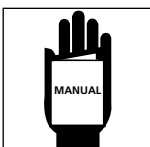
**CAUTION** Caution indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

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

## READ & FOLLOW ALL INSTRUCTIONS

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:

1. Read these rules and instructions carefully. Failure to follow these instructions could cause serious bodily injury and/or property damage.



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

**CAUTION** This pump is for use with permanently installed pools. If specified, the pump may be used with hot tubs and spas. 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** Pump only clear water. Do not pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in a flammable and/or explosive atmosphere. Personal injury and/or property damage could result.



**WARNING** All wiring must be performed by a qualified electrician. The pump must be installed in compliance with all local codes and the National Electrical Code.



2. Do not install within an outer enclosure or beneath the skirt of the hot tub or spa, unless so marked.

## Installation

### LOCATION

**DANGER** Disconnect, tag and lock out power source before attempting to install, service, relocate or perform any maintenance.



Locate pump as close to pool/spa as possible. Install the pump on a hard, level surface that is dry, well ventilated

## SAVE THESE INSTRUCTIONS DO NOT DISCARD

and away from direct sunlight. The surrounding area should provide protection from the elements and ample room for maintenance and service. Ensure the drainage will flow away from the pump.

**Above ground pool pumps** are not self-priming. If suction line valves are installed, the pump may be located above water level. Keep the vertical distance from the water level to a minimum. Otherwise, the pump must be located below filled water level to facilitate priming.

**Inground pool pumps** are self-priming. Mount pump below water level for easy priming. If the pump must be located above the filled water level, keep the vertical distance to a minimum.

### GENERAL PLUMBING

#### SOLVENT WELD CONNECTIONS

Use rigid or flexible PVC pipe. Ensure pipe ends are clean and free of any flash caused by the cutting operation. Use the proper adhesive for the type of pipe specified.

#### RECOMMENDED ADHESIVES\*

PVC - PVC Joint	PVC - ABS Joint
Uni-Weld Pool-Tite 2000	Uni-Weld Pool-Tite 2000
Suregard Flex 20	Suregard Weld All No. 5
IPS Weld-On 705	IPS Weld-On 794

\* These recommendations are examples only and are not intended to restrict brands

**NOTE:** Use an adhesive primer to ensure adhesive joints are secure. Suregard P-3000 has a purple tracer to qualify in areas where codes specify a primer must be used.

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

## Installation (Continued)

Consider climatic conditions when applying adhesives. Atmospheric conditions with high humidity will make the adhesive action of certain glues less effective. Follow the manufacturer's instructions.

### THREADED CONNECTIONS

Use only Teflon® tape or equivalent on threaded plumbing connections. Other pipe compounds may damage threads. Do not use silicone or petroleum based compounds. Do not overtighten. Hand tightening plus 1/2 turn is sufficient.

### PUMP PLUMBING

Suction pipe should be as large or larger than discharge pipe. Avoid using a suction pipe smaller than pump connection.

1. Keep the piping as straight and short as possible, and of suitable size.
2. Do not connect an elbow directly into the pump inlet. A length of straight pipe will allow proper entry of the water to the pump.
3. Slope horizontal runs upward to the pump to prevent trapping air.
4. Use independent piping supports to alleviate strain on the pump.
5. Keep as much of the suction line as possible below the water level to reduce priming time.
6. Install valves and unions in the pump suction and return lines to facilitate servicing. Valves will throttle the pump discharge. Valves are also essential for pump maintenance if the system is installed below deck level.
7. Use a check valve in the suction pipe for inground pumps at or below the water level if the suction lift is more than 5 feet or the dry suction is more than 10 feet long. Keep the valve in the suction line fully open during operation.

- to all metal parts of the swimming pool
- to all electrical equipment
- to metal conduit
- to metal piping within 5 ft. (1.5 m) of the pool's interior walls

**IMPORTANT: Use copper conductors only.**

Refer to information on motor nameplate for electrical service data. Install motors with a fused disconnect switch or dedicated circuit breaker. Be sure wire size is sufficient for pump HP and distance from power source. Install a ground fault circuit interrupter for maximum safety.

**⚠ DANGER** *Disconnect, tag, and lock out power source before attempting to install, service, relocate, or perform any maintenance.*

### VOLTAGE SELECTOR

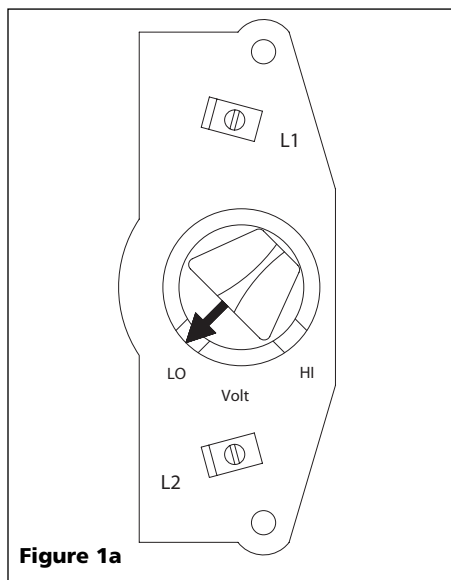


Figure 1a

This pump is factory wired for 115 volts. To change the voltage to 230 volts follow the steps below:

1. Disconnect the pump from power.
2. Remove cover from back of motor to find voltage selector (Figure 1a).
3. Pull selector knob out.
4. Rotate selector knob to correct voltage setting (Figure 1b).
5. Push selector knob back in place.
6. Reinstall cover to back of motor.

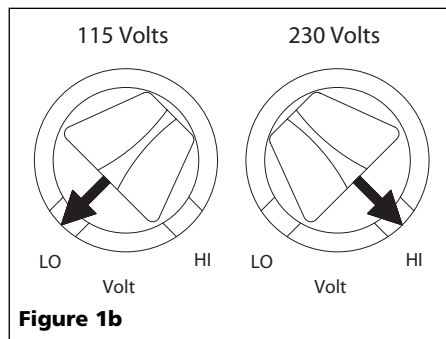


Figure 1b

## Operation

Prime pump before attempting to operate. To prime pumps located above water level, remove strainer cover, fill strainer body with water then replace cover. If pump and all piping is located below water level, the pump will self prime.

After pump has been primed, energize motor and open all suction and discharge line valves. If no flow is observed in five minutes, stop the motor and reprime. If the pump fails to operate, check for air leaks. Refer to troubleshooting section.

After about 10 minutes of operation, check the return fittings for air bubbles. A continuous flow of air indicates leaks in the suction line. Locate and correct any leaks immediately.

### CONTROLLING PUMP DISCHARGE

Keep the gate valve in the suction line fully open during operation. To control the discharge, 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 valve.*

### WATER CHEMISTRY

Proper and consistent use of chemicals is necessary to manage a water system. Chlorine is the most commonly used chemical to provide clean, sanitary water. Daily administration of dry or liquid chlorine (calcium or sodium hypochlorite) is essential.

**IMPORTANT:** Maintain the correct level of acidity or alkalinity of the pool water. Readings above pH 7.0 are alkaline. A pH 7.0 is neutral. Readings below pH 7.0 are acidic. A desirable range is 7.2 to 7.4.

### WIRING

#### ⚠ WARNING

*All wiring must be performed by a qualified electrician. The pump must be installed in compliance with all local codes and the National Electrical Code.*



When motor installation is within 5 ft. (1.5 m) of the pool's interior walls, a solid copper bonding conductor (minimum size No. 8 AWG/8.4 mm<sup>2</sup>) should be connected from the accessible wire connector on the motor.

## Maintenance

### **DANGER**

**Disconnect, tag and lock out power source before attempting to install, service, relocate or perform any maintenance.**



1. Motors are self-lubricating - no additional lubrication is required.
2. Clean pool pump strainer of hair and lint.
3. Visually inspect motor for blockage of air vents on motor shell. Remove any debris after shutting off breaker.
4. Replace worn shaft seals.

### HAIR AND LINT STRAINER

1. Switch off the power.
2. Close the valves in the suction and return line.
3. Turn strainer Ring-Lok counter-clockwise and remove strainer cover.
4. Lift strainer basket away from the pump.
5. Clean and reposition the basket into the pump. Take care to seat the basket properly.
6. Clean the o-ring and relubricate with petroleum jelly if necessary.
7. Clean o-ring seats on the cover and strainer.
8. Refit the cover and strainer Ring-Lok; hand tighten only.
9. Open the valves to return pump to operation.

### **CAUTION**

**during operation.**

**Do not retighten strainer Ring-Lok**

### WINTERIZING

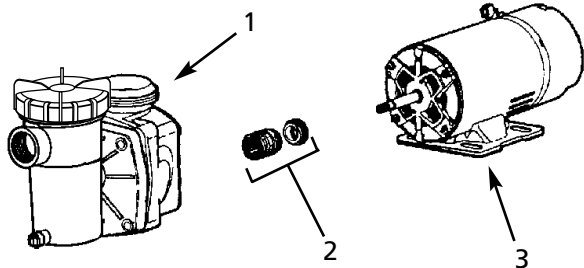
Always protect system from freezing temperatures. Drain the system if there is a possibility of freezing. To drain the system:

1. Units with a filter:
  - a. Sand filter: Backwash for 3 to 5 minutes and then set dial valve to winterize position.
  - b. Cartridge filter: Clean the filter element and store in dry area.
2. Drain system by loosening drain plug. The drain plug does not have to be completely removed. Removing pipe caps will facilitate draining also.

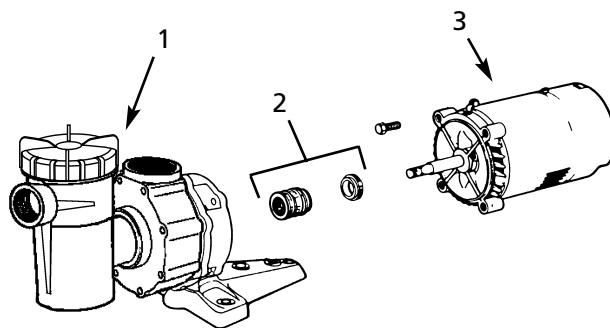
## Troubleshooting Chart

Symptom	Possible Cause(s)	Symptom	Possible Cause(s)
Motor does not start	<ol style="list-style-type: none"> <li>1. Disconnect switch or circuit breaker in OFF position</li> <li>2. Fuses blown or thermal overload open</li> <li>3. Locked motor shaft</li> <li>4. Motor windings burned out</li> <li>5. Defective starting switch inside single-phase motor</li> <li>6. Disconnected or defective wiring</li> <li>7. Low voltage</li> </ol>	Low pump capacity (continued)	<ol style="list-style-type: none"> <li>6. Dirty filter</li> <li>7. Impeller clogged</li> <li>8. Wrong rotation (3 phase only)</li> </ol>
Motor does not reach full speed	<ol style="list-style-type: none"> <li>1. Low voltage</li> <li>2. Motor windings connected for wrong voltage on dual voltage model</li> </ol>	Low pump pressure	<ol style="list-style-type: none"> <li>1. Pump running at reduced speed (see previous)</li> <li>2. Wrong rotation (three phase models only)</li> <li>3. Discharge valve or inlet fittings open too wide</li> </ol>
Motor overheats (protector trips)	<ol style="list-style-type: none"> <li>1. Low voltage</li> <li>2. Motor windings connected for wrong voltage on dual voltage model</li> <li>3. Inadequate ventilation</li> </ol>	High pump pressure	<ol style="list-style-type: none"> <li>1. Discharge valve or inlet fittings closed too much</li> <li>2. Return lines too small</li> <li>3. Dirty filter</li> </ol>
Pump does not deliver water	<ol style="list-style-type: none"> <li>1. Pump is not primed</li> <li>2. Closed valve in suction or discharge line</li> <li>3. Leakage or air into suction system</li> <li>4. Impeller clogged</li> </ol>	Noisy pump and motor	<ol style="list-style-type: none"> <li>1. Plugged basket in skimmer or hair in lint strainer</li> <li>2. Worn motor bearings</li> <li>3. Valve in suction line partly closed</li> <li>4. Suction line partly plugged</li> <li>5. Vacuum hose plugged or too small</li> <li>6. Pump not supported properly</li> </ol>
Low pump capacity	<ol style="list-style-type: none"> <li>1. Valve in suction or discharge line partly closed</li> <li>2. Suction or discharge line partly plugged</li> <li>3. Suction or discharge line too small</li> <li>4. Pump running at reduced speed (see previous)</li> <li>5. Plugged basket in skimmer or hair and lint strainer</li> </ol>	Leakage of water at shaft	Shaft seal requires replacement
		Air bubbles at inlet fittings	<ol style="list-style-type: none"> <li>1. Leakage of air into suction line at connections or valve stem</li> <li>2. Cover gasket around hair and lint strainer needs cleaning</li> <li>3. Restriction in suction line</li> <li>4. Low water level in pool</li> </ol>

# For Replacement Parts, call 1-800-237-0987



**Replacement Parts Illustration for Models WAP75 and WAP100**



**Replacement Parts Illustration for Models WIP100 and WIP150**

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

Wayne Water Systems  
100 Production Drive  
Harrison, OH 45030 U.S.A.

Ref. No.	Description	Part Number for Models:				Qty.
		WAP75	WAP100	WIP100	WIP150	
1	Pump kit	69006-001	69007-001	69004-001	69005-001	1
2	Shaft seal kit	21009-001	21009-001	21009-001	21009-001	1
3	Motor kit	32023-001	32023-002	69000-001	69001-001	1

### Limited Warranty

For one year from the date of purchase, Wayne Water Systems ("Wayne") will repair or replace, at its option, for the original purchaser any part or parts of its Sump Pumps or Water Pumps ("Product") found upon examination by Wayne to be defective in materials or workmanship. Please call Wayne (800-237-0987) for instructions or see your dealer. Be prepared to provide the model number and the serial number when exercising this warranty. All transportation charges on Products or parts submitted for repair or replacement must be paid by purchaser.

This Limited Warranty does not cover Products which have been damaged as a result of accident, abuse, misuse, neglect, improper installation, improper maintenance, or failure to operate in accordance with Wayne's written instructions.

**THERE IS NO OTHER EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE 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 Wayne 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.

You **MUST** retain your purchase receipt along with this form. In the event you need to exercise a warranty claim, you **MUST** send a **copy** of the purchase receipt along with the material or correspondence. Please call Wayne (800-237-0987) for return authorization and instructions.

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

MODEL NO. \_\_\_\_\_ SERIAL NO. \_\_\_\_\_ INSTALLATION DATE \_\_\_\_\_

**ATTACH YOUR RECEIPT HERE**